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Author Data <b>Andrew Becker</b>	Dates of Test <b>Jan. 31, Feb 17-22, Apr 30-May 1, 2012</b>	Report No <b>RTS-5995-1204-31</b>

## Annex A: Measurement data and plots

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

Author Data

**Andrew Becker**

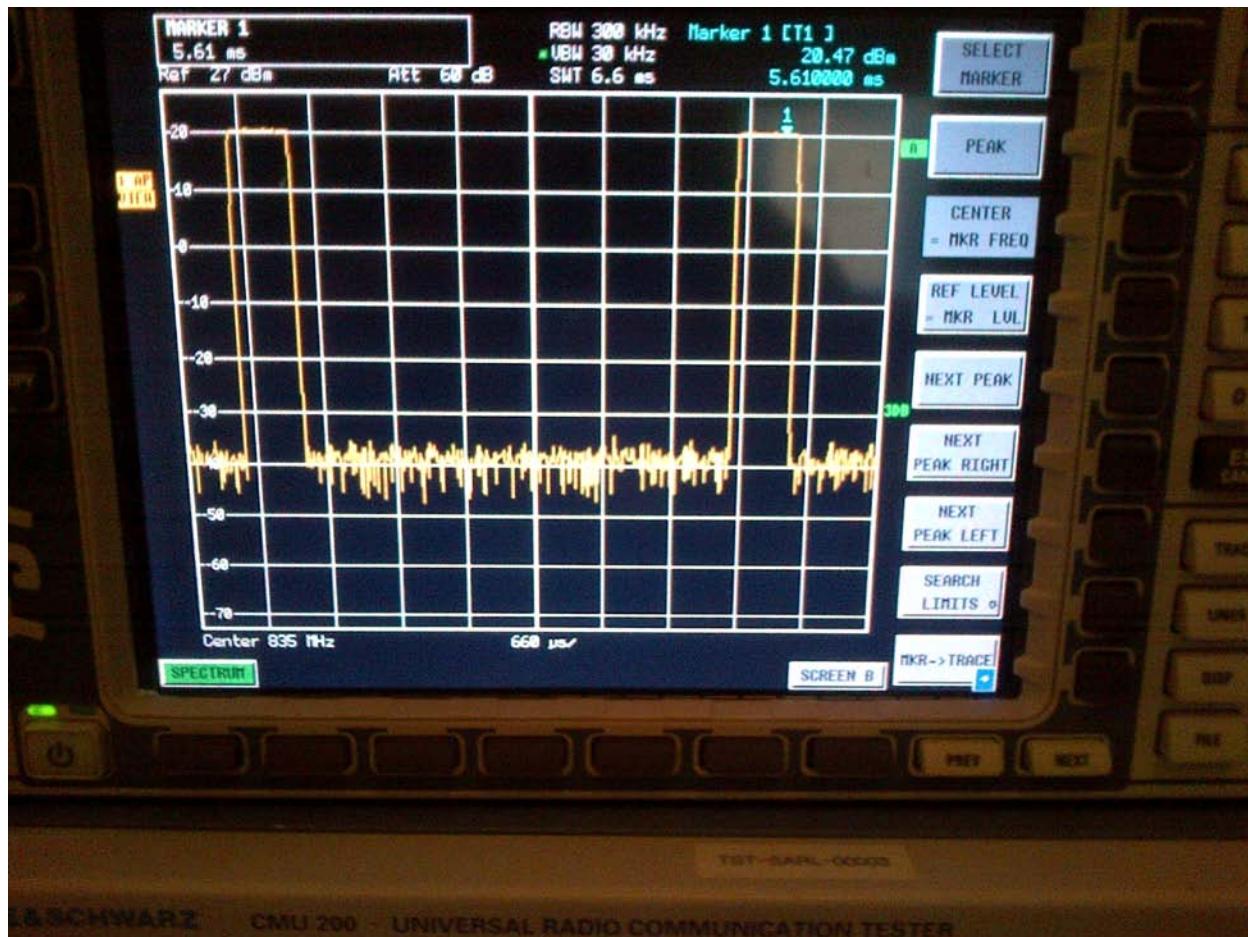
Dates of Test

**Jan. 31, Feb 17-22, Apr 30-May 1, 2012**

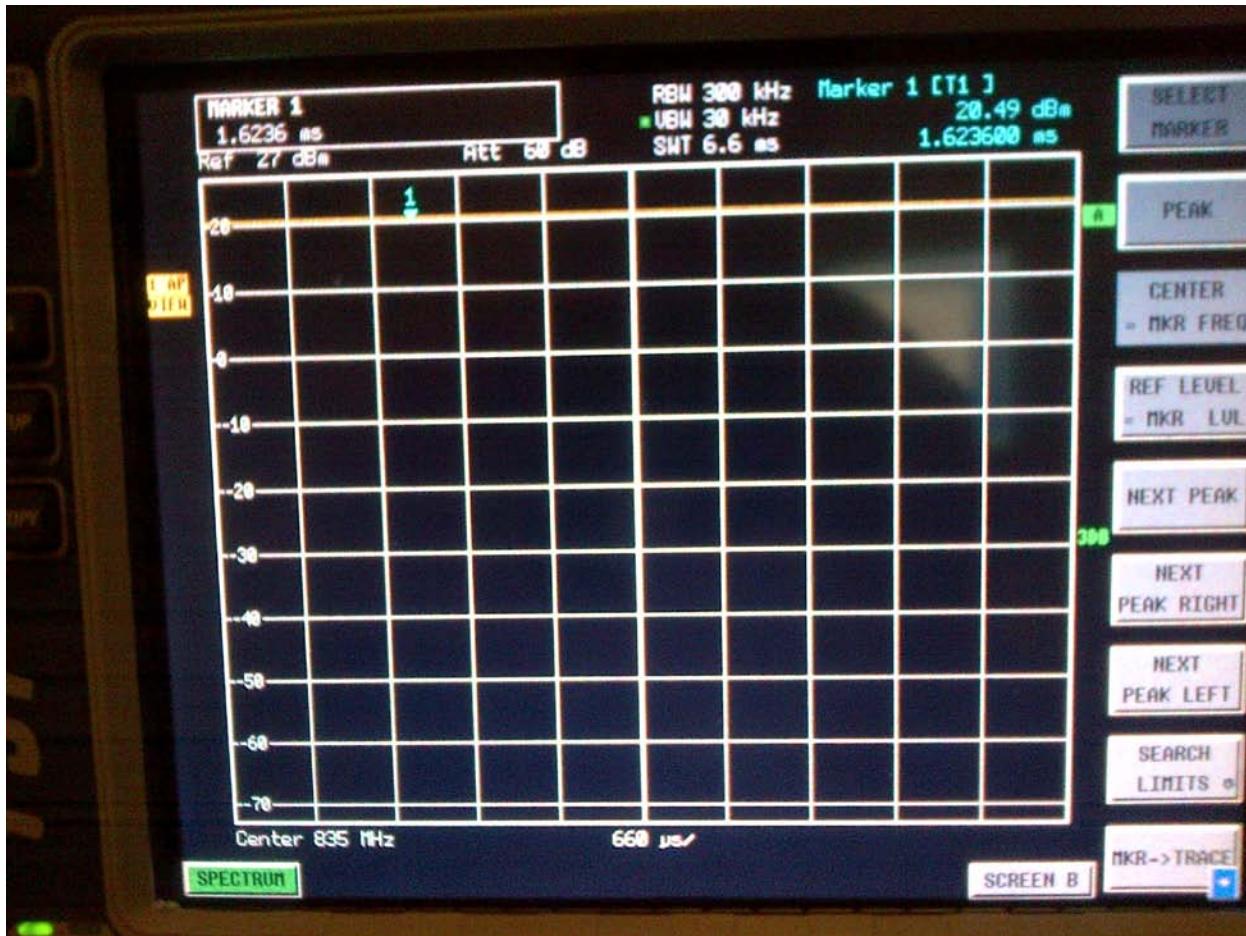
Report No

**RTS-5995-1204-31**

FCC ID

**L6AREU70UW****GSM 835 MHz**

Author Data <b>Andrew Becker</b>	Dates of Test <b>Jan. 31, Feb 17-22, Apr 30-May 1, 2012</b>	Report No <b>RTS-5995-1204-31</b>	FCC ID <b>L6AREU70UW</b>
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**CW 835 MHz**

Author Data

Andrew Becker

Dates of Test

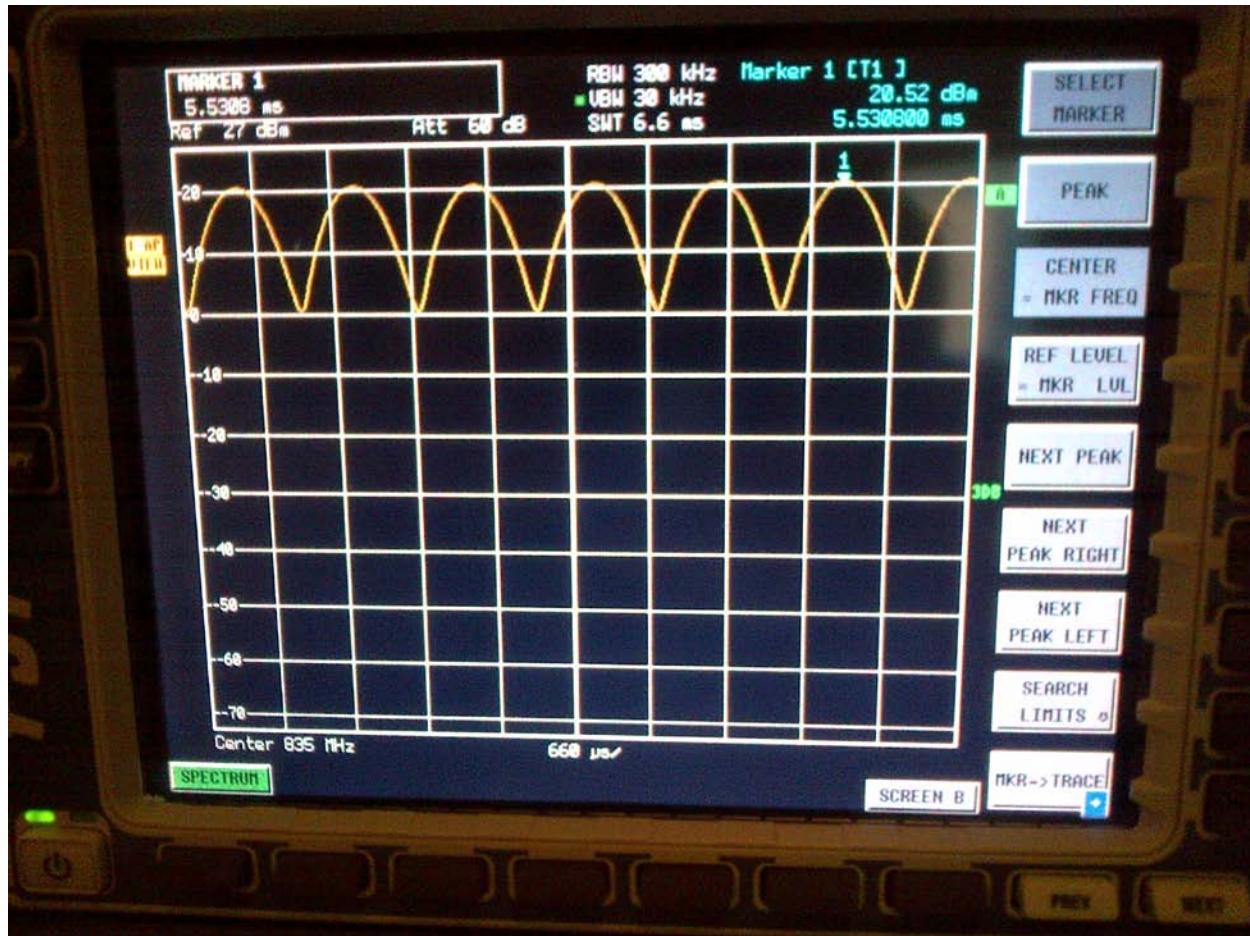
Jan. 31, Feb 17-22, Apr 30-May 1, 2012

Report No

RTS-5995-1204-31

FCC ID

L6AREU70UW



AM 80% 835 MHz

Author Data <b>Andrew Becker</b>	Dates of Test <b>Jan. 31, Feb 17-22, Apr 30-May 1, 2012</b>	Report No <b>RTS-5995-1204-31</b>	FCC ID <b>L6AREU70UW</b>
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**UMTS 1733 MHz**

Author Data

**Andrew Becker**

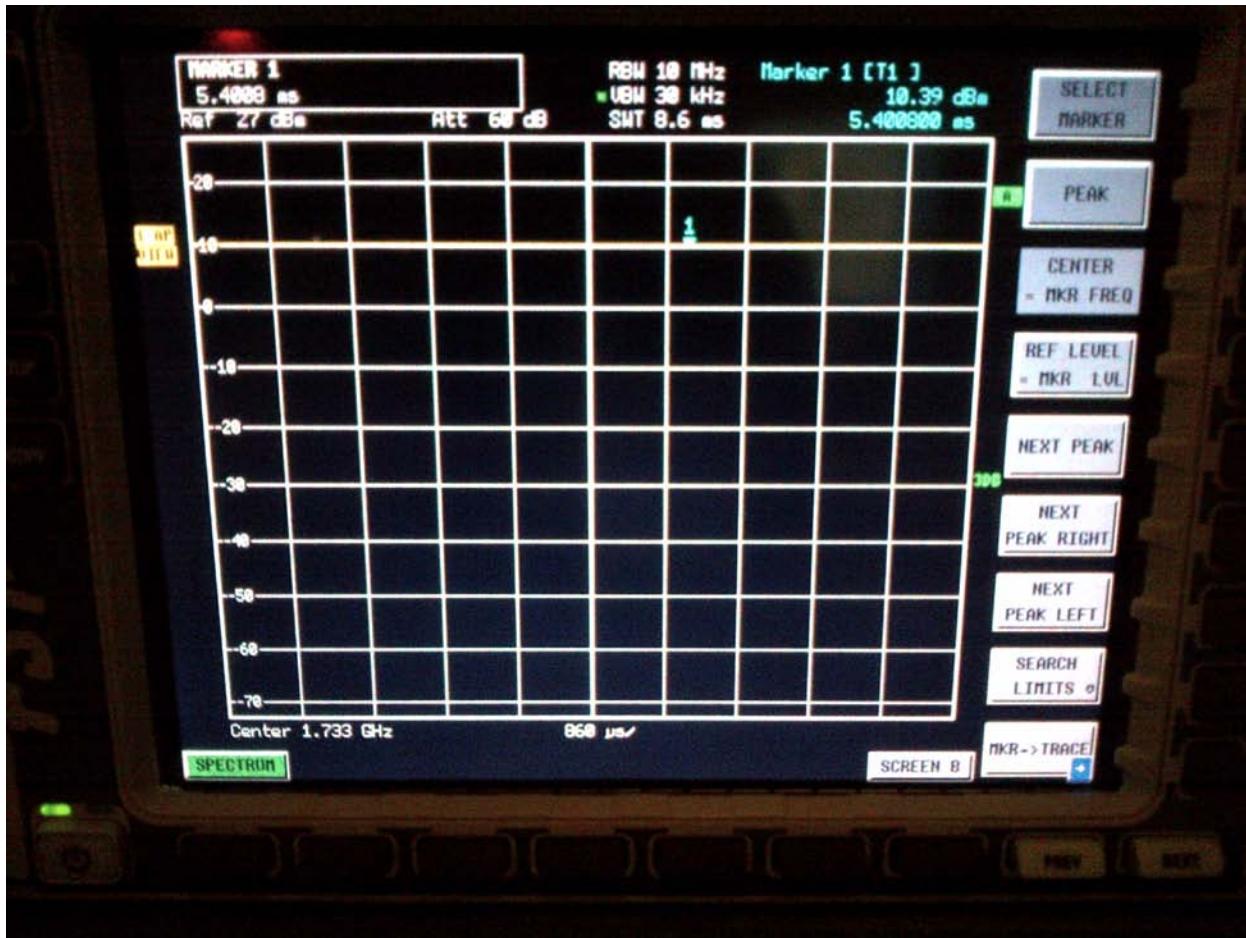
Dates of Test

**Jan. 31, Feb 17-22, Apr 30-May 1, 2012**

Report No

**RTS-5995-1204-31**

FCC ID

**L6AREU70UW****CW 1733 MHz**

Author Data

**Andrew Becker**

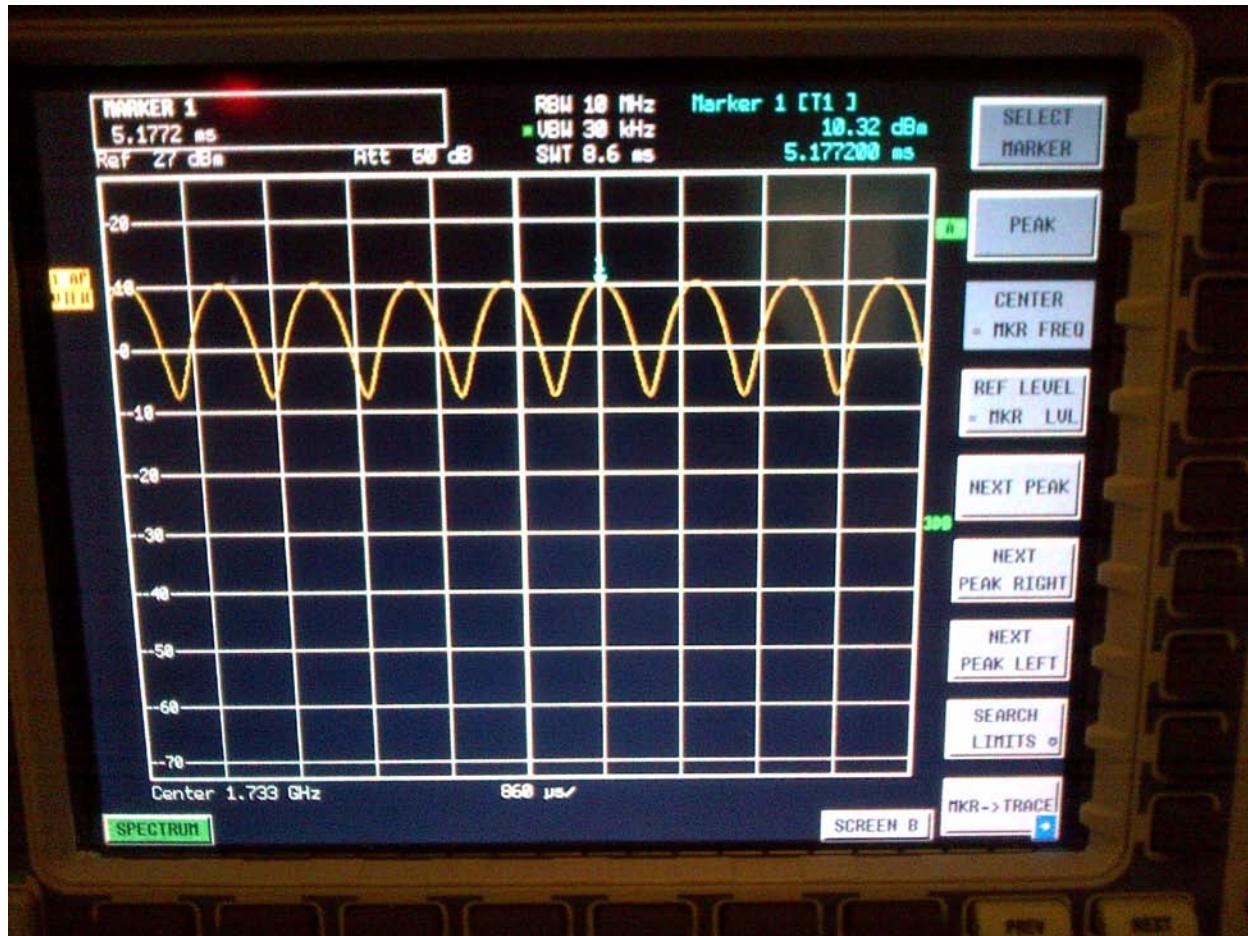
Dates of Test

**Jan. 31, Feb 17-22, Apr 30-May 1, 2012**

Report No

**RTS-5995-1204-31**

FCC ID

**L6AREU70UW****AM80% 1733 MHz**

Author Data

Andrew Becker

Dates of Test

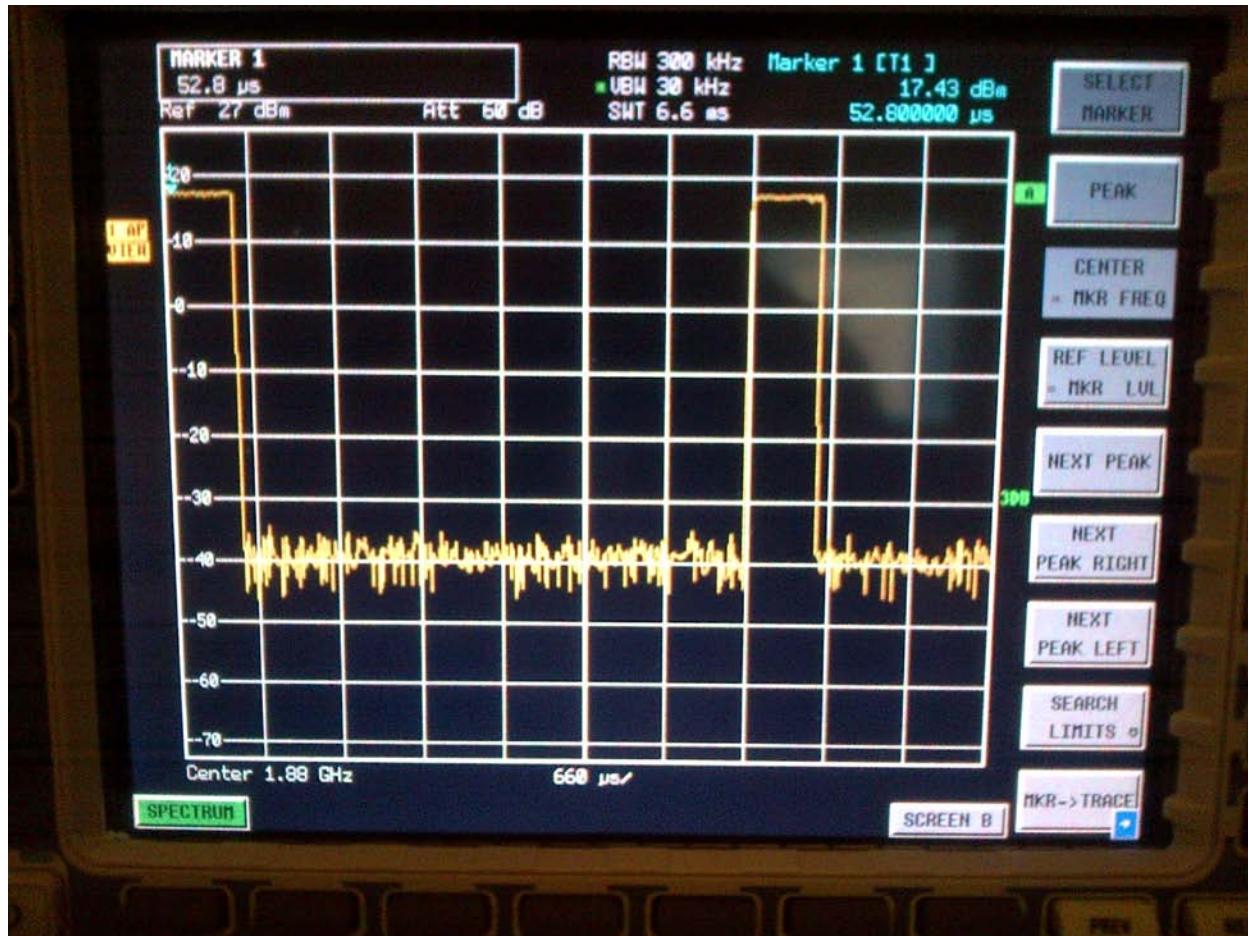
Jan. 31, Feb 17-22, Apr 30-May 1, 2012

Report No

RTS-5995-1204-31

FCC ID

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GSM 1880 MHz

Author Data

**Andrew Becker**

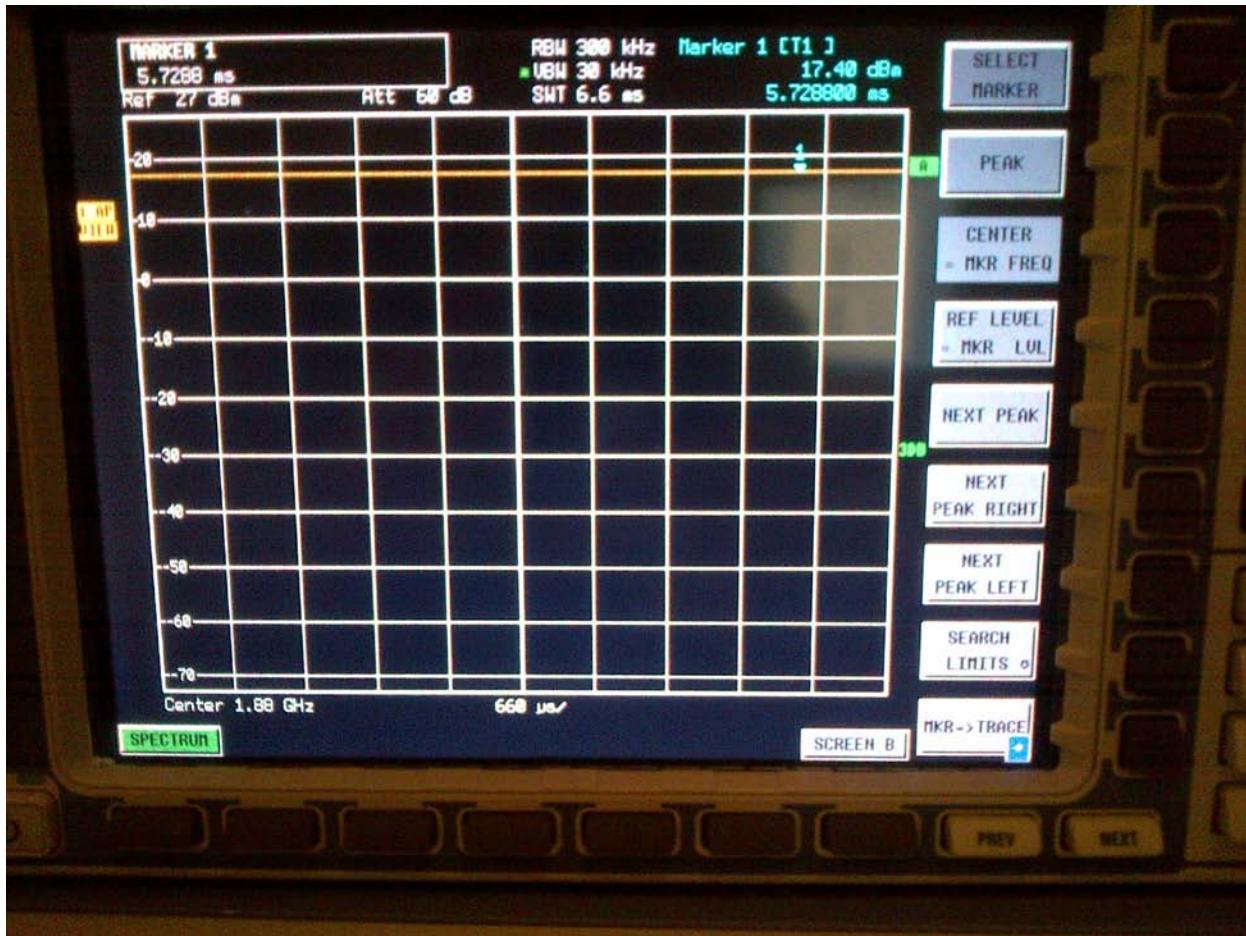
Dates of Test

**Jan. 31, Feb 17-22, Apr 30-May 1, 2012**

Report No

**RTS-5995-1204-31**

FCC ID

**L6AREU70UW****CW 1880 MHz**

Author Data

**Andrew Becker**

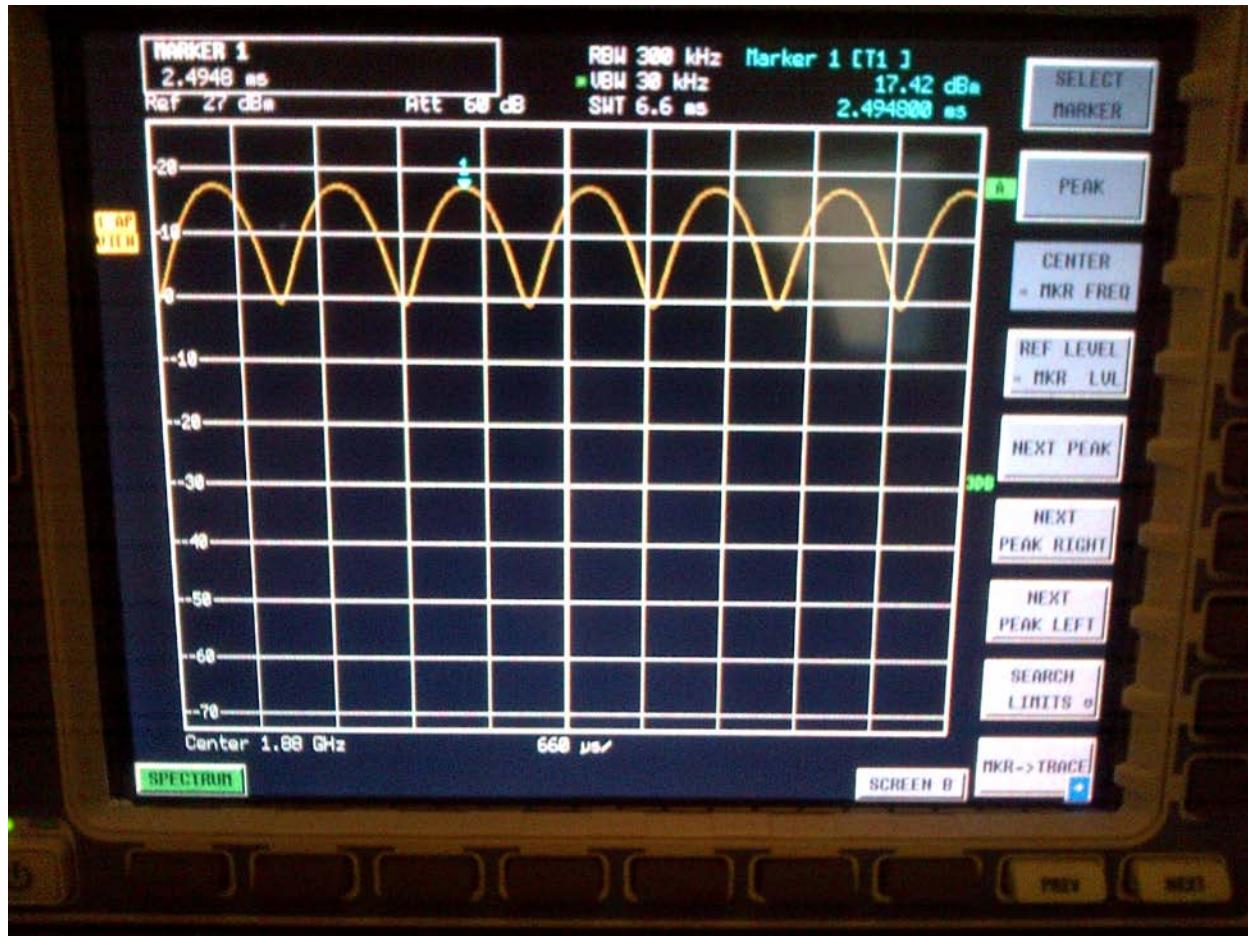
Dates of Test

**Jan. 31, Feb 17-22, Apr 30-May 1, 2012**

Report No

**RTS-5995-1204-31**

FCC ID

**L6AREU70UW****AM 80 % 1880 MHz**

Author Data

**Andrew Becker**

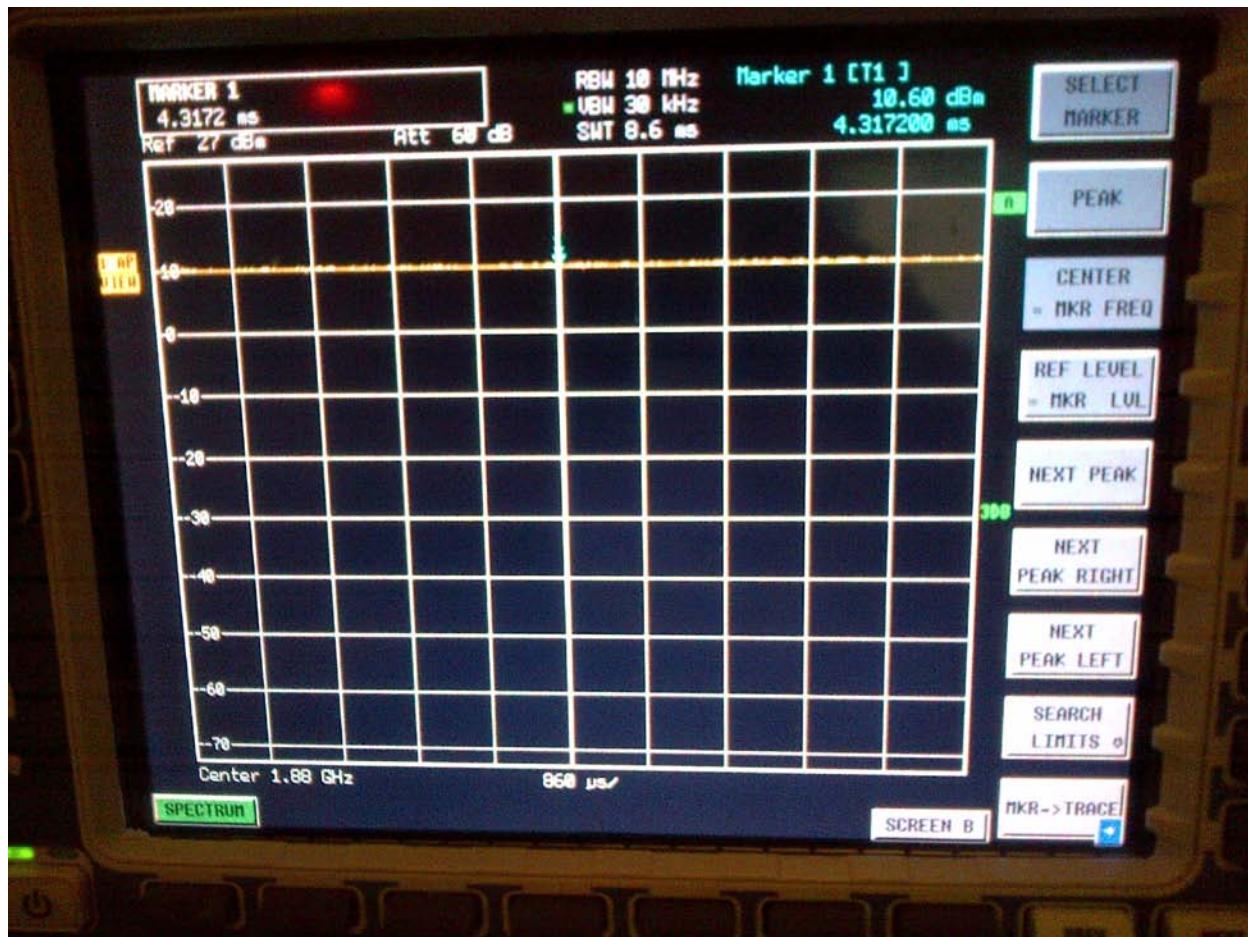
Dates of Test

**Jan. 31, Feb 17-22, Apr 30-May 1, 2012**

Report No

**RTS-5995-1204-31**

FCC ID

**L6AREU70UW****UMTS 1880 MHz**

Author Data

**Andrew Becker**

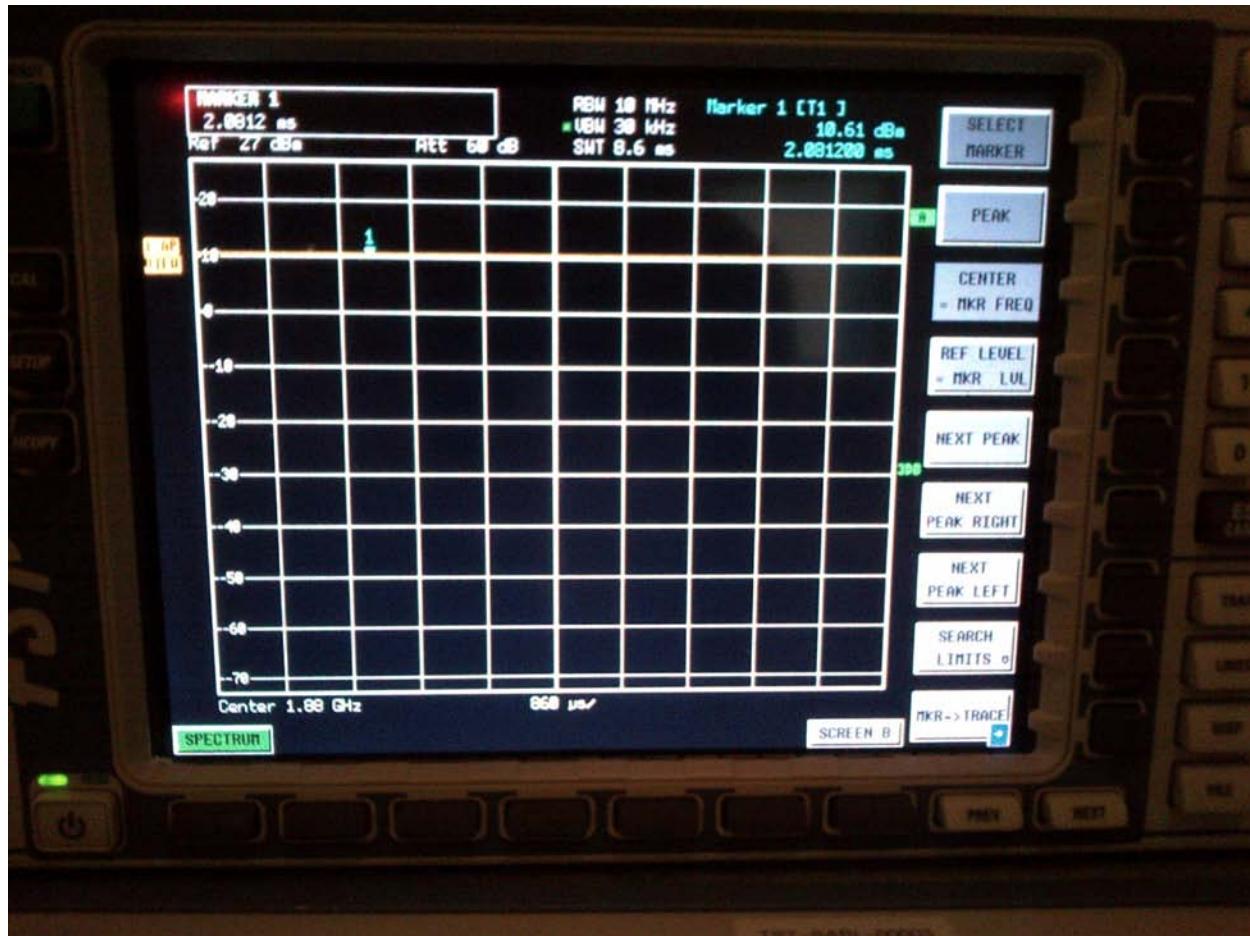
Dates of Test

**Jan. 31, Feb 17-22, Apr 30-May 1, 2012**

Report No

**RTS-5995-1204-31**

FCC ID

**L6AREU70UW****CW 1880 MHz**

Author Data

**Andrew Becker**

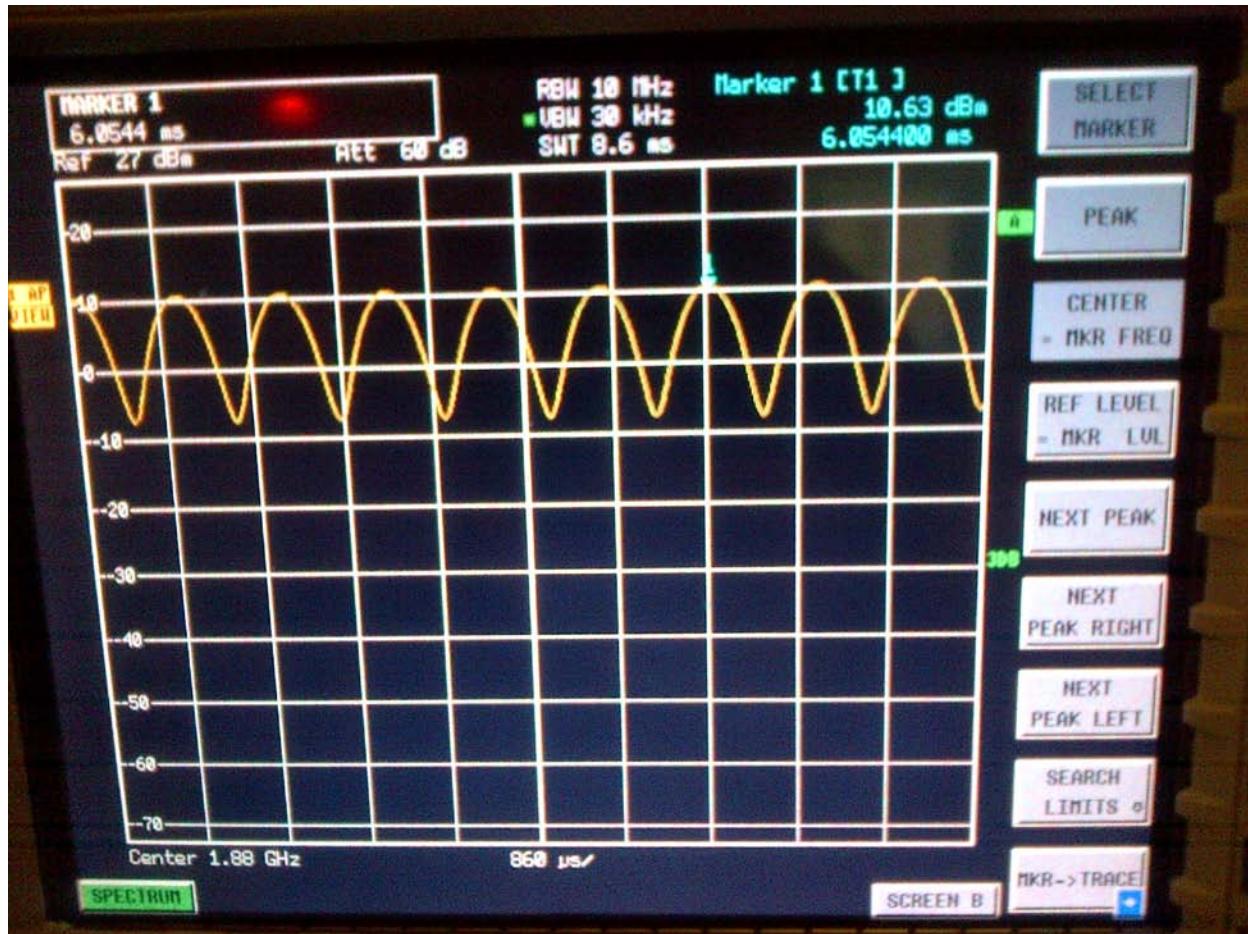
Dates of Test

**Jan. 31, Feb 17-22, Apr 30-May 1, 2012**

Report No

**RTS-5995-1204-31**

FCC ID

**L6AREU70UW****AM 80 % 1880 MHz**



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**Andrew Becker**

Dates of Test

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**L6AREU70UW****A.2 Dipole validation and probe modulation factor plots**

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Author Data <b>Andrew Becker</b>	Dates of Test <b>Jan. 31, Feb 17-22, Apr 30-May 1, 2012</b>	Report No <b>RTS-5995-1204-31</b>	FCC ID <b>L6AREU70UW</b>

Date/Time: 5/1/2012 11:02:41 AM

Test Laboratory: RIM Testing Services

## **HAC RF\_E-Field\_validation\_835 MHz\_05\_01\_12**

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

Communication System: CW; Frequency: 835 MHz

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

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; Serial: **Not Specified**
- 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 = 111.9 V/m; Power Drift = 0.04 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 171.3 V/m

**Near-field category: M4 (AWF 0 dB)**

Author Data

Andrew Becker

Dates of Test

Jan. 31, Feb 17-22, Apr 30-May 1, 2012

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FCC ID

L6AREU70UW

PMF scaled E-field

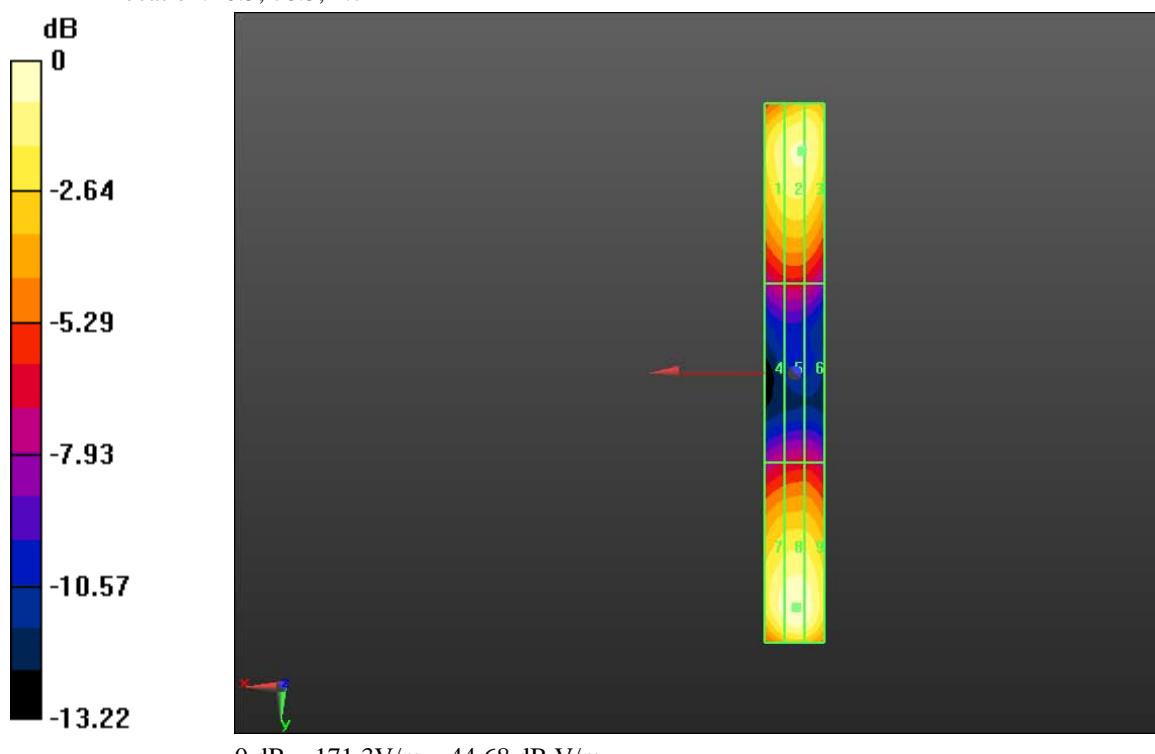
Grid 1 <b>M4</b> <b>151.0 V/m</b>	Grid 2 <b>M4</b> <b>157.6 V/m</b>	Grid 3 <b>M4</b> <b>157.0 V/m</b>
Grid 4 <b>M4</b> <b>79.55 V/m</b>	Grid 5 <b>M4</b> <b>80.99 V/m</b>	Grid 6 <b>M4</b> <b>80.06 V/m</b>
Grid 7 <b>M4</b> <b>162.1 V/m</b>	Grid 8 <b>M4</b> <b>171.3 V/m</b>	Grid 9 <b>M4</b> <b>166.2 V/m</b>

**Cursor:**

Total = 171.3 V/m

E Category: M4

Location: -0.5, 78.5, 4.7 mm





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**Andrew Becker**

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**Jan. 31, Feb 17-22, Apr 30-May 1, 2012**

Report No

**RTS-5995-1204-31**

FCC ID

**L6AREU70UW**

Date/Time: 1/31/2012 2:20:06 PM

Test Laboratory: RIM Testing Services

**HAC RF\_E-Field\_PMF\_GSM835 MHz\_01\_31\_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:  $\sigma = 0 \text{ mho/m}$ ,  $\epsilon_r = 1$ ;  $\rho = 0 \text{ kg/m}^3$ 

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; Serial: **Not Specified**
- DASY5 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:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$ 

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 34.20 V/m; Power Drift = 0.04 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 51.25 V/m

**Near-field category: M4 (AWF 0 dB)**

PMF scaled E-field

Grid 1 <b>M4</b> <b>46.59 V/m</b>	Grid 2 <b>M4</b> <b>49.14 V/m</b>	Grid 3 <b>M4</b> <b>49.14 V/m</b>
Grid 4 <b>M4</b> <b>27.62 V/m</b>	Grid 5 <b>M4</b> <b>28.27 V/m</b>	Grid 6 <b>M4</b> <b>28.03 V/m</b>
Grid 7 <b>M4</b> <b>49.67 V/m</b>	Grid 8 <b>M4</b> <b>51.25 V/m</b>	Grid 9 <b>M4</b> <b>50.67 V/m</b>

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Author Data

**Andrew Becker**

Dates of Test

**Jan. 31, Feb 17-22, Apr 30-May 1, 2012**

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**RTS-5995-1204-31**

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**L6AREU70UW****Cursor:**

Total = 51.249 V/m

E Category: M4

Location: -0.5, 79.5, 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 = 105.5 V/m; Power Drift = 0.04 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 160.5 V/m

**Near-field category: M4 (AWF 0 dB)**

PMF scaled E-field

Grid 1 <b>M4</b> <b>144.7 V/m</b>	Grid 2 <b>M4</b> <b>152.0 V/m</b>	Grid 3 <b>M4</b> <b>151.2 V/m</b>
Grid 4 <b>M4</b> <b>81.25 V/m</b>	Grid 5 <b>M4</b> <b>83.39 V/m</b>	Grid 6 <b>M4</b> <b>81.16 V/m</b>
Grid 7 <b>M4</b> <b>156.0 V/m</b>	Grid 8 <b>M4</b> <b>160.5 V/m</b>	Grid 9 <b>M4</b> <b>155.5 V/m</b>

**Cursor:**

Total = 160.5 V/m

E Category: M4

Location: 0, 79, 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 = 67.40 V/m; Power Drift = -0.05 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 101.2 V/m

**Near-field category: M4 (AWF 0 dB)**

Author Data

Andrew Becker

Dates of Test

Jan. 31, Feb 17-22, Apr 30-May 1, 2012

Report No

RTS-5995-1204-31

FCC ID

L6AREU70UW

PMF scaled E-field

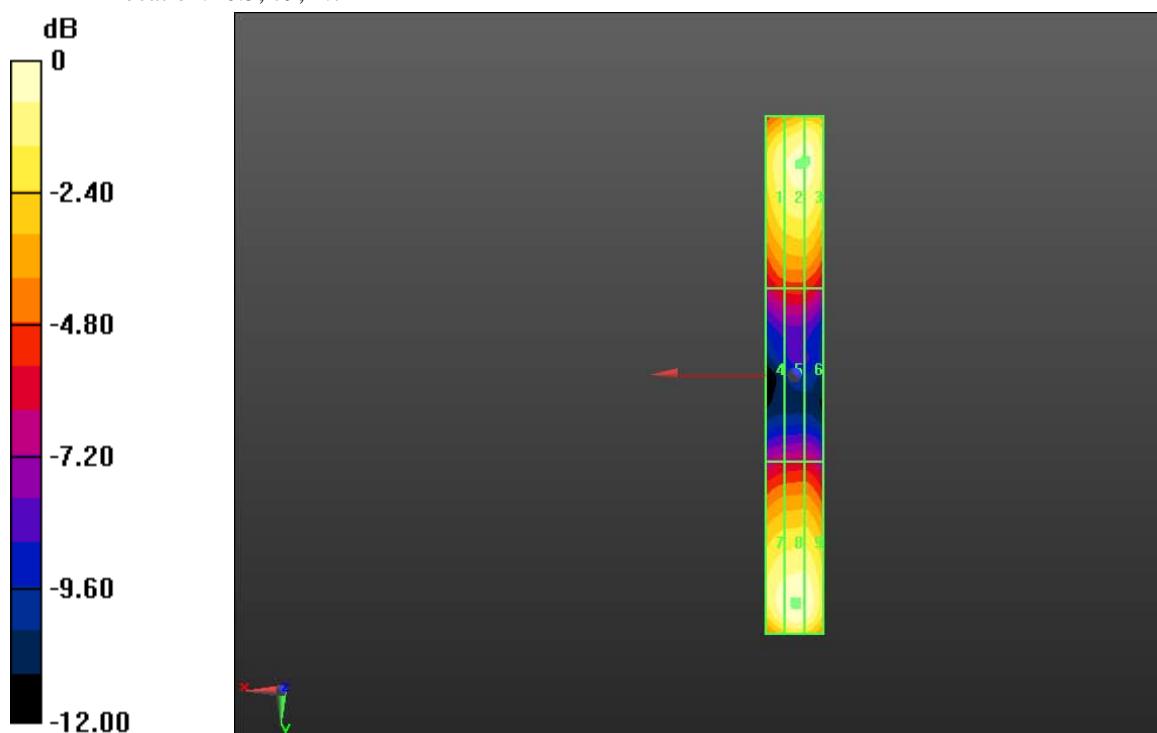
Grid 1 <b>M4</b> <b>90.33 V/m</b>	Grid 2 <b>M4</b> <b>95.24 V/m</b>	Grid 3 <b>M4</b> <b>95.16 V/m</b>
Grid 4 <b>M4</b> <b>51.51 V/m</b>	Grid 5 <b>M4</b> <b>53.10 V/m</b>	Grid 6 <b>M4</b> <b>51.99 V/m</b>
Grid 7 <b>M4</b> <b>97.22 V/m</b>	Grid 8 <b>M4</b> <b>101.2 V/m</b>	Grid 9 <b>M4</b> <b>98.82 V/m</b>

**Cursor:**

Total = 101.2 V/m

E Category: M4

Location: -0.5, 79, 4.7 mm





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**20 (93)**

Author Data

**Andrew Becker**

Dates of Test

**Jan. 31, Feb 17-22, Apr 30-May 1, 2012**

Report No

**RTS-5995-1204-31**

FCC ID

**L6AREU70UW**

Date/Time: 5/1/2012 11:24:15 AM

Test Laboratory: RIM Testing Services

**HAC RF\_E-Field\_validation\_1880 MHz\_05\_01\_12****DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 1008**

Communication System: CW; Frequency: 1880 MHz

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

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; Serial: **Not Specified**
- 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 = 161.2 V/m; Power Drift = 0.00 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 147.0 V/m

**Near-field category: M2 (AWF 0 dB)**

PMF scaled E-field

Grid 1 <b>M2</b> <b>116.6 V/m</b>	Grid 2 <b>M2</b> <b>120.3 V/m</b>	Grid 3 <b>M2</b> <b>118.7 V/m</b>
Grid 4 <b>M3</b> <b>80.75 V/m</b>	Grid 5 <b>M3</b> <b>82.25 V/m</b>	Grid 6 <b>M3</b> <b>79.83 V/m</b>
Grid 7 <b>M2</b> <b>137.2 V/m</b>	Grid 8 <b>M2</b> <b>147.0 V/m</b>	Grid 9 <b>M2</b> <b>144.6 V/m</b>

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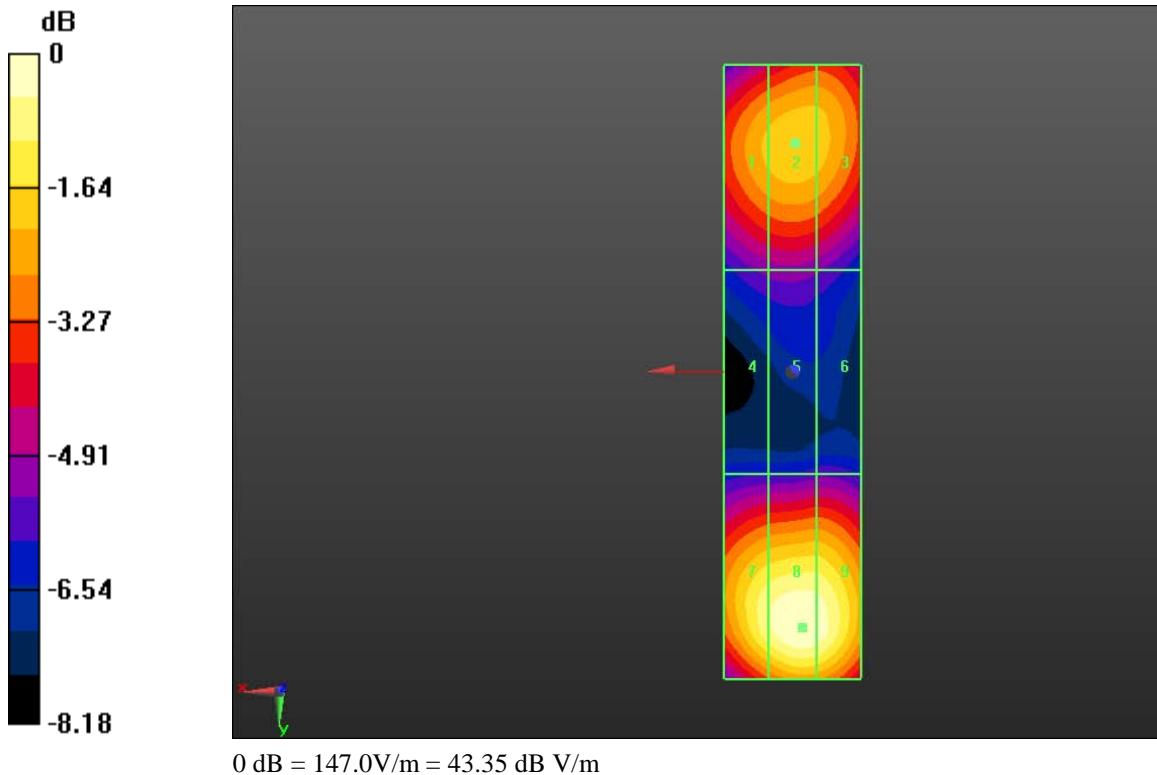
Author Data	Dates of Test	Report No	FCC ID
<b>Andrew Becker</b>	<b>Jan. 31, Feb 17-22, Apr 30-May 1, 2012</b>	<b>RTS-5995-1204-31</b>	<b>L6AREU70UW</b>

## Cursor:

Total = 147.0 V/m

## E Category: M2

Location: -1.5, 37.5, 4.7 mm





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Author Data

**Andrew Becker**

Dates of Test

**Jan. 31, Feb 17-22, Apr 30-May 1, 2012**

Report No

**RTS-5995-1204-31**

FCC ID

**L6AREU70UW**

Date/Time: 2/17/2012 3:04:25 PM

Test Laboratory: RIM Testing Services

**HAC RF\_E-Field\_PMF\_UMTS1733 MHz\_02\_17\_12****DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 1008**

Communication System: WCDMA FDD IV, Communication System: CW, Communication System: AM 80%; Frequency: 1732.6 MHz, Frequency: 1733 MHz

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

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; Serial: **Not Specified**
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

**Dipole E-Field measurement/E Scan - UMTS 1733\_PMF/Hearing Aid Compatibility Test (41x181x1):** Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 50.62 V/m; Power Drift = -0.07 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 45.31 V/m

**Near-field category: M4 (AWF 0 dB)**

PMF scaled E-field

Grid 1 <b>M4</b> <b>38.99</b> V/m	Grid 2 <b>M4</b> <b>40.35</b> V/m	Grid 3 <b>M4</b> <b>39.86</b> V/m
Grid 4 <b>M4</b> <b>28.58</b> V/m	Grid 5 <b>M4</b> <b>29.21</b> V/m	Grid 6 <b>M4</b> <b>28.30</b> V/m
Grid 7 <b>M4</b> <b>42.57</b> V/m	Grid 8 <b>M4</b> <b>45.31</b> V/m	Grid 9 <b>M4</b> <b>44.53</b> V/m

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**Andrew Becker**

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**L6AREU70UW****Cursor:**

Total = 45.306 V/m

E Category: M4

Location: -1, 38, 4.7 mm

**Dipole E-Field measurement/E Scan- CW 1733\_PMF/Hearing Aid Compatibility Test (41x181x1):** Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 50.63 V/m; Power Drift = 0.07 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 46.45 V/m

**Near-field category: M4 (AWF 0 dB)**

PMF scaled E-field

Grid 1 <b>M4</b> <b>40.60</b> V/m	Grid 2 <b>M4</b> <b>41.81</b> V/m	Grid 3 <b>M4</b> <b>41.04</b> V/m
Grid 4 <b>M4</b> <b>29.57</b> V/m	Grid 5 <b>M4</b> <b>30.18</b> V/m	Grid 6 <b>M4</b> <b>29.29</b> V/m
Grid 7 <b>M4</b> <b>44.02</b> V/m	Grid 8 <b>M4</b> <b>46.45</b> V/m	Grid 9 <b>M4</b> <b>45.54</b> V/m

**Cursor:**

Total = 46.446 V/m

E Category: M4

Location: -1, 38, 4.7 mm

**Dipole E-Field measurement/E Scan - AM80%\_ 1733\_PMF/Hearing Aid Compatibility Test (41x181x1):** Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 32.26 V/m; Power Drift = 0.12 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 29.45 V/m

**Near-field category: M4 (AWF 0 dB)**

Author Data

**Andrew Becker**

Dates of Test

**Jan. 31, Feb 17-22, Apr 30-May 1, 2012**

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**L6AREU70UW**

PMF scaled E-field

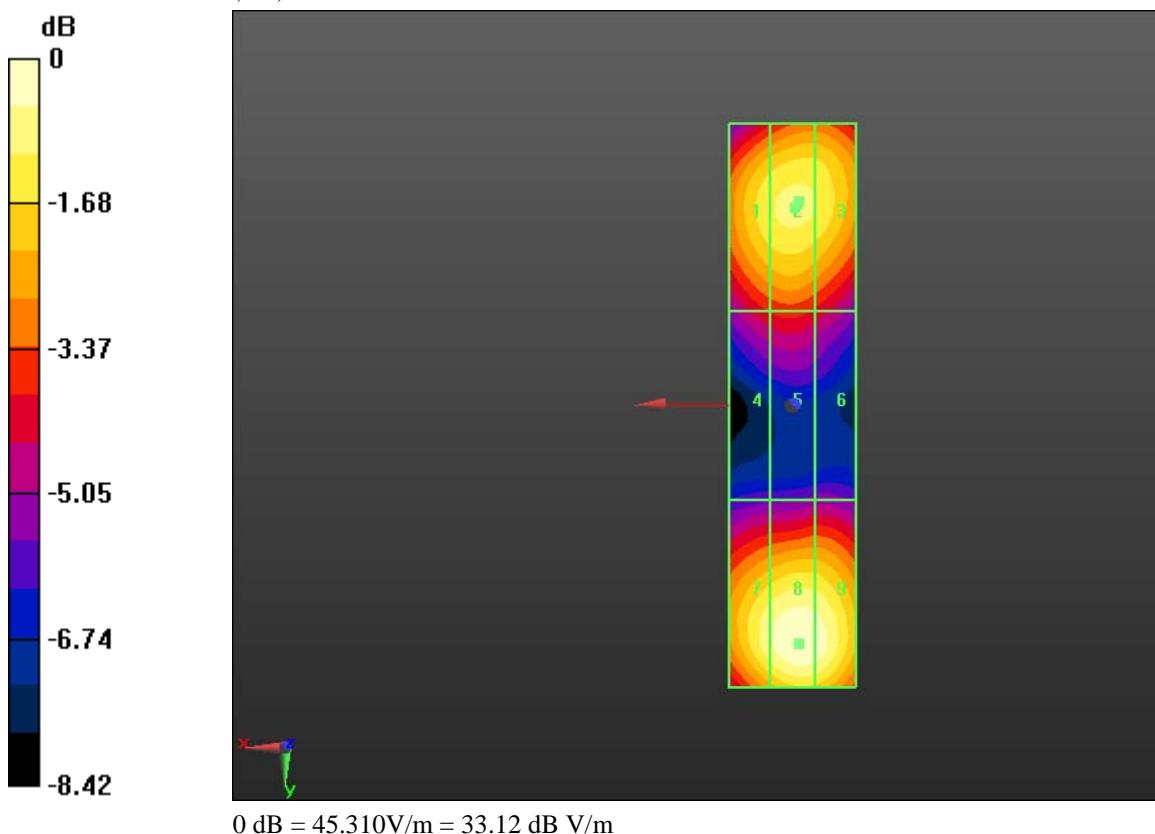
Grid 1 <b>M4</b> <b>25.68 V/m</b>	Grid 2 <b>M4</b> <b>26.42 V/m</b>	Grid 3 <b>M4</b> <b>25.96 V/m</b>
Grid 4 <b>M4</b> <b>18.91 V/m</b>	Grid 5 <b>M4</b> <b>19.39 V/m</b>	Grid 6 <b>M4</b> <b>18.52 V/m</b>
Grid 7 <b>M4</b> <b>27.45 V/m</b>	Grid 8 <b>M4</b> <b>29.45 V/m</b>	Grid 9 <b>M4</b> <b>28.94 V/m</b>

**Cursor:**

Total = 29.451 V/m

E Category: M4

Location: -1, 38, 4.7 mm





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FCC ID

**L6AREU70UW**

Date/Time: 1/31/2012 1:55:07 PM

Test Laboratory: RIM Testing Services

**HAC RF\_E-Field\_PMF\_GSM1880 MHz\_01\_31\_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,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

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; Serial: **Not Specified**
- DASY5 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 = 34.29 V/m; Power Drift = 0.05 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 30.95 V/m

**Near-field category: M4 (AWF 0 dB)**

PMF scaled E-field

Grid 1 <b>M4</b> <b>27.89</b> V/m	Grid 2 <b>M4</b> <b>29.29</b> V/m	Grid 3 <b>M4</b> <b>29.22</b> V/m
Grid 4 <b>M4</b> <b>19.87</b> V/m	Grid 5 <b>M4</b> <b>20.63</b> V/m	Grid 6 <b>M4</b> <b>20.20</b> V/m
Grid 7 <b>M4</b> <b>29.49</b> V/m	Grid 8 <b>M4</b> <b>30.95</b> V/m	Grid 9 <b>M4</b> <b>30.55</b> V/m



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**26 (93)**Author Data  
**Andrew Becker**

Dates of Test

**Jan. 31, Feb 17-22, Apr 30-May 1, 2012**

Report No

**RTS-5995-1204-31**

FCC ID

**L6AREU70UW****Cursor:**

Total = 30.947 V/m

E Category: M4

Location: -1, 38, 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 = 102.4 V/m; Power Drift = -0.11 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 90.42 V/m

**Near-field category: M3 (AWF 0 dB)**

## PMF scaled E-field

Grid 1 <b>M3</b> <b>82.60</b> V/m	Grid 2 <b>M3</b> <b>86.68</b> V/m	Grid 3 <b>M3</b> <b>86.04</b> V/m
Grid 4 <b>M4</b> <b>58.55</b> V/m	Grid 5 <b>M4</b> <b>60.47</b> V/m	Grid 6 <b>M4</b> <b>58.89</b> V/m
Grid 7 <b>M3</b> <b>85.63</b> V/m	Grid 8 <b>M3</b> <b>90.42</b> V/m	Grid 9 <b>M3</b> <b>88.30</b> V/m

**Cursor:**

Total = 90.419 V/m

E Category: M3

Location: -0.5, 38, 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 = 64.56 V/m; Power Drift = 0.07 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 58.24 V/m

**Near-field category: M4 (AWF 0 dB)**

Author Data

**Andrew Becker**

Dates of Test

**Jan. 31, Feb 17-22, Apr 30-May 1, 2012**

Report No

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FCC ID

**L6AREU70UW**

PMF scaled E-field

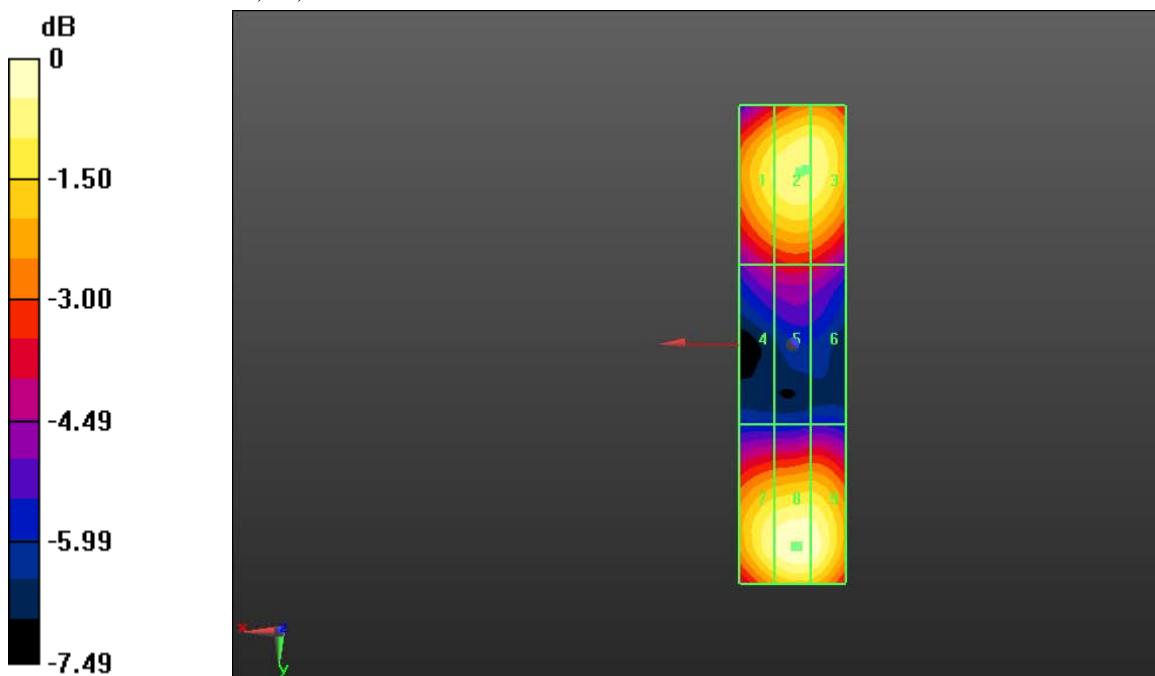
Grid 1 <b>M4</b> <b>52.36 V/m</b>	Grid 2 <b>M4</b> <b>55.29 V/m</b>	Grid 3 <b>M4</b> <b>55.10 V/m</b>
Grid 4 <b>M4</b> <b>37.30 V/m</b>	Grid 5 <b>M4</b> <b>38.47 V/m</b>	Grid 6 <b>M4</b> <b>37.60 V/m</b>
Grid 7 <b>M4</b> <b>55.71 V/m</b>	Grid 8 <b>M4</b> <b>58.24 V/m</b>	Grid 9 <b>M4</b> <b>56.94 V/m</b>

**Cursor:**

Total = 58.238 V/m

E Category: M4

Location: -0.5, 38, 4.7 mm





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**Andrew Becker**

Dates of Test

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Report No

**RTS-5995-1204-31**

FCC ID

**L6AREU70UW**

Date/Time: 2/17/2012 2:20:23 PM

Test Laboratory: RIM Testing Services

**HAC RF\_E-Field\_PMF\_UMTS1880 MHz\_02\_17\_12****DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 1008**

Communication System: WCDMA FDD II, Communication System: CW, Communication System: AM 80%; Frequency: 1880 MHz

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

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; Serial: **Not Specified**
- DASY5 52.8.0(692); SEMCAD X 14.6.4(4989)

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

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 47.02 V/m; Power Drift = 0.01 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 42.43 V/m

**Near-field category: M4 (AWF 0 dB)**

PMF scaled E-field

Grid 1 <b>M4</b> <b>37.98</b> V/m	Grid 2 <b>M4</b> <b>39.42</b> V/m	Grid 3 <b>M4</b> <b>39.04</b> V/m
Grid 4 <b>M4</b> <b>26.86</b> V/m	Grid 5 <b>M4</b> <b>27.50</b> V/m	Grid 6 <b>M4</b> <b>26.70</b> V/m
Grid 7 <b>M4</b> <b>39.63</b> V/m	Grid 8 <b>M4</b> <b>42.43</b> V/m	Grid 9 <b>M4</b> <b>41.87</b> V/m

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**Andrew Becker**

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**L6AREU70UW****Cursor:**

Total = 42.427 V/m

E Category: M4

Location: -1, 38, 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 = 47.33 V/m; Power Drift = -0.05 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 42.41 V/m

**Near-field category: M4 (AWF 0 dB)**

PMF scaled E-field

Grid 1 <b>M4</b> <b>38.23</b> V/m	Grid 2 <b>M4</b> <b>39.51</b> V/m	Grid 3 <b>M4</b> <b>39.41</b> V/m
Grid 4 <b>M4</b> <b>26.94</b> V/m	Grid 5 <b>M4</b> <b>27.41</b> V/m	Grid 6 <b>M4</b> <b>26.77</b> V/m
Grid 7 <b>M4</b> <b>40.02</b> V/m	Grid 8 <b>M4</b> <b>42.41</b> V/m	Grid 9 <b>M4</b> <b>41.99</b> V/m

**Cursor:**

Total = 42.409 V/m

E Category: M4

Location: -1.5, 38, 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 = 30.18 V/m; Power Drift = 0.06 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 27.40 V/m

**Near-field category: M4 (AWF 0 dB)**

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PMF scaled E-field

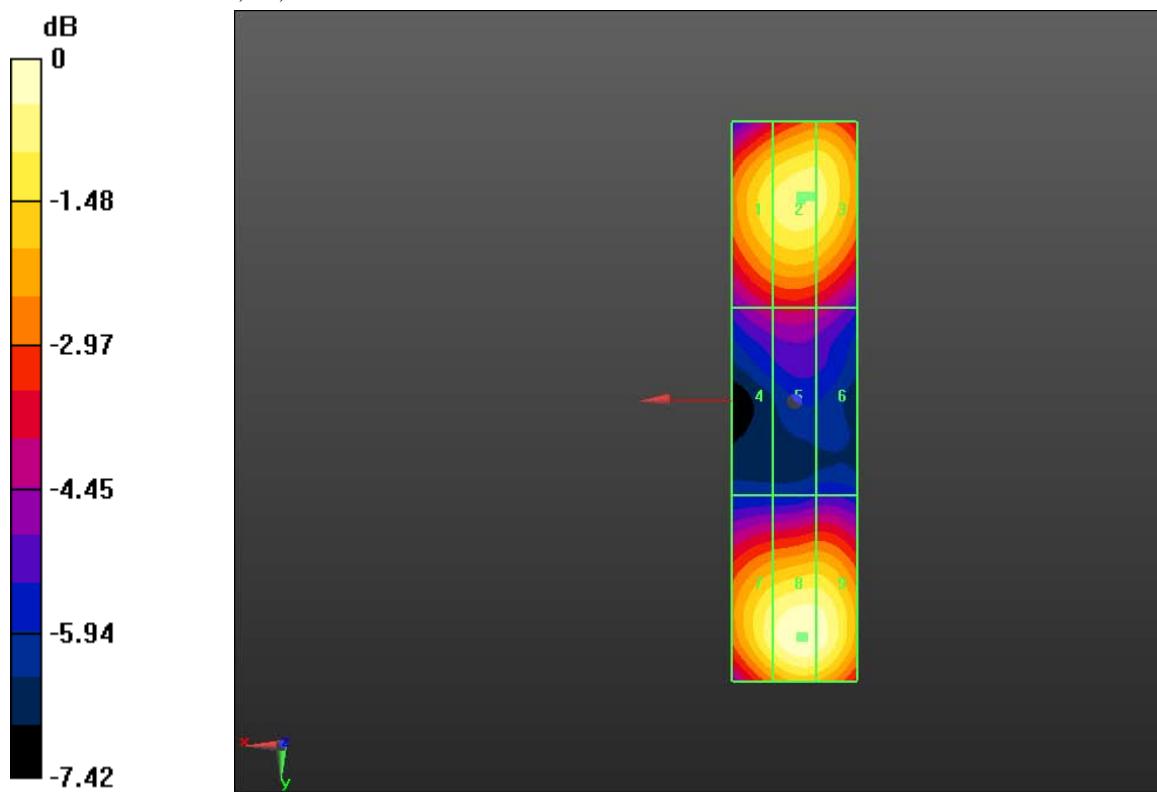
Grid 1 <b>M4</b> <b>24.40 V/m</b>	Grid 2 <b>M4</b> <b>25.26 V/m</b>	Grid 3 <b>M4</b> <b>24.95 V/m</b>
Grid 4 <b>M4</b> <b>17.20 V/m</b>	Grid 5 <b>M4</b> <b>17.65 V/m</b>	Grid 6 <b>M4</b> <b>17.12 V/m</b>
Grid 7 <b>M4</b> <b>25.54 V/m</b>	Grid 8 <b>M4</b> <b>27.40 V/m</b>	Grid 9 <b>M4</b> <b>27.02 V/m</b>

**Cursor:**

Total = 27.402 V/m

E Category: M4

Location: -1, 38, 4.7 mm





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FCC ID

L6AREU70UW

Date/Time: 5/1/2012 3:47:55 PM

Test Laboratory: RIM Testing Services

**HAC RF\_H-Field\_validation\_835 MHz\_05\_01\_12****DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 1011**

Communication System: CW; Frequency: 835 MHz

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

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; Serial: **Not Specified**
- 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 = 0.51 V/m; Power Drift = -0.04 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.48 A/m

**Near-field category: M4 (AWF 0 dB)**

PMF scaled H-field

Grid 1 <b>M4</b> <b>0.45 A/m</b>	Grid 2 <b>M4</b> <b>0.47 A/m</b>	Grid 3 <b>M4</b> <b>0.45 A/m</b>
Grid 4 <b>M4</b> <b>0.46 A/m</b>	Grid 5 <b>M4</b> <b>0.48 A/m</b>	Grid 6 <b>M4</b> <b>0.46 A/m</b>
Grid 7 <b>M4</b> <b>0.45 A/m</b>	Grid 8 <b>M4</b> <b>0.47 A/m</b>	Grid 9 <b>M4</b> <b>0.44 A/m</b>

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Author Data

**Andrew Becker**

Dates of Test

**Jan. 31, Feb 17-22, Apr 30-May 1, 2012**

Report No

**RTS-5995-1204-31**

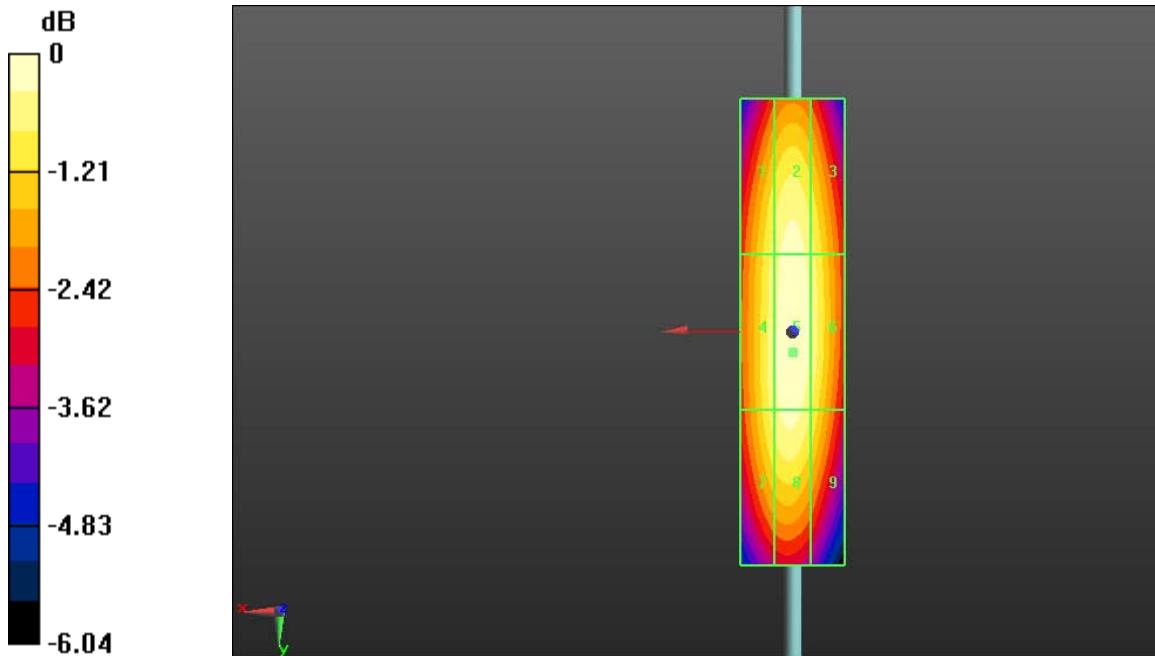
FCC ID

**L6AREU70UW****Cursor:**

Total = 0.480 A/m

H Category: M4

Location: 0, 4, 4.7 mm



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Date/Time: 1/31/2012 3:12:15 PM

Test Laboratory: RIM Testing Services

### **HAC RF\_H-Field\_PMF\_GSM835 MHz\_01\_31\_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:  $\sigma = 0 \text{ mho/m}$ ,  $\epsilon_r = 1$ ;  $\rho = 0 \text{ kg/m}^3$

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; Serial: **Not Specified**
- 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:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.17 V/m; Power Drift = -0.08 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.16 A/m

**Near-field category: M4 (AWF 0 dB)**



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**L6AREU70UW**

PMF scaled H-field

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

**Cursor:**

Total = 0.159 A/m

H Category: M4

Location: 0, 1, 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 = 0.27 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: M4 (AWF 0 dB)**

PMF scaled H-field

Grid 1 <b>M4</b> <b>0.43 A/m</b>	Grid 2 <b>M4</b> <b>0.45 A/m</b>	Grid 3 <b>M4</b> <b>0.43 A/m</b>
Grid 4 <b>M4</b> <b>0.45 A/m</b>	Grid 5 <b>M4</b> <b>0.47 A/m</b>	Grid 6 <b>M4</b> <b>0.45 A/m</b>
Grid 7 <b>M4</b> <b>0.44 A/m</b>	Grid 8 <b>M4</b> <b>0.46 A/m</b>	Grid 9 <b>M4</b> <b>0.43 A/m</b>



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**L6AREU70UW****Cursor:**

Total = 0.468 A/m

H Category: M4

Location: 0, 4, 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 = 0.04 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 <b>M4</b> <b>0.28 A/m</b>	Grid 2 <b>M4</b> <b>0.29 A/m</b>	Grid 3 <b>M4</b> <b>0.27 A/m</b>
Grid 4 <b>M4</b> <b>0.29 A/m</b>	Grid 5 <b>M4</b> <b>0.30 A/m</b>	Grid 6 <b>M4</b> <b>0.28 A/m</b>
Grid 7 <b>M4</b> <b>0.28 A/m</b>	Grid 8 <b>M4</b> <b>0.30 A/m</b>	Grid 9 <b>M4</b> <b>0.28 A/m</b>

**Cursor:**

Total = 0.302 A/m

H Category: M4

Location: 0, 3.5, 4.7 mm

Author Data

**Andrew Becker**

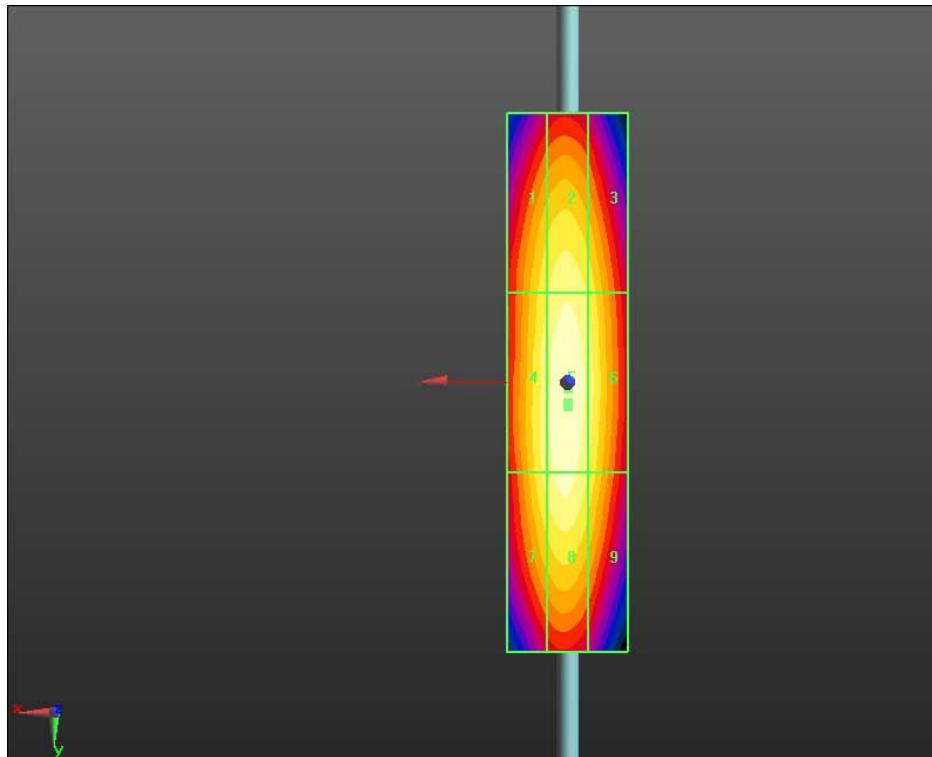
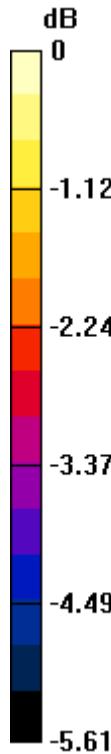
Dates of Test

**Jan. 31, Feb 17-22, Apr 30-May 1, 2012**

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**L6AREU70UW** $0 \text{ dB} = 0.160 \text{ A/m} = -15.92 \text{ dB A/m}$



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FCC ID

**L6AREU70UW**

Date/Time: 5/1/2012 4:03:43 PM

Test Laboratory: RIM Testing Services

**HAC RF\_H-Field\_validation\_1880 MHz\_05\_01\_12****DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 1008**

Communication System: CW; Frequency: 1880 MHz

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

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; Serial: **Not Specified**
- 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 = 0.07 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 <b>M2</b> <b>0.44 A/m</b>	Grid 2 <b>M2</b> <b>0.46 A/m</b>	Grid 3 <b>M2</b> <b>0.44 A/m</b>
Grid 4 <b>M2</b> <b>0.45 A/m</b>	Grid 5 <b>M2</b> <b>0.47 A/m</b>	Grid 6 <b>M2</b> <b>0.45 A/m</b>
Grid 7 <b>M2</b> <b>0.44 A/m</b>	Grid 8 <b>M2</b> <b>0.46 A/m</b>	Grid 9 <b>M2</b> <b>0.44 A/m</b>

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Author Data

**Andrew Becker**

Dates of Test

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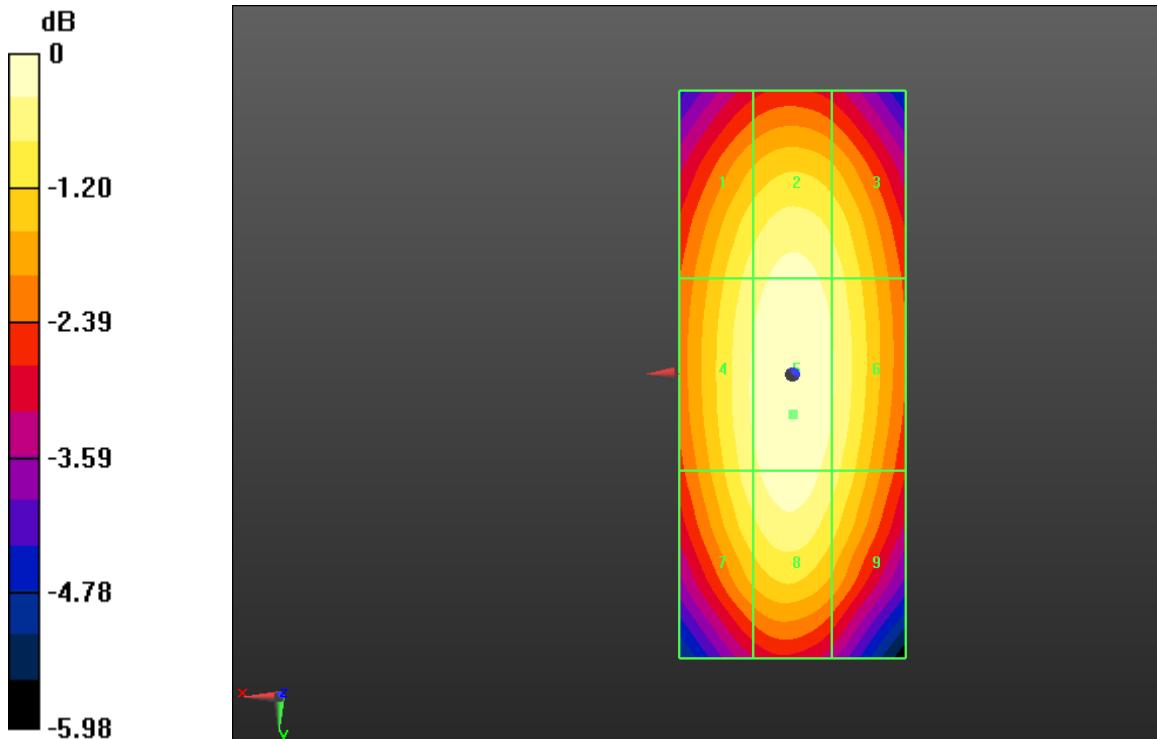
FCC ID

**L6AREU70UW****Cursor:**

Total = 0.474 A/m

H Category: M2

Location: 0, 3.5, 4.7 mm



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Date/Time: 2/17/2012 3:27:55 PM

Test Laboratory: RIM Testing Services

### **HAC RF\_H-Field\_PMF\_UMTS1733 MHz\_02\_17\_12**

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

Communication System: WCDMA FDD IV, Communication System: CW, Communication System: AM 80%; Frequency: 1732.6 MHz, Frequency: 1733 MHz

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

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; Serial: **Not Specified**
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

### **Dipole H-Field measurement with H3DV6 probe/H Scan -UMTS**

**1733\_PMF/Hearing Aid Compatibility Test (41x101x1):** Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.17 V/m; Power Drift = -0.03 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.16 A/m

**Near-field category: M4 (AWF 0 dB)**



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FCC ID

**L6AREU70UW**

PMF scaled H-field

Grid 1 <b>M4</b> <b>0.14 A/m</b>	Grid 2 <b>M4</b> <b>0.15 A/m</b>	Grid 3 <b>M4</b> <b>0.14 A/m</b>
Grid 4 <b>M4</b> <b>0.15 A/m</b>	Grid 5 <b>M4</b> <b>0.16 A/m</b>	Grid 6 <b>M4</b> <b>0.15 A/m</b>
Grid 7 <b>M4</b> <b>0.14 A/m</b>	Grid 8 <b>M4</b> <b>0.15 A/m</b>	Grid 9 <b>M4</b> <b>0.14 A/m</b>

**Cursor:**

Total = 0.157 A/m

H Category: M4

Location: 0, 0, 4.7 mm

**Dipole H-Field measurement with H3DV6 probe/H Scan - CW****1733\_PMF/Hearing Aid Compatibility Test (41x101x1): Measurement**

grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.17 V/m; Power Drift = -0.16 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 <b>M4</b> <b>0.14 A/m</b>	Grid 2 <b>M4</b> <b>0.15 A/m</b>	Grid 3 <b>M4</b> <b>0.14 A/m</b>
Grid 4 <b>M4</b> <b>0.15 A/m</b>	Grid 5 <b>M4</b> <b>0.16 A/m</b>	Grid 6 <b>M4</b> <b>0.15 A/m</b>
Grid 7 <b>M4</b> <b>0.14 A/m</b>	Grid 8 <b>M4</b> <b>0.15 A/m</b>	Grid 9 <b>M4</b> <b>0.14 A/m</b>



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**Andrew Becker**

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**L6AREU70UW****Cursor:**

Total = 0.157 A/m

H Category: M4

Location: -0.5, 0.5, 4.7 mm

**Dipole H-Field measurement with H3DV6 probe/H Scan - AM80%\_1733\_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 = -0.14 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.10 A/m

**Near-field category: M4 (AWF 0 dB)**

PMF scaled H-field

Grid 1 <b>M4</b> <b>0.09 A/m</b>	Grid 2 <b>M4</b> <b>0.10 A/m</b>	Grid 3 <b>M4</b> <b>0.09 A/m</b>
Grid 4 <b>M4</b> <b>0.09 A/m</b>	Grid 5 <b>M4</b> <b>0.10 A/m</b>	Grid 6 <b>M4</b> <b>0.10 A/m</b>
Grid 7 <b>M4</b> <b>0.09 A/m</b>	Grid 8 <b>M4</b> <b>0.10 A/m</b>	Grid 9 <b>M4</b> <b>0.09 A/m</b>

**Cursor:**

Total = 0.100 A/m

H Category: M4

Location: -0.5, 0, 4.7 mm

Author Data

**Andrew Becker**

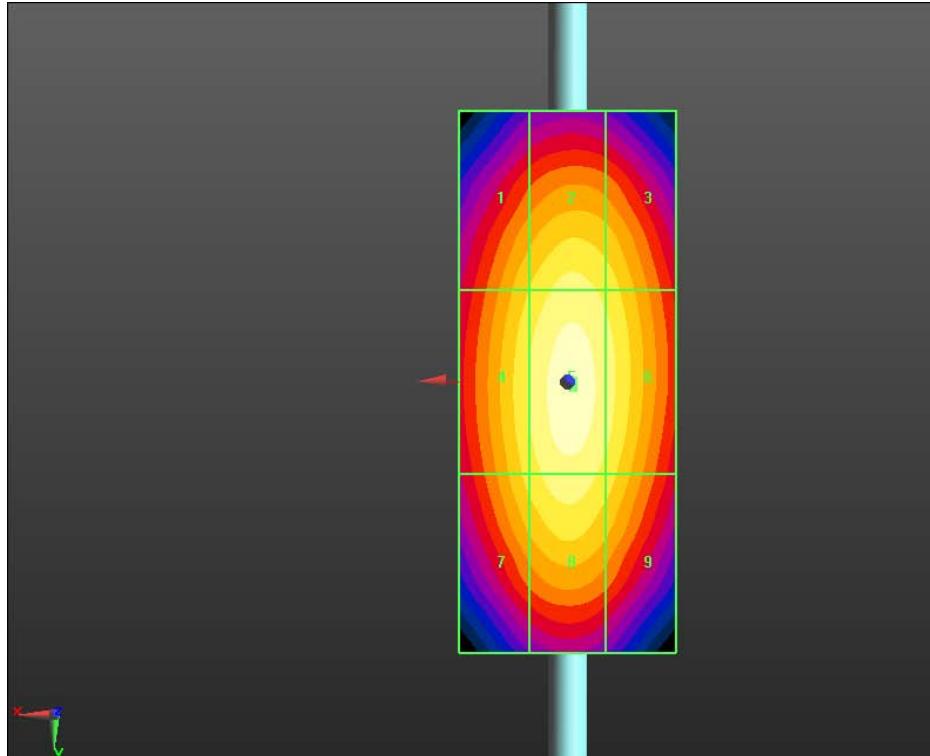
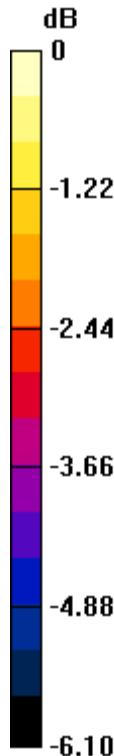
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Date/Time: 1/31/2012 3:44:25 PM

Test Laboratory: RIM Testing Services

### **HAC RF\_H-Field\_PMF\_GSM1880 MHz\_01\_31\_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:  $\sigma = 0 \text{ mho/m}$ ,  $\epsilon_r = 1$ ;  $\rho = 0 \text{ kg/m}^3$

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; Serial: **Not Specified**
- 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:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.12 V/m; Power Drift = -0.04 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.11 A/m

**Near-field category: M4 (AWF 0 dB)**



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PMF scaled H-field

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

**Cursor:**

Total = 0.110 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 = 0.35 V/m; Power Drift = 0.04 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.33 A/m

**Near-field category: M3 (AWF 0 dB)**

PMF scaled H-field

Grid 1 <b>M3</b> <b>0.30 A/m</b>	Grid 2 <b>M3</b> <b>0.32 A/m</b>	Grid 3 <b>M3</b> <b>0.31 A/m</b>
Grid 4 <b>M3</b> <b>0.31 A/m</b>	Grid 5 <b>M3</b> <b>0.33 A/m</b>	Grid 6 <b>M3</b> <b>0.31 A/m</b>
Grid 7 <b>M3</b> <b>0.30 A/m</b>	Grid 8 <b>M3</b> <b>0.32 A/m</b>	Grid 9 <b>M3</b> <b>0.30 A/m</b>



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**L6AREU70UW****Cursor:**

Total = 0.327 A/m

H Category: M3

Location: 0, 0.5, 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 = 0.23 V/m; Power Drift = 0.05 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.21 A/m

**Near-field category: M3 (AWF 0 dB)**

PMF scaled H-field

Grid 1 <b>M3</b> <b>0.20 A/m</b>	Grid 2 <b>M3</b> <b>0.21 A/m</b>	Grid 3 <b>M3</b> <b>0.20 A/m</b>
Grid 4 <b>M3</b> <b>0.20 A/m</b>	Grid 5 <b>M3</b> <b>0.21 A/m</b>	Grid 6 <b>M3</b> <b>0.20 A/m</b>
Grid 7 <b>M3</b> <b>0.20 A/m</b>	Grid 8 <b>M3</b> <b>0.21 A/m</b>	Grid 9 <b>M3</b> <b>0.20 A/m</b>

**Cursor:**

Total = 0.214 A/m

H Category: M3

Location: 0, 0, 4.7 mm

Author Data

**Andrew Becker**

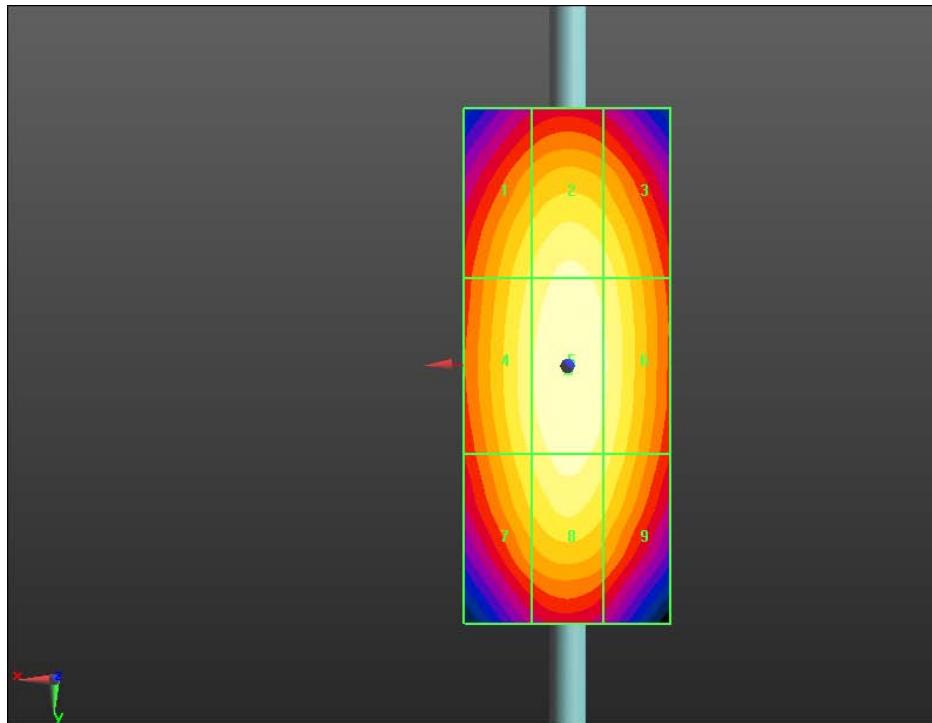
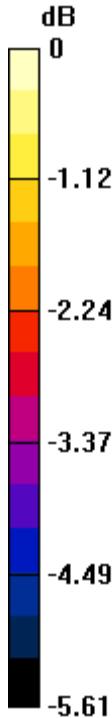
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**L6AREU70UW** $0 \text{ dB} = 0.110 \text{ A/m} = -19.17 \text{ dB A/m}$

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Date/Time: 2/17/2012 3:56:44 PM

Test Laboratory: RIM Testing Services

### **HAC RF\_H-Field\_PMF\_UMTS1880 MHz\_02\_17\_12**

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

Communication System: WCDMA FDD II, Communication System: CW, Communication System: AM 80%; Frequency: 1880 MHz

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

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; Serial: **Not Specified**
- DASY52 52.8.0(692); SEMCAD X 14.6.4(4989)

### **Dipole H-Field measurement with H3DV6 probe/H Scan -UMTS**

**1880\_PMF/Hearing Aid Compatibility Test (41x101x1):** Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.16 V/m; Power Drift = 0.06 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.15 A/m

**Near-field category: M4 (AWF 0 dB)**



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PMF scaled H-field

Grid 1 <b>M4</b> <b>0.14 A/m</b>	Grid 2 <b>M4</b> <b>0.14 A/m</b>	Grid 3 <b>M4</b> <b>0.14 A/m</b>
Grid 4 <b>M4</b> <b>0.14 A/m</b>	Grid 5 <b>M4</b> <b>0.15 A/m</b>	Grid 6 <b>M4</b> <b>0.14 A/m</b>
Grid 7 <b>M4</b> <b>0.14 A/m</b>	Grid 8 <b>M4</b> <b>0.15 A/m</b>	Grid 9 <b>M4</b> <b>0.14 A/m</b>

**Cursor:**

Total = 0.150 A/m

H Category: M4

Location: 0, 0.5, 4.7 mm

**Dipole H-Field measurement with H3DV6 probe/H Scan - CW****1880\_PMF/Hearing Aid Compatibility Test (41x101x1): Measurement**

grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.16 V/m; Power Drift = -0.01 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.15 A/m

**Near-field category: M4 (AWF 0 dB)**

PMF scaled H-field

Grid 1 <b>M4</b> <b>0.14 A/m</b>	Grid 2 <b>M4</b> <b>0.14 A/m</b>	Grid 3 <b>M4</b> <b>0.14 A/m</b>
Grid 4 <b>M4</b> <b>0.14 A/m</b>	Grid 5 <b>M4</b> <b>0.15 A/m</b>	Grid 6 <b>M4</b> <b>0.14 A/m</b>
Grid 7 <b>M4</b> <b>0.14 A/m</b>	Grid 8 <b>M4</b> <b>0.15 A/m</b>	Grid 9 <b>M4</b> <b>0.14 A/m</b>



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**L6AREU70UW****Cursor:**

Total = 0.149 A/m

H Category: M4

Location: 0, 0.5, 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 = 0.10 V/m; Power Drift = -0.07 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.10 A/m

**Near-field category: M4 (AWF 0 dB)**

PMF scaled H-field

Grid 1 <b>M4</b> <b>0.09 A/m</b>	Grid 2 <b>M4</b> <b>0.09 A/m</b>	Grid 3 <b>M4</b> <b>0.09 A/m</b>
Grid 4 <b>M4</b> <b>0.09 A/m</b>	Grid 5 <b>M4</b> <b>0.10 A/m</b>	Grid 6 <b>M4</b> <b>0.09 A/m</b>
Grid 7 <b>M4</b> <b>0.09 A/m</b>	Grid 8 <b>M4</b> <b>0.09 A/m</b>	Grid 9 <b>M4</b> <b>0.09 A/m</b>

**Cursor:**

Total = 0.096 A/m

H Category: M4

Location: 0, 0, 4.7 mm

Author Data

**Andrew Becker**

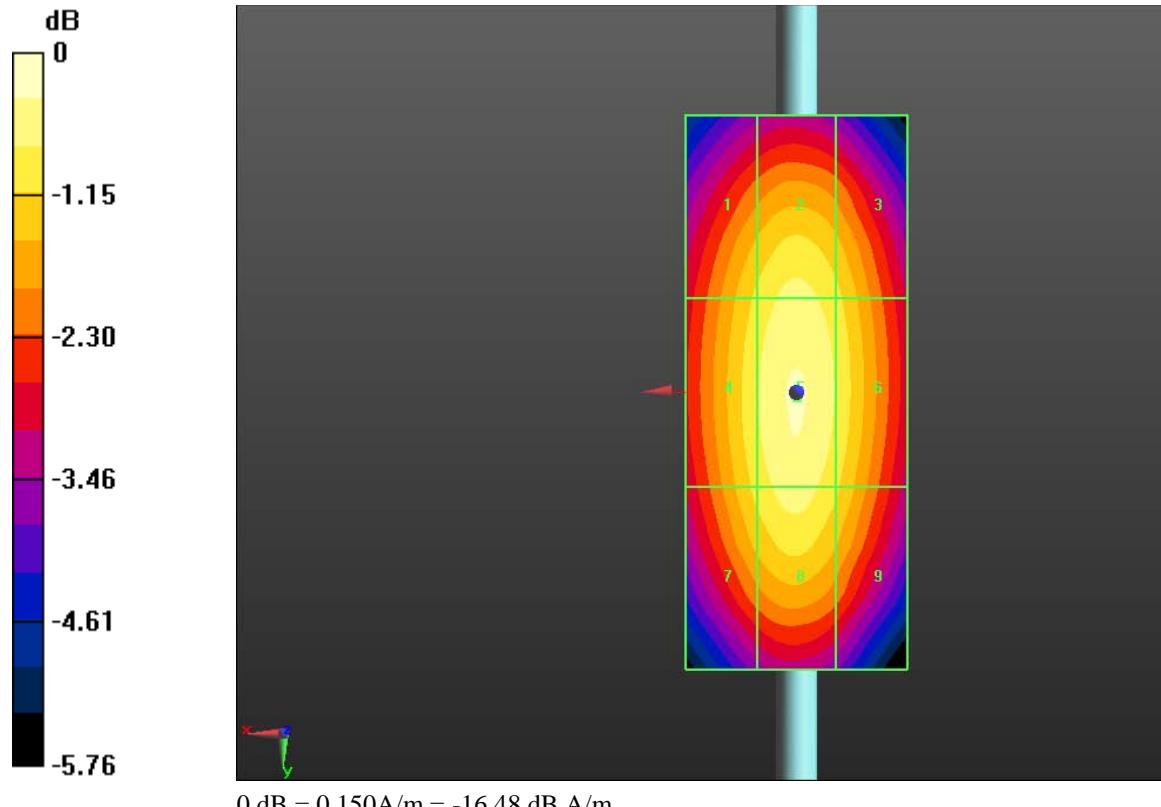
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Author Data

**Andrew Becker**

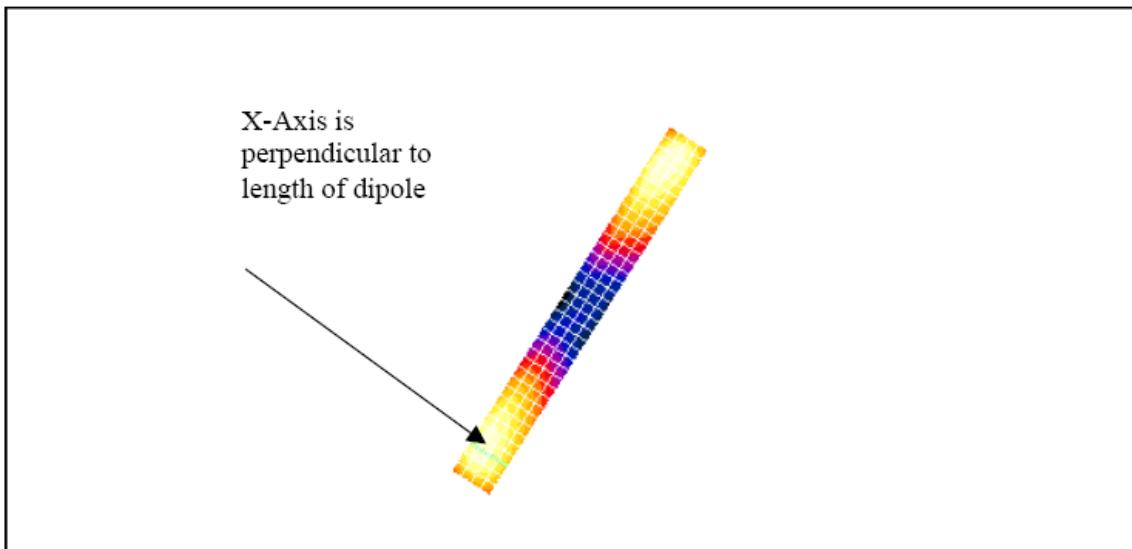
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The green line in this figure shows the axis along which the points lie.

#### 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.



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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,  $\epsilon_r = 1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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) E in V/m (Slot averaged)

Grid 1	Grid 2	Grid 3	Grid 1	Grid 2	Grid 3
<b>123.2</b>	<b>138.1</b>	<b>138.4</b>	<b>123.2</b>	<b>138.1</b>	<b>138.4</b>
<b>80.9</b>	<b>92.3</b>	<b>92.2</b>	<b>80.9</b>	<b>92.3</b>	<b>92.2</b>
<b>119.8</b>	<b>131.0</b>	<b>130.7</b>	<b>119.8</b>	<b>131.0</b>	<b>130.7</b>

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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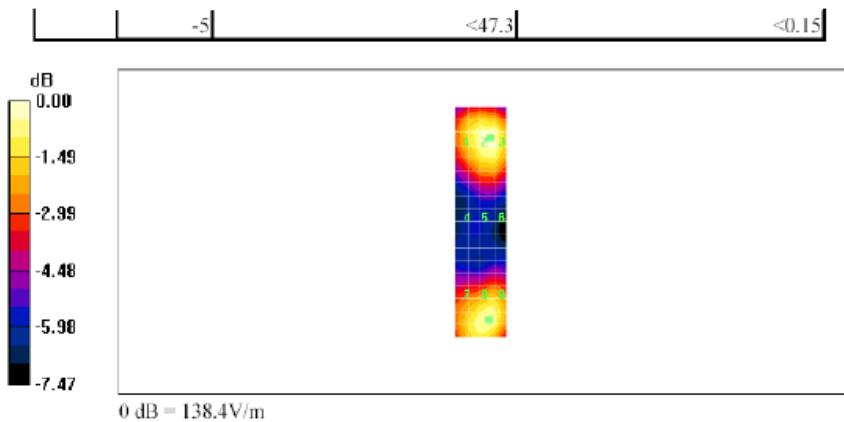
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**Lab: RIM Testing Services (RTS)****Dipole Validation 1880 MHz\_2mm step\_E-Field 07\_14\_05****DUT: HAC Dipole 1880 MHz; Type: CD1880V3**

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

Medium: Air Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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) E in V/m (Slot averaged)

Grid 1	Grid 2	Grid 3	Grid 1	Grid 2	Grid 3
<b>123.1</b>	<b>138.6</b>	<b>138.6</b>	<b>123.1</b>	<b>138.6</b>	<b>138.6</b>
<b>81.4</b>	<b>92.1</b>	<b>91.6</b>	<b>81.4</b>	<b>92.1</b>	<b>91.6</b>
<b>121.3</b>	<b>131.2</b>	<b>131.0</b>	<b>121.3</b>	<b>131.2</b>	<b>131.0</b>

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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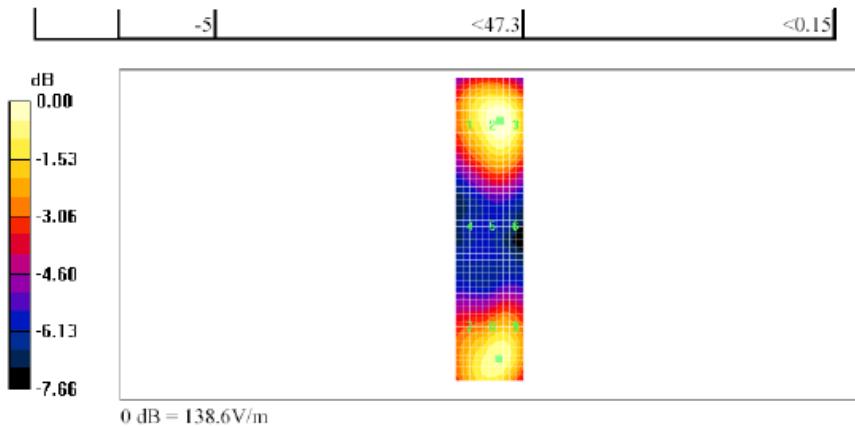
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Author Data

**Andrew Becker**

Dates of Test

**Jan. 31, Feb 17-22, Apr 30-May 1, 2012**

Report No

**RTS-5995-1204-31**

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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,  $\epsilon_r = 1$ ;  $\rho = 1$  kg/m<sup>3</sup>

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) H in A/m (Slot averaged)

Grid 1	Grid 2	Grid 3	Grid 1	Grid 2	Grid 3
<b>0.342</b>	<b>0.359</b>	<b>0.344</b>	<b>0.342</b>	<b>0.359</b>	<b>0.344</b>
<b>0.389</b>	<b>0.406</b>	<b>0.389</b>	<b>0.389</b>	<b>0.406</b>	<b>0.389</b>
<b>0.363</b>	<b>0.378</b>	<b>0.363</b>	<b>0.363</b>	<b>0.378</b>	<b>0.363</b>

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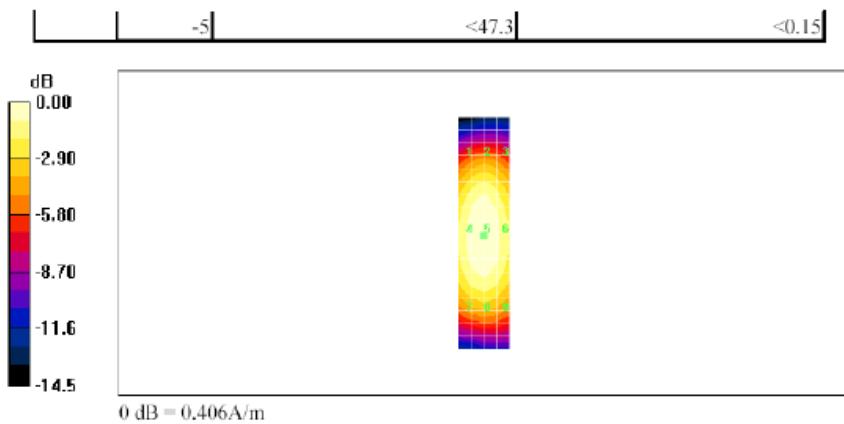
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Date/Time: 14/07/2005 12:53:40 PM

**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,  $\epsilon_r = 1$ ;  $\rho = 1$  kg/m<sup>3</sup>

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) H in A/m (Slot averaged)

Grid 1	Grid 2	Grid 3	Grid 1	Grid 2	Grid 3
<b>0.347</b>	<b>0.361</b>	<b>0.348</b>	<b>0.347</b>	<b>0.361</b>	<b>0.348</b>
<b>0.394</b>	<b>0.406</b>	<b>0.391</b>	<b>0.394</b>	<b>0.406</b>	<b>0.391</b>
<b>0.367</b>	<b>0.380</b>	<b>0.365</b>	<b>0.367</b>	<b>0.380</b>	<b>0.365</b>

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

file:///C:/Program%20Files/DASY4/Print\_Templates/HAC\_H\_Dipole\_CW%201880\_2%... 14/07/2005



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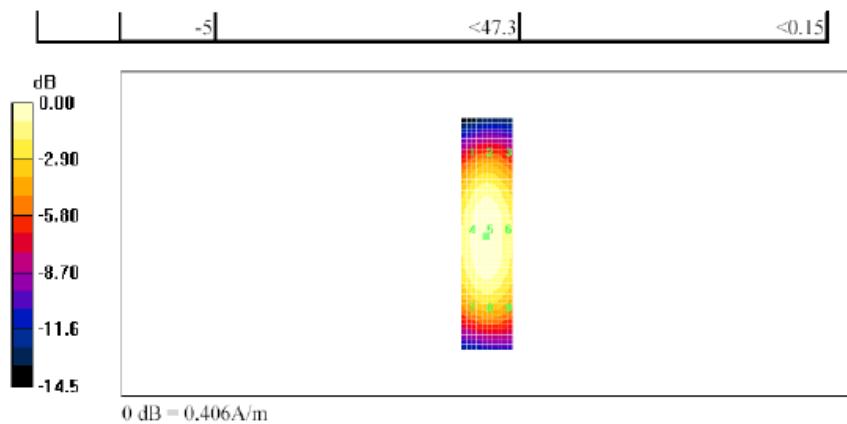
**RTS-5995-1204-31**

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### A.3 RF emission field plots

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Date/Time: 5/1/2012 10:10:48 AM

Test Laboratory: RIM Testing Services

### **HAC RF\_E-Field\_GSM850**

**DUT: BlackBerry Smartphone; Type: Sample ; Serial: 29D05112**

Communication System: GSM 850; Frequency: 824.2 MHz, Frequency: 836.8 MHz, Frequency: 848.8 MHz

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

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; Serial: **Not Specified**
- 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 = 74.27 V/m; Power Drift = -0.10 dB

PMR not calibrated. PMF = 3.130 is applied.

E-field emissions = 181.9 V/m

**Near-field category: M3 (AWF -5 dB)**



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PMF scaled E-field

Grid 1 <b>M3</b> <b>152.1 V/m</b>	Grid 2 <b>M3</b> <b>164.8 V/m</b>	Grid 3 <b>M3</b> <b>161.1 V/m</b>
Grid 4 <b>M3</b> <b>168.6 V/m</b>	Grid 5 <b>M3</b> <b>181.9 V/m</b>	Grid 6 <b>M3</b> <b>177.5 V/m</b>
Grid 7 <b>M3</b> <b>177.2 V/m</b>	Grid 8 <b>M3</b> <b>186.1 V/m</b>	Grid 9 <b>M3</b> <b>178.9 V/m</b>

**Cursor:**

Total = 186.1 V/m

E Category: M3

Location: -0.5, 20, 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 = 91.72 V/m; Power Drift = -0.35 dB

PMR not calibrated. PMR = 3.130 is applied.

E-field emissions = 221.9 V/m

**Near-field category: M3 (AWF -5 dB)**

PMF scaled E-field

Grid 1 <b>M3</b> <b>177.1 V/m</b>	Grid 2 <b>M3</b> <b>196.7 V/m</b>	Grid 3 <b>M3</b> <b>193.2 V/m</b>
Grid 4 <b>M3</b> <b>200.4 V/m</b>	Grid 5 <b>M3</b> <b>221.9 V/m</b>	Grid 6 <b>M3</b> <b>217.8 V/m</b>
Grid 7 <b>M3</b> <b>215.4 V/m</b>	Grid 8 <b>M3</b> <b>229.1 V/m</b>	Grid 9 <b>M3</b> <b>220.0 V/m</b>



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**L6AREU70UW****Cursor:**

Total = 229.1 V/m

E Category: M3

Location: -0.5, 20, 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 = 90.39 V/m; Power Drift = 0.01 dB

PMR not calibrated. PMF = 3.130 is applied.

E-field emissions = 218.9 V/m

**Near-field category: M3 (AWF -5 dB)**

PMF scaled E-field

Grid 1 <b>M3</b> <b>182.9 V/m</b>	Grid 2 <b>M3</b> <b>202.8 V/m</b>	Grid 3 <b>M3</b> <b>200.3 V/m</b>
Grid 4 <b>M3</b> <b>197.3 V/m</b>	Grid 5 <b>M3</b> <b>218.9 V/m</b>	Grid 6 <b>M3</b> <b>214.8 V/m</b>
Grid 7 <b>M3</b> <b>205.0 V/m</b>	Grid 8 <b>M3</b> <b>218.8 V/m</b>	Grid 9 <b>M3</b> <b>214.8 V/m</b>

**Cursor:**

Total = 218.9 V/m

E Category: M3

Location: -4, 6.5, 8.7 mm

Author Data

**Andrew Becker**

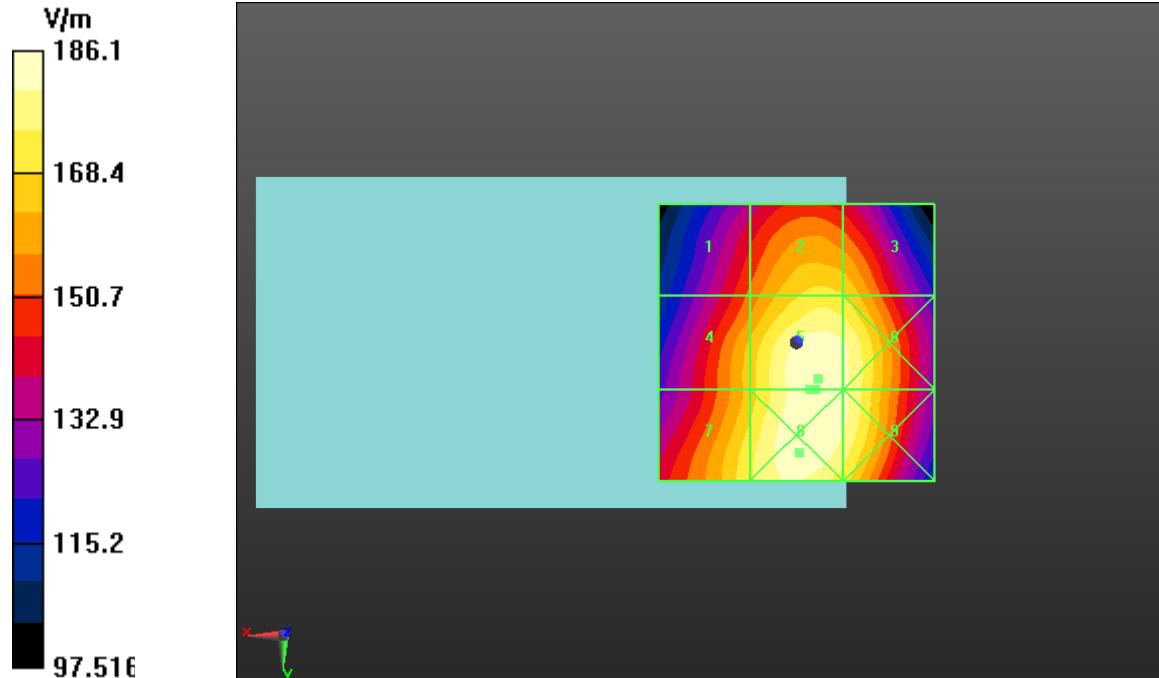
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Date/Time: 5/1/2012 1:41:28 PM

Test Laboratory: RIM Testing Services

### **HAC RF\_E-Field\_UMTS\_Band\_IV**

**DUT: BlackBerry Smartphone; Type: Sample ; Serial: 29D05112**

Communication System: WCDMA FDD IV; Frequency: 1712.4 MHz, Frequency: 1732.6 MHz, Frequency: 1752.6 MHz

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

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; Serial: **Not Specified**
- 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 = 38.12 V/m; Power Drift = 0.14 dB

PMR not calibrated. PMF = 1.030 is applied.

E-field emissions = 39.21 V/m

**Near-field category: M4 (AWF 0 dB)**



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PMF scaled E-field

Grid 1 <b>M4</b> <b>34.56</b> V/m	Grid 2 <b>M4</b> <b>30.74</b> V/m	Grid 3 <b>M4</b> <b>31.04</b> V/m
Grid 4 <b>M4</b> <b>25.35</b> V/m	Grid 5 <b>M4</b> <b>39.21</b> V/m	Grid 6 <b>M4</b> <b>39.25</b> V/m
Grid 7 <b>M4</b> <b>32.14</b> V/m	Grid 8 <b>M4</b> <b>41.93</b> V/m	Grid 9 <b>M4</b> <b>41.61</b> V/m

**Cursor:**

Total = 41.933 V/m

E Category: M4

Location: -6, 20, 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 = 37.79 V/m; Power Drift = -0.05 dB

PMR not calibrated. PMR = 1.030 is applied.

E-field emissions = 39.75 V/m

**Near-field category: M4 (AWF 0 dB)**

PMF scaled E-field

Grid 1 <b>M4</b> <b>38.62</b> V/m	Grid 2 <b>M4</b> <b>35.24</b> V/m	Grid 3 <b>M4</b> <b>29.95</b> V/m
Grid 4 <b>M4</b> <b>25.11</b> V/m	Grid 5 <b>M4</b> <b>39.75</b> V/m	Grid 6 <b>M4</b> <b>39.77</b> V/m
Grid 7 <b>M4</b> <b>33.13</b> V/m	Grid 8 <b>M4</b> <b>43.23</b> V/m	Grid 9 <b>M4</b> <b>43.03</b> V/m



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**L6AREU70UW****Cursor:**

Total = 43.233 V/m

E Category: M4

Location: -6.5, 20.5, 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 = 35.53 V/m; Power Drift = -0.05 dB

PMR not calibrated. PMF = 1.030 is applied.

E-field emissions = 37.21 V/m

**Near-field category: M4 (AWF 0 dB)**

PMF scaled E-field

Grid 1 <b>M4</b> <b>37.21 V/m</b>	Grid 2 <b>M4</b> <b>34.09 V/m</b>	Grid 3 <b>M4</b> <b>28.13 V/m</b>
Grid 4 <b>M4</b> <b>24.12 V/m</b>	Grid 5 <b>M4</b> <b>36.38 V/m</b>	Grid 6 <b>M4</b> <b>36.53 V/m</b>
Grid 7 <b>M4</b> <b>28.57 V/m</b>	Grid 8 <b>M4</b> <b>39.17 V/m</b>	Grid 9 <b>M4</b> <b>39.07 V/m</b>

**Cursor:**

Total = 39.169 V/m

E Category: M4

Location: -7, 19.5, 8.7 mm

Author Data

**Andrew Becker**

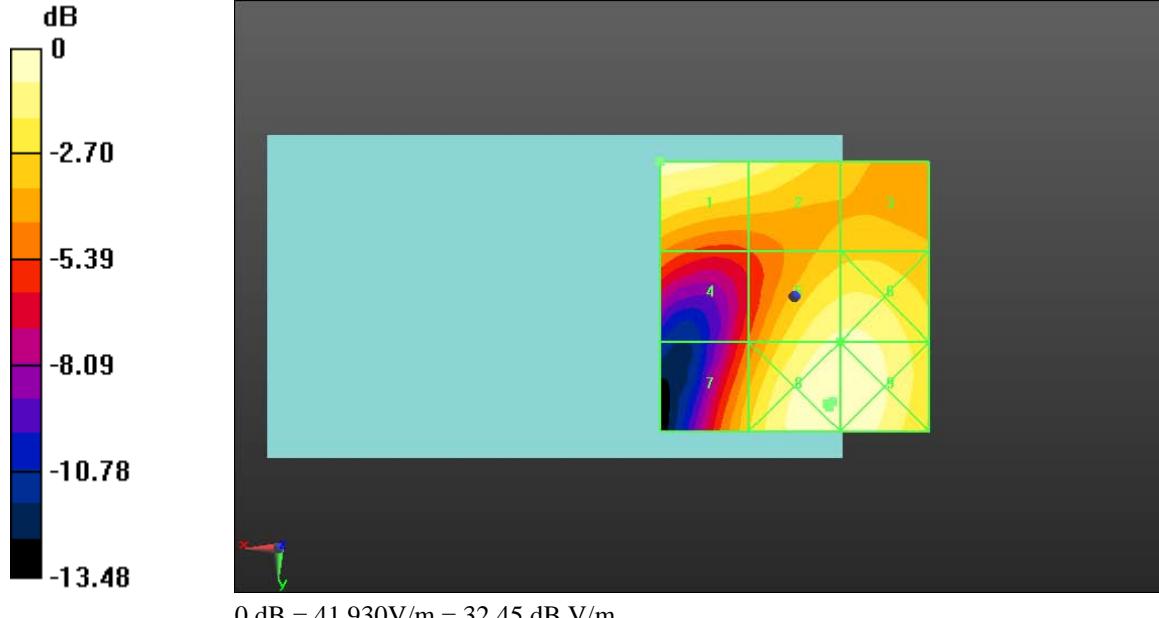
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Date/Time: 4/30/2012 5:40:21 PM

Test Laboratory: RIM Testing Services

### **HAC RF\_E-Field\_GSM1900**

**DUT: BlackBerry Smartphone; Type: Sample ; Serial: 29D05112**

Communication System: GSM 1900; Frequency: 1850.2 MHz, Frequency: 1880 MHz, Frequency: 1909.8 MHz

Medium parameters used:  $\sigma = 0 \text{ mho/m}$ ,  $\epsilon_r = 1$ ;  $\rho = 0 \text{ kg/m}^3$

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; Serial: **Not Specified**
- 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:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 24.79 V/m; Power Drift = 0.21 dB

PMR not calibrated. PMF = 2.920 is applied.

E-field emissions = 79.55 V/m

**Near-field category: M3 (AWF -5 dB)**



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PMF scaled E-field

Grid 1 <b>M3</b> <b>81.85</b> V/m	Grid 2 <b>M3</b> <b>80.58</b> V/m	Grid 3 <b>M3</b> <b>61.75</b> V/m
Grid 4 <b>M3</b> <b>49.79</b> V/m	Grid 5 <b>M3</b> <b>74.19</b> V/m	Grid 6 <b>M3</b> <b>74.32</b> V/m
Grid 7 <b>M3</b> <b>58.93</b> V/m	Grid 8 <b>M3</b> <b>79.55</b> V/m	Grid 9 <b>M3</b> <b>79.15</b> V/m

**Cursor:**

Total = 81.851 V/m

E Category: M3

Location: 12, -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 = 28.08 V/m; Power Drift = -0.08 dB

PMR not calibrated. PMR = 2.920 is applied.

E-field emissions = 83.27 V/m

**Near-field category: M3 (AWF -5 dB)**

PMF scaled E-field

Grid 1 <b>M2</b> <b>85.03</b> V/m	Grid 2 <b>M2</b> <b>84.77</b> V/m	Grid 3 <b>M3</b> <b>71.96</b> V/m
Grid 4 <b>M3</b> <b>55.32</b> V/m	Grid 5 <b>M3</b> <b>80.04</b> V/m	Grid 6 <b>M3</b> <b>80.14</b> V/m
Grid 7 <b>M3</b> <b>58.19</b> V/m	Grid 8 <b>M3</b> <b>83.27</b> V/m	Grid 9 <b>M3</b> <b>83.27</b> V/m



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**L6AREU70UW****Cursor:**

Total = 85.027 V/m

E Category: M2

Location: 12.5, -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 = 27.38 V/m; Power Drift = 0.07 dB

PMR not calibrated. PMF = 2.920 is applied.

E-field emissions = 84.04 V/m

**Near-field category: M3 (AWF -5 dB)**

PMF scaled E-field

Grid 1 <b>M2</b> <b>89.76 V/m</b>	Grid 2 <b>M2</b> <b>89.76 V/m</b>	Grid 3 <b>M3</b> <b>77.68 V/m</b>
Grid 4 <b>M3</b> <b>58.56 V/m</b>	Grid 5 <b>M3</b> <b>79.43 V/m</b>	Grid 6 <b>M3</b> <b>79.59 V/m</b>
Grid 7 <b>M3</b> <b>58.26 V/m</b>	Grid 8 <b>M3</b> <b>84.04 V/m</b>	Grid 9 <b>M3</b> <b>84.01 V/m</b>

**Cursor:**

Total = 89.761 V/m

E Category: M2

Location: 8.5, -25, 8.7 mm

Author Data

**Andrew Becker**

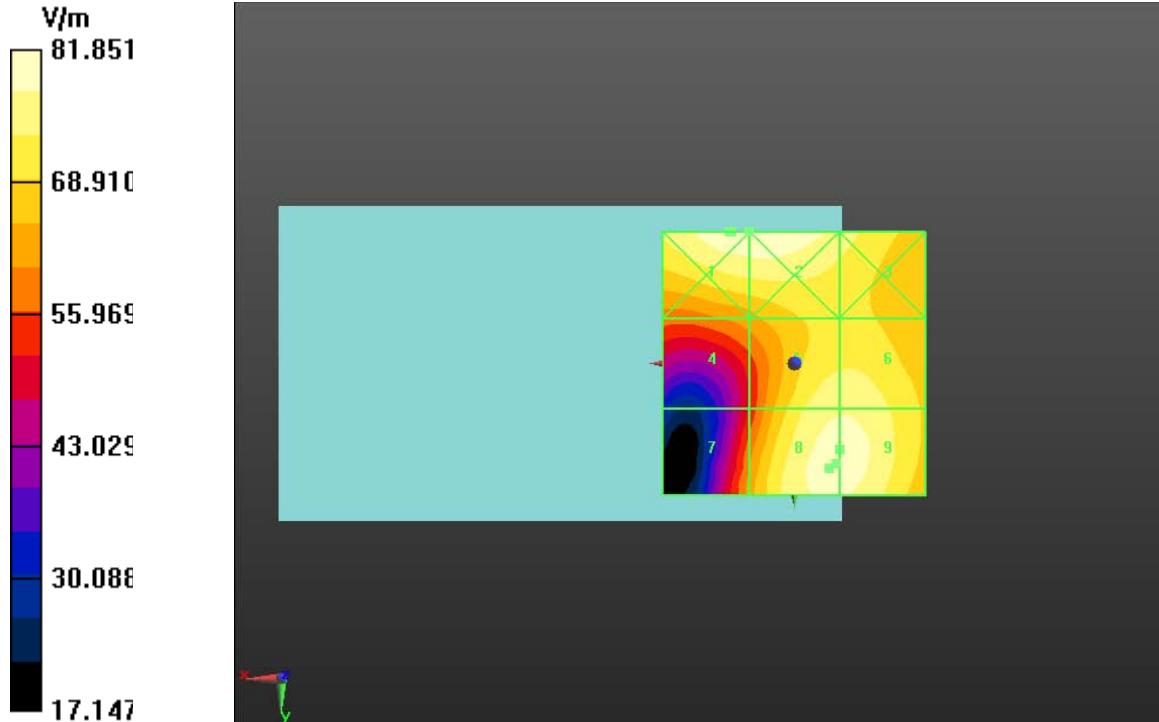
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**Jan. 31, Feb 17-22, Apr 30-May 1, 2012**

Report No

**RTS-5995-1204-31**

FCC ID

**L6AREU70UW**

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Date/Time: 5/1/2012 12:07:10 PM

Test Laboratory: RIM Testing Services

### **HAC RF\_E-Field\_UMTS\_Band\_II**

**DUT: BlackBerry Smartphone; Type: Sample ; Serial: 29D05112**

Communication System: WCDMA FDD II; Frequency: 1852.4 MHz, Frequency: 1880 MHz, Frequency: 1907.6 MHz

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

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; Serial: **Not Specified**
- 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 = 39.38 V/m; Power Drift = 0.04 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 40.92 V/m

**Near-field category: M4 (AWF 0 dB)**



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PMF scaled E-field

Grid 1 <b>M4</b> <b>41.10</b> V/m	Grid 2 <b>M4</b> <b>40.79</b> V/m	Grid 3 <b>M4</b> <b>33.19</b> V/m
Grid 4 <b>M4</b> <b>25.62</b> V/m	Grid 5 <b>M4</b> <b>38.73</b> V/m	Grid 6 <b>M4</b> <b>38.91</b> V/m
Grid 7 <b>M4</b> <b>27.39</b> V/m	Grid 8 <b>M4</b> <b>40.86</b> V/m	Grid 9 <b>M4</b> <b>40.92</b> V/m

**Cursor:**

Total = 41.103 V/m

E Category: M4

Location: 11.5, -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 = 40.42 V/m; Power Drift = -0.05 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 40.05 V/m

**Near-field category: M4 (AWF 0 dB)**

PMF scaled E-field

Grid 1 <b>M4</b> <b>41.39</b> V/m	Grid 2 <b>M4</b> <b>41.38</b> V/m	Grid 3 <b>M4</b> <b>35.58</b> V/m
Grid 4 <b>M4</b> <b>26.26</b> V/m	Grid 5 <b>M4</b> <b>38.85</b> V/m	Grid 6 <b>M4</b> <b>39.05</b> V/m
Grid 7 <b>M4</b> <b>26.57</b> V/m	Grid 8 <b>M4</b> <b>40.00</b> V/m	Grid 9 <b>M4</b> <b>40.05</b> V/m



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**L6AREU70UW****Cursor:**

Total = 41.387 V/m

E Category: M4

Location: 9, -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 = 39.18 V/m; Power Drift = 0.04 dB

PMR not calibrated. PMF = 1.000 is applied.

E-field emissions = 39.50 V/m

**Near-field category: M4 (AWF 0 dB)**

## PMF scaled E-field

Grid 1 <b>M4</b> <b>41.16 V/m</b>	Grid 2 <b>M4</b> <b>41.17 V/m</b>	Grid 3 <b>M4</b> <b>36.15 V/m</b>
Grid 4 <b>M4</b> <b>26.39 V/m</b>	Grid 5 <b>M4</b> <b>38.14 V/m</b>	Grid 6 <b>M4</b> <b>38.39 V/m</b>
Grid 7 <b>M4</b> <b>27.32 V/m</b>	Grid 8 <b>M4</b> <b>39.47 V/m</b>	Grid 9 <b>M4</b> <b>39.50 V/m</b>

**Cursor:**

Total = 41.168 V/m

E Category: M4

Location: 8, -25, 8.7 mm

Author Data

**Andrew Becker**

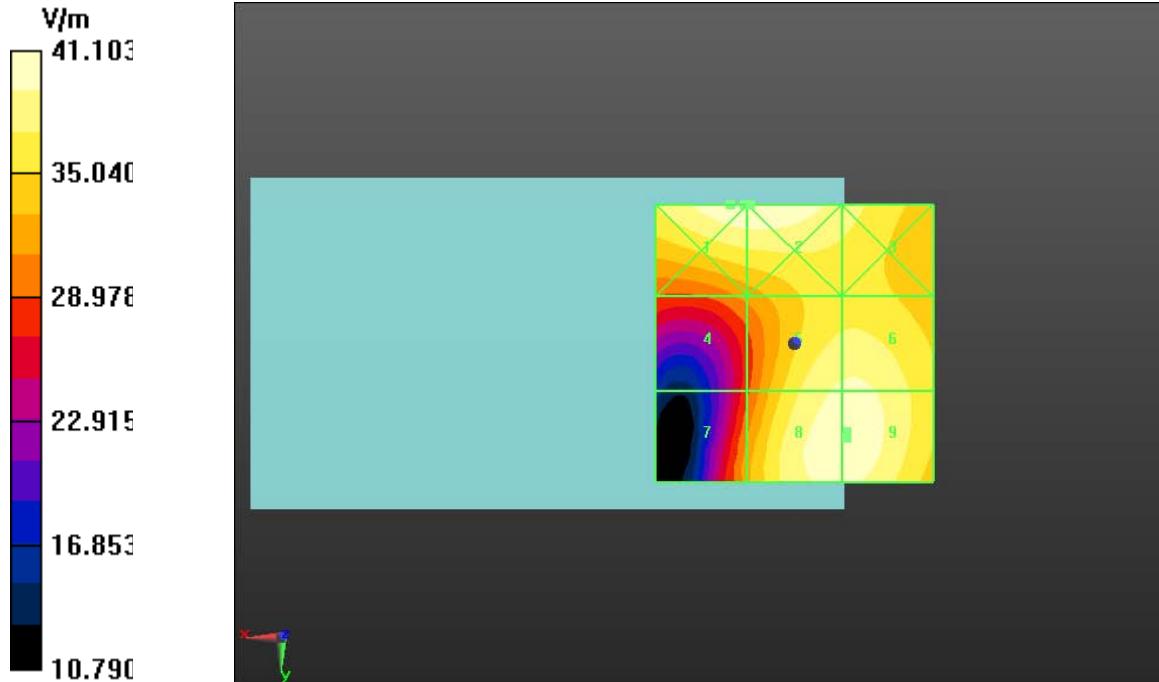
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FCC ID

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Date/Time: 5/1/2012 4:59:07 PM

Test Laboratory: RIM Testing Services

### **HAC RF\_H-Field\_GSM\_850**

**DUT: BlackBerry Smartphone; Type: Sample ; Serial: 29D05112**

Communication System: GSM 850; Frequency: 824.2 MHz, Frequency: 836.8 MHz, Frequency: 848.8 MHz

Medium parameters used:  $\sigma = 0 \text{ mho/m}$ ,  $\epsilon_r = 1$ ;  $\rho = 0 \text{ kg/m}^3$

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; Serial: **Not Specified**
- 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:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.09 V/m; Power Drift = 0.35 dB

PMR not calibrated. PMF = 2.940 is applied.

H-field emissions = 0.39 A/m

**Near-field category: M4 (AWF -5 dB)**



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PMF scaled H-field

Grid 1 <b>M4</b> <b>0.39 A/m</b>	Grid 2 <b>M4</b> <b>0.29 A/m</b>	Grid 3 <b>M4</b> <b>0.20 A/m</b>
Grid 4 <b>M4</b> <b>0.37 A/m</b>	Grid 5 <b>M4</b> <b>0.29 A/m</b>	Grid 6 <b>M4</b> <b>0.21 A/m</b>
Grid 7 <b>M4</b> <b>0.39 A/m</b>	Grid 8 <b>M4</b> <b>0.30 A/m</b>	Grid 9 <b>M4</b> <b>0.21 A/m</b>

**Cursor:**

Total = 0.390 A/m

H Category: M4

Location: 24.5, -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 = 0.12 V/m; Power Drift = 0.47 dB

PMR not calibrated. PMR = 2.940 is applied.

H-field emissions = 0.44 A/m

**Near-field category: M4 (AWF -5 dB)**

PMF scaled H-field

Grid 1 <b>M4</b> <b>0.44 A/m</b>	Grid 2 <b>M4</b> <b>0.33 A/m</b>	Grid 3 <b>M4</b> <b>0.24 A/m</b>
Grid 4 <b>M4</b> <b>0.43 A/m</b>	Grid 5 <b>M4</b> <b>0.34 A/m</b>	Grid 6 <b>M4</b> <b>0.25 A/m</b>
Grid 7 <b>M4</b> <b>0.45 A/m</b>	Grid 8 <b>M4</b> <b>0.34 A/m</b>	Grid 9 <b>M4</b> <b>0.25 A/m</b>



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**L6AREU70UW****Cursor:**

Total = 0.449 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 = 0.13 V/m; Power Drift = -0.19 dB

PMR not calibrated. PMF = 2.940 is applied.

H-field emissions = 0.49 A/m

**Near-field category: M3 (AWF -5 dB)**

PMF scaled H-field

Grid 1 <b>M3</b> <b>0.49 A/m</b>	Grid 2 <b>M4</b> <b>0.36 A/m</b>	Grid 3 <b>M4</b> <b>0.25 A/m</b>
Grid 4 <b>M3</b> <b>0.47 A/m</b>	Grid 5 <b>M4</b> <b>0.37 A/m</b>	Grid 6 <b>M4</b> <b>0.28 A/m</b>
Grid 7 <b>M3</b> <b>0.49 A/m</b>	Grid 8 <b>M4</b> <b>0.38 A/m</b>	Grid 9 <b>M4</b> <b>0.28 A/m</b>

**Cursor:**

Total = 0.492 A/m

H Category: M3

Location: 25, -25, 8.7 mm

Author Data

**Andrew Becker**

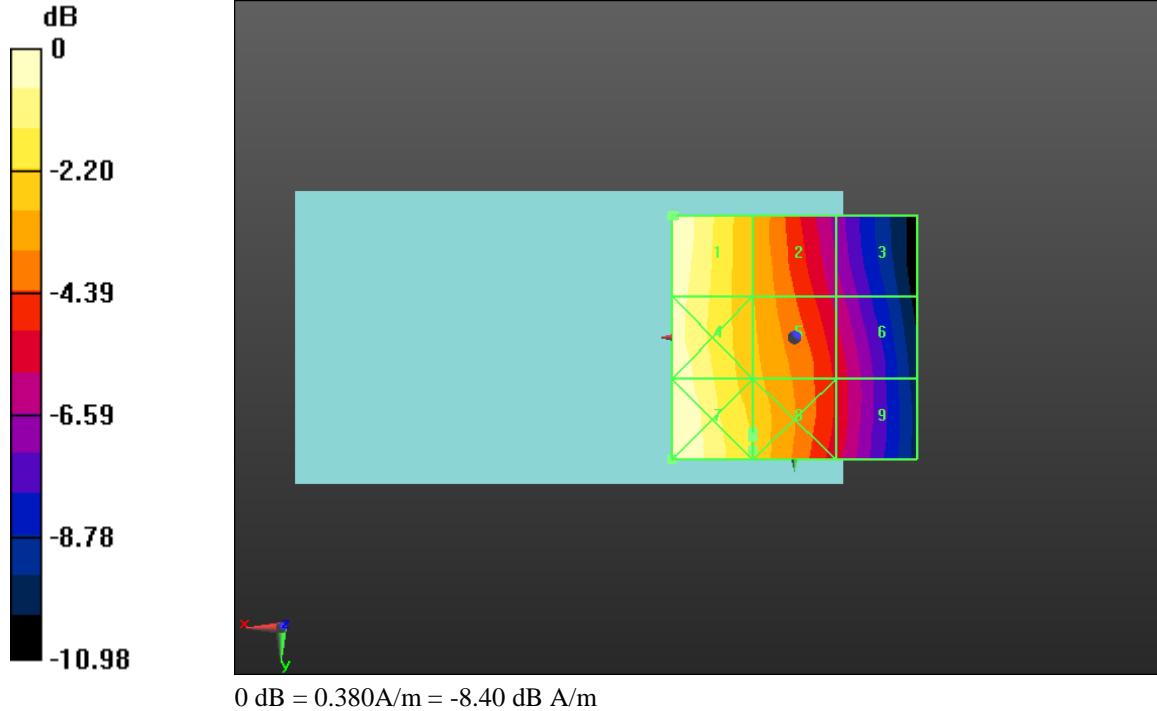
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FCC ID

**L6AREU70UW**

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Date/Time: 5/1/2012 6:04:50 PM

Test Laboratory: RIM Testing Services

### **HAC RF\_H-Field\_UMTS\_Band\_IV**

**DUT: BlackBerry Smartphone; Type: Sample ; Serial: 29D05112**

Communication System: WCDMA FDD IV; Frequency: 1712.4 MHz, Frequency: 1732.6 MHz, Frequency: 1752.6 MHz

Medium parameters used:  $\sigma = 0 \text{ mho/m}$ ,  $\epsilon_r = 1$ ;  $\rho = 0 \text{ kg/m}^3$

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; Serial: **Not Specified**
- 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:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.14 V/m; Power Drift = 0.01 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.12 A/m

**Near-field category: M4 (AWF 0 dB)**



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PMF scaled H-field

Grid 1 <b>M4</b> <b>0.12 A/m</b>	Grid 2 <b>M4</b> <b>0.13 A/m</b>	Grid 3 <b>M4</b> <b>0.12 A/m</b>
Grid 4 <b>M4</b> <b>0.12 A/m</b>	Grid 5 <b>M4</b> <b>0.12 A/m</b>	Grid 6 <b>M4</b> <b>0.12 A/m</b>
Grid 7 <b>M4</b> <b>0.11 A/m</b>	Grid 8 <b>M4</b> <b>0.11 A/m</b>	Grid 9 <b>M4</b> <b>0.09 A/m</b>

**Cursor:**

Total = 0.127 A/m

H Category: M4

Location: 0.5, -14, 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 = 0.15 V/m; Power Drift = -0.00 dB

PMR not calibrated. PMR = 1.000 is applied.

H-field emissions = 0.13 A/m

**Near-field category: M4 (AWF 0 dB)**

PMF scaled H-field

Grid 1 <b>M4</b> <b>0.13 A/m</b>	Grid 2 <b>M4</b> <b>0.14 A/m</b>	Grid 3 <b>M4</b> <b>0.13 A/m</b>
Grid 4 <b>M4</b> <b>0.13 A/m</b>	Grid 5 <b>M4</b> <b>0.13 A/m</b>	Grid 6 <b>M4</b> <b>0.13 A/m</b>
Grid 7 <b>M4</b> <b>0.11 A/m</b>	Grid 8 <b>M4</b> <b>0.11 A/m</b>	Grid 9 <b>M4</b> <b>0.10 A/m</b>



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Total = 0.137 A/m

H Category: M4

Location: 0.5, -12.5, 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 = 0.14 V/m; Power Drift = -0.00 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 <b>M4</b> <b>0.13 A/m</b>	Grid 2 <b>M4</b> <b>0.13 A/m</b>	Grid 3 <b>M4</b> <b>0.12 A/m</b>
Grid 4 <b>M4</b> <b>0.12 A/m</b>	Grid 5 <b>M4</b> <b>0.13 A/m</b>	Grid 6 <b>M4</b> <b>0.12 A/m</b>
Grid 7 <b>M4</b> <b>0.11 A/m</b>	Grid 8 <b>M4</b> <b>0.11 A/m</b>	Grid 9 <b>M4</b> <b>0.10 A/m</b>

**Cursor:**

Total = 0.134 A/m

H Category: M4

Location: 0.5, -12, 8.7 mm

Author Data

**Andrew Becker**

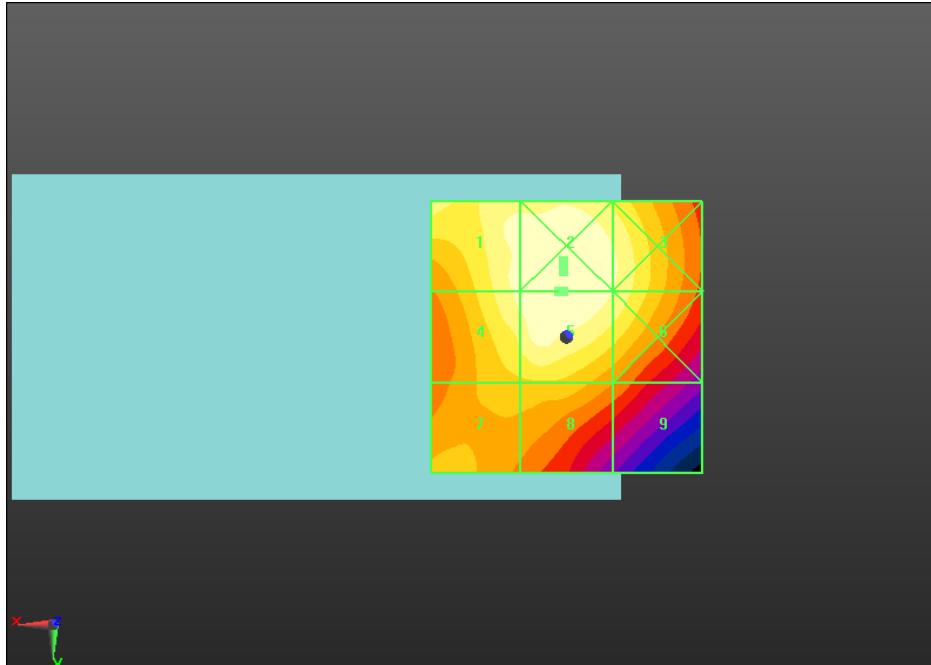
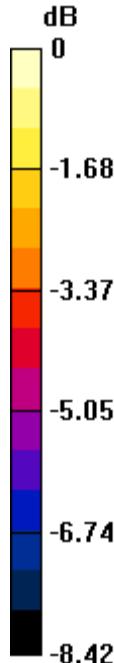
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Date/Time: 5/1/2012 5:19:27 PM

Test Laboratory: RIM Testing Services

### **HAC RF\_H-Field\_GSM\_1900\_low\_mid\_channel**

**DUT: BlackBerry Smartphone; Type: Sample ; Serial: 29D05112**

Communication System: GSM 1900; Frequency: 1850.2 MHz, Frequency: 1880 MHz  
Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

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; Serial: **Not Specified**
- 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 = -0.47 dB

PMR not calibrated. PMF = 2.970 is applied.

H-field emissions = 0.23 A/m

**Near-field category: M3 (AWF -5 dB)**

PMF scaled H-field

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Grid 1 <b>M2</b> <b>0.28 A/m</b>	Grid 2 <b>M3</b> <b>0.25 A/m</b>	Grid 3 <b>M3</b> <b>0.23 A/m</b>
Grid 4 <b>M3</b> <b>0.21 A/m</b>	Grid 5 <b>M3</b> <b>0.23 A/m</b>	Grid 6 <b>M3</b> <b>0.22 A/m</b>
Grid 7 <b>M3</b> <b>0.21 A/m</b>	Grid 8 <b>M3</b> <b>0.19 A/m</b>	Grid 9 <b>M3</b> <b>0.17 A/m</b>

**Cursor:**

Total = 0.283 A/m

H Category: M2

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 = -0.21 dB

PMR not calibrated. PMF = 2.970 is applied.

H-field emissions = 0.24 A/m

**Near-field category: M3 (AWF -5 dB)**

PMF scaled H-field

Grid 1 <b>M2</b> <b>0.32 A/m</b>	Grid 2 <b>M2</b> <b>0.26 A/m</b>	Grid 3 <b>M3</b> <b>0.23 A/m</b>
Grid 4 <b>M3</b> <b>0.23 A/m</b>	Grid 5 <b>M3</b> <b>0.24 A/m</b>	Grid 6 <b>M3</b> <b>0.22 A/m</b>
Grid 7 <b>M3</b> <b>0.24 A/m</b>	Grid 8 <b>M3</b> <b>0.22 A/m</b>	Grid 9 <b>M3</b> <b>0.18 A/m</b>

**Cursor:**

Total = 0.321 A/m

H Category: M2

Location: 25, -25, 8.7 mm

Author Data

**Andrew Becker**

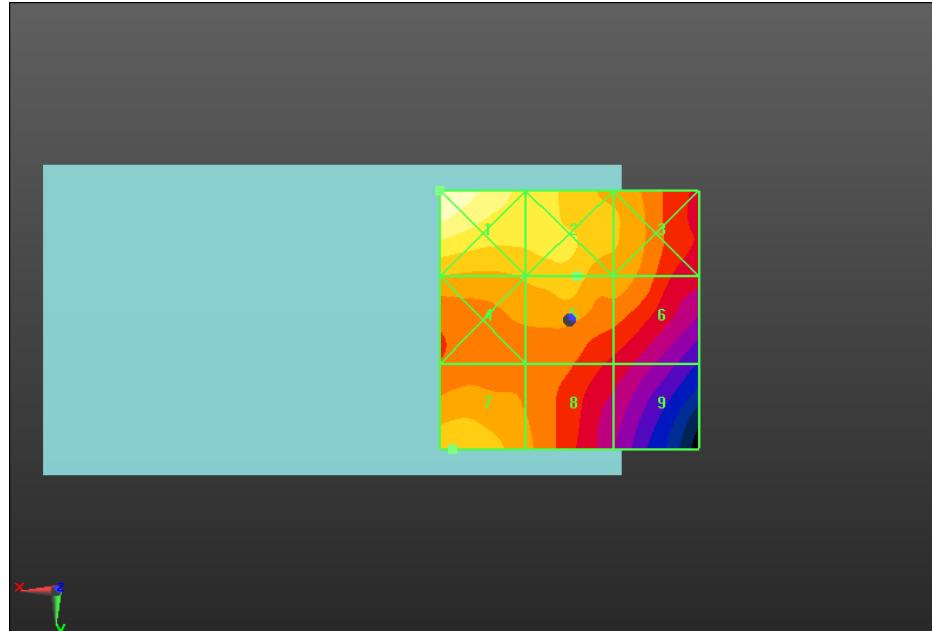
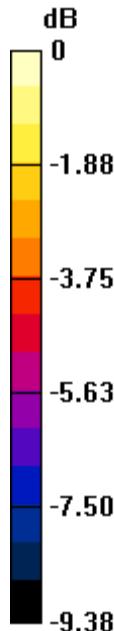
Dates of Test

**Jan. 31, Feb 17-22, Apr 30-May 1, 2012**

Report No

**RTS-5995-1204-31**

FCC ID

**L6AREU70UW**



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Author Data

**Andrew Becker**

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Report No

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FCC ID

**L6AREU70UW**

Date/Time: 5/1/2012 6:24:40 PM

Test Laboratory: RIM Testing Services

**HAC RF\_H-Field\_GSM\_1900\_high\_channel****DUT: BlackBerry Smartphone; Type: Sample ; Serial: 29D05112**

Communication System: GSM 1900; Frequency: 1909.8 MHz

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 0$  kg/m<sup>3</sup>

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; Serial: **Not Specified**
- 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\_high\_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 = 0.24 dB

PMR not calibrated. PMF = 2.970 is applied.

H-field emissions = 0.24 A/m

**Near-field category: M3 (AWF -5 dB)**

PMF scaled H-field

Grid 1 <b>M2</b> <b>0.31 A/m</b>	Grid 2 <b>M2</b> <b>0.26 A/m</b>	Grid 3 <b>M3</b> <b>0.23 A/m</b>
Grid 4 <b>M3</b> <b>0.23 A/m</b>	Grid 5 <b>M3</b> <b>0.24 A/m</b>	Grid 6 <b>M3</b> <b>0.23 A/m</b>
Grid 7 <b>M3</b> <b>0.24 A/m</b>	Grid 8 <b>M3</b> <b>0.22 A/m</b>	Grid 9 <b>M3</b> <b>0.19 A/m</b>

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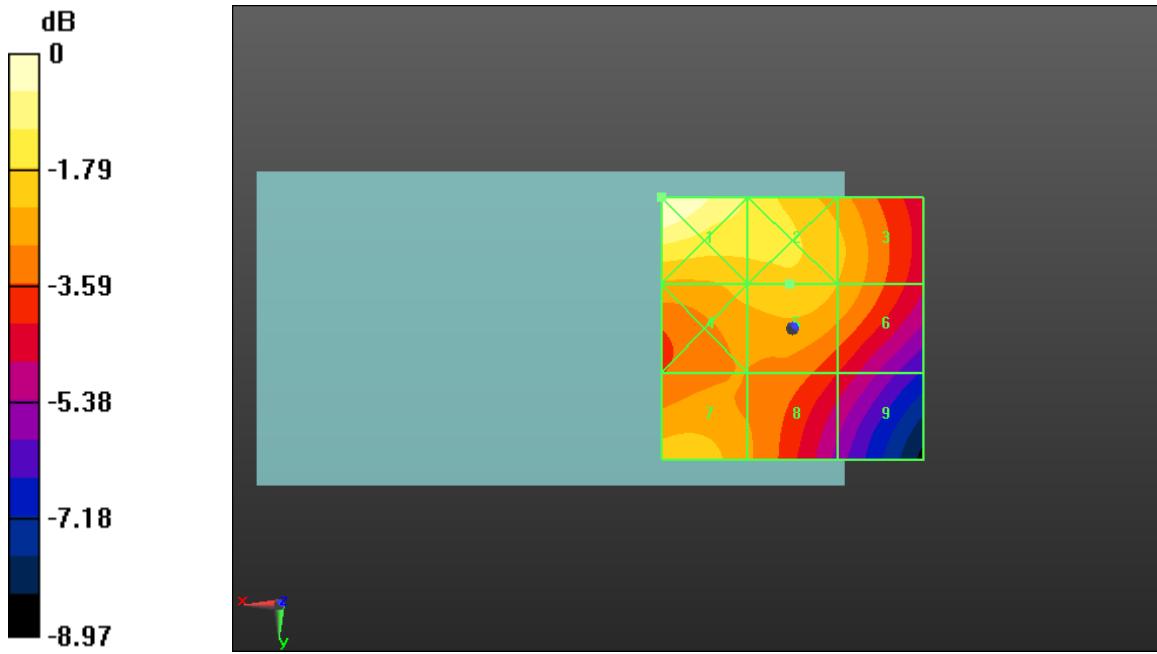
FCC ID

**L6AREU70UW****Cursor:**

Total = 0.314 A/m

H Category: M2

Location: 25, -25, 8.7 mm



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Date/Time: 5/1/2012 5:42:38 PM

Test Laboratory: RIM Testing Services

### **HAC RF\_H-Field\_UMTS\_Band\_II**

**DUT: BlackBerry Smartphone; Type: Sample ; Serial: 29D05112**

Communication System: WCDMA FDD II; Frequency: 1852.4 MHz, Frequency: 1880 MHz, Frequency: 1907.6 MHz

Medium parameters used:  $\sigma = 0 \text{ mho/m}$ ,  $\epsilon_r = 1$ ;  $\rho = 0 \text{ kg/m}^3$

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; Serial: **Not Specified**
- 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:  $dx=5\text{mm}$ ,  $dy=5\text{mm}$

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.13 V/m; Power Drift = -0.18 dB

PMR not calibrated. PMF = 1.000 is applied.

H-field emissions = 0.12 A/m

**Near-field category: M4 (AWF 0 dB)**



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PMF scaled H-field

Grid 1 <b>M4</b> <b>0.14 A/m</b>	Grid 2 <b>M4</b> <b>0.13 A/m</b>	Grid 3 <b>M4</b> <b>0.12 A/m</b>
Grid 4 <b>M4</b> <b>0.11 A/m</b>	Grid 5 <b>M4</b> <b>0.12 A/m</b>	Grid 6 <b>M4</b> <b>0.11 A/m</b>
Grid 7 <b>M4</b> <b>0.10 A/m</b>	Grid 8 <b>M4</b> <b>0.09 A/m</b>	Grid 9 <b>M4</b> <b>0.08 A/m</b>

**Cursor:**

Total = 0.144 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 = 0.12 V/m; Power Drift = -0.03 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 <b>M4</b> <b>0.15 A/m</b>	Grid 2 <b>M4</b> <b>0.12 A/m</b>	Grid 3 <b>M4</b> <b>0.11 A/m</b>
Grid 4 <b>M4</b> <b>0.11 A/m</b>	Grid 5 <b>M4</b> <b>0.11 A/m</b>	Grid 6 <b>M4</b> <b>0.10 A/m</b>
Grid 7 <b>M4</b> <b>0.10 A/m</b>	Grid 8 <b>M4</b> <b>0.09 A/m</b>	Grid 9 <b>M4</b> <b>0.08 A/m</b>



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**L6AREU70UW****Cursor:**

Total = 0.151 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 = 0.12 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 <b>M4</b> <b>0.15 A/m</b>	Grid 2 <b>M4</b> <b>0.12 A/m</b>	Grid 3 <b>M4</b> <b>0.11 A/m</b>
Grid 4 <b>M4</b> <b>0.11 A/m</b>	Grid 5 <b>M4</b> <b>0.11 A/m</b>	Grid 6 <b>M4</b> <b>0.10 A/m</b>
Grid 7 <b>M4</b> <b>0.11 A/m</b>	Grid 8 <b>M4</b> <b>0.10 A/m</b>	Grid 9 <b>M4</b> <b>0.08 A/m</b>

**Cursor:**

Total = 0.149 A/m

H Category: M4

Location: 25, -25, 8.7 mm

Author Data

**Andrew Becker**

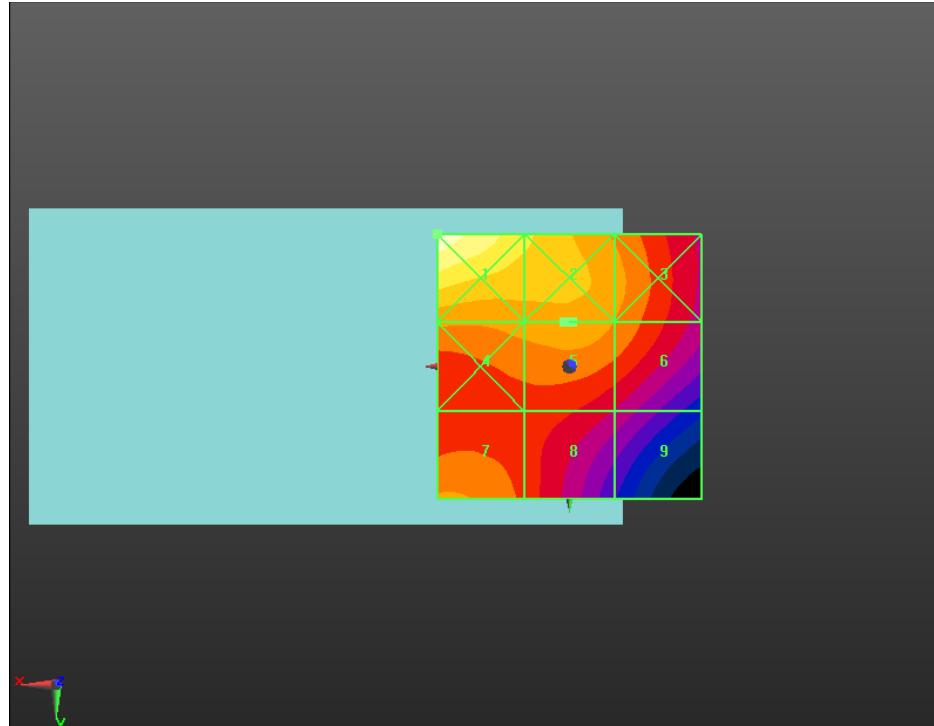
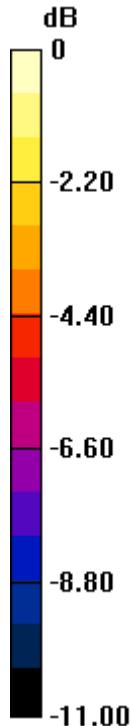
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**L6AREU70UW** $0 \text{ dB} = 0.140 \text{ A/m} = -17.08 \text{ dB A/m}$