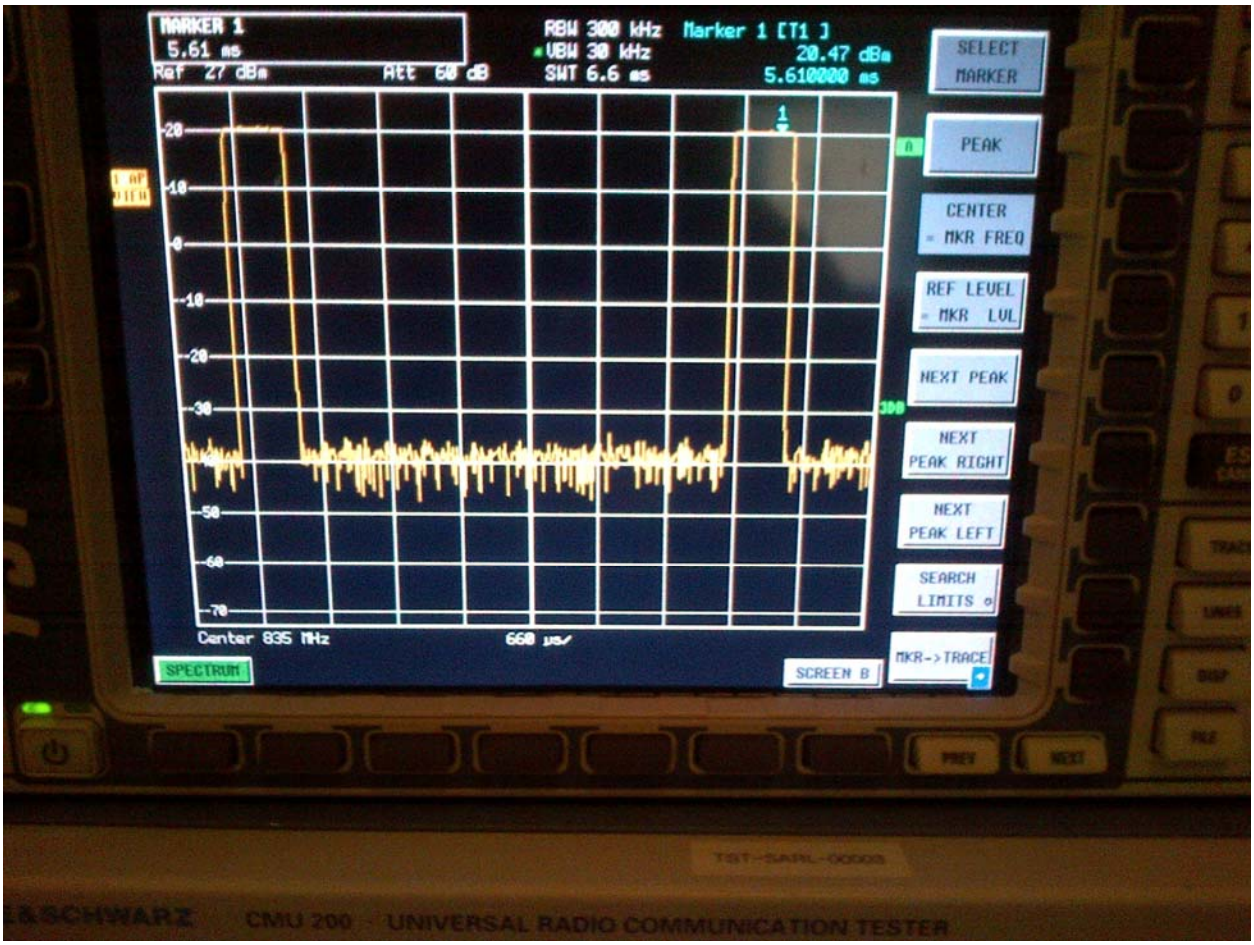
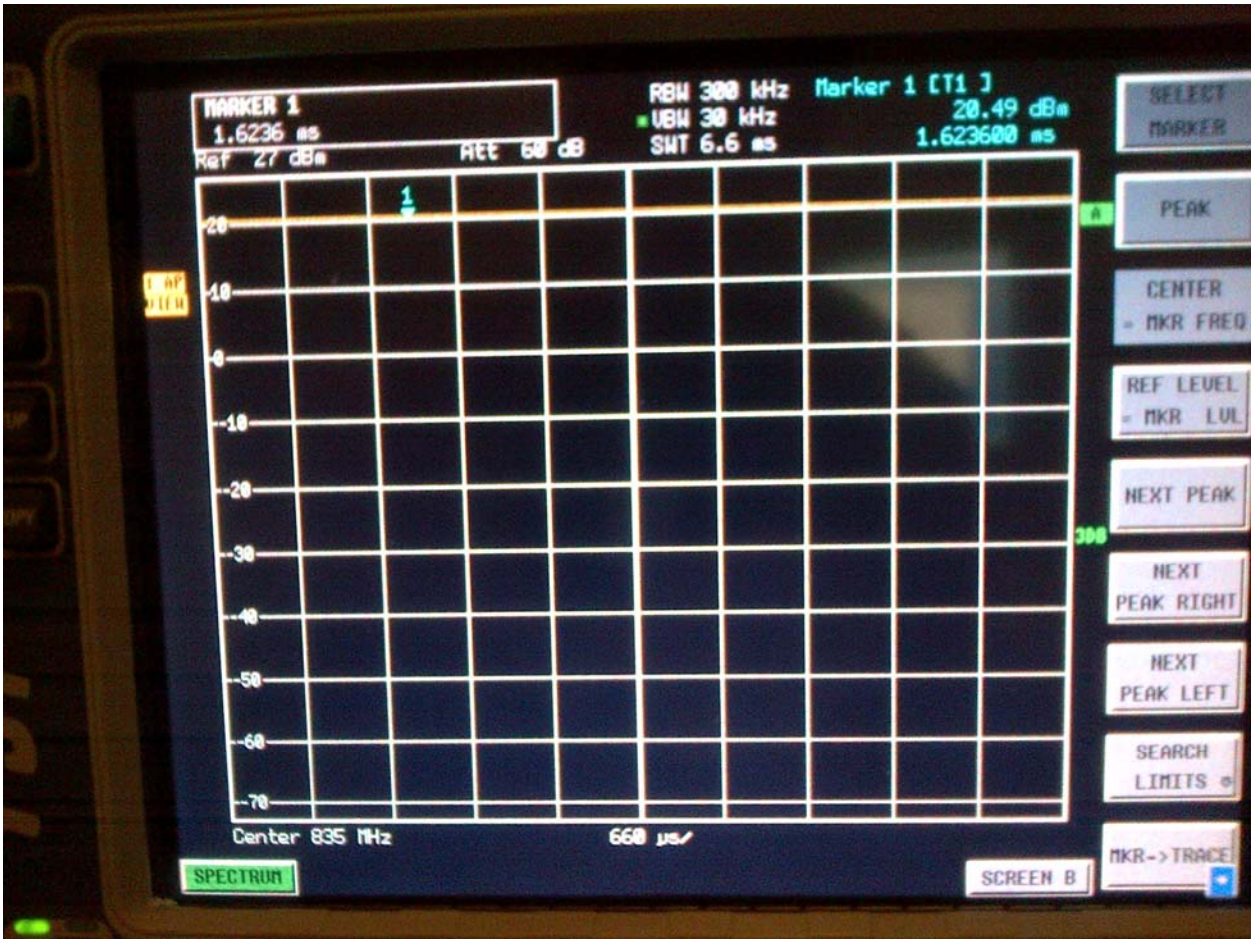
Annex A: Measurement data and plots

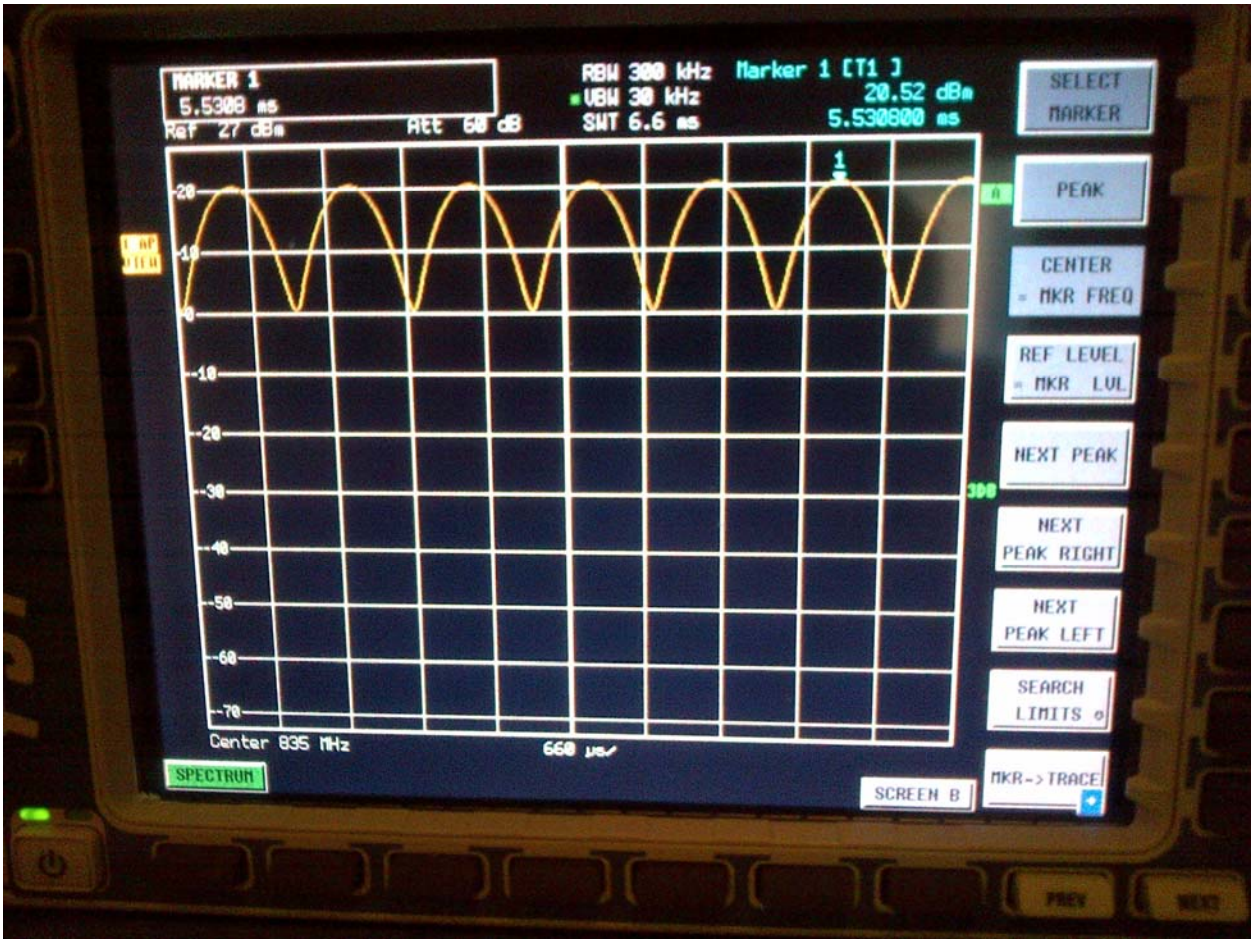
A.1 Spectrum analyser plots: GSM/UMTS, CW, 80%AM, signals



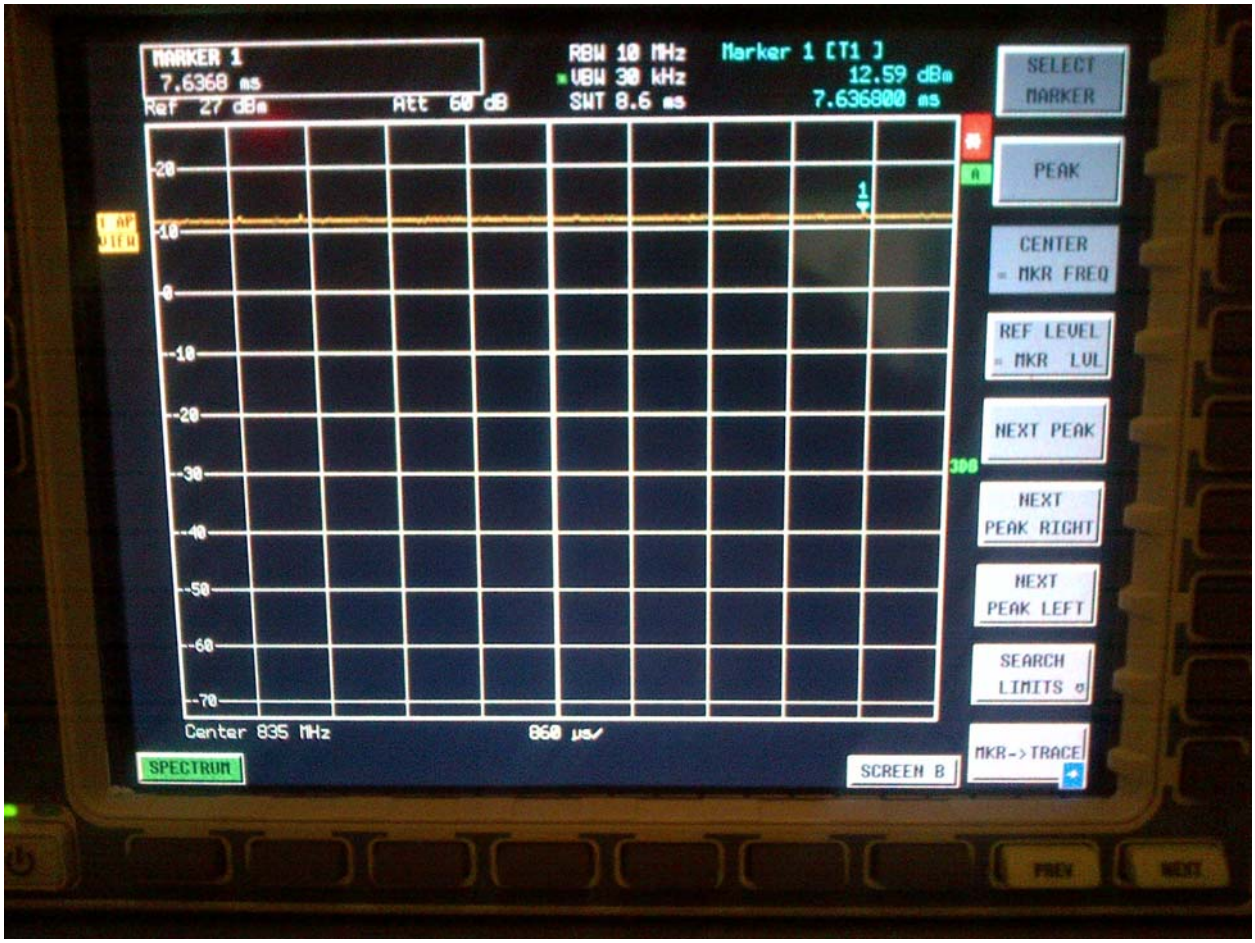
GSM 835 MHz



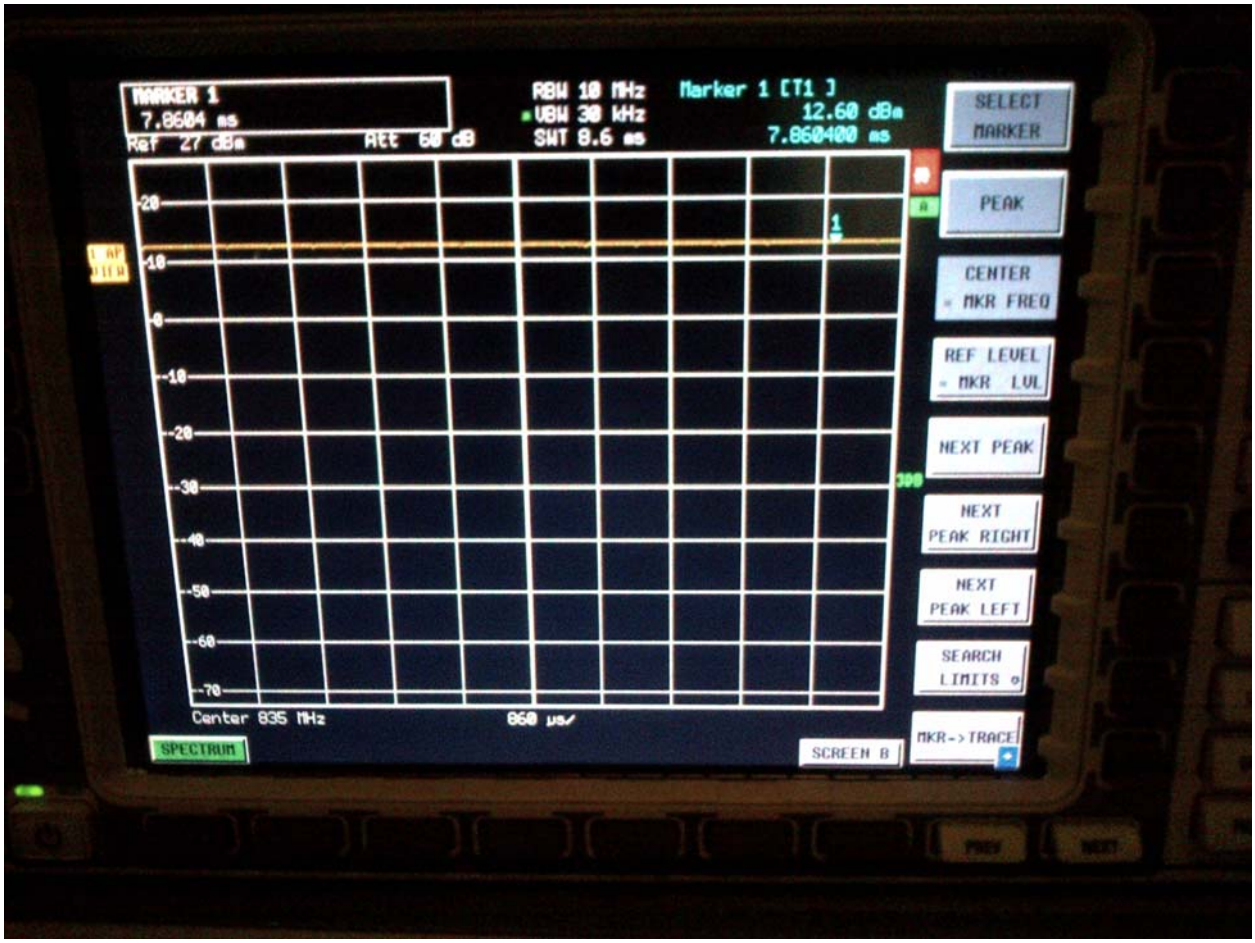
CW 835 MHz



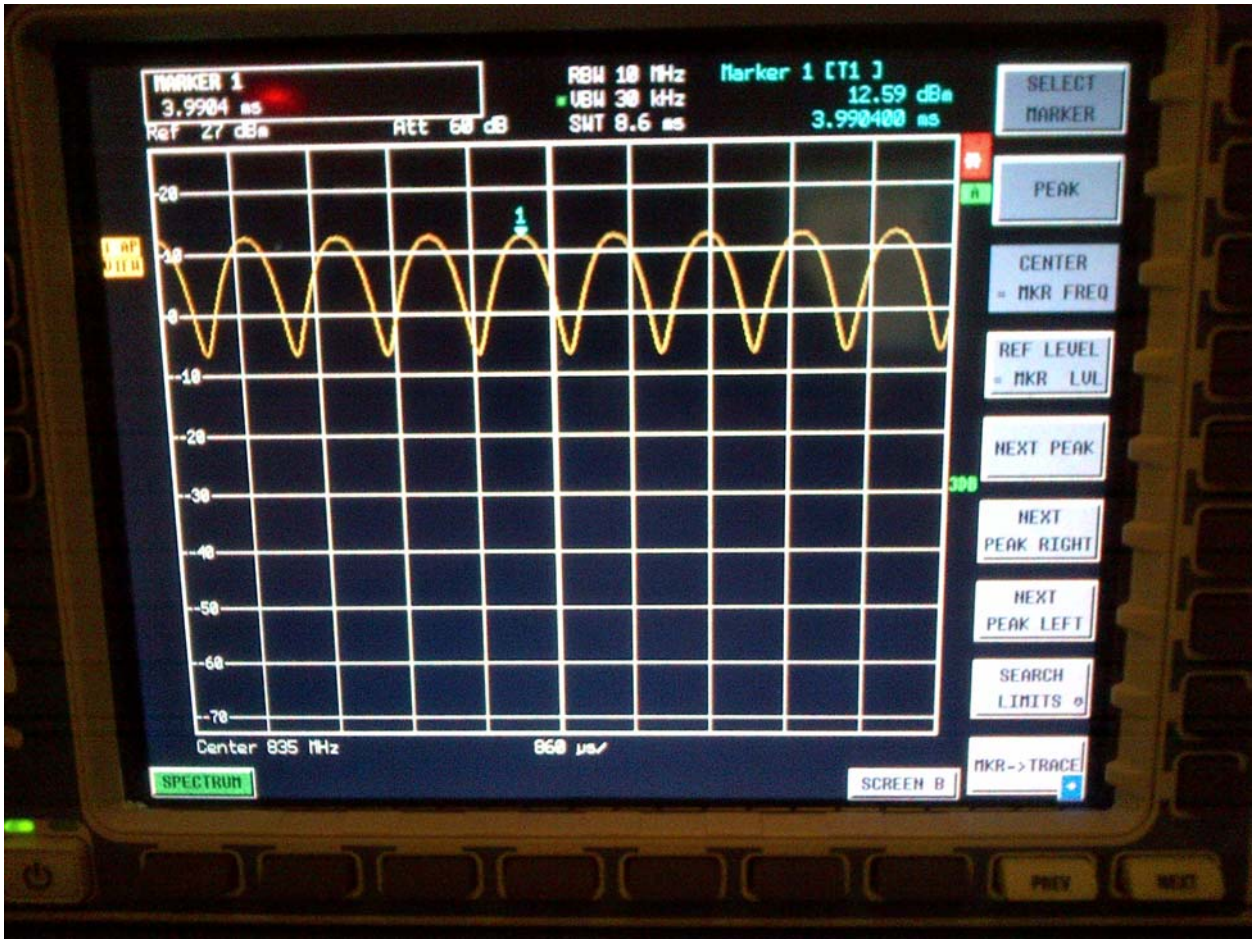
AM 80% 835 MHz



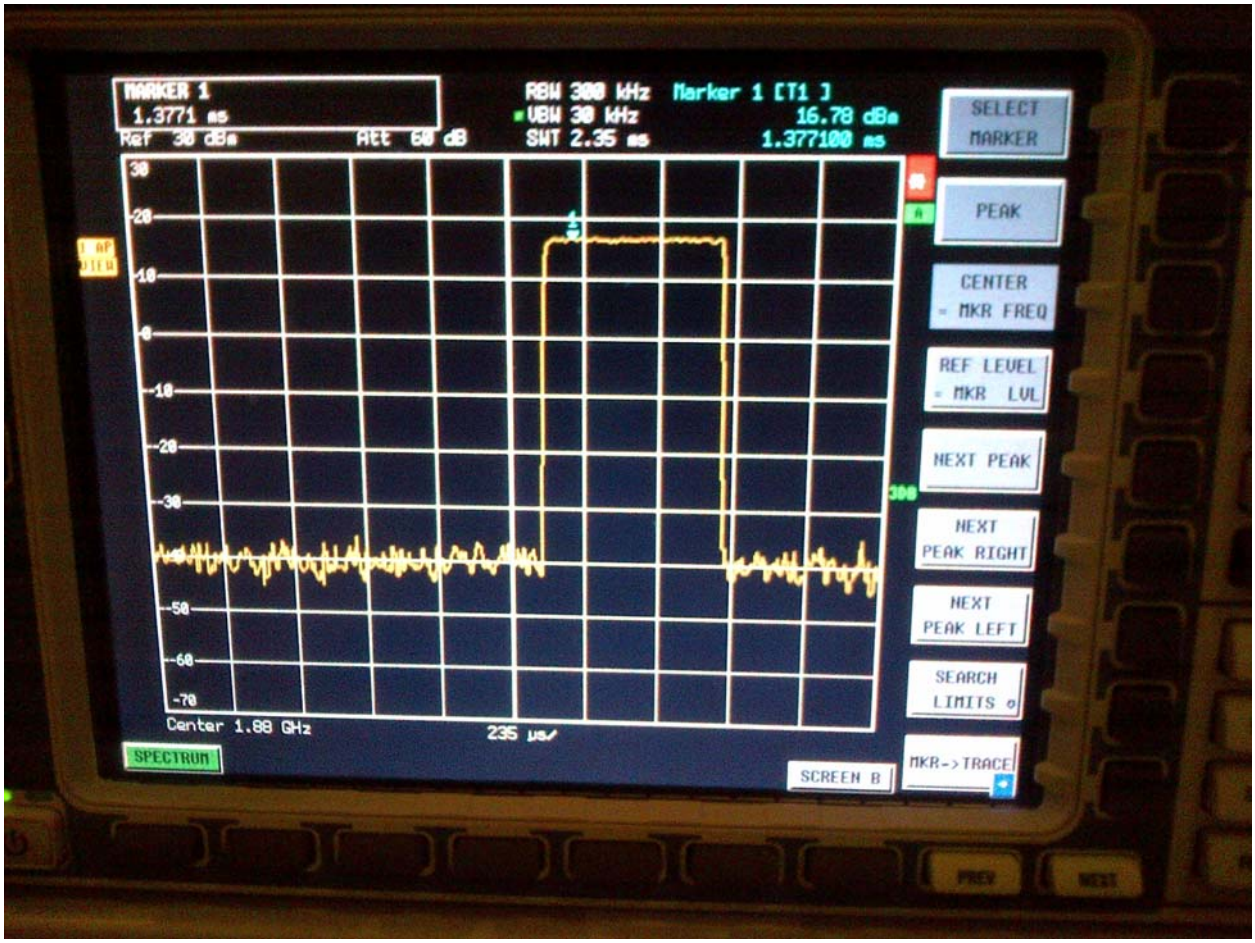
UMTS 835 MHz



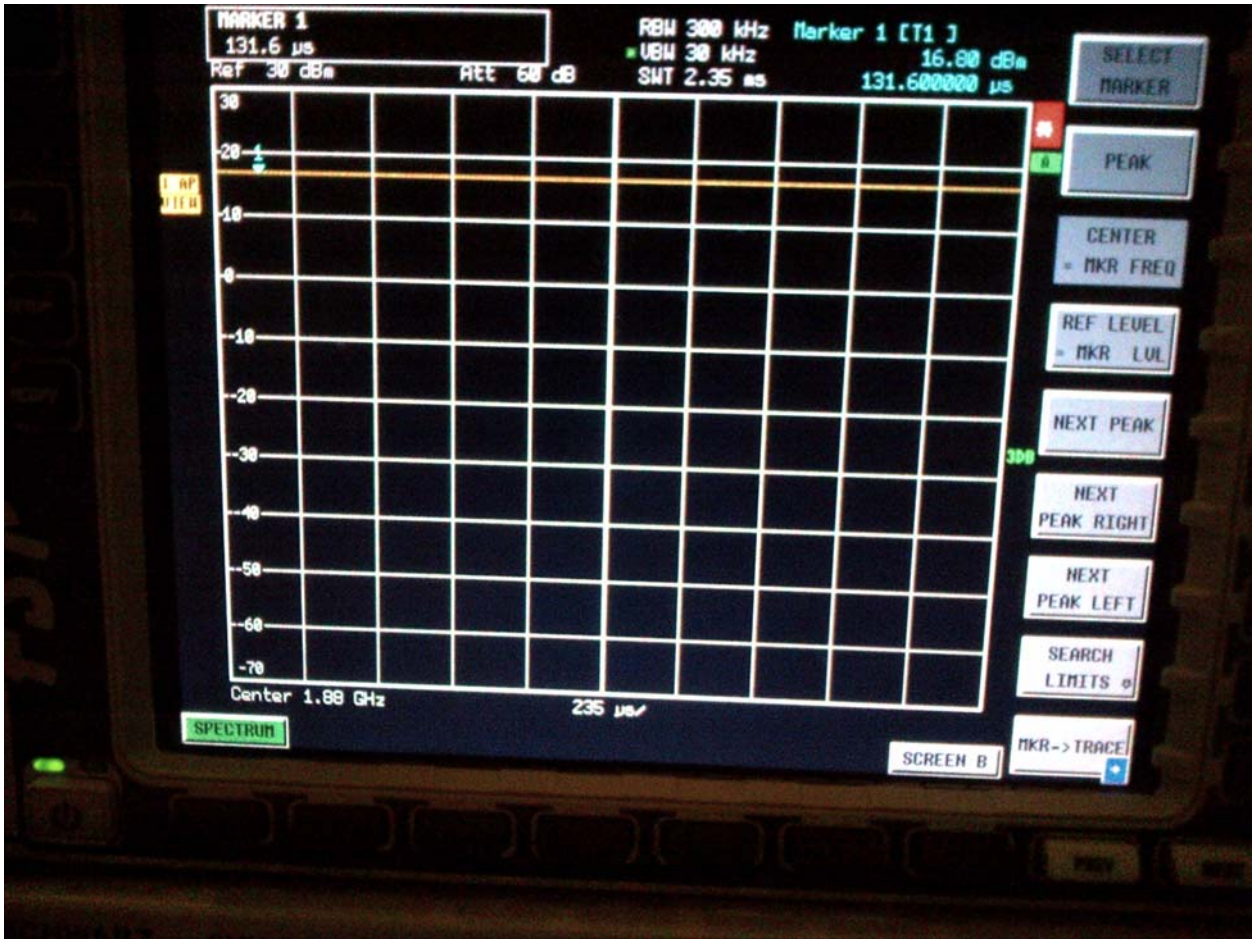
CW 835 MHz



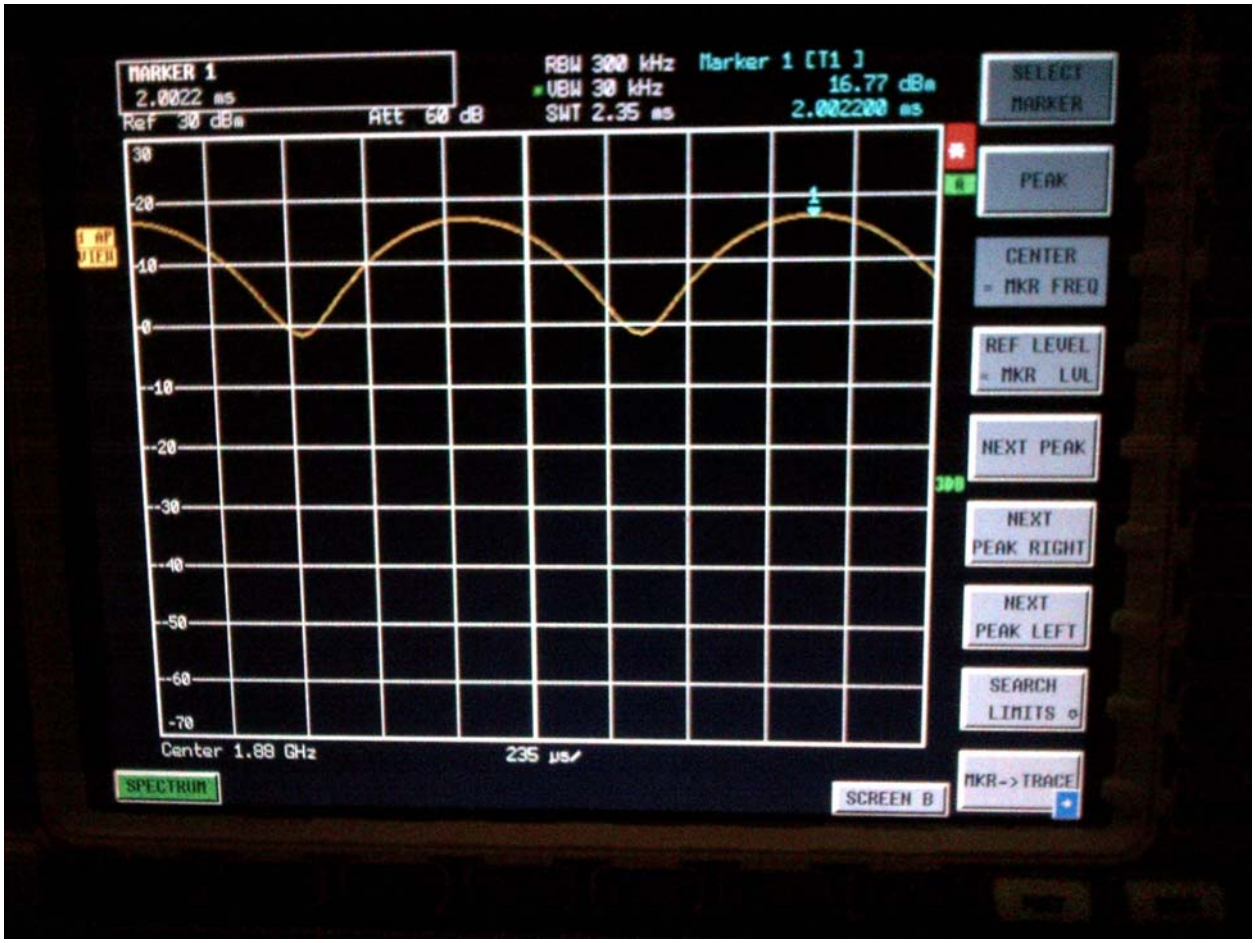
AM 80% 835 MHz



GSM 1880 MHz



CW 1880 MHz



AM 80 % 1880 MHz

A.2 Dipole validation and probe modulation factor plots

Date/Time: 11/8/2012 2:02:55 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_validation_835 MHz_11_08_12

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 1011

Communication System: CW; Frequency: 835 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Dipole E-Field measurement/E Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1):

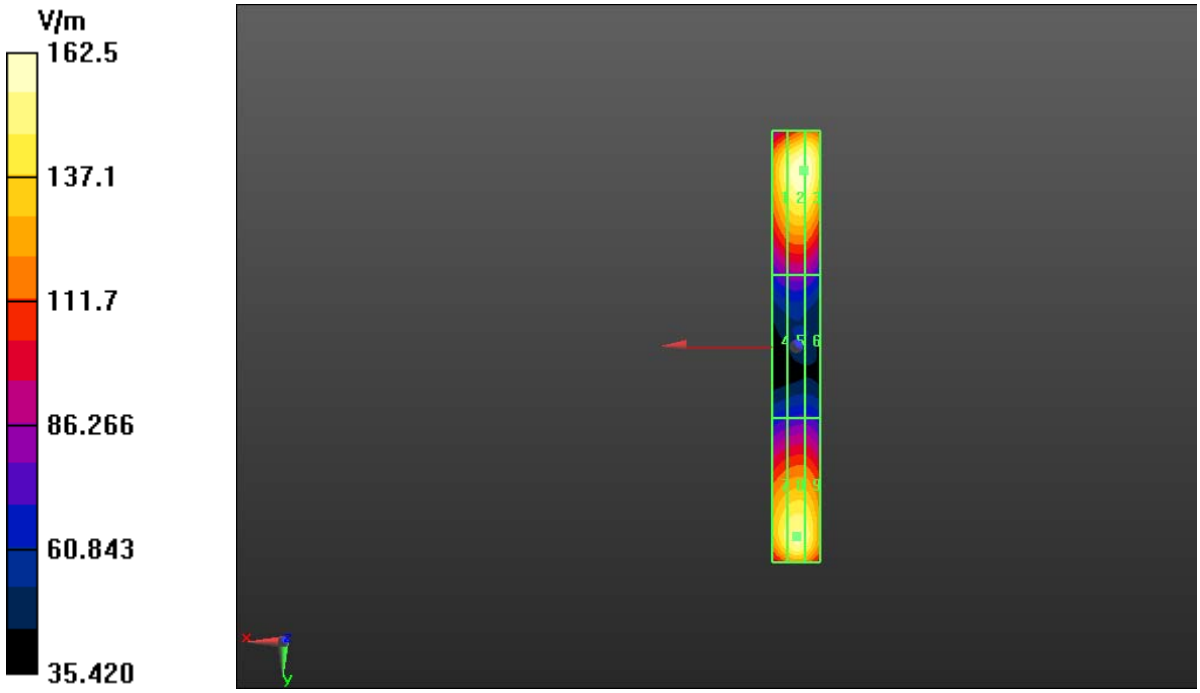
Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 103.2 V/m; Power Drift = -0.01 dB
PMR not calibrated. PMF = 1.000 is applied.
E-field emissions = 162.5 V/m
Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 **M4** **151.9 V/m**	Grid 2 **M4** **162.5 V/m**	Grid 3 **M4** **162.5 V/m**
Grid 4 **M4** **81.97 V/m**	Grid 5 **M4** **84.26 V/m**	Grid 6 **M4** **82.27 V/m**
Grid 7 **M4**	Grid 8 **M4**	Grid 9 **M4**

150.7 V/m	**156.4 V/m**	**152.6 V/m**

Cursor:
Total = 162.5 V/m
E Category: M4
Location: -3, -73.5, 4.7 mm



Date/Time: 9/28/2012 1:33:02 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_validation_835 MHz_09_28_12

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 1011

Communication System: CW; Frequency: 835 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Dipole E-Field measurement/E Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1):

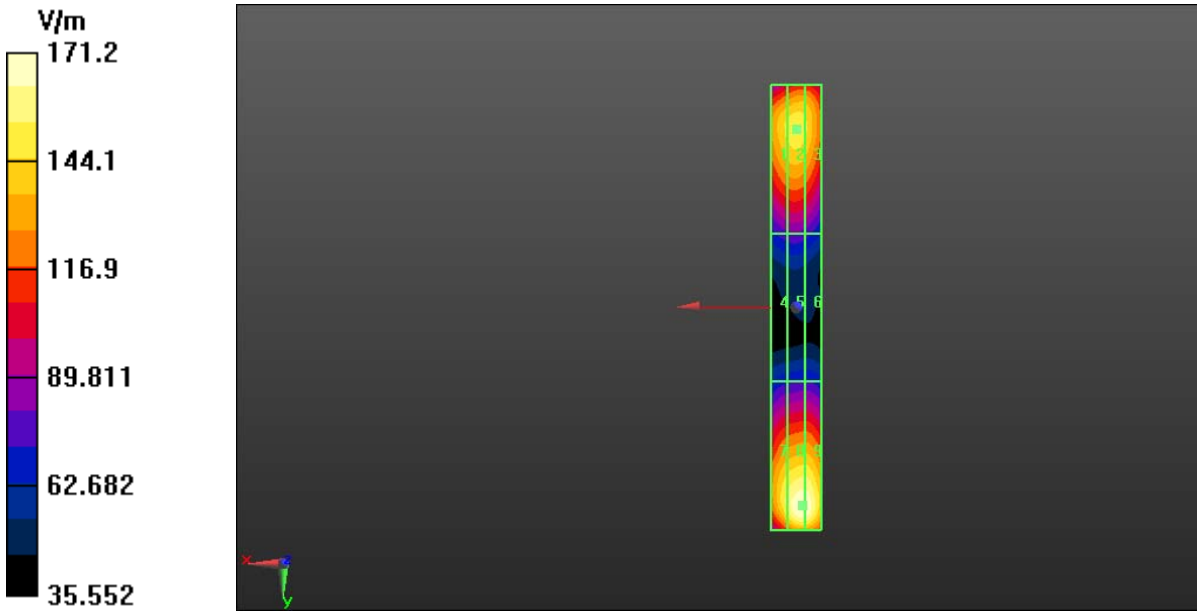
Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 104.4 V/m; Power Drift = 0.03 dB
PMR not calibrated. PMF = 1.000 is applied.
E-field emissions = 171.2 V/m
Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 **M4** **146.8 V/m**	Grid 2 **M4** **150.4 V/m**	Grid 3 **M4** **146.7 V/m**
Grid 4 **M4** **79.31 V/m**	Grid 5 **M4** **81.15 V/m**	Grid 6 **M4** **77.83 V/m**
Grid 7 **M4**	Grid 8 **M4**	Grid 9 **M4**

157.1 V/m	**171.2 V/m**	**170.7 V/m**

Cursor:
Total = 171.2 V/m
E Category: M4
Location: -2.5, 80, 4.7 mm



Date/Time: 6/28/2012 1:26:32 AM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_validation_835 MHz_06_28_12

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 1011

Communication System: CW; Frequency: 835 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

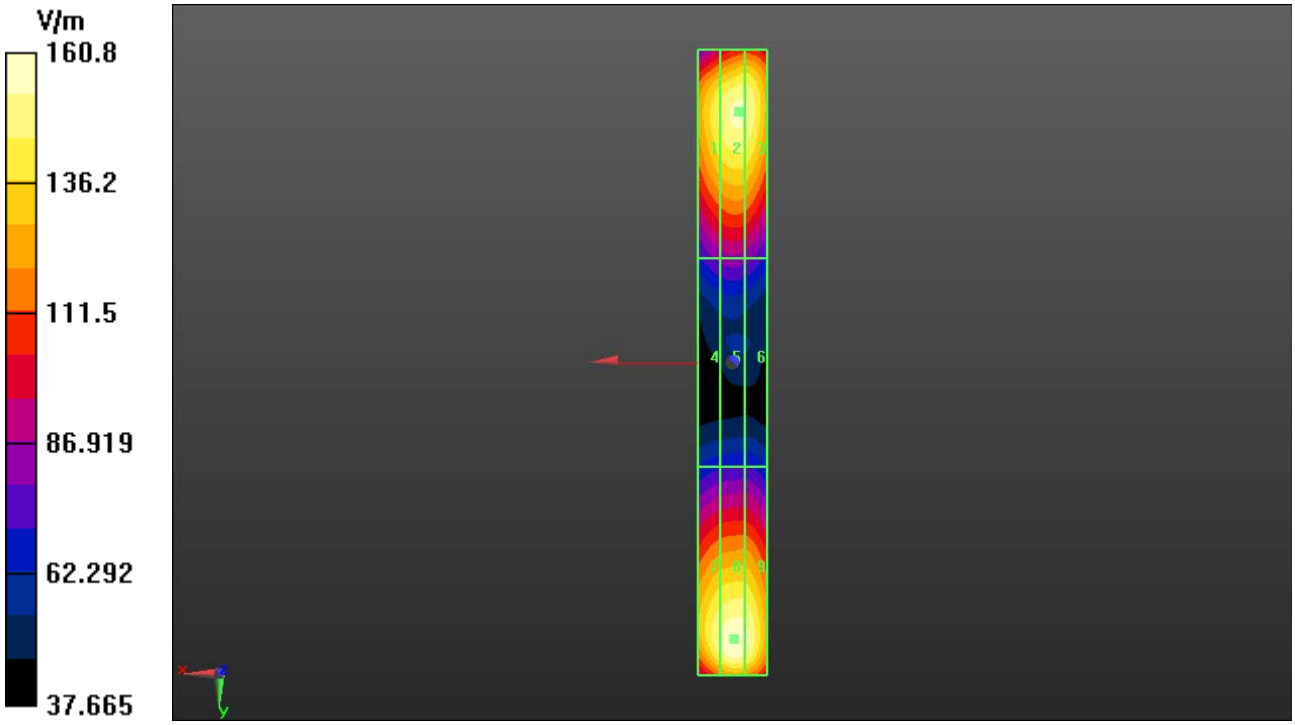
Dipole E-Field measurement/E Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1):

Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 102.0 V/m; Power Drift = -0.01 dB
PMR not calibrated. PMF = 1.000 is applied.
E-field emissions = 160.8 V/m
Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 **M4** **147.1 V/m**	Grid 2 **M4** **154.8 V/m**	Grid 3 **M4** **154.0 V/m**
Grid 4 **M4** **81.97 V/m**	Grid 5 **M4** **84.87 V/m**	Grid 6 **M4** **82.87 V/m**
Grid 7 **M4** **153.8 V/m**	Grid 8 **M4** **160.8 V/m**	Grid 9 **M4** **157.7 V/m**

Cursor:
Total = 160.8 V/m
E Category: M4
Location: -0.5, 79.5, 4.7 mm



Date/Time: 6/28/2012 1:13:34 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_GSM835 MHz_06_28_12

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 1011

Communication System: GSM 835_PMF, Communication System: CW, Communication System: AM 80%; Frequency: 835 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Dipole E-Field measurement/E Scan - GSM 835_PMF/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 34.76 V/m; Power Drift = -0.00 dB
PMR not calibrated. PMF = 1.000 is applied.
E-field emissions = 54.25 V/m
Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 **M4** **49.26 V/m**	Grid 2 **M4** **51.48 V/m**	Grid 3 **M4** **51.48 V/m**
Grid 4 **M4** **27.95 V/m**	Grid 5 **M4** **28.56 V/m**	Grid 6 **M4** **28.13 V/m**
Grid 7 **M4** **51.48 V/m**	Grid 8 **M4** **54.25 V/m**	Grid 9 **M4** **53.95 V/m**

Cursor:
Total = 54.247 V/m
E Category: M4
Location: -2.5, 80.5, 4.7 mm

Dipole E-Field measurement/E Scan - CW 835_PMF/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm
Reference Value = 103.0 V/m; Power Drift = -0.02 dB
PMR not calibrated. PMF = 1.000 is applied.
E-field emissions = 162.8 V/m
Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 **M4** **148.5 V/m**	Grid 2 **M4** **160.5 V/m**	Grid 3 **M4** **160.4 V/m**
Grid 4 **M4** **82.74 V/m**	Grid 5 **M4** **86.24 V/m**	Grid 6 **M4** **84.62 V/m**
Grid 7 **M4** **158.1 V/m**	Grid 8 **M4** **162.8 V/m**	Grid 9 **M4** **155.2 V/m**

Cursor:
Total = 162.8 V/m
E Category: M4
Location: 0.5, 79.5, 4.7 mm

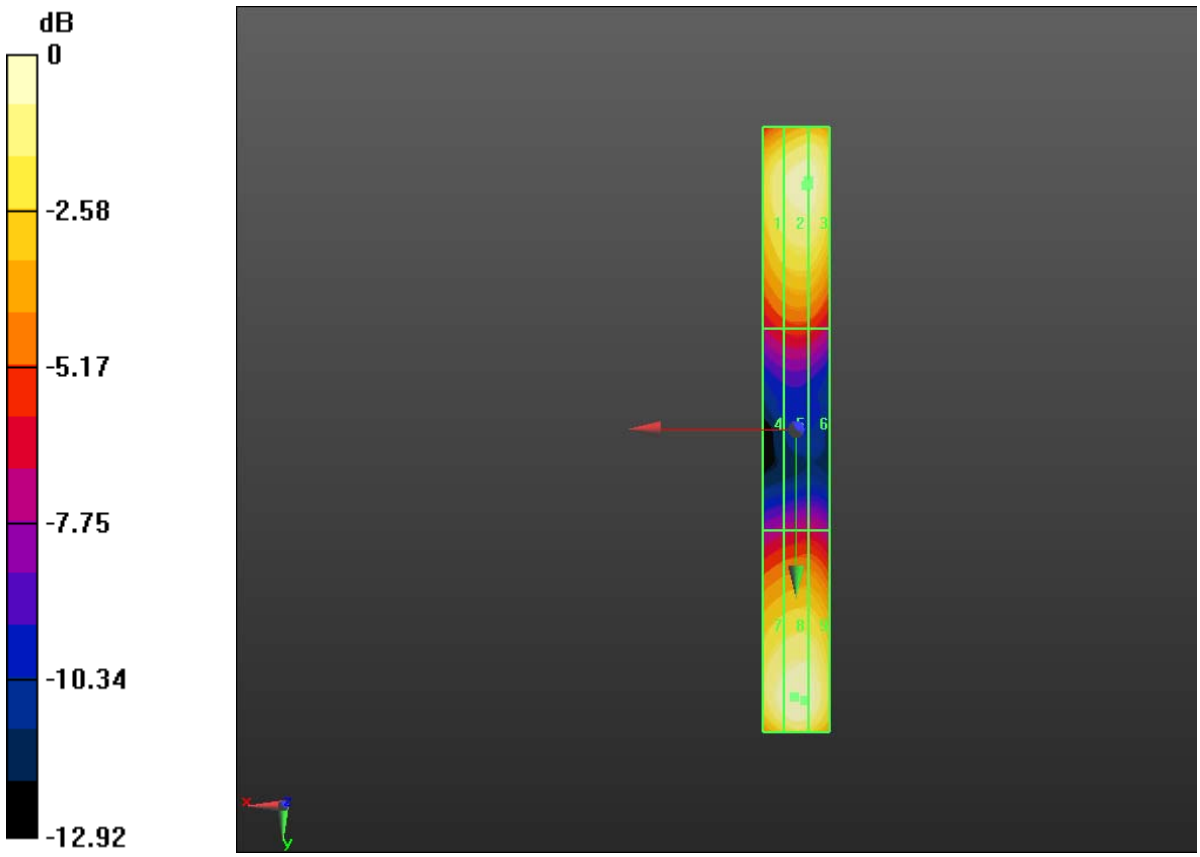
Dipole E-Field measurement/E Scan - AM80%_ 835_PMF/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm
Reference Value = 64.73 V/m; Power Drift = 0.02 dB
PMR not calibrated. PMF = 1.000 is applied.
E-field emissions = 102.0 V/m
Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 **M4** **93.30 V/m**	Grid 2 **M4** **100.3 V/m**	Grid 3 **M4** **100.3 V/m**
Grid 4 **M4** **52.75 V/m**	Grid 5 **M4** **54.62 V/m**	Grid 6 **M4** **53.83 V/m**
Grid 7 **M4** **99.38 V/m**	Grid 8 **M4** **102.0 V/m**	Grid 9 **M4** **97.92 V/m**

Cursor:
Total = 102.0 V/m
E Category: M4
Location: 0.5, 79.5, 4.7 mm



0 dB = 54.250V/m = 34.69 dB V/m

Date/Time: 2/17/2012 12:24:15 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_UMTS835 MHz_02_17_12

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 1011

Communication System: WCDMA FDD V, Communication System: CW, Communication System: AM 80%; Frequency: 835 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Dipole E-Field measurement/E Scan - UMTS 835_PMF/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 41.08 V/m; Power Drift = 0.03 dB
PMR not calibrated. PMF = 1.000 is applied.
E-field emissions = 64.41 V/m
Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 **M4** **53.11 V/m**	Grid 2 **M4** **55.59 V/m**	Grid 3 **M4** **55.40 V/m**
Grid 4 **M4** **29.72 V/m**	Grid 5 **M4** **30.66 V/m**	Grid 6 **M4** **29.79 V/m**
Grid 7 **M4** **61.55 V/m**	Grid 8 **M4** **64.41 V/m**	Grid 9 **M4** **63.22 V/m**

Cursor:
Total = 64.412 V/m
E Category: M4
Location: -0.5, 79, 4.7 mm

Dipole E-Field measurement/E Scan - CW 835_PMF/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm
Reference Value = 43.11 V/m; Power Drift = -0.14 dB
PMR not calibrated. PMF = 1.000 is applied.
E-field emissions = 68.64 V/m
Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 **M4** **58.55 V/m**	Grid 2 **M4** **59.20 V/m**	Grid 3 **M4** **57.13 V/m**
Grid 4 **M4** **32.35 V/m**	Grid 5 **M4** **32.63 V/m**	Grid 6 **M4** **31.24 V/m**
Grid 7 **M4** **61.85 V/m**	Grid 8 **M4** **68.64 V/m**	Grid 9 **M4** **68.56 V/m**

Cursor:
Total = 68.635 V/m
E Category: M4
Location: -3, 79.5, 4.7 mm

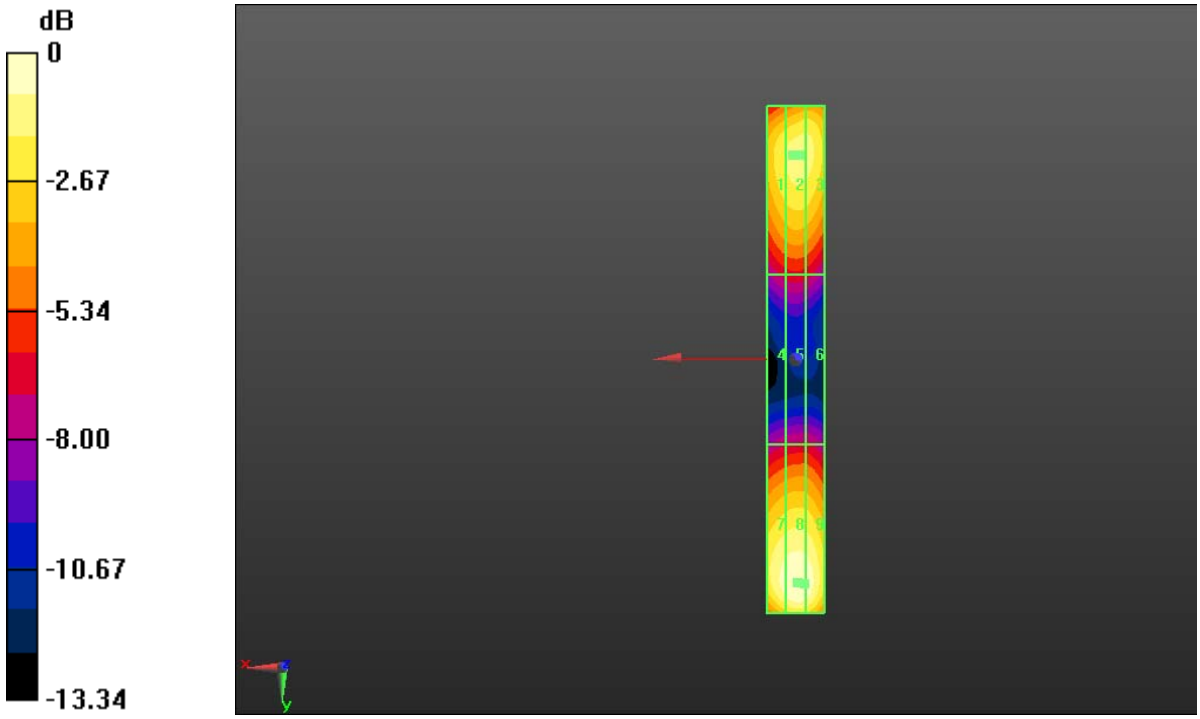
Dipole E-Field measurement/E Scan - AM80%_ 835_PMF/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm
Reference Value = 28.41 V/m; Power Drift = 0.09 dB
PMR not calibrated. PMF = 1.000 is applied.
E-field emissions = 45.21 V/m
Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 **M4** **38.28 V/m**	Grid 2 **M4** **38.73 V/m**	Grid 3 **M4** **37.25 V/m**
Grid 4 **M4** **21.72 V/m**	Grid 5 **M4** **21.89 V/m**	Grid 6 **M4** **20.80 V/m**
Grid 7 **M4** **40.90 V/m**	Grid 8 **M4** **45.21 V/m**	Grid 9 **M4** **45.16 V/m**

Cursor:
Total = 45.209 V/m
E Category: M4
Location: -3, 79.5, 4.7 mm



0 dB = 64.410V/m = 36.18 dB V/m

Date/Time: 11/8/2012 2:54:18 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_validation_1880 MHz_11_08_12

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 1008

Communication System: CW; Frequency: 1880 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

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

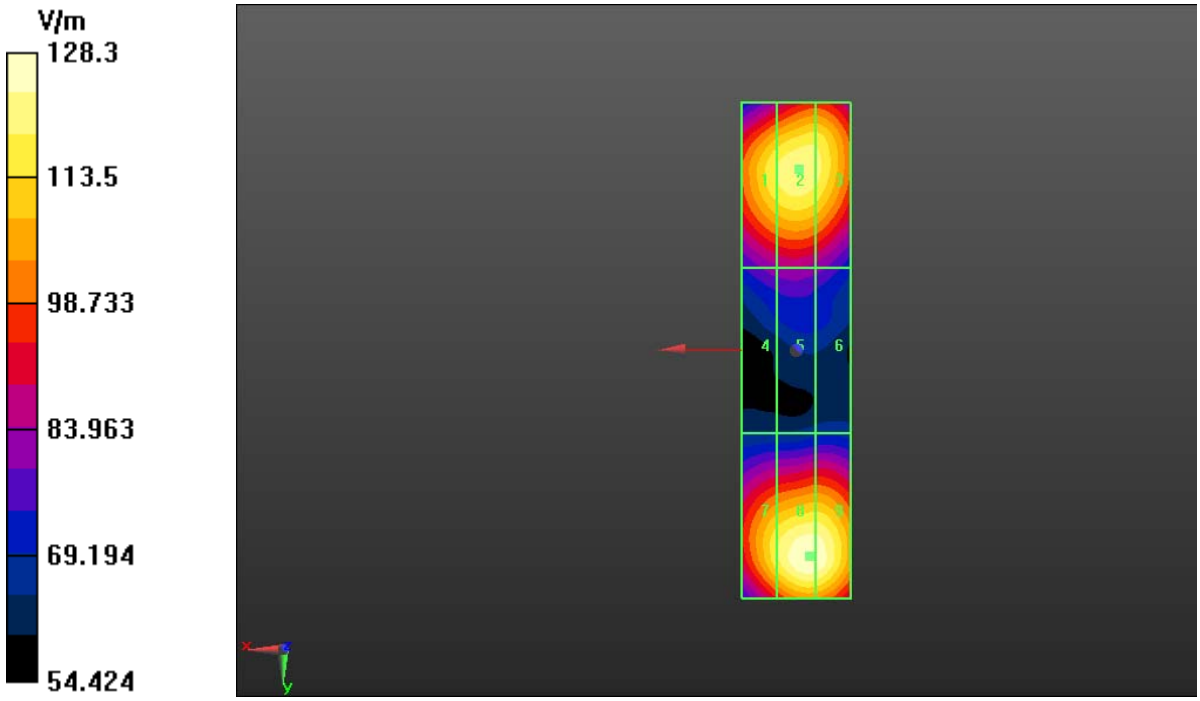
Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 140.0 V/m; Power Drift = -0.02 dB
PMR not calibrated. PMF = 1.000 is applied.
E-field emissions = 128.3 V/m
Near-field category: M2 (AWF 0 dB)

PMF scaled E-field

Grid 1 **M2** **118.9 V/m**	Grid 2 **M2** **122.5 V/m**	Grid 3 **M2** **120.7 V/m**
Grid 4 **M3** **82.75 V/m**	Grid 5 **M3** **84.54 V/m**	Grid 6 **M3** **81.78 V/m**
Grid 7 **M2**	Grid 8 **M2**	Grid 9 **M2**

118.1 V/m	**128.3 V/m**	**127.8 V/m**

Cursor:
Total = 128.3 V/m
E Category: M2
Location: -2.5, 37.5, 4.7 mm



Date/Time: 9/28/2012 2:29:40 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_validation_1880 MHz_09_28_12

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 1008

Communication System: CW; Frequency: 1880 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

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

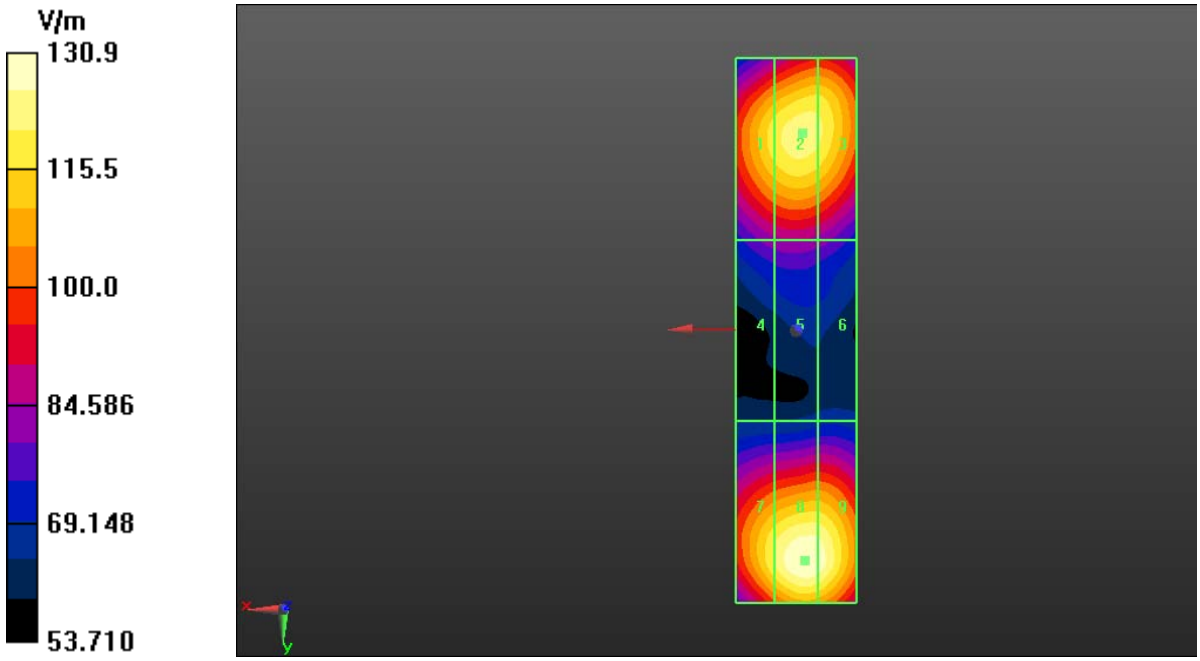
Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 144.8 V/m; Power Drift = 0.04 dB
PMR not calibrated. PMF = 1.000 is applied.
E-field emissions = 130.9 V/m
Near-field category: M2 (AWF 0 dB)

PMF scaled E-field

Grid 1 **M2** **118.8 V/m**	Grid 2 **M2** **123.6 V/m**	Grid 3 **M2** **122.2 V/m**
Grid 4 **M3** **83.54 V/m**	Grid 5 **M3** **85.60 V/m**	Grid 6 **M3** **83.07 V/m**
Grid 7 **M2**	Grid 8 **M2**	Grid 9 **M2**

121.7 V/m	**130.9 V/m**	**129.4 V/m**

Cursor:
Total = 130.9 V/m
E Category: M2
Location: -1.5, 38, 4.7 mm



Date/Time: 6/28/2012 1:54:39 AM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_validation_1880 MHz_06_28_12

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 1008

Communication System: CW; Frequency: 1880 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

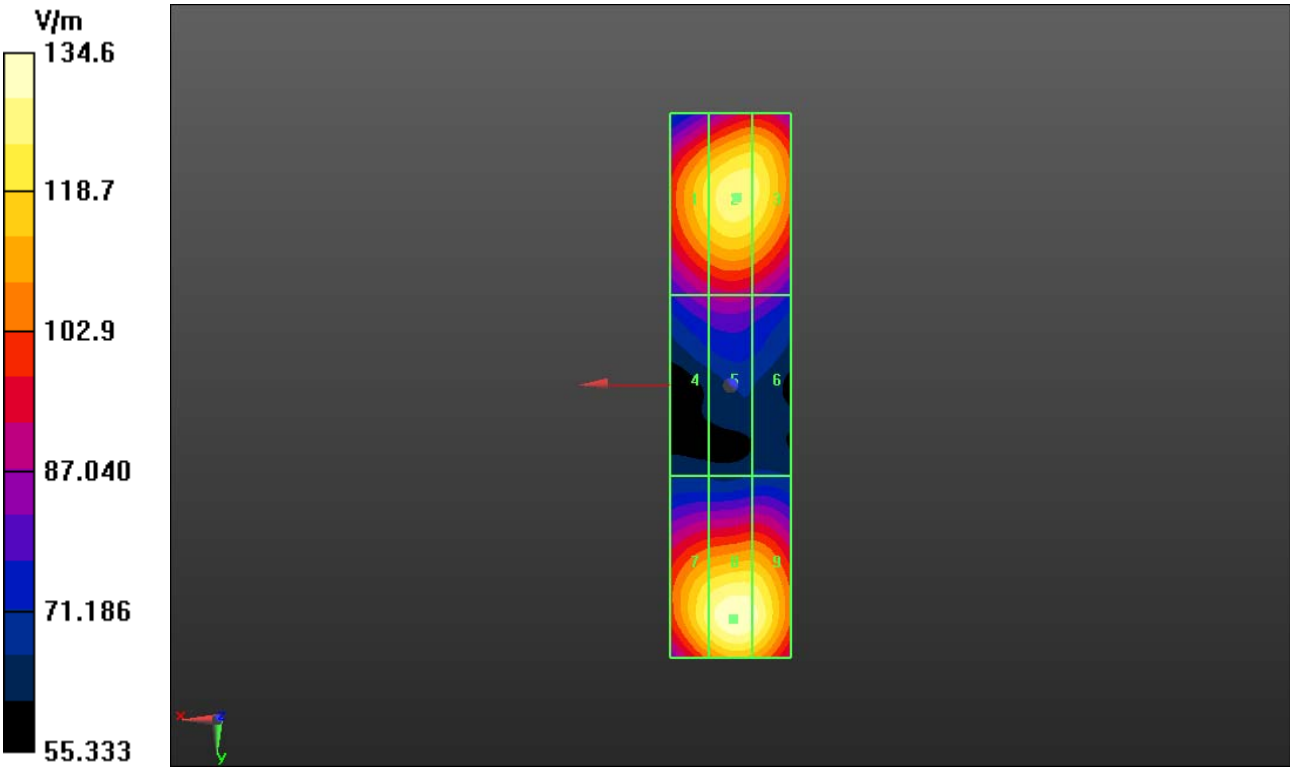
Dipole E-Field measurement/E Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1):

Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 152.6 V/m; Power Drift = -0.04 dB
PMR not calibrated. PMF = 1.000 is applied.
E-field emissions = 134.6 V/m
Near-field category: M2 (AWF 0 dB)

PMF scaled E-field

Grid 1 **M2** **122.0 V/m**	Grid 2 **M2** **127.9 V/m**	Grid 3 **M2** **126.5 V/m**
Grid 4 **M3** **88.18 V/m**	Grid 5 **M3** **91.05 V/m**	Grid 6 **M3** **88.28 V/m**
Grid 7 **M2** **127.2 V/m**	Grid 8 **M2** **134.6 V/m**	Grid 9 **M2** **132.1 V/m**

Cursor:
Total = 134.6 V/m
E Category: M2
Location: -0.5, 38.5, 4.7 mm



Date/Time: 6/28/2012 12:54:33 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_GSM1880 MHz_06_28_12

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 1008

Communication System: GSM 1880, Communication System: CW, Communication System: AM 80%; Frequency: 1880 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Dipole E-Field measurement/E Scan - GSM 1880_PMF/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 33.26 V/m; Power Drift = 0.00 dB
PMR not calibrated. PMF = 1.000 is applied.
E-field emissions = 29.81 V/m
Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 **M4** **27.34 V/m**	Grid 2 **M4** **28.65 V/m**	Grid 3 **M4** **28.59 V/m**
Grid 4 **M4** **19.83 V/m**	Grid 5 **M4** **20.51 V/m**	Grid 6 **M4** **20.10 V/m**
Grid 7 **M4** **28.20 V/m**	Grid 8 **M4** **29.81 V/m**	Grid 9 **M4** **29.37 V/m**

Cursor:
Total = 29.810 V/m
E Category: M4
Location: -1, 38.5, 4.7 mm

Dipole E-Field measurement/E Scan- CW 1800_PMF/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm
Reference Value = 95.34 V/m; Power Drift = 0.01 dB
PMR not calibrated. PMF = 1.000 is applied.
E-field emissions = 84.88 V/m
Near-field category: M3 (AWF 0 dB)

PMF scaled E-field

Grid 1 **M3** **78.80 V/m**	Grid 2 **M3** **82.95 V/m**	Grid 3 **M3** **82.43 V/m**
Grid 4 **M4** **56.84 V/m**	Grid 5 **M4** **58.53 V/m**	Grid 6 **M4** **56.53 V/m**
Grid 7 **M3** **80.11 V/m**	Grid 8 **M3** **84.88 V/m**	Grid 9 **M3** **83.31 V/m**

Cursor:
Total = 84.885 V/m
E Category: M3
Location: -0.5, 38.5, 4.7 mm

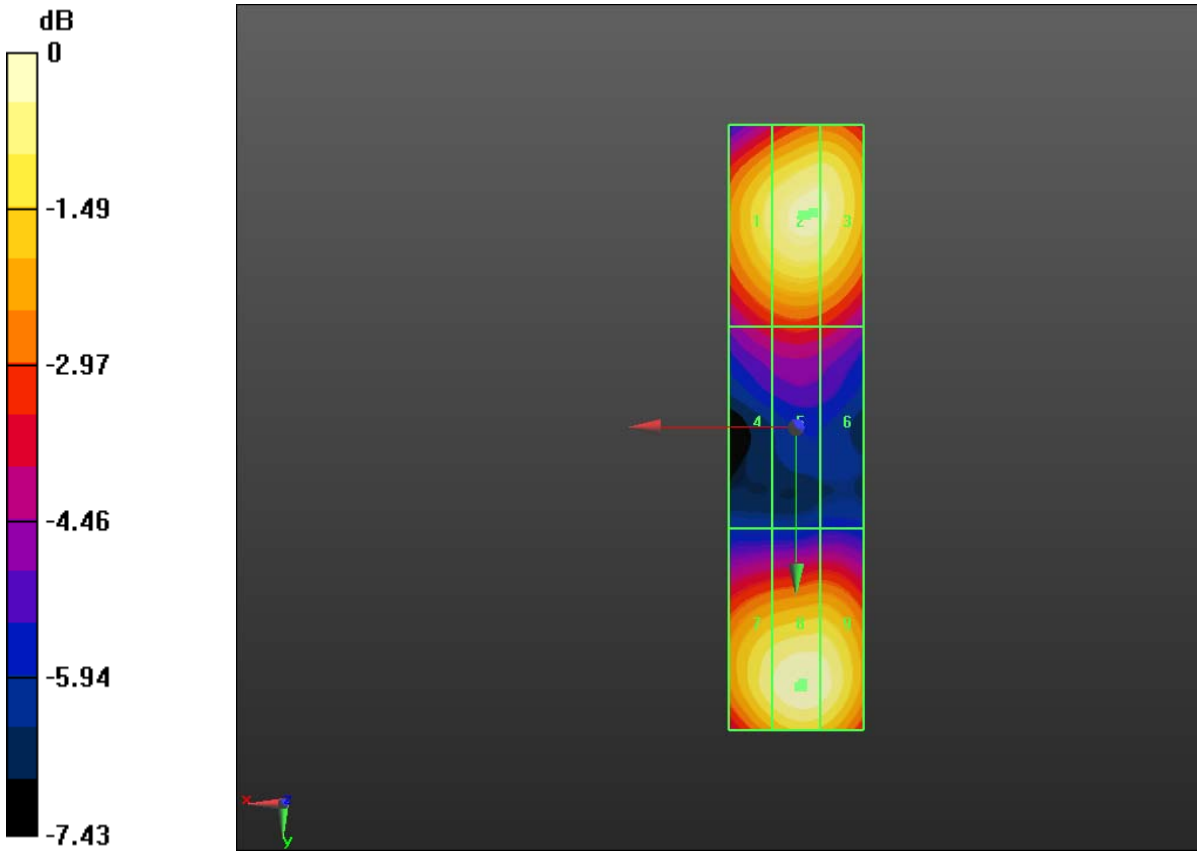
Dipole E-Field measurement/E Scan - AM80%_ 1880_PMF/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm
Reference Value = 60.62 V/m; Power Drift = -0.03 dB
PMR not calibrated. PMF = 1.000 is applied.
E-field emissions = 53.60 V/m
Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 **M4** **49.75 V/m**	Grid 2 **M4** **52.55 V/m**	Grid 3 **M4** **52.06 V/m**
Grid 4 **M4** **35.78 V/m**	Grid 5 **M4** **36.92 V/m**	Grid 6 **M4** **36.02 V/m**
Grid 7 **M4** **50.66 V/m**	Grid 8 **M4** **53.60 V/m**	Grid 9 **M4** **52.63 V/m**

Cursor:
Total = 53.599 V/m
E Category: M4
Location: -1, 38, 4.7 mm



0 dB = 29.810V/m = 29.49 dB V/m

Date/Time: 11/8/2012 4:04:42 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_validation_835 MHz_11_08_12

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 1011

Communication System: CW; Frequency: 835 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/9/2012
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

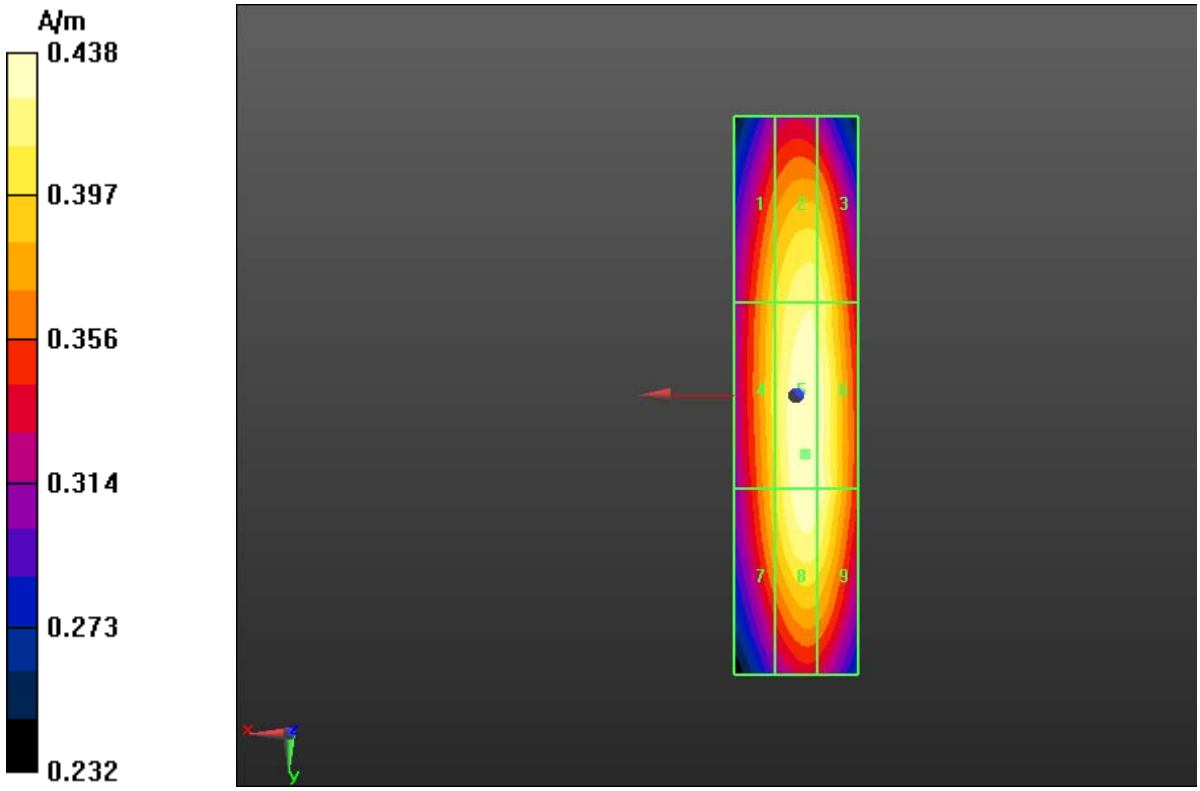
Dipole H-Field measurement with H3DV6 probe/H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.46 V/m; Power Drift = -0.00 dB
PMR not calibrated. PMF = 1.000 is applied.
H-field emissions = 0.44 A/m
Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M4** **0.40 A/m**	Grid 2 **M4** **0.42 A/m**	Grid 3 **M4** **0.42 A/m**
Grid 4 **M4** **0.40 A/m**	Grid 5 **M4** **0.44 A/m**	Grid 6 **M4** **0.43 A/m**
Grid 7 **M4**	Grid 8 **M4**	Grid 9 **M4**

0.40 A/m	**0.44 A/m**	**0.43 A/m**

Cursor:
Total = 0.438 A/m
H Category: M4
Location: -1.5, 9.5, 4.7 mm



Date/Time: 9/28/2012 3:00:56 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_validation_835 MHz_09_28_12

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 1011

Communication System: CW; Frequency: 835 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/8/2011
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

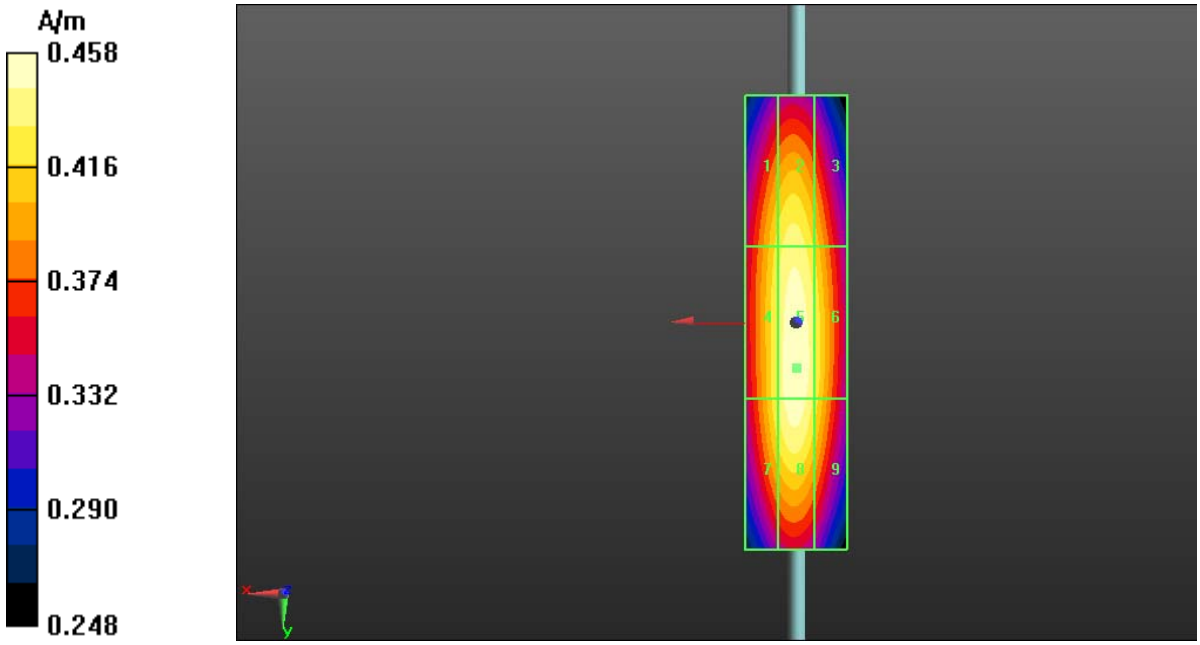
Dipole H-Field measurement with H3DV6 probe/H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.49 V/m; Power Drift = 0.10 dB
PMR not calibrated. PMF = 1.000 is applied.
H-field emissions = 0.46 A/m
Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M4** **0.42 A/m**	Grid 2 **M4** **0.44 A/m**	Grid 3 **M4** **0.42 A/m**
Grid 4 **M4** **0.44 A/m**	Grid 5 **M4** **0.46 A/m**	Grid 6 **M4** **0.43 A/m**
Grid 7 **M4**	Grid 8 **M4**	Grid 9 **M4**

0.43 A/m	**0.45 A/m**	**0.43 A/m**

Cursor:
Total = 0.458 A/m
H Category: M4
Location: 0, 9, 4.7 mm



Date/Time: 6/28/2012 2:59:51 AM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_validation_835 MHz_06_28_12

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 1011

Communication System: CW; Frequency: 835 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/8/2011
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

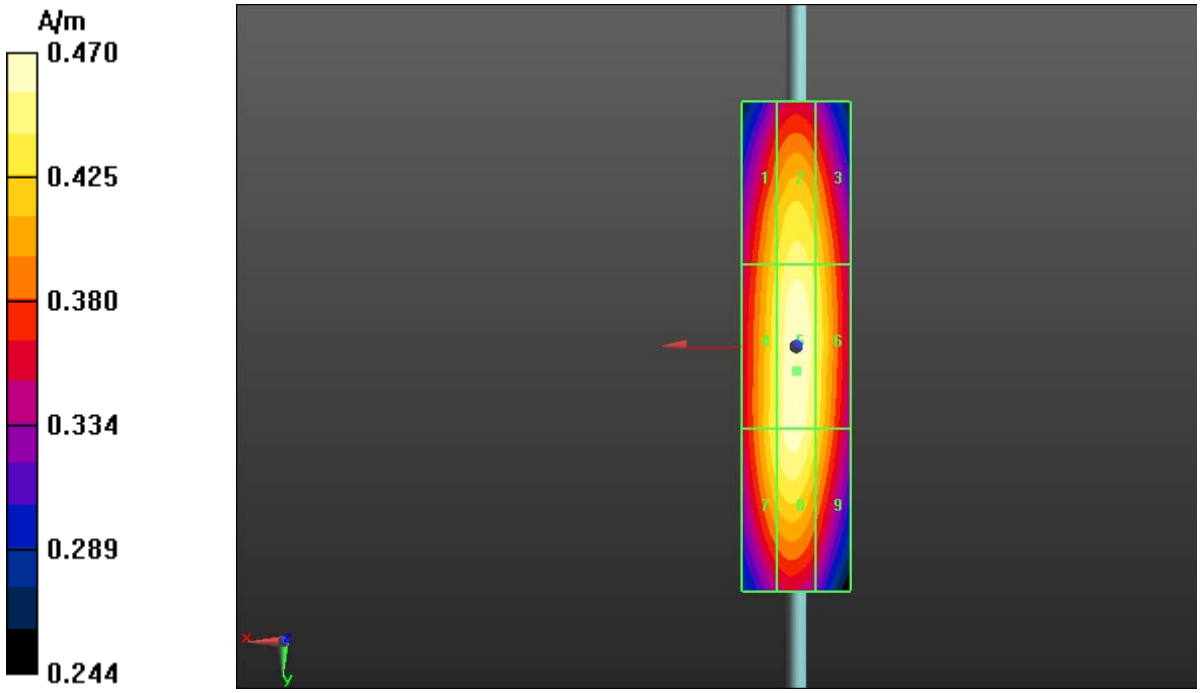
Dipole H-Field measurement with H3DV6 probe/H Scan - measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.50 V/m; Power Drift = 0.10 dB
PMR not calibrated. PMF = 1.000 is applied.
H-field emissions = 0.47 A/m
Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M4** **0.43 A/m**	Grid 2 **M4** **0.45 A/m**	Grid 3 **M4** **0.43 A/m**
Grid 4 **M4** **0.45 A/m**	Grid 5 **M4** **0.47 A/m**	Grid 6 **M4** **0.45 A/m**
Grid 7 **M4**	Grid 8 **M4**	Grid 9 **M4**

0.44 A/m	**0.46 A/m**	**0.43 A/m**

Cursor:
Total = 0.470 A/m
H Category: M4
Location: 0, 4.5, 4.7 mm



Date/Time: 6/28/2012 11:48:13 AM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_GSM835 MHz_06_28_12

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 1011

Communication System: GSM 835_PMF, Communication System: CW, Communication System: AM 80%; Frequency: 835 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/8/2011
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Dipole H-Field measurement with H3DV6 probe/H Scan - GSM 835_PMF/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.17 V/m; Power Drift = -0.01 dB
PMR not calibrated. PMF = 1.000 is applied.
H-field emissions = 0.16 A/m
Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M4** **0.15 A/m**	Grid 2 **M4** **0.16 A/m**	Grid 3 **M4** **0.15 A/m**
Grid 4 **M4** **0.16 A/m**	Grid 5 **M4** **0.16 A/m**	Grid 6 **M4** **0.16 A/m**
Grid 7 **M4** **0.15 A/m**	Grid 8 **M4** **0.16 A/m**	Grid 9 **M4** **0.15 A/m**

Cursor:
Total = 0.163 A/m
H Category: M4
Location: 0, 8.5, 4.7 mm

Dipole H-Field measurement with H3DV6 probe/H Scan - CW 835_PMF/Hearing Aid Compatibility Test (41x181x1):

Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.28 V/m; Power Drift = 0.08 dB
PMR not calibrated. PMF = 1.000 is applied.
H-field emissions = 0.47 A/m
Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M4** **0.44 A/m**	Grid 2 **M4** **0.46 A/m**	Grid 3 **M4** **0.44 A/m**
Grid 4 **M4** **0.45 A/m**	Grid 5 **M4** **0.47 A/m**	Grid 6 **M4** **0.45 A/m**
Grid 7 **M4** **0.45 A/m**	Grid 8 **M4** **0.47 A/m**	Grid 9 **M4** **0.44 A/m**

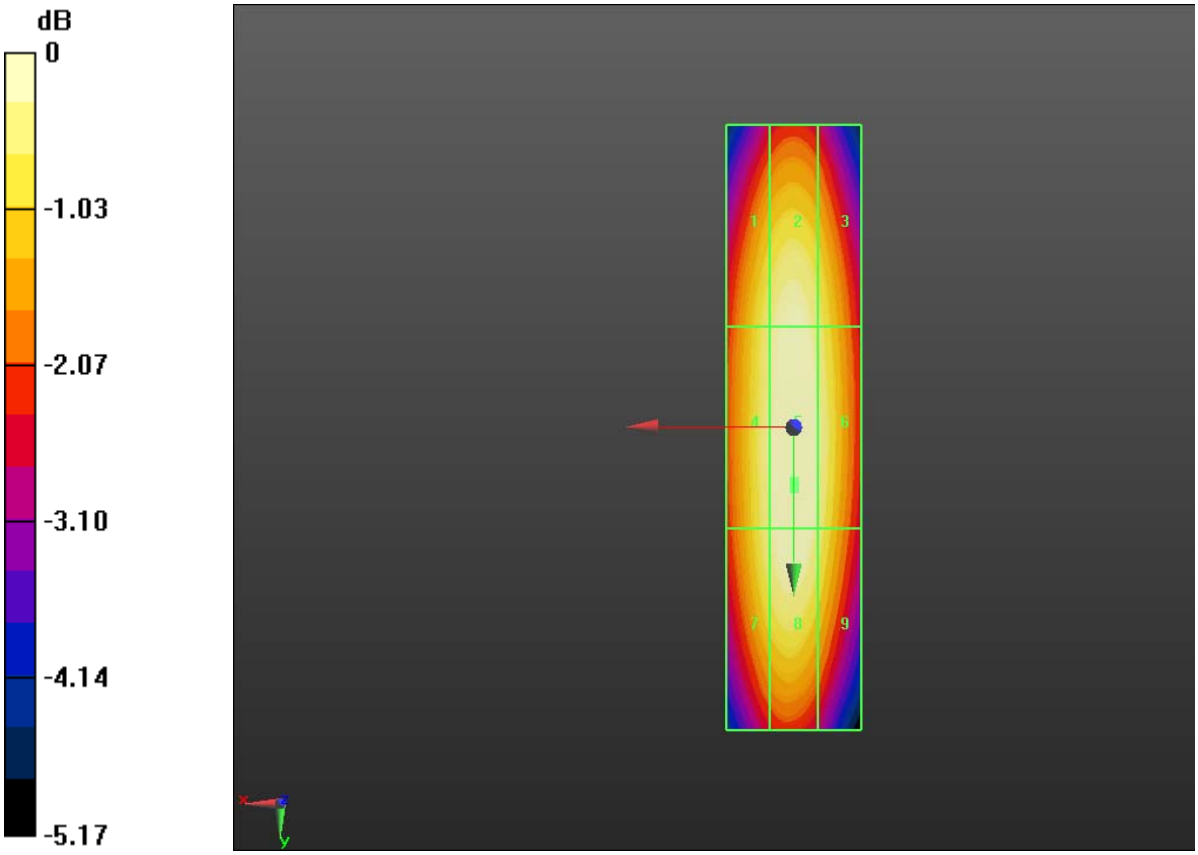
Cursor:
Total = 0.471 A/m
H Category: M4
Location: 0, 8, 4.7 mm

Dipole H-Field measurement with H3DV6 probe/H Scan - AM80%_PMF/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.32 V/m; Power Drift = 0.12 dB
PMR not calibrated. PMF = 1.000 is applied.
H-field emissions = 0.30 A/m
Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M4** **0.28 A/m**	Grid 2 **M4** **0.29 A/m**	Grid 3 **M4** **0.28 A/m**
Grid 4 **M4** **0.29 A/m**	Grid 5 **M4** **0.30 A/m**	Grid 6 **M4** **0.29 A/m**
Grid 7 **M4** **0.29 A/m**	Grid 8 **M4** **0.30 A/m**	Grid 9 **M4** **0.28 A/m**

Cursor:
Total = 0.304 A/m
H Category: M4
Location: 0, 9, 4.7 mm



0 dB = 0.160A/m = -15.92 dB A/m

Date/Time: 2/17/2012 4:08:25 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_UMTS835 MHz_02_17_12

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 1011

Communication System: WCDMA FDD V, Communication System: CW, Communication System: AM 80%; Frequency: 835 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/8/2011
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE3 Sn472; Calibrated: 3/7/2011
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Dipole H-Field measurement with H3DV6 probe/H Scan - UMTS 835_PMF/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.19 V/m; Power Drift = 0.05 dB
PMR not calibrated. PMF = 1.000 is applied.
H-field emissions = 0.18 A/m
Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M4** **0.16 A/m**	Grid 2 **M4** **0.17 A/m**	Grid 3 **M4** **0.16 A/m**
Grid 4 **M4** **0.17 A/m**	Grid 5 **M4** **0.18 A/m**	Grid 6 **M4** **0.17 A/m**
Grid 7 **M4** **0.17 A/m**	Grid 8 **M4** **0.18 A/m**	Grid 9 **M4** **0.17 A/m**

Cursor:
Total = 0.181 A/m
H Category: M4
Location: 0.5, 8.5, 4.7 mm

Dipole H-Field measurement with H3DV6 probe/H Scan - CW 835_PMF/Hearing Aid Compatibility Test (41x181x1):

Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.11 V/m; Power Drift = 0.08 dB
PMR not calibrated. PMF = 1.000 is applied.
H-field emissions = 0.20 A/m
Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M4** **0.17 A/m**	Grid 2 **M4** **0.19 A/m**	Grid 3 **M4** **0.18 A/m**
Grid 4 **M4** **0.18 A/m**	Grid 5 **M4** **0.20 A/m**	Grid 6 **M4** **0.19 A/m**
Grid 7 **M4** **0.18 A/m**	Grid 8 **M4** **0.19 A/m**	Grid 9 **M4** **0.18 A/m**

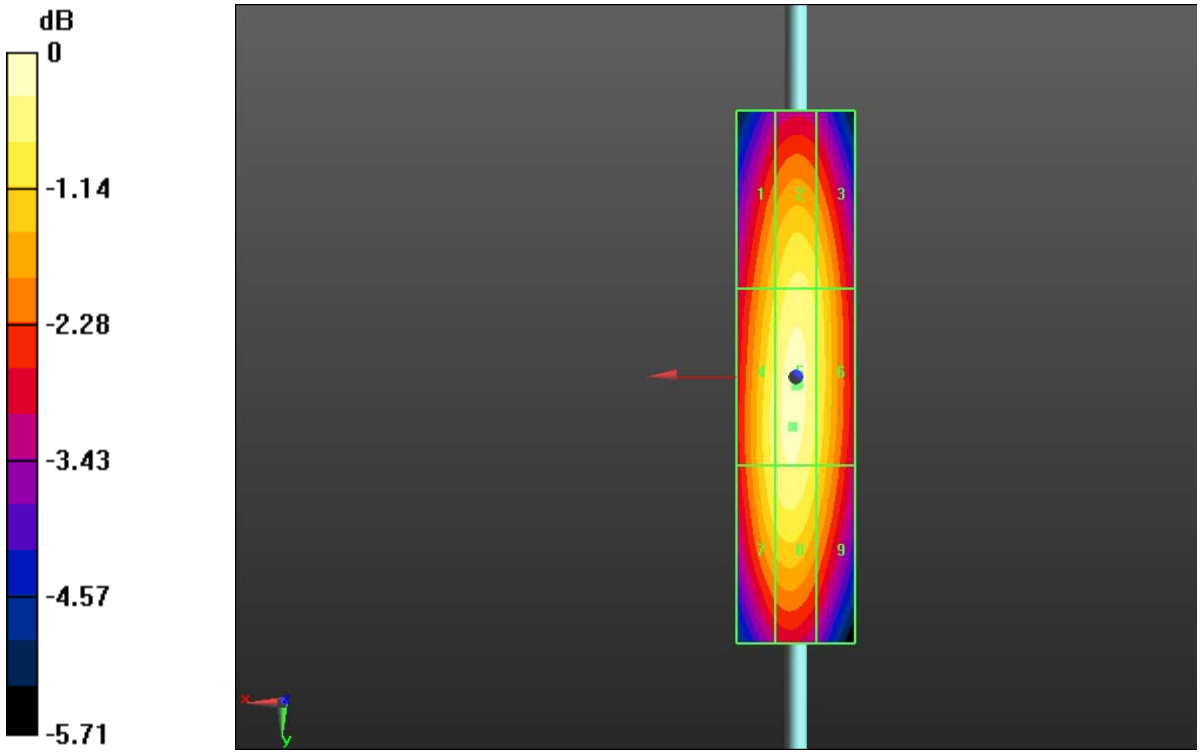
Cursor:
Total = 0.197 A/m
H Category: M4
Location: -0.5, 1, 4.7 mm

Dipole H-Field measurement with H3DV6 probe/H Scan - AM80%_PMF/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.14 V/m; Power Drift = 0.10 dB
PMR not calibrated. PMF = 1.000 is applied.
H-field emissions = 0.13 A/m
Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M4** **0.11 A/m**	Grid 2 **M4** **0.12 A/m**	Grid 3 **M4** **0.12 A/m**
Grid 4 **M4** **0.12 A/m**	Grid 5 **M4** **0.13 A/m**	Grid 6 **M4** **0.12 A/m**
Grid 7 **M4** **0.12 A/m**	Grid 8 **M4** **0.12 A/m**	Grid 9 **M4** **0.12 A/m**

Cursor:
Total = 0.127 A/m
H Category: M4
Location: 0, 1.5, 4.7 mm



0 dB = 0.180A/m = -14.89 dB A/m

Date/Time: 11/8/2012 3:19:58 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_validation_1880 MHz_11_08_12

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 1008

Communication System: CW; Frequency: 1880 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/9/2012
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

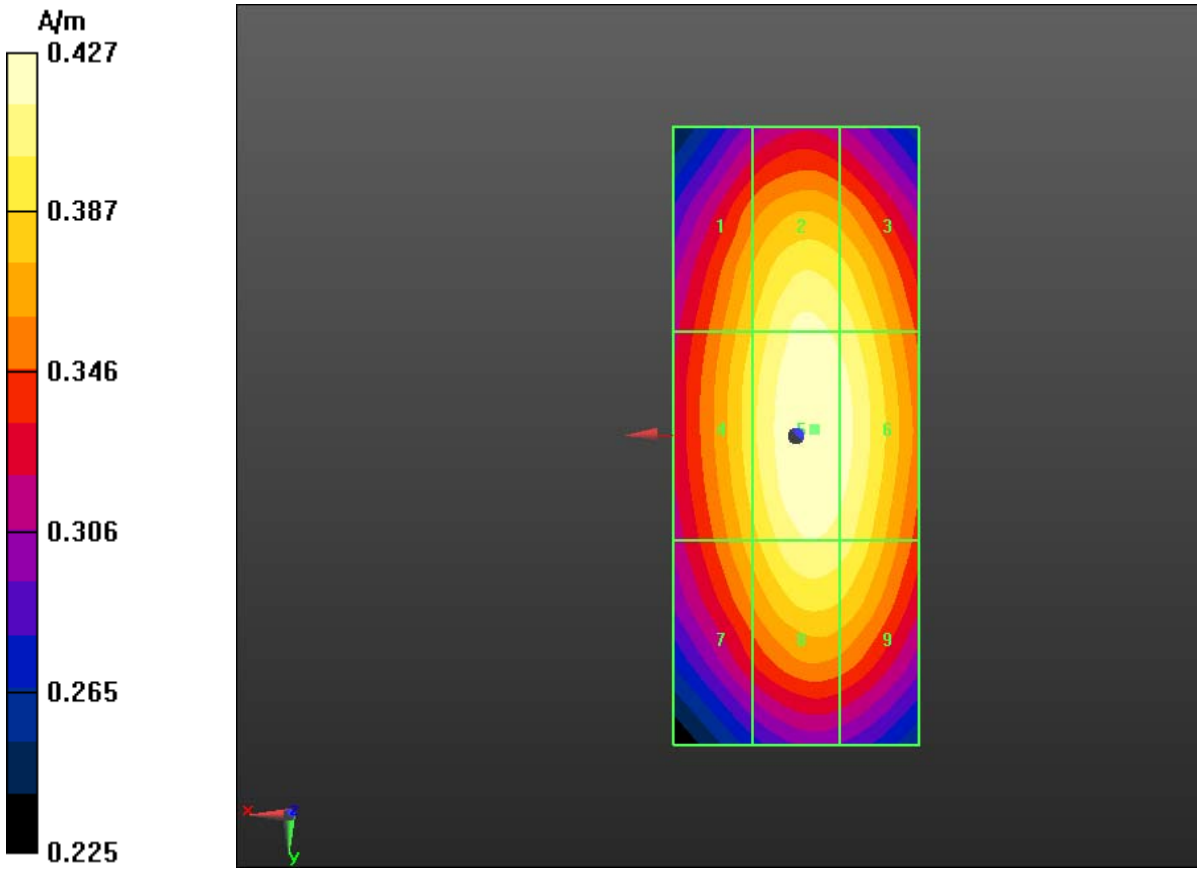
Dipole H-Field measurement with H3DV6 probe/H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.45 V/m; Power Drift = -0.06 dB
PMR not calibrated. PMF = 1.000 is applied.
H-field emissions = 0.43 A/m
Near-field category: M2 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M2** **0.39 A/m**	Grid 2 **M2** **0.42 A/m**	Grid 3 **M2** **0.41 A/m**
Grid 4 **M2** **0.40 A/m**	Grid 5 **M2** **0.43 A/m**	Grid 6 **M2** **0.42 A/m**
Grid 7 **M2**	Grid 8 **M2**	Grid 9 **M2**

0.38 A/m	**0.41 A/m**	**0.41 A/m**

Cursor:
Total = 0.427 A/m
H Category: M2
Location: -1.5, -0.5, 4.7 mm



Date/Time: 9/28/2012 2:45:31 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_validation_1880 MHz_09_28_12

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 1008

Communication System: CW; Frequency: 1880 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/8/2011
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

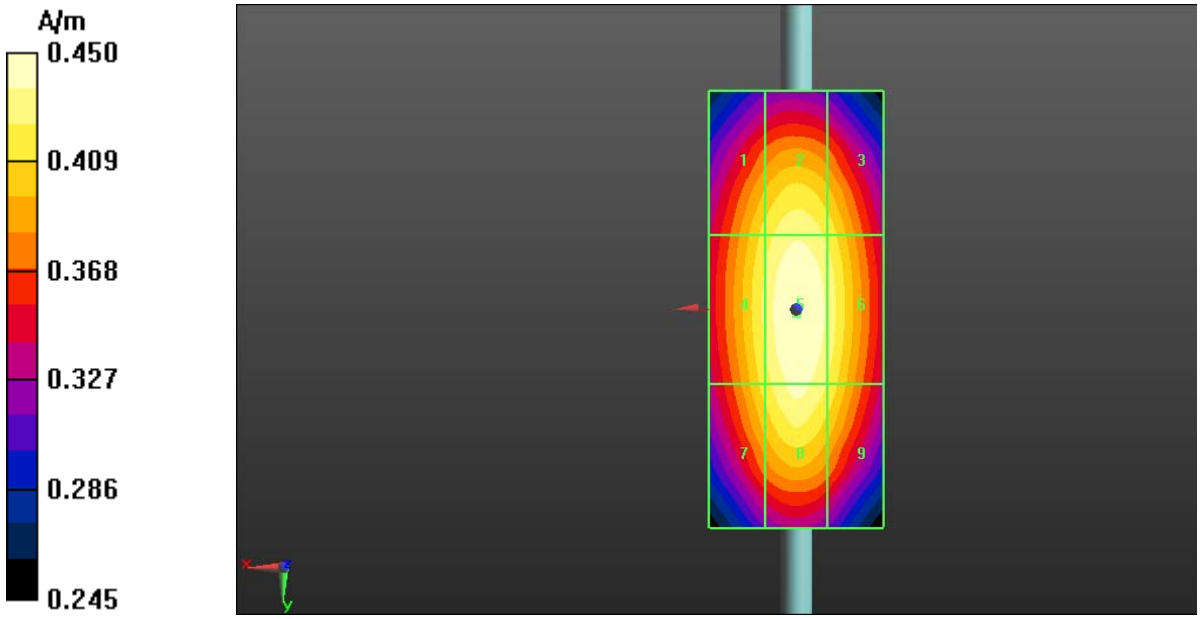
Dipole H-Field measurement with H3DV6 probe/H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.48 V/m; Power Drift = -0.01 dB
PMR not calibrated. PMF = 1.000 is applied.
H-field emissions = 0.45 A/m
Near-field category: M2 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M2** **0.42 A/m**	Grid 2 **M2** **0.44 A/m**	Grid 3 **M2** **0.42 A/m**
Grid 4 **M2** **0.43 A/m**	Grid 5 **M2** **0.45 A/m**	Grid 6 **M2** **0.43 A/m**
Grid 7 **M2**	Grid 8 **M2**	Grid 9 **M2**

0.42 A/m	**0.44 A/m**	**0.42 A/m**

Cursor:
Total = 0.450 A/m
H Category: M2
Location: 0, 0.5, 4.7 mm



Date/Time: 6/28/2012 2:38:12 AM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_validation_1880 MHz_06_28_12

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 1008

Communication System: CW; Frequency: 1880 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/8/2011
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

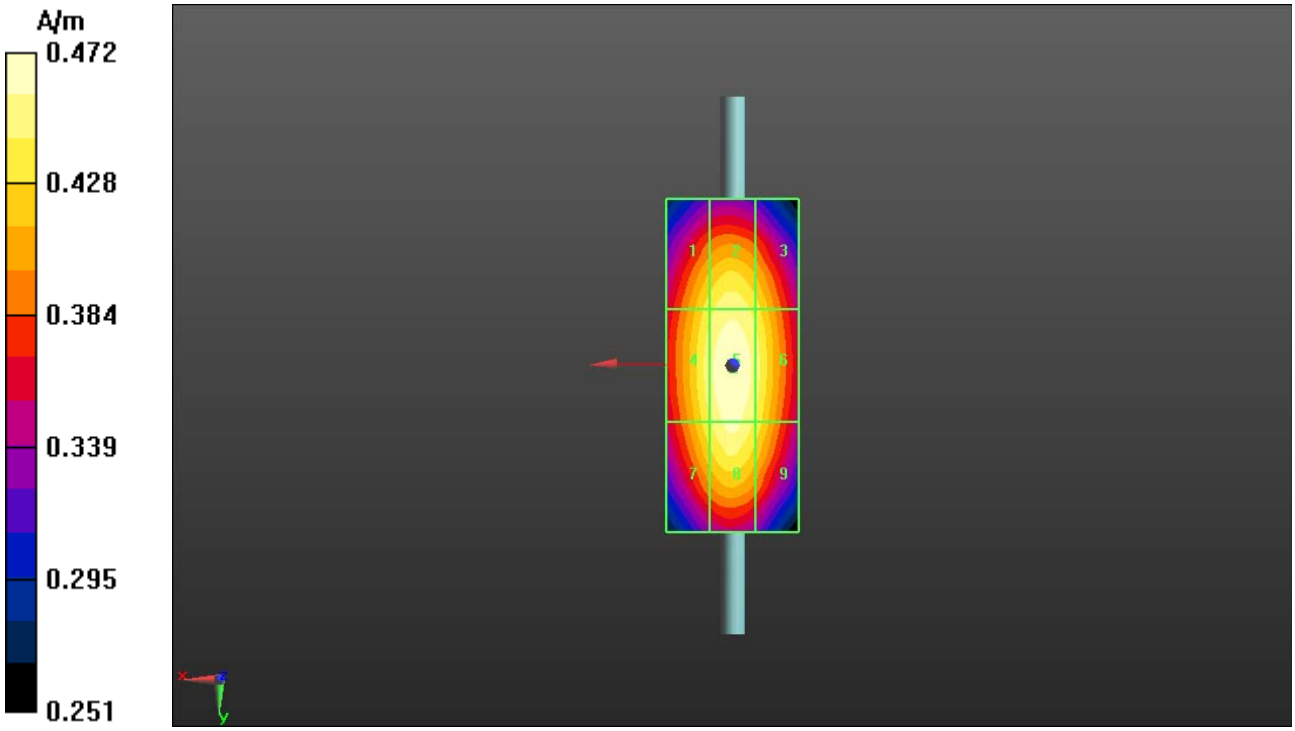
Dipole H-Field measurement with H3DV6 probe/H Scan - measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.50 V/m; Power Drift = -0.03 dB
PMR not calibrated. PMF = 1.000 is applied.
H-field emissions = 0.47 A/m
Near-field category: M2 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M2** **0.44 A/m**	Grid 2 **M2** **0.45 A/m**	Grid 3 **M2** **0.44 A/m**
Grid 4 **M2** **0.45 A/m**	Grid 5 **M2** **0.47 A/m**	Grid 6 **M2** **0.45 A/m**
Grid 7 **M2**	Grid 8 **M2**	Grid 9 **M2**

0.44 A/m	**0.46 A/m**	**0.44 A/m**

Cursor:
Total = 0.472 A/m
H Category: M2
Location: 0, 0.5, 4.7 mm



Date/Time: 6/28/2012 12:25:06 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_GSM1880 MHz_06_28_12

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 1008

Communication System: GSM 1880_PMF, Communication System: CW, Communication System: AM 80%; Frequency: 1880 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/8/2011
- Sensor-Surface: (Fix Surface), z = 4.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Dipole H-Field measurement with H3DV6 probe/H Scan -GSM 1880_PMF/Hearing Aid Compatibility Test (41x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.11 V/m; Power Drift = -0.01 dB
PMR not calibrated. PMF = 1.000 is applied.
H-field emissions = 0.11 A/m
Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M4** **0.10 A/m**	Grid 2 **M4** **0.10 A/m**	Grid 3 **M4** **0.10 A/m**
Grid 4 **M4** **0.10 A/m**	Grid 5 **M4** **0.11 A/m**	Grid 6 **M4** **0.10 A/m**
Grid 7 **M4** **0.10 A/m**	Grid 8 **M4** **0.10 A/m**	Grid 9 **M4** **0.10 A/m**

Cursor:
Total = 0.105 A/m
H Category: M4
Location: 0, 0.5, 4.7 mm

Dipole H-Field measurement with H3DV6 probe/H Scan - CW 1800_PMF/Hearing Aid Compatibility Test (41x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.32 V/m; Power Drift = 0.00 dB
PMR not calibrated. PMF = 1.000 is applied.
H-field emissions = 0.30 A/m
Near-field category: M3 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M3** **0.28 A/m**	Grid 2 **M3** **0.29 A/m**	Grid 3 **M3** **0.28 A/m**
Grid 4 **M3** **0.29 A/m**	Grid 5 **M3** **0.30 A/m**	Grid 6 **M3** **0.29 A/m**
Grid 7 **M3** **0.28 A/m**	Grid 8 **M3** **0.29 A/m**	Grid 9 **M3** **0.28 A/m**

Cursor:
Total = 0.300 A/m
H Category: M3
Location: 0, 1, 4.7 mm

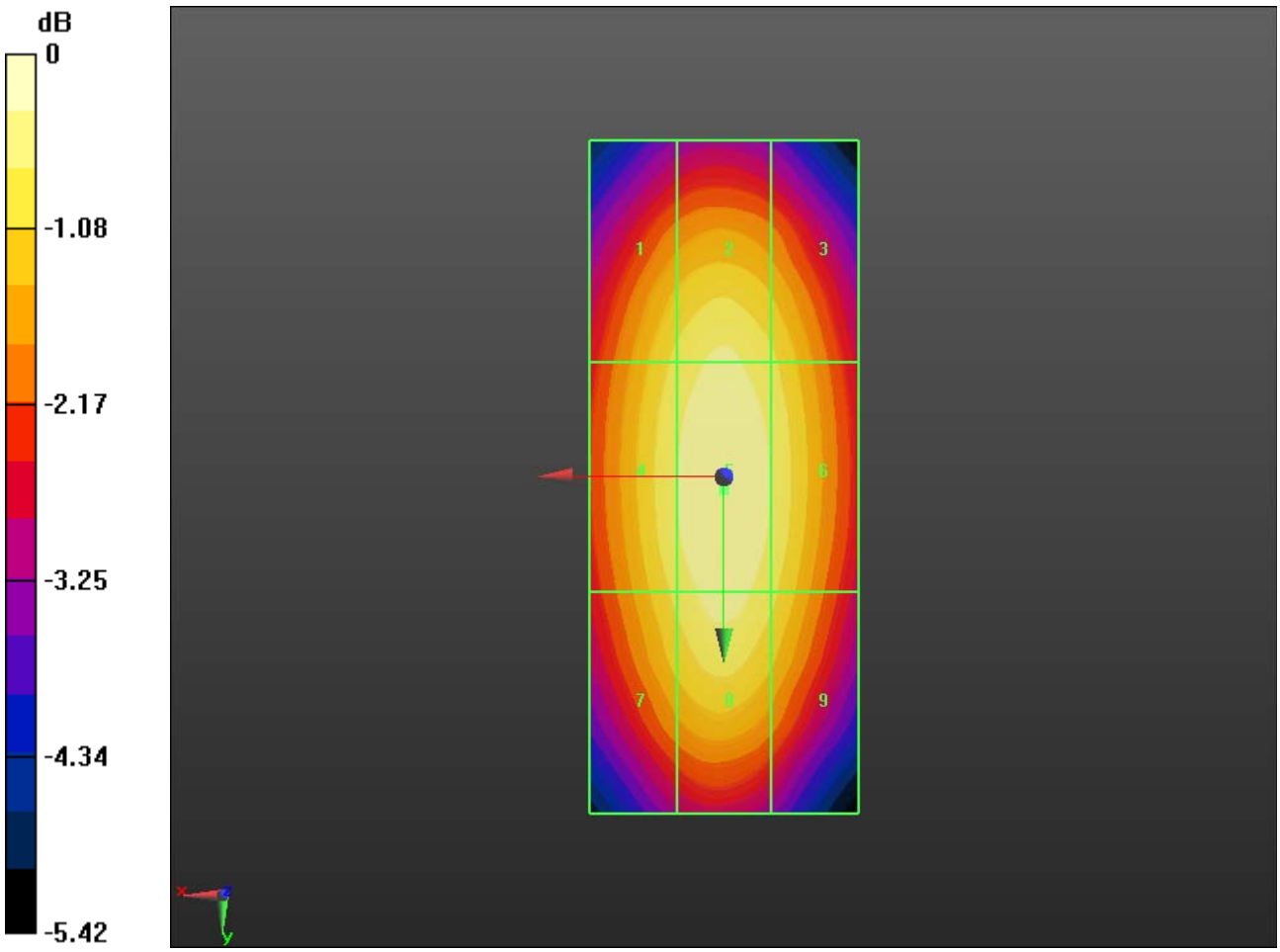
Dipole H-Field measurement with H3DV6 probe/H Scan - AM80%_1880_PMF/Hearing Aid Compatibility Test (41x101x1):

Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.21 V/m; Power Drift = 0.02 dB
PMR not calibrated. PMF = 1.000 is applied.
H-field emissions = 0.19 A/m
Near-field category: M3 (AWF 0 dB)

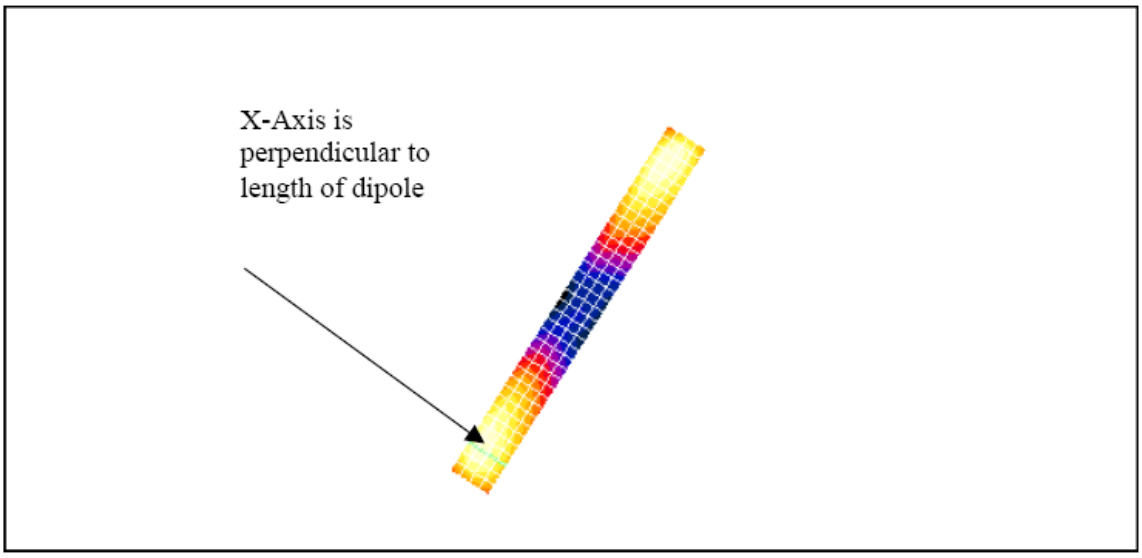
PMF scaled H-field

Grid 1 **M4** **0.18 A/m**	Grid 2 **M4** **0.19 A/m**	Grid 3 **M4** **0.18 A/m**
Grid 4 **M4** **0.19 A/m**	Grid 5 **M3** **0.19 A/m**	Grid 6 **M4** **0.19 A/m**
Grid 7 **M4** **0.18 A/m**	Grid 8 **M3** **0.19 A/m**	Grid 9 **M4** **0.18 A/m**

Cursor:
Total = 0.194 A/m
H Category: M3
Location: 0, 0.5, 4.7 mm



0 dB = 0.110A/m = -19.17 dB A/m



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

Comparison of 5mm and 2mm step sizes

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

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

Lab: RIM Testing Services (RTS)

Dipole Validation 1880 MHz_E-Field 07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

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

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

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

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

E in V/m (Time averaged)

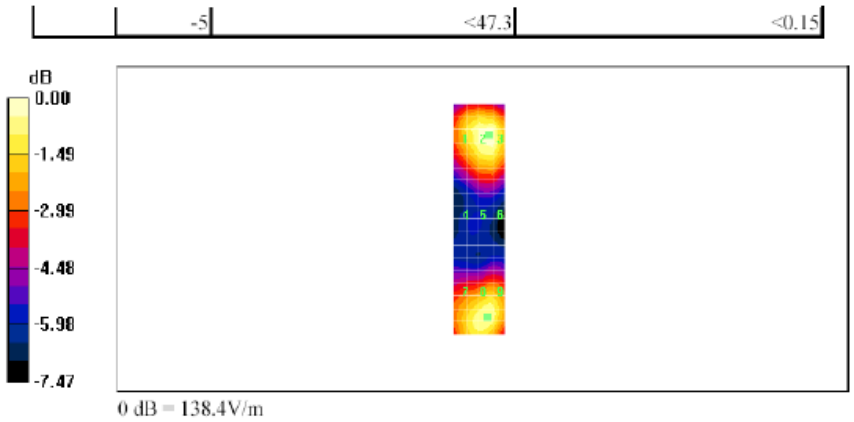
Grid 1 **123.2**	Grid 2 **138.1**	Grid 3 **138.4**
Grid 4 **80.9**	Grid 5 **92.3**	Grid 6 **92.2**
Grid 7 **119.8**	Grid 8 **131.0**	Grid 9 **130.7**

E in V/m (Slot averaged)

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

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

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



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

Lab: RIM Testing Services (RTS)

Dipole Validation 1880 MHz_2mm step_E-Field 07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

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

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

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

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

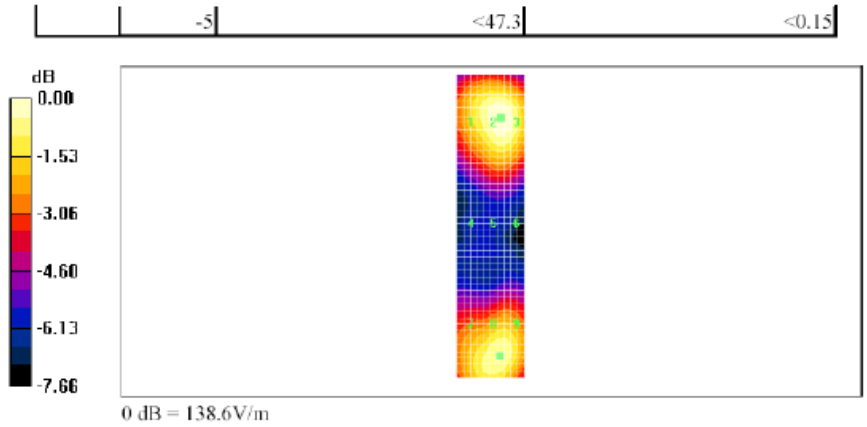
E in V/m (Time averaged)

Grid 1 **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



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

Lab: RIM Testing Services (RTS)

HAC_H_Dipole_CW 1880_5 mm step_07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

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

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

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

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

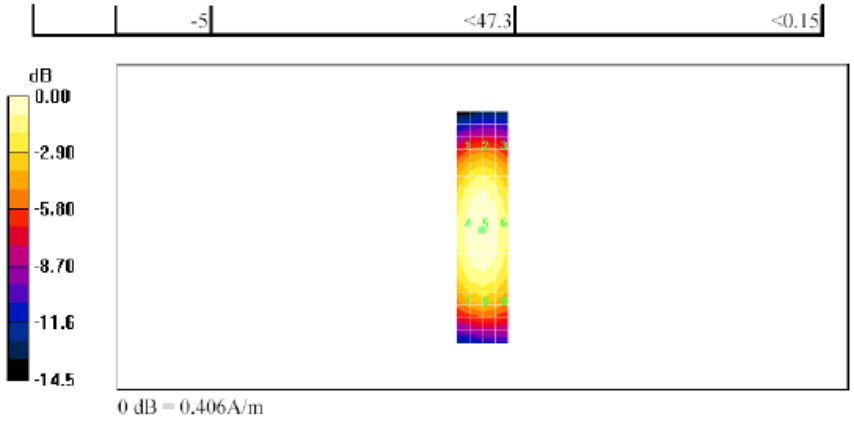
H in A/m (Time averaged)

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

H in A/m (Slot averaged)

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

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



0 dB = 0.406A/m

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

Lab: RIM Testing Services (RTS)

HAC_H_Dipole_CW 1880_2 mm step_07_14_05

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

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

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

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

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

H in A/m (Time averaged)

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

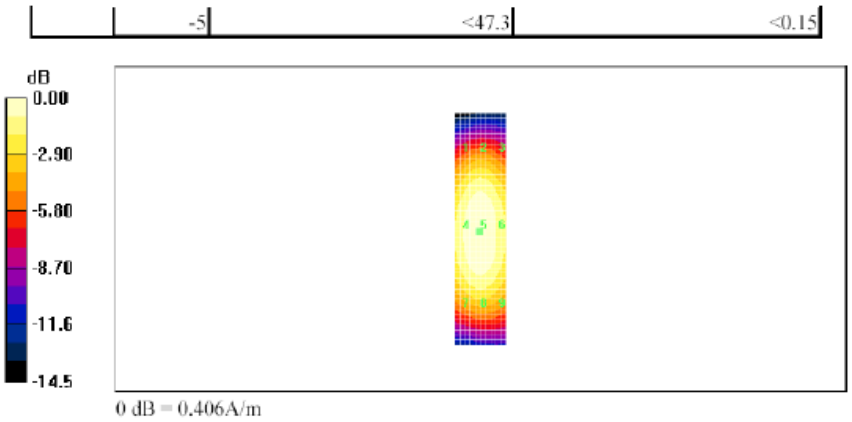
H in A/m (Slot averaged)

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

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

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

Page 2 of 2



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

A.3 RF emission field plots

Date/Time: 10/1/2012 3:57:50 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_GSM850

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A781058

Communication System: GSM 850; Frequency: 824.2 MHz, Frequency: 836.8 MHz, Frequency: 848.8 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to Device_Low_Chan/Hearing Aid Compatibility Test (101x101x1):

Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 73.61 V/m; Power Drift = -0.19 dB
PMR not calibrated. PMF = 3.000 is applied.
E-field emissions = 177.2 V/m
Near-field category: M3 (AWF -5 dB)

PMF scaled E-field

Grid 1 **M3** **153.7 V/m**	Grid 2 **M3** **161.1 V/m**	Grid 3 **M3** **152.9 V/m**
Grid 4 **M3** **169.6 V/m**	Grid 5 **M3** **177.2 V/m**	Grid 6 **M3** **168.6 V/m**

Grid 7 **M3** **188.3 V/m**	Grid 8 **M3** **195.4 V/m**	Grid 9 **M3** **179.0 V/m**

Cursor:

Total = 195.4 V/m
E Category: M3
Location: 1, 25, 8.7 mm

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

Device Reference Point: 0, 0, -6.3 mm
Reference Value = 61.07 V/m; Power Drift = -0.02 dB
PMR not calibrated. PMF = 3.000 is applied.
E-field emissions = 151.8 V/m
Near-field category: M3 (AWF -5 dB)

PMF scaled E-field

Grid 1 **M4** **118.0 V/m**	Grid 2 **M4** **137.5 V/m**	Grid 3 **M4** **137.6 V/m**
Grid 4 **M4** **138.8 V/m**	Grid 5 **M3** **151.8 V/m**	Grid 6 **M3** **150.2 V/m**
Grid 7 **M3** **161.4 V/m**	Grid 8 **M3** **167.4 V/m**	Grid 9 **M3** **157.5 V/m**

Cursor:

Total = 167.4 V/m
E Category: M3
Location: 0.5, 25, 8.7 mm

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

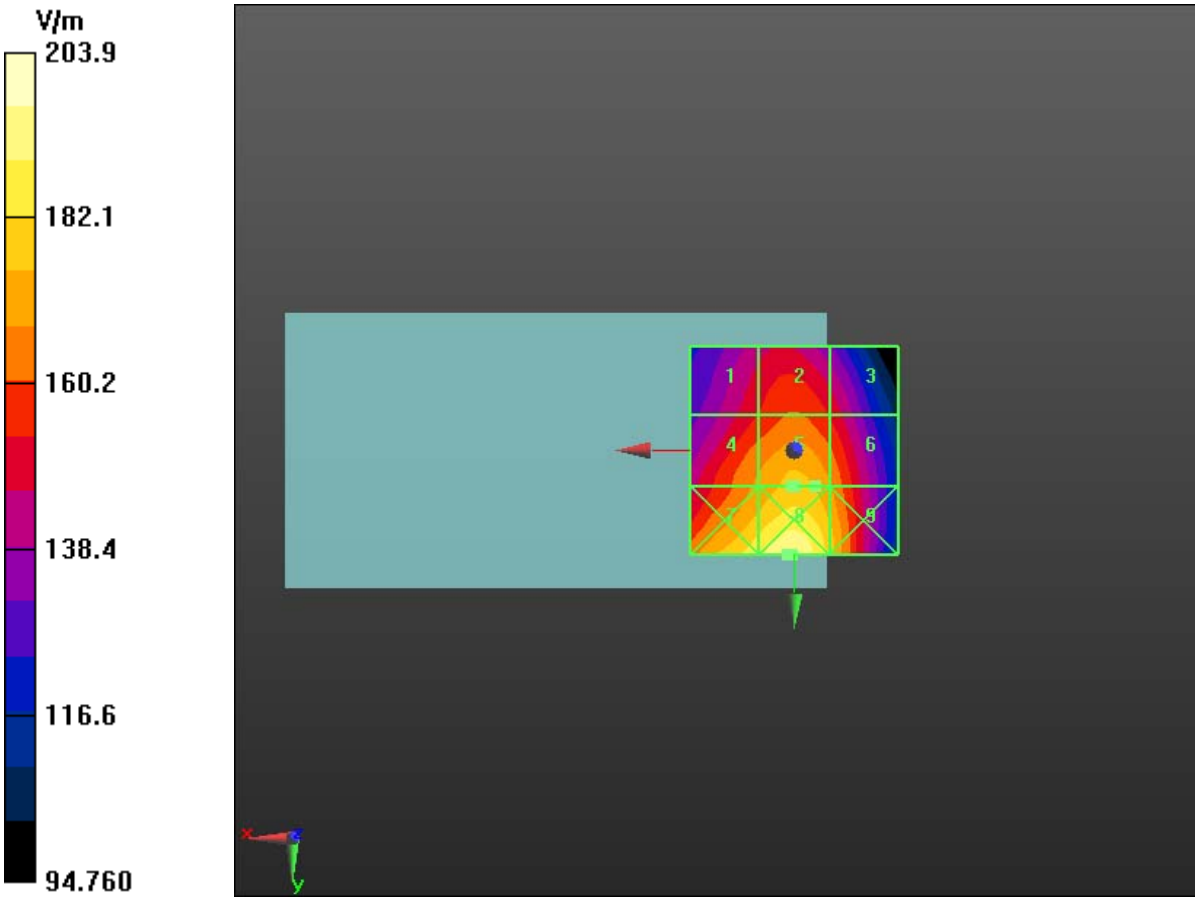
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 67.00 V/m; Power Drift = 0.18 dB
PMR not calibrated. PMF = 3.000 is applied.
E-field emissions = 166.5 V/m
Near-field category: M3 (AWF -5 dB)

PMF scaled E-field

Grid 1 **M4** **146.5 V/m**	Grid 2 **M3** **151.2 V/m**	Grid 3 **M4** **141.7 V/m**
Grid 4 **M3** **160.0 V/m**	Grid 5 **M3** **166.5 V/m**	Grid 6 **M3** **157.5 V/m**
Grid 7 **M3** **178.7 V/m**	Grid 8 **M3** **186.7 V/m**	Grid 9 **M3** **169.7 V/m**

Cursor:

Total = 186.7 V/m
E Category: M3
Location: 1.5, 25, 8.7 mm



Date/Time: 10/1/2012 5:18:33 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_UMTS_Band_V

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A781058

Communication System: WCDMA FDD V; Frequency: 826.4 MHz, Frequency: 836.4 MHz, Frequency: 846.6 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to Device_Low_Chan/Hearing Aid Compatibility Test (101x101x1):

Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 70.59 V/m; Power Drift = 0.01 dB
PMR not calibrated. PMF = 1.070 is applied.
E-field emissions = 62.60 V/m
Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 **M4** **49.83 V/m**	Grid 2 **M4** **59.66 V/m**	Grid 3 **M4** **59.46 V/m**
Grid 4 **M4** **54.66 V/m**	Grid 5 **M4** **62.60 V/m**	Grid 6 **M4** **62.08 V/m**

Grid 7 **M4** **58.77 V/m**	Grid 8 **M4** **62.72 V/m**	Grid 9 **M4** **60.92 V/m**

Cursor:
Total = 62.719 V/m
E Category: M4
Location: -3, 25, 8.7 mm

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

Device Reference Point: 0, 0, -6.3 mm
Reference Value = 65.16 V/m; Power Drift = 0.04 dB
PMR not calibrated. PMF = 1.070 is applied.
E-field emissions = 58.27 V/m
Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 **M4** **44.02 V/m**	Grid 2 **M4** **56.07 V/m**	Grid 3 **M4** **56.13 V/m**
Grid 4 **M4** **49.68 V/m**	Grid 5 **M4** **58.27 V/m**	Grid 6 **M4** **58.23 V/m**
Grid 7 **M4** **54.53 V/m**	Grid 8 **M4** **58.61 V/m**	Grid 9 **M4** **57.74 V/m**

Cursor:
Total = 58.615 V/m
E Category: M4
Location: -2, 25, 8.7 mm

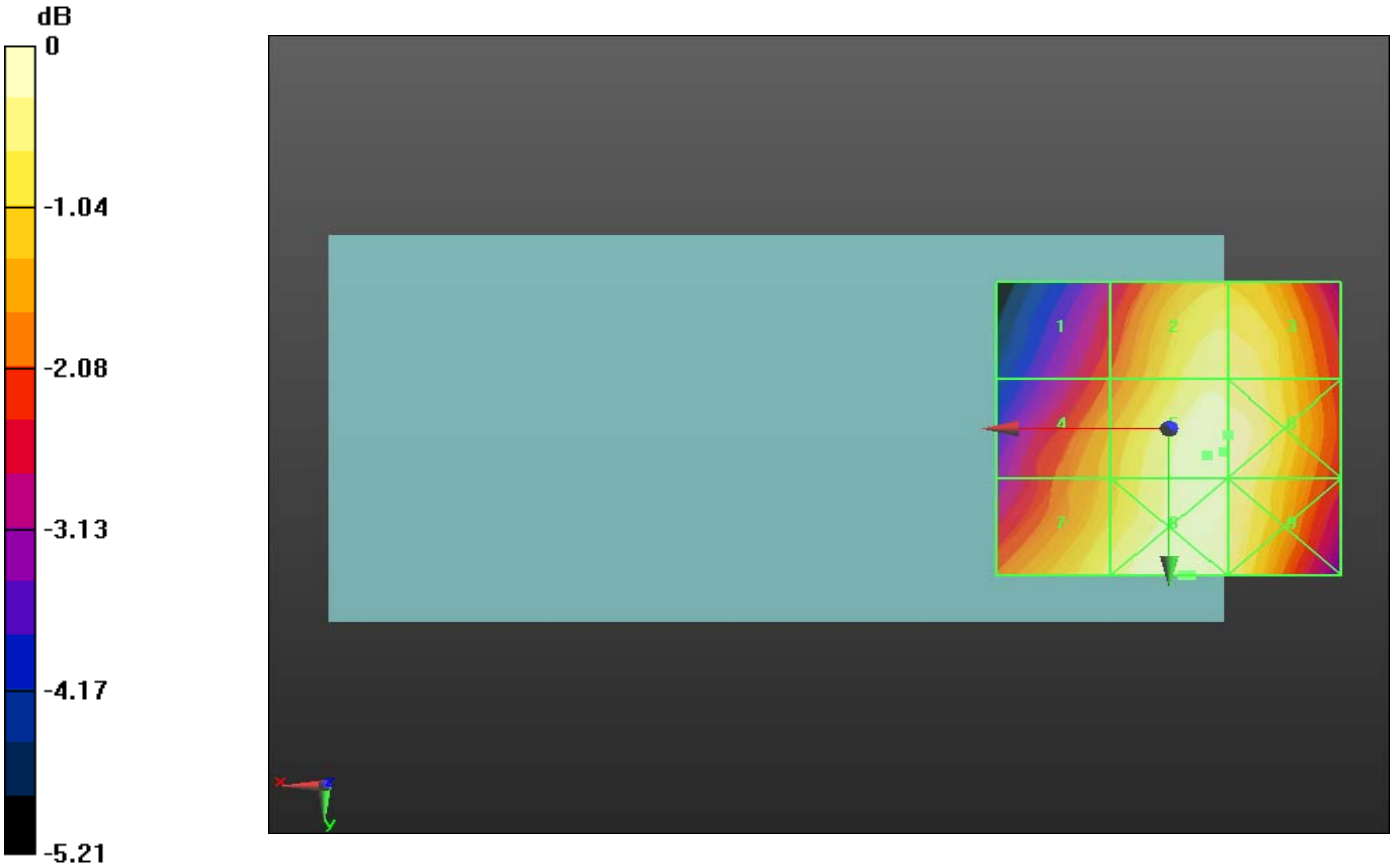
Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device_High_Chan/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm
Reference Value = 66.45 V/m; Power Drift = -0.03 dB
PMR not calibrated. PMF = 1.070 is applied.
E-field emissions = 58.97 V/m
Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 **M4** **45.11 V/m**	Grid 2 **M4** **57.99 V/m**	Grid 3 **M4** **58.09 V/m**
Grid 4 **M4** **49.95 V/m**	Grid 5 **M4** **58.97 V/m**	Grid 6 **M4** **58.97 V/m**
Grid 7 **M4** **54.23 V/m**	Grid 8 **M4** **58.09 V/m**	Grid 9 **M4** **57.74 V/m**

Cursor:
Total = 58.971 V/m
E Category: M4
Location: -8.5, 1, 8.7 mm



0 dB = 62.720V/m = 35.95 dB V/m

Date/Time: 10/1/2012 4:32:12 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_GSM1900

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A781058

Communication System: GSM 1900; Frequency: 1850.2 MHz, Frequency: 1880 MHz, Frequency: 1909.8 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to Device_Low_Chan/Hearing Aid Compatibility Test (101x101x1):

Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 6.58 V/m; Power Drift = -0.17 dB
PMR not calibrated. PMF = 2.850 is applied.
E-field emissions = 43.05 V/m
Near-field category: M4 (AWF -5 dB)

PMF scaled E-field

Grid 1 **M4** **42.89 V/m**	Grid 2 **M4** **43.05 V/m**	Grid 3 **M4** **32.89 V/m**
Grid 4 **M4** **23.35 V/m**	Grid 5 **M4** **35.42 V/m**	Grid 6 **M4** **35.48 V/m**

Grid 7 **M4** **44.96 V/m**	Grid 8 **M3** **59.20 V/m**	Grid 9 **M3** **58.08 V/m**

Cursor:

Total = 59.198 V/m
E Category: M3
Location: -5, 25, 8.7 mm

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

Device Reference Point: 0, 0, -6.3 mm
Reference Value = 6.45 V/m; Power Drift = 0.21 dB
PMR not calibrated. PMF = 2.850 is applied.
E-field emissions = 45.82 V/m
Near-field category: M4 (AWF -5 dB)

PMF scaled E-field

Grid 1 **M4** **44.49 V/m**	Grid 2 **M4** **45.82 V/m**	Grid 3 **M4** **38.46 V/m**
Grid 4 **M4** **25.94 V/m**	Grid 5 **M4** **31.58 V/m**	Grid 6 **M4** **31.99 V/m**
Grid 7 **M4** **39.80 V/m**	Grid 8 **M3** **56.23 V/m**	Grid 9 **M3** **54.78 V/m**

Cursor:

Total = 56.229 V/m
E Category: M3
Location: -5.5, 25, 8.7 mm

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

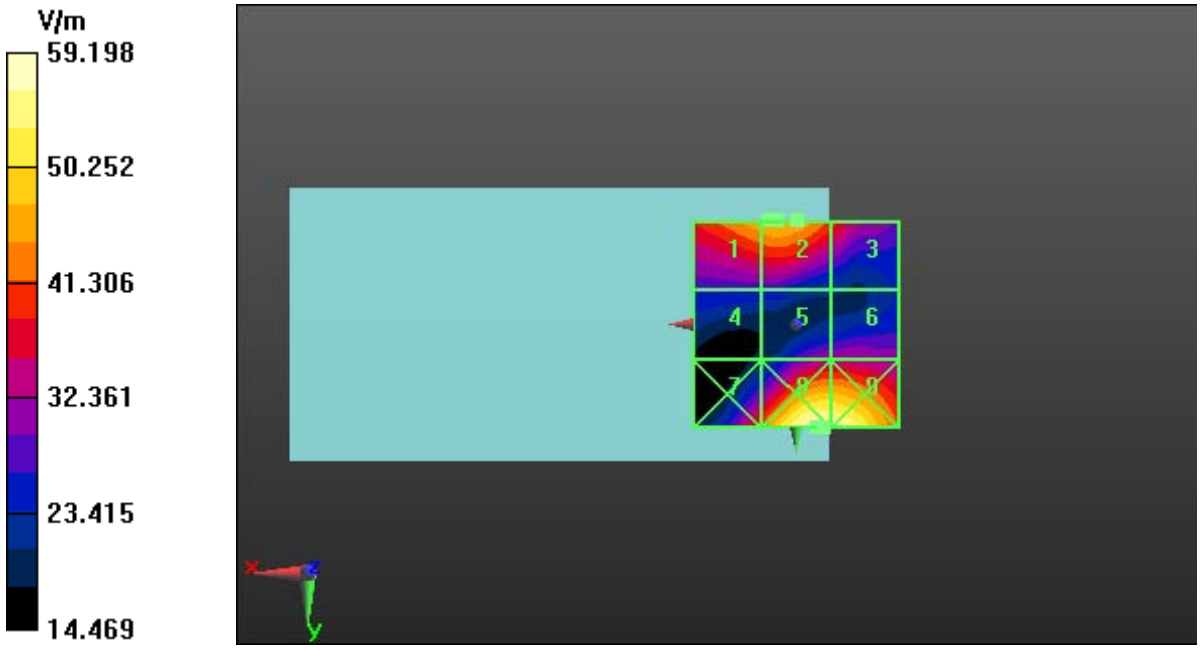
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 6.61 V/m; Power Drift = 0.39 dB
PMR not calibrated. PMF = 2.850 is applied.
E-field emissions = 48.77 V/m
Near-field category: M3 (AWF -5 dB)

PMF scaled E-field

Grid 1 **M4** **43.57 V/m**	Grid 2 **M3** **48.77 V/m**	Grid 3 **M4** **43.97 V/m**
Grid 4 **M4** **27.85 V/m**	Grid 5 **M4** **28.03 V/m**	Grid 6 **M4** **26.02 V/m**
Grid 7 **M4** **36.07 V/m**	Grid 8 **M3** **52.86 V/m**	Grid 9 **M3** **52.61 V/m**

Cursor:

Total = 52.858 V/m
E Category: M3
Location: -6.5, 25, 8.7 mm



Date/Time: 11/8/2012 4:25:13 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_GSM850

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 25B217A1

Communication System: GSM 850; Frequency: 824.2 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to Device_Low_Chan/Hearing Aid Compatibility Test (101x101x1):

Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 81.61 V/m; Power Drift = -0.22 dB
PMR not calibrated. PMF = 3.000 is applied.
E-field emissions = 191.3 V/m
Near-field category: M3 (AWF -5 dB)

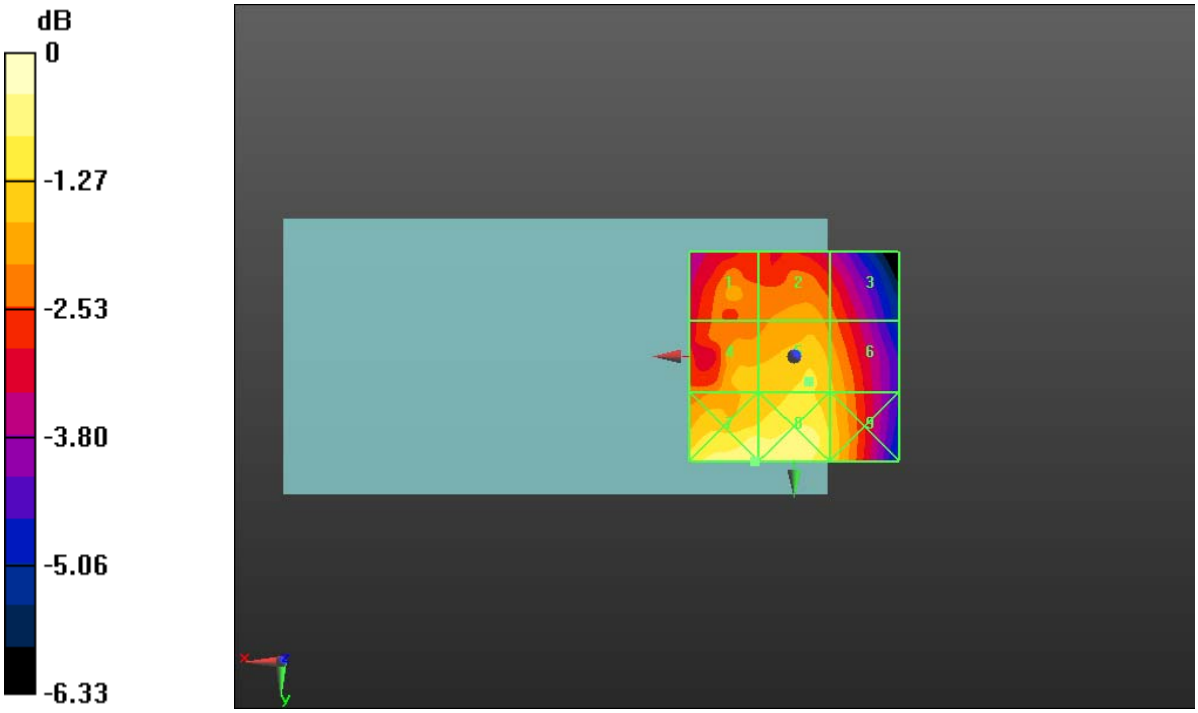
PMF scaled E-field

Grid 1 **M3** **175.6 V/m**	Grid 2 **M3** **176.9 V/m**	Grid 3 **M3** **168.8 V/m**
Grid 4 **M3** **183.4 V/m**	Grid 5 **M3** **191.3 V/m**	Grid 6 **M3** **183.7 V/m**
Grid 7 **M3**	Grid 8 **M3**	Grid 9 **M3**

210.3 V/m	**209.8 V/m**	**189.6 V/m**

Cursor:

Total = 210.3 V/m
E Category: M3
Location: 9.5, 25, 8.7 mm



0 dB = 219.3V/m = 46.82 dB V/m

Date/Time: 11/8/2012 4:34:25 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_GSM1900

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 25B217A1

Communication System: GSM 1900; Frequency: 1909.8 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/9/2012
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):

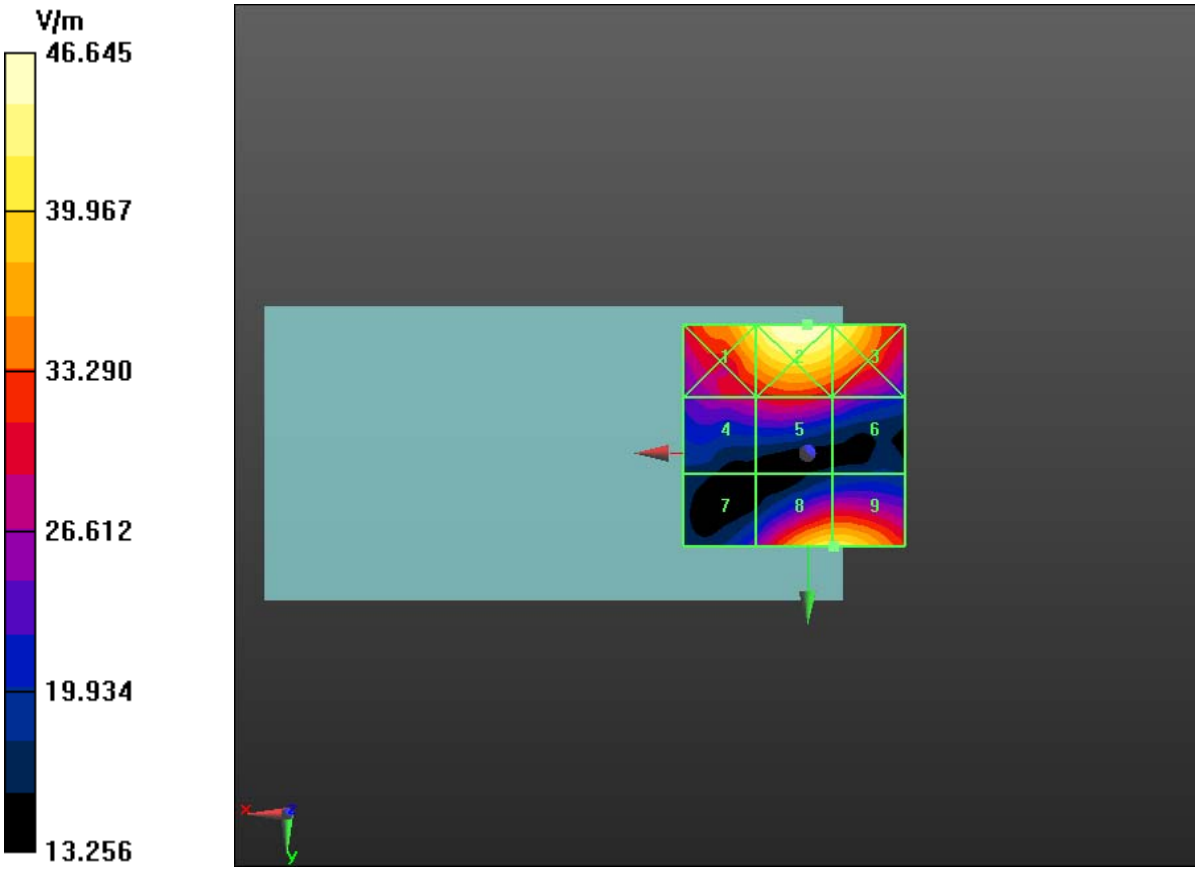
Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 5.75 V/m; Power Drift = -0.16 dB
PMR not calibrated. PMF = 2.850 is applied.
E-field emissions = 41.83 V/m
Near-field category: M4 (AWF -5 dB)

PMF scaled E-field

Grid 1 **M4** **42.45 V/m**	Grid 2 **M4** **46.65 V/m**	Grid 3 **M4** **44.36 V/m**
Grid 4 **M4** **28.91 V/m**	Grid 5 **M4** **31.22 V/m**	Grid 6 **M4** **28.48 V/m**
Grid 7 **M4** **25.21 V/m**	Grid 8 **M4** **41.80 V/m**	Grid 9 **M4** **41.83 V/m**

Cursor:

Total = 46.645 V/m
E Category: M4
Location: 0, -29, 8.7 mm



Date/Time: 10/1/2012 7:39:56 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_GSM_850

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A781058

Communication System: GSM 850; Frequency: 824.2 MHz, Frequency: 836.8 MHz, Frequency: 848.8 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/8/2011
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device_low_chan/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.06 V/m; Power Drift = 0.00 dB
PMR not calibrated. PMF = 2.890 is applied.
H-field emissions = 0.22 A/m
Near-field category: M4 (AWF -5 dB)

PMF scaled H-field

Grid 1 **M4** **0.31 A/m**	Grid 2 **M4** **0.22 A/m**	Grid 3 **M4** **0.16 A/m**
Grid 4 **M4** **0.28 A/m**	Grid 5 **M4** **0.20 A/m**	Grid 6 **M4** **0.14 A/m**

Grid 7 **M4** **0.29 A/m**	Grid 8 **M4** **0.21 A/m**	Grid 9 **M4** **0.14 A/m**

Cursor:

Total = 0.309 A/m
H Category: M4
Location: 25, -25, 8.7 mm

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

Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.08 V/m; Power Drift = 0.08 dB
PMR not calibrated. PMF = 2.890 is applied.
H-field emissions = 0.24 A/m
Near-field category: M4 (AWF -5 dB)

PMF scaled H-field

Grid 1 **M4** **0.28 A/m**	Grid 2 **M4** **0.24 A/m**	Grid 3 **M4** **0.19 A/m**
Grid 4 **M4** **0.25 A/m**	Grid 5 **M4** **0.23 A/m**	Grid 6 **M4** **0.18 A/m**
Grid 7 **M4** **0.26 A/m**	Grid 8 **M4** **0.21 A/m**	Grid 9 **M4** **0.15 A/m**

Cursor:

Total = 0.276 A/m
H Category: M4
Location: 25, -25, 8.7 mm

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

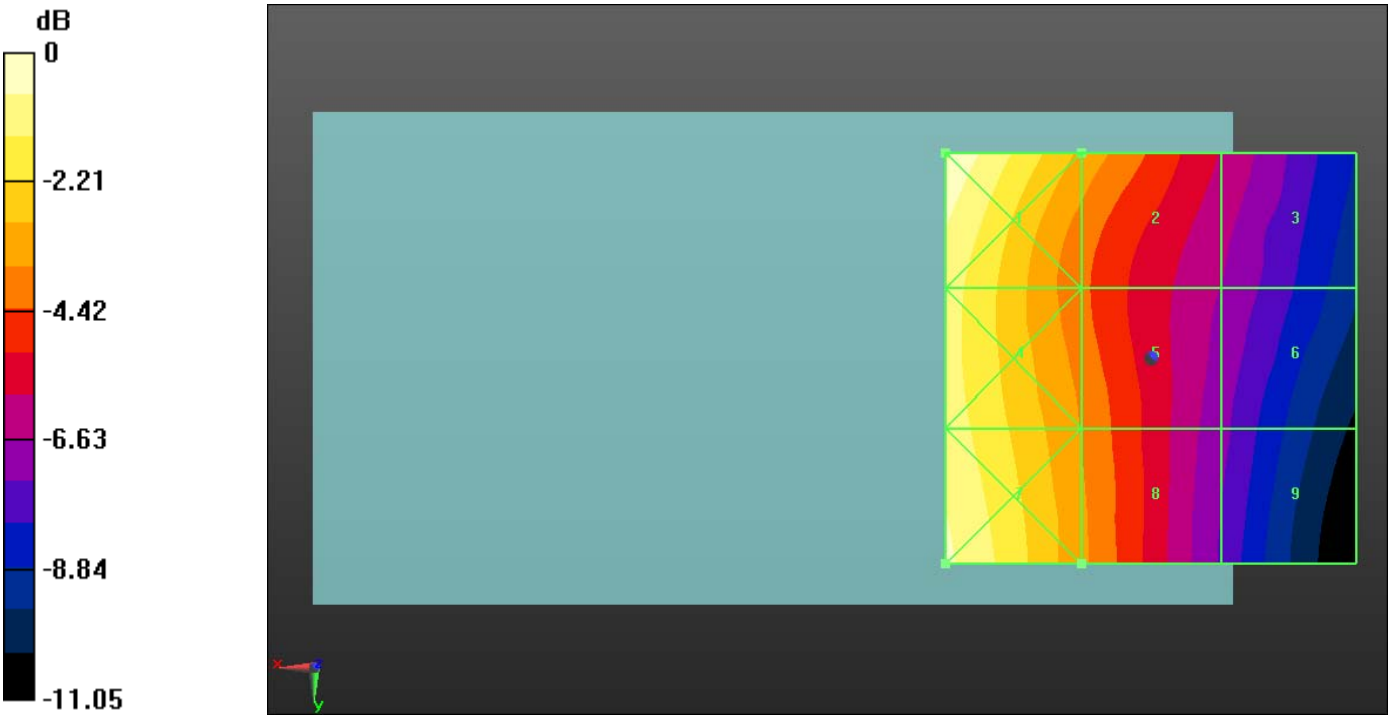
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.07 V/m; Power Drift = -0.05 dB
PMR not calibrated. PMF = 2.890 is applied.
H-field emissions = 0.22 A/m
Near-field category: M4 (AWF -5 dB)

PMF scaled H-field

Grid 1 **M4** **0.27 A/m**	Grid 2 **M4** **0.20 A/m**	Grid 3 **M4** **0.16 A/m**
Grid 4 **M4** **0.27 A/m**	Grid 5 **M4** **0.21 A/m**	Grid 6 **M4** **0.15 A/m**
Grid 7 **M4** **0.31 A/m**	Grid 8 **M4** **0.22 A/m**	Grid 9 **M4** **0.15 A/m**

Cursor:

Total = 0.305 A/m
H Category: M4
Location: 25, 25, 8.7 mm



0 dB = 0.310A/m = -10.17 dB A/m

Date/Time: 10/1/2012 8:55:53 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_UMTS_Band_V

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A781058

Communication System: WCDMA FDD V; Frequency: 826.4 MHz, Frequency: 836.4 MHz, Frequency: 846.6 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/8/2011
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device_low_chan/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.09 V/m; Power Drift = -0.04 dB
PMR not calibrated. PMF = 1.090 is applied.
H-field emissions = 0.14 A/m
Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M4** **0.14 A/m**	Grid 2 **M4** **0.11 A/m**	Grid 3 **M4** **0.08 A/m**
Grid 4 **M4** **0.13 A/m**	Grid 5 **M4** **0.11 A/m**	Grid 6 **M4** **0.07 A/m**

Grid 7 **M4** **0.13 A/m**	Grid 8 **M4** **0.09 A/m**	Grid 9 **M4** **0.06 A/m**

Cursor:
Total = 0.139 A/m
H Category: M4
Location: 25, -25, 8.7 mm

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

Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.09 V/m; Power Drift = 0.01 dB
PMR not calibrated. PMF = 1.090 is applied.
H-field emissions = 0.14 A/m
Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M4** **0.14 A/m**	Grid 2 **M4** **0.12 A/m**	Grid 3 **M4** **0.08 A/m**
Grid 4 **M4** **0.12 A/m**	Grid 5 **M4** **0.11 A/m**	Grid 6 **M4** **0.08 A/m**
Grid 7 **M4** **0.12 A/m**	Grid 8 **M4** **0.09 A/m**	Grid 9 **M4** **0.06 A/m**

Cursor:
Total = 0.135 A/m
H Category: M4
Location: 25, -25, 8.7 mm

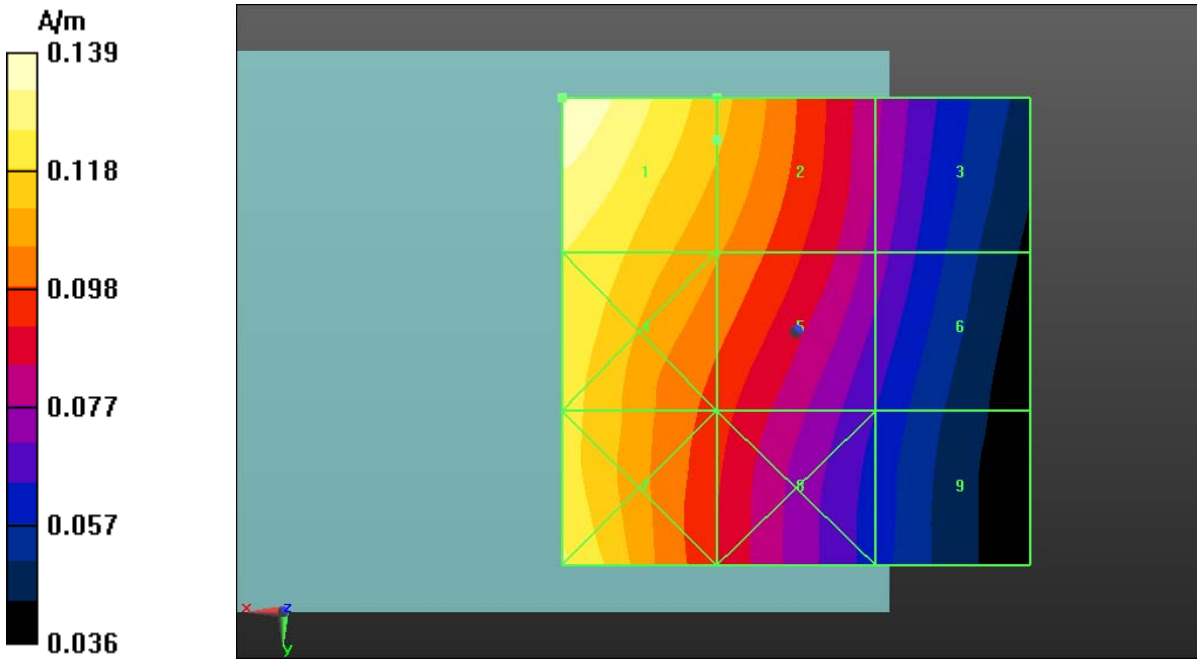
Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device_high_chan/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.11 V/m; Power Drift = 0.10 dB
PMR not calibrated. PMF = 1.090 is applied.
H-field emissions = 0.14 A/m
Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 **M4** **0.14 A/m**	Grid 2 **M4** **0.12 A/m**	Grid 3 **M4** **0.09 A/m**
Grid 4 **M4** **0.13 A/m**	Grid 5 **M4** **0.12 A/m**	Grid 6 **M4** **0.09 A/m**
Grid 7 **M4** **0.14 A/m**	Grid 8 **M4** **0.11 A/m**	Grid 9 **M4** **0.08 A/m**

Cursor:
Total = 0.138 A/m
H Category: M4
Location: 25, -25, 8.7 mm



Date/Time: 10/1/2012 8:55:53 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_GSM_1900

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 2A781058

Communication System: GSM 1900; Frequency: 1850.2 MHz, Frequency: 1880 MHz, Frequency: 1909.8 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/8/2011
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device_low_chan/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.04 V/m; Power Drift = -0.05 dB
PMR not calibrated. PMF = 2.860 is applied.
H-field emissions = 0.14 A/m
Near-field category: M4 (AWF -5 dB)

PMF scaled H-field

Grid 1 **M3** **0.17 A/m**	Grid 2 **M4** **0.14 A/m**	Grid 3 **M4** **0.09 A/m**
Grid 4 **M3** **0.16 A/m**	Grid 5 **M4** **0.13 A/m**	Grid 6 **M4** **0.09 A/m**

Grid 7 **M3** **0.15 A/m**	Grid 8 **M4** **0.11 A/m**	Grid 9 **M4** **0.08 A/m**

Cursor:

Total = 0.171 A/m
H Category: M3
Location: 25, -25, 8.7 mm

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

Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.04 V/m; Power Drift = 0.02 dB
PMR not calibrated. PMF = 2.860 is applied.
H-field emissions = 0.14 A/m
Near-field category: M4 (AWF -5 dB)

PMF scaled H-field

Grid 1 **M3** **0.17 A/m**	Grid 2 **M4** **0.14 A/m**	Grid 3 **M4** **0.10 A/m**
Grid 4 **M3** **0.15 A/m**	Grid 5 **M4** **0.13 A/m**	Grid 6 **M4** **0.09 A/m**
Grid 7 **M3** **0.15 A/m**	Grid 8 **M4** **0.11 A/m**	Grid 9 **M4** **0.08 A/m**

Cursor:

Total = 0.165 A/m
H Category: M3
Location: 25, -25, 8.7 mm

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

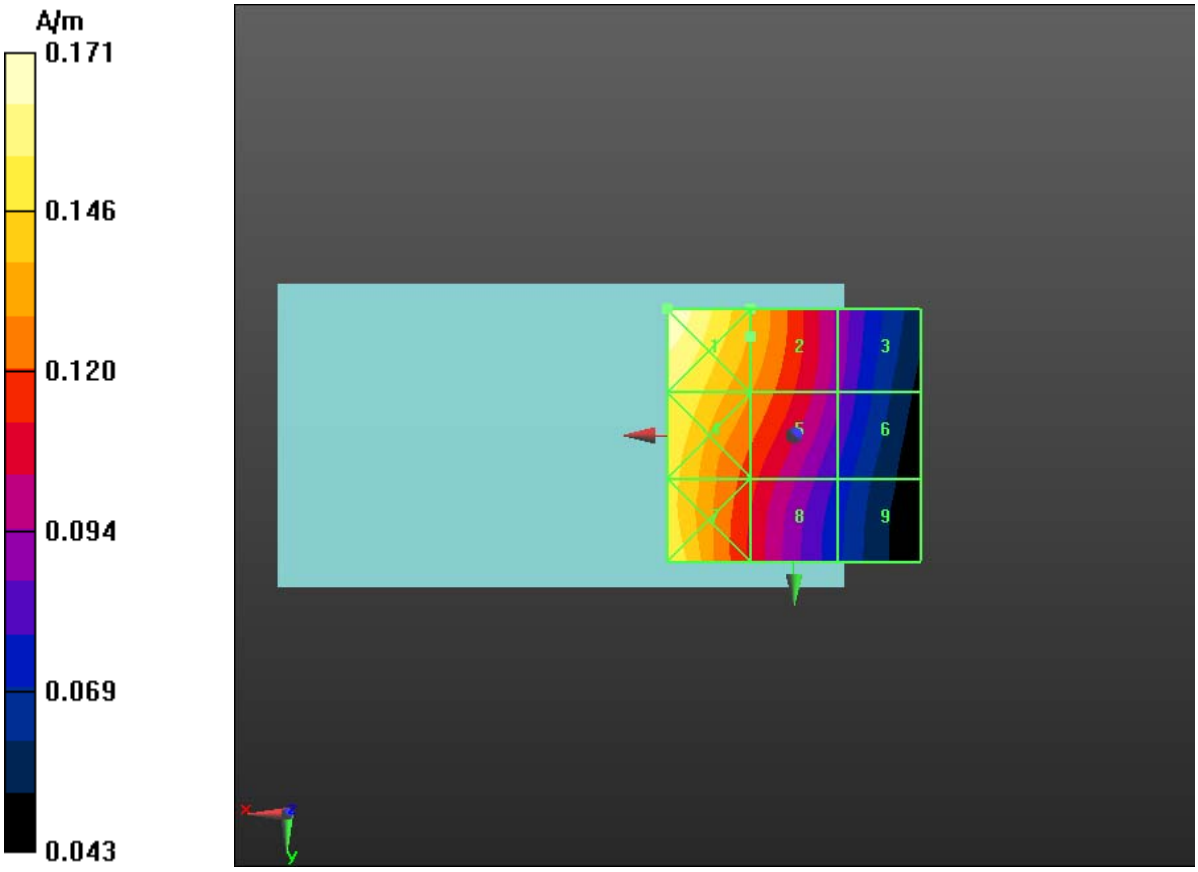
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.05 V/m; Power Drift = 0.10 dB
PMR not calibrated. PMF = 2.860 is applied.
H-field emissions = 0.15 A/m
Near-field category: M3 (AWF -5 dB)

PMF scaled H-field

Grid 1 **M3** **0.17 A/m**	Grid 2 **M3** **0.15 A/m**	Grid 3 **M4** **0.11 A/m**
Grid 4 **M3** **0.16 A/m**	Grid 5 **M3** **0.15 A/m**	Grid 6 **M4** **0.11 A/m**
Grid 7 **M3** **0.16 A/m**	Grid 8 **M4** **0.13 A/m**	Grid 9 **M4** **0.09 A/m**

Cursor:

Total = 0.169 A/m
H Category: M3
Location: 25, -25, 8.7 mm



Date/Time: 11/8/2012 4:50:52 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_GSM_850

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 25B217A1

Communication System: GSM 850; Frequency: 836.8 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/9/2012
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device_Centre/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.11 V/m; Power Drift = 0.27 dB
PMR not calibrated. PMF = 2.890 is applied.
H-field emissions = 0.31 A/m
Near-field category: M4 (AWF -5 dB)

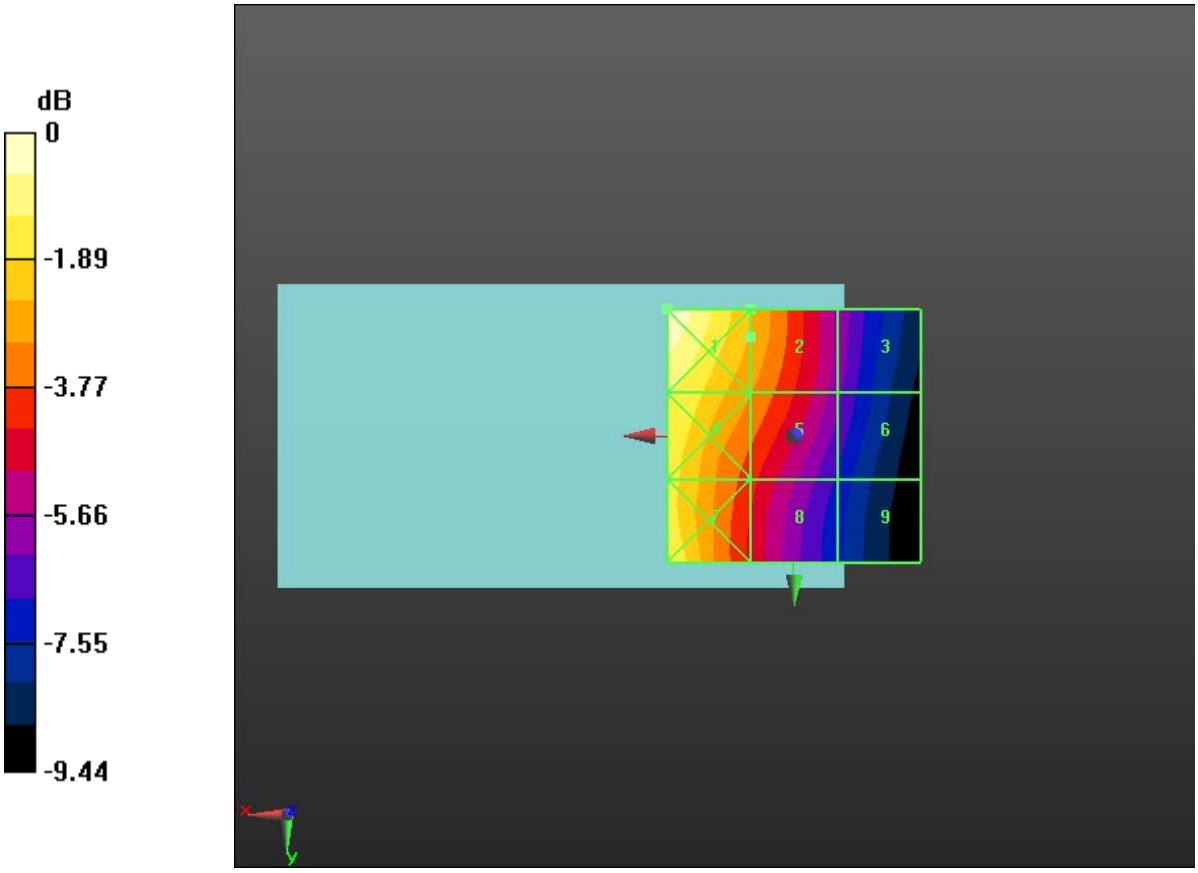
PMF scaled H-field

Grid 1 **M4** **0.38 A/m**	Grid 2 **M4** **0.31 A/m**	Grid 3 **M4** **0.28 A/m**
Grid 4 **M4** **0.35 A/m**	Grid 5 **M4** **0.31 A/m**	Grid 6 **M4** **0.27 A/m**
Grid 7 **M4**	Grid 8 **M4**	Grid 9 **M4**

0.34 A/m	**0.28 A/m**	**0.23 A/m**

Cursor:

Total = 0.382 A/m
H Category: M4
Location: 28, -29, 8.7 mm



0 dB = 0.380A/m = -8.40 dB A/m

Date/Time: 11/8/2012 4:45:15 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_GSM_1900

DUT: BlackBerry Smartphone; Type: Sample ; Serial: 25B217A1

Communication System: GSM 1900; Frequency: 1909.8 MHz
Medium parameters used: $\sigma = 0$ mho/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY Configuration:

- Probe: H3DV6 - SN6168; ; Calibrated: 3/9/2012
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE3 Sn473; Calibrated: 1/13/2012
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device_Centre/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.05 V/m; Power Drift = 0.18 dB
PMR not calibrated. PMF = 2.860 is applied.
H-field emissions = 0.13 A/m
Near-field category: M4 (AWF -5 dB)

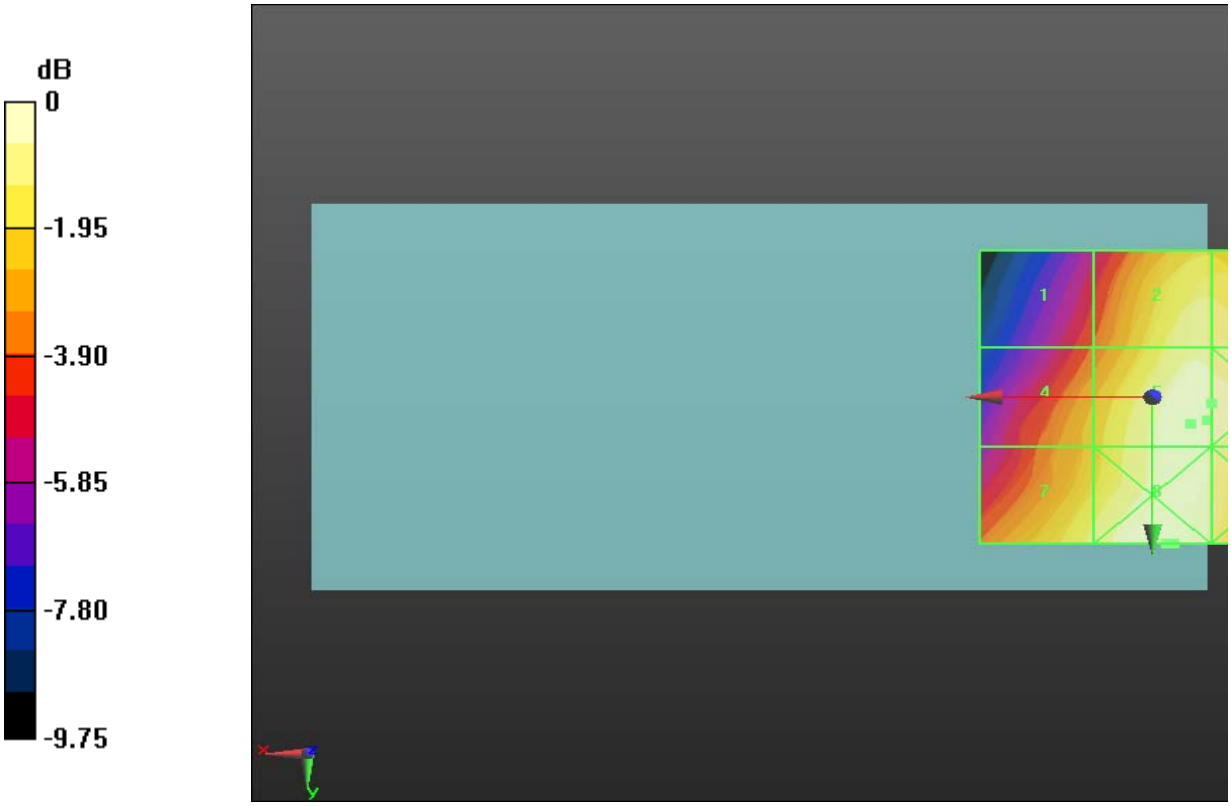
PMF scaled H-field

Grid 1 **M4** **0.11 A/m**	Grid 2 **M4** **0.12 A/m**	Grid 3 **M4** **0.12 A/m**
Grid 4 **M4** **0.08 A/m**	Grid 5 **M4** **0.13 A/m**	Grid 6 **M4** **0.13 A/m**
Grid 7 **M4**	Grid 8 **M4**	Grid 9 **M4**

0.11 A/m	**0.13 A/m**	**0.13 A/m**

Cursor:

Total = 0.133 A/m
H Category: M4
Location: -3.5, 5, 8.7 mm



0 dB = 0.130A/m = -17.72 dB A/m