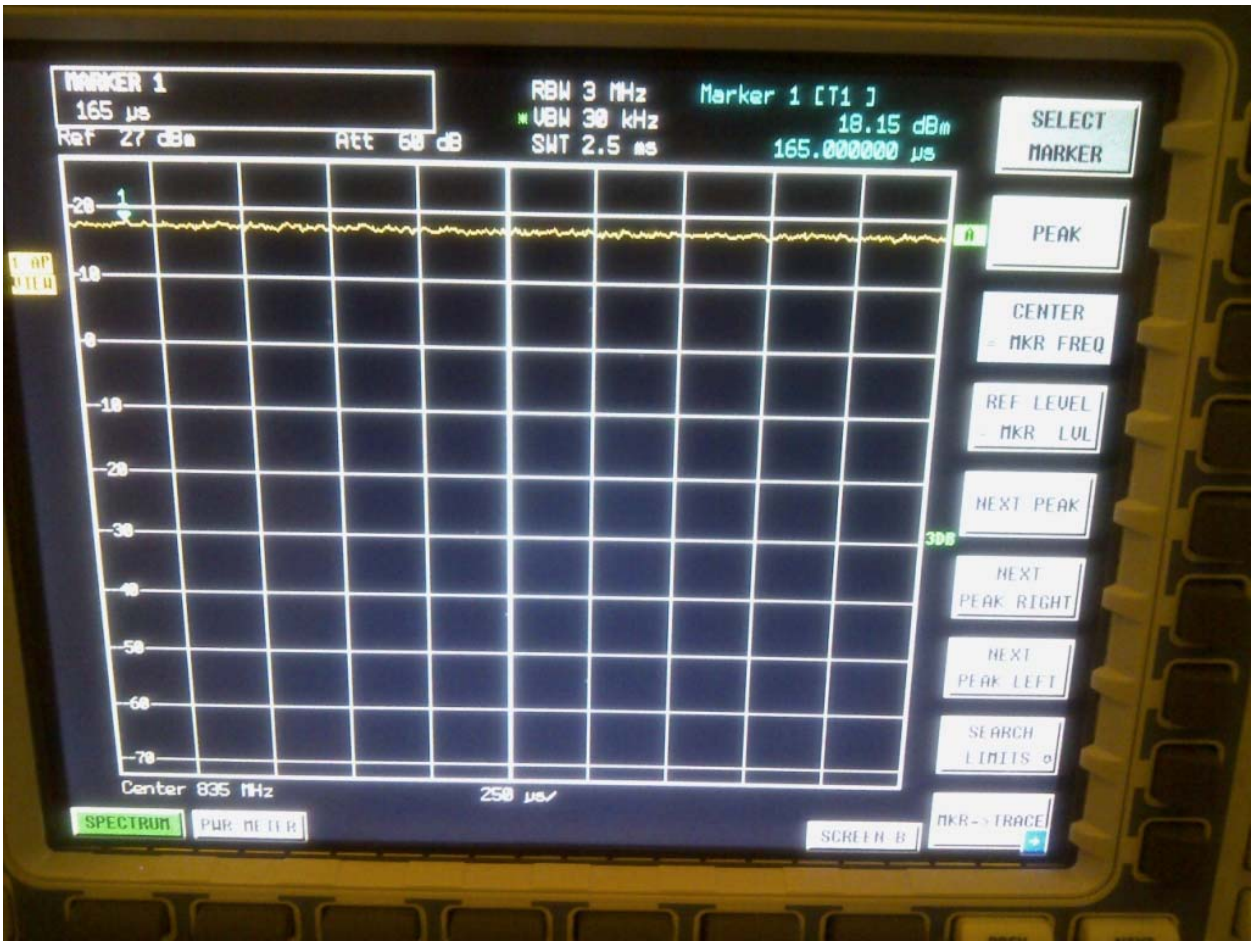
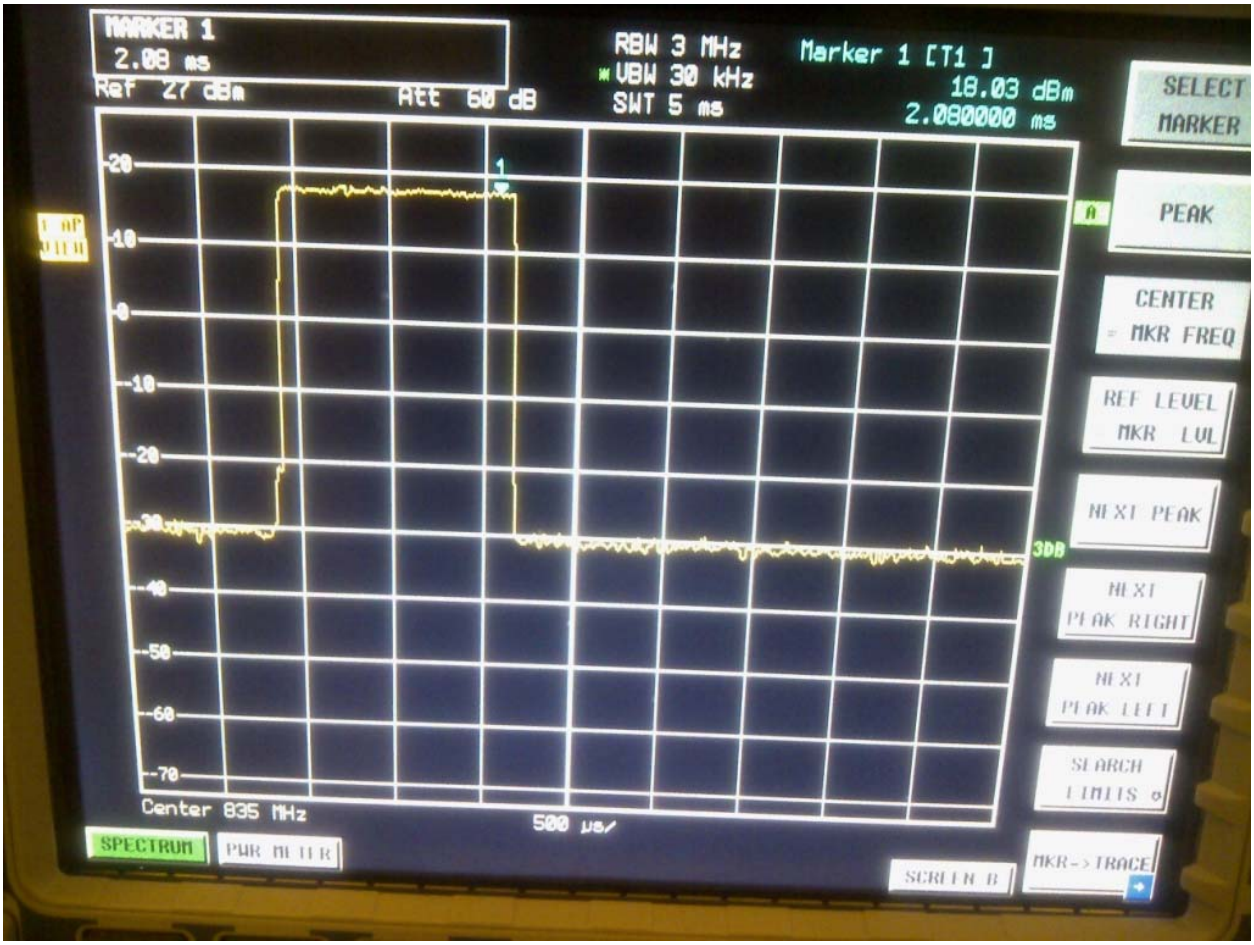
Annex A: Measurement data and plots

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

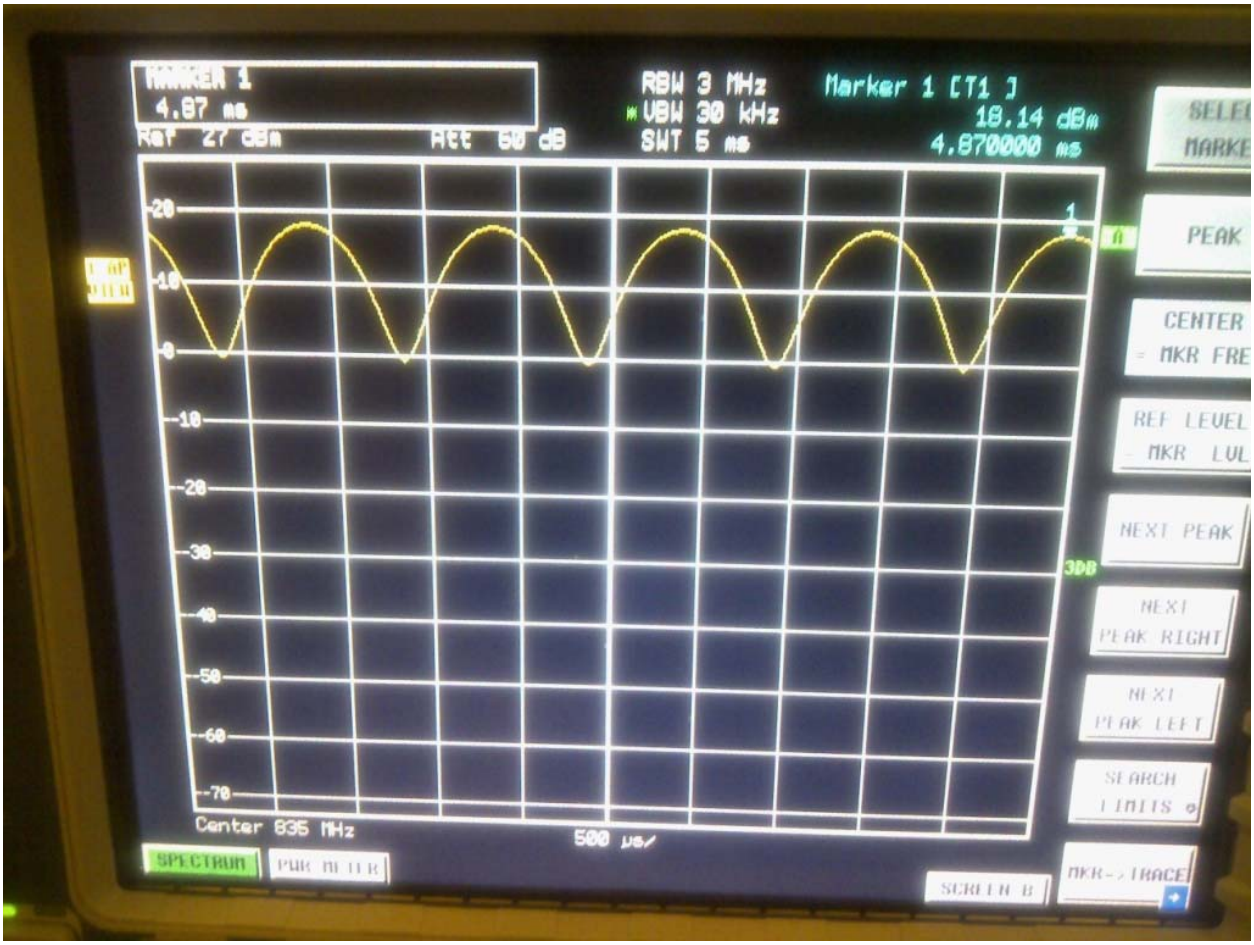


0 Hz Span CDMA Full Rate (835MHz)

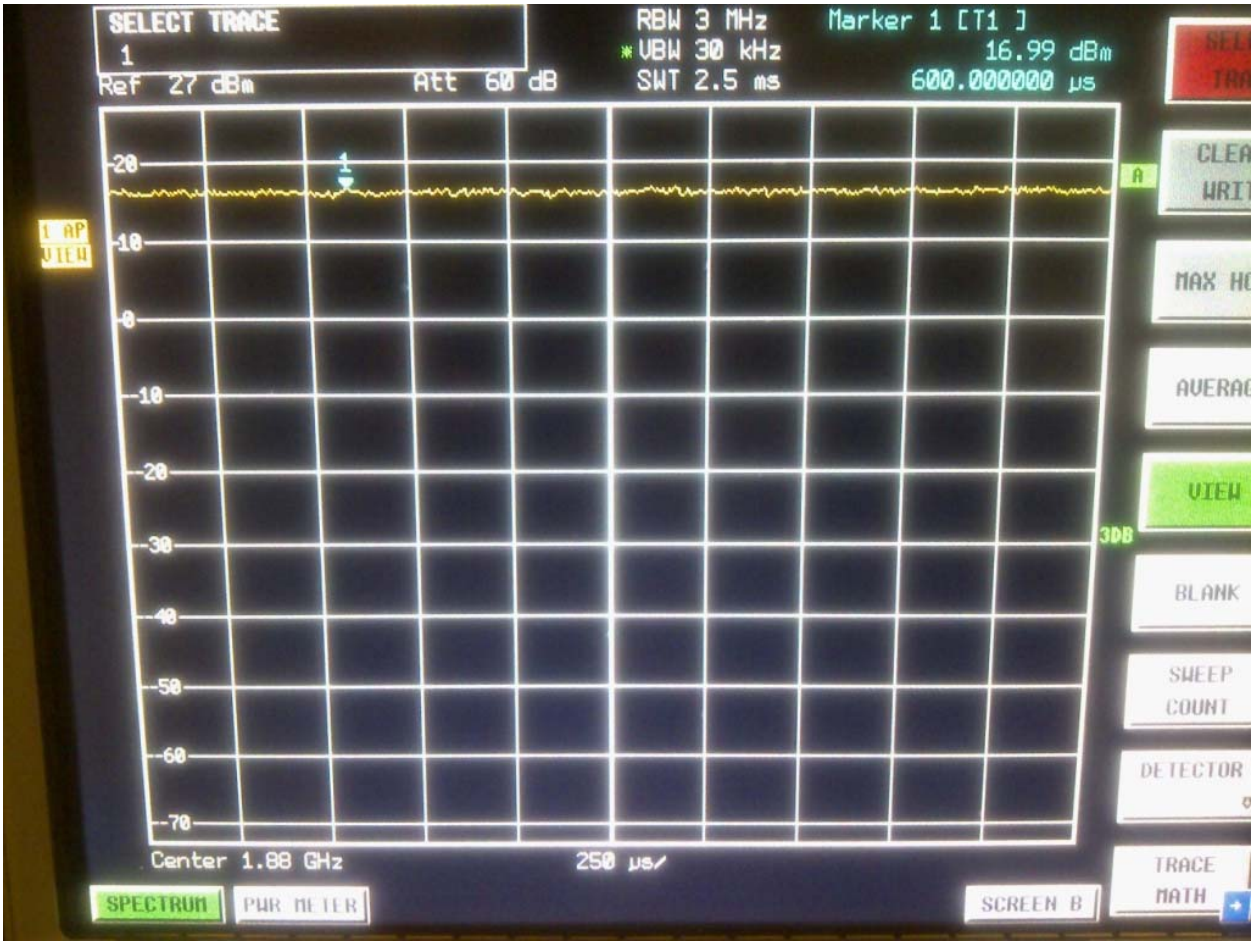


0 Hz Span CDMA 1/8 th (835MHz)

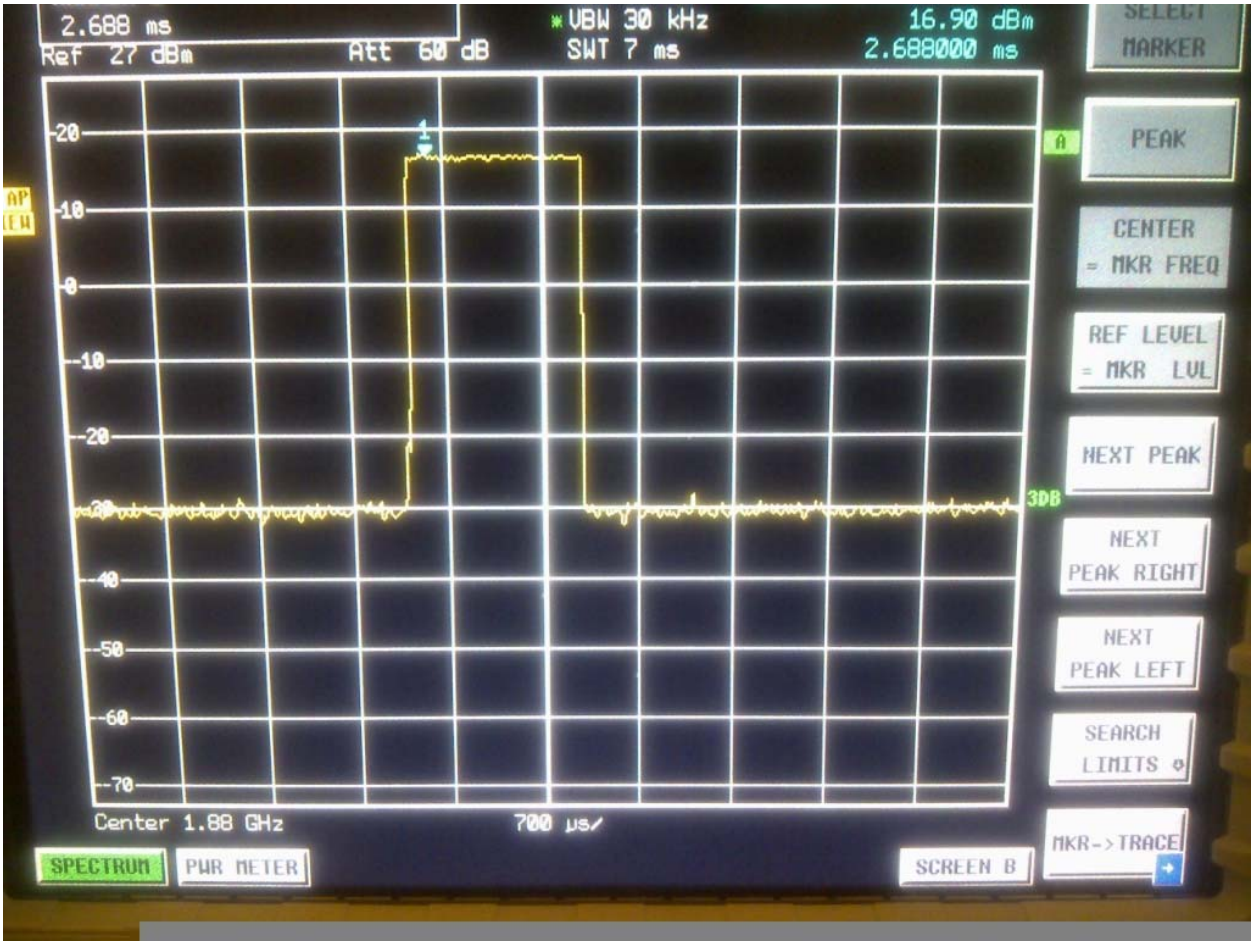
0 Hz Span CW Plot (835MHz)



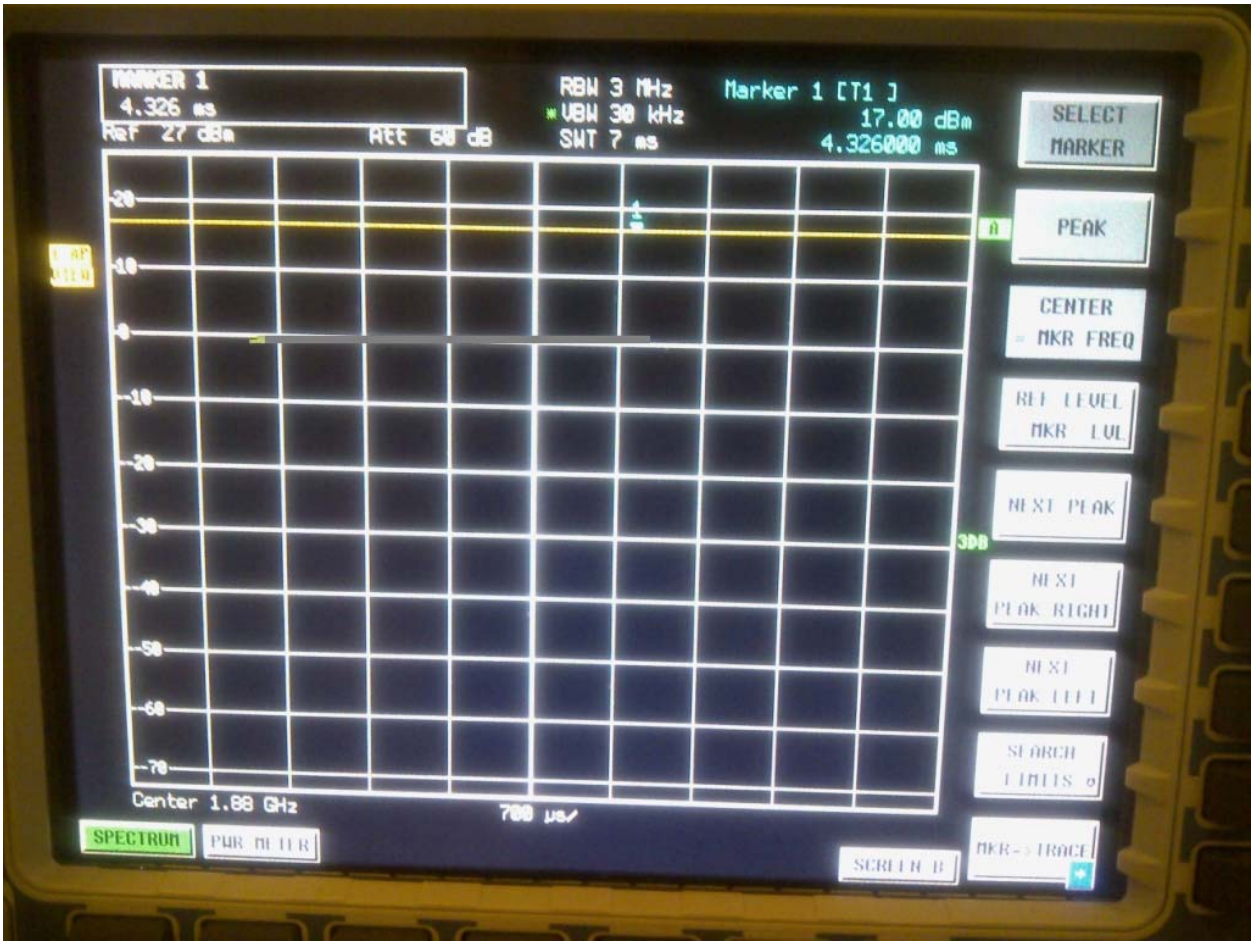
0 Hz Span 80% AM Plot (835MHz)



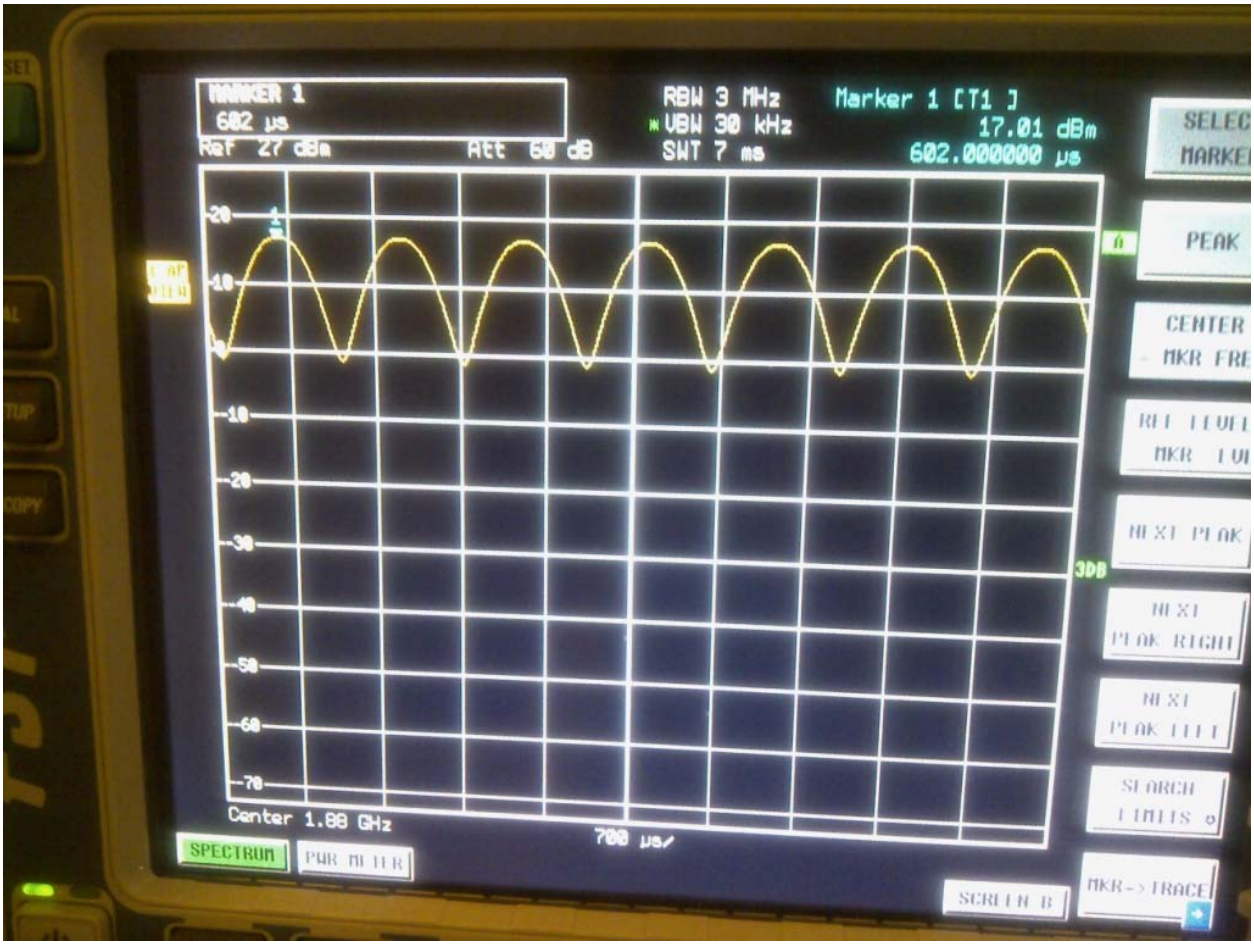
0 Hz Span CDMA Full Rate (1880 MHz)



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



0 Hz Span CW Plot (1880 MHz)



0 Hz Span 80% AM Plot (1880 MHz)

A.2 Dipole validation and probe modulation factor plots

Date/Time: 5/18/2010 12:18:42 PM

Test Laboratory: RIM TESTING SERVICES

HAC_E_Dipole_CW835_20.00dBm

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

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

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

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 108.2 V/m; Power Drift = 0.057 dB

Maximum value of Total (measured) = 168.6 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 = 170.6 V/m

Probe Modulation Factor = 1.00

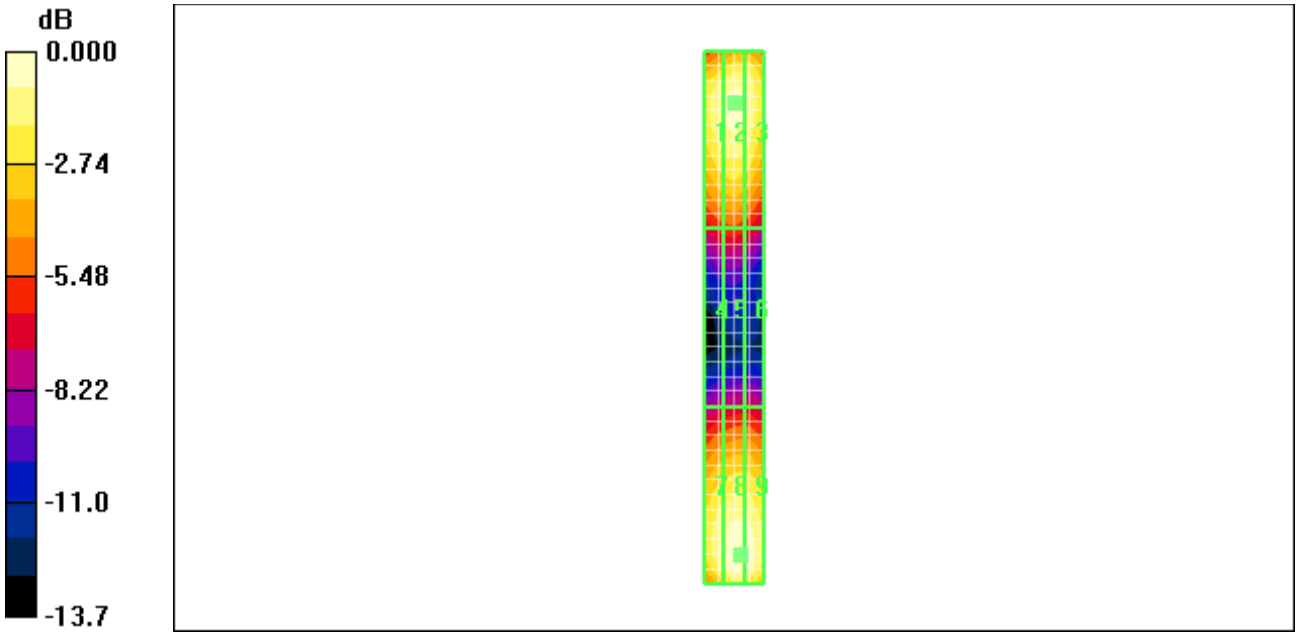
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 108.2 V/m; Power Drift = 0.057 dB

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

Peak E-field in V/m

Grid 1 **155.9 M4**	Grid 2 **161.0 M4**	Grid 3 **158.4 M4**
Grid 4 **86.9 M4**	Grid 5 **88.6 M4**	Grid 6 **85.3 M4**
Grid 7 **159.0 M4**	Grid 8 **170.6 M4**	Grid 9 **169.4 M4**



0 dB = 170.6V/m

Date/Time: 5/18/2010 11:54:05 AM

Test Laboratory: RIM TESTING SERVICES

HAC_E_Dipole_CDMA835

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

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: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 83.3 V/m; Power Drift = 0.019 dB

Maximum value of Total (measured) = 129.9 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 = 130.9 V/m

Probe Modulation Factor = 1.00

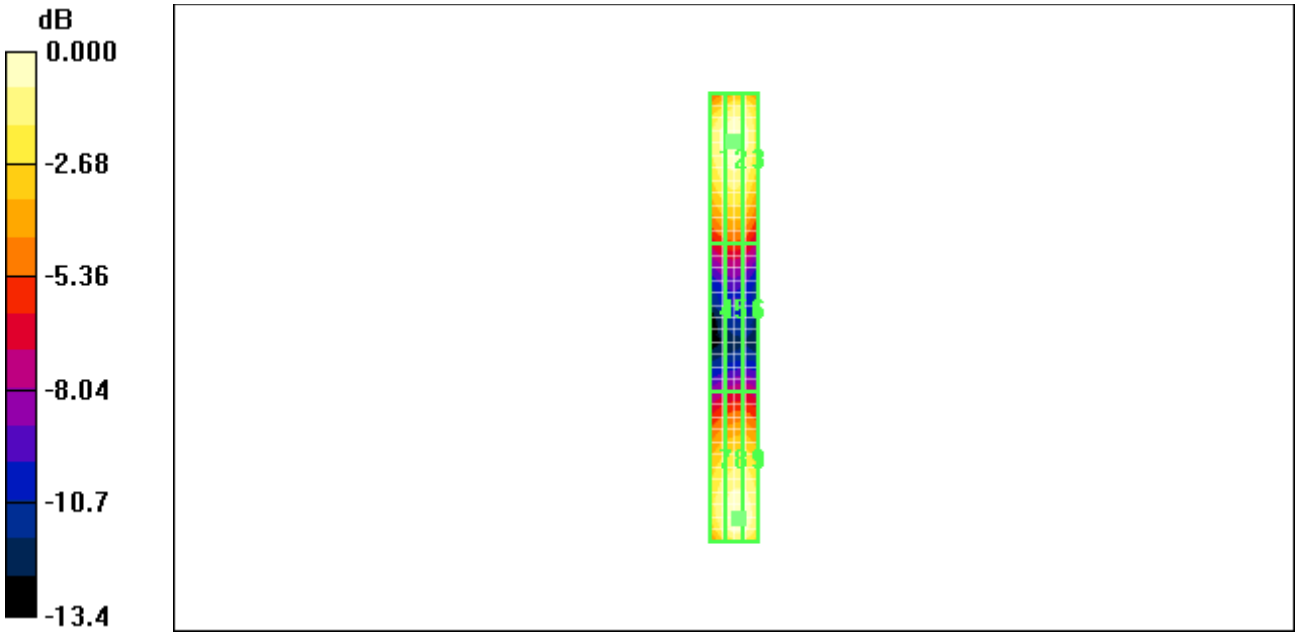
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 83.3 V/m; Power Drift = 0.019 dB

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

Peak E-field in V/m

Grid 1 **124.9 M4**	Grid 2 **129.9 M4**	Grid 3 **126.2 M4**
Grid 4 **68.5 M4**	Grid 5 **70.0 M4**	Grid 6 **68.8 M4**
Grid 7 **121.5 M4**	Grid 8 **130.9 M4**	Grid 9 **129.4 M4**



0 dB = 130.9V/m

Date/Time: 5/18/2010 11:46:43 AM

Test Laboratory: RIM TESTING SERVICES

HAC_E_Dipole_CDMA835_one_eigth

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

Communication System: CDMA 800 1/8 th; Frequency: 835 MHz;Duty Cycle: 1:8.3

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

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 29.8 V/m; Power Drift = -0.081 dB

Maximum value of Total (measured) = 46.5 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 = 46.8 V/m

Probe Modulation Factor = 1.00

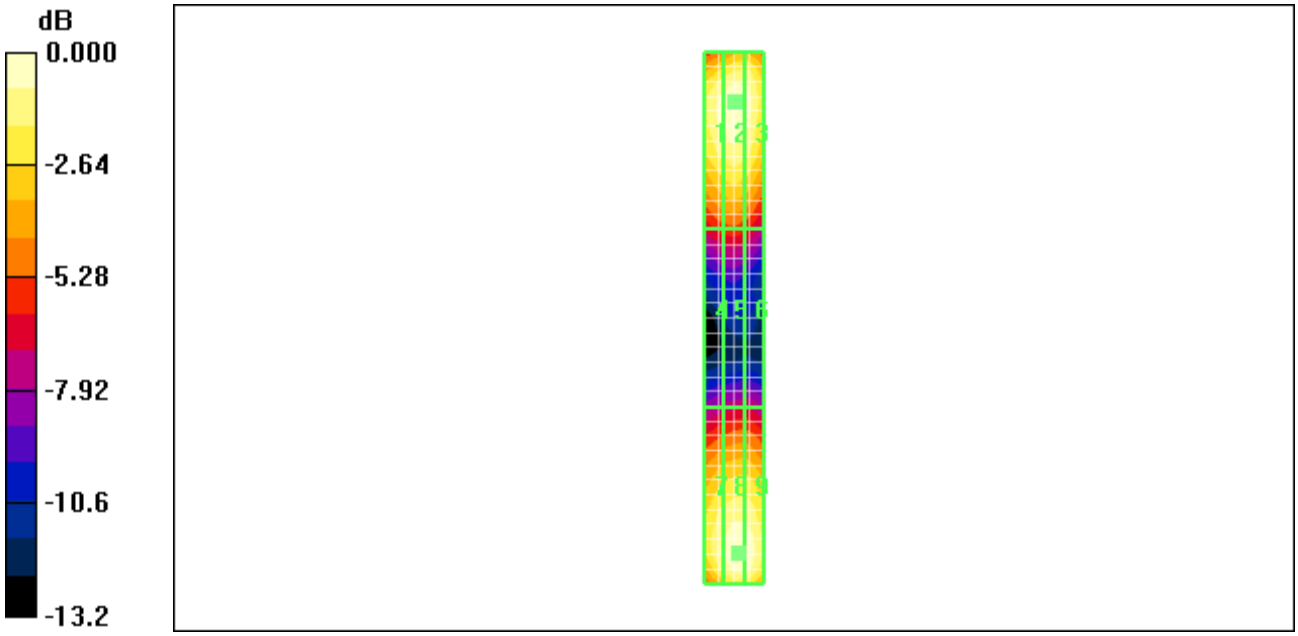
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 29.8 V/m; Power Drift = -0.081 dB

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

Peak E-field in V/m

Grid 1 **44.5 M4**	Grid 2 **46.1 M4**	Grid 3 **45.1 M4**
Grid 4 **24.4 M4**	Grid 5 **24.8 M4**	Grid 6 **23.8 M4**
Grid 7 **43.6 M4**	Grid 8 **46.8 M4**	Grid 9 **46.0 M4**



0 dB = 46.8V/m

Date/Time: 5/18/2010 12:03:40 PM

Test Laboratory: RIM TESTING SERVICES

HAC_E_Dipole_CW835_PMF_CDMA

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

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: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 87.7 V/m; Power Drift = 0.052 dB

Maximum value of Total (measured) = 135.0 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 = 136.6 V/m

Probe Modulation Factor = 1.00

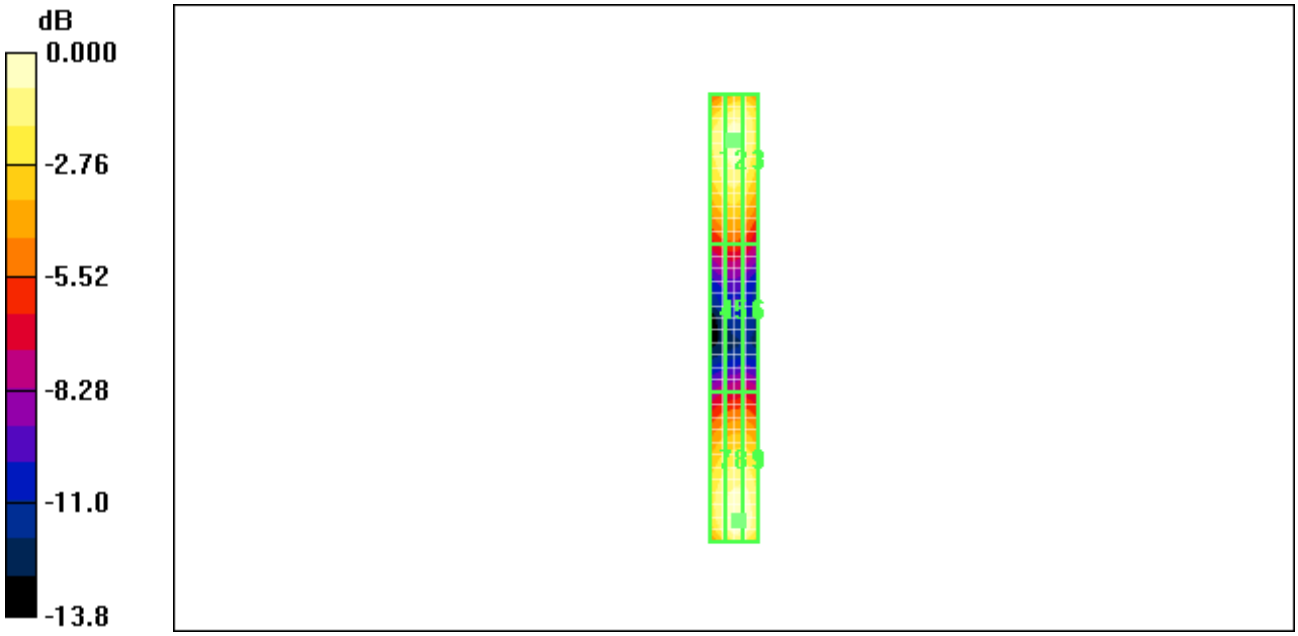
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 87.7 V/m; Power Drift = 0.052 dB

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

Peak E-field in V/m

Grid 1 **127.1 M4**	Grid 2 **131.2 M4**	Grid 3 **127.9 M4**
Grid 4 **70.7 M4**	Grid 5 **72.0 M4**	Grid 6 **69.1 M4**
Grid 7 **127.8 M4**	Grid 8 **136.6 M4**	Grid 9 **135.3 M4**



0 dB = 136.6V/m

Date/Time: 5/18/2010 12:10:26 PM

Test Laboratory: RIM TESTING SERVICES

HAC_E_Dipole_AM835_PMF_CDMA

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

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

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

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 55.0 V/m; Power Drift = 0.125 dB

Maximum value of Total (measured) = 85.9 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 = 87.1 V/m

Probe Modulation Factor = 1.00

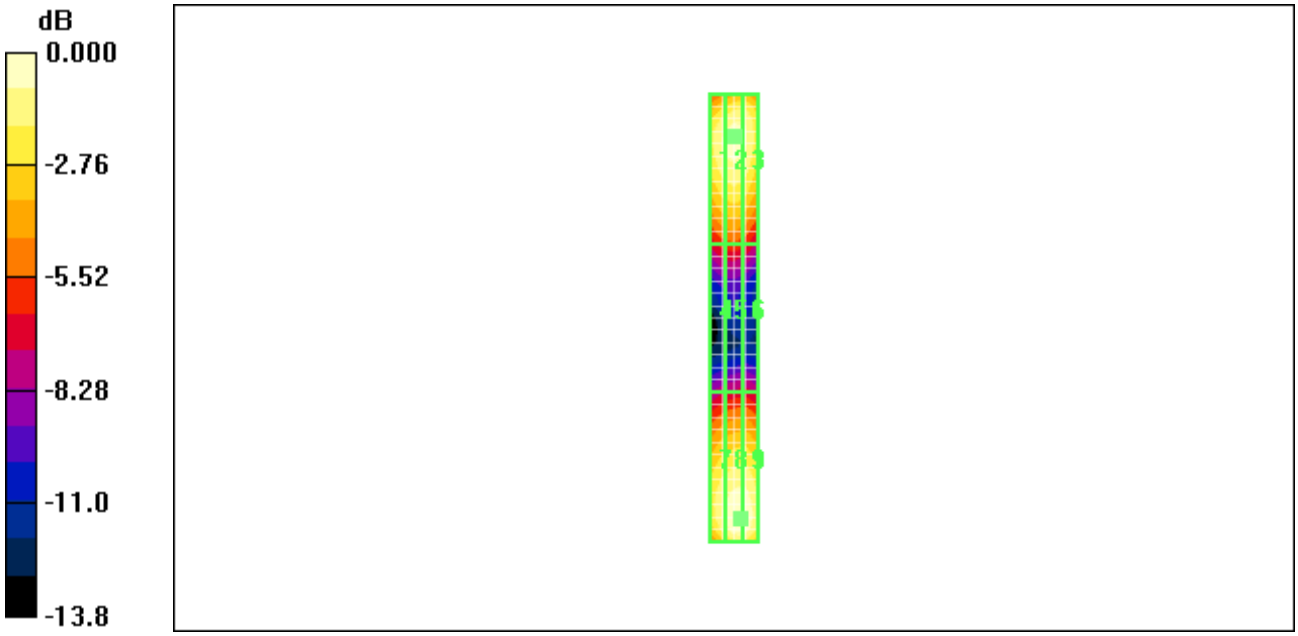
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 55.0 V/m; Power Drift = 0.125 dB

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

Peak E-field in V/m

Grid 1 **80.1 M4**	Grid 2 **82.4 M4**	Grid 3 **81.4 M4**
Grid 4 **44.9 M4**	Grid 5 **45.7 M4**	Grid 6 **44.2 M4**
Grid 7 **81.0 M4**	Grid 8 **87.1 M4**	Grid 9 **86.6 M4**



0 dB = 87.1V/m

Date/Time: 5/18/2010 1:38:07 PM

Test Laboratory: RIM TESTING SERVICES

HAC_E_Dipole_CW1880_20.00dBm

DUT: HAC Dipole 1880 MHz; Type: CD1880V3;

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

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

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 149.0 V/m; Power Drift = 0.031 dB

Maximum value of Total (measured) = 130.3 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 = 133.0 V/m

Probe Modulation Factor = 1.00

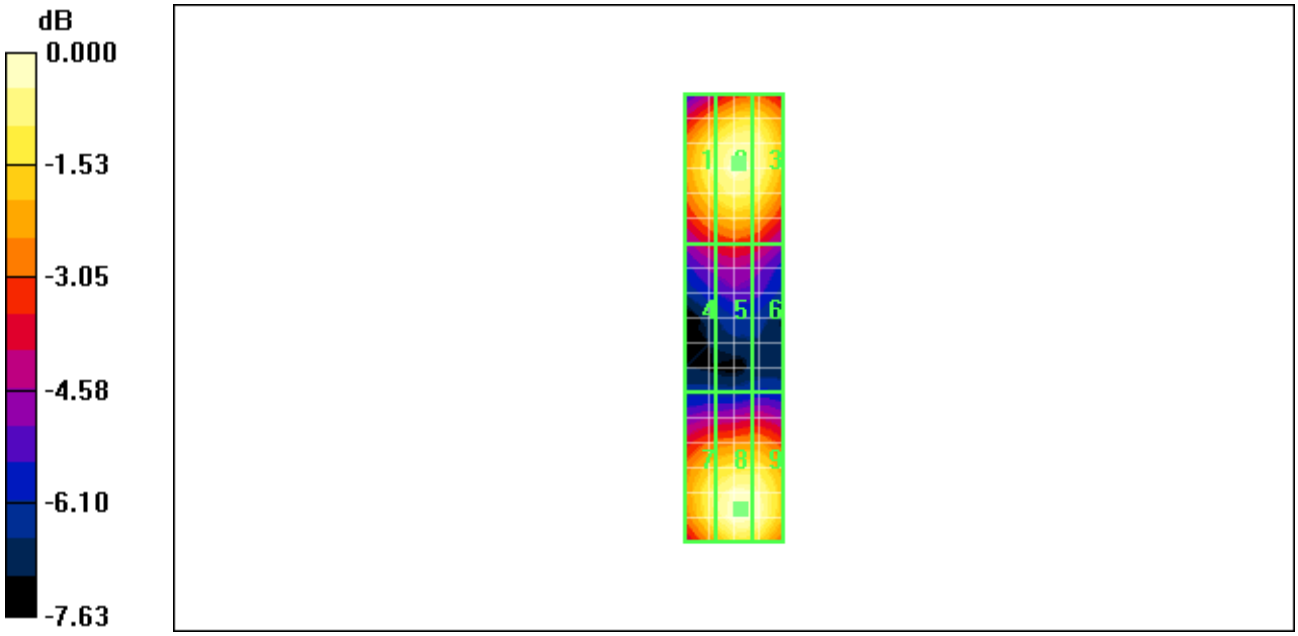
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 149.0 V/m; Power Drift = 0.031 dB

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

Peak E-field in V/m

Grid 1 **123.0 M2**	Grid 2 **128.7 M2**	Grid 3 **127.5 M2**
Grid 4 **88.3 M3**	Grid 5 **91.5 M3**	Grid 6 **89.3 M3**
Grid 7 **124.5 M2**	Grid 8 **133.0 M2**	Grid 9 **131.8 M2**



0 dB = 133.0V/m

Date/Time: 5/18/2010 12:38:50 PM

Test Laboratory: RIM TESTING SERVICES

HAC_E_Dipole_CDMA1880

DUT: HAC Dipole 1880 MHz; Type: CD1880V3;

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: 1/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 101.9 V/m; Power Drift = -0.037 dB

Maximum value of Total (measured) = 88.1 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 = 89.9 V/m

Probe Modulation Factor = 1.00

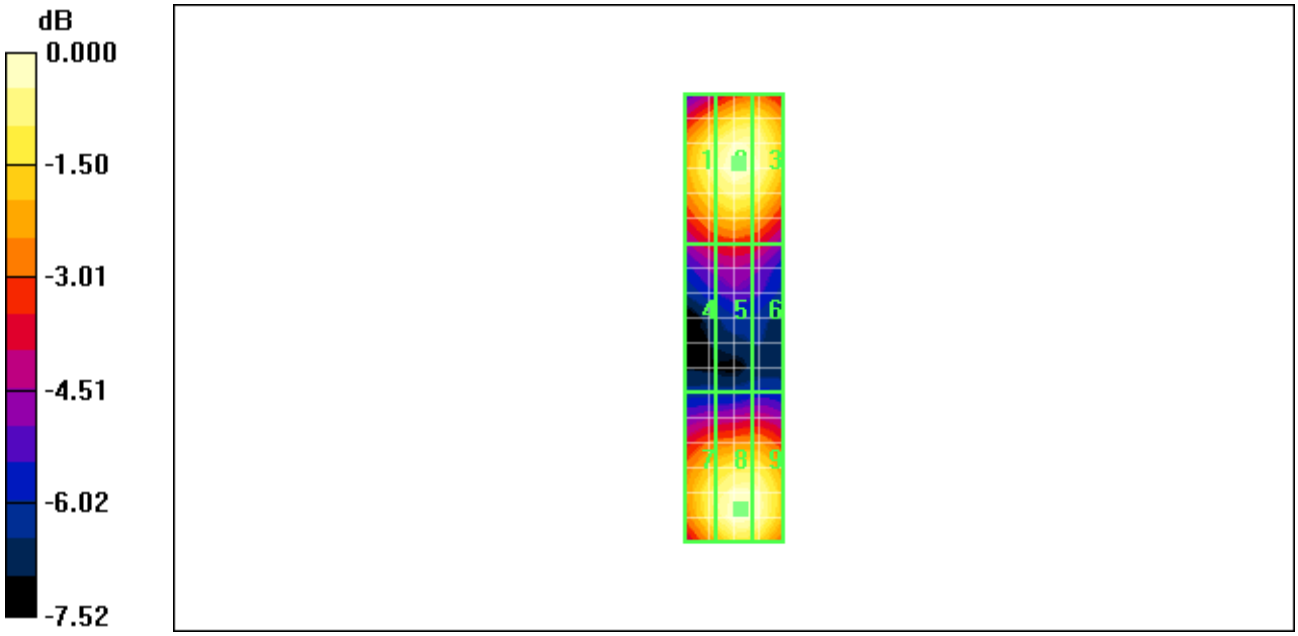
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 101.9 V/m; Power Drift = -0.037 dB

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

Peak E-field in V/m

Grid 1 **84.5 M3**	Grid 2 **88.2 M3**	Grid 3 **87.6 M3**
Grid 4 **60.5 M4**	Grid 5 **61.8 M4**	Grid 6 **60.5 M4**
Grid 7 **84.1 M3**	Grid 8 **89.9 M3**	Grid 9 **89.0 M3**



0 dB = 89.9V/m

Date/Time: 5/18/2010 12:43:37 PM

Test Laboratory: RIM TESTING SERVICES

HAC_E_Dipole_CDMA1880_one_eigth

DUT: HAC Dipole 1880 MHz; Type: CD1880V3;

Communication System: CDMA 1900 1/8th; Frequency: 1880 MHz;Duty Cycle: 1:8.3

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

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 36.6 V/m; Power Drift = -0.029 dB

Maximum value of Total (measured) = 35.8 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 = 36.5 V/m

Probe Modulation Factor = 1.00

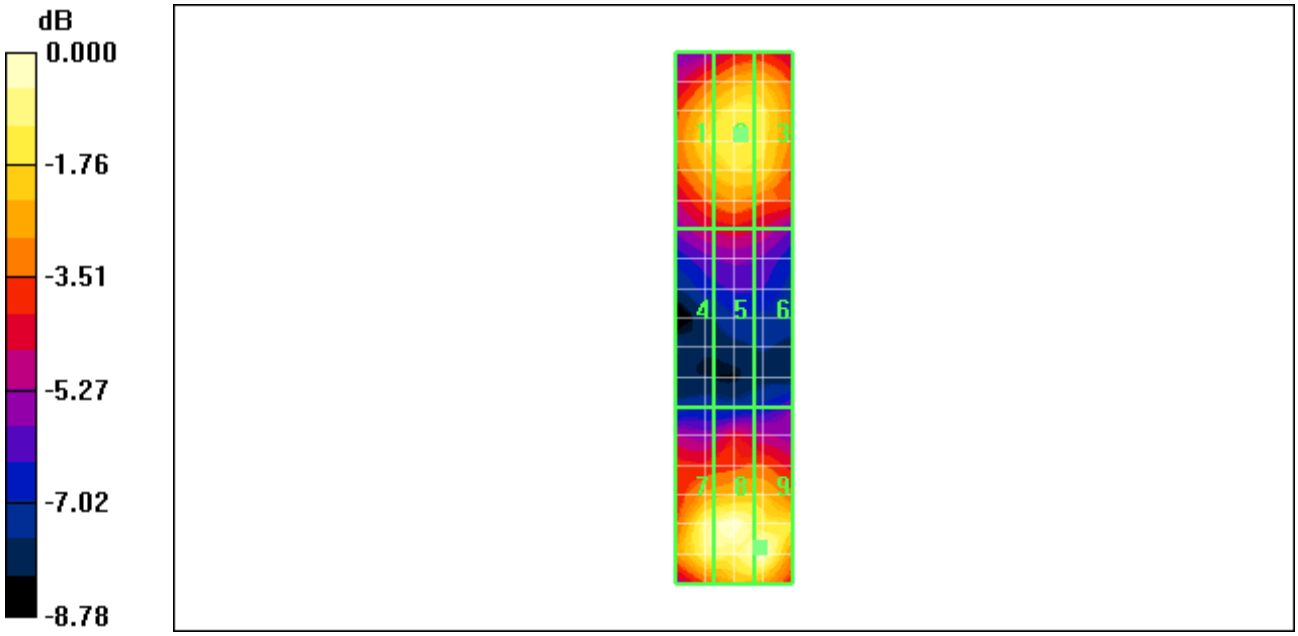
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 36.6 V/m; Power Drift = -0.029 dB

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

Peak E-field in V/m

Grid 1 **30.8 M4**	Grid 2 **32.1 M4**	Grid 3 **31.6 M4**
Grid 4 **21.7 M4**	Grid 5 **22.3 M4**	Grid 6 **21.6 M4**
Grid 7 **35.0 M4**	Grid 8 **36.2 M4**	Grid 9 **36.5 M4**



0 dB = 36.5V/m

Date/Time: 5/18/2010 1:25:14 PM

Test Laboratory: RIM TESTING SERVICES

HAC_E_Dipole_CW1880_PMF_CDMA

DUT: HAC Dipole 1880 MHz; Type: CD1880V3;

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: 1/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 103.6 V/m; Power Drift = 0.034 dB

Maximum value of Total (measured) = 90.8 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 = 92.7 V/m

Probe Modulation Factor = 1.00

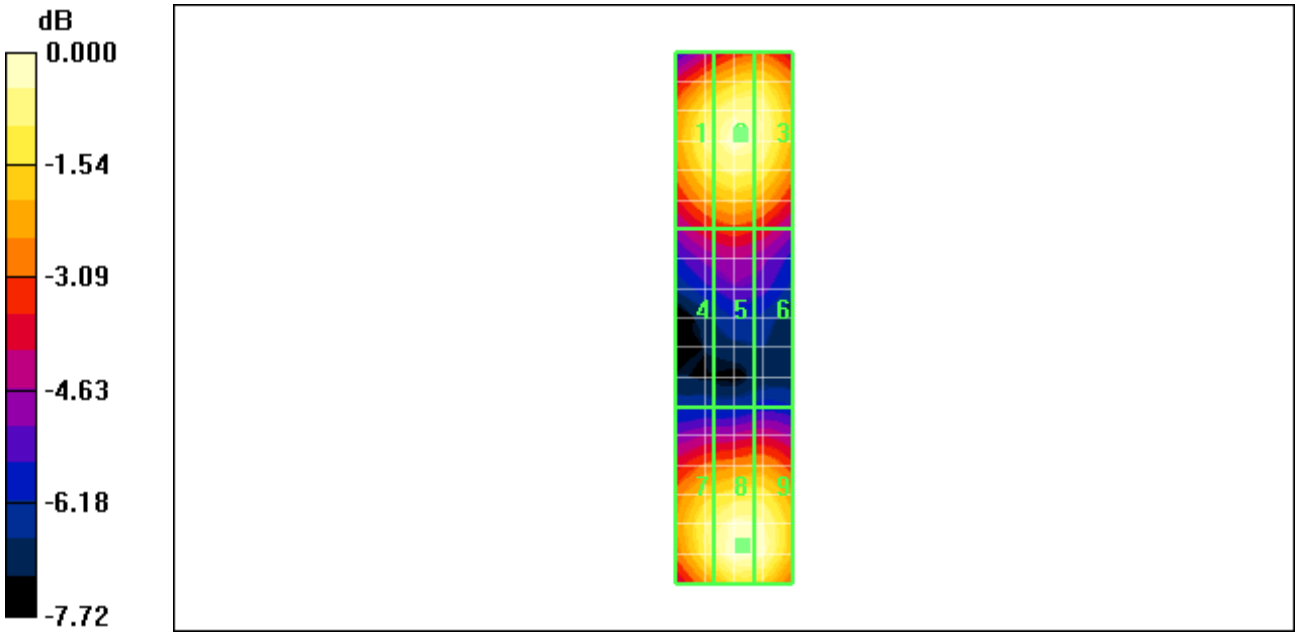
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 103.6 V/m; Power Drift = 0.034 dB

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

Peak E-field in V/m

Grid 1 **86.2 M3**	Grid 2 **89.7 M3**	Grid 3 **88.8 M3**
Grid 4 **61.7 M4**	Grid 5 **63.8 M3**	Grid 6 **62.1 M4**
Grid 7 **86.8 M3**	Grid 8 **92.7 M3**	Grid 9 **92.0 M3**



0 dB = 92.7V/m

Date/Time: 5/18/2010 1:32:39 PM

Test Laboratory: RIM TESTING SERVICES

HAC_E_Dipole_AM_1880_PMF_CDMA

DUT: HAC Dipole 1880 MHz; Type: CD1880V3;

Communication System: 80% AM; 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: 1/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 65.9 V/m; Power Drift = 0.045 dB

Maximum value of Total (measured) = 58.0 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 = 59.1 V/m

Probe Modulation Factor = 1.00

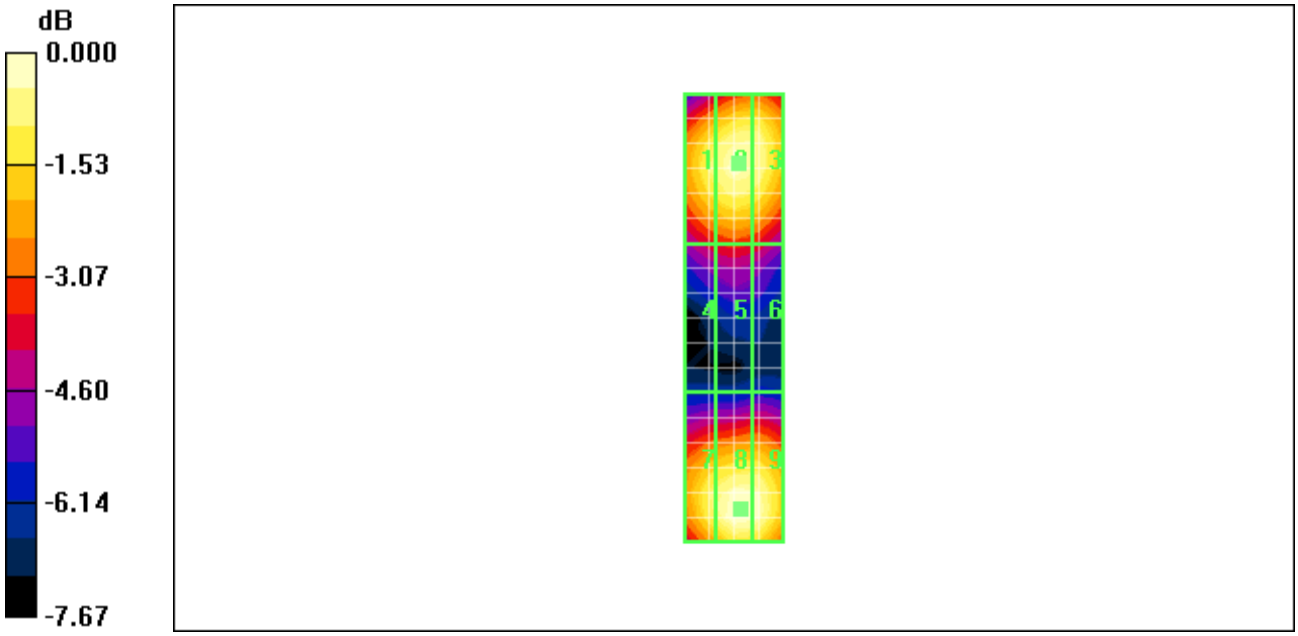
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 65.9 V/m; Power Drift = 0.045 dB

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

Peak E-field in V/m

Grid 1 **54.6 M4**	Grid 2 **57.1 M4**	Grid 3 **56.6 M4**
Grid 4 **39.3 M4**	Grid 5 **40.6 M4**	Grid 6 **39.6 M4**
Grid 7 **55.3 M4**	Grid 8 **59.1 M4**	Grid 9 **58.7 M4**



0 dB = 59.1V/m

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Test Laboratory: RIM TESTING SERVICES

HAC_H_Dipole_CW835_20.00dBm

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

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 - SN6105; ; Calibrated: 11/13/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 0.515 A/m; Power Drift = 0.017 dB

Maximum value of Total (measured) = 0.485 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 = 0.487 A/m

Probe Modulation Factor = 1.00

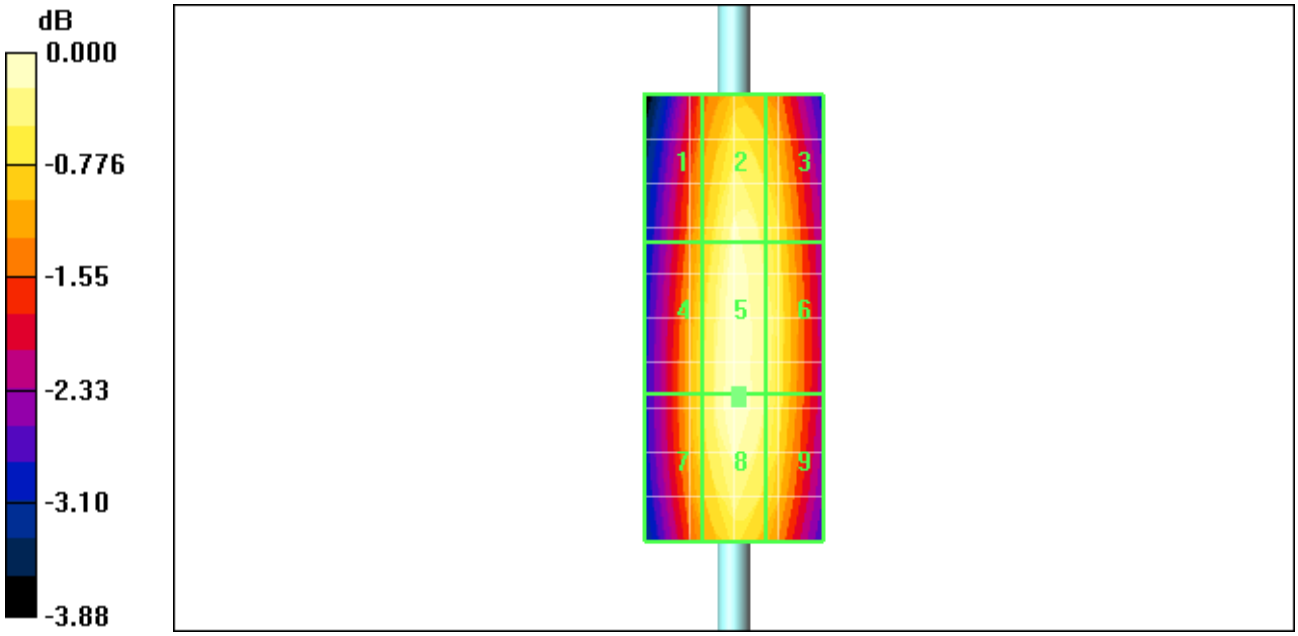
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.515 A/m; Power Drift = 0.017 dB

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

Peak H-field in A/m

Grid 1 **0.442 M4**	Grid 2 **0.480 M4**	Grid 3 **0.467 M4**
Grid 4 **0.458 M4**	Grid 5 **0.487 M4**	Grid 6 **0.475 M4**
Grid 7 **0.458 M4**	Grid 8 **0.487 M4**	Grid 9 **0.472 M4**



0 dB = 0.487A/m

Date/Time: 5/18/2010 2:34:08 PM

Test Laboratory: RIM TESTING SERVICES

HAC_H_Dipole_CDMA835

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

Communication System: CDMA 800; 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 - SN6105; ; Calibrated: 11/13/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 0.405 A/m; Power Drift = 0.075 dB

Maximum value of Total (measured) = 0.385 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 = 0.387 A/m

Probe Modulation Factor = 1.00

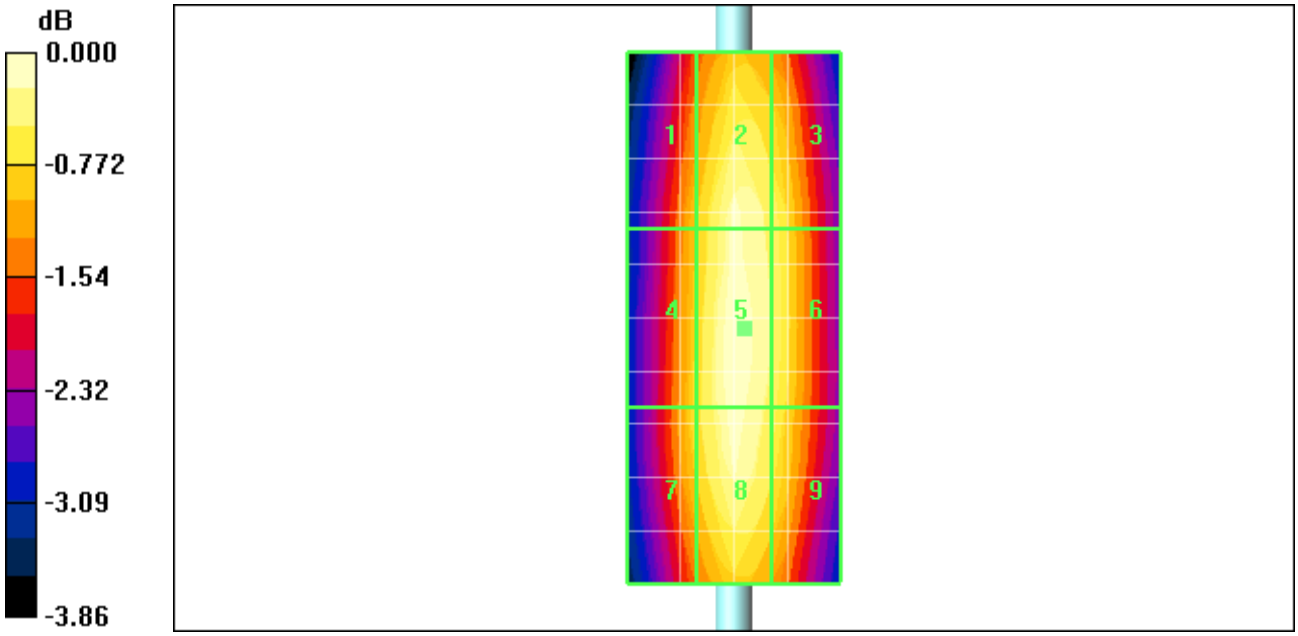
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.405 A/m; Power Drift = 0.075 dB

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

Peak H-field in A/m

Grid 1 **0.353 M4**	Grid 2 **0.382 M4**	Grid 3 **0.372 M4**
Grid 4 **0.360 M4**	Grid 5 **0.387 M4**	Grid 6 **0.375 M4**
Grid 7 **0.361 M4**	Grid 8 **0.383 M4**	Grid 9 **0.370 M4**



0 dB = 0.387A/m

Date/Time: 5/18/2010 2:37:54 PM

Test Laboratory: RIM TESTING SERVICES

HAC_H_Dipole_CDMA835_one_eigth

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

Communication System: CDMA 800; 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 - SN6105; ; Calibrated: 11/13/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 0.151 A/m; Power Drift = -0.104 dB

Maximum value of Total (measured) = 0.158 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 = 0.159 A/m

Probe Modulation Factor = 1.00

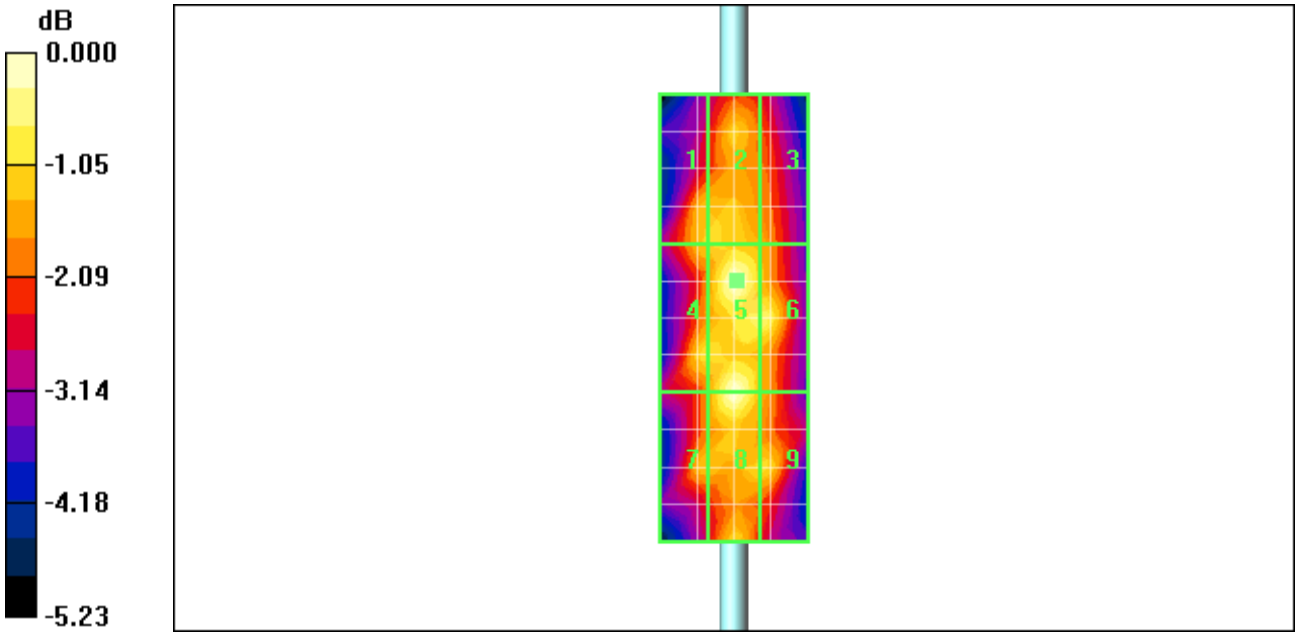
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.151 A/m; Power Drift = -0.104 dB

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

Peak H-field in A/m

Grid 1 **0.143 M4**	Grid 2 **0.143 M4**	Grid 3 **0.135 M4**
Grid 4 **0.145 M4**	Grid 5 **0.159 M4**	Grid 6 **0.151 M4**
Grid 7 **0.140 M4**	Grid 8 **0.158 M4**	Grid 9 **0.143 M4**



0 dB = 0.159A/m

Date/Time: 5/18/2010 2:47:15 PM

Test Laboratory: RIM TESTING SERVICES

HAC_H_Dipole_CW835_PMF_CDMA

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

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 - SN6105; ; Calibrated: 11/13/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 0.414 A/m; Power Drift = -0.036 dB

Maximum value of Total (measured) = 0.388 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 = 0.390 A/m

Probe Modulation Factor = 1.00

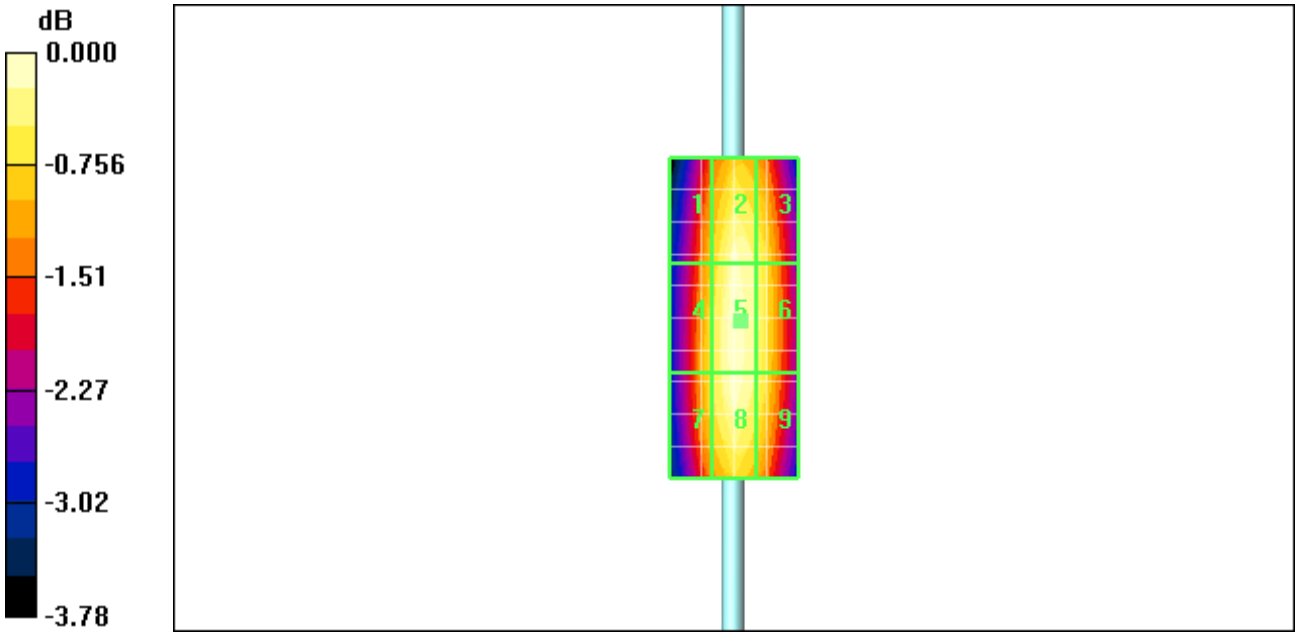
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.414 A/m; Power Drift = -0.036 dB

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

Peak H-field in A/m

Grid 1 **0.357 M4**	Grid 2 **0.385 M4**	Grid 3 **0.376 M4**
Grid 4 **0.367 M4**	Grid 5 **0.390 M4**	Grid 6 **0.380 M4**
Grid 7 **0.367 M4**	Grid 8 **0.387 M4**	Grid 9 **0.376 M4**



0 dB = 0.390A/m

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Test Laboratory: RIM TESTING SERVICES

HAC_H_Dipole_AM835_PMF_CDMA

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

Communication System: 80% AM; 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 - SN6105; ; Calibrated: 11/13/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 0.266 A/m; Power Drift = -0.050 dB

Maximum value of Total (measured) = 0.249 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 = 0.250 A/m

Probe Modulation Factor = 1.00

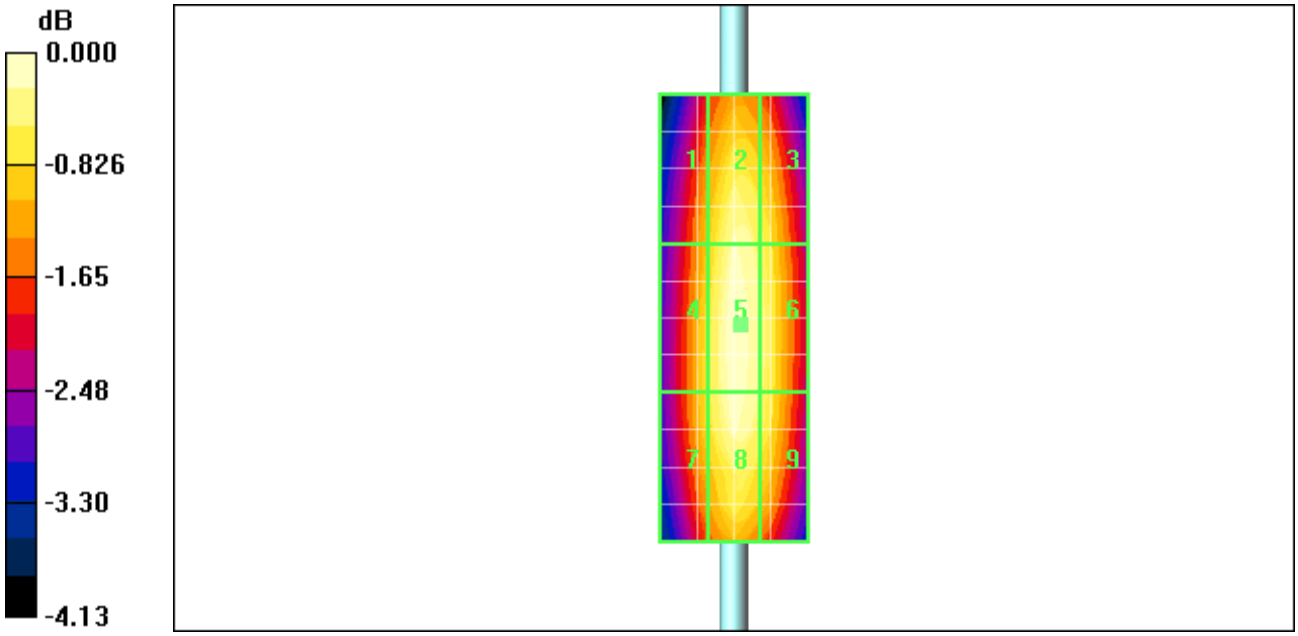
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.266 A/m; Power Drift = -0.050 dB

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

Peak H-field in A/m

Grid 1 **0.226 M4**	Grid 2 **0.245 M4**	Grid 3 **0.238 M4**
Grid 4 **0.233 M4**	Grid 5 **0.250 M4**	Grid 6 **0.243 M4**
Grid 7 **0.233 M4**	Grid 8 **0.248 M4**	Grid 9 **0.241 M4**



0 dB = 0.250A/m

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Test Laboratory: RIM TESTING SERVICES

HAC_H_Dipole_CW1880_20.00dBm

DUT: HAC Dipole 1880 MHz; Type: CD1880V3;

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 - SN6105; ; Calibrated: 11/13/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 0.505 A/m; Power Drift = 0.000 dB

Maximum value of Total (measured) = 0.475 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 = 0.476 A/m

Probe Modulation Factor = 1.00

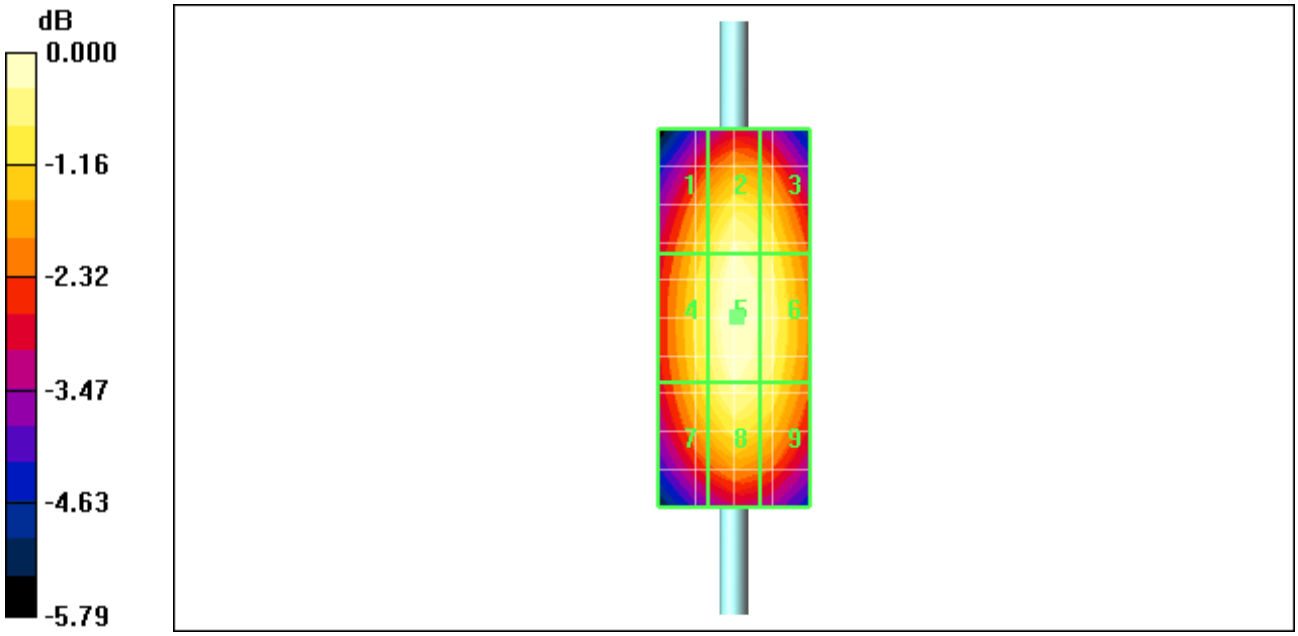
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.505 A/m; Power Drift = 0.000 dB

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

Peak H-field in A/m

Grid 1 **0.428 M2**	Grid 2 **0.462 M2**	Grid 3 **0.449 M2**
Grid 4 **0.445 M2**	Grid 5 **0.476 M2**	Grid 6 **0.463 M2**
Grid 7 **0.432 M2**	Grid 8 **0.460 M2**	Grid 9 **0.447 M2**



0 dB = 0.476A/m

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Test Laboratory: RIM TESTING SERVICES

HAC_H_Dipole_CDMA1880

DUT: HAC Dipole 1880 MHz; Type: CD1880V3;

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

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

Phantom section: RF Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 0.357 A/m; Power Drift = 0.041 dB

Maximum value of Total (measured) = 0.335 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 = 0.336 A/m

Probe Modulation Factor = 1.00

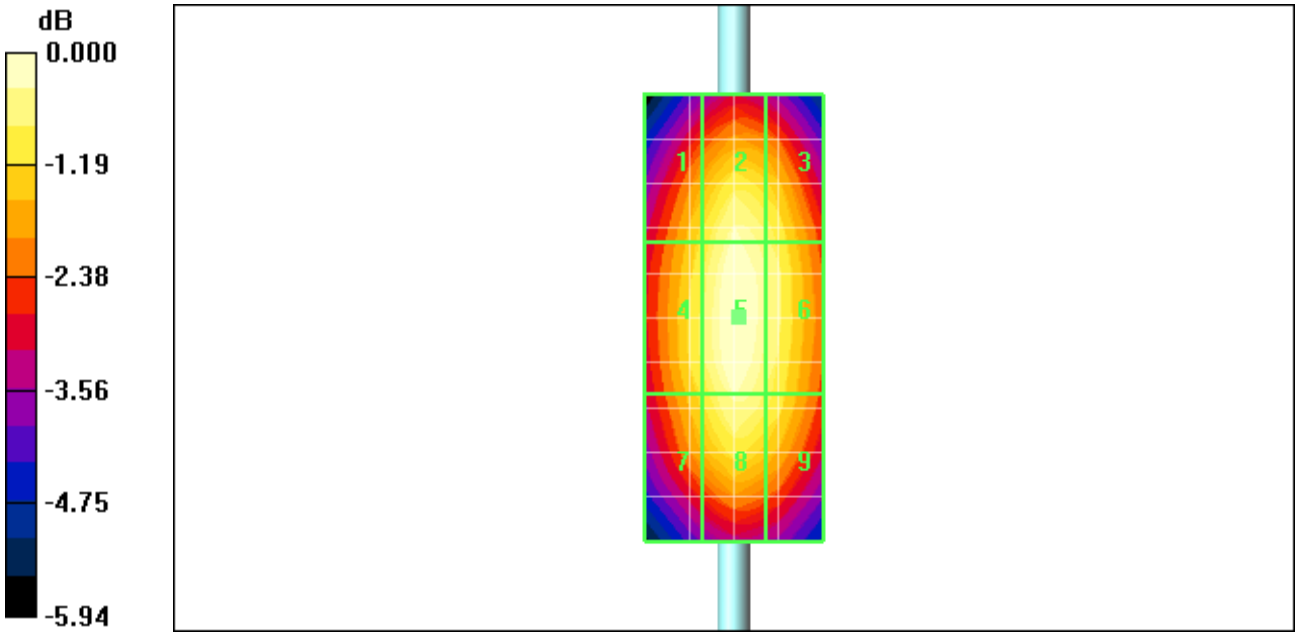
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.357 A/m; Power Drift = 0.041 dB

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

Peak H-field in A/m

Grid 1 **0.300 M3**	Grid 2 **0.327 M3**	Grid 3 **0.316 M3**
Grid 4 **0.311 M3**	Grid 5 **0.336 M3**	Grid 6 **0.323 M3**
Grid 7 **0.300 M3**	Grid 8 **0.324 M3**	Grid 9 **0.312 M3**



0 dB = 0.336A/m

Date/Time: 5/18/2010 2:22:15 PM

Test Laboratory: RIM TESTING SERVICES

HAC_H_Dipole_CDMA1880_one_eigth

DUT: HAC Dipole 1880 MHz; Type: CD1880V3;

Communication System: CDMA 1900 1/8 th; 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 - SN6105; ; Calibrated: 11/13/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 0.145 A/m; Power Drift = 0.061 dB

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

Probe Modulation Factor = 1.00

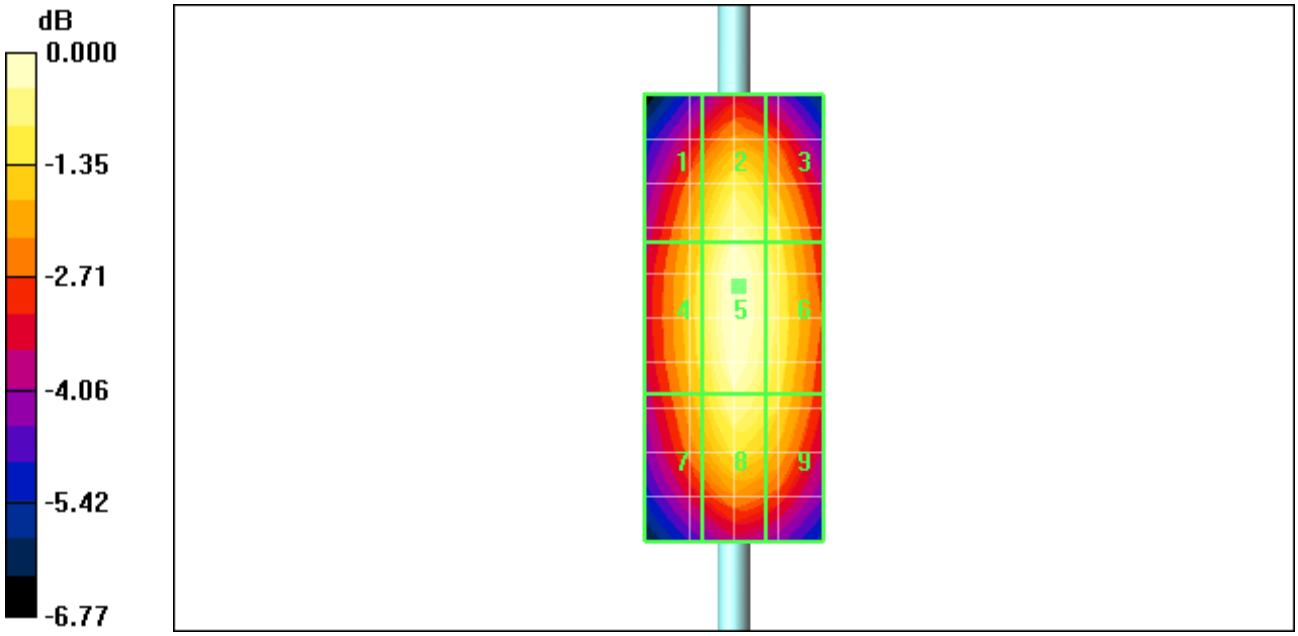
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.145 A/m; Power Drift = 0.061 dB

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

Peak H-field in A/m

Grid 1 **0.116 M4**	Grid 2 **0.129 M4**	Grid 3 **0.123 M4**
Grid 4 **0.120 M4**	Grid 5 **0.134 M4**	Grid 6 **0.127 M4**
Grid 7 **0.115 M4**	Grid 8 **0.127 M4**	Grid 9 **0.122 M4**



0 dB = 0.134A/m

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Test Laboratory: RIM TESTING SERVICES

HAC_H_Dipole_CW1880_PMF_CDMA

DUT: HAC Dipole 1880 MHz; Type: CD1880V3;

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 - SN6105; ; Calibrated: 11/13/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 0.353 A/m; Power Drift = 0.019 dB

Maximum value of Total (measured) = 0.332 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 = 0.332 A/m

Probe Modulation Factor = 1.00

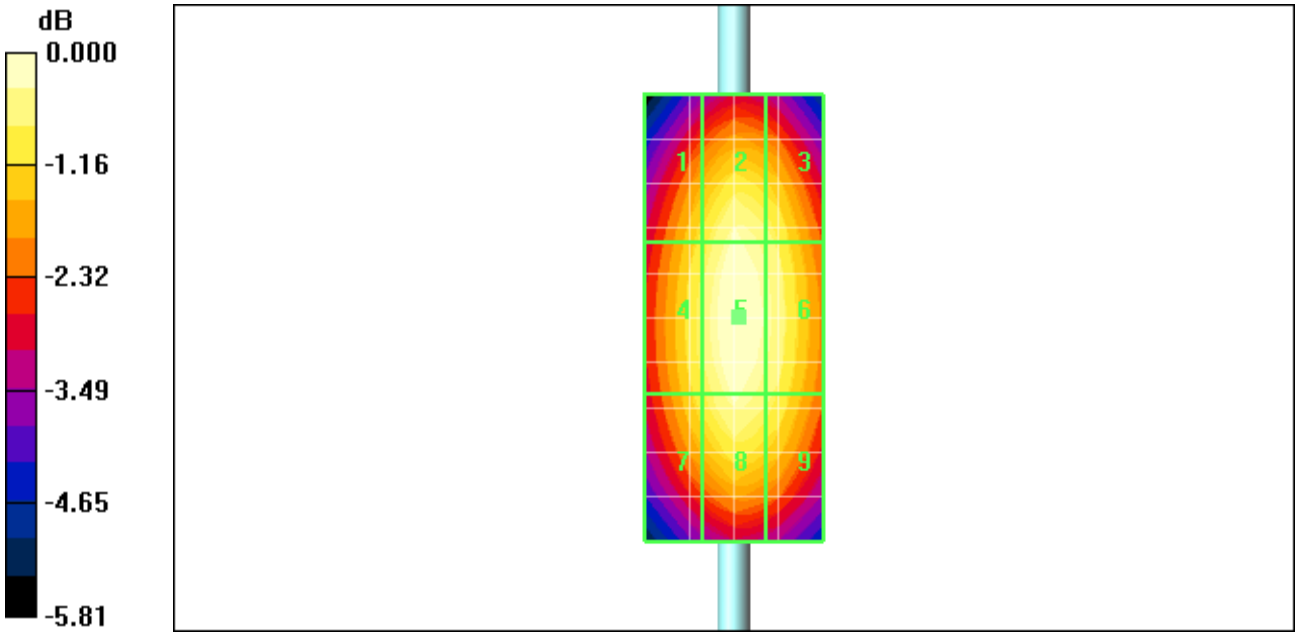
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.353 A/m; Power Drift = 0.019 dB

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

Peak H-field in A/m

Grid 1 **0.299 M3**	Grid 2 **0.323 M3**	Grid 3 **0.313 M3**
Grid 4 **0.311 M3**	Grid 5 **0.332 M3**	Grid 6 **0.322 M3**
Grid 7 **0.302 M3**	Grid 8 **0.322 M3**	Grid 9 **0.312 M3**



0 dB = 0.332A/m

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Test Laboratory: RIM TESTING SERVICES

HAC_H_Dipole_AM1880_PMF_CDMA

DUT: HAC Dipole 1880 MHz; Type: CD1880V3;

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

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

Phantom section: TCoil Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 0.229 A/m; Power Drift = 0.013 dB

Maximum value of Total (measured) = 0.216 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 = 0.217 A/m

Probe Modulation Factor = 1.00

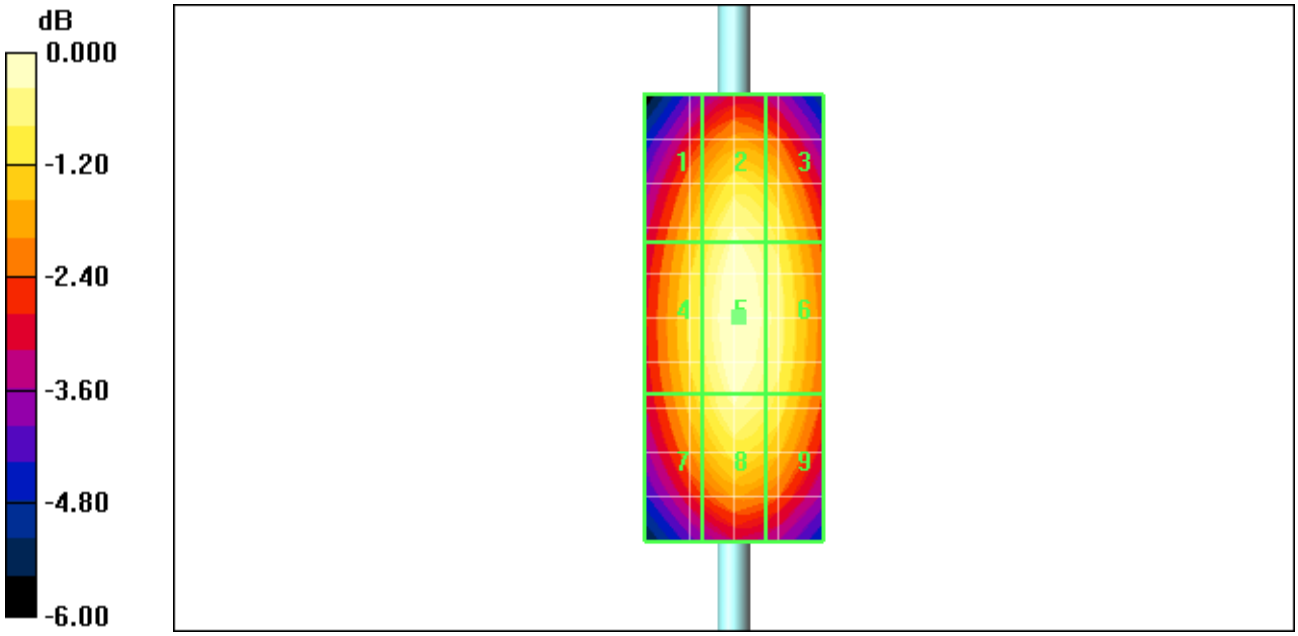
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.229 A/m; Power Drift = 0.013 dB

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

Peak H-field in A/m

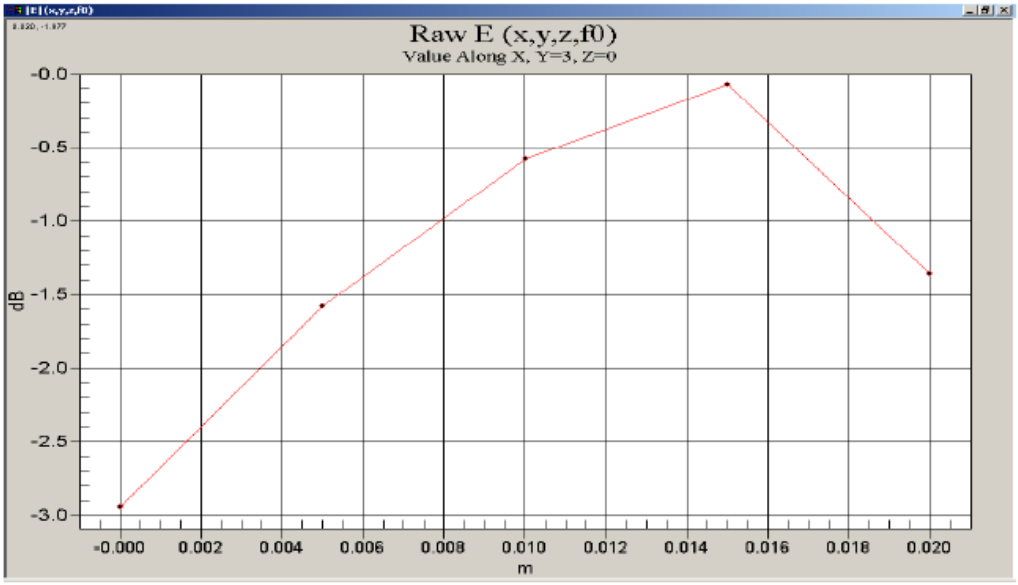
Grid 1 **0.193 M3**	Grid 2 **0.210 M3**	Grid 3 **0.204 M3**
Grid 4 **0.202 M3**	Grid 5 **0.217 M3**	Grid 6 **0.210 M3**
Grid 7 **0.195 M3**	Grid 8 **0.210 M3**	Grid 9 **0.203 M3**



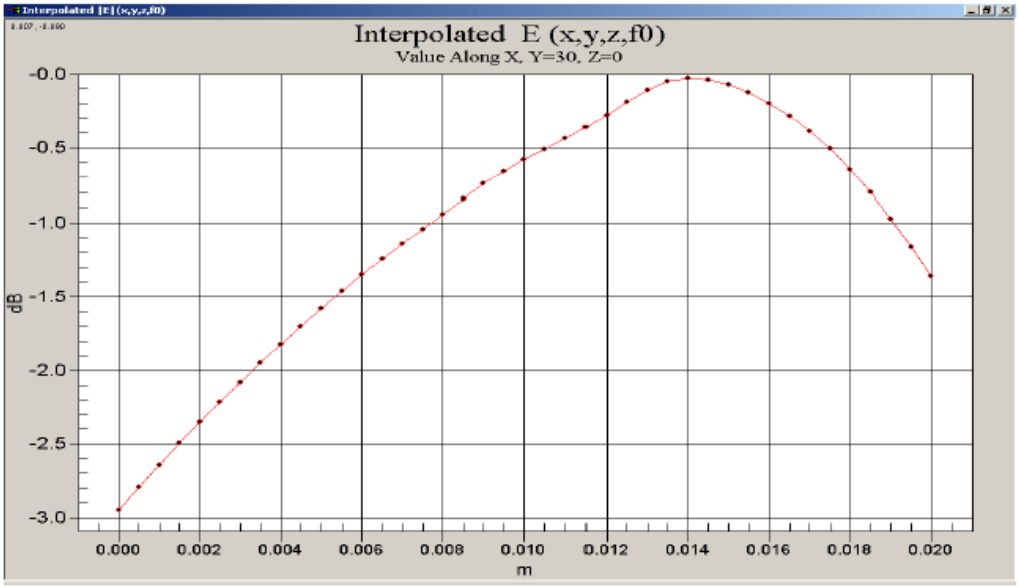
0 dB = 0.217A/m

Justification of Step Size and Interpolation

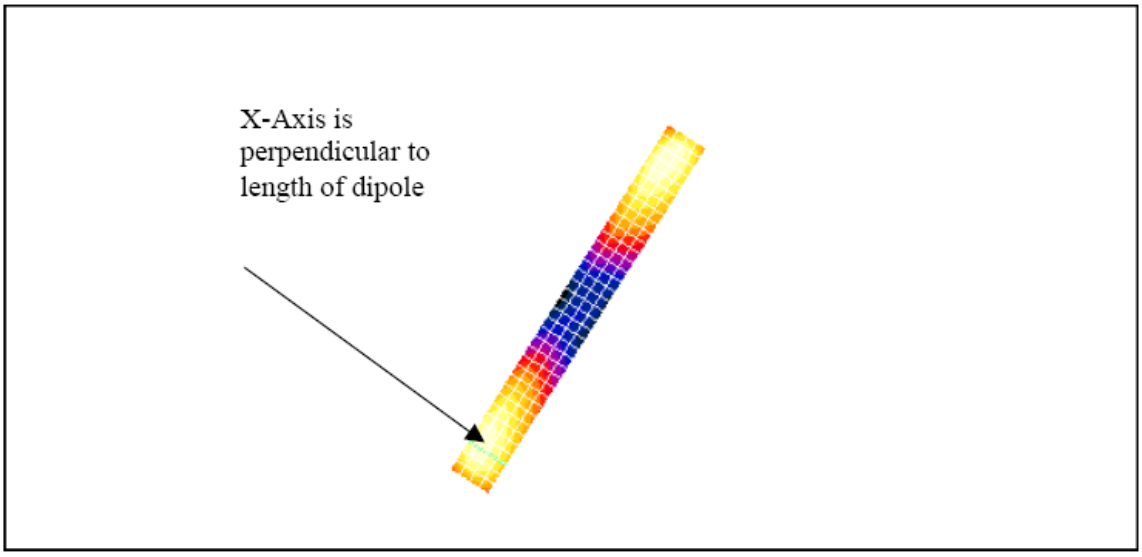
This section demonstrates that a 5mm step size with interpolation provides sufficient resolution for RF emissions measurements. The DASY 4 uses interpolation algorithms to derive 9 interpolated points between every measured point.



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



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



The green line in this figure shows the axis along which the points lie.

Comparison of 5mm and 2mm step sizes

An additional set of measurements was taken: dipole validations were performed using 5mm and 2mm step sizes. The delta between the two readings is insignificant for both field types (< 0.4% for E and 0% for H), demonstrating that 5mm is sufficient. The plots follow.

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

Lab: RIM Testing Services (RTS)

Dipole Validation 1880 MHz_E-Field 07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium: Air Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m^3
Phantom section: H Device Section

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

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

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

E in V/m (Time averaged)

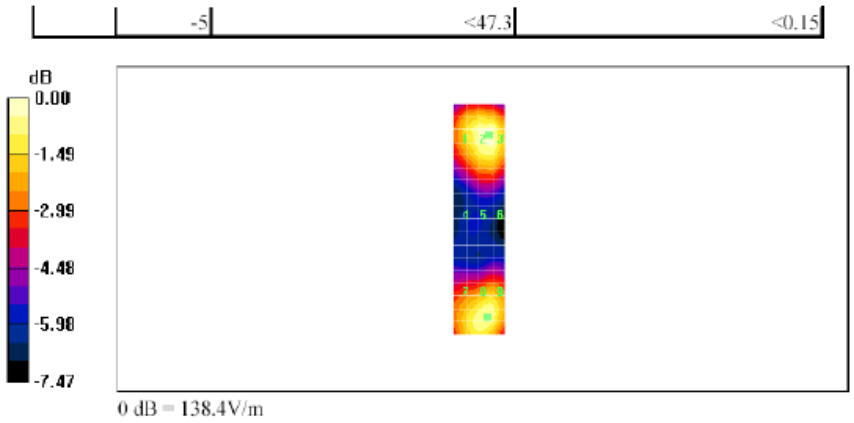
Grid 1 **123.2**	Grid 2 **138.1**	Grid 3 **138.4**
Grid 4 **80.9**	Grid 5 **92.3**	Grid 6 **92.2**
Grid 7 **119.8**	Grid 8 **131.0**	Grid 9 **130.7**

E in V/m (Slot averaged)

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

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

Date/Time: 14/07/2005 11:35:24 AM Page 2 of 2



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

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

Lab: RIM Testing Services (RTS)

Dipole Validation 1880 MHz_2mm step_E-Field 07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Frequency: 1880 MHz;Duty Cycle: 1:1
Medium: Air Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m^3
Phantom section: H Device Section

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

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

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

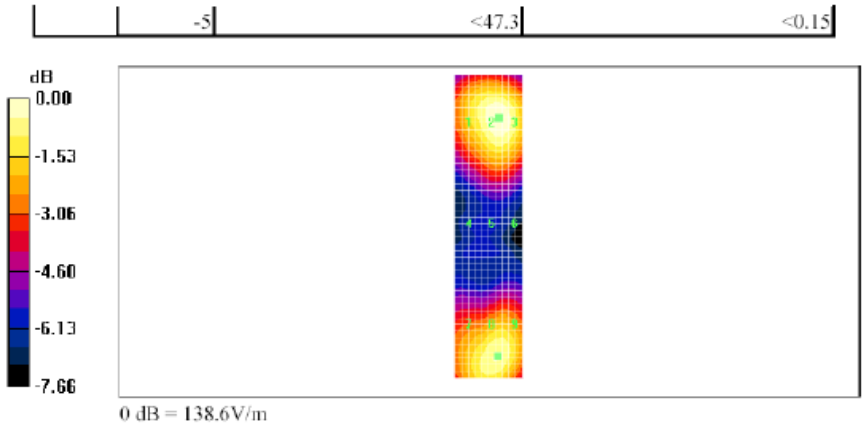
E in V/m (Time averaged)

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

E in V/m (Slot averaged)

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

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



0 dB = 138.6V/m

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

Lab: RIM Testing Services (RTS)

HAC_H_Dipole_CW 1880_5 mm step_07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

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

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

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

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

H in A/m (Time averaged)

Grid 1 **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

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

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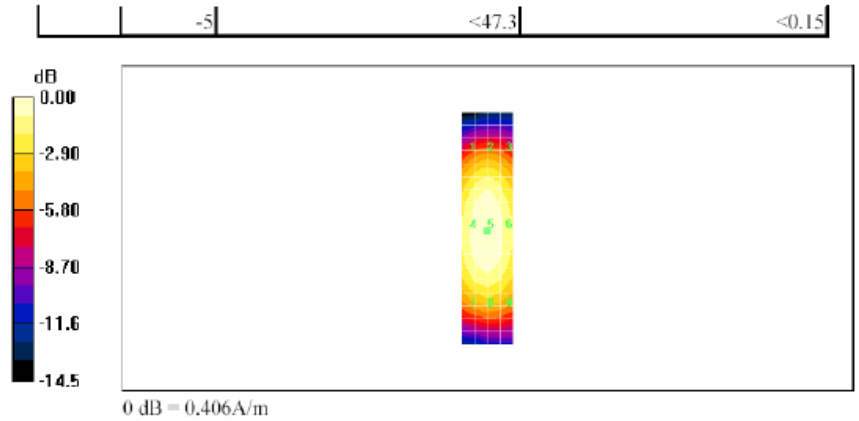

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Date/Time: 14/07/2005 12:53:40 PM

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

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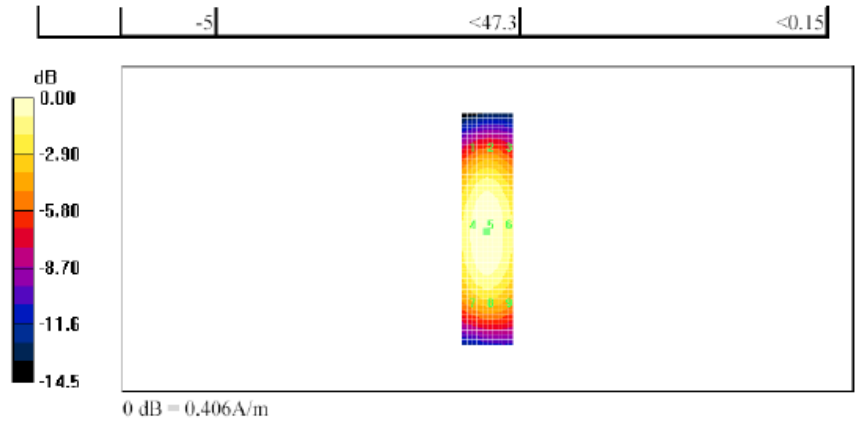

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Date/Time: 5/18/2010 6:20:17 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_E_CDMA_800_low chan.da4

DUT: BlackBerry Smartphone;

Program Name: HAC RF ER3D Device

Communication System: CDMA 800; Frequency: 824.7 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: 1/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 74.1 V/m; Power Drift = -0.169 dB

Maximum value of Total (measured) = 59.6 V/m

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 61.9 V/m

Probe Modulation Factor = 1.04

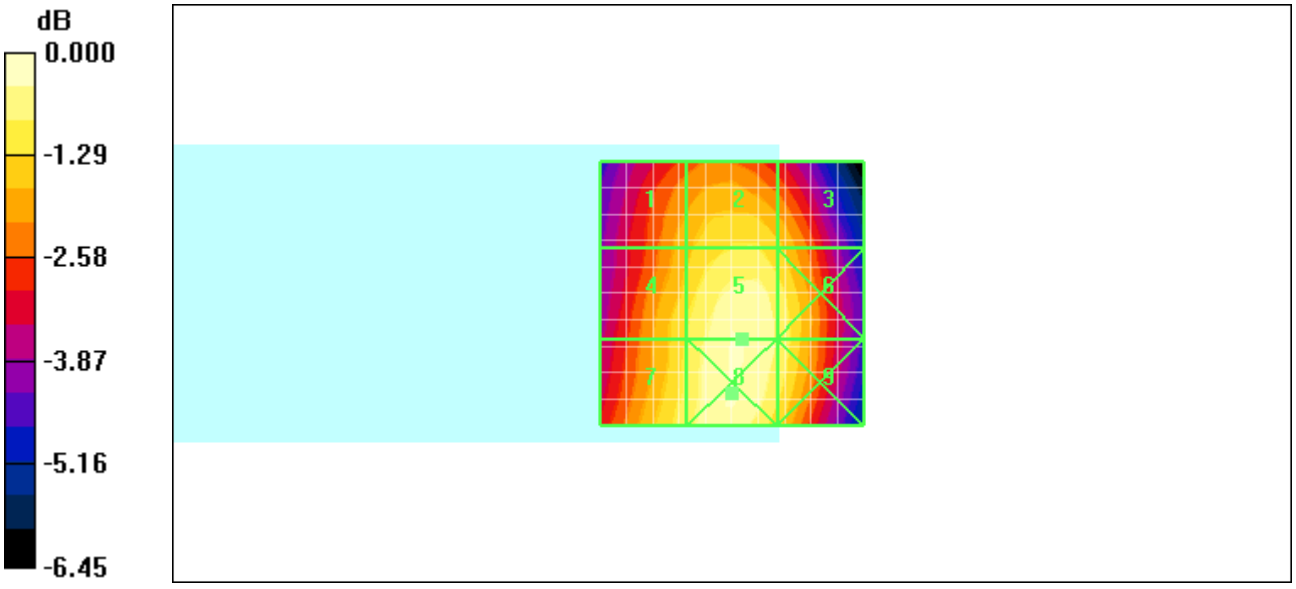
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 74.1 V/m; Power Drift = -0.169 dB

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

Peak E-field in V/m

Grid 1 **52.9 M4**	Grid 2 **56.5 M4**	Grid 3 **54.4 M4**
Grid 4 **56.1 M4**	Grid 5 **61.9 M4**	Grid 6 **58.8 M4**
Grid 7 **57.8 M4**	Grid 8 **62.1 M4**	Grid 9 **58.8 M4**



0 dB = 62.1V/m

Date/Time: 5/18/2010 6:12:07 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_E_CDMA_800_mid chan.da4

DUT: BlackBerry Smartphone;

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: 1/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 90.8 V/m; Power Drift = -0.062 dB

Maximum value of Total (measured) = 73.7 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 = 76.6 V/m

Probe Modulation Factor = 1.04

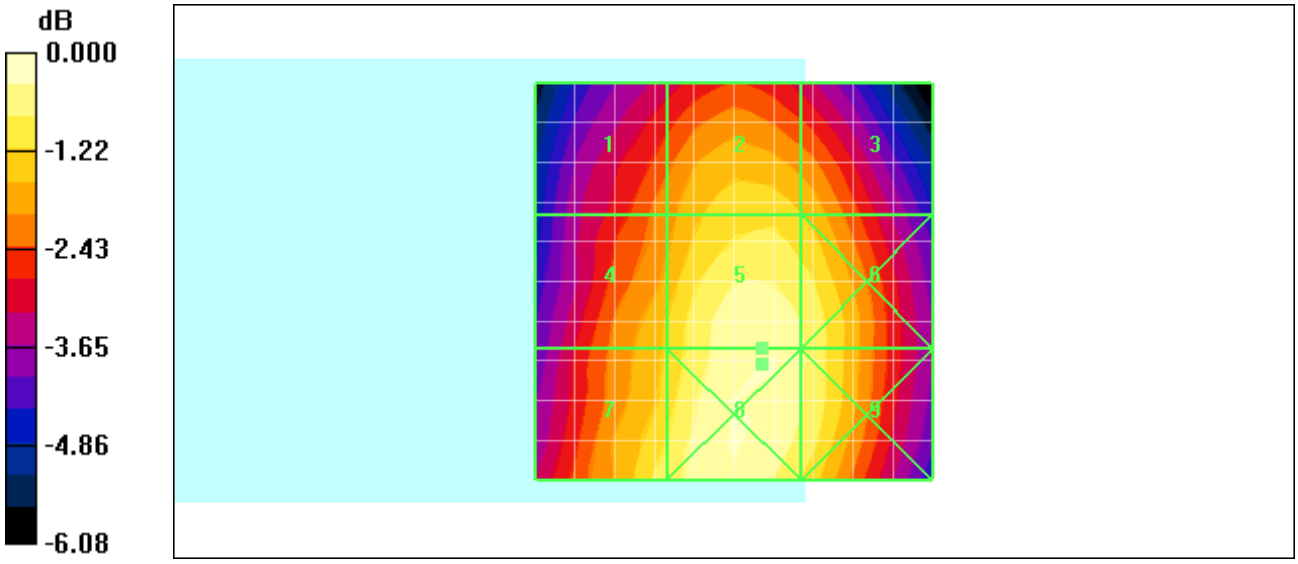
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 90.8 V/m; Power Drift = -0.062 dB

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

Peak E-field in V/m

Grid 1 **62.4 M4**	Grid 2 **69.1 M4**	Grid 3 **66.9 M4**
Grid 4 **67.1 M4**	Grid 5 **76.6 M4**	Grid 6 **73.7 M4**
Grid 7 **71.7 M4**	Grid 8 **76.8 M4**	Grid 9 **73.7 M4**



0 dB = 76.8V/m

Date/Time: 5/18/2010 6:00:38 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_E_CDMA_800_high chan.da4

DUT: BlackBerry Smartphone;

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: 1/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 93.4 V/m; Power Drift = -0.027 dB

Maximum value of Total (measured) = 74.1 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 = 77.5 V/m

Probe Modulation Factor = 1.04

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 93.4 V/m; Power Drift = -0.027 dB

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

Peak E-field in V/m

Grid 1 **65.1 M4**	Grid 2 **71.9 M4**	Grid 3 **69.3 M4**
Grid 4 **68.7 M4**	Grid 5 **77.5 M4**	Grid 6 **74.6 M4**
Grid 7 **69.5 M4**	Grid 8 **77.1 M4**	Grid 9 **73.9 M4**

0 dB = 77.5V/m

Date/Time: 5/18/2010 6:37:56 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_E_CDMA_800_one_eighth_low chan.da4

DUT: BlackBerry Smartphone;

Program Name: HAC RF ER3D Device

Communication System: CDMA 800 1/8 th; Frequency: 824.7 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: 1/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

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

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 25.7 V/m; Power Drift = 0.370 dB

Maximum value of Total (measured) = 24.5 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 = 69.9 V/m

Probe Modulation Factor = 2.92

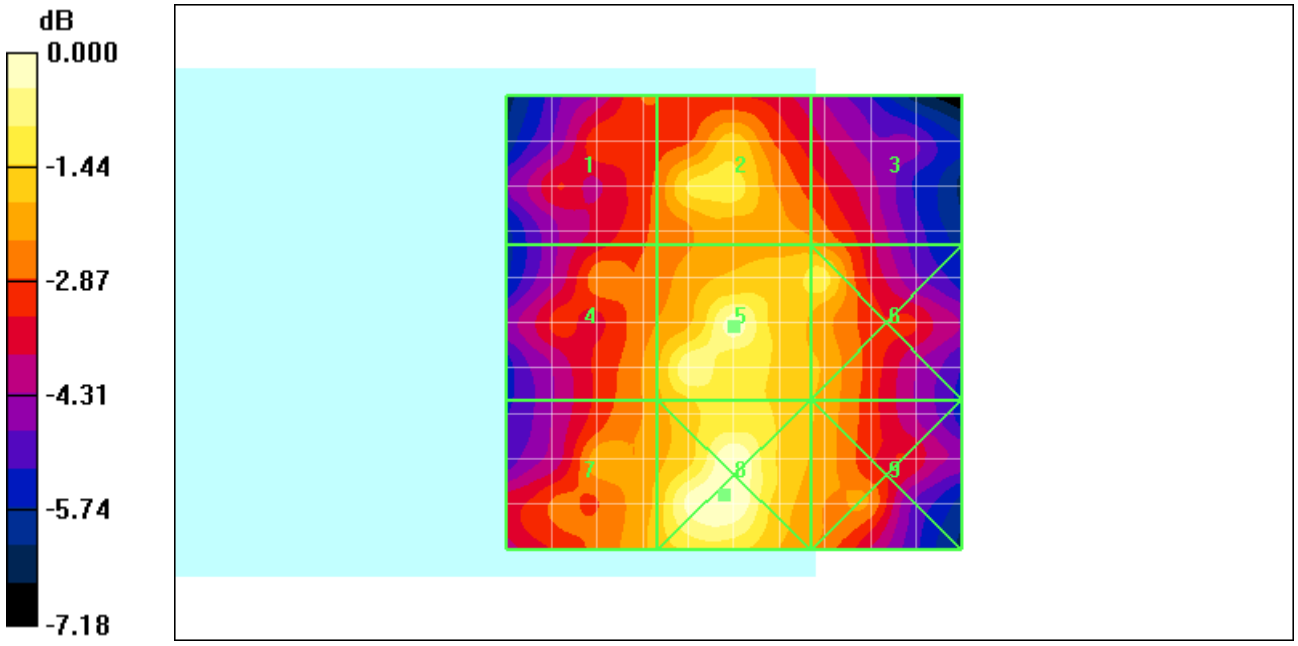
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 25.7 V/m; Power Drift = 0.370 dB

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

Peak E-field in V/m

Grid 1 **52.8 M4**	Grid 2 **62.6 M4**	Grid 3 **56.0 M4**
Grid 4 **57.6 M4**	Grid 5 **69.9 M4**	Grid 6 **63.0 M4**
Grid 7 **59.4 M4**	Grid 8 **72.1 M4**	Grid 9 **58.3 M4**



0 dB = 72.1V/m

Date/Time: 5/18/2010 6:45:47 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_E_CDMA_800_one_eighth_mid chan.da4

DUT: BlackBerry Smartphone;

Program Name: HAC RF ER3D Device

Communication System: CDMA 800 1/8 th; Frequency: 836.52 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: 1/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 33.3 V/m; Power Drift = 0.011 dB

Maximum value of Total (measured) = 30.6 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 = 86.7 V/m

Probe Modulation Factor = 2.92

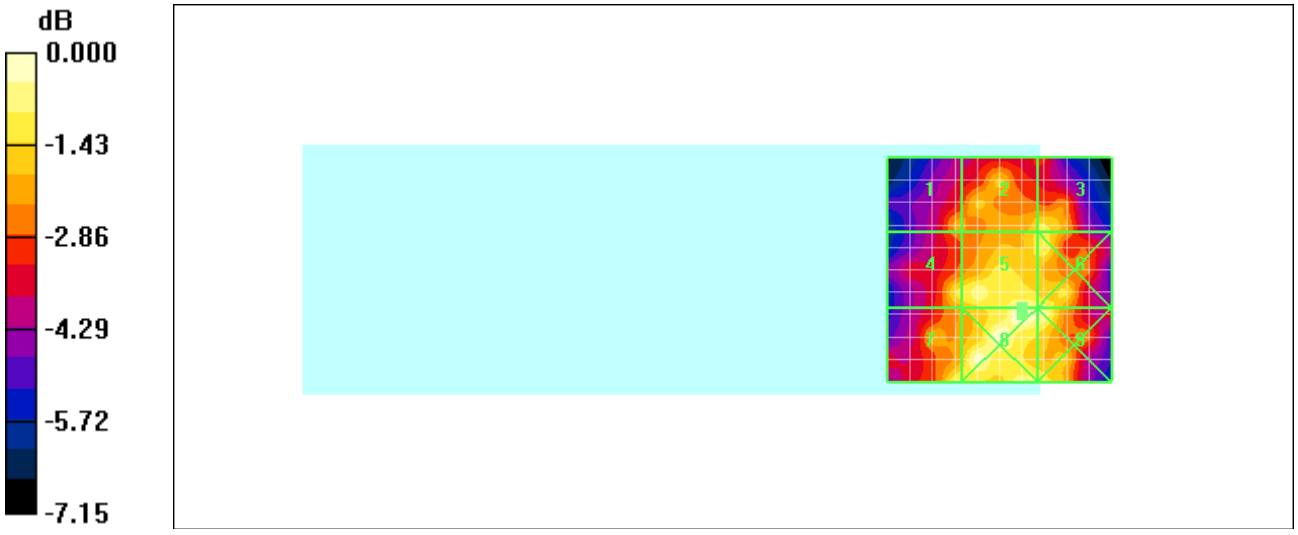
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 33.3 V/m; Power Drift = 0.011 dB

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

Peak E-field in V/m

Grid 1 **69.6 M4**	Grid 2 **76.9 M4**	Grid 3 **77.6 M4**
Grid 4 **77.5 M4**	Grid 5 **86.7 M4**	Grid 6 **83.6 M4**
Grid 7 **81.5 M4**	Grid 8 **89.3 M4**	Grid 9 **85.2 M4**



0 dB = 89.3V/m

Date/Time: 5/18/2010 6:52:39 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_E_CDMA_800_one_eighth_high chan.da4

DUT: BlackBerry Smartphone;

Program Name: HAC RF ER3D Device

Communication System: CDMA 800 1/8 th; Frequency: 848.52 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: 1/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 33.1 V/m; Power Drift = -0.090 dB

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

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 87.1 V/m

Probe Modulation Factor = 2.92

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 33.1 V/m; Power Drift = -0.090 dB

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

Peak E-field in V/m

Grid 1 **67.8 M4**	Grid 2 **75.9 M4**	Grid 3 **68.5 M4**
Grid 4 **76.7 M4**	Grid 5 **87.1 M4**	Grid 6 **84.7 M4**
Grid 7 **78.3 M4**	Grid 8 **88.0 M4**	Grid 9 **80.0 M4**

0 dB = 88.0V/m

Date/Time: 5/18/2010 7:30:10 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_E_CDMA_1900_low chan.da4

DUT: BlackBerry Smartphone;

Program Name: HAC RF ER3D Device

Communication System: CDMA 1900; Frequency: 1851.25 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: 1/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

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

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 25.6 V/m; Power Drift = -0.023 dB

Maximum value of Total (measured) = 28.4 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 = 27.0 V/m

Probe Modulation Factor = 1.03

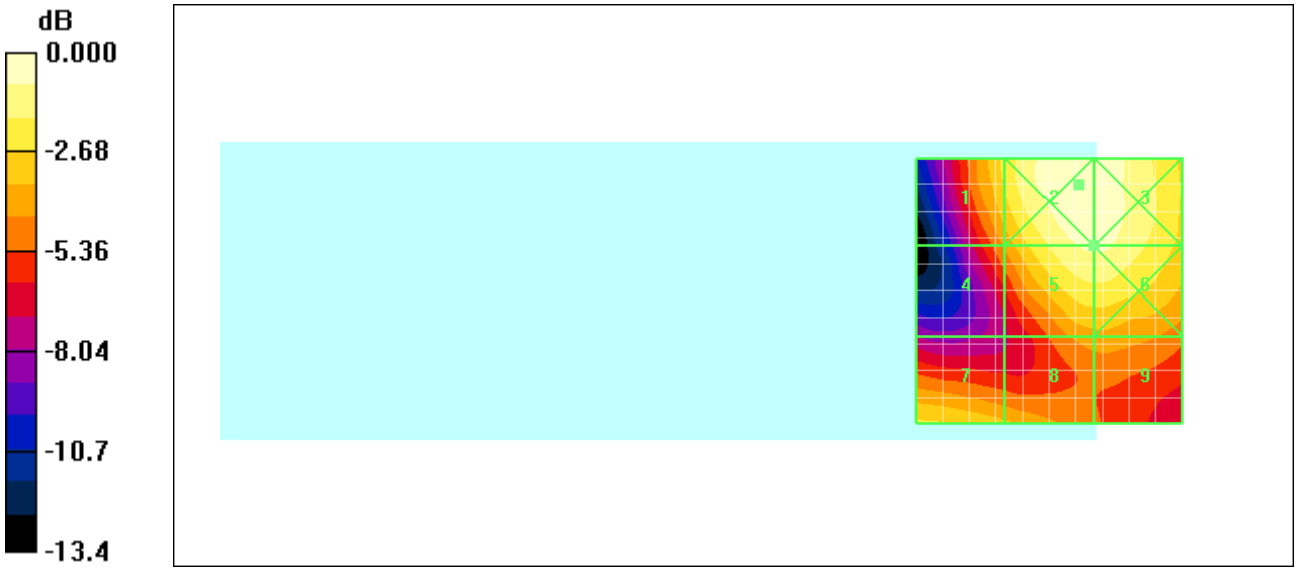
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 25.6 V/m; Power Drift = -0.023 dB

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

Peak E-field in V/m

Grid 1 **22.1 M4**	Grid 2 **29.3 M4**	Grid 3 **28.7 M4**
Grid 4 **17.9 M4**	Grid 5 **27.0 M4**	Grid 6 **27.0 M4**
Grid 7 **22.1 M4**	Grid 8 **20.1 M4**	Grid 9 **18.9 M4**



0 dB = 29.3V/m

Date/Time: 5/18/2010 7:41:04 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_E_CDMA_1900_mid chan.da4

DUT: BlackBerry Smartphone;

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: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 26.2 V/m; Power Drift = -0.057 dB

Maximum value of Total (measured) = 25.9 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 = 25.9 V/m

Probe Modulation Factor = 1.03

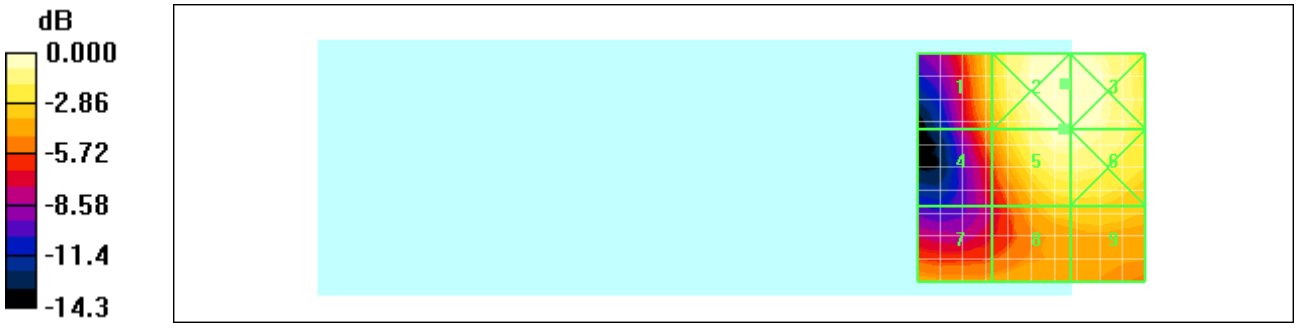
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 26.2 V/m; Power Drift = -0.057 dB

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

Peak E-field in V/m

Grid 1 **19.8 M4**	Grid 2 **26.9 M4**	Grid 3 **26.9 M4**
Grid 4 **17.0 M4**	Grid 5 **25.9 M4**	Grid 6 **25.8 M4**
Grid 7 **16.9 M4**	Grid 8 **19.2 M4**	Grid 9 **19.3 M4**



0 dB = 26.9V/m

Date/Time: 5/18/2010 7:47:57 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_E_CDMA_1900_high chan.da4

DUT: BlackBerry Smartphone;

Program Name: HAC RF ER3D Device

Communication System: CDMA 1900; Frequency: 1908.5 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: 1/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

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

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 19.4 V/m; Power Drift = 0.456 dB

Maximum value of Total (measured) = 22.3 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 = 21.8 V/m

Probe Modulation Factor = 1.03

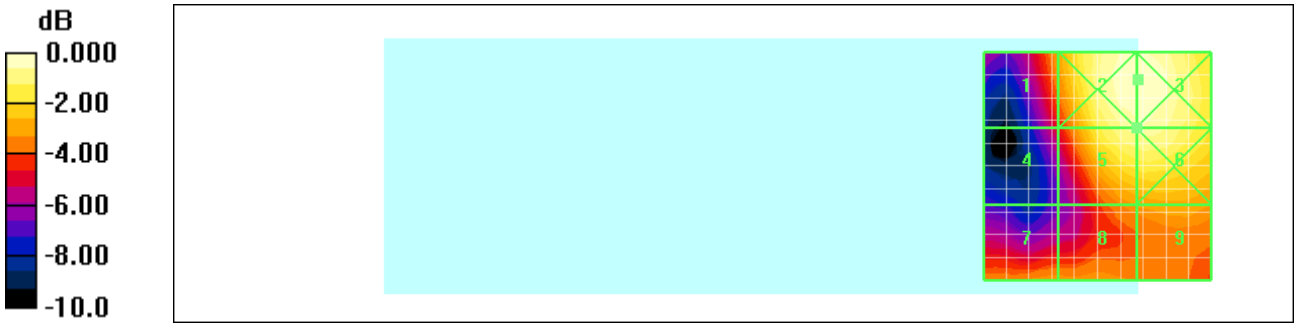
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 19.4 V/m; Power Drift = 0.456 dB

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

Peak E-field in V/m

Grid 1 **16.6 M4**	Grid 2 **23.0 M4**	Grid 3 **23.1 M4**
Grid 4 **13.8 M4**	Grid 5 **21.8 M4**	Grid 6 **21.9 M4**
Grid 7 **16.4 M4**	Grid 8 **16.4 M4**	Grid 9 **16.8 M4**



0 dB = 23.1V/m

Date/Time: 5/18/2010 7:59:49 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_E_CDMA_1900_one_eighth_low chan.da4

DUT: BlackBerry Smartphone;

Program Name: HAC RF ER3D Device

Communication System: CDMA 1900 1/8th; Frequency: 1851.25 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: 1/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 9.46 V/m; Power Drift = -0.312 dB

Maximum value of Total (measured) = 11.4 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 = 26.2 V/m

Probe Modulation Factor = 2.54

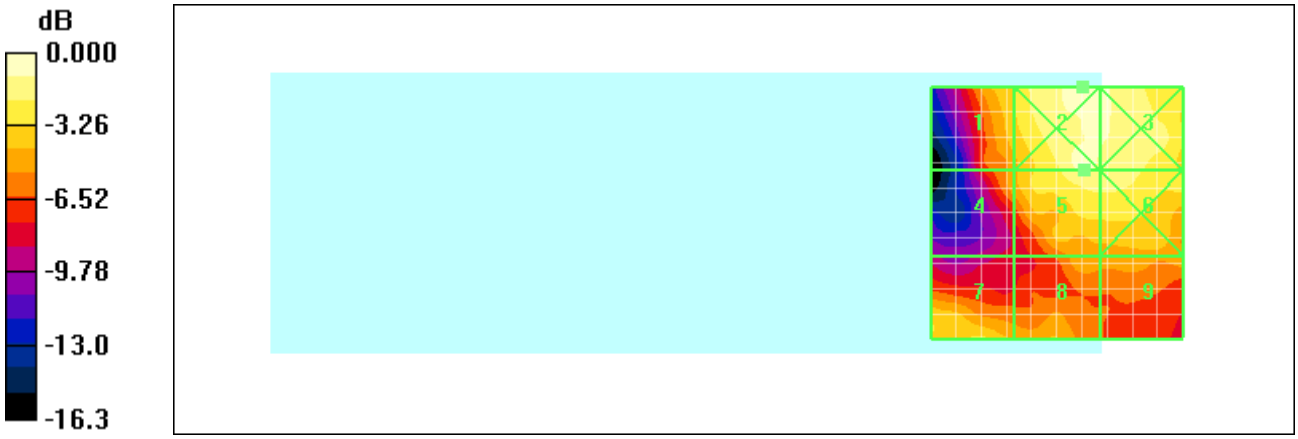
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 9.46 V/m; Power Drift = -0.312 dB

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

Peak E-field in V/m

Grid 1 **20.3 M4**	Grid 2 **29.0 M4**	Grid 3 **26.6 M4**
Grid 4 **17.1 M4**	Grid 5 **26.2 M4**	Grid 6 **24.7 M4**
Grid 7 **20.6 M4**	Grid 8 **17.9 M4**	Grid 9 **17.1 M4**



0 dB = 29.0V/m

Date/Time: 5/18/2010 8:06:40 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_E_CDMA_1900_one_eighth_mid chan.da4

DUT: BlackBerry Smartphone;

Program Name: HAC RF ER3D Device

Communication System: CDMA 1900 1/8th; 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: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 9.10 V/m; Power Drift = -0.034 dB

Maximum value of Total (measured) = 9.99 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 = 22.1 V/m

Probe Modulation Factor = 2.54

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 9.10 V/m; Power Drift = -0.034 dB

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

Peak E-field in V/m

Grid 1 **17.3 M4**	Grid 2 **24.8 M4**	Grid 3 **25.4 M4**
Grid 4 **16.2 M4**	Grid 5 **22.1 M4**	Grid 6 **23.1 M4**
Grid 7 **14.9 M4**	Grid 8 **16.7 M4**	Grid 9 **18.2 M4**

0 dB = 25.4V/m

Date/Time: 5/18/2010 8:14:41 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_E_CDMA_1900_one_eighth_high chan.da4

DUT: BlackBerry Smartphone;

Program Name: HAC RF ER3D Device

Communication System: CDMA 1900 1/8th; Frequency: 1908.5 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: 1/8/2010
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 7.38 V/m; Power Drift = 0.901 dB

Maximum value of Total (measured) = 8.60 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 = 20.0 V/m

Probe Modulation Factor = 2.54

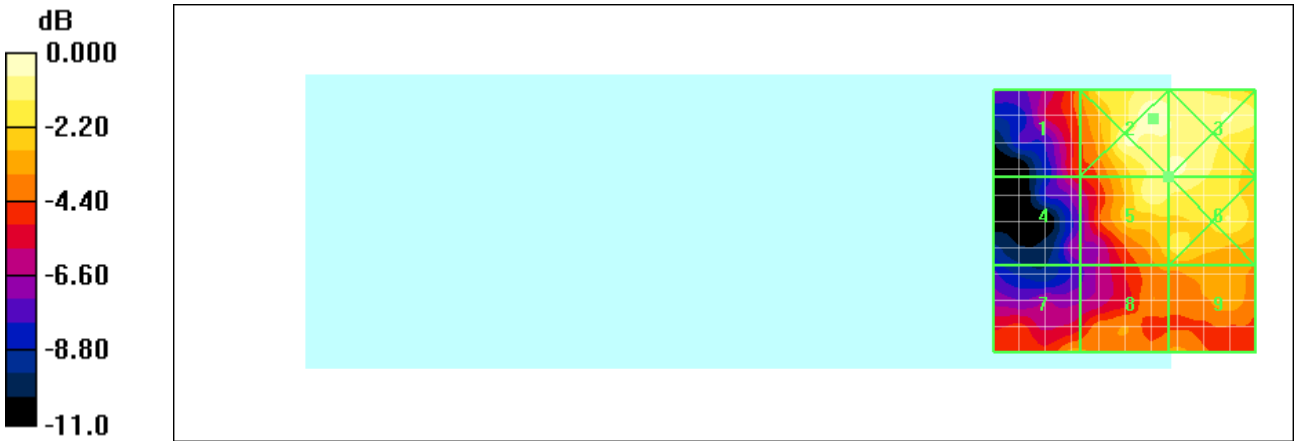
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 7.38 V/m; Power Drift = 0.901 dB

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

Peak E-field in V/m

Grid 1 **14.0 M4**	Grid 2 **21.9 M4**	Grid 3 **20.6 M4**
Grid 4 **12.2 M4**	Grid 5 **20.0 M4**	Grid 6 **20.1 M4**
Grid 7 **15.1 M4**	Grid 8 **15.0 M4**	Grid 9 **15.5 M4**



0 dB = 21.9V/m

Date/Time: 5/18/2010 8:46:38 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_H_CDMA800_low_chan.da4

DUT: BlackBerry Smartphone;

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 - SN6105; ; Calibrated: 11/13/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

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

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.076 A/m; Power Drift = 0.071 dB

Maximum value of Total (measured) = 0.140 A/m

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.141 A/m

Probe Modulation Factor = 1.01

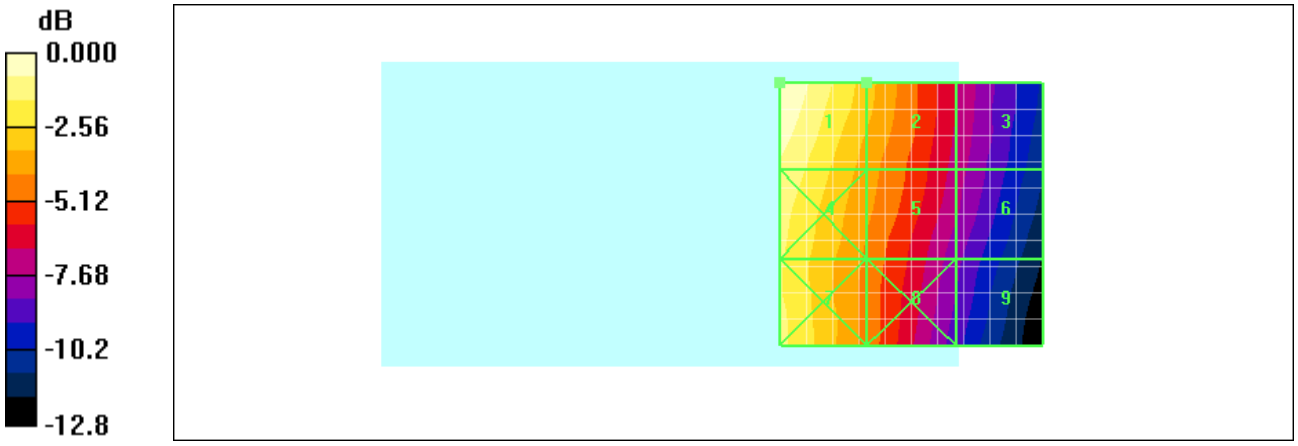
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.076 A/m; Power Drift = 0.071 dB

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

Peak H-field in A/m

Grid 1 **0.141 M4**	Grid 2 **0.100 M4**	Grid 3 **0.065 M4**
Grid 4 **0.126 M4**	Grid 5 **0.091 M4**	Grid 6 **0.062 M4**
Grid 7 **0.119 M4**	Grid 8 **0.085 M4**	Grid 9 **0.055 M4**



0 dB = 0.141A/m

Date/Time: 5/18/2010 9:21:17 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_H_CDMA800_mid_chan.da4

DUT: BlackBerry Smartphone;

Program Name: HAC RF H3DV6 Device

Communication System: CDMA 800; Frequency: 836.52 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 - SN6105; ; Calibrated: 11/13/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 0.104 A/m; Power Drift = 0.053 dB

Maximum value of Total (measured) = 0.187 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 = 0.189 A/m

Probe Modulation Factor = 1.01

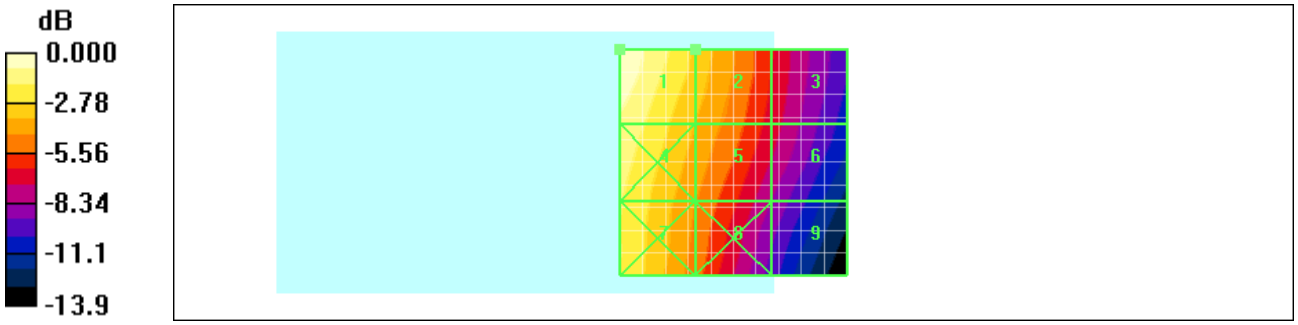
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.104 A/m; Power Drift = 0.053 dB

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

Peak H-field in A/m

Grid 1 **0.189 M4**	Grid 2 **0.135 M4**	Grid 3 **0.091 M4**
Grid 4 **0.168 M4**	Grid 5 **0.124 M4**	Grid 6 **0.086 M4**
Grid 7 **0.155 M4**	Grid 8 **0.113 M4**	Grid 9 **0.073 M4**



0 dB = 0.189A/m

Date/Time: 5/18/2010 9:13:40 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_H_CDMA800_high_chan.da4

DUT: BlackBerry Smartphone;

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 - SN6105; ; Calibrated: 11/13/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 0.107 A/m; Power Drift = 0.242 dB

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

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.190 A/m

Probe Modulation Factor = 1.01

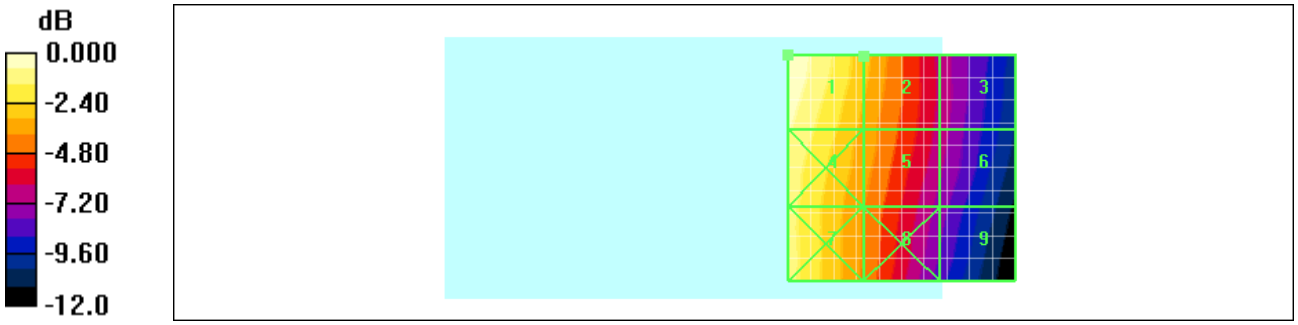
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.107 A/m; Power Drift = 0.242 dB

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

Peak H-field in A/m

Grid 1 **0.190 M4**	Grid 2 **0.137 M4**	Grid 3 **0.090 M4**
Grid 4 **0.176 M4**	Grid 5 **0.129 M4**	Grid 6 **0.088 M4**
Grid 7 **0.165 M4**	Grid 8 **0.121 M4**	Grid 9 **0.080 M4**



0 dB = 0.190A/m

Date/Time: 5/18/2010 9:27:39 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_H_CDMA800_one_eighth_low_chan.da4

DUT: BlackBerry Smartphone;

Program Name: HAC RF H3DV6 Device

Communication System: CDMA 800 1/8 th; Frequency: 824.7 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 - SN6105; ; Calibrated: 11/13/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 0.029 A/m; Power Drift = 0.239 dB

Maximum value of Total (measured) = 0.053 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 = 0.131 A/m

Probe Modulation Factor = 2.45

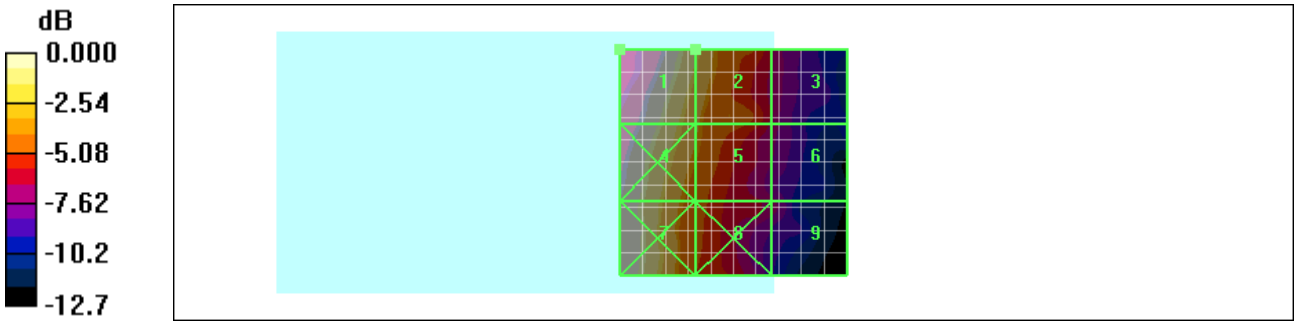
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.029 A/m; Power Drift = 0.239 dB

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

Peak H-field in A/m

Grid 1 **0.131 M4**	Grid 2 **0.092 M4**	Grid 3 **0.060 M4**
Grid 4 **0.117 M4**	Grid 5 **0.084 M4**	Grid 6 **0.058 M4**
Grid 7 **0.107 M4**	Grid 8 **0.077 M4**	Grid 9 **0.057 M4**



0 dB = 0.131A/m

Date/Time: 5/18/2010 9:33:44 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_H_CDMA800_one_eighth_mid_chan.da4

DUT: BlackBerry Smartphone;

Program Name: HAC RF H3DV6 Device

Communication System: CDMA 800 1/8 th; Frequency: 836.52 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 - SN6105; ; Calibrated: 11/13/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 0.037 A/m; Power Drift = 0.001 dB

Maximum value of Total (measured) = 0.076 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 = 0.186 A/m

Probe Modulation Factor = 2.45

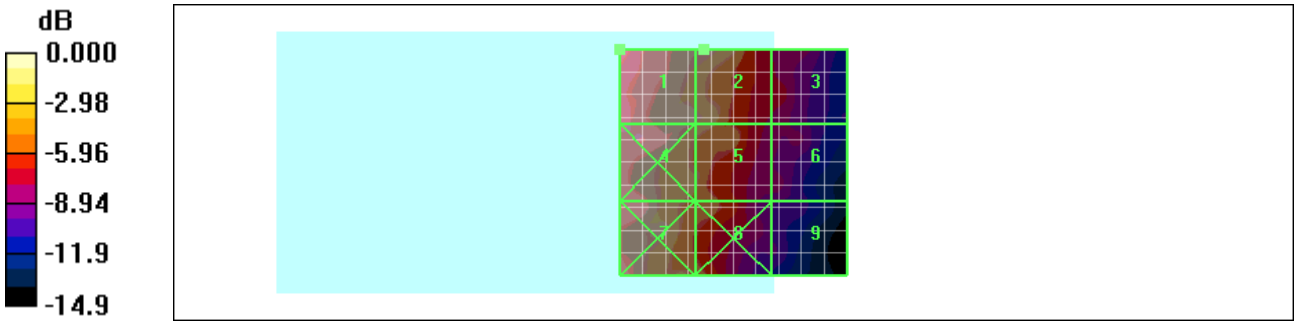
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.037 A/m; Power Drift = 0.001 dB

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

Peak H-field in A/m

Grid 1 **0.186 M4**	Grid 2 **0.123 M4**	Grid 3 **0.084 M4**
Grid 4 **0.161 M4**	Grid 5 **0.116 M4**	Grid 6 **0.072 M4**
Grid 7 **0.148 M4**	Grid 8 **0.102 M4**	Grid 9 **0.062 M4**



0 dB = 0.186A/m

Date/Time: 5/18/2010 9:48:59 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_H_CDMA800_one_eighth_high_chan.da4

DUT: BlackBerry Smartphone;

Program Name: HAC RF H3DV6 Device

Communication System: CDMA 800 1/8 th; Frequency: 848.52 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 - SN6105; ; Calibrated: 11/13/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 0.876 dB

Maximum value of Total (measured) = 0.069 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 = 0.170 A/m

Probe Modulation Factor = 2.45

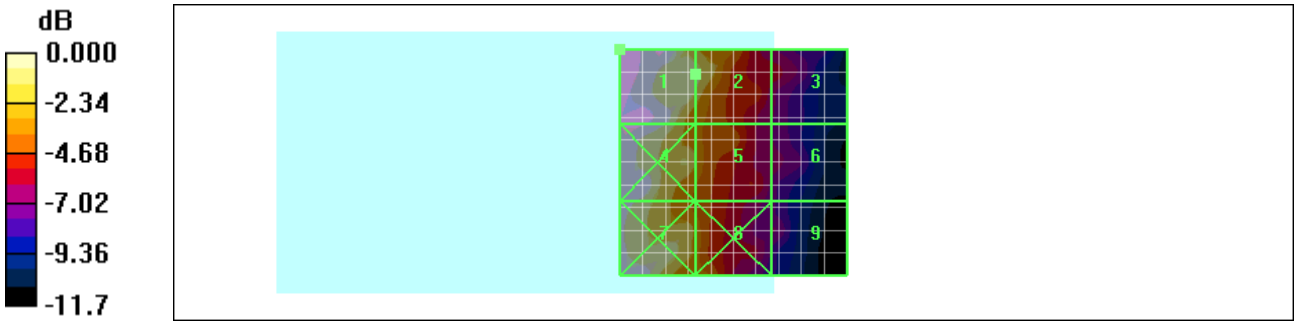
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.040 A/m; Power Drift = 0.876 dB

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

Peak H-field in A/m

Grid 1 **0.170 M4**	Grid 2 **0.135 M4**	Grid 3 **0.087 M4**
Grid 4 **0.160 M4**	Grid 5 **0.122 M4**	Grid 6 **0.080 M4**
Grid 7 **0.152 M4**	Grid 8 **0.117 M4**	Grid 9 **0.076 M4**



0 dB = 0.170A/m

Date/Time: 5/18/2010 10:35:53 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_H_CDMA1900_low_chan.da4

DUT: BlackBerry Smartphone;

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 - SN6105; ; Calibrated: 11/13/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 0.068 A/m; Power Drift = 0.483 dB

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

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.067 A/m

Probe Modulation Factor = 0.990

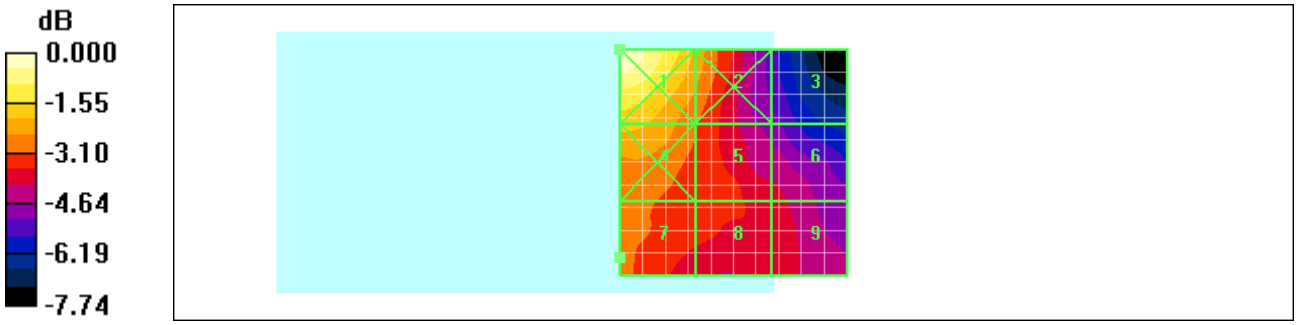
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.068 A/m; Power Drift = 0.483 dB

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

Peak H-field in A/m

Grid 1 **0.094 M4**	Grid 2 **0.074 M4**	Grid 3 **0.053 M4**
Grid 4 **0.076 M4**	Grid 5 **0.066 M4**	Grid 6 **0.060 M4**
Grid 7 **0.067 M4**	Grid 8 **0.064 M4**	Grid 9 **0.061 M4**



0 dB = 0.094A/m

Date/Time: 5/18/2010 10:42:51 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_H_CDMA1900_mid_chan.da4

DUT: BlackBerry Smartphone;

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 - SN6105; ; Calibrated: 11/13/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = -0.134 dB

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

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.069 A/m

Probe Modulation Factor = 0.990

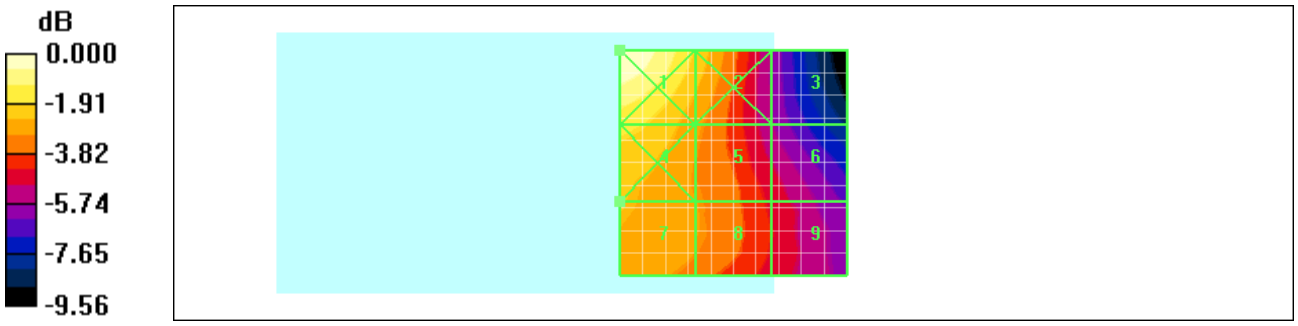
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.063 A/m; Power Drift = -0.134 dB

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

Peak H-field in A/m

Grid 1 **0.092 M4**	Grid 2 **0.073 M4**	Grid 3 **0.048 M4**
Grid 4 **0.075 M4**	Grid 5 **0.065 M4**	Grid 6 **0.054 M4**
Grid 7 **0.069 M4**	Grid 8 **0.064 M4**	Grid 9 **0.055 M4**



0 dB = 0.092A/m

Date/Time: 5/18/2010 10:49:53 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_H_CDMA1900_high_chan.da4

DUT: BlackBerry Smartphone;

Program Name: HAC RF H3DV6 Device

Communication System: CDMA 1900; Frequency: 1908.5 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 - SN6105; ; Calibrated: 11/13/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

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

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.054 A/m; Power Drift = -0.042 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 = 0.069 A/m

Probe Modulation Factor = 0.990

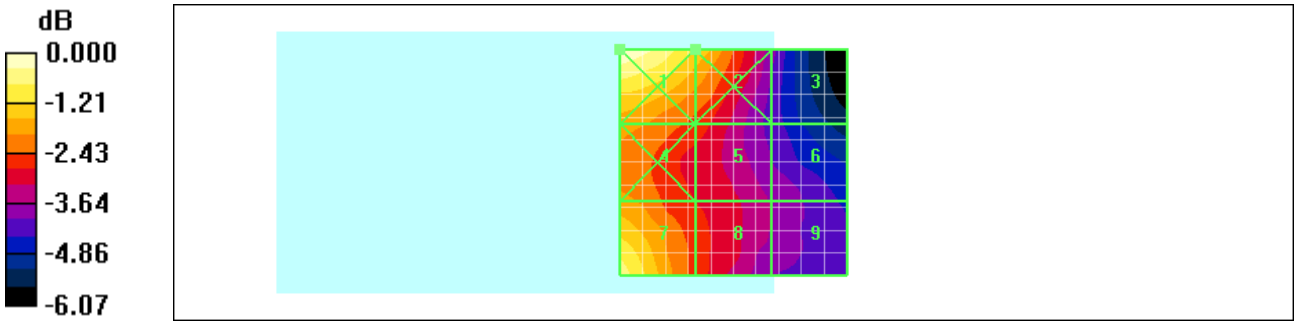
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.054 A/m; Power Drift = -0.042 dB

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

Peak H-field in A/m

Grid 1 **0.074 M4**	Grid 2 **0.064 M4**	Grid 3 **0.047 M4**
Grid 4 **0.060 M4**	Grid 5 **0.055 M4**	Grid 6 **0.049 M4**
Grid 7 **0.069 M4**	Grid 8 **0.055 M4**	Grid 9 **0.049 M4**



0 dB = 0.074A/m

Date/Time: 5/18/2010 11:00:19 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_H_CDMA1900_one_eighth_low_chan.da4

DUT: BlackBerry Smartphone;

Program Name: HAC RF H3DV6 Device

Communication System: CDMA 1900 1/8th; Frequency: 1851.25 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 - SN6105; ; Calibrated: 11/13/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 0.024 A/m; Power Drift = 0.236 dB

Maximum value of Total (measured) = 0.033 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 = 0.067 A/m

Probe Modulation Factor = 2.48

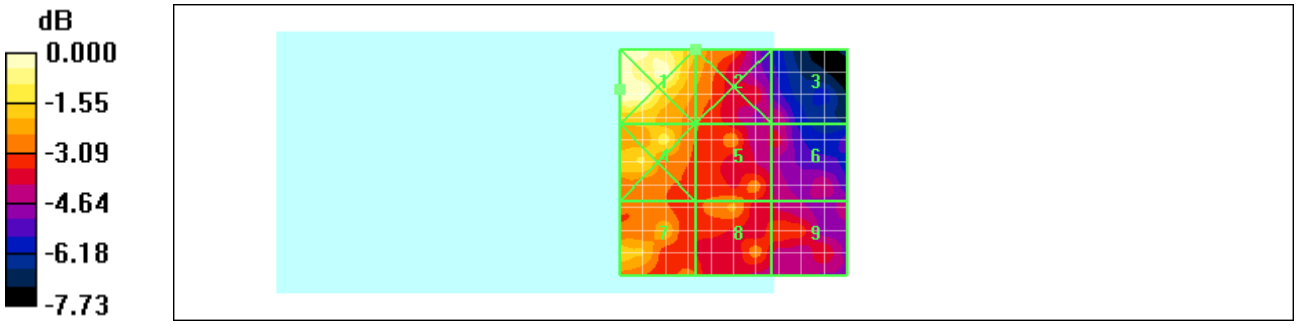
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.024 A/m; Power Drift = 0.236 dB

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

Peak H-field in A/m

Grid 1 **0.083 M4**	Grid 2 **0.066 M4**	Grid 3 **0.052 M4**
Grid 4 **0.071 M4**	Grid 5 **0.061 M4**	Grid 6 **0.053 M4**
Grid 7 **0.067 M4**	Grid 8 **0.062 M4**	Grid 9 **0.058 M4**



0 dB = 0.083A/m

Date/Time: 5/18/2010 11:11:35 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_H_CDMA1900_one_eighth_mid_chan.da4

DUT: BlackBerry Smartphone;

Program Name: HAC RF H3DV6 Device

Communication System: CDMA 1900 1/8th; 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

DASY4 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/13/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 0.025 A/m; Power Drift = -1.00 dB

Maximum value of Total (measured) = 0.034 A/m

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.071 A/m

Probe Modulation Factor = 2.48

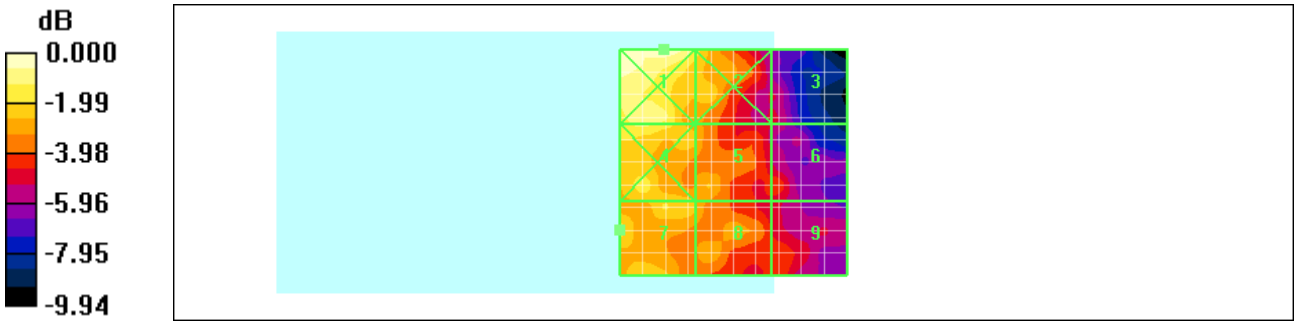
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.025 A/m; Power Drift = -1.00 dB

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

Peak H-field in A/m

Grid 1 **0.086 M4**	Grid 2 **0.073 M4**	Grid 3 **0.048 M4**
Grid 4 **0.076 M4**	Grid 5 **0.065 M4**	Grid 6 **0.053 M4**
Grid 7 **0.071 M4**	Grid 8 **0.064 M4**	Grid 9 **0.054 M4**



0 dB = 0.086A/m

Date/Time: 5/18/2010 11:28:21 PM

Test Laboratory: RIM TESTING SERVICES

File Name: HAC_H_CDMA1900_one_eighth_high_chan.da4

DUT: BlackBerry Smartphone;

Program Name: HAC RF H3DV6 Device

Communication System: CDMA 1900 1/8th; Frequency: 1908.5 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 - SN6105; ; Calibrated: 11/13/2009
- Sensor-Surface: 0mm (Fix Surface)Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/4/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY4, 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 = 0.019 A/m; Power Drift = 0.145 dB

Maximum value of Total (measured) = 0.030 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 = 0.065 A/m

Probe Modulation Factor = 2.48

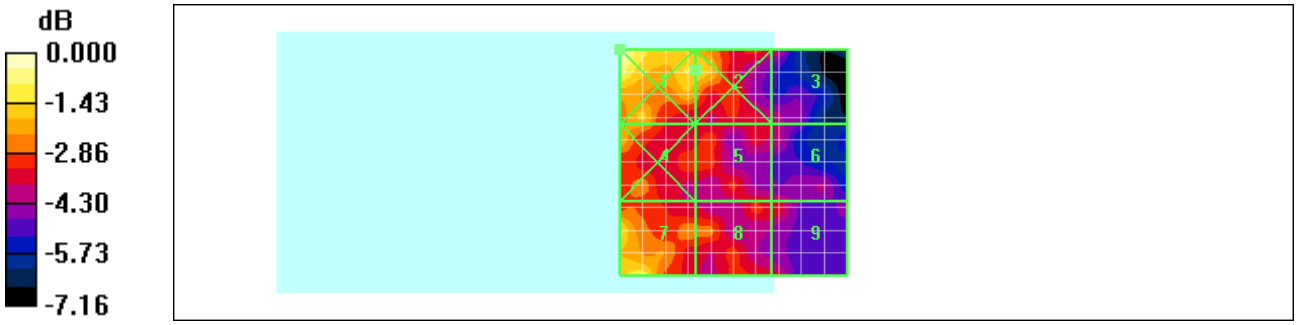
Device Reference Point: 0.000, 0.000, -6.30 mm

Reference Value = 0.019 A/m; Power Drift = 0.145 dB

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

Peak H-field in A/m

Grid 1 **0.073 M4**	Grid 2 **0.061 M4**	Grid 3 **0.049 M4**
Grid 4 **0.058 M4**	Grid 5 **0.052 M4**	Grid 6 **0.048 M4**
Grid 7 **0.065 M4**	Grid 8 **0.054 M4**	Grid 9 **0.049 M4**



0 dB = 0.073A/m