

## APPENDIX A. HAC TEST PLOTS

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Test Laboratory: HCT CO., LTD.  
 Ambient Temperature / Channel: 21.4 °C /1013  
 Test Date: Feb. 20, 2012

DUT: ADR910L; Type: Bar; Serial: #1

Communication System: CDMA 835MHz FCC; Frequency: 824.7 MHz;Duty Cycle: 1:1  
 Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

- DASY4 Configuration:
- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2011-05-16
  - Sensor-Surface: (Fix Surface)
  - Electronics: DAE4 Sn614; Calibrated: 2011-09-27
  - Phantom: HAC Test Arch; Type: SD HAC P01 BA

**E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):**

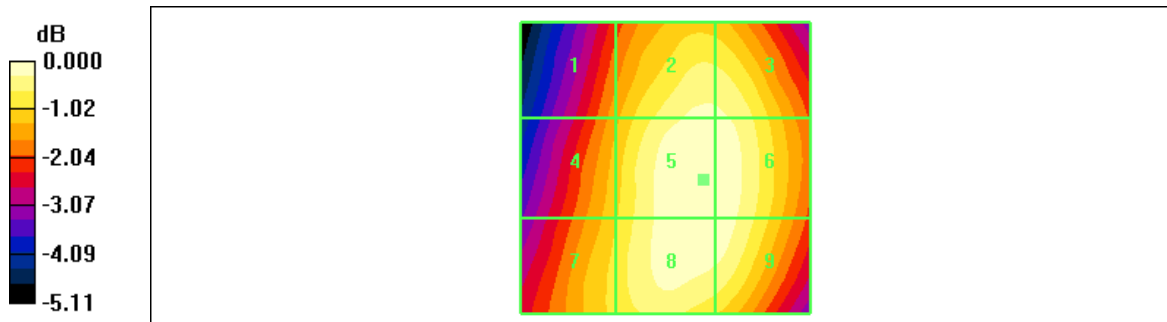
Measurement grid: dx=5mm, dy=5mm  
 Maximum value of peak Total field = 49.8 V/m  
 Probe Modulation Factor = 0.966  
 Device Reference Point: 0.000, 0.000, 354.7 mm  
 Reference Value = 63.0 V/m; Power Drift = -0.032 dB  
**Hearing Aid Near-Field Category: M4 (AWF 0 dB)**

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
42.2 M4	48.5 M4	48.5 M4
Grid 4	Grid 5	Grid 6
44.2 M4	49.8 M4	49.7 M4
Grid 7	Grid 8	Grid 9
45.1 M4	49.5 M4	49.4 M4

**Cursor:**

Total = 49.8 V/m  
 E Category: M4  
 Location: -6.5, 2, 370.9 mm



0 dB = 49.8V/m

Test Laboratory: HCT CO., LTD.  
Ambient Temperature / Channel: 21.4 °C /384  
Test Date: Feb. 20, 2012

DUT: ADR910L; Type: Bar; Serial: #1

Communication System: CDMA 835MHz FCC; Frequency: 836.52 MHz;Duty Cycle: 1:1  
Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2011-05-16
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn614; Calibrated: 2011-09-27
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

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

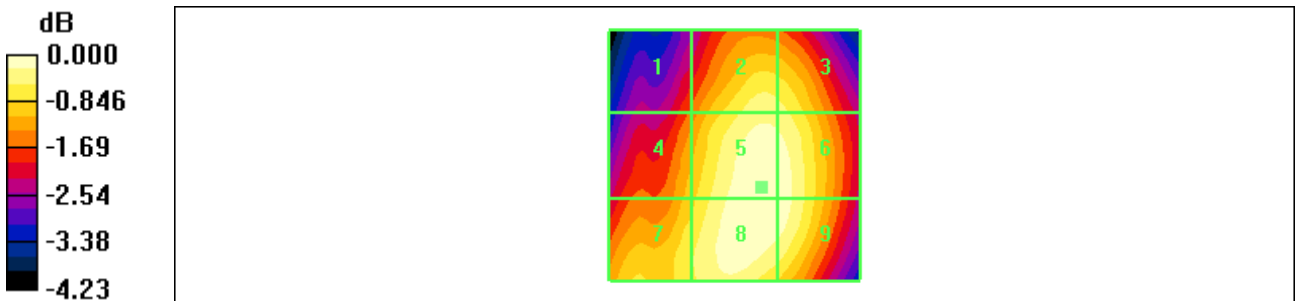
Measurement grid: dx=5mm, dy=5mm  
Maximum value of peak Total field = 43.9 V/m  
Probe Modulation Factor = 0.966  
Device Reference Point: 0.000, 0.000, 354.7 mm  
Reference Value = 60.8 V/m; Power Drift = -0.793 dB  
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
36.6 M4	42.2 M4	41.9 M4
Grid 4	Grid 5	Grid 6
39.4 M4	43.9 M4	43.6 M4
Grid 7	Grid 8	Grid 9
41.1 M4	43.9 M4	43.6 M4

Cursor:

Total = 43.9 V/m  
E Category: M4  
Location: -5.5, 6.5, 370.9 mm



0 dB = 43.9V/m

Test Laboratory: HCT CO., LTD.  
 Ambient Temperature / Channel: 21.4 °C /777  
 Test Date: Feb. 20, 2012

**DUT: ADR910L; Type: Bar; Serial: #1**

Communication System: CDMA 835MHz FCC; Frequency: 848.31 MHz;Duty Cycle: 1:1  
 Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

**DASY4 Configuration:**

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2011-05-16
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn614; Calibrated: 2011-09-27
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

**E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):**

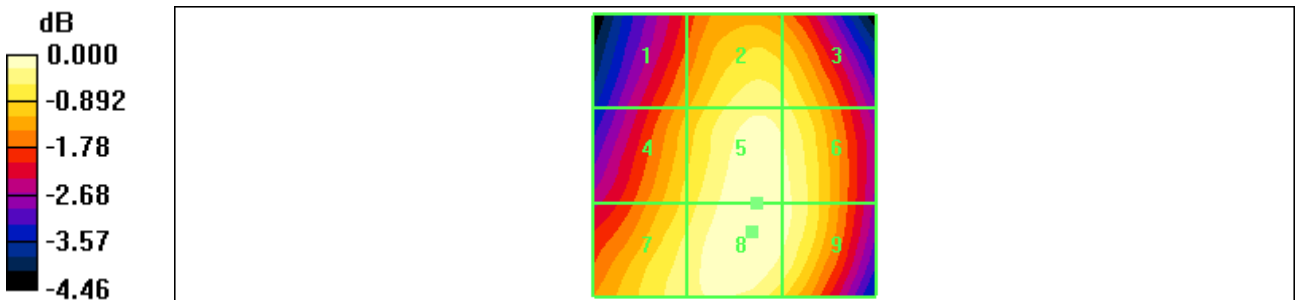
Measurement grid: dx=5mm, dy=5mm  
 Maximum value of peak Total field = 45.7 V/m  
 Probe Modulation Factor = 0.966  
 Device Reference Point: 0.000, 0.000, 354.7 mm  
 Reference Value = 57.5 V/m; Power Drift = 0.121 dB  
**Hearing Aid Near-Field Category: M4 (AWF 0 dB)**

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
39.6 M4	43.9 M4	43.2 M4
Grid 4	Grid 5	Grid 6
41.9 M4	45.6 M4	44.8 M4
Grid 7	Grid 8	Grid 9
43.6 M4	45.7 M4	44.9 M4

**Cursor:**

Total = 45.7 V/m  
 E Category: M4  
 Location: -3, 13.5, 370.9 mm



0 dB = 45.7V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.4 °C /25

Test Date Feb. 20, 2012

**DUT: ADR910L; Type: Bar; Serial: #1**

Communication System: PCS 1900MHz FCC; Frequency: 1851.25 MHz;Duty Cycle: 1:1

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

Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2011-05-16
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn614; Calibrated: 2011-09-27
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

**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 = 28.5 V/m

Probe Modulation Factor = 0.978

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 28.2 V/m; Power Drift = -0.034 dB

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

Peak E-field in V/m

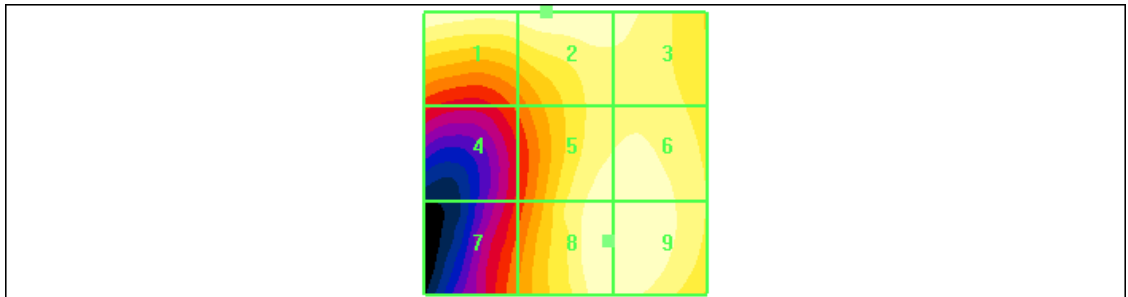
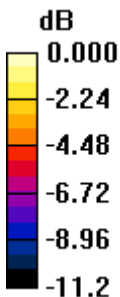
Grid 1	Grid 2	Grid 3
28.4 M4	28.5 M4	27.4 M4
Grid 4	Grid 5	Grid 6
17.5 M4	27.7 M4	27.9 M4
Grid 7	Grid 8	Grid 9
18.5 M4	28.4 M4	28.4 M4

**Cursor:**

Total = 28.5 V/m

E Category: M4

Location: 3.5, -25, 370.9 mm



0 dB = 28.5V/m

Test Laboratory: HCT CO., LTD.  
 Ambient Temperature / Channel: 21.4 °C /600  
 Test Date: Feb. 20, 2012

DUT: ADR910L; Type: Bar; Serial: #1

Communication System: PCS 1900MHz FCC; Frequency: 1880 MHz;Duty Cycle: 1:1  
 Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2011-05-16
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn614; Calibrated: 2011-09-27
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

**E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):**

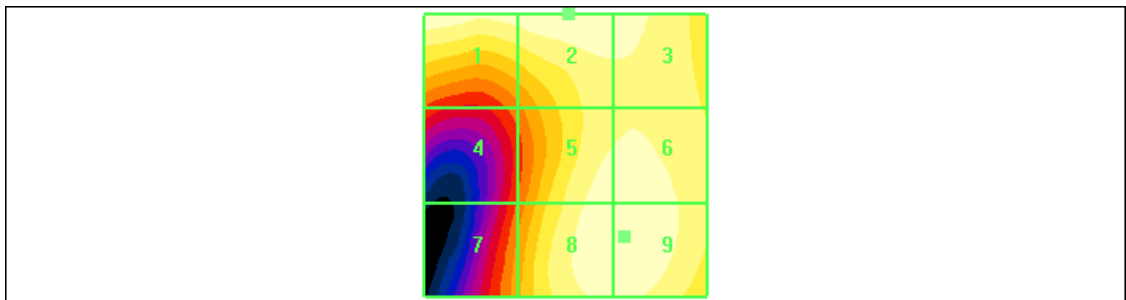
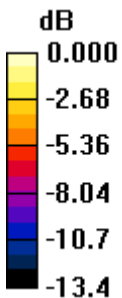
Measurement grid: dx=5mm, dy=5mm  
 Maximum value of peak Total field = 33.3 V/m  
 Probe Modulation Factor = 0.978  
 Device Reference Point: 0.000, 0.000, 354.7 mm  
 Reference Value = 32.7 V/m; Power Drift = 0.037 dB  
**Hearing Aid Near-Field Category: M4 (AWF 0 dB)**

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
32.8 M4	33.3 M4	32.3 M4
Grid 4	Grid 5	Grid 6
19.4 M4	32.3 M4	32.6 M4
Grid 7	Grid 8	Grid 9
21.3 M4	33.0 M4	33.2 M4

Cursor:

Total = 33.3 V/m  
 E Category: M4  
 Location: -0.5, -25, 370.9 mm



0 dB = 33.3V/m

Test Laboratory: HCT CO., LTD.  
 Ambient Temperature / Channel: 21.4 °C /1175  
 Test Date: Feb. 20, 2012

DUT: ADR910L; Type: Bar; Serial: #1

Communication System: PCS 1900MHz FCC; Frequency: 1908.75 MHz;Duty Cycle: 1:1  
 Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2011-05-16
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn614; Calibrated: 2011-09-27
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

**E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):**

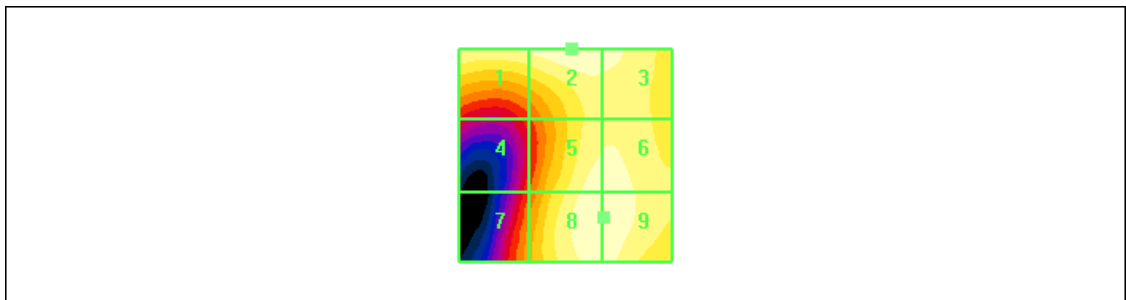
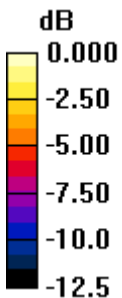
Measurement grid: dx=5mm, dy=5mm  
 Maximum value of peak Total field = 32.9 V/m  
 Probe Modulation Factor = 0.978  
 Device Reference Point: 0.000, 0.000, 354.7 mm  
 Reference Value = 32.9 V/m; Power Drift = -0.095 dB  
**Hearing Aid Near-Field Category: M4 (AWF 0 dB)**

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
30.9 M4	32.6 M4	31.4 M4
Grid 4	Grid 5	Grid 6
18.6 M4	32.1 M4	32.2 M4
Grid 7	Grid 8	Grid 9
21.9 M4	32.9 M4	32.9 M4

Cursor:

Total = 32.9 V/m  
 E Category: M4  
 Location: -9, 14.5, 370.9 mm



0 dB = 32.9V/m

Test Laboratory: HCT CO., LTD.  
 Ambient Temperature / Channel 21.4 °C /1013  
 Test Date Feb. 20, 2012

**DUT: ADR910L; Type: Bar; Serial: #1**

Communication System: CDMA 835MHz FCC; Frequency: 824.7 MHz;Duty Cycle: 1:1  
 Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1$  kg/m<sup>3</sup>  
 Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

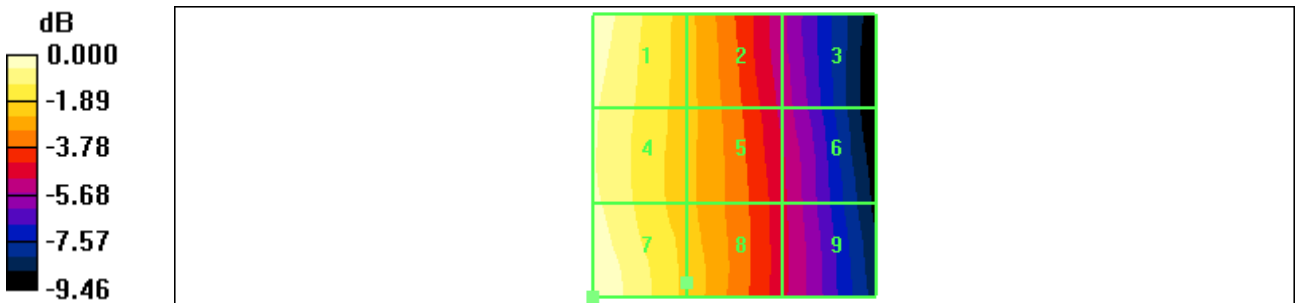
- DASY4 Configuration:
- Probe: H3DV6 - SN6101; ; Calibrated: 2011-05-18
  - Sensor-Surface: (Fix Surface)
  - Electronics: DAE4 Sn614; Calibrated: 2011-09-27
  - Phantom: HAC Test Arch; Type: SD HAC P01 BA

**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 = 0.095 A/m  
 Probe Modulation Factor = 0.865  
 Device Reference Point: 0.000, 0.000, 354.7 mm  
 Reference Value = 0.082 A/m; Power Drift = 0.014 dB  
**Hearing Aid Near-Field Category: M4 (AWF 0 dB)**

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.093 M4	0.073 M4	0.052 M4
Grid 4	Grid 5	Grid 6
0.090 M4	0.073 M4	0.054 M4
Grid 7	Grid 8	Grid 9
0.095 M4	0.075 M4	0.055 M4

**Cursor:**  
 Total = 0.095 A/m  
 H Category: M4  
 Location: 25, 25, 370.9 mm



0 dB = 0.095A/m



Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.4 °C /384

Test Date Feb. 20, 2012

**DUT: ADR910L; Type: Bar; Serial: #1**

Communication System: CDMA 835MHz FCC; Frequency: 836.52 MHz;Duty Cycle: 1:1  
 Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1$  kg/m<sup>3</sup>  
 Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

- DASY4 Configuration:
- Probe: H3DV6 - SN6101; ; Calibrated: 2011-05-18
  - Sensor-Surface: (Fix Surface)
  - Electronics: DAE4 Sn614; Calibrated: 2011-09-27
  - Phantom: HAC Test Arch; Type: SD HAC P01 BA

**H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):**

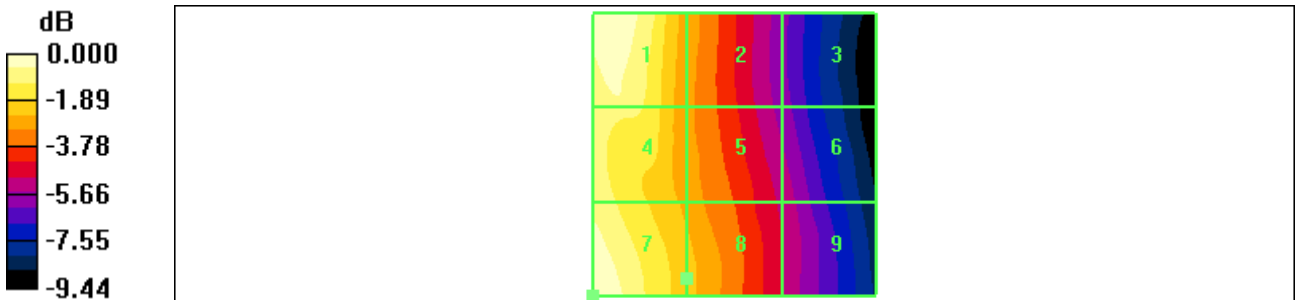
Measurement grid: dx=5mm, dy=5mm  
 Maximum value of peak Total field = 0.082 A/m  
 Probe Modulation Factor = 0.865  
 Device Reference Point: 0.000, 0.000, 354.7 mm  
 Reference Value = 0.064 A/m; Power Drift = 0.418 dB  
**Hearing Aid Near-Field Category: M4 (AWF 0 dB)**

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.080 M4	0.060 M4	0.041 M4
Grid 4	Grid 5	Grid 6
0.075 M4	0.060 M4	0.045 M4
Grid 7	Grid 8	Grid 9
0.082 M4	0.063 M4	0.046 M4

**Cursor:**

Total = 0.082 A/m  
 H Category: M4  
 Location: 25, 25, 370.9 mm



0 dB = 0.082A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.4 °C /777

Test Date Feb. 20, 2012

**DUT: ADR910L; Type: Bar; Serial: #1**

Communication System: CDMA 835MHz FCC; Frequency: 848.31 MHz;Duty Cycle: 1:1  
 Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1$  kg/m<sup>3</sup>  
 Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2011-05-18
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn614; Calibrated: 2011-09-27
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

**H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):**

Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.085 A/m

Probe Modulation Factor = 0.865

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 0.065 A/m; Power Drift = -0.075 dB

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

Peak H-field in A/m

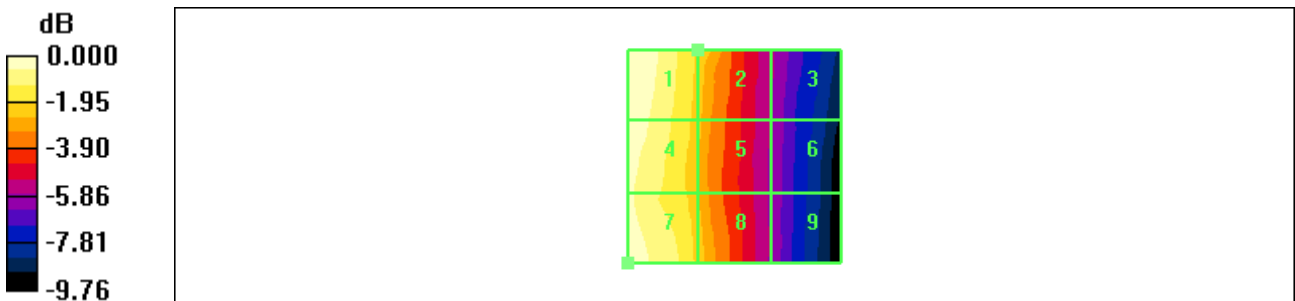
Grid 1	Grid 2	Grid 3
<b>0.085 M4</b>	<b>0.067 M4</b>	<b>0.044 M4</b>
Grid 4	Grid 5	Grid 6
<b>0.081 M4</b>	<b>0.065 M4</b>	<b>0.043 M4</b>
Grid 7	Grid 8	Grid 9
<b>0.085 M4</b>	<b>0.066 M4</b>	<b>0.043 M4</b>

**Cursor:**

Total = 0.085 A/m

H Category: M4

Location: 25, 25, 370.9 mm



0 dB = 0.085A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.4 °C /25

Test Date Feb. 20, 2012

**DUT: ADR910L; Type: Bar; Serial: #1**

Communication System: PCS 1900MHz FCC; Frequency: 1851.25 MHz;Duty Cycle: 1:1  
 Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1$  kg/m<sup>3</sup>  
 Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2011-05-18
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn614; Calibrated: 2011-09-27
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

**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 = 0.072 A/m

Probe Modulation Factor = 0.773

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 0.090 A/m; Power Drift = -0.770 dB

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

Peak H-field in A/m

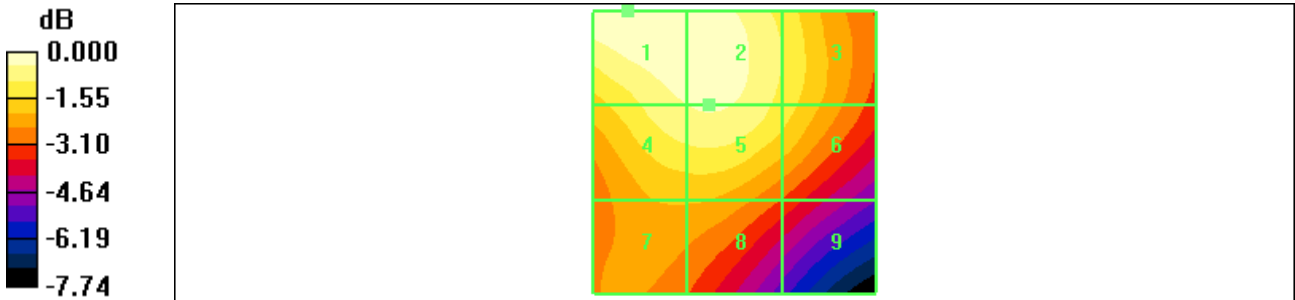
Grid 1	Grid 2	Grid 3
<b>0.072 M4</b>	<b>0.071 M4</b>	<b>0.064 M4</b>
Grid 4	Grid 5	Grid 6
<b>0.068 M4</b>	<b>0.068 M4</b>	<b>0.062 M4</b>
Grid 7	Grid 8	Grid 9
<b>0.057 M4</b>	<b>0.057 M4</b>	<b>0.050 M4</b>

**Cursor:**

Total = 0.072 A/m

H Category: M4

Location: 19, -25, 370.9 mm



0 dB = 0.072A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.4 °C /600

Test Date Feb. 20, 2012

**DUT: ADR910L; Type: Bar; Serial: #1**

Communication System: PCS 1900MHz FCC; Frequency: 1880 MHz;Duty Cycle: 1:1  
 Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1$  kg/m<sup>3</sup>  
 Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

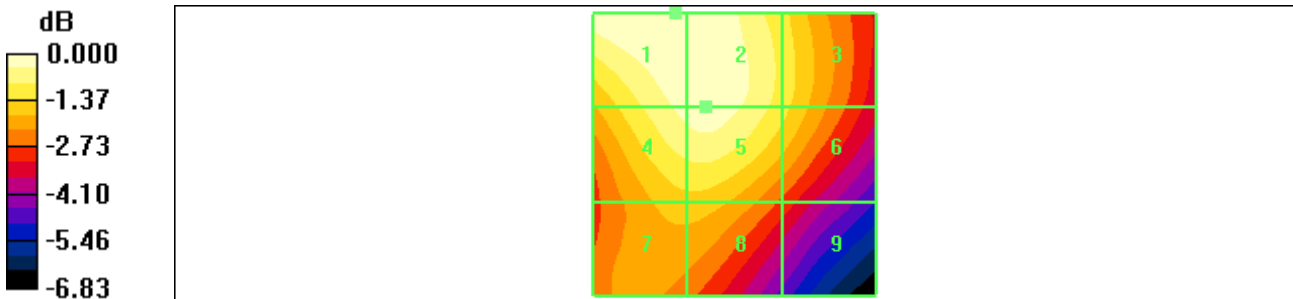
- DASY4 Configuration:
- Probe: H3DV6 - SN6101; ; Calibrated: 2011-05-18
  - Sensor-Surface: (Fix Surface)
  - Electronics: DAE4 Sn614; Calibrated: 2011-09-27
  - Phantom: HAC Test Arch; Type: SD HAC P01 BA

**H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):**  
 Measurement grid: dx=5mm, dy=5mm  
 Maximum value of peak Total field = 0.085 A/m  
 Probe Modulation Factor = 0.773  
 Device Reference Point: 0.000, 0.000, 354.7 mm  
 Reference Value = 0.110 A/m; Power Drift = -0.591 dB  
**Hearing Aid Near-Field Category: M4 (AWF 0 dB)**

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.085 M4	0.085 M4	0.075 M4
Grid 4	Grid 5	Grid 6
0.082 M4	0.083 M4	0.074 M4
Grid 7	Grid 8	Grid 9
0.071 M4	0.071 M4	0.061 M4

**Cursor:**  
 Total = 0.085 A/m  
 H Category: M4  
 Location: 10.5, -25, 370.9 mm



0 dB = 0.085A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.4 °C /1175

Test Date Feb. 20, 2012

**DUT: ADR910L; Type: Bar; Serial: #1**

Communication System: PCS 1900MHz FCC; Frequency: 1908.75 MHz;Duty Cycle: 1:1  
 Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1$  kg/m<sup>3</sup>  
 Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2011-05-18
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn614; Calibrated: 2011-09-27
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

**H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):**

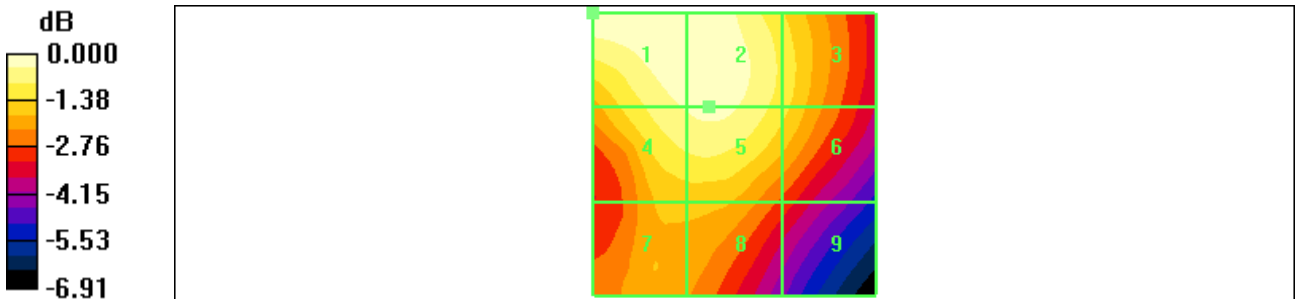
Measurement grid: dx=5mm, dy=5mm  
 Maximum value of peak Total field = 0.083 A/m  
 Probe Modulation Factor = 0.773  
 Device Reference Point: 0.000, 0.000, 354.7 mm  
 Reference Value = 0.100 A/m; Power Drift = 0.693 dB  
**Hearing Aid Near-Field Category: M4 (AWF 0 dB)**

Peak H-field in A/m

Grid 1 <b>0.083 M4</b>	Grid 2 <b>0.082 M4</b>	Grid 3 <b>0.074 M4</b>
Grid 4 <b>0.079 M4</b>	Grid 5 <b>0.080 M4</b>	Grid 6 <b>0.072 M4</b>
Grid 7 <b>0.069 M4</b>	Grid 8 <b>0.069 M4</b>	Grid 9 <b>0.059 M4</b>

**Cursor:**

Total = 0.083 A/m  
 H Category: M4  
 Location: 25, -25, 370.9 mm



0 dB = 0.083A/m