
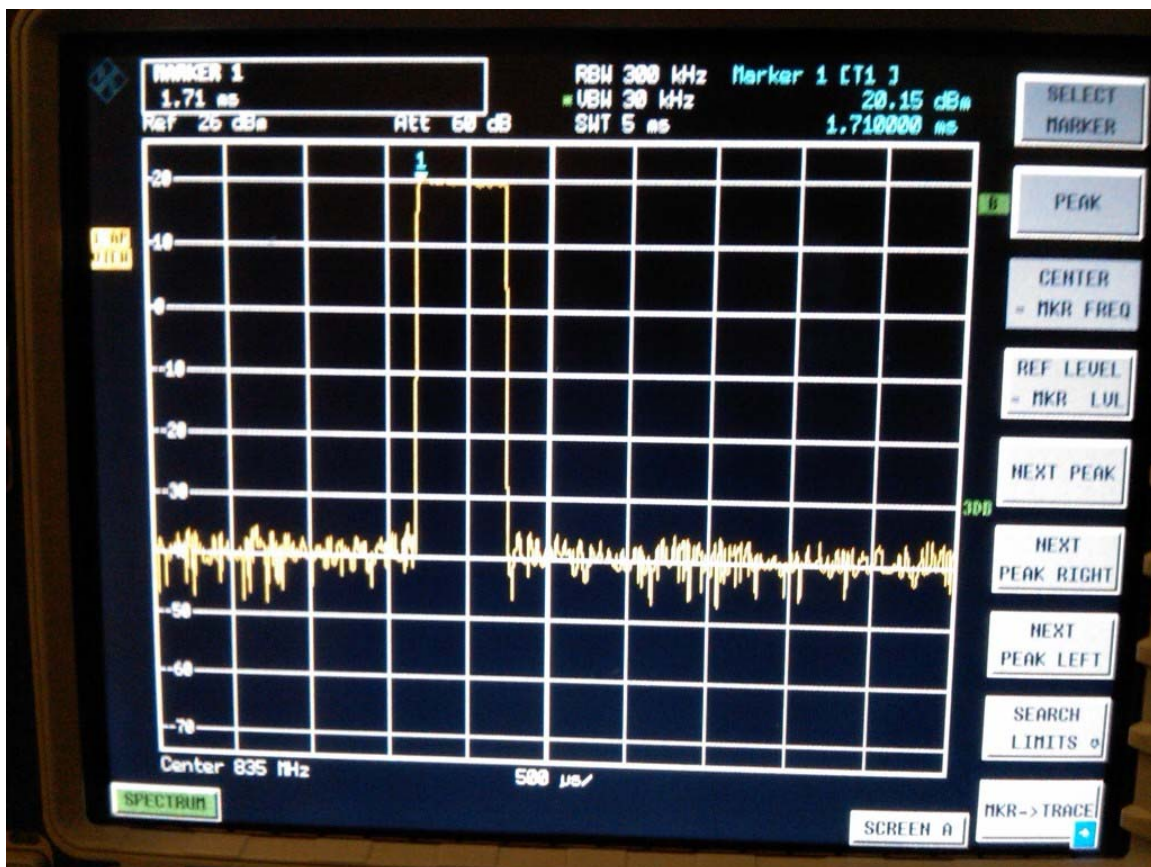



| | | | |
|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 1 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |

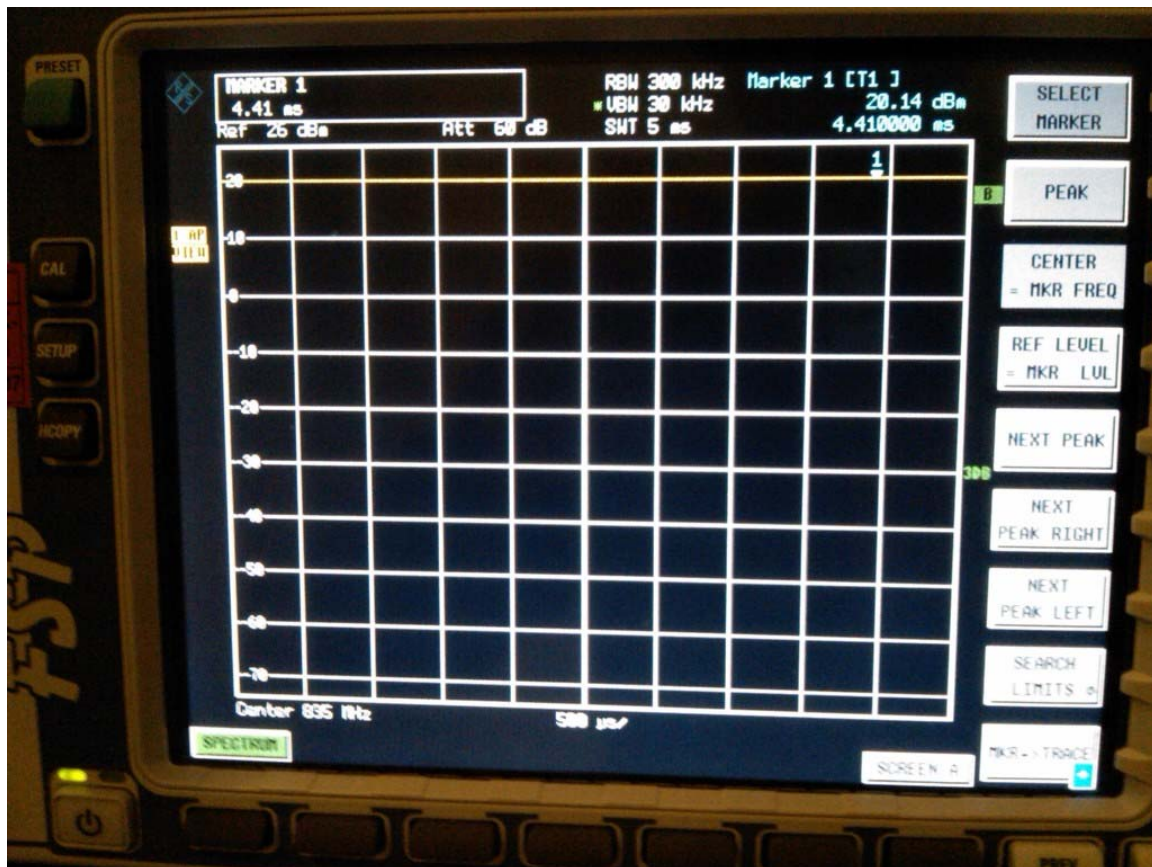
Annex A: Measurement data and plots

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




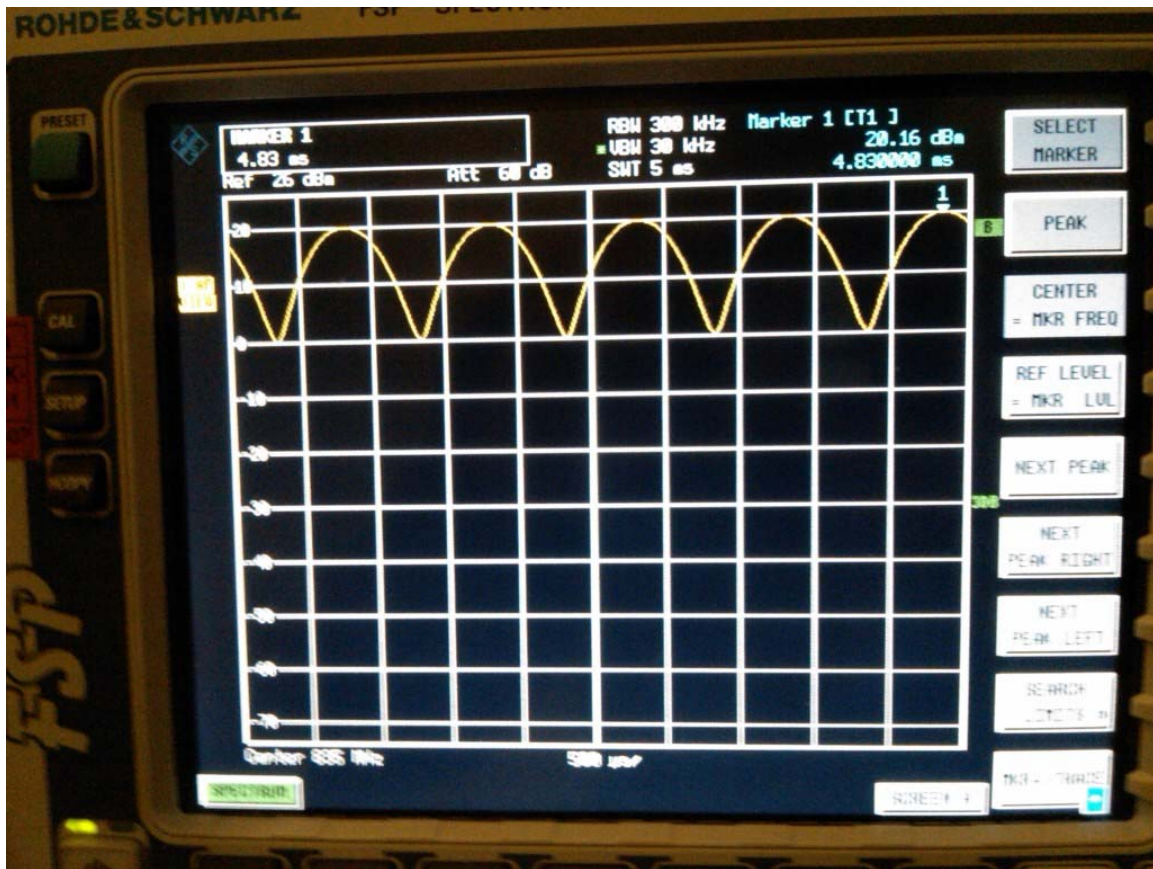
GSM 835 MHz

| | | | |
|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 2 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |




CW 835 MHz

| | | | |
|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 3 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |




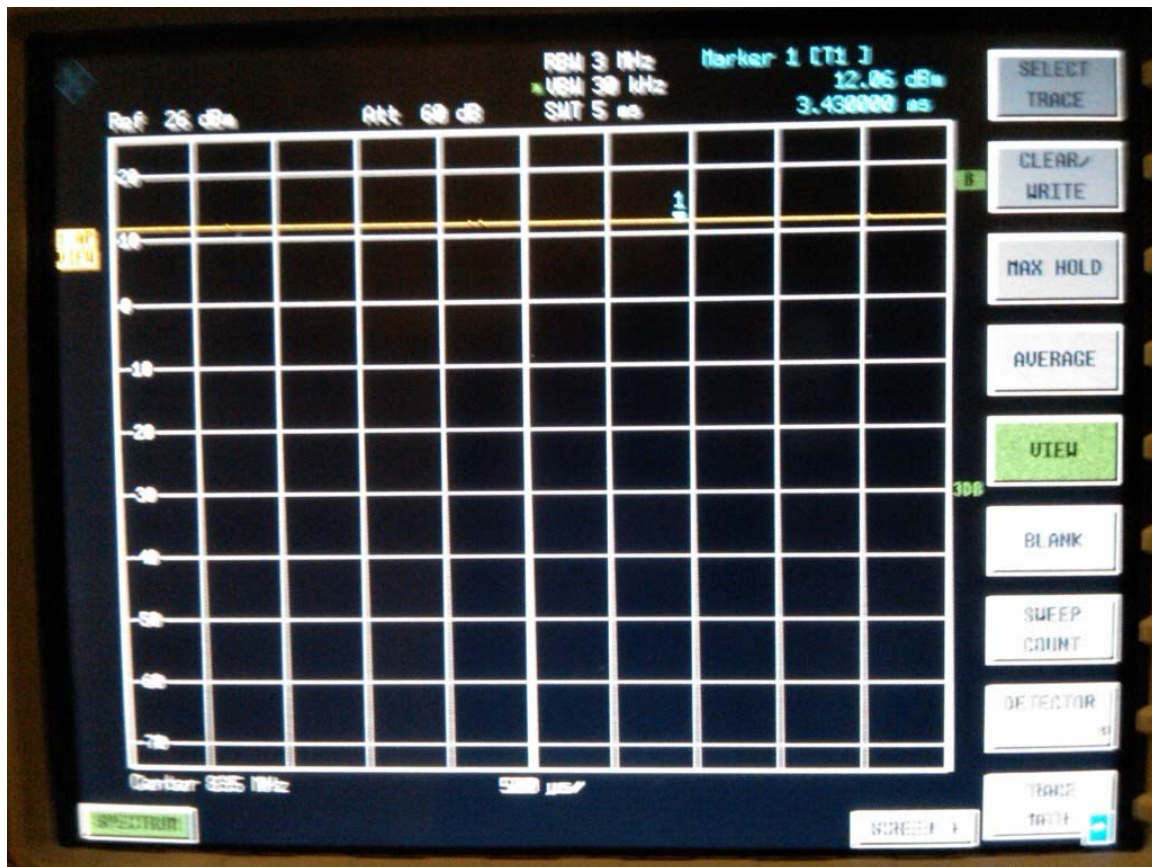
AM 80% 835 MHz

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|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 4 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |




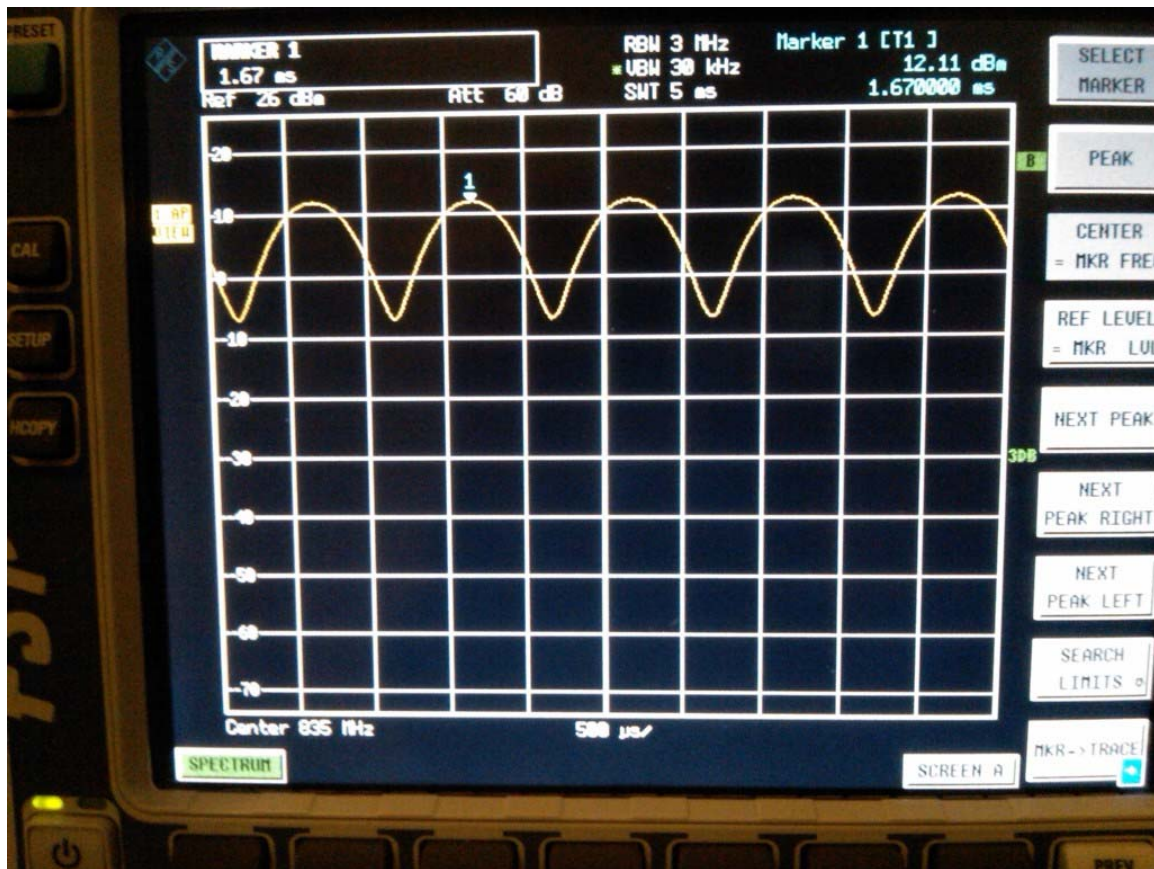
CDMA 835 MHz

| | | | |
|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 5 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |




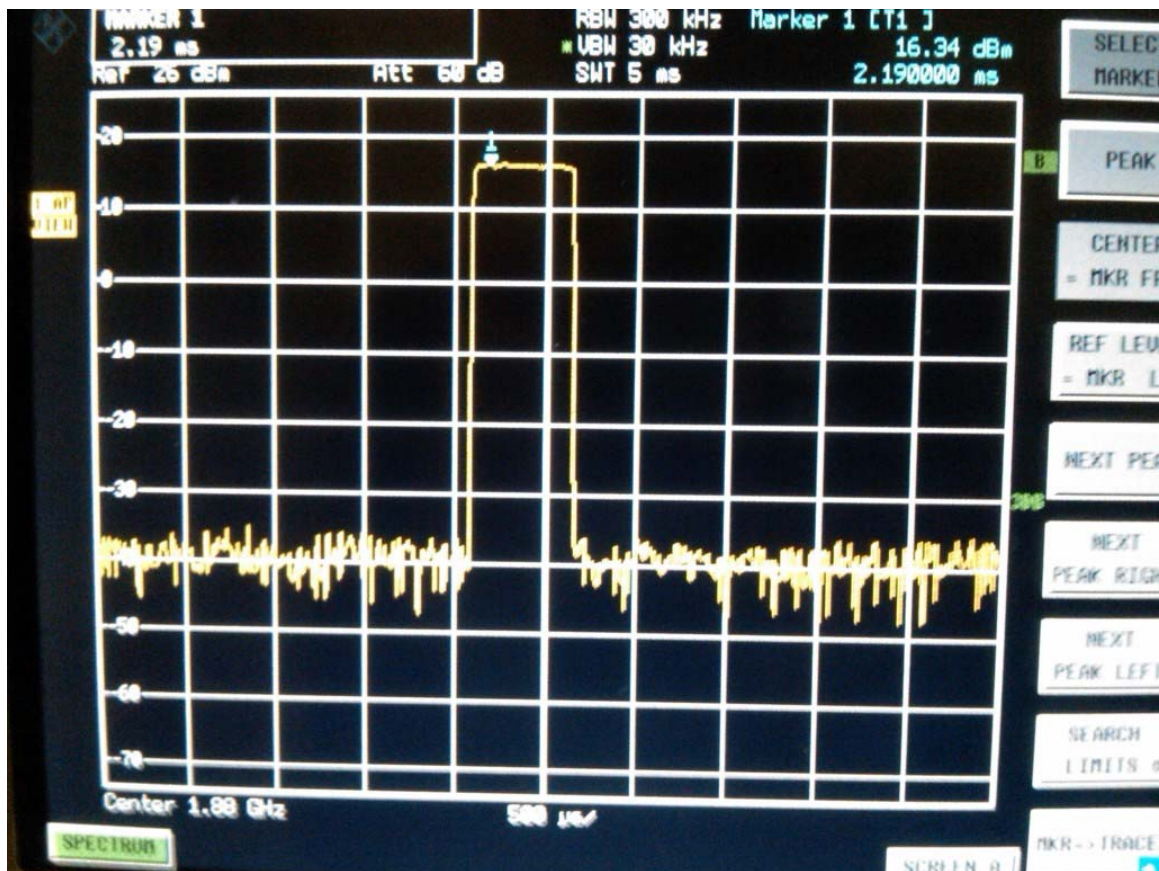
CW 835 MHz

| | | | |
|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 6 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |




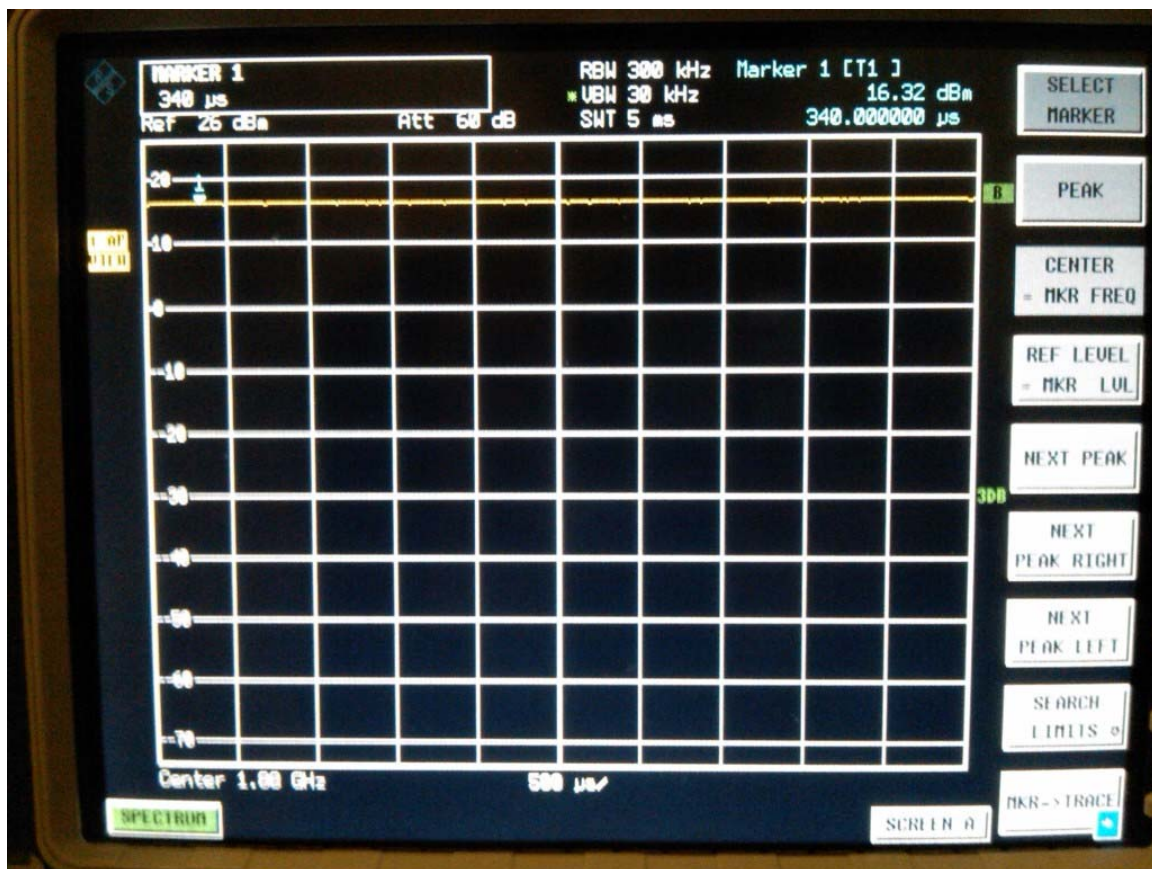
AM 80% 835 MHz

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|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 7 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |




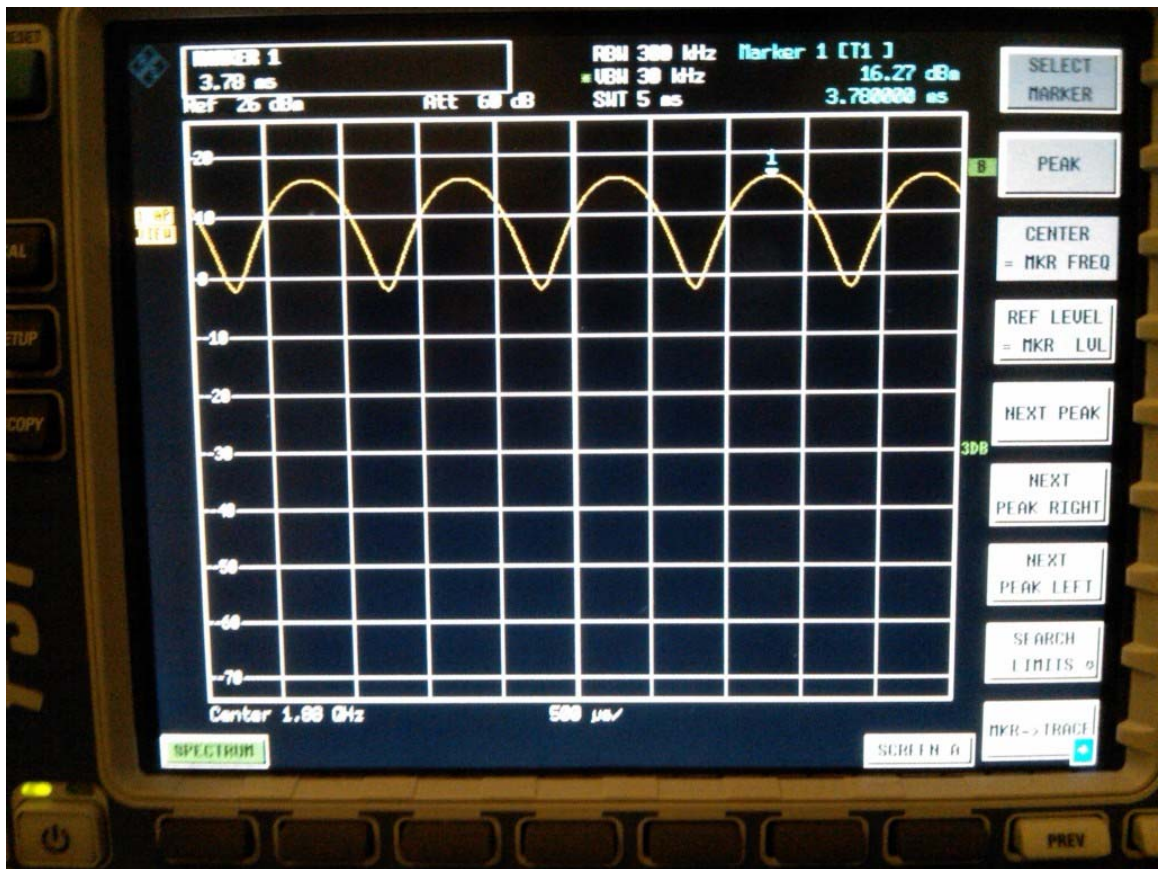
GSM 1880 MHz

| | | | |
|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 8 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |




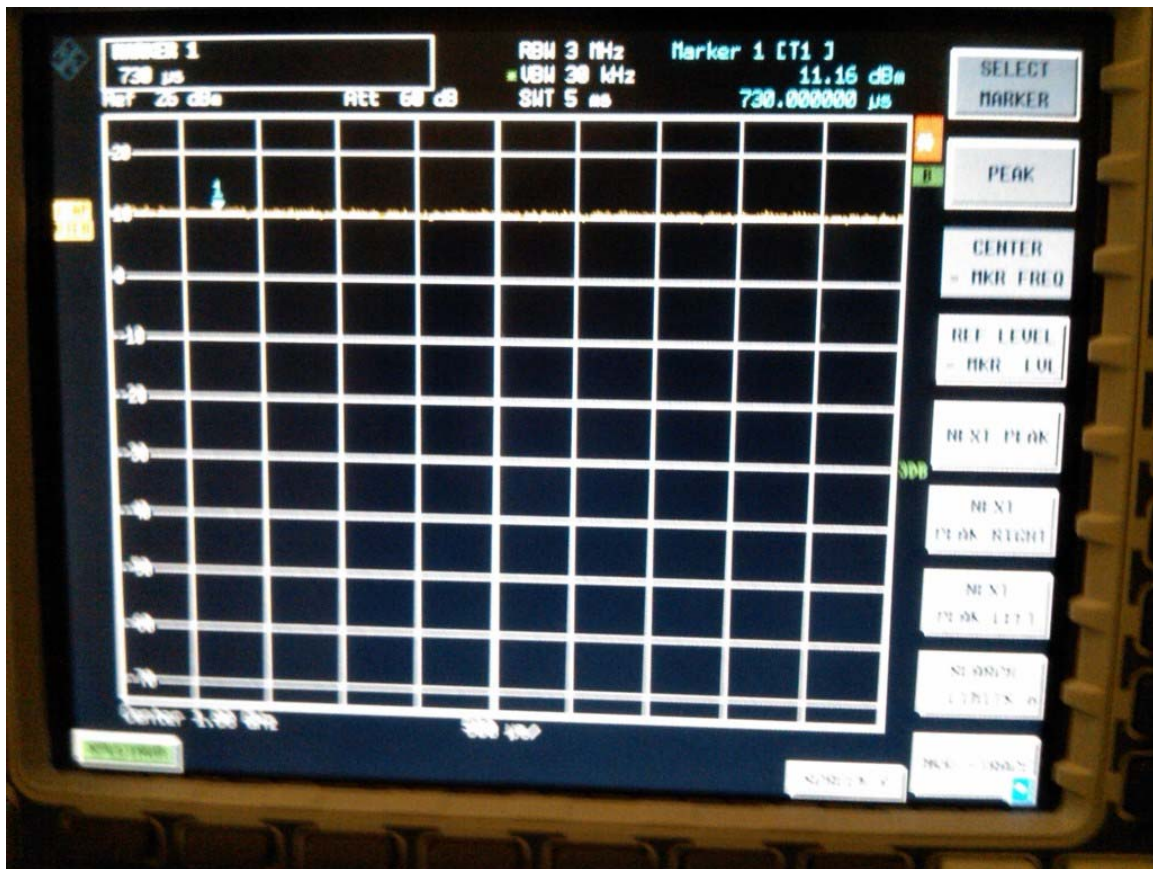
CW 1880 MHz

| | | | |
|---|--|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 9 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |




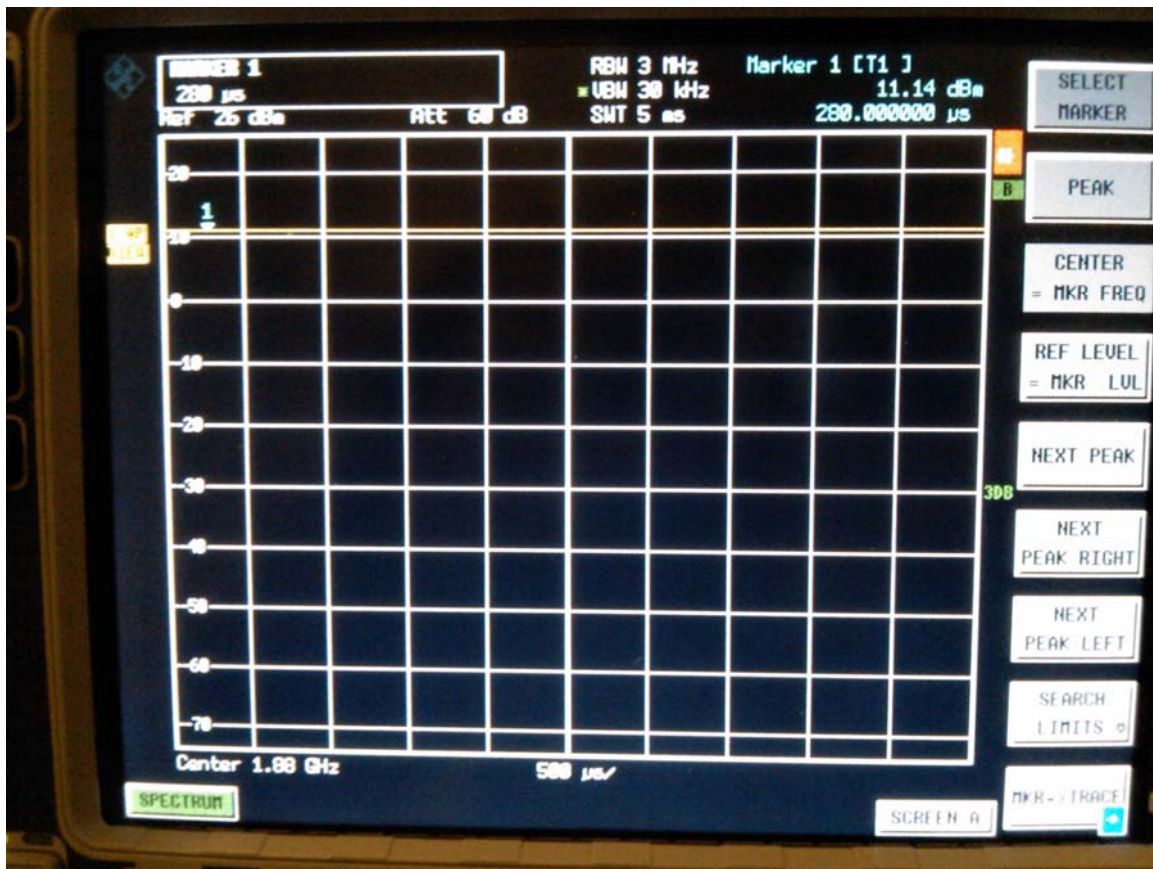
AM 80 % 1880 MHz

| | | | |
|---|--|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 10 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |




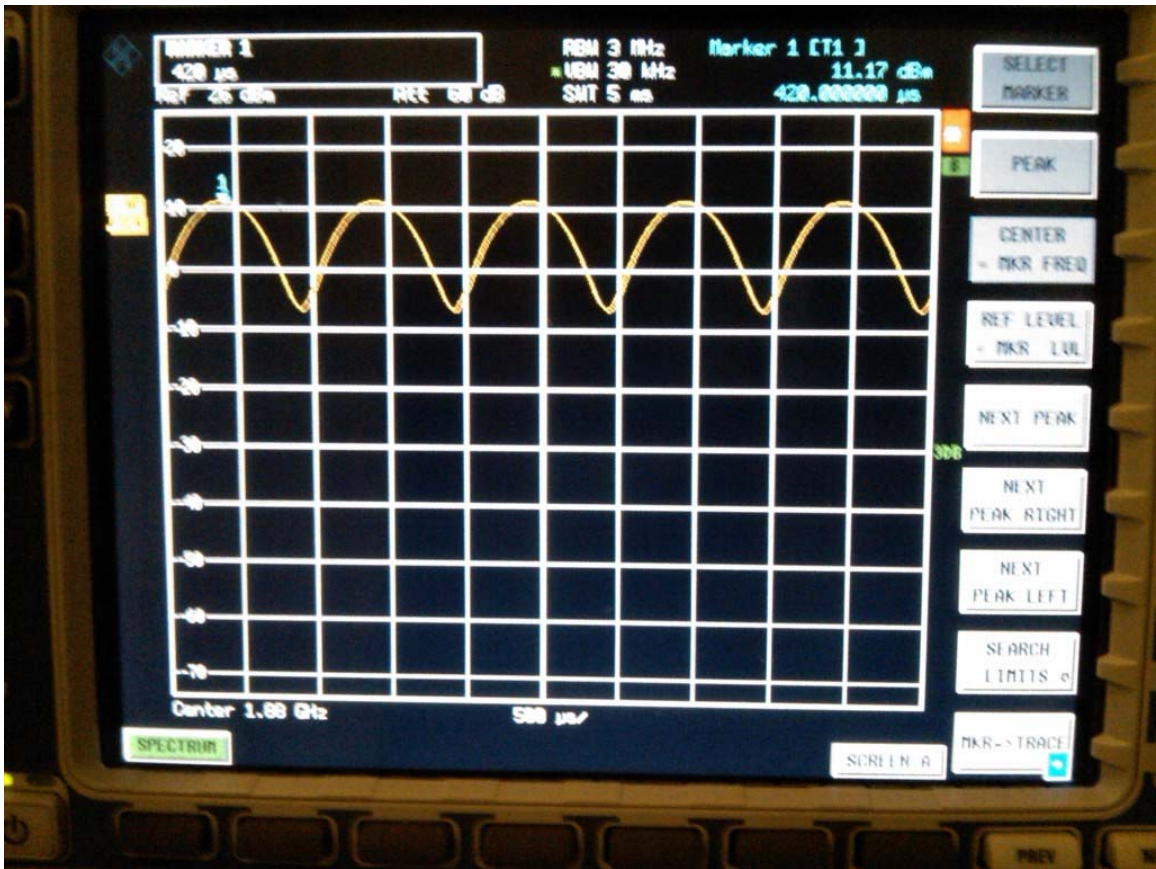
CDMA 1880 MHz

| | | | |
|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 11 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |




CW 1880 MHz


| | | | |
|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 12 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |



AM 80 % 1880 MHz

| | | | |
|---|--|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 13 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |

A.2 Dipole validation and probe modulation factor plots

| | | | |
|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 14 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |

Date/Time: 3/22/2011 3:37:27 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_validation_835 MHz

DUT: HAC-Dipole 835 MHz; Type: D835V3

Communication System: CW; Communication System Band: D835 (835.0 MHz);

Frequency: 835 MHz; Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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


Maximum value of peak Total field = 160.2 V/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

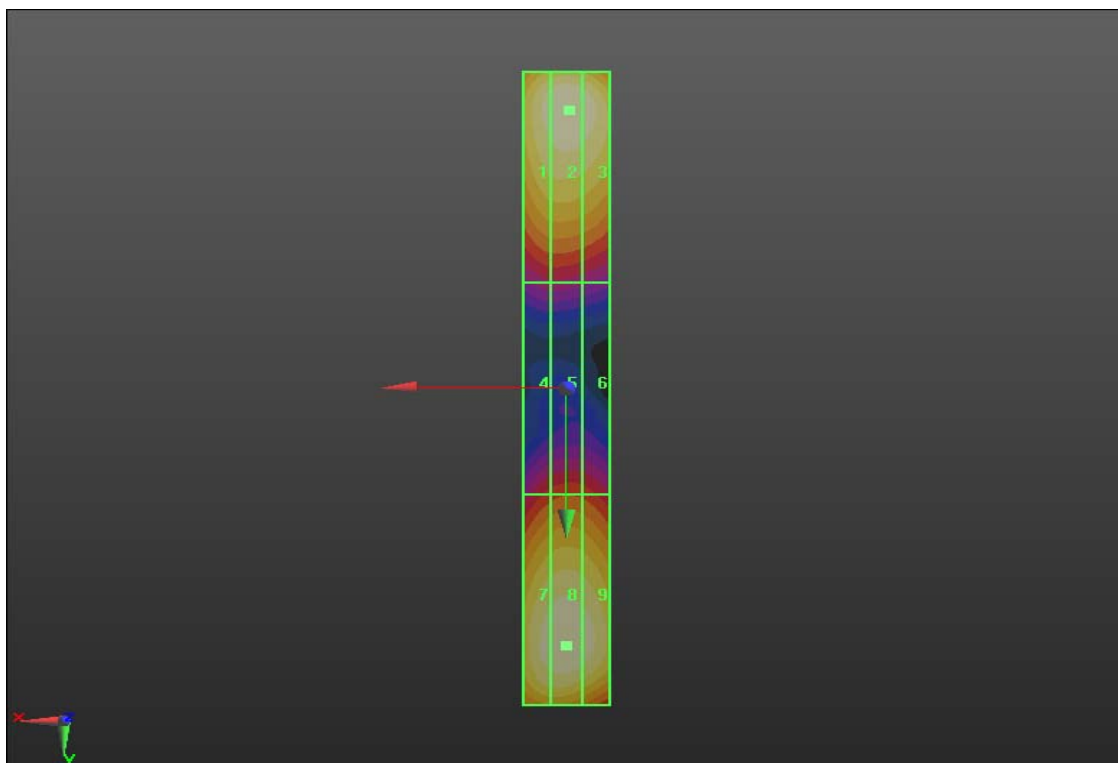
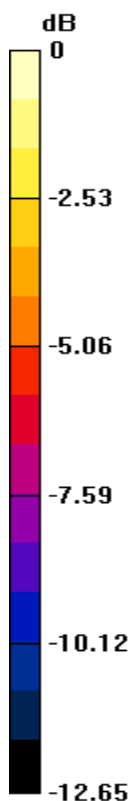
Reference Value = 119.1 V/m; Power Drift = 0.28 dB

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


| | | | |
|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 15 (135) |
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Peak E-field in V/m

| | | |
|--------------------------------|--------------------------------|--------------------------------|
| Grid 1 154.3 M4 | Grid 2 160.2 M4 | Grid 3 156.7 M4 |
| Grid 4 85.253 M4 | Grid 5 88.903 M4 | Grid 6 87.202 M4 |
| Grid 7 155.3 M4 | Grid 8 158.9 M4 | Grid 9 155.3 M4 |



0 dB = 160.2V/m

| | | | |
|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 16 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |

Date/Time: 3/22/2011 2:40:53 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_GSM_835 MHz

DUT: HAC-Dipole 835 MHz; Type: D835V3

Communication System: GSM 850; Frequency: 835 MHz; Communication

System PAR: 9.191 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of peak Total field = 54.142 V/m


Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

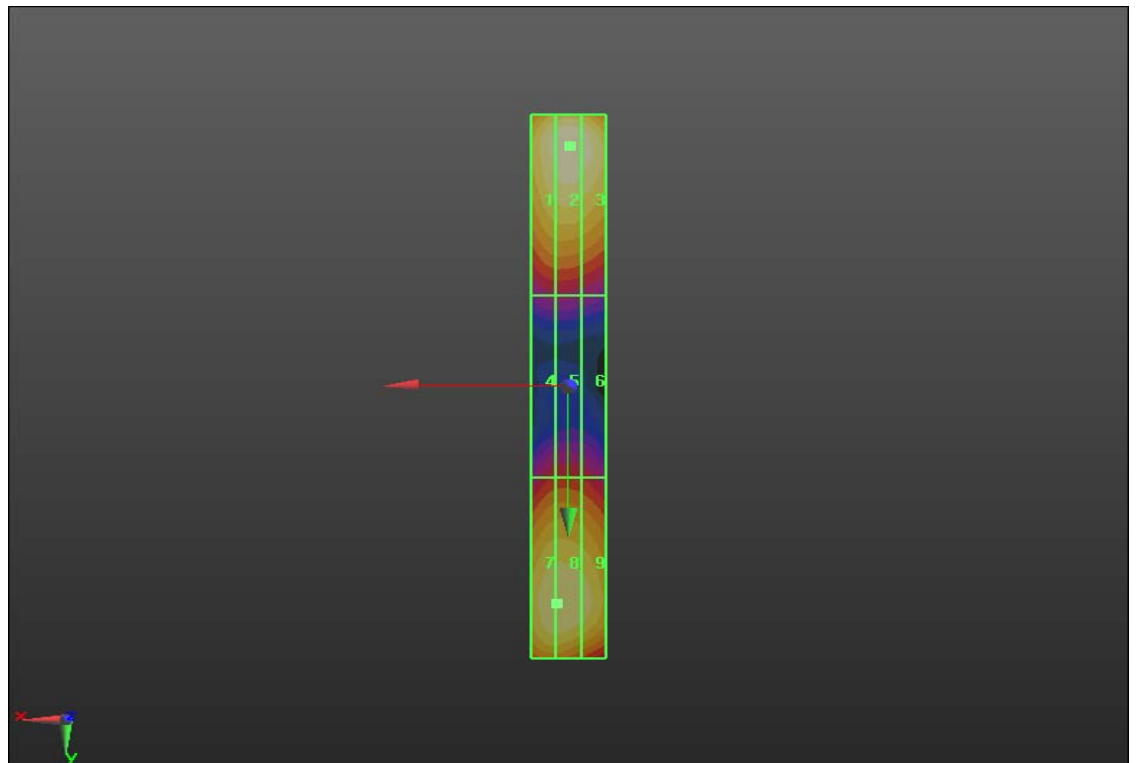
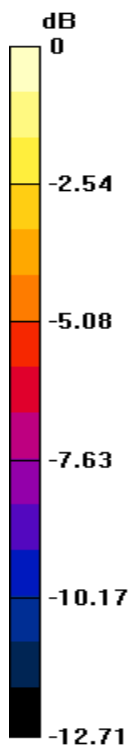
Reference Value = 38.642 V/m; Power Drift = -0.06 dB

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


Peak E-field in V/m

| | | | |
|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 17 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |

| | | |
|----------------------------|----------------------------|----------------------------|
| Grid 1 51.408 M4 | Grid 2 54.142 M4 | Grid 3 52.509 M4 |
| Grid 4 27.621 M4 | Grid 5 27.841 M4 | Grid 6 27.144 M4 |
| Grid 7 49.045 M4 | Grid 8 49.106 M4 | Grid 9 47.011 M4 |



0 dB = 54.140V/m

| | | | |
|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 18 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |

Date/Time: 3/22/2011 3:01:22 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_CW835 MHz_GSM

DUT: HAC-Dipole 835 MHz; Type: D835V3

Communication System: CW; Communication System Band: D835 (835.0 MHz);

Frequency: 835 MHz; Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASYS2, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of peak Total field = 159.3 V/m

Probe Modulation Factor = 1.000


Device Reference Point: 0, 0, -6.3 mm

Reference Value = 120.6 V/m; Power Drift = -0.10 dB

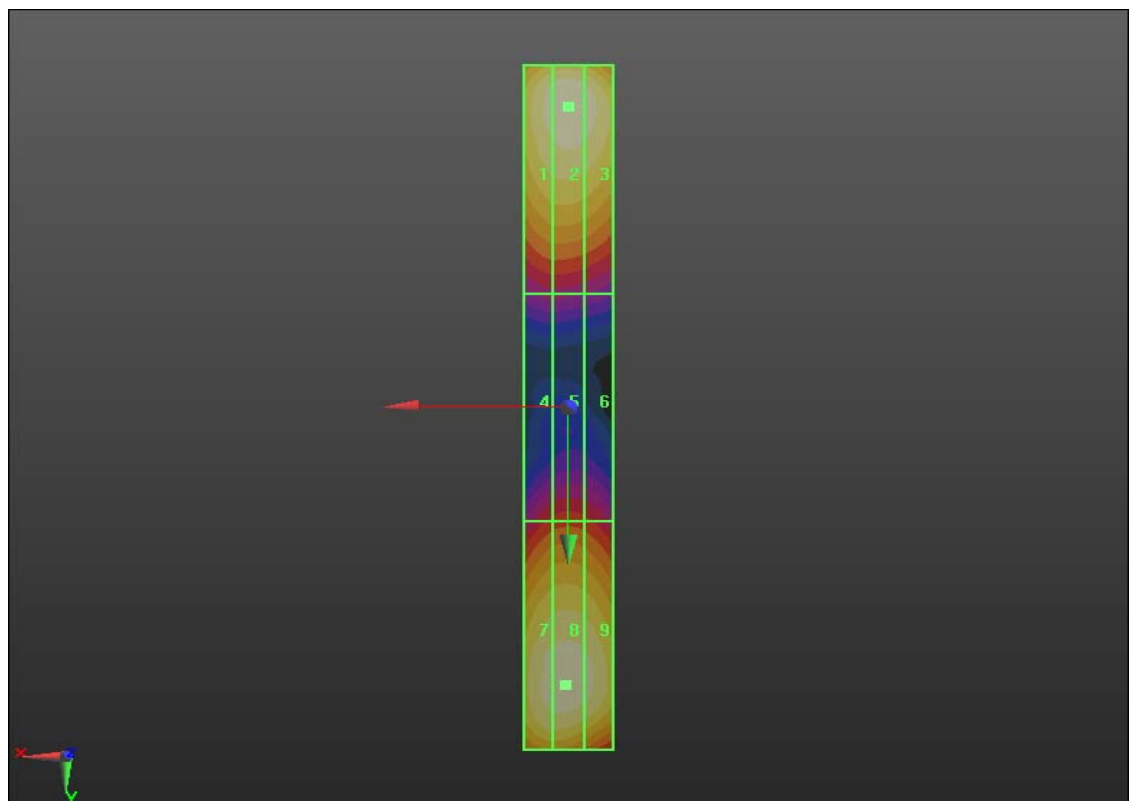
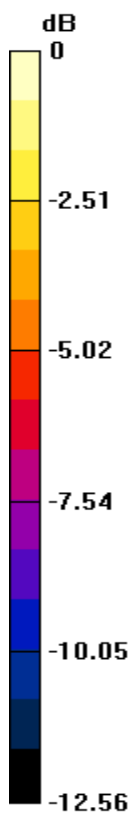
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m


| | | |
|--------|--------|--------|
| Grid 1 | Grid 2 | Grid 3 |
|--------|--------|--------|

| | | | |
|--|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 19 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |

| | | |
|--------------------------------|--------------------------------|--------------------------------|
| 153.1 M4 | 159.3 M4 | 154.5 M4 |
| Grid 4 84.666 M4 | Grid 5 86.943 M4 | Grid 6 84.863 M4 |
| Grid 7 153.2 M4 | Grid 8 154.9 M4 | Grid 9 151.1 M4 |



0 dB = 159.3V/m

| | | | |
|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 20 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |

Date/Time: 3/22/2011 3:09:37 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_AM80%835 MHz_GSM

DUT: HAC-Dipole 835 MHz; Type: D835V3

Communication System: AM 80%; Communication System Band: D835 (835.0

MHz); Frequency: 835 MHz;Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of peak Total field = 99.820 V/m


Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

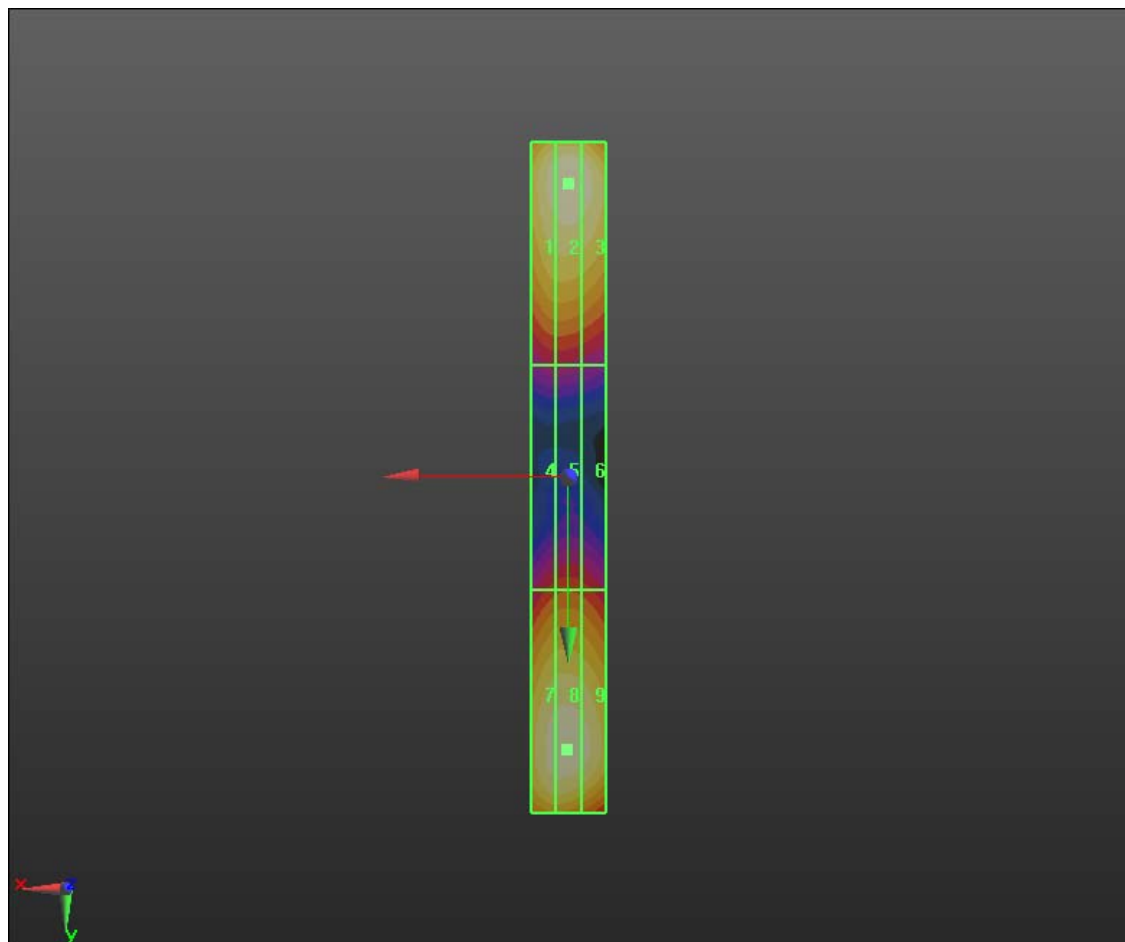
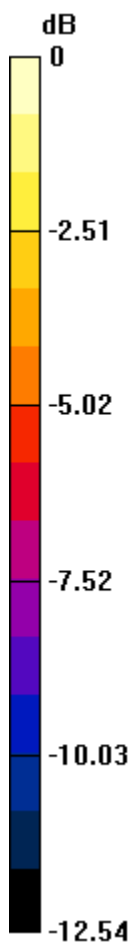
Reference Value = 74.981 V/m; Power Drift = -0.17 dB

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


Peak E-field in V/m

| | | | |
|--|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 21 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |

| | | |
|----------------------------|----------------------------|----------------------------|
| Grid 1 96.553 M4 | Grid 2 99.820 M4 | Grid 3 97.313 M4 |
| Grid 4 54.091 M4 | Grid 5 55.431 M4 | Grid 6 53.882 M4 |
| Grid 7 95.955 M4 | Grid 8 97.176 M4 | Grid 9 95.117 M4 |



0 dB = 99.820V/m

| | | | |
|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 22 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |

Date/Time: 3/22/2011 2:51:34 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_CDMA_835 MHz

DUT: HAC-Dipole 835 MHz; Type: D835V3

Communication System: CDMA 800; Frequency: 835 MHz; Communication

System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of peak Total field = 63.653 V/m


Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

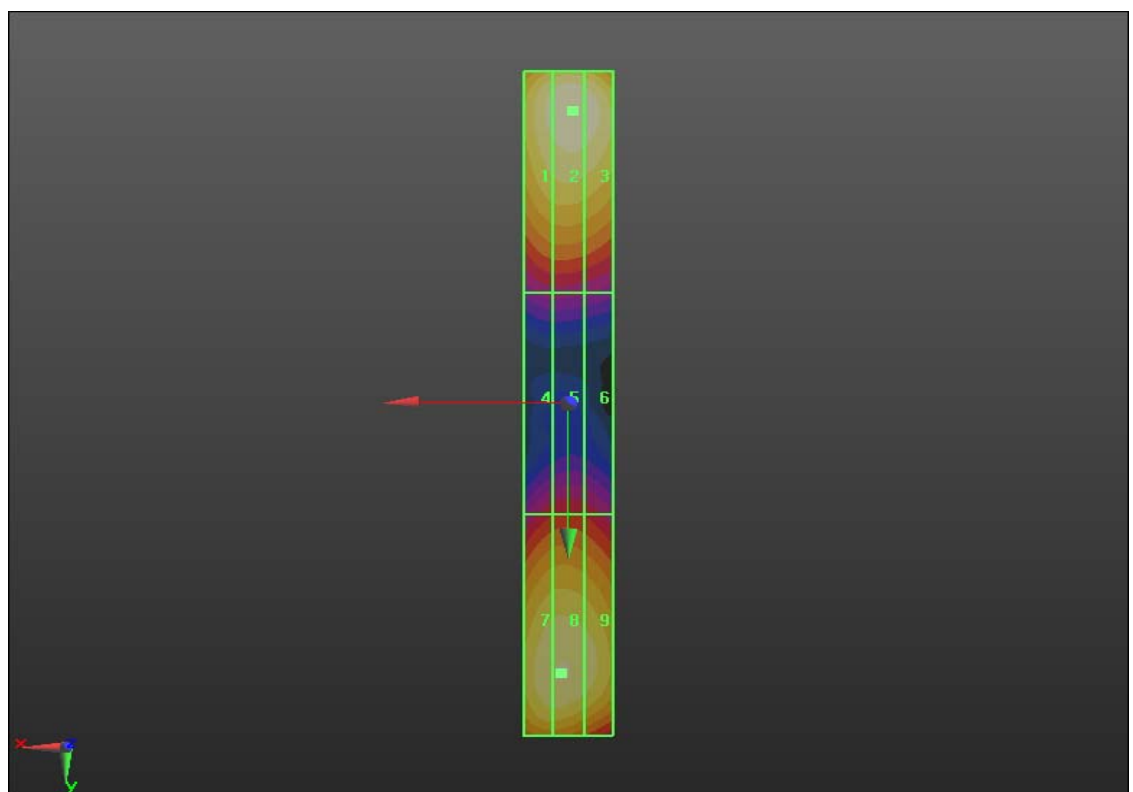
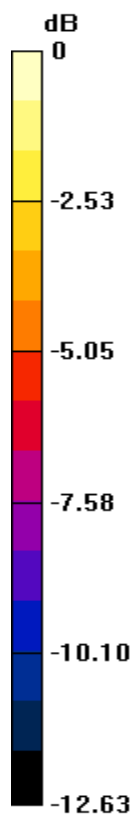
Reference Value = 45.492 V/m; Power Drift = 0.04 dB

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


Peak E-field in V/m

| | | | |
|--|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 23 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |

| | | |
|----------------------------|----------------------------|----------------------------|
| Grid 1 60.457 M4 | Grid 2 63.653 M4 | Grid 3 62.702 M4 |
| Grid 4 32.119 M4 | Grid 5 32.806 M4 | Grid 6 32.009 M4 |
| Grid 7 57.694 M4 | Grid 8 58.081 M4 | Grid 9 56.094 M4 |



0 dB = 63.650V/m

| | | | |
|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 24 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |

Date/Time: 3/22/2011 3:23:33 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_CW835 MHz_CDMA

DUT: HAC-Dipole 835 MHz; Type: D835V3

Communication System: CW; Communication System Band: D835 (835.0 MHz);

Frequency: 835 MHz; Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of peak Total field = 62.994 V/m


Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

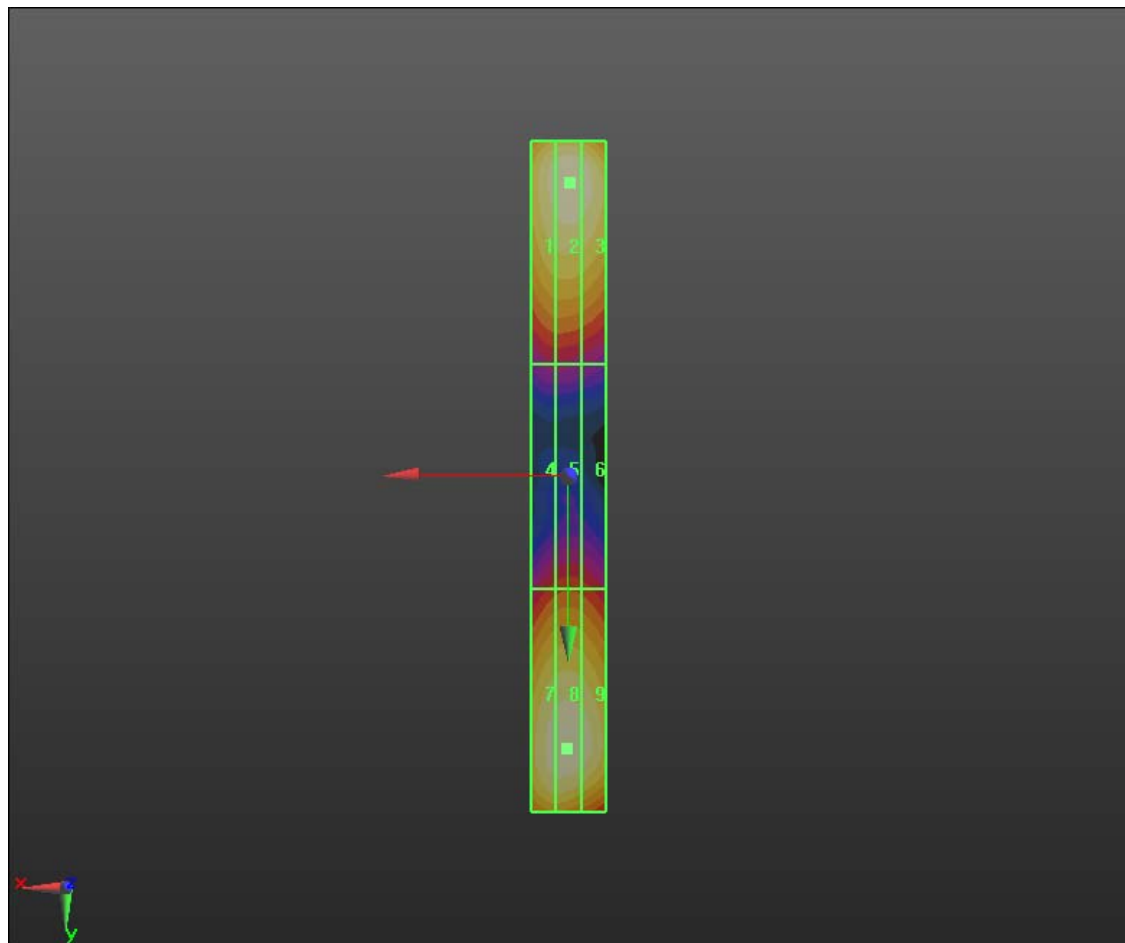
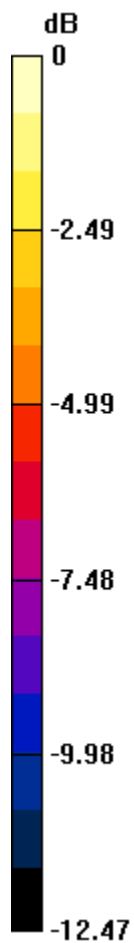
Reference Value = 48.064 V/m; Power Drift = 0.07 dB

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


Peak E-field in V/m

| | | | |
|--|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 25 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |

| | | |
|----------------------------|----------------------------|----------------------------|
| Grid 1 60.423 M4 | Grid 2 62.994 M4 | Grid 3 61.497 M4 |
| Grid 4 33.852 M4 | Grid 5 34.972 M4 | Grid 6 34.054 M4 |
| Grid 7 60.979 M4 | Grid 8 62.079 M4 | Grid 9 60.453 M4 |



0 dB = 62.990V/m

| | | | |
|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 26 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |

Date/Time: 3/22/2011 3:31:14 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_AM80%835 MHz_CDMA

DUT: HAC-Dipole 835 MHz; Type: D835V3

Communication System: AM 80%; Communication System Band: D835 (835.0

MHz); Frequency: 835 MHz;Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of peak Total field = 40.248 V/m


Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

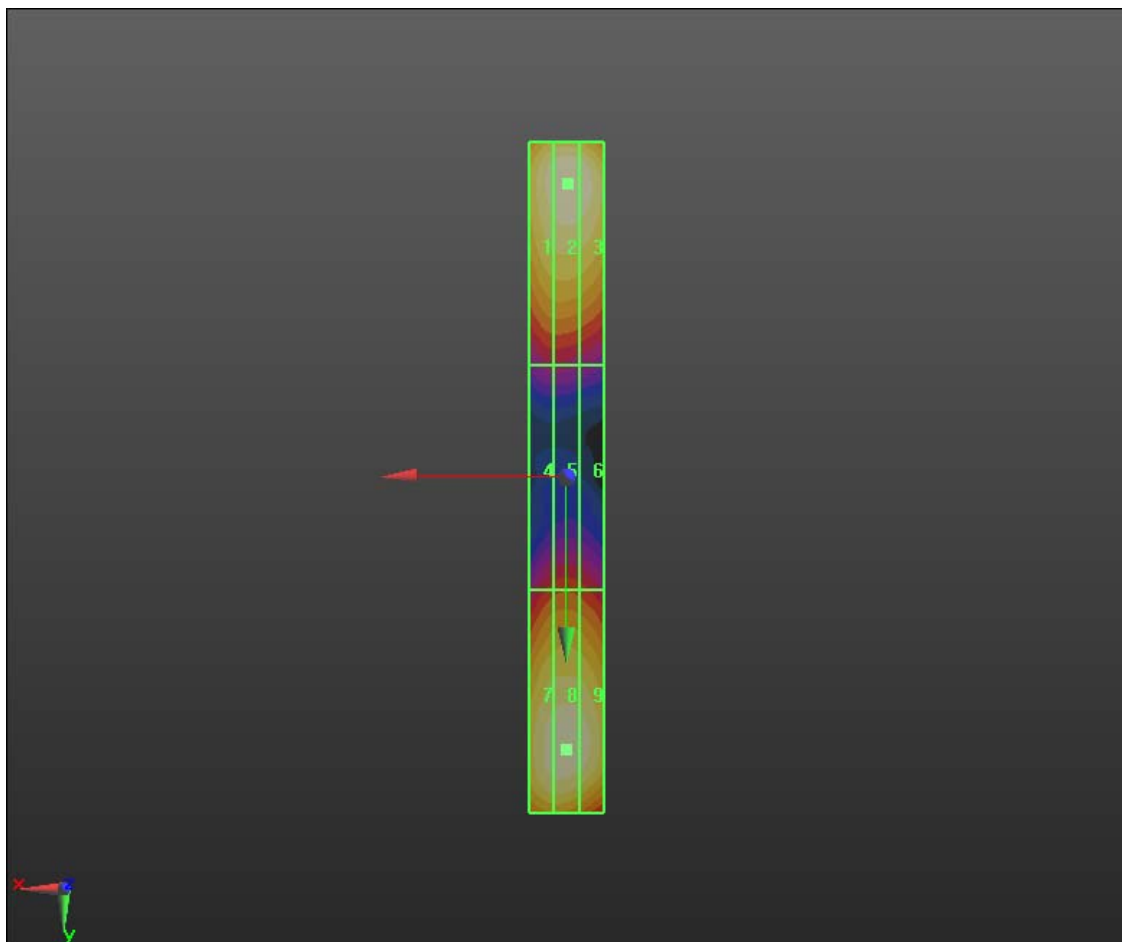
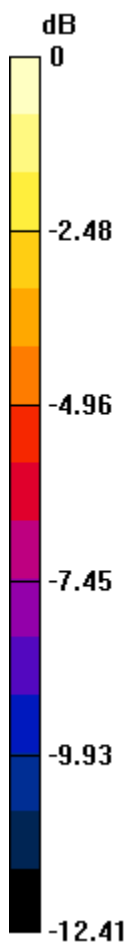
Reference Value = 30.394 V/m; Power Drift = 0.02 dB

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


Peak E-field in V/m

| | | | |
|--|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 27 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |

| | | |
|----------------------------|----------------------------|----------------------------|
| Grid 1 38.736 M4 | Grid 2 40.248 M4 | Grid 3 39.607 M4 |
| Grid 4 21.813 M4 | Grid 5 22.486 M4 | Grid 6 21.734 M4 |
| Grid 7 38.792 M4 | Grid 8 39.696 M4 | Grid 9 38.886 M4 |



0 dB = 40.250V/m

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|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 28 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |

Date/Time: 3/22/2011 4:50:23 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_validation_1880 MHz

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Communication System Band: D1900 (1900.0

MHz); Frequency: 1880 MHz; Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASYS2, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of peak Total field = 133.2 V/m


Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

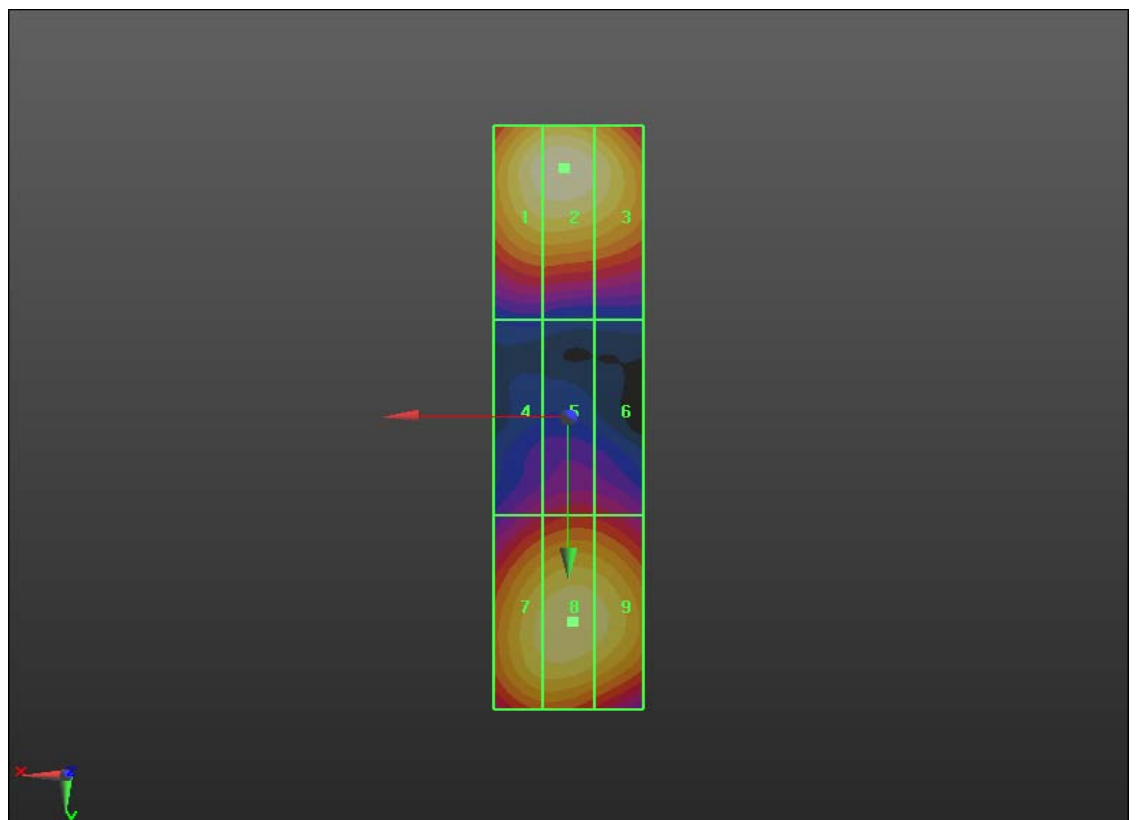
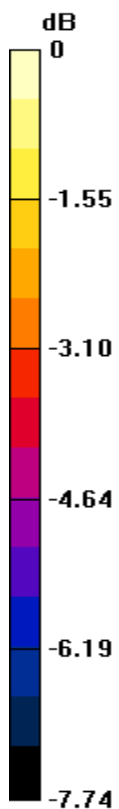
Reference Value = 124.8 V/m; Power Drift = -0.0086 dB

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


Peak E-field in V/m

| | | | |
|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 29 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |

| | | |
|--------------------------------|--------------------------------|--------------------------------|
| Grid 1 130.6 M2 | Grid 2 133.2 M2 | Grid 3 126.2 M2 |
| Grid 4 83.013 M3 | Grid 5 87.500 M3 | Grid 6 86.528 M3 |
| Grid 7 121.2 M2 | Grid 8 124.7 M2 | Grid 9 122.2 M2 |



0 dB = 133.2V/m

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|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 30 (135) |
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Date/Time: 3/22/2011 4:54:49 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_GSM_1880 MHz

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: GSM 1900; Frequency: 1880 MHz; Communication

System PAR: 9.191 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of peak Total field = 27.663 V/m


Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

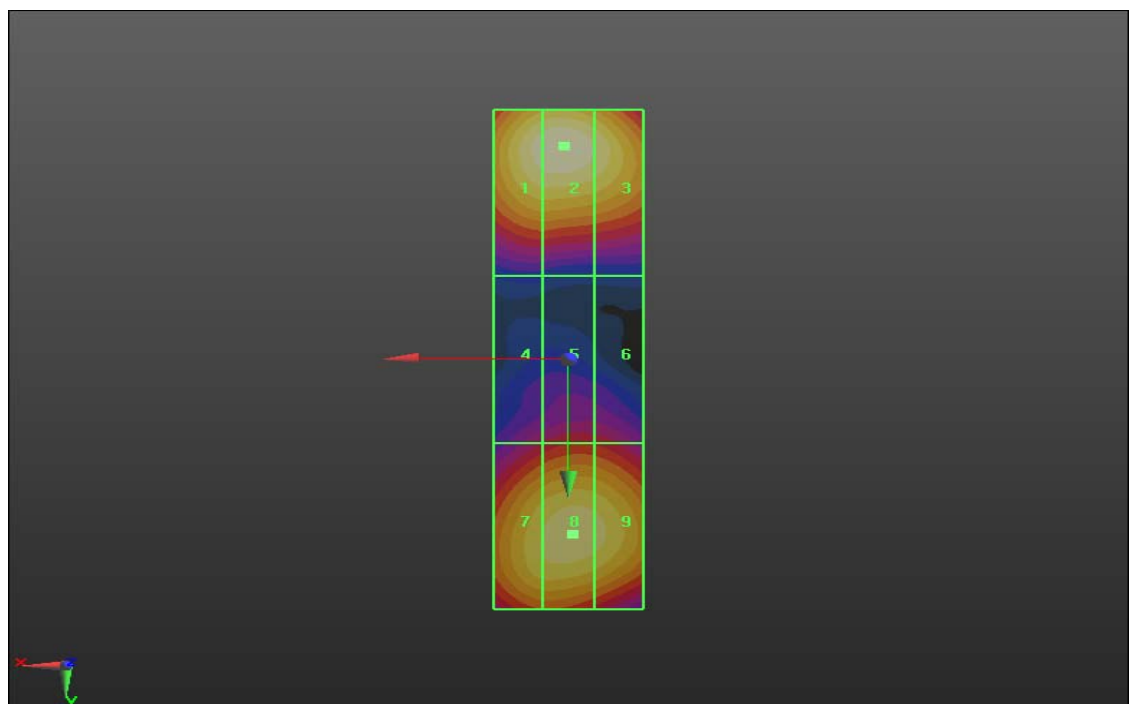
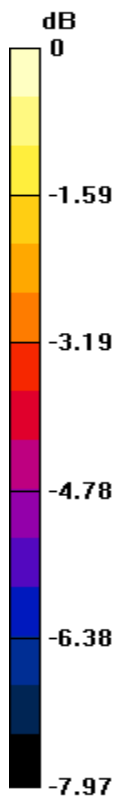
Reference Value = 25.374 V/m; Power Drift = 0.02 dB

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


Peak E-field in V/m

| | | | |
|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 31 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |

| | | |
|----------------------------|----------------------------|----------------------------|
| Grid 1 27.050 M4 | Grid 2 27.663 M4 | Grid 3 26.052 M4 |
| Grid 4 17.031 M4 | Grid 5 18.013 M4 | Grid 6 17.833 M4 |
| Grid 7 24.636 M4 | Grid 8 25.539 M4 | Grid 9 25.116 M4 |



0 dB = 27.660V/m

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|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 32 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |

Date/Time: 3/23/2011 12:08:40 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_CW1880 MHz_GSM

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Communication System Band: D1900 (1900.0 MHz); Frequency: 1880 MHz; Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of peak Total field = 82.216 V/m


Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

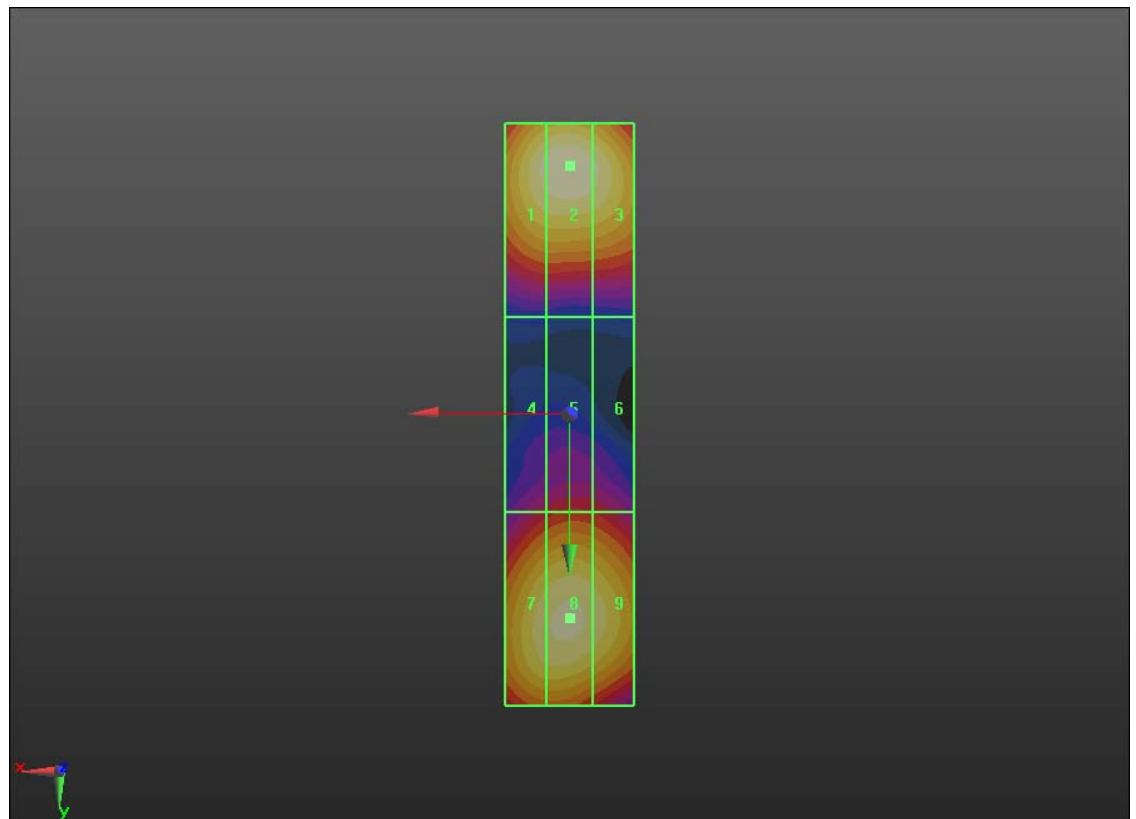
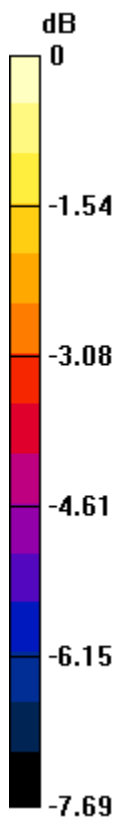
Reference Value = 78.932 V/m; Power Drift = 0.0039 dB

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


Peak E-field in V/m

| | | | |
|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 33 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |

| | | |
|--------------------------------|--------------------------------|--------------------------------|
| Grid 1 79.692 M3 | Grid 2 82.216 M3 | Grid 3 79.228 M3 |
| Grid 4 52.849 M4 | Grid 5 55.292 M4 | Grid 6 54.232 M4 |
| Grid 7 76.960 M3 | Grid 8 78.815 M3 | Grid 9 76.489 M3 |



0 dB = 82.220V/m

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|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 34 (135) |
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Date/Time: 3/22/2011 4:12:07 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_AM80%1880 MHz_GSM

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: AM 80%; Communication System Band: D1900 (1900.0 MHz); Frequency: 1880 MHz; Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of peak Total field = 53.337 V/m


Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

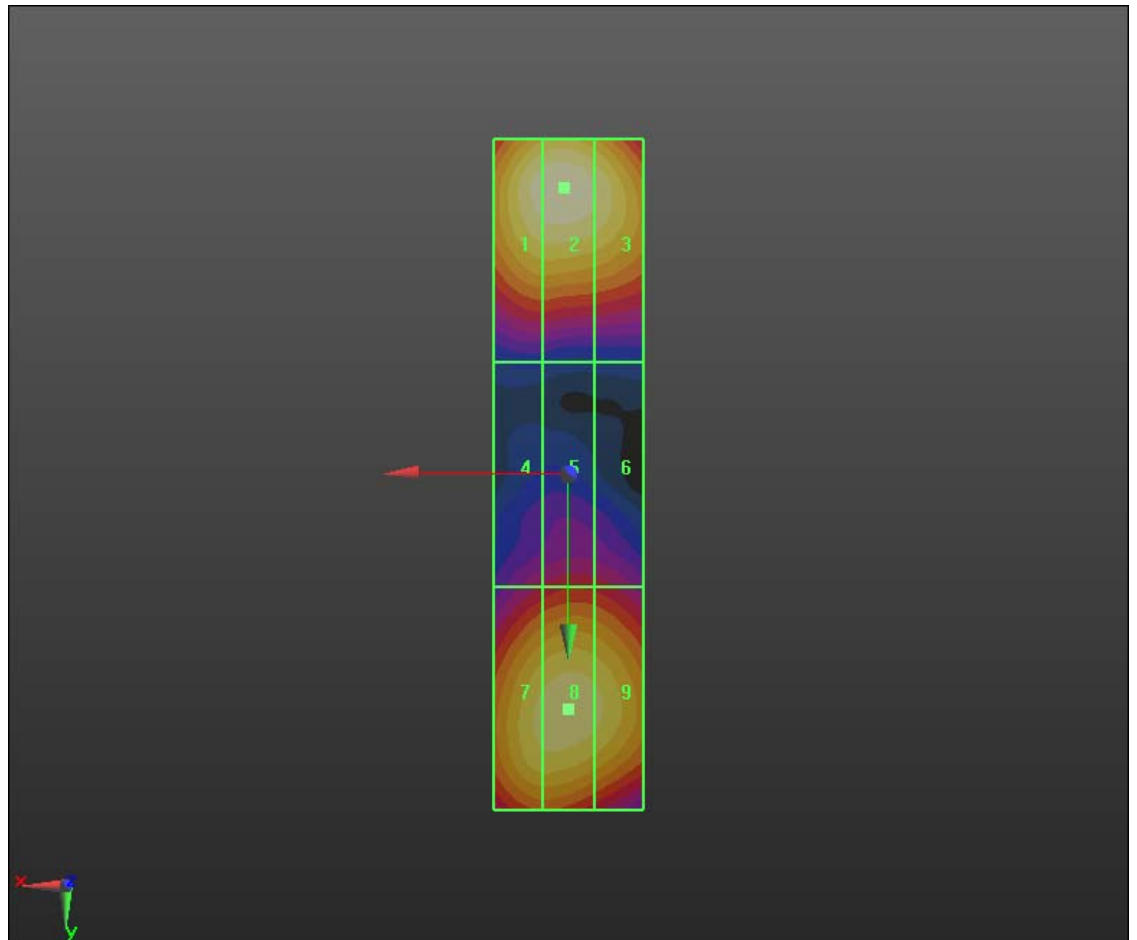
Reference Value = 49.939 V/m; Power Drift = -0.09 dB

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


Peak E-field in V/m

| | | | |
|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 35 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |

| | | |
|----------------------------|----------------------------|----------------------------|
| Grid 1 52.377 M4 | Grid 2 53.337 M4 | Grid 3 50.671 M4 |
| Grid 4 33.462 M4 | Grid 5 35.058 M4 | Grid 6 34.643 M4 |
| Grid 7 48.429 M4 | Grid 8 49.374 M4 | Grid 9 48.243 M4 |



0 dB = 53.340V/m

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|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 36 (135) |
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Date/Time: 3/22/2011 3:54:49 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_CDMA_1880 MHz

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: WCDMA FDD II; Frequency: 1880 MHz; Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of peak Total field = 43.150 V/m


Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

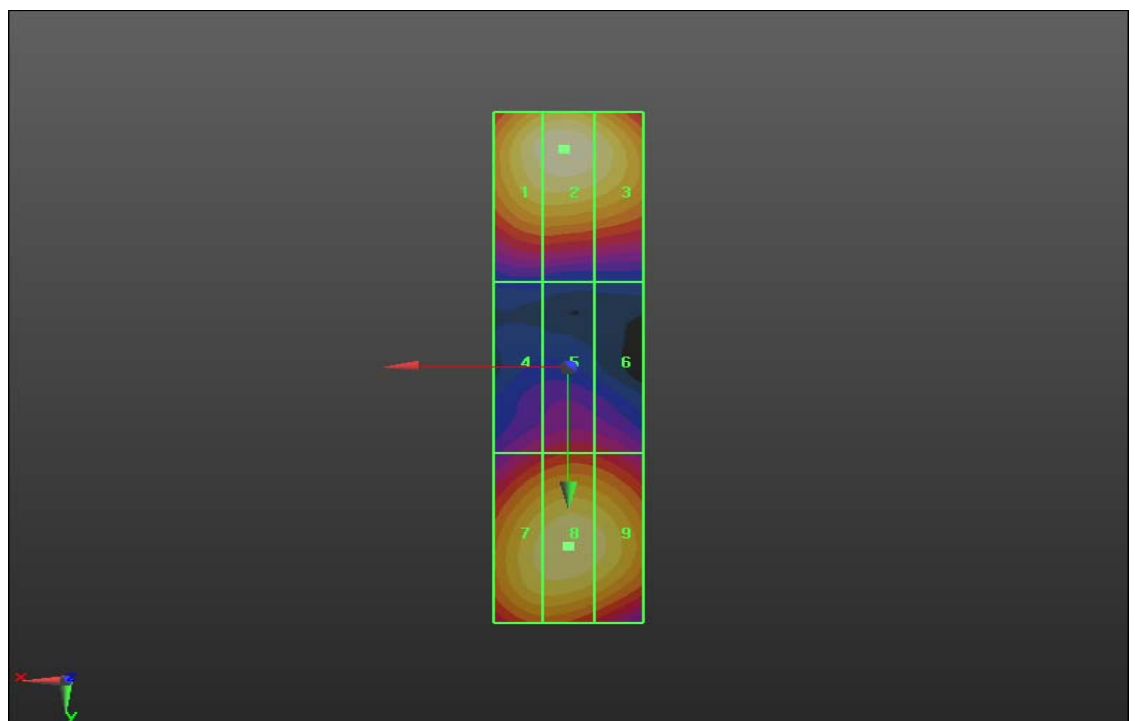
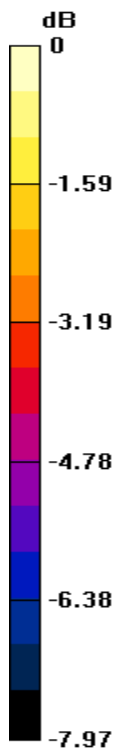
Reference Value = 40.108 V/m; Power Drift = -0.01 dB

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


Peak E-field in V/m

| | | | |
|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 37 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |

| | | |
|----------------------------|----------------------------|----------------------------|
| Grid 1 41.912 M4 | Grid 2 43.150 M4 | Grid 3 40.971 M4 |
| Grid 4 26.905 M4 | Grid 5 28.223 M4 | Grid 6 27.711 M4 |
| Grid 7 39.111 M4 | Grid 8 40.205 M4 | Grid 9 39.292 M4 |



0 dB = 43.150V/m

| | | | |
|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 38 (135) |
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Date/Time: 3/23/2011 12:23:00 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_CW1880 MHz_CDMA_

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Communication System Band: D1900 (1900.0

MHz); Frequency: 1880 MHz; Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of peak Total field = 45.598 V/m


Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

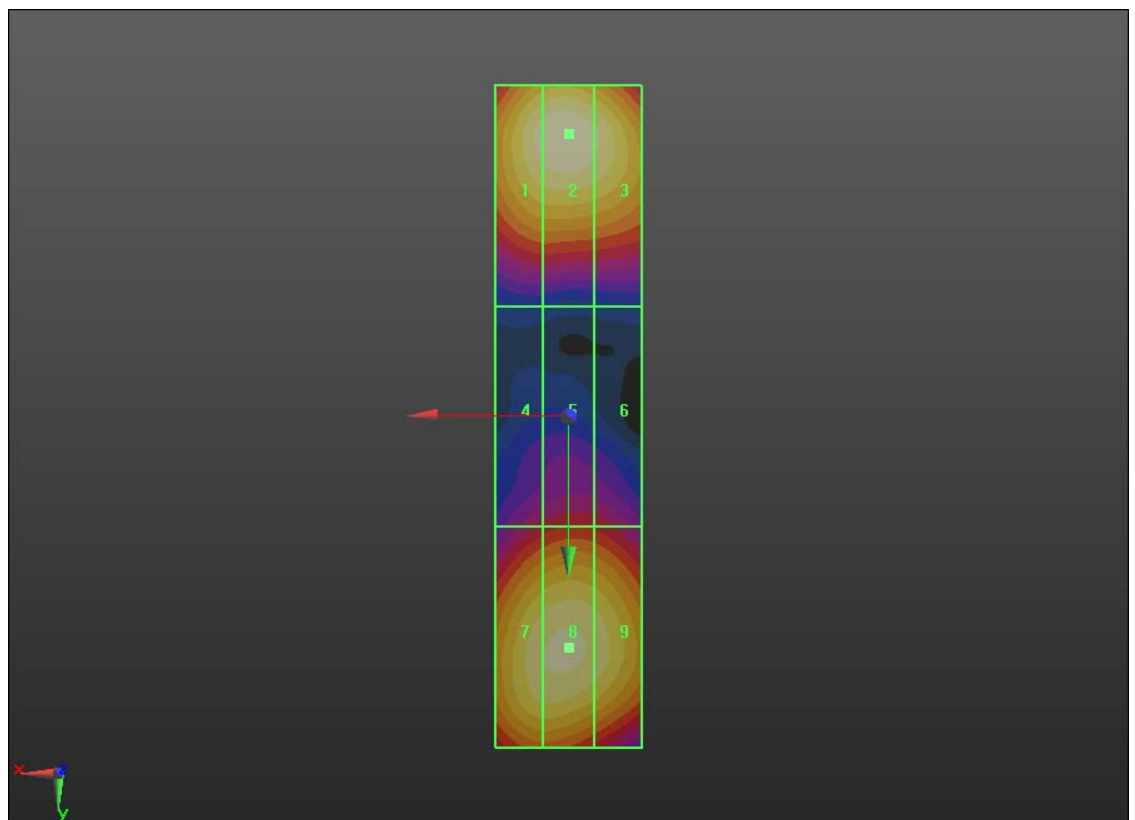
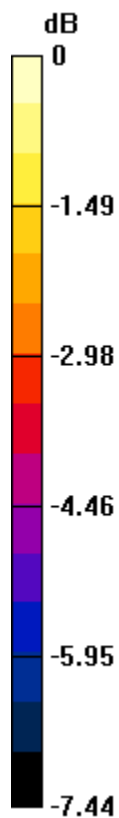
Reference Value = 43.399 V/m; Power Drift = 0.03 dB

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


Peak E-field in V/m

| | | | |
|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 39 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |

| | | |
|----------------------------|----------------------------|----------------------------|
| Grid 1 44.340 M4 | Grid 2 45.598 M4 | Grid 3 43.792 M4 |
| Grid 4 29.598 M4 | Grid 5 30.871 M4 | Grid 6 30.339 M4 |
| Grid 7 42.981 M4 | Grid 8 43.734 M4 | Grid 9 42.515 M4 |



0 dB = 45.600V/m

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|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 40 (135) |
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Date/Time: 3/22/2011 4:34:04 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_PMF_AM80%1880 MHz_CDMA

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: AM 80%; Communication System Band: D1900 (1900.0 MHz); Frequency: 1880 MHz; Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of peak Total field = 30.486 V/m


Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

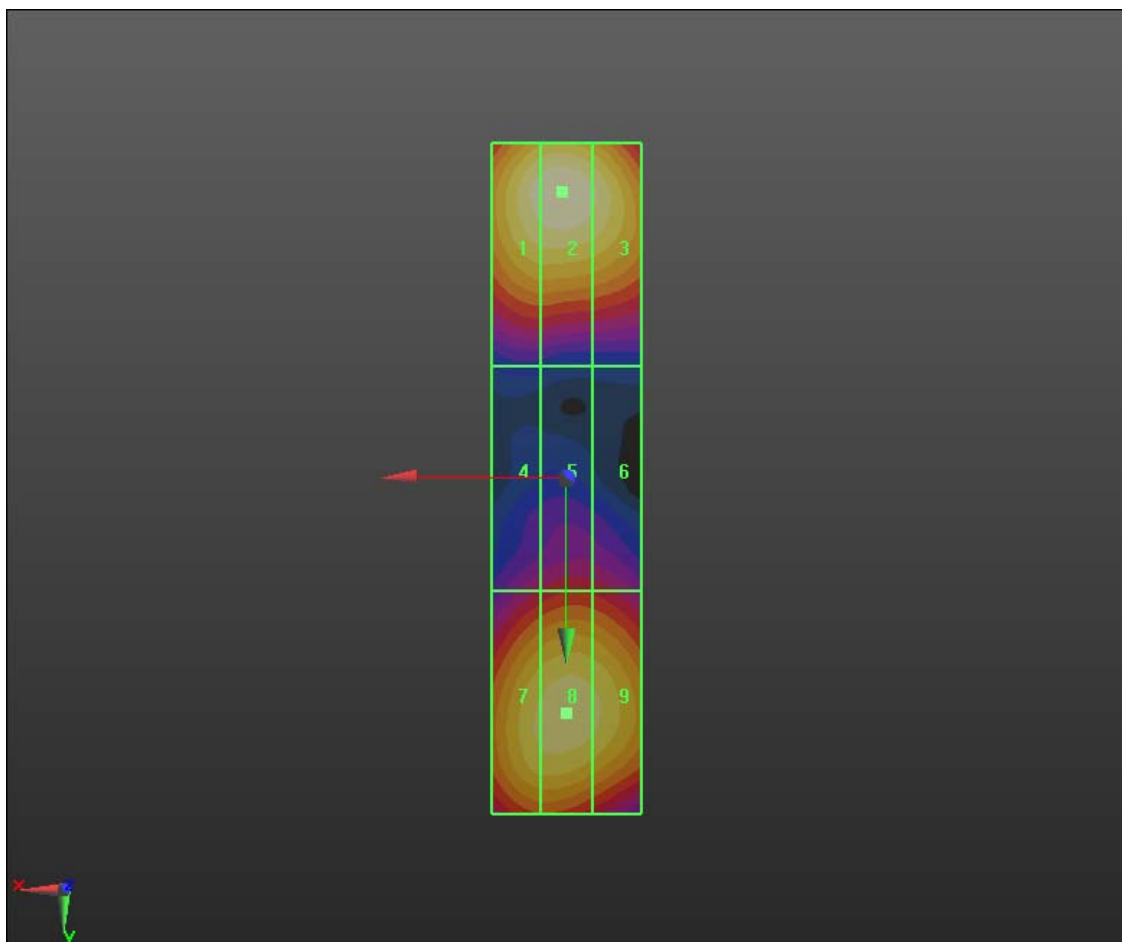
Reference Value = 28.158 V/m; Power Drift = 0.06 dB

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


Peak E-field in V/m

| | | | |
|--|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 41 (135) |
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| | | |
|----------------------------|----------------------------|----------------------------|
| Grid 1 29.713 M4 | Grid 2 30.486 M4 | Grid 3 29.090 M4 |
| Grid 4 18.962 M4 | Grid 5 19.986 M4 | Grid 6 19.699 M4 |
| Grid 7 27.492 M4 | Grid 8 28.197 M4 | Grid 9 27.513 M4 |



0 dB = 30.490V/m

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|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 42 (135) |
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Date/Time: 3/23/2011 3:19:30 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_validation_835 MHz

DUT: HAC-Dipole 835 MHz; Type: D835V3

Communication System: CW; Communication System Band: D835 (835.0 MHz);

Frequency: 835 MHz; Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of peak Total field = 0.475 A/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

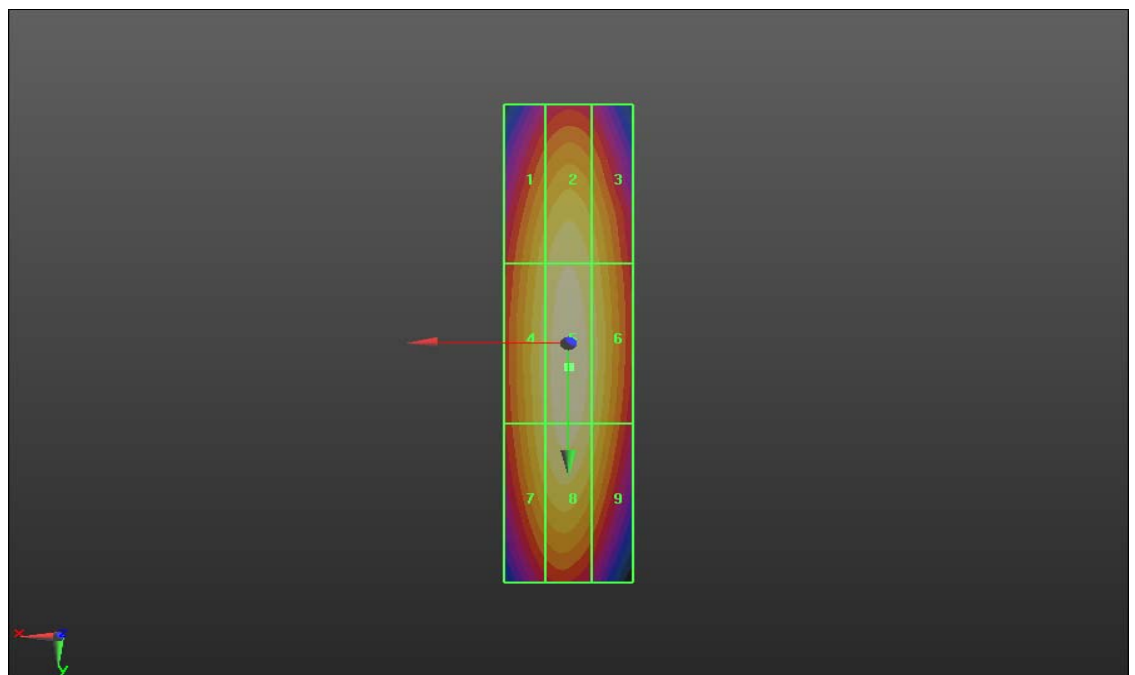
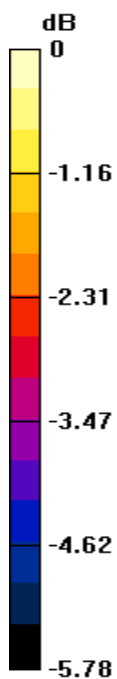
| | | | |
|--|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 43 (135) |
| Author Data Daoud Attayi | Dates of Test Mar. 22-23, Apr. 27 2011 | Report No RTS-3933-1104-55 | FCC ID L6ARDU70CW |

Reference Value = 0.514 A/m; Power Drift = -0.08 dB


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

Peak H-field in A/m

| | | |
|---------------------------|---------------------------|---------------------------|
| Grid 1 0.437 M4 | Grid 2 0.459 M4 | Grid 3 0.437 M4 |
| Grid 4 0.453 M4 | Grid 5 0.475 M4 | Grid 6 0.453 M4 |
| Grid 7 0.447 M4 | Grid 8 0.469 M4 | Grid 9 0.442 M4 |



0 dB = 0.480A/m

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|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 44 (135) |
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Date/Time: 3/23/2011 3:06:50 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_GSM_835 MHz

DUT: HAC-Dipole 835 MHz; Type: D835V3

Communication System: GSM 850; Frequency: 835 MHz; Communication

System PAR: 9.191 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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


Maximum value of peak Total field = 0.168 A/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

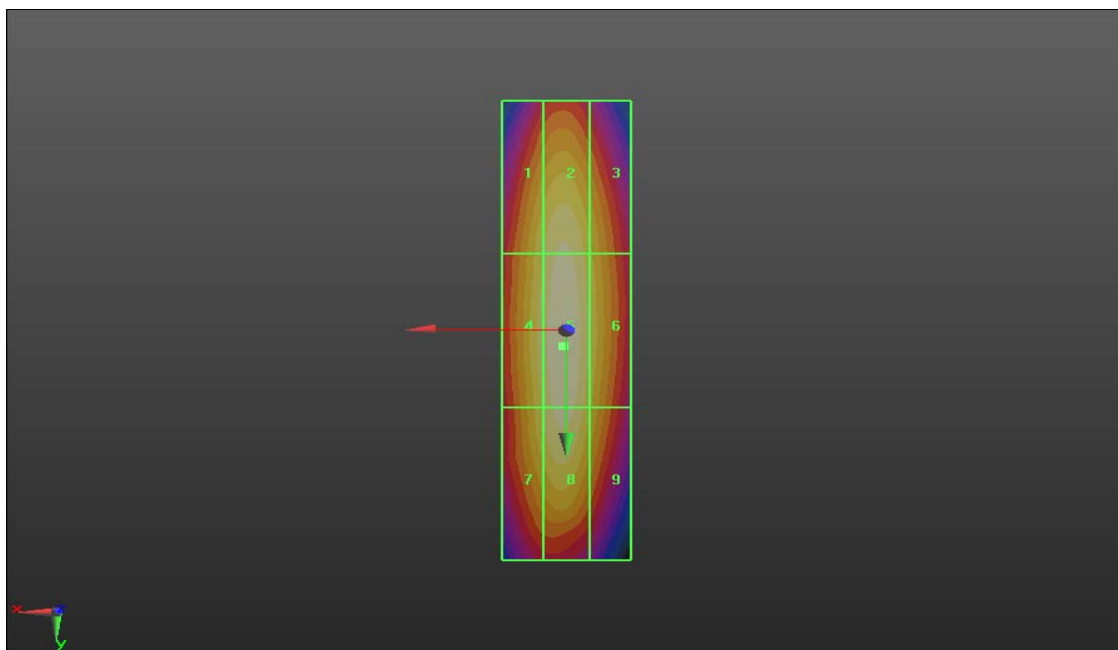
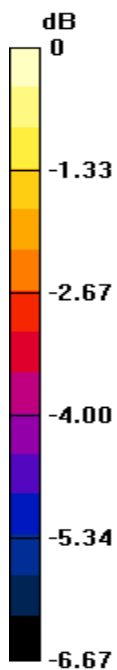
Reference Value = 0.173 A/m; Power Drift = 0.43 dB

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


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|--|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 45 (135) |
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Peak H-field in A/m

| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 0.154 M4 | Grid 2 0.163 M4 | Grid 3 0.148 M4 |
| Grid 4 0.159 M4 | Grid 5 0.168 M4 | Grid 6 0.153 M4 |
| Grid 7 0.155 M4 | Grid 8 0.165 M4 | Grid 9 0.148 M4 |



0 dB = 0.170A/m

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Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_CW835 MHz_GSM

DUT: HAC-Dipole 835 MHz; Type: D835V3

Communication System: CW; Communication System Band: D835 (835.0 MHz);

Frequency: 835 MHz; Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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


Maximum value of peak Total field = 0.482 A/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

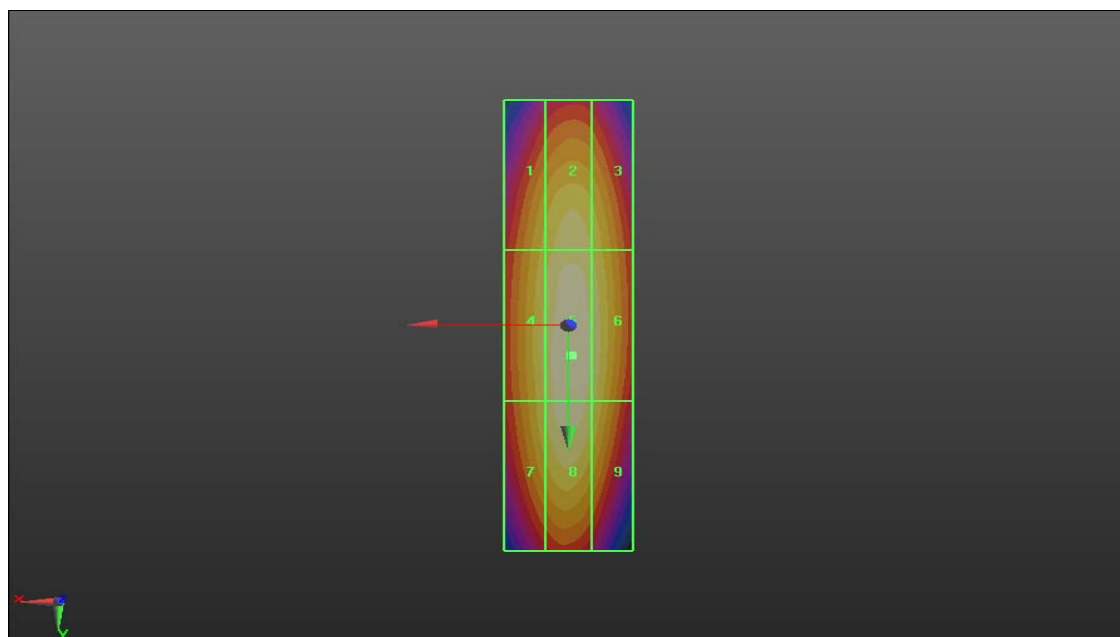
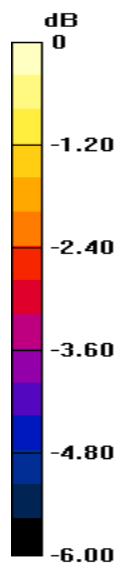
Reference Value = 0.503 A/m; Power Drift = -0.00099 dB

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


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|---|---|--------------------------------------|-----------------------------|
|  | Document Annex A to Hearing Aid Compatibility RF Emissions Test Report for the BlackBerry® Smartphone model RDU71CW | | Page 47 (135) |
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Peak H-field in A/m

| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 0.429 M4 | Grid 2 0.450 M4 | Grid 3 0.439 M4 |
| Grid 4 0.449 M4 | Grid 5 0.482 M4 | Grid 6 0.458 M4 |
| Grid 7 0.441 M4 | Grid 8 0.475 M4 | Grid 9 0.448 M4 |



0 dB = 0.480A/m

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Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_AM80%835 MHz_GSM

DUT: HAC-Dipole 835 MHz; Type: D835V3

Communication System: AM 80%; Communication System Band: D835 (835.0

MHz); Frequency: 835 MHz;Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Dipole H-Field meaurement 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


Maximum value of peak Total field = 0.302 A/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

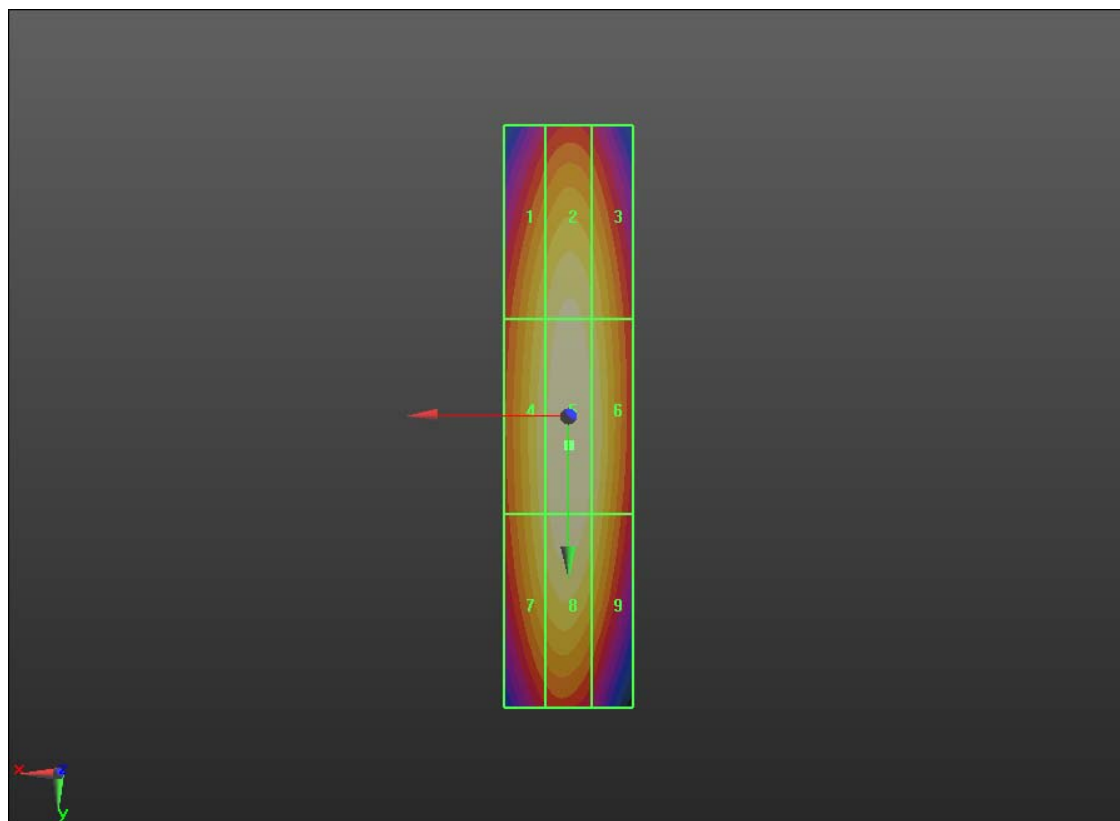
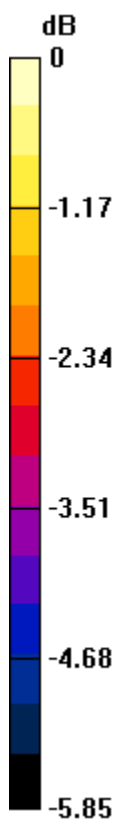
Reference Value = 0.326 A/m; Power Drift = -0.16 dB

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


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Peak H-field in A/m

| | | |
|---------------------------|---------------------------|---------------------------|
| Grid 1 0.276 M4 | Grid 2 0.292 M4 | Grid 3 0.279 M4 |
| Grid 4 0.286 M4 | Grid 5 0.302 M4 | Grid 6 0.289 M4 |
| Grid 7 0.283 M4 | Grid 8 0.299 M4 | Grid 9 0.281 M4 |



0 dB = 0.300A/m

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Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_CDMA_835 MHz

DUT: HAC-Dipole 835 MHz; Type: D835V3

Communication System: CDMA 800; Frequency: 835 MHz; Communication System PAR: 0 dB; Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Dipole H-Field meaurement 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


Maximum value of peak Total field = 0.183 A/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

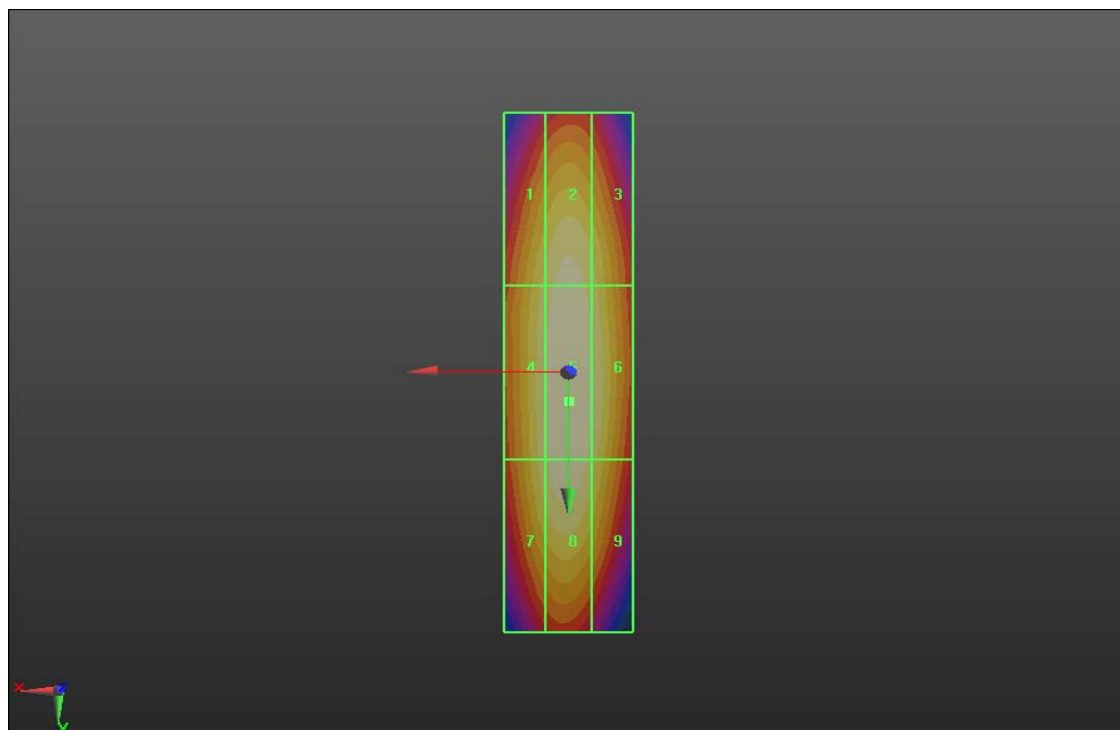
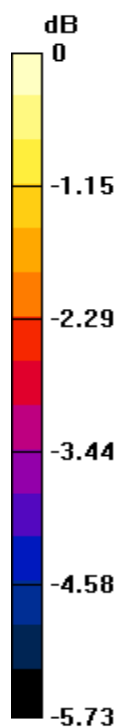
Reference Value = 0.196 A/m; Power Drift = 0.01 dB

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


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Peak H-field in A/m

| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 0.168 M4 | Grid 2 0.176 M4 | Grid 3 0.169 M4 |
| Grid 4 0.173 M4 | Grid 5 0.183 M4 | Grid 6 0.175 M4 |
| Grid 7 0.171 M4 | Grid 8 0.180 M4 | Grid 9 0.169 M4 |



0 dB = 0.180A/m

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Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_CW835 MHz_CDMA

DUT: HAC-Dipole 835 MHz; Type: D835V3

Communication System: CW; Communication System Band: D835 (835.0 MHz);

Frequency: 835 MHz; Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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


Maximum value of peak Total field = 0.191 A/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

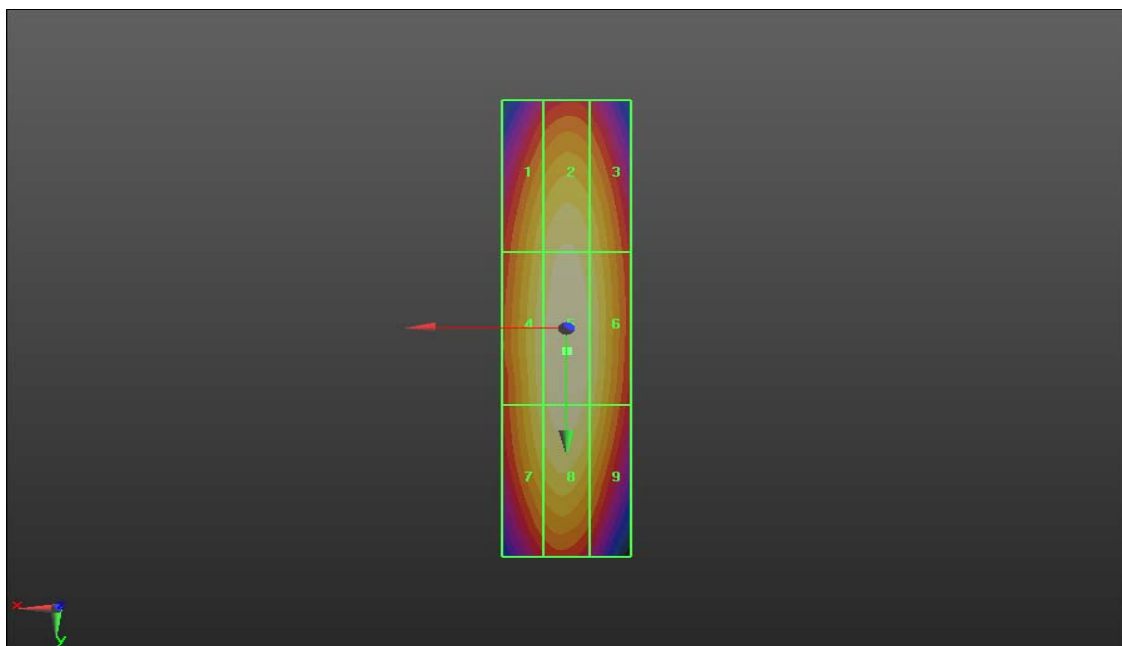
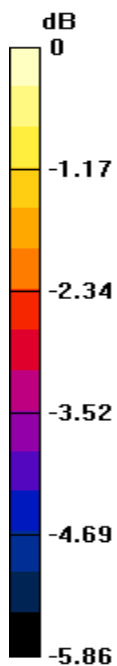
Reference Value = 0.202 A/m; Power Drift = -0.03 dB

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


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Peak H-field in A/m

| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 0.175 M4 | Grid 2 0.183 M4 | Grid 3 0.176 M4 |
| Grid 4 0.182 M4 | Grid 5 0.191 M4 | Grid 6 0.182 M4 |
| Grid 7 0.179 M4 | Grid 8 0.187 M4 | Grid 9 0.178 M4 |



0 dB = 0.190A/m

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Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_AM80%835 MHz_CDMA

DUT: HAC-Dipole 835 MHz; Type: D835V3

Communication System: AM 80%; Communication System Band: D835 (835.0

MHz); Frequency: 835 MHz;Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Dipole H-Field meaurement 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

Maximum value of peak Total field = 0.121 A/m

Probe Modulation Factor = 1.000

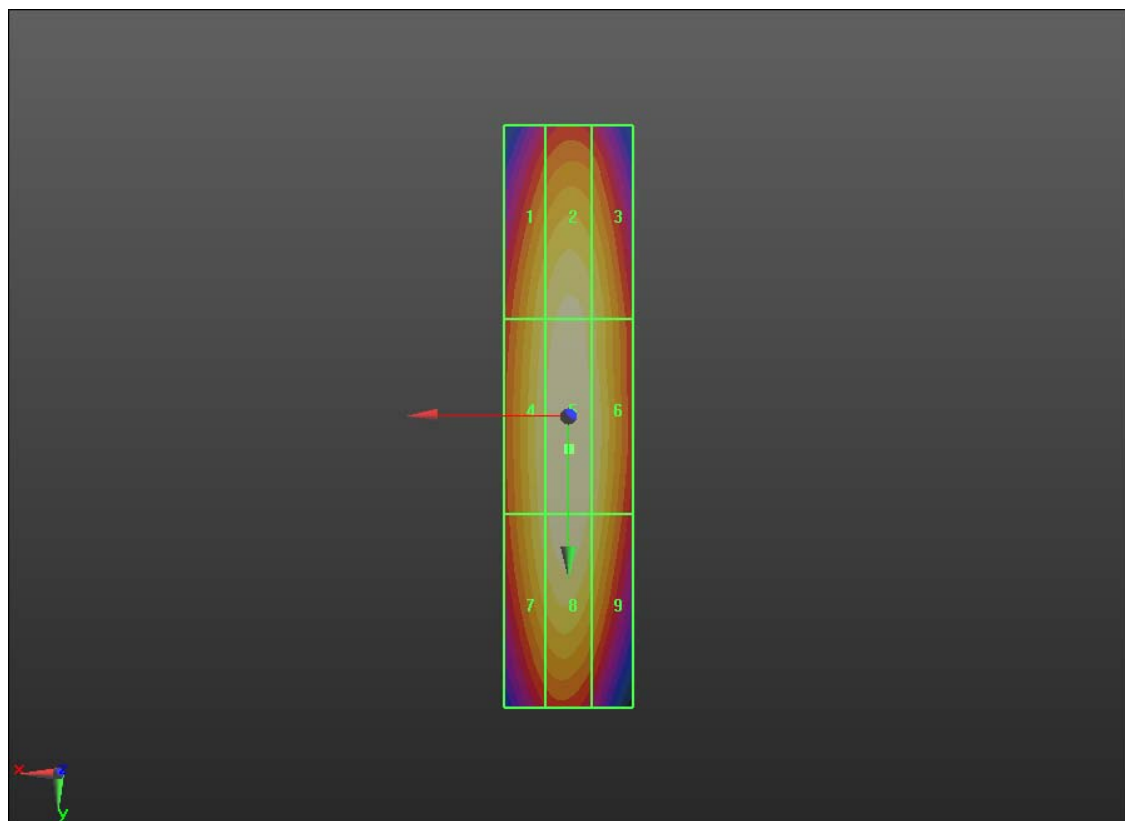
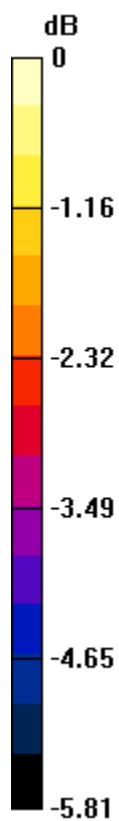
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.129 A/m; Power Drift = -0.09 dB


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

Peak H-field in A/m

| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 0.111 M4 | Grid 2 0.117 M4 | Grid 3 0.113 M4 |
| Grid 4 0.115 M4 | Grid 5 0.121 M4 | Grid 6 0.116 M4 |
| Grid 7 0.114 M4 | Grid 8 0.120 M4 | Grid 9 0.113 M4 |



0 dB = 0.120A/m

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Test Laboratory: RIM Testing Services

HAC RF_H-Field_validation_1880 MHz

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Communication System Band: D1900 (1900.0

MHz); Frequency: 1880 MHz; Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Dipole H-Field meaurement 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


Maximum value of peak Total field = 0.451 A/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

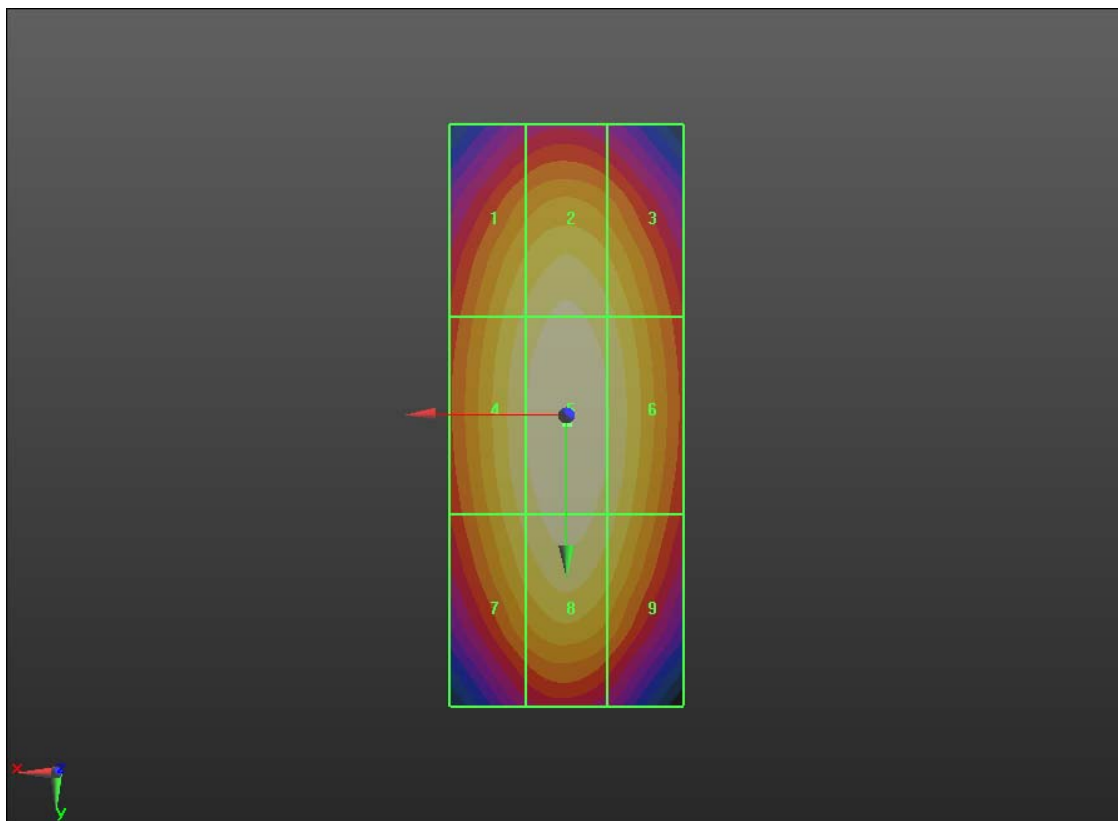
Reference Value = 0.479 A/m; Power Drift = -0.02 dB


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

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Peak H-field in A/m

| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 0.419 M2 | Grid 2 0.436 M2 | Grid 3 0.420 M2 |
| Grid 4 0.432 M2 | Grid 5 0.451 M2 | Grid 6 0.434 M2 |
| Grid 7 0.421 M2 | Grid 8 0.442 M2 | Grid 9 0.423 M2 |



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0 dB = 0.450A/m

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Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_GSM_1880 MHz

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: GSM 1900; Frequency: 1880 MHz; Communication

System PAR: 9.191 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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


Maximum value of peak Total field = 0.099 A/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

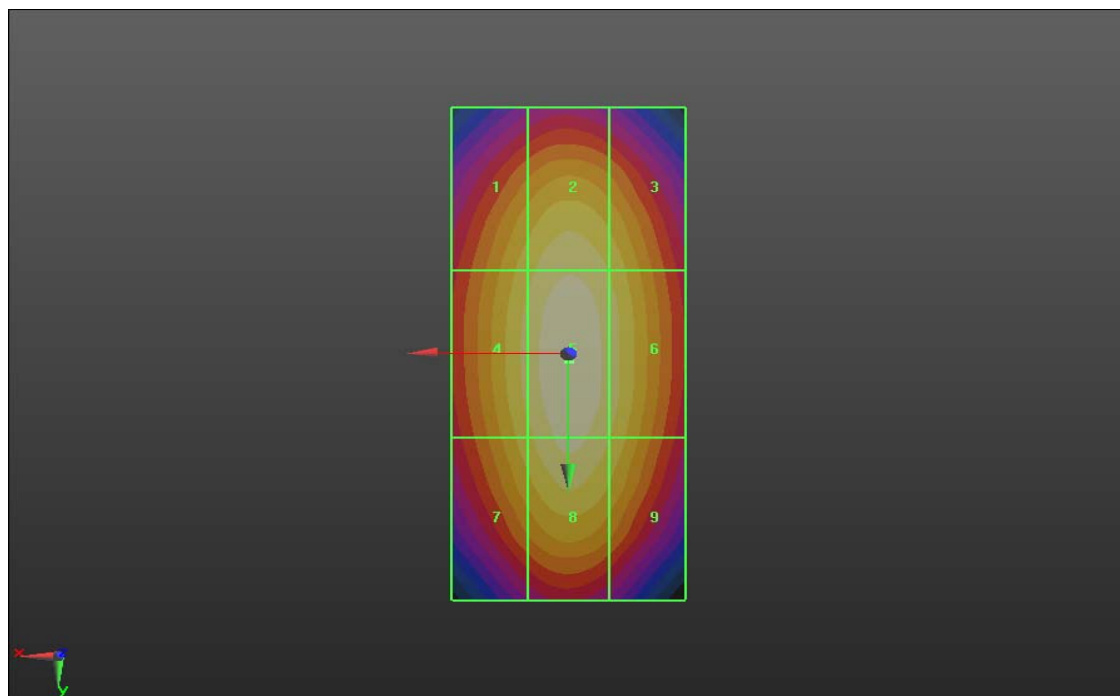
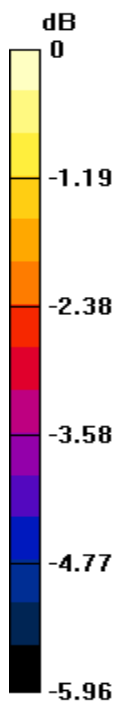
Reference Value = 0.105 A/m; Power Drift = 0.04 dB

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

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Peak H-field in A/m

| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 0.090 M4 | Grid 2 0.095 M4 | Grid 3 0.091 M4 |
| Grid 4 0.093 M4 | Grid 5 0.099 M4 | Grid 6 0.094 M4 |
| Grid 7 0.090 M4 | Grid 8 0.097 M4 | Grid 9 0.091 M4 |



0 dB = 0.100A/m

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Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_CW1880 MHz_GSM

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Communication System Band: D1900 (1900.0

MHz); Frequency: 1880 MHz; Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of peak Total field = 0.284 A/m


Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

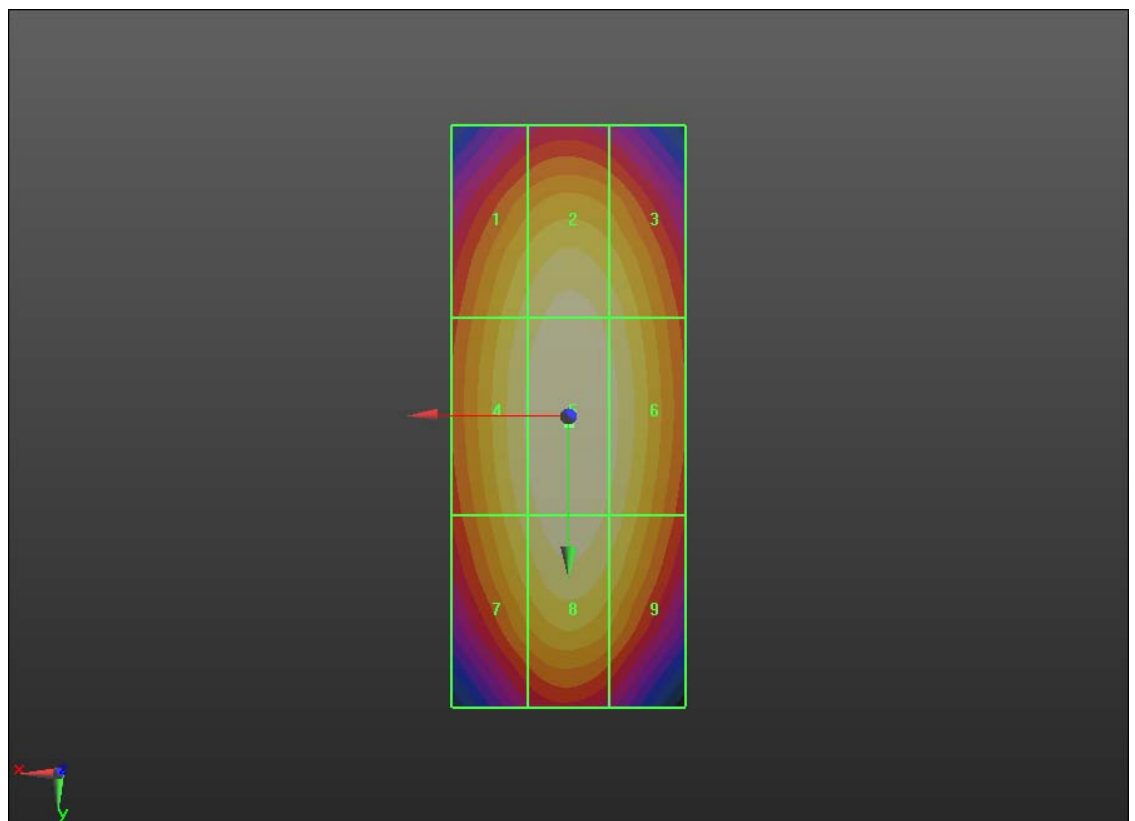
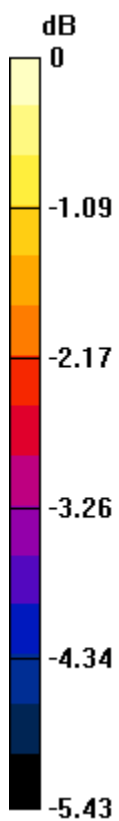
Reference Value = 0.302 A/m; Power Drift = -0.03 dB

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


Peak H-field in A/m

| | | | |
|---|---|--------------------------------------|-----------------------------|
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| | | |
|---------------------------|---------------------------|---------------------------|
| Grid 1 0.263 M3 | Grid 2 0.274 M3 | Grid 3 0.265 M3 |
| Grid 4 0.271 M3 | Grid 5 0.284 M3 | Grid 6 0.274 M3 |
| Grid 7 0.263 M3 | Grid 8 0.278 M3 | Grid 9 0.266 M3 |



0 dB = 0.280A/m

| | | | |
|---|--|--------------------------------------|-----------------------------|
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Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_AM80%1880 MHz_GSM

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: AM 80%; Communication System Band: D1900 (1900.0 MHz); Frequency: 1880 MHz; Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: TCoil Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASYS2, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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


Maximum value of peak Total field = 0.184 A/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

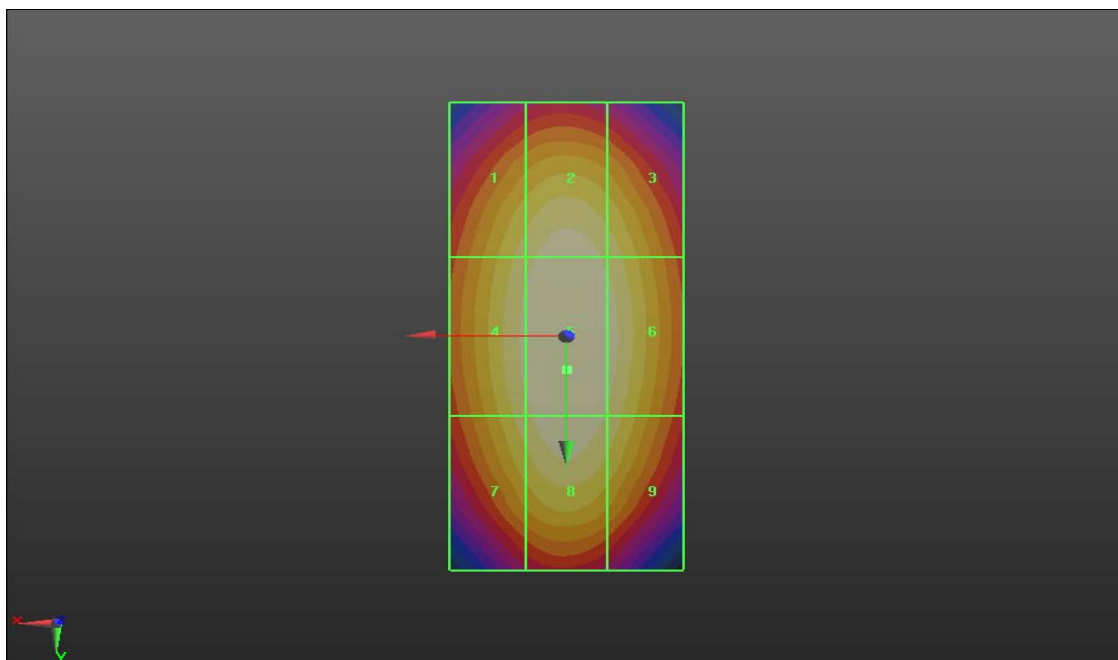
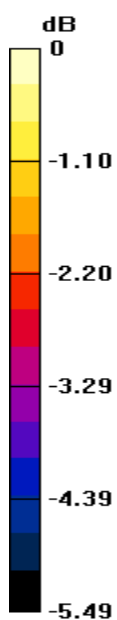
Reference Value = 0.196 A/m; Power Drift = -0.02 dB

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

| | | | |
|--|---|--------------------------------------|-----------------------------|
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Peak H-field in A/m

| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 0.170 M4 | Grid 2 0.178 M4 | Grid 3 0.171 M4 |
| Grid 4 0.175 M4 | Grid 5 0.184 M4 | Grid 6 0.177 M4 |
| Grid 7 0.170 M4 | Grid 8 0.180 M4 | Grid 9 0.172 M4 |



0 dB = 0.180A/m

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Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_CDMA_1880 MHz

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CDMA 1900; Frequency: 1880 MHz; Communication

System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of peak Total field = 0.154 A/m


Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

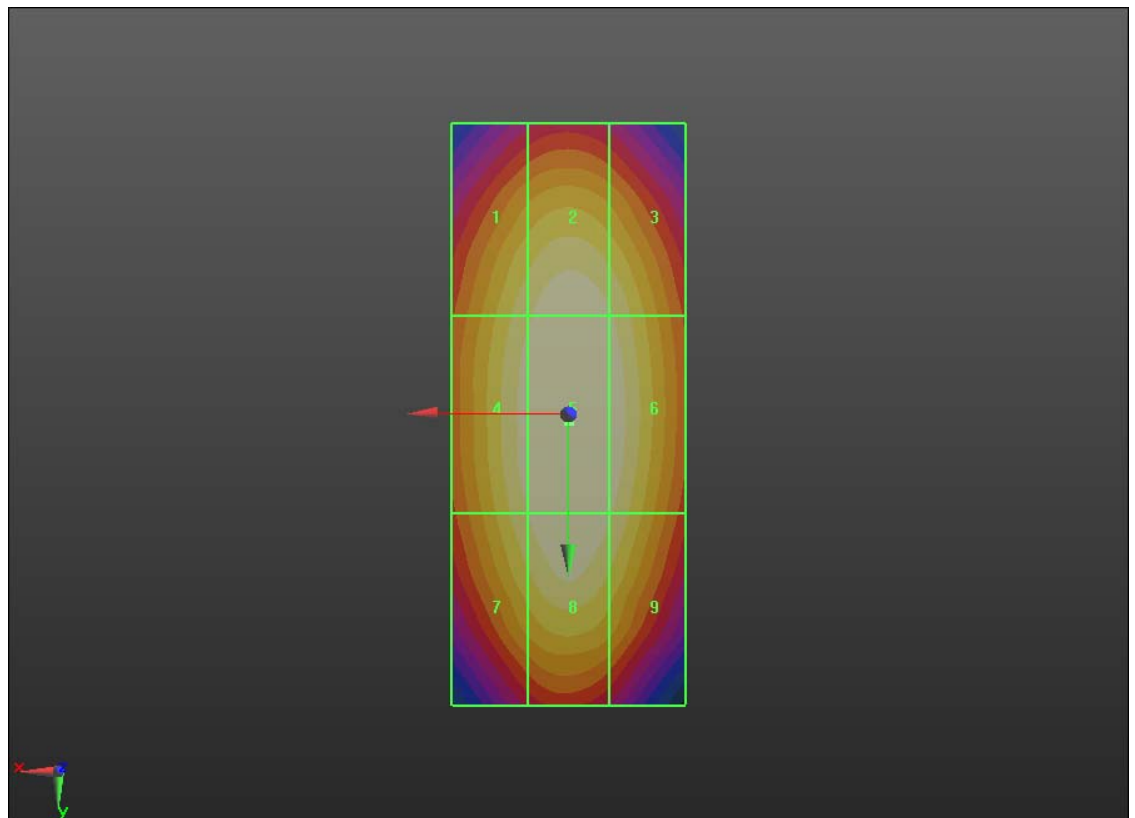
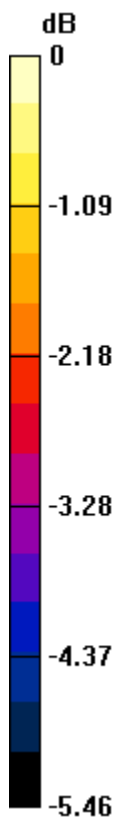
Reference Value = 0.165 A/m; Power Drift = -0.02 dB

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


Peak H-field in A/m


| | | | |
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| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 0.143 M4 | Grid 2 0.150 M4 | Grid 3 0.145 M4 |
| Grid 4 0.147 M4 | Grid 5 0.154 M4 | Grid 6 0.149 M4 |
| Grid 7 0.144 M4 | Grid 8 0.152 M4 | Grid 9 0.145 M4 |



0 dB = 0.150A/m

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Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_CW1880 MHz_CDMA

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: CW; Communication System Band: D1900 (1900.0

MHz); Frequency: 1880 MHz; Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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

Maximum value of peak Total field = 0.161 A/m

Probe Modulation Factor = 1.000

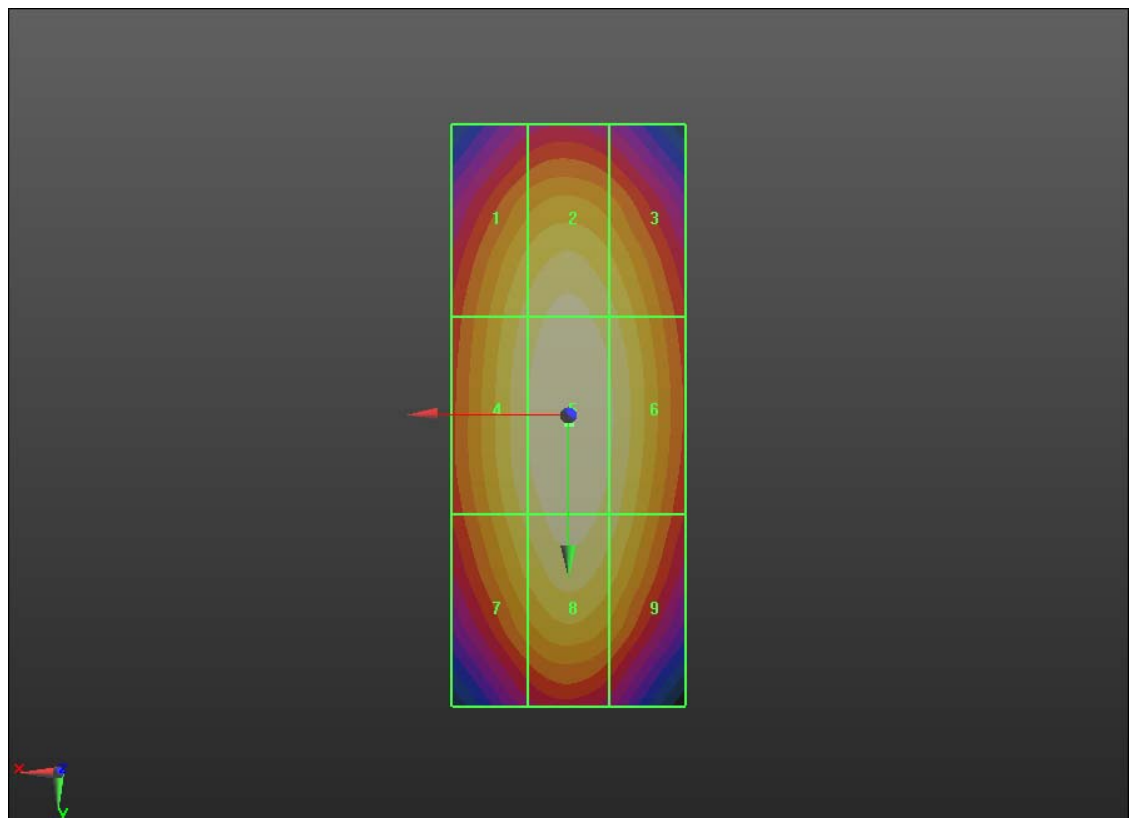
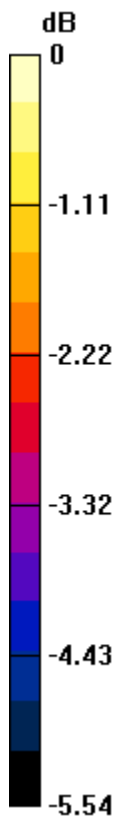
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.170 A/m; Power Drift = 0.03 dB


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


Peak H-field in A/m

| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 0.149 M4 | Grid 2 0.156 M4 | Grid 3 0.149 M4 |
| Grid 4 0.153 M4 | Grid 5 0.161 M4 | Grid 6 0.155 M4 |
| Grid 7 0.149 M4 | Grid 8 0.157 M4 | Grid 9 0.150 M4 |



0 dB = 0.160A/m

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Test Laboratory: RIM Testing Services

HAC RF_H-Field_PMF_AM80% 1880 MHz_CDMA

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Communication System: AM 80%; Communication System Band: D1900 (1900.0 MHz); Frequency: 1880 MHz; Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: TCoil Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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


Maximum value of peak Total field = 0.102 A/m

Probe Modulation Factor = 1.000

Device Reference Point: 0, 0, -6.3 mm

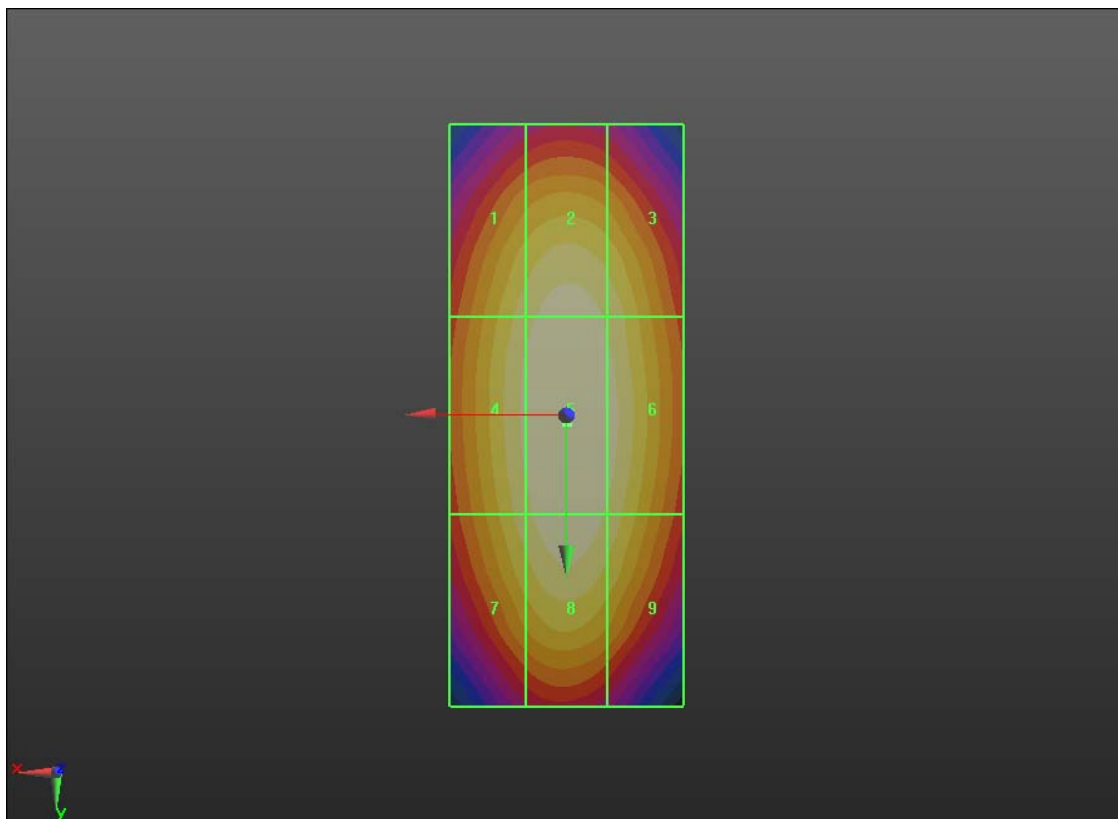
Reference Value = 0.108 A/m; Power Drift = 0.06 dB

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


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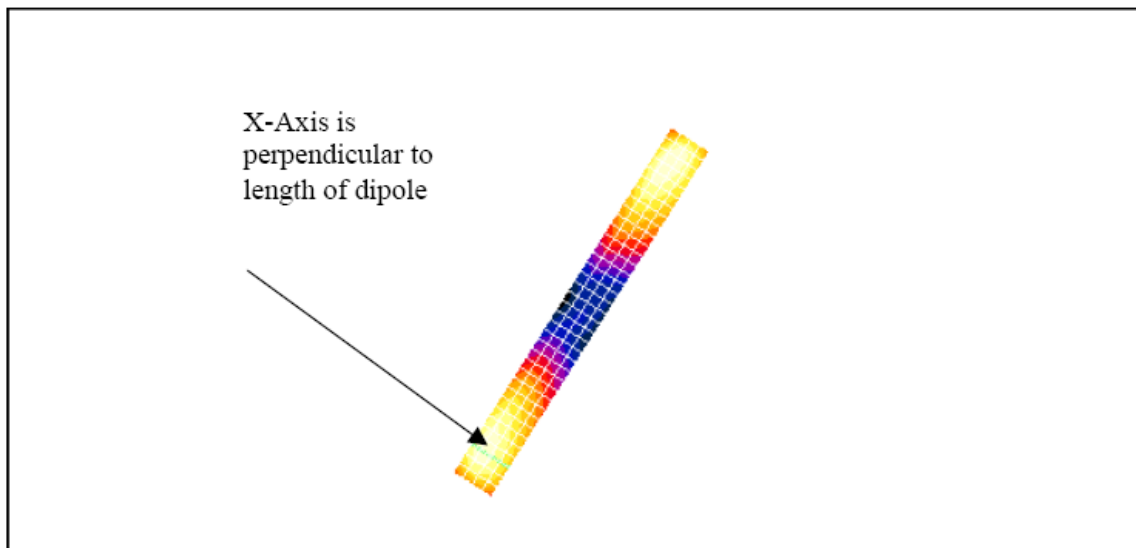
Peak H-field in A/m

| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 0.094 M4 | Grid 2 0.099 M4 | Grid 3 0.095 M4 |
| Grid 4 0.097 M4 | Grid 5 0.102 M4 | Grid 6 0.098 M4 |
| Grid 7 0.095 M4 | Grid 8 0.100 M4 | Grid 9 0.095 M4 |



0 dB = 0.100A/m


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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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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/m³

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 |
| 123.2 | 138.1 | 138.4 | 123.2 | 138.1 | 138.4 |
| Grid 4 | Grid 5 | Grid 6 | Grid 4 | Grid 5 | Grid 6 |
| 80.9 | 92.3 | 92.2 | 80.9 | 92.3 | 92.2 |
| Grid 7 | Grid 8 | Grid 9 | Grid 7 | Grid 8 | Grid 9 |
| 119.8 | 131.0 | 130.7 | 119.8 | 131.0 | 130.7 |

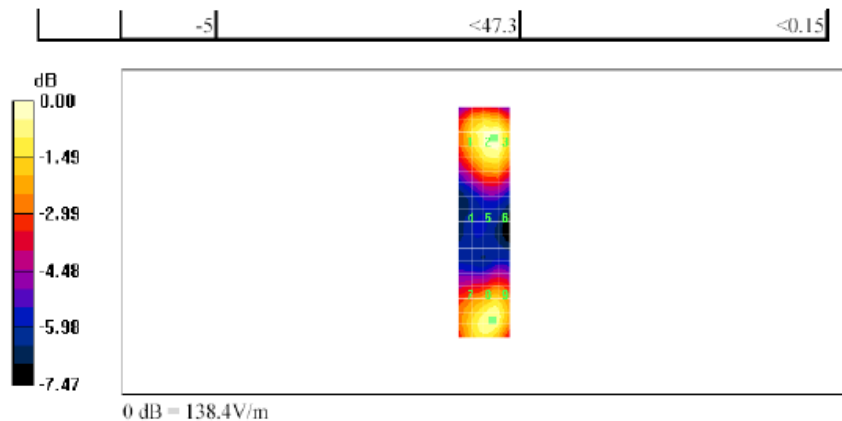
| Category | AWF (dB) | Limits for E-Field Emissions (V/m) | Limits for H-Field Emissions (A/m) |
|----------|----------|------------------------------------|------------------------------------|
| M1 | 0 | 199.5 - 354.8 | 0.6 - 1.07 |
| | -5 | 149.6 - 266.1 | 0.45 - 0.8 |
| M2 | 0 | 112.2 - 199.5 | 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 |

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


| | | | |
|---|---|--------------------------------------|-----------------------------|
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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/m³

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 |
| 123.1 | 138.6 | 138.6 | 123.1 | 138.6 | 138.6 |
| Grid 4 | Grid 5 | Grid 6 | Grid 4 | Grid 5 | Grid 6 |
| 81.4 | 92.1 | 91.6 | 81.4 | 92.1 | 91.6 |
| Grid 7 | Grid 8 | Grid 9 | Grid 7 | Grid 8 | Grid 9 |
| 121.3 | 131.2 | 131.0 | 121.3 | 131.2 | 131.0 |

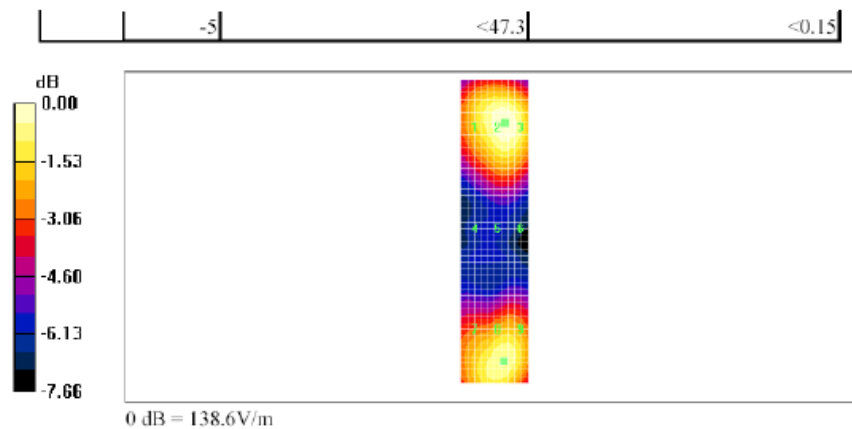
| Category | AWF (dB) | Limits for E-Field Emissions (V/m) | Limits for H-Field Emissions (A/m) |
|----------|----------|------------------------------------|------------------------------------|
| M1 | 0 | 199.5 - 354.8 | 0.6 - 1.07 |
| | -5 | 149.6 - 266.1 | 0.45 - 0.8 |
| M2 | 0 | 112.2 - 199.5 |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

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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/m³

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 |
| 0.342 | 0.359 | 0.344 | 0.342 | 0.359 | 0.344 |
| Grid 4 | Grid 5 | Grid 6 | Grid 4 | Grid 5 | Grid 6 |
| 0.389 | 0.406 | 0.389 | 0.389 | 0.406 | 0.389 |
| Grid 7 | Grid 8 | Grid 9 | Grid 7 | Grid 8 | Grid 9 |
| 0.363 | 0.378 | 0.363 | 0.363 | 0.378 | 0.363 |

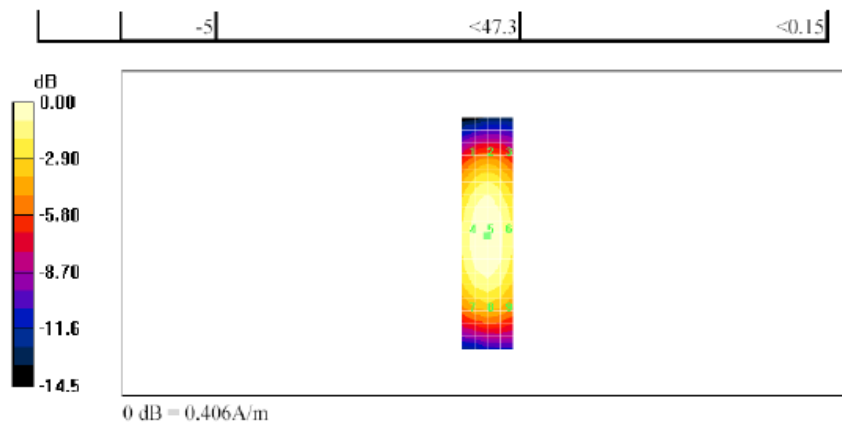
| Category | AWF (dB) | Limits for E-Field Emissions (V/m) | Limits for H-Field Emissions (A/m) |
|----------|----------|------------------------------------|------------------------------------|
| M1 | 0 | 199.5 - 354.8 | 0.6 - 1.07 |
| | -5 | 149.6 - 266.1 | 0.45 - 0.8 |
| M2 | 0 | 112.2 - 199.5 |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

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|---|---|--------------------------------------|-----------------------------|
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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/m³

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 |
| 0.347 | 0.361 | 0.348 | 0.347 | 0.361 | 0.348 |
| Grid 4 | Grid 5 | Grid 6 | Grid 4 | Grid 5 | Grid 6 |
| 0.394 | 0.406 | 0.391 | 0.394 | 0.406 | 0.391 |
| Grid 7 | Grid 8 | Grid 9 | Grid 7 | Grid 8 | Grid 9 |
| 0.367 | 0.380 | 0.365 | 0.367 | 0.380 | 0.365 |

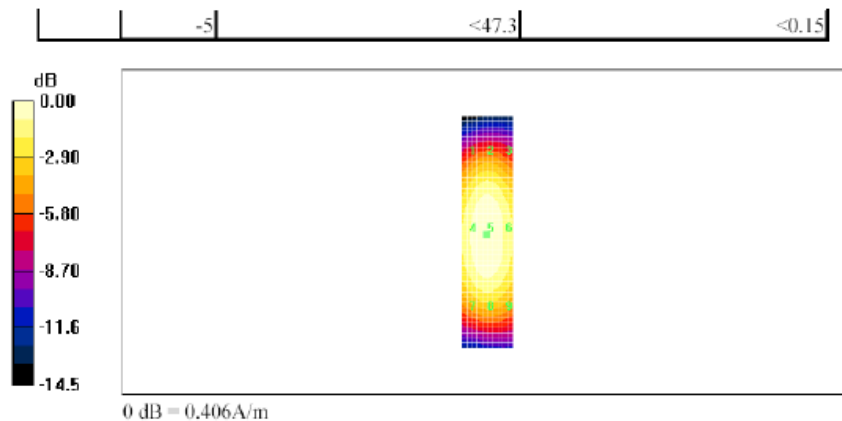
| Category | AWF (dB) | Limits for E-Field Emissions (V/m) | Limits for H-Field Emissions (A/m) |
|----------|----------|------------------------------------|------------------------------------|
| M1 | 0 | 199.5 - 354.8 | 0.6 - 1.07 |
| | -5 | 149.6 - 266.1 | 0.45 - 0.8 |
| M2 | 0 | 112.2 - 199.5 | 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 |

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


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A.3 RF emissions plots

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Date/Time: 3/23/2011 4:33:26 PM, Date/Time: 3/23/2011 4:38:37 PM,
Date/Time: 3/23/2011 4:43:10 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_GSM 850

DUT: BlackBerry Smartphone; Type: Sample

Communication System: GSM 850; Frequency: 824.2 MHz, Frequency: 836.8 MHz, Frequency: 848.8 MHz; Communication System PAR: 9.191 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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


Maximum value of peak Total field = 140.3 V/m

Probe Modulation Factor = 2.940

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 53.962 V/m; Power Drift = -0.12 dB


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

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Peak E-field in V/m

| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 118.0 M4 | Grid 2 136.7 M4 | Grid 3 131.6 M4 |
| Grid 4 121.5 M4 | Grid 5 140.3 M4 | Grid 6 134.4 M4 |
| Grid 7 122.9 M4 | Grid 8 139.4 M4 | Grid 9 133.1 M4 |


Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 154.3 V/m
Probe Modulation Factor = 2.940
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 59.107 V/m; Power Drift = 0.19 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

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Peak E-field in V/m

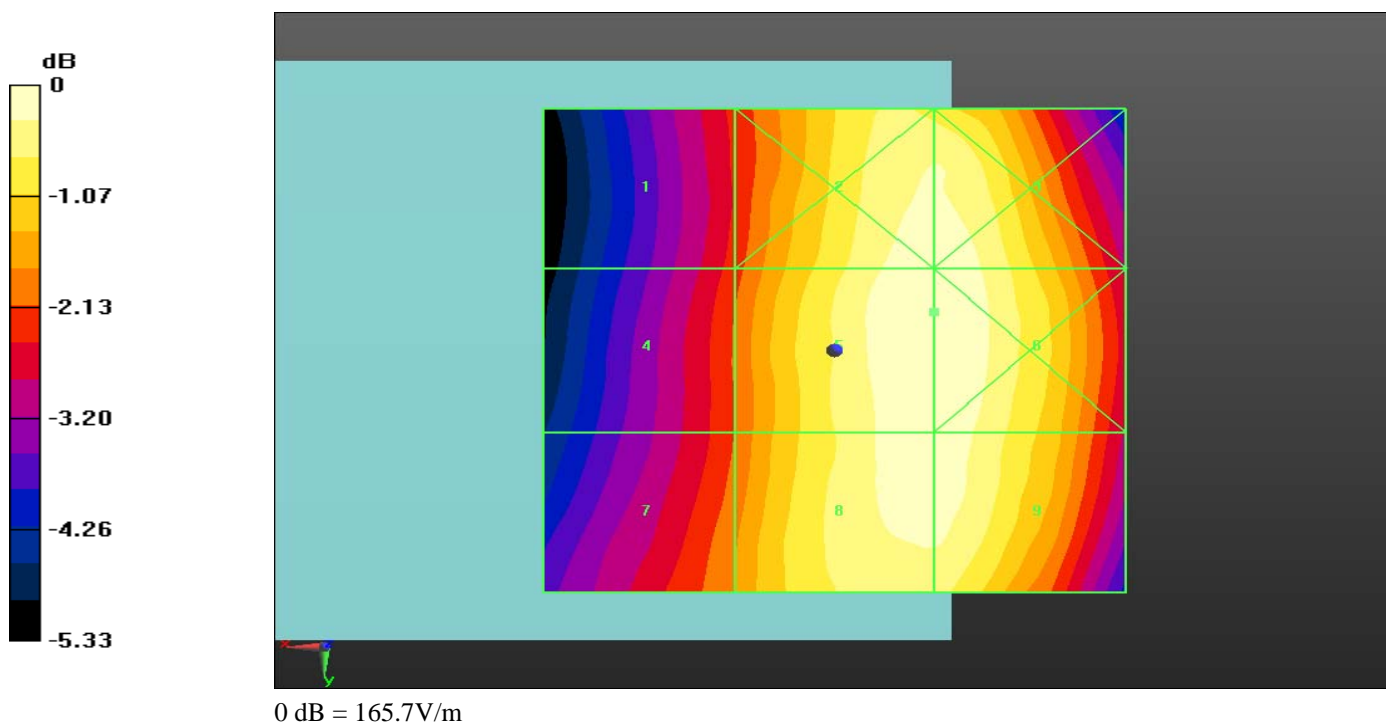
| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 116.8 M4 | Grid 2 150.4 M3 | Grid 3 150.5 M3 |
| Grid 4 121.9 M4 | Grid 5 154.3 M3 | Grid 6 154.3 M3 |
| Grid 7 128.6 M4 | Grid 8 154.4 M3 | Grid 9 154.4 M3 |


Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device 2 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 165.7 V/m
Probe Modulation Factor = 2.940
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 64.371 V/m; Power Drift = -0.34 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

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Peak E-field in V/m

| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 127.5 M4 | Grid 2 164.1 M3 | Grid 3 164.1 M3 |
| Grid 4 130.7 M4 | Grid 5 165.7 M3 | Grid 6 165.7 M3 |
| Grid 7 135.6 M4 | Grid 8 162.9 M3 | Grid 9 162.9 M3 |



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Date/Time: 3/23/2011 4:52:16 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_GSM 850_high_chan_Telecoil

DUT: BlackBerry Smartphone; Type: Sample ;

Communication System: GSM 850; Communication System Band: Exported from older format (data unavailable - please correct).; Frequency: 848.8

MHz;Communication System PAR: 9.191 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device Telecoil cent/Hearing Aid

Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm


Maximum value of peak Total field = 159.4 V/m

Probe Modulation Factor = 2.940

Device Reference Point: 0, 0, -6.3 mm

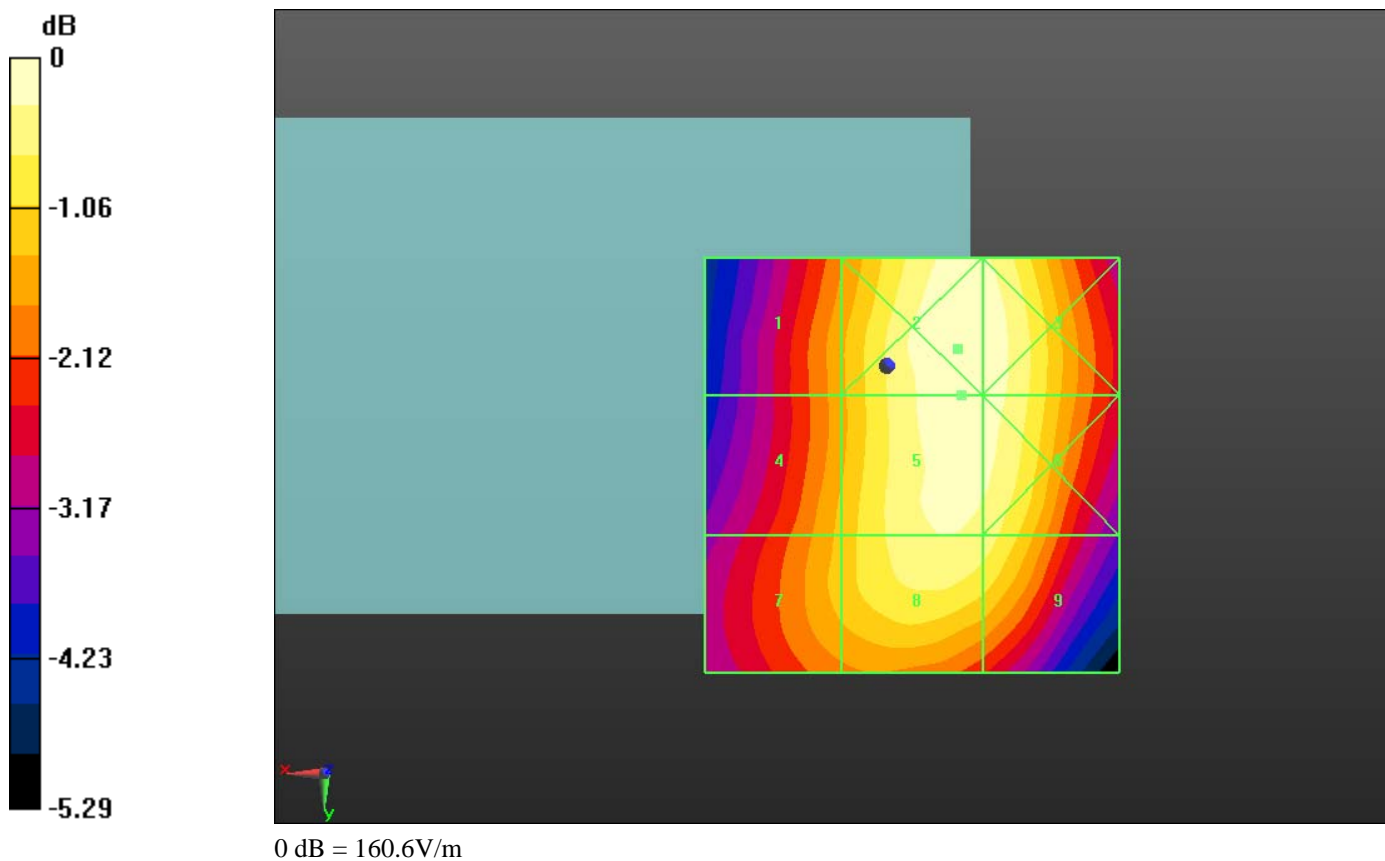
Reference Value = 64.183 V/m; Power Drift = -0.02 dB


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


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Peak E-field in V/m

| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 135.7 M4 | Grid 2 160.6 M3 | Grid 3 159.1 M3 |
| Grid 4 138.5 M4 | Grid 5 159.4 M3 | Grid 6 158.3 M3 |
| Grid 7 139.4 M4 | Grid 8 154.3 M3 | Grid 9 151.6 M3 |



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Date/Time: 3/23/2011 5:02:28 PM, Date/Time: 3/23/2011 5:06:54 PM,

Date/Time: 3/23/2011 5:10:57 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_GSM1900

DUT: BlackBerry Smartphone; Type: Sample

Communication System: GSM 1900; Frequency: 1850.2 MHz, Frequency: 1880 MHz, Frequency: 1909.8 MHz; Communication System PAR: 9.191 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASYS2, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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


Maximum value of peak Total field = 73.806 V/m

Probe Modulation Factor = 2.970

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 19.960 V/m; Power Drift = 0.19 dB

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

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Peak E-field in V/m

| | | |
|--------------------------------------|--------------------------------------|--------------------------------------|
| Grid 1 71.549 M3 | Grid 2 58.794 M3 | Grid 3 62.906 M3 |
| Grid 4 63.524 M3 | Grid 5 73.806 M3 | Grid 6 77.966 M3 |
| Grid 7 60.542 M3 | Grid 8 83.257 M3 | Grid 9 84.405 M2 |

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm


Maximum value of peak Total field = 81.563 V/m

Probe Modulation Factor = 2.970

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 21.360 V/m; Power Drift = 0.06 dB

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

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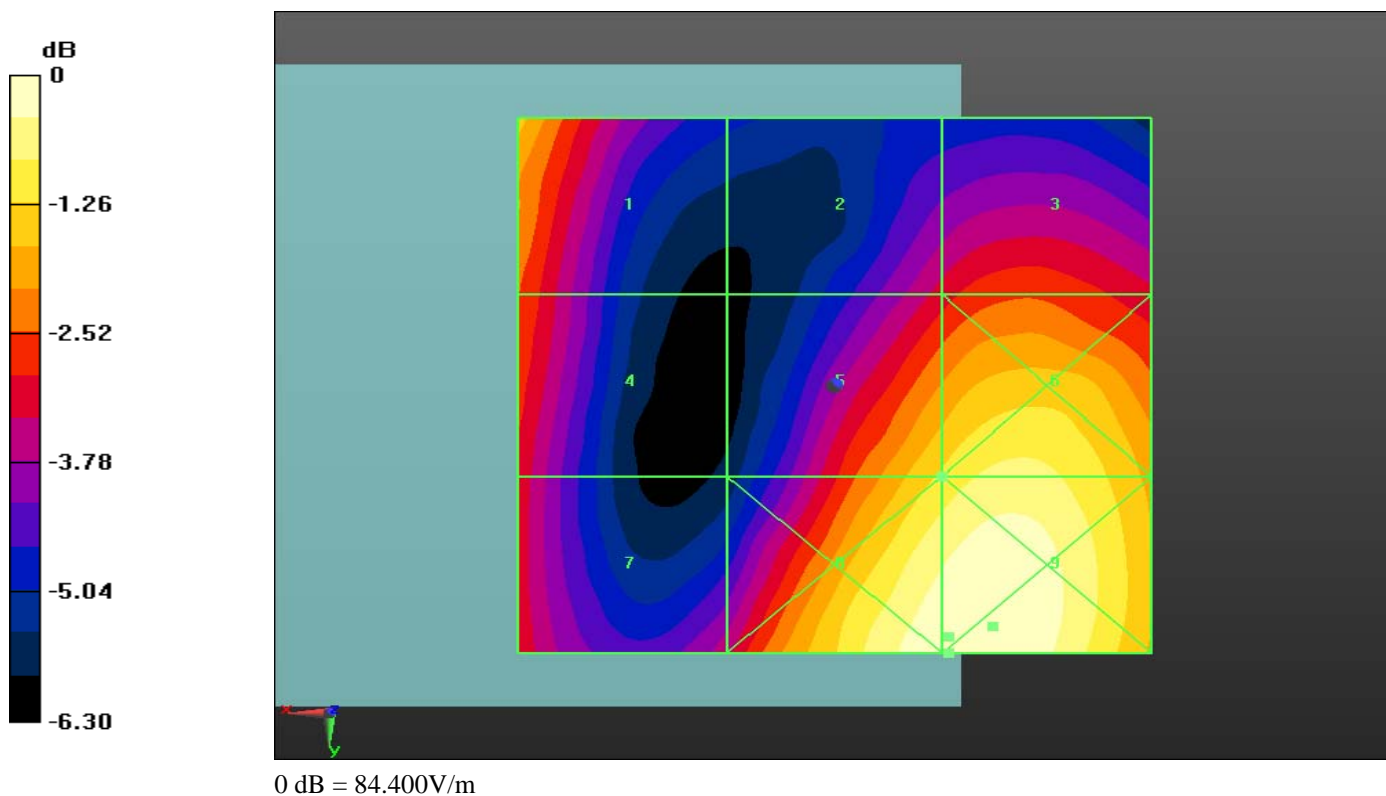
Peak E-field in V/m


| | | |
|--------------------------------|--------------------------------|--------------------------------|
| Grid 1 68.321 M3 | Grid 2 62.046 M3 | Grid 3 66.802 M3 |
| Grid 4 59.229 M3 | Grid 5 81.563 M3 | Grid 6 82.987 M3 |
| Grid 7 64.252 M3 | Grid 8 91.201 M2 | Grid 9 91.215 M2 |

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device 2 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 76.911 V/m
Probe Modulation Factor = 2.970
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 22.361 V/m; Power Drift = 0.27 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

| | | |
|----------------------------|----------------------------|----------------------------|
| Grid 1 63.086 M3 | Grid 2 55.906 M3 | Grid 3 58.028 M3 |
| Grid 4 59.991 M3 | Grid 5 76.911 M3 | Grid 6 79.327 M3 |
| Grid 7 68.615 M3 | Grid 8 90.494 M2 | Grid 9 90.499 M2 |



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Date/Time: 4/27/2011 2:32:34 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_GSM1900_telecoil

DUT: BlackBerry Smartphone; Type: Sample

Communication System: GSM 1900; Frequency: 1880 MHz; Communication

System PAR: 9.191 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/21/2011
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15

mm from Probe Center to the Device Telecoil cent/Hearing Aid

Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 81.717 V/m


Probe Modulation Factor = 2.970

Device Reference Point: 0, 0, -6.3 mm

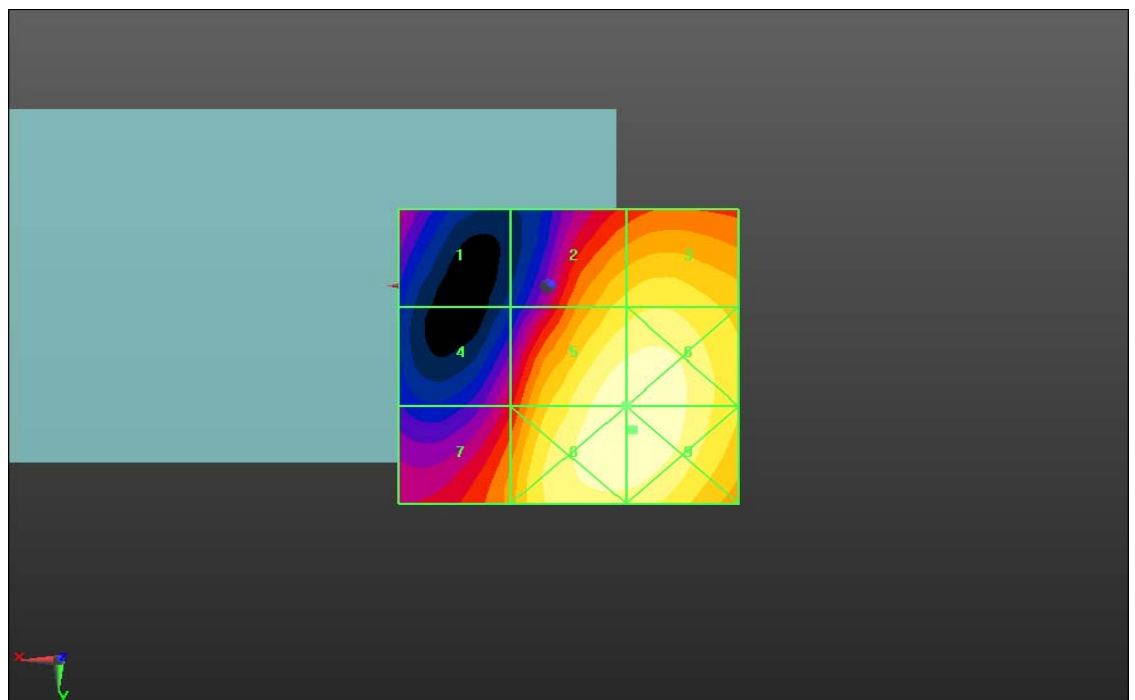
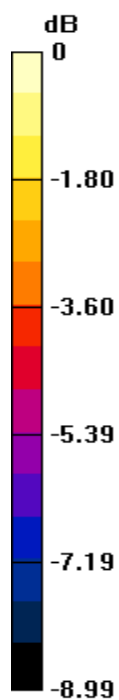
Reference Value = 16.233 V/m; Power Drift = 0.73 dB

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


Peak E-field in V/m

| | | | |
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| | | |
|----------------------------|----------------------------|----------------------------|
| Grid 1 46.664 M4 | Grid 2 69.198 M3 | Grid 3 71.497 M3 |
| Grid 4 50.027 M3 | Grid 5 81.717 M3 | Grid 6 82.056 M3 |
| Grid 7 60.503 M3 | Grid 8 82.292 M3 | Grid 9 82.376 M3 |



0 dB = 82.380V/m

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Date/Time: 3/23/2011 5:31:24 PM, Date/Time: 3/23/2011 5:34:58 PM,

Date/Time: 3/23/2011 5:38:34 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_CDMA800

DUT: BlackBerry Smartphone; Type: Sample

Communication System: CDMA 800; Frequency: 824.7 MHz, Frequency: 836.52 MHz, Frequency: 848.52 MHz; Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASYS2, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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


Maximum value of peak Total field = 58.257 V/m

Probe Modulation Factor = 0.990

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 70.405 V/m; Power Drift = 0.08 dB


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

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Peak E-field in V/m

| | | |
|--------------------------------|--------------------------------|--------------------------------|
| Grid 1 48.315 M4 | Grid 2 57.299 M4 | Grid 3 57.331 M4 |
| Grid 4 49.702 M4 | Grid 5 58.257 M4 | Grid 6 58.257 M4 |
| Grid 7 51.212 M4 | Grid 8 57.631 M4 | Grid 9 57.676 M4 |

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
Maximum value of peak Total field = 65.799 V/m
Probe Modulation Factor = 0.990
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 78.501 V/m; Power Drift = -0.02 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

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Peak E-field in V/m

| | | |
|----------------------------|----------------------------|----------------------------|
| Grid 1 50.455 M4 | Grid 2 63.980 M4 | Grid 3 64.048 M4 |
| Grid 4 52.894 M4 | Grid 5 65.799 M4 | Grid 6 65.842 M4 |
| Grid 7 56.196 M4 | Grid 8 65.900 M4 | Grid 9 65.942 M4 |

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device 2 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 66.716 V/m

Probe Modulation Factor = 0.990


Device Reference Point: 0, 0, -6.3 mm

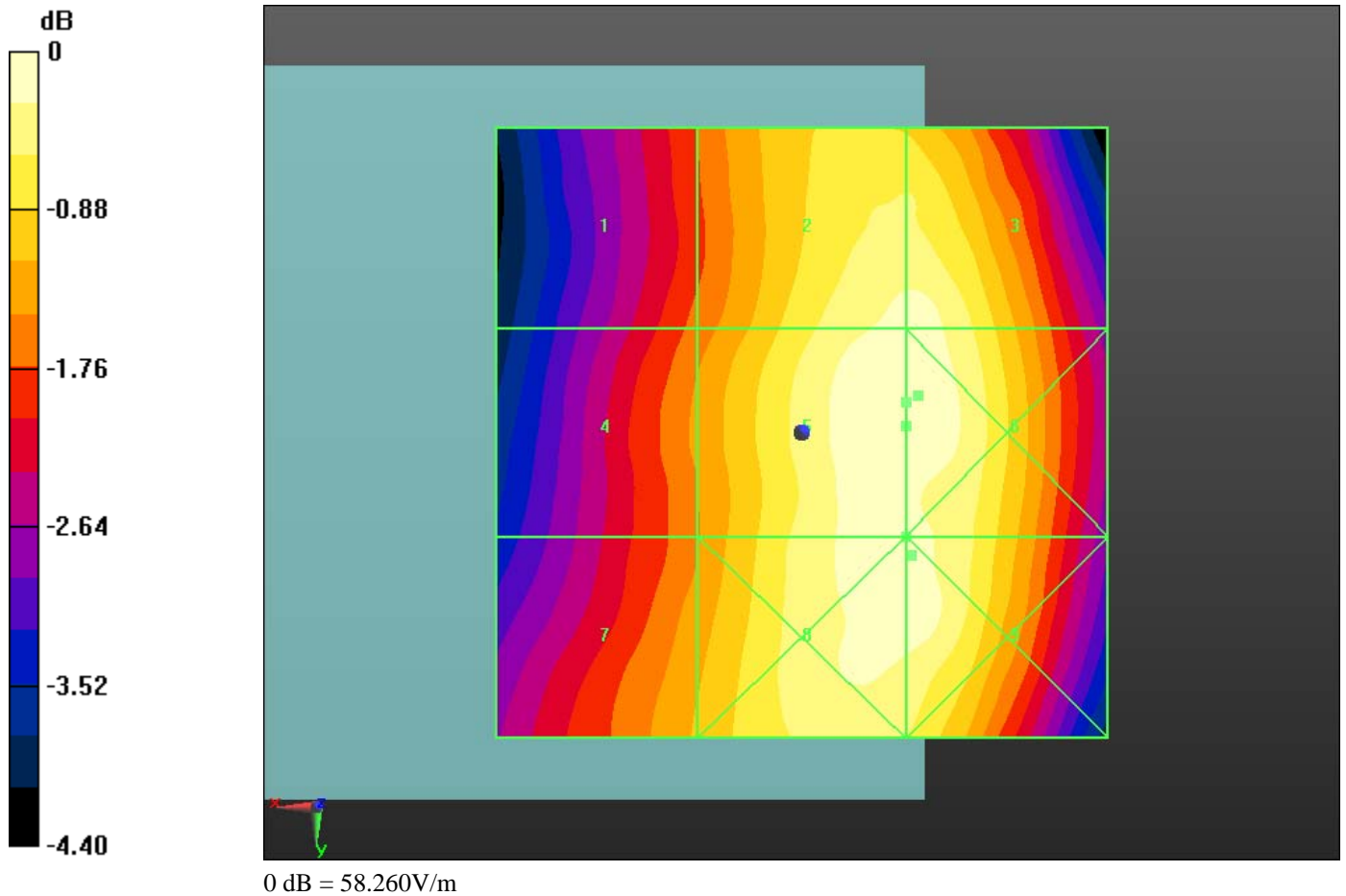
Reference Value = 82.434 V/m; Power Drift = -0.11 dB


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

Peak E-field in V/m

| | | |
|----------------------------|----------------------------|----------------------------|
| Grid 1 53.873 M4 | Grid 2 65.647 M4 | Grid 3 65.743 M4 |
| Grid 4 55.139 M4 | Grid 5 66.716 M4 | Grid 6 66.755 M4 |
| Grid 7 56.044 M4 | Grid 8 65.974 M4 | Grid 9 65.987 M4 |

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Test Laboratory: RIM Testing Services

HAC RF_E-Field_CDMA800_high_chan_Telecoil_Center

DUT: BlackBerry Smartphone; Type: Sample

Communication System: CDMA 800;; Frequency: 848.52 MHz;Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASYS2, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15

mm from Probe Center to the Device Telecoil cent/Hearing Aid

Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 68.338 V/m


Probe Modulation Factor = 0.990

Device Reference Point: 0, 0, -6.3 mm

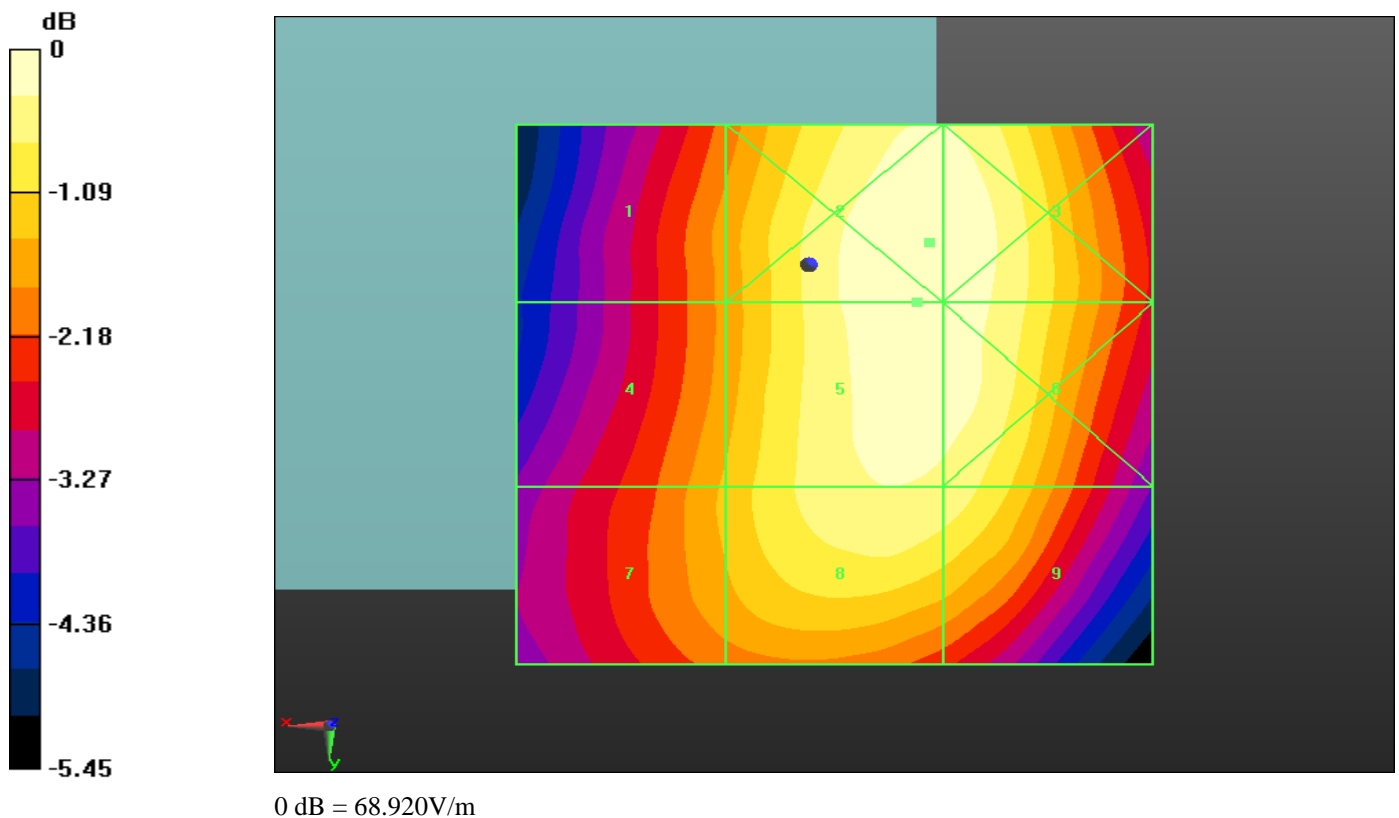
Reference Value = 81.494 V/m; Power Drift = 0.08 dB


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

Peak E-field in V/m

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| | | |
|--------------------------------|--------------------------------|--------------------------------|
| Grid 1 57.179 M4 | Grid 2 68.919 M4 | Grid 3 68.863 M4 |
| Grid 4 58.849 M4 | Grid 5 68.338 M4 | Grid 6 68.100 M4 |
| Grid 7 59.002 M4 | Grid 8 66.118 M4 | Grid 9 65.449 M4 |



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Date/Time: 3/23/2011 6:02:17 PM, Date/Time: 3/23/2011 6:10:14 PM,

Date/Time: 3/23/2011 6:26:17 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_CDMA1900

DUT: BlackBerry Smartphone; Type: Sample

Communication System: CDMA 1900; Frequency: 1851.25 MHz, Frequency: 1880 MHz, Frequency: 1908.5 MHz; Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

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


Maximum value of peak Total field = 38.833 V/m

Probe Modulation Factor = 1.060

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 31.653 V/m; Power Drift = -0.27 dB

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

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Peak E-field in V/m

| | | |
|--------------------------------|--------------------------------|--------------------------------|
| Grid 1 34.416 M4 | Grid 2 31.153 M4 | Grid 3 33.214 M4 |
| Grid 4 31.627 M4 | Grid 5 38.833 M4 | Grid 6 40.747 M4 |
| Grid 7 32.684 M4 | Grid 8 43.564 M4 | Grid 9 43.739 M4 |

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm


Maximum value of peak Total field = 39.926 V/m

Probe Modulation Factor = 1.060

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 30.557 V/m; Power Drift = 0.03 dB

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

| | | | |
|---|---|--------------------------------------|-----------------------------|
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Peak E-field in V/m

| | | |
|--------------------------------|--------------------------------|--------------------------------|
| Grid 1 34.963 M4 | Grid 2 29.889 M4 | Grid 3 32.594 M4 |
| Grid 4 29.385 M4 | Grid 5 39.926 M4 | Grid 6 41.342 M4 |
| Grid 7 32.233 M4 | Grid 8 45.424 M4 | Grid 9 45.533 M4 |

Location: -10, 24, 8.7 mm

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15 mm from Probe Center to the Device 2 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm,

dy=5mm

Maximum value of peak Total field = 38.945 V/m

Probe Modulation Factor = 1.060

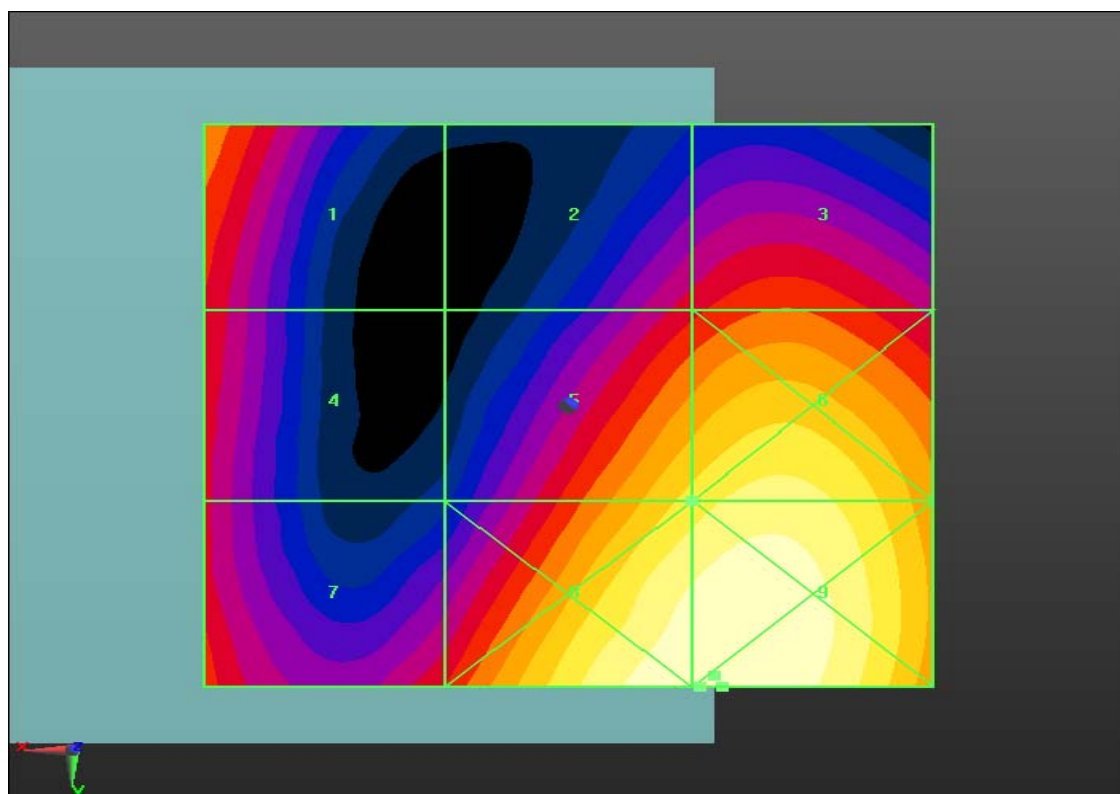
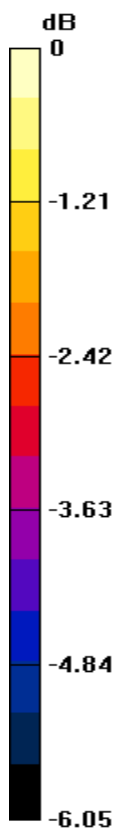
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 30.729 V/m; Power Drift = 0.28 dB


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

Peak E-field in V/m

| | | |
|----------------------------|----------------------------|----------------------------|
| Grid 1 34.127 M4 | Grid 2 28.319 M4 | Grid 3 28.934 M4 |
| Grid 4 32.603 M4 | Grid 5 38.945 M4 | Grid 6 39.630 M4 |
| Grid 7 33.799 M4 | Grid 8 45.132 M4 | Grid 9 45.137 M4 |



0 dB = 43.740V/m

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Date/Time: 3/23/2011 6:37:00 PM

Test Laboratory: RIM Testing Services

HAC RF_E-Field_CDMA1900_mid_chan_Telecoil_Center

DUT: BlackBerry Smartphone; Type: Sample

Communication System: CDMA 1900; Frequency: 1880 MHz; Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ER3DV6 - SN2286; ConvF(1, 1, 1); Calibrated: 1/14/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Device E-Field measurement with ER probe/E Scan - ER3D - 2007: 15

mm from Probe Center to the Device Telecoil cent/Hearing Aid

Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 46.042 V/m


Probe Modulation Factor = 1.060

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 30.894 V/m; Power Drift = -0.06 dB

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

Peak E-field in V/m

| | | | |
|---|--|--------------------------------------|-----------------------------|
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| | | |
|--------------------------------|--------------------------------|--------------------------------|
| Grid 1 27.846 M4 | Grid 2 38.794 M4 | Grid 3 39.000 M4 |
| Grid 4 34.722 M4 | Grid 5 46.042 M4 | Grid 6 45.978 M4 |
| Grid 7 40.119 M4 | Grid 8 46.442 M4 | Grid 9 46.234 M4 |

Author Data

Daoud Attayi

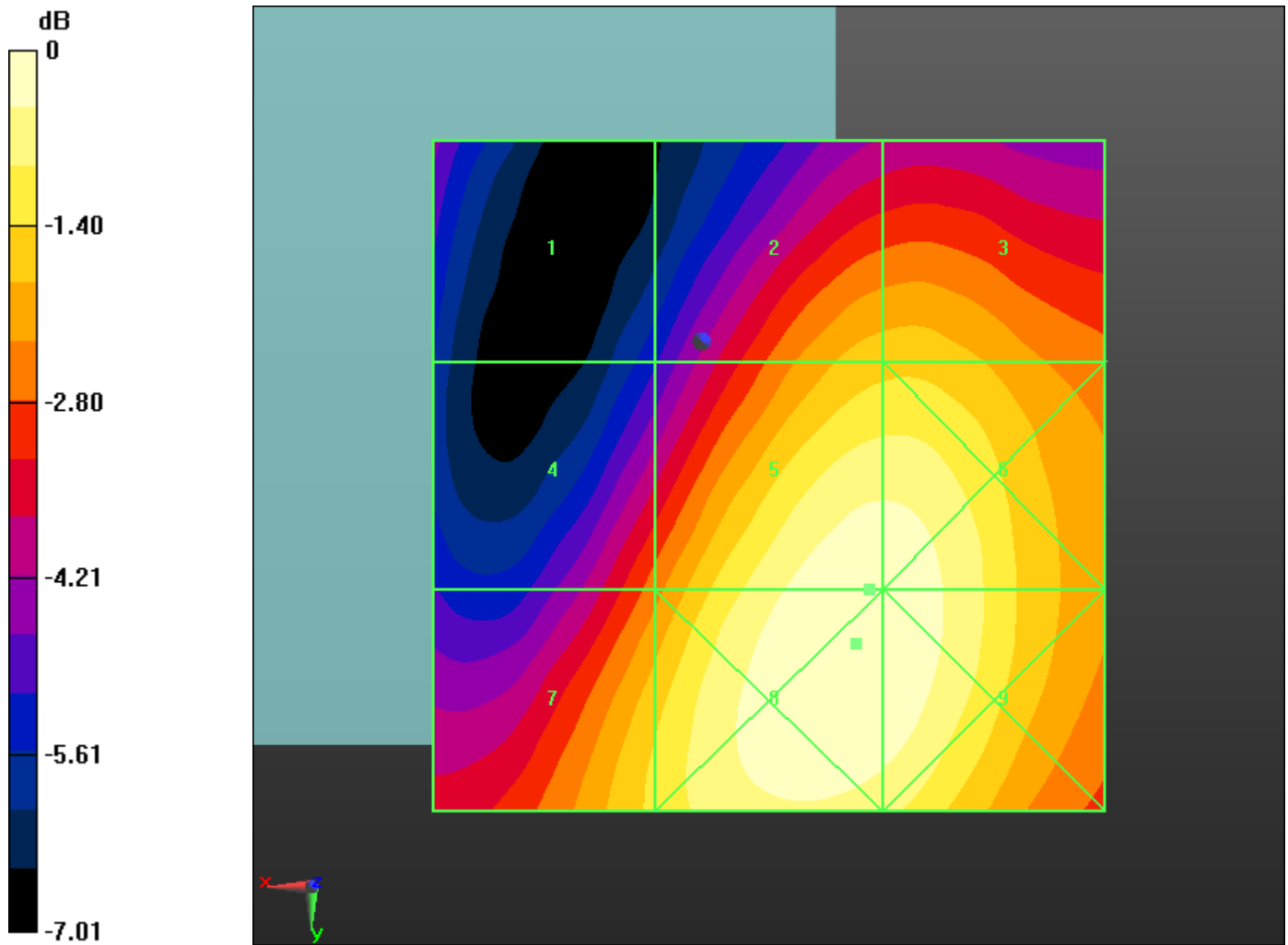
Dates of Test

Mar. 22-23, Apr. 27 2011


Report No

RTS-3933-1104-55

FCC ID

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0 dB = 46.440V/m

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Date/Time: 3/23/2011 10:52:43 PM, Date/Time: 3/23/2011 10:56:48 PM,

Date/Time: 3/23/2011 11:00:47 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_GSM850

DUT: BlackBerry Smartphone; Type: Sample

Communication System: GSM 850; Frequency: 824.2 MHz, Frequency: 836.8 MHz, Frequency: 848.8 MHz; Communication System PAR: 9.191 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Device H-Field meaurement with H3DV6 probe/H Scan - H3DV6 -

2007: 15 mm from Probe Center to the Device/Hearing Aid

Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm


Maximum value of peak Total field = 0.278 A/m

Probe Modulation Factor = 2.870

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.046 A/m; Power Drift = 0.21 dB


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

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|---|---|--------------------------------------|-----------------------------|
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Peak H-field in A/m

| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 0.278 M4 | Grid 2 0.200 M4 | Grid 3 0.129 M4 |
| Grid 4 0.238 M4 | Grid 5 0.173 M4 | Grid 6 0.106 M4 |
| Grid 7 0.255 M4 | Grid 8 0.183 M4 | Grid 9 0.114 M4 |

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device
2/Hearing Aid Compatibility Test (101x101x1): Measurement grid:
dx=5mm, dy=5mm
Maximum value of peak Total field = 0.332 A/m
Probe Modulation Factor = 2.870
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.058 A/m; Power Drift = 0.28 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

| | | | |
|---|---|--------------------------------------|-----------------------------|
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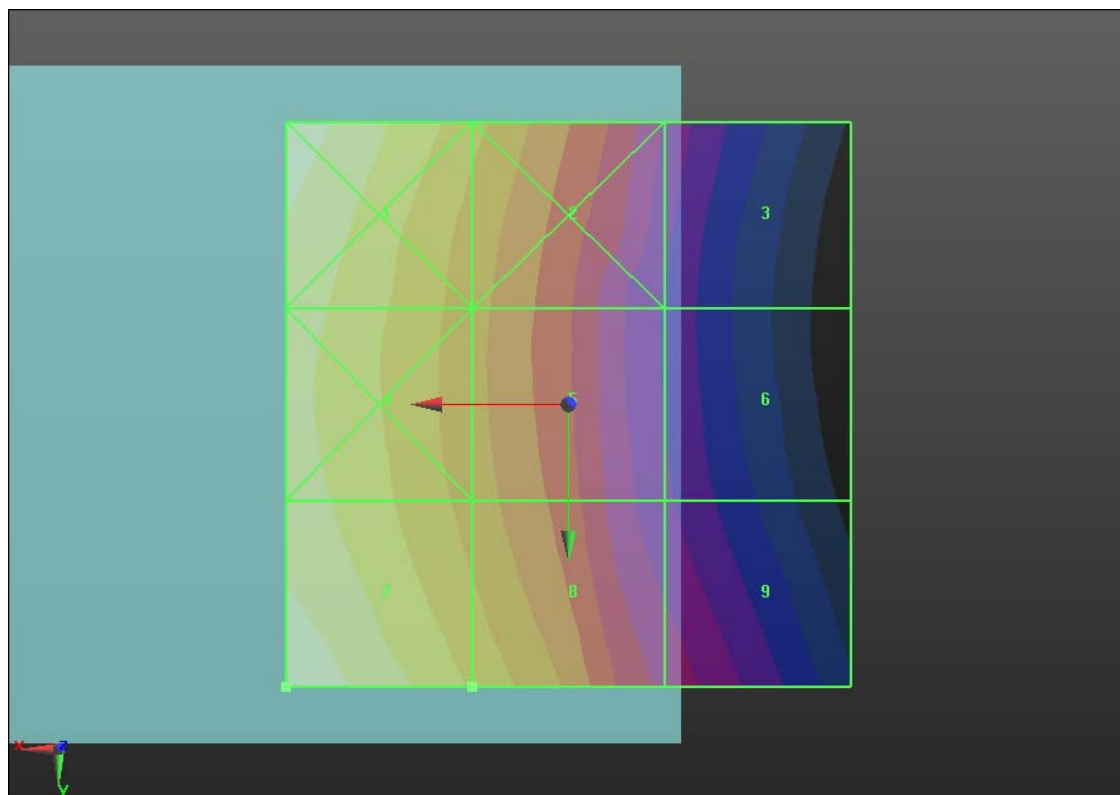
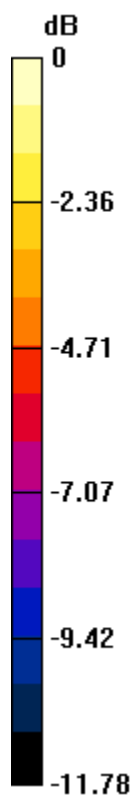
Peak H-field in A/m

| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 0.332 M4 | Grid 2 0.252 M4 | Grid 3 0.167 M4 |
| Grid 4 0.286 M4 | Grid 5 0.220 M4 | Grid 6 0.141 M4 |
| Grid 7 0.310 M4 | Grid 8 0.233 M4 | Grid 9 0.146 M4 |


Device H-Field measurement with H3DV6 probe/H Scan -
H3DV6 - 2007: 15 mm from Probe Center to the Device 2
2/Hearing Aid Compatibility Test (101x101x1): Measurement grid:
dx=5mm, dy=5mm
Maximum value of peak Total field = 0.387 A/m
Probe Modulation Factor = 2.870
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.071 A/m; Power Drift = -0.35 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)


Peak H-field in A/m

| | | |
|---------------------------|---------------------------|---------------------------|
| Grid 1 0.377 M4 | Grid 2 0.281 M4 | Grid 3 0.171 M4 |
| Grid 4 0.342 M4 | Grid 5 0.262 M4 | Grid 6 0.162 M4 |
| Grid 7 0.387 M4 | Grid 8 0.294 M4 | Grid 9 0.186 M4 |



0 dB = 0.390A/m

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Date/Time: 3/23/2011 11:06:16 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_GSM850_high_chan_Telecoil_Center

DUT: BlackBerry Smartphone; Type: Sample

Communication System: GSM 850; Frequency: 848.8 MHz;Communication

System PAR: 9.191 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 -

2007: 15 mm from Probe Center to the Device 2 2 2/Hearing Aid

Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.374 A/m


Probe Modulation Factor = 2.870

Device Reference Point: 0, 0, -6.3 mm

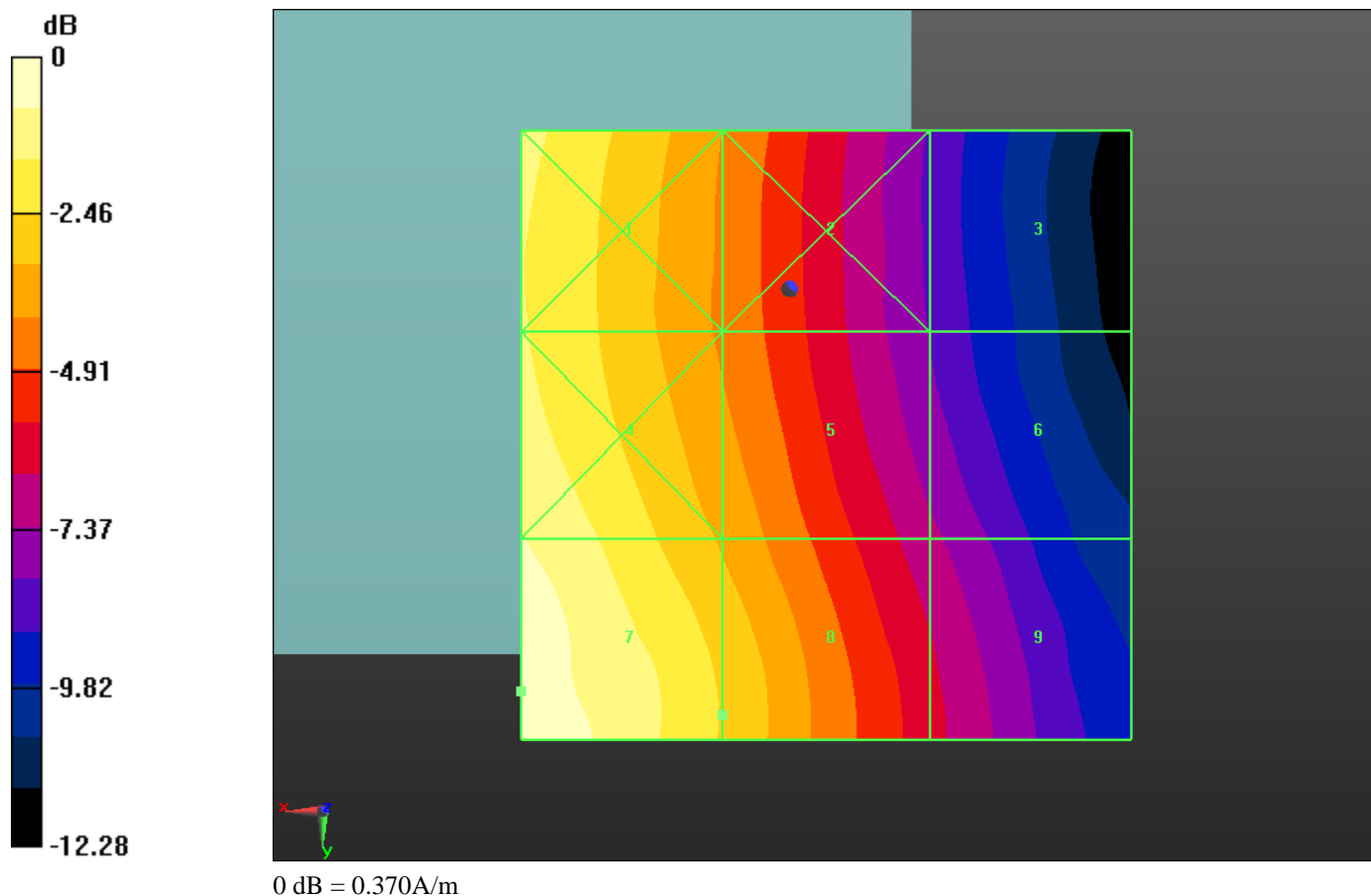
Reference Value = 0.068 A/m; Power Drift = 0.17 dB


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


Peak H-field in A/m

| | | | |
|--|---|--------------------------------------|-----------------------------|
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| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 0.318 M4 | Grid 2 0.231 M4 | Grid 3 0.144 M4 |
| Grid 4 0.338 M4 | Grid 5 0.251 M4 | Grid 6 0.163 M4 |
| Grid 7 0.374 M4 | Grid 8 0.277 M4 | Grid 9 0.181 M4 |



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Date/Time: 3/23/2011 11:13:00 PM, Date/Time: 3/23/2011 11:16:23 PM,

Date/Time: 3/23/2011 11:19:51 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_GSM1900

DUT: BlackBerry Smartphone; Type: Sample

Communication System: GSM 1900; Frequency: 1850.2 MHz, Frequency: 1880 MHz, Frequency: 1909.8 MHz; Communication System PAR: 9.191 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 -

2007: 15 mm from Probe Center to the Device/Hearing Aid

Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm


Maximum value of peak Total field = 0.200 A/m

Probe Modulation Factor = 2.870

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.061 A/m; Power Drift = 0.63 dB

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


| | | | |
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Peak H-field in A/m

| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 0.197 M3 | Grid 2 0.186 M3 | Grid 3 0.163 M3 |
| Grid 4 0.221 M3 | Grid 5 0.200 M3 | Grid 6 0.157 M3 |
| Grid 7 0.261 M2 | Grid 8 0.226 M3 | Grid 9 0.160 M3 |


Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid:
dx=5mm, dy=5mm
Maximum value of peak Total field = 0.242 A/m
Probe Modulation Factor = 2.870
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.075 A/m; Power Drift = 0.15 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak H-field in A/m

| | | | |
|---|---|--------------------------------------|-----------------------------|
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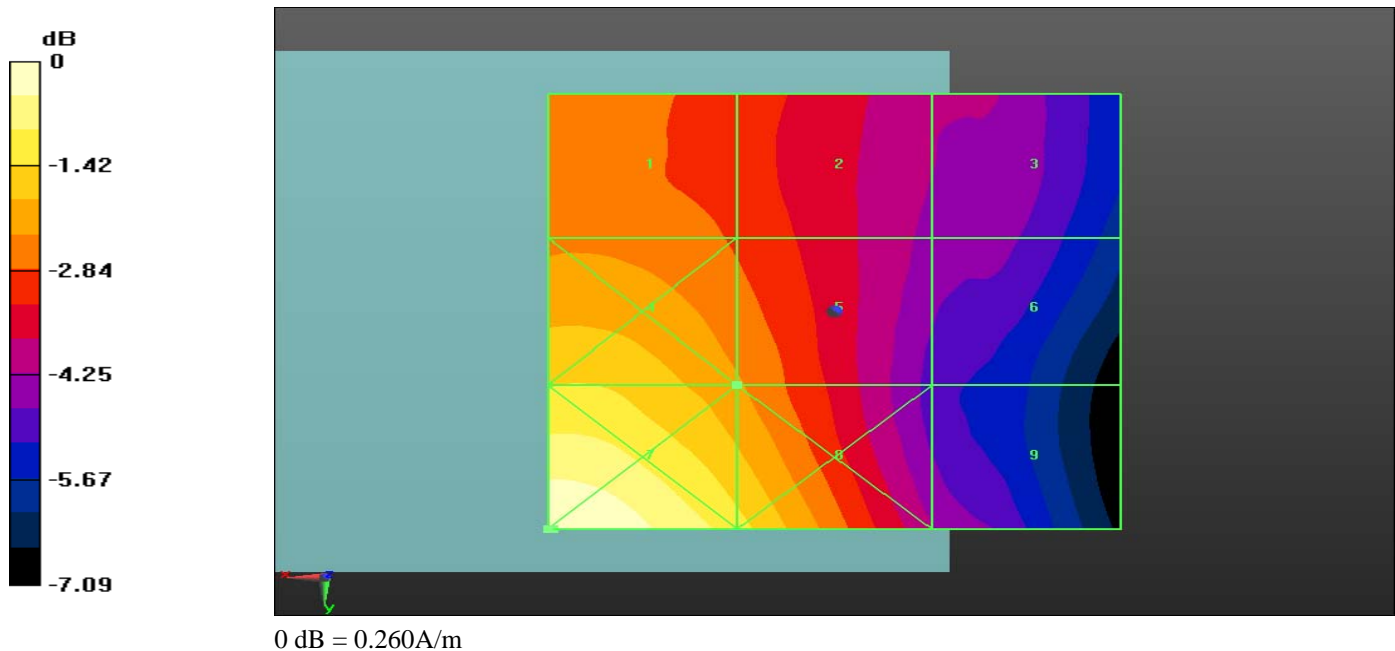
| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 0.223 M3 | Grid 2 0.218 M3 | Grid 3 0.193 M3 |
| Grid 4 0.259 M2 | Grid 5 0.242 M3 | Grid 6 0.194 M3 |
| Grid 7 0.306 M2 | Grid 8 0.272 M2 | Grid 9 0.197 M3 |


Device H-Field measurement with H3DV6 probe/H Scan -
H3DV6 - 2007: 15 mm from Probe Center to the Device 2
2/Hearing Aid Compatibility Test (101x101x1): Measurement grid:
dx=5mm, dy=5mm
Maximum value of peak Total field = 0.226 A/m
Probe Modulation Factor = 2.870
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.073 A/m; Power Drift = -0.14 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

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Peak H-field in A/m

| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 0.200 M3 | Grid 2 0.197 M3 | Grid 3 0.170 M3 |
| Grid 4 0.240 M3 | Grid 5 0.226 M3 | Grid 6 0.172 M3 |
| Grid 7 0.299 M2 | Grid 8 0.264 M2 | Grid 9 0.181 M3 |



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Date/Time: 4/27/2011 3:05:33 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_GSM1900_telecoil

DUT: BlackBerry Smartphone; Type: Sample

Communication System: GSM 1900; Frequency: 1880 MHz; Communication

System PAR: 9.191 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn473; Calibrated: 1/21/2011
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 -

2007: 15 mm from Probe Center to the Device 2 2 2/Hearing Aid

Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.213 A/m


Probe Modulation Factor = 2.870

Device Reference Point: 0, 0, -6.3 mm

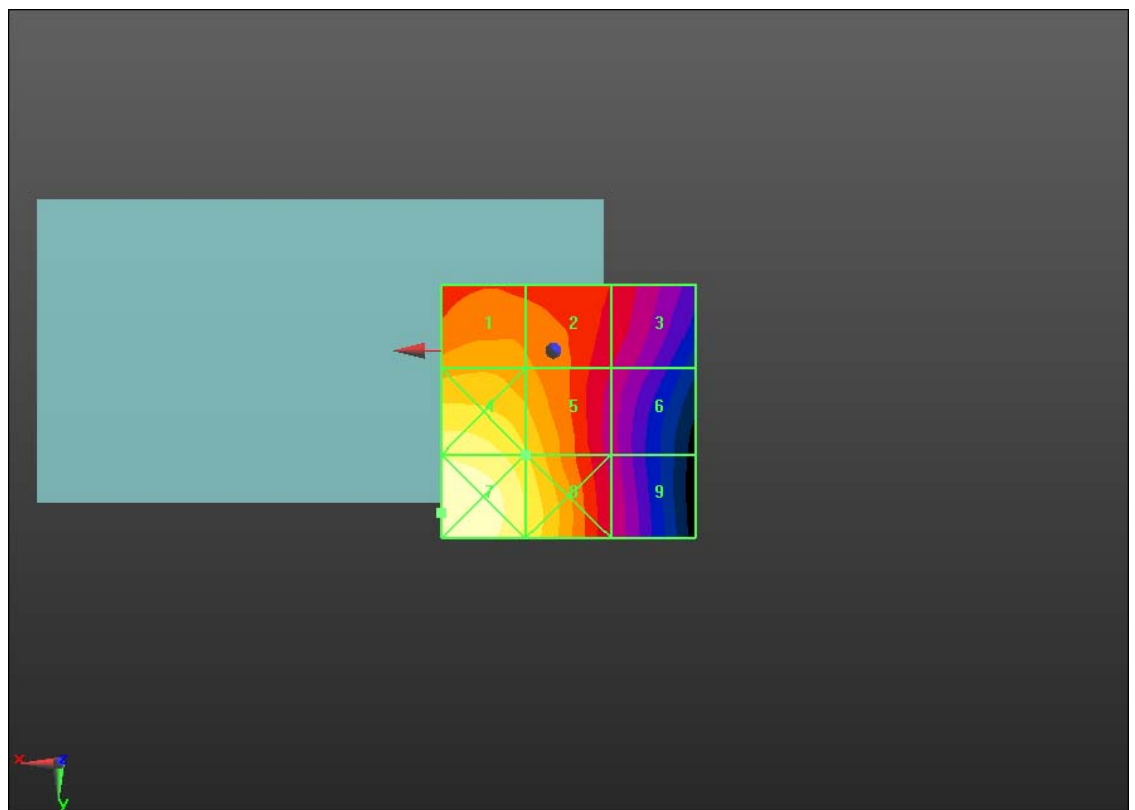
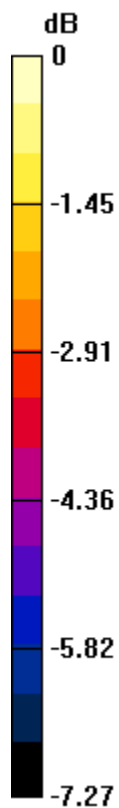
Reference Value = 0.065 A/m; Power Drift = 0.10 dB

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


Peak H-field in A/m

| | | | |
|--|---|--------------------------------------|-----------------------------|
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| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 0.199 M3 | Grid 2 0.192 M3 | Grid 3 0.169 M3 |
| Grid 4 0.234 M3 | Grid 5 0.213 M3 | Grid 6 0.160 M3 |
| Grid 7 0.254 M2 | Grid 8 0.223 M3 | Grid 9 0.161 M3 |



0 dB = 0.250A/m

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Date/Time: 3/23/2011 9:54:08 PM, Date/Time: 3/23/2011 9:58:10 PM,

Date/Time: 3/23/2011 10:01:52 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_CDMA800

DUT: BlackBerry Smartphone; Type: Sample

Communication System: CDMA 800;; Frequency: 824.7 MHz, Frequency: 836.52 MHz, Frequency: 848.52 MHz;Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Device H-Field meaurement with H3DV6 probe/H Scan - H3DV6 -

2007: 15 mm from Probe Center to the Device/Hearing Aid

Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm


Maximum value of peak Total field = 0.049 A/m

Probe Modulation Factor = 1.040

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.019 A/m; Power Drift = 1.06 dB


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

| | | | |
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Peak H-field in A/m

| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 0.049 M4 | Grid 2 0.034 M4 | Grid 3 0.019 M4 |
| Grid 4 0.041 M4 | Grid 5 0.028 M4 | Grid 6 0.017 M4 |
| Grid 7 0.040 M4 | Grid 8 0.030 M4 | Grid 9 0.018 M4 |


Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid:
dx=5mm, dy=5mm
Maximum value of peak Total field = 0.051 A/m
Probe Modulation Factor = 1.040
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.025 A/m; Power Drift = -0.16 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

| | | | |
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Peak H-field in A/m

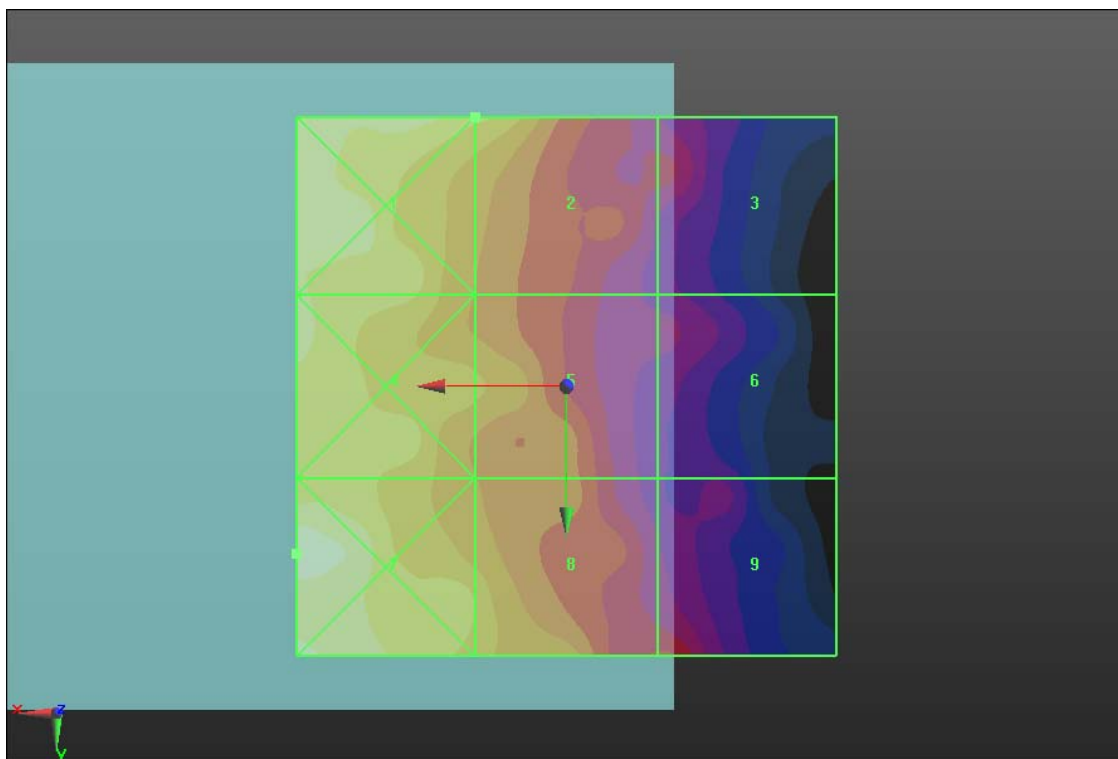
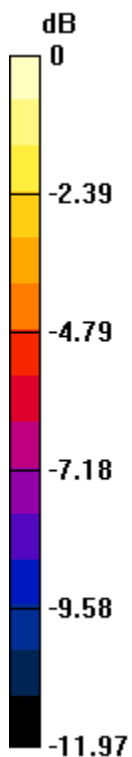
| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 0.051 M4 | Grid 2 0.041 M4 | Grid 3 0.025 M4 |
| Grid 4 0.050 M4 | Grid 5 0.036 M4 | Grid 6 0.024 M4 |
| Grid 7 0.050 M4 | Grid 8 0.037 M4 | Grid 9 0.025 M4 |


Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device 2
2/Hearing Aid Compatibility Test (101x101x1): Measurement grid:
dx=5mm, dy=5mm
Maximum value of peak Total field = 0.047 A/m
Probe Modulation Factor = 1.040
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.030 A/m; Power Drift = 0.99 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

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Peak H-field in A/m

| | | |
|---------------------------|---------------------------|---------------------------|
| Grid 1 0.055 M4 | Grid 2 0.047 M4 | Grid 3 0.030 M4 |
| Grid 4 0.052 M4 | Grid 5 0.042 M4 | Grid 6 0.027 M4 |
| Grid 7 0.058 M4 | Grid 8 0.046 M4 | Grid 9 0.033 M4 |



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0 dB = 0.060A/m

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Date/Time: 3/23/2011 10:07:55 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_CDMA800_mid_chan_Telecoil_Center

DUT: BlackBerry Smartphone; Type: Sample

Communication System: CDMA 800; Frequency: 836.52 MHz; Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 -

2007: 15 mm from Probe Center to the Device 2 2 2/Hearing Aid

Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.052 A/m


Probe Modulation Factor = 1.040

Device Reference Point: 0, 0, -6.3 mm

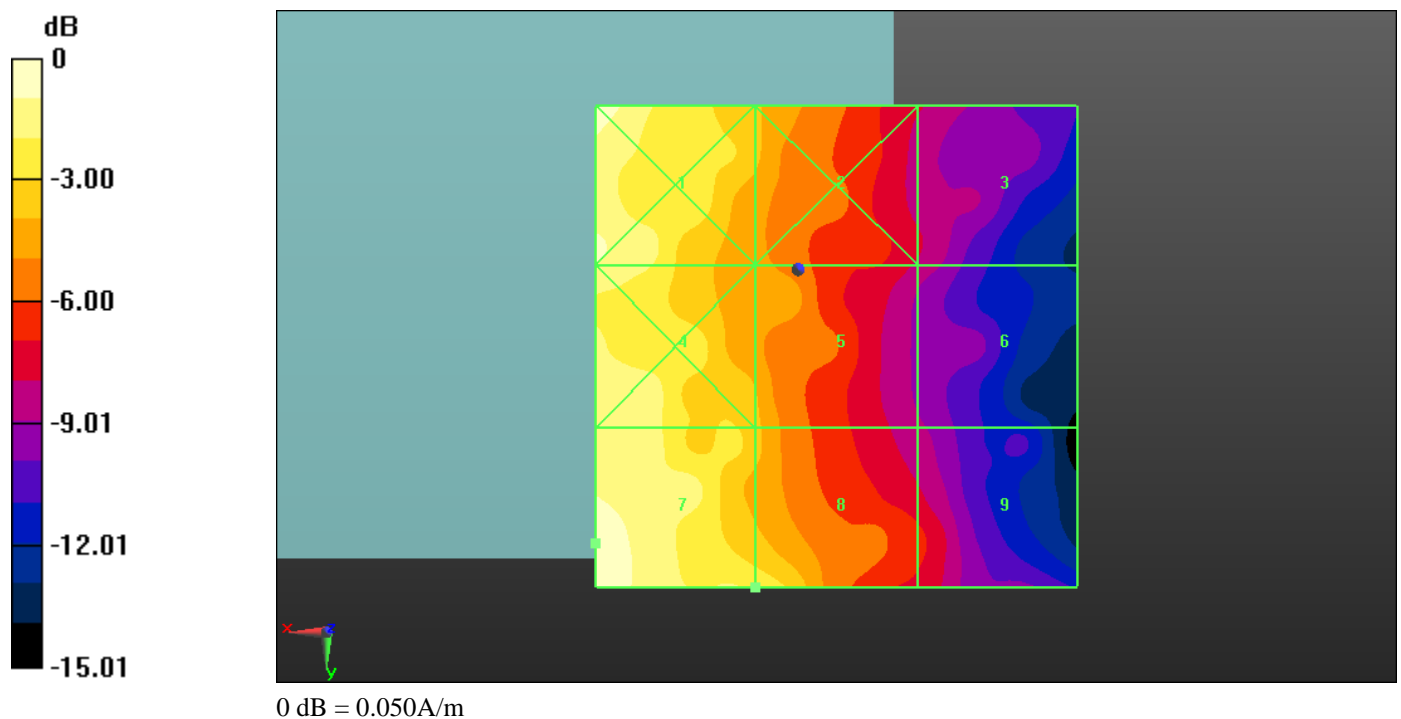
Reference Value = 0.024 A/m; Power Drift = 1.07 dB


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

Peak H-field in A/m

| | | | |
|---|---|--------------------------------------|-----------------------------|
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| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 0.050 M4 | Grid 2 0.033 M4 | Grid 3 0.020 M4 |
| Grid 4 0.044 M4 | Grid 5 0.033 M4 | Grid 6 0.020 M4 |
| Grid 7 0.052 M4 | Grid 8 0.039 M4 | Grid 9 0.023 M4 |



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Date/Time: 3/23/2011 10:15:39 PM, Date/Time: 3/23/2011 10:28:50 PM,

Date/Time: 3/23/2011 10:34:20 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_CDMA1900

DUT: BlackBerry Smartphone; Type: Sample

Communication System: CDMA 1900; Frequency: 1851.25 MHz, Frequency: 1880 MHz, Frequency: 1908.5 MHz; Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASYS (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 -

2007: 15 mm from Probe Center to the Device/Hearing Aid

Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm


Maximum value of peak Total field = 0.037 A/m

Probe Modulation Factor = 1.040

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.031 A/m; Power Drift = -0.02 dB


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

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Peak H-field in A/m

| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 0.036 M4 | Grid 2 0.035 M4 | Grid 3 0.031 M4 |
| Grid 4 0.041 M4 | Grid 5 0.037 M4 | Grid 6 0.030 M4 |
| Grid 7 0.047 M4 | Grid 8 0.042 M4 | Grid 9 0.029 M4 |

Device H-Field measurement with H3DV6 probe/H Scan -
H3DV6 - 2007: 15 mm from Probe Center to the Device
2/Hearing Aid Compatibility Test (101x101x1): Measurement grid:
dx=5mm, dy=5mm
Maximum value of peak Total field = 0.121 A/m
Probe Modulation Factor = 1.040
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.105 A/m; Power Drift = -0.02 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

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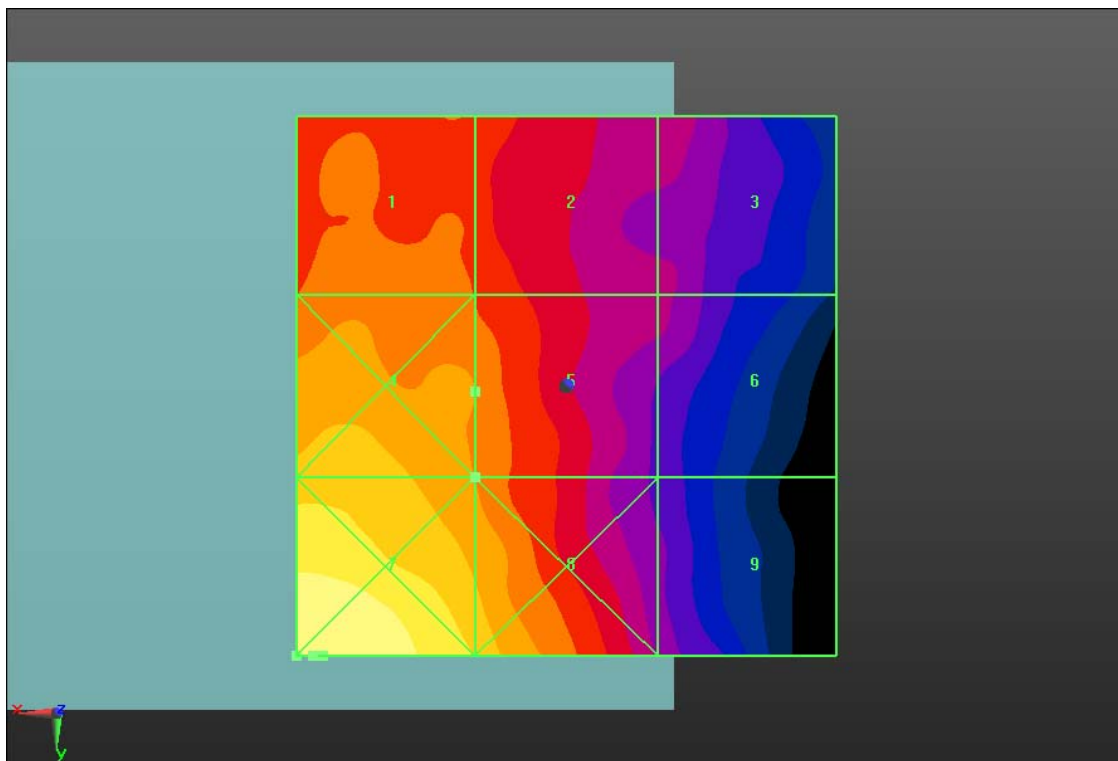
Peak H-field in A/m

| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 0.111 M4 | Grid 2 0.108 M4 | Grid 3 0.094 M4 |
| Grid 4 0.130 M4 | Grid 5 0.121 M4 | Grid 6 0.094 M4 |
| Grid 7 0.152 M4 | Grid 8 0.135 M4 | Grid 9 0.096 M4 |


Device H-Field measurement with H3DV6 probe/H Scan -
H3DV6 - 2007: 15 mm from Probe Center to the Device 2
2/Hearing Aid Compatibility Test (101x101x1): Measurement grid:
dx=5mm, dy=5mm
Maximum value of peak Total field = 0.120 A/m
Probe Modulation Factor = 1.040
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 0.104 A/m; Power Drift = 0.03 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

| | | |
|---------------------------|---------------------------|---------------------------|
| Grid 1 0.103 M4 | Grid 2 0.103 M4 | Grid 3 0.092 M4 |
| Grid 4 0.127 M4 | Grid 5 0.120 M4 | Grid 6 0.094 M4 |
| Grid 7 0.156 M4 | Grid 8 0.139 M4 | Grid 9 0.097 M4 |



0 dB = 0.050A/m

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Date/Time: 3/23/2011 10:40:20 PM

Test Laboratory: RIM Testing Services

HAC RF_H-Field_CDMA1900_mid_chan_Telecoil_Center

DUT: BlackBerry Smartphone; Type: Sample

Communication System: CDMA 1900; Communication System Band: Exported from older format (data unavailable - please correct).; Frequency: 1880

MHz;Communication System PAR: 0 dB

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: H3DV6 - SN6105; ; Calibrated: 11/18/2010
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn881; Calibrated: 4/19/2010
- Phantom: HAC RF Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.4 (2829)

Device H-Field measurement with H3DV6 probe/H Scan - H3DV6 -


2007: 15 mm from Probe Center to the Device 2 2 2/Hearing Aid

Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.105 A/m

Probe Modulation Factor = 1.040

Device Reference Point: 0, 0, -6.3 mm

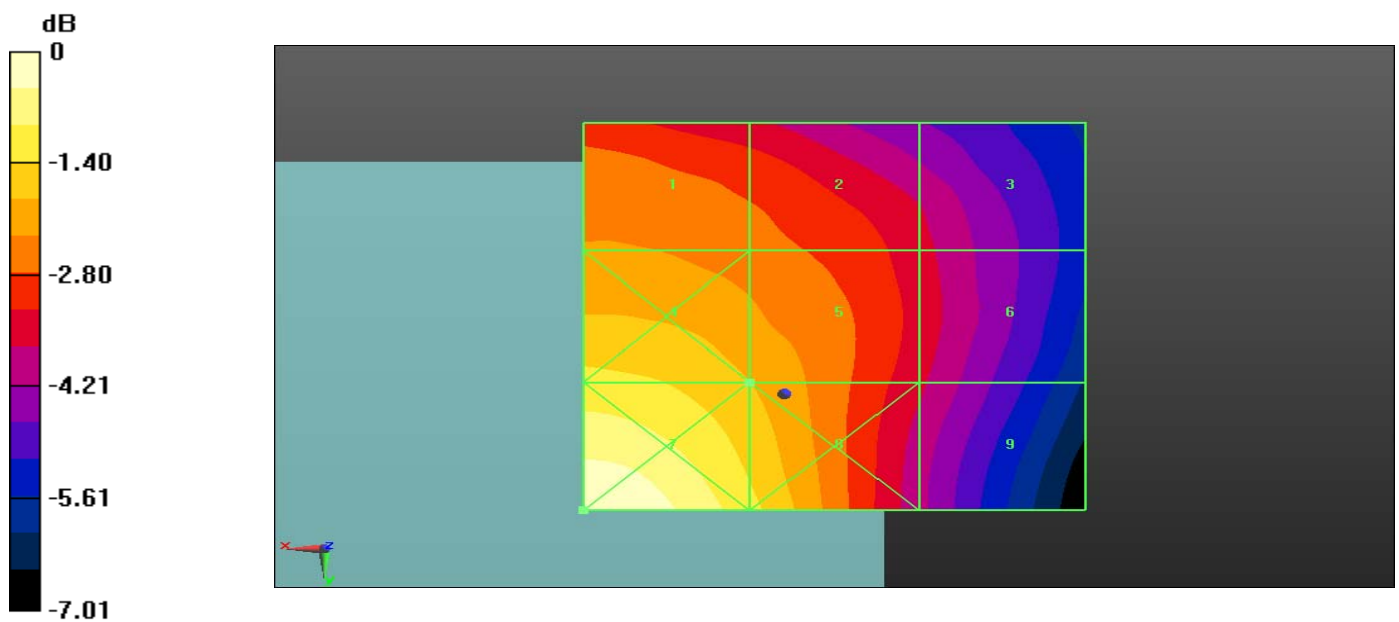
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|--|---|--------------------------------------|-----------------------------|
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Reference Value = 0.100 A/m; Power Drift = 0.08 dB

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

Peak H-field in A/m

| | | |
|-------------------------------|-------------------------------|-------------------------------|
| Grid 1 0.100 M4 | Grid 2 0.097 M4 | Grid 3 0.086 M4 |
| Grid 4 0.113 M4 | Grid 5 0.105 M4 | Grid 6 0.087 M4 |
| Grid 7 0.131 M4 | Grid 8 0.113 M4 | Grid 9 0.086 M4 |



0 dB = 0.130A/m