

APPENDIX A. HAC TEST PLOTS

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.4 °C /1013

Test Date Feb.9, 2008

DUT: CDM7176; Type: Folder; 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/m³

Phantom section: E Device Section ; Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2007-06-25

- Sensor-Surface: (Fix Surface)

- Electronics: DAE4 Sn447; Calibrated: 2007-09-13

- Phantom: HAC Test Arch; Type: SD HAC P01 BA

E Scan 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid:

dx=5mm, dy=5mm

Maximum value of peak Total field = 44.0 V/m

Probe Modulation Factor = 0.951

Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 46.6 V/m; Power Drift = 0.165 dB

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

Peak E-field in V/m

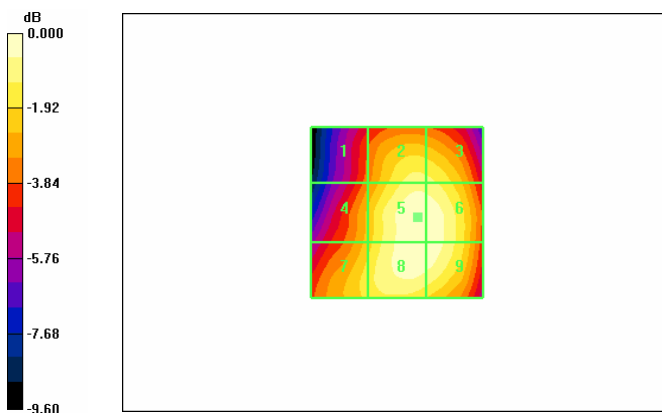
Grid 1	Grid 2	Grid 3
29.8 M4	39.7 M4	39.3 M4
Grid 4	Grid 5	Grid 6
34.0 M4	44.0 M4	43.7 M4
Grid 7	Grid 8	Grid 9
36.7 M4	43.9 M4	43.5 M4

Cursor:

Total = 44.0 V/m

E Category: M4

Location: -6, 1.5, 364.8 mm



0 dB = 44.0V/m

Test Laboratory: HCT CO., LTD.
Ambient Temperature / Channel 21.4 °C /384
Test Date Feb.9, 2008

DUT: CDM7176; Type: Folder; 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/m³
Phantom section: E Device Section ; Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2007-06-25
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn447; Calibrated: 2007-09-13
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

E Scan 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid:
dx=5mm, dy=5mm

Maximum value of peak Total field = 43.8 V/m

Probe Modulation Factor = 0.951

Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 47.2 V/m; Power Drift = -0.005 dB

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

Peak E-field in V/m

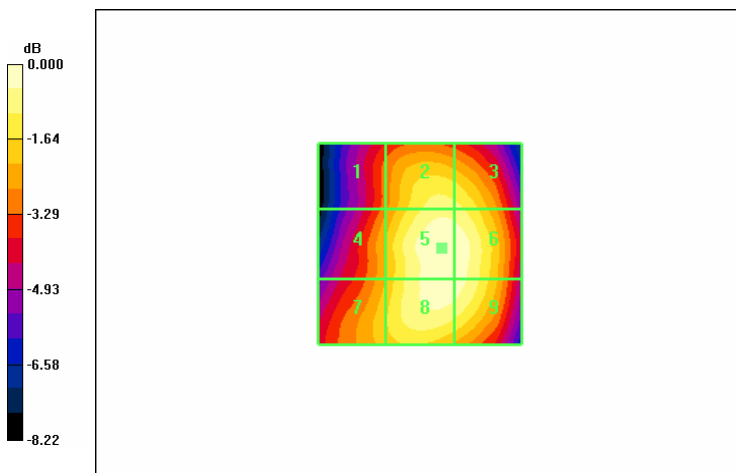
Grid 1	Grid 2	Grid 3
31.4 M4	40.2 M4	39.7 M4
Grid 4	Grid 5	Grid 6
34.4 M4	43.8 M4	43.4 M4
Grid 7	Grid 8	Grid 9
36.0 M4	43.1 M4	42.6 M4

Cursor:

Total = 43.8 V/m

E Category: M4

Location: -5.5, 1, 364.8 mm



0 dB = 43.8V/m

Test Laboratory: HCT CO., LTD.
Ambient Temperature / Channel 21.4 °C /777
Test Date Feb.9, 2008

DUT: CDM7176; Type: Folder; 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/m³
Phantom section: E Device Section ; Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2007-06-25
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn447; Calibrated: 2007-09-13
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

E Scan 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid:
dx=5mm, dy=5mm

Maximum value of peak Total field = 49.0 V/m

Probe Modulation Factor = 0.951

Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 53.6 V/m; Power Drift = -0.010 dB

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

Peak E-field in V/m

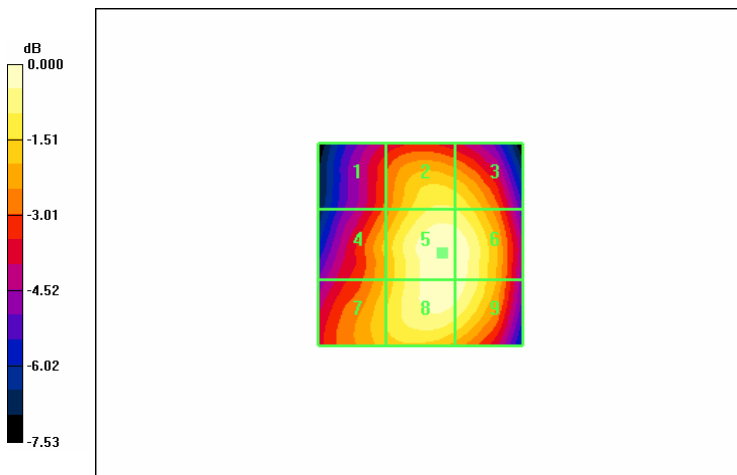
Grid 1	Grid 2	Grid 3
35.7 M4	44.4 M4	43.9 M4
Grid 4	Grid 5	Grid 6
39.8 M4	49.0 M4	48.6 M4
Grid 7	Grid 8	Grid 9
41.3 M4	48.8 M4	48.1 M4

Cursor:

Total = 49.0 V/m

E Category: M4

Location: -5.5, 2, 364.8 mm



0 dB = 49.0V/m

Test Laboratory: HCT CO., LTD.
Ambient Temperature / Channel 21.4 °C /25
Test Date Feb.9, 2008

DUT: CDM7176; Type: Folder; 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/m³
Phantom section: E Device Section ; Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2007-06-25
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn447; Calibrated: 2007-09-13
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

E Scan 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid:

dx=5mm, dy=5mm

Maximum value of peak Total field = 68.3 V/m

Probe Modulation Factor = 0.964

Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 65.8 V/m; Power Drift = -0.146 dB

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

Peak E-field in V/m

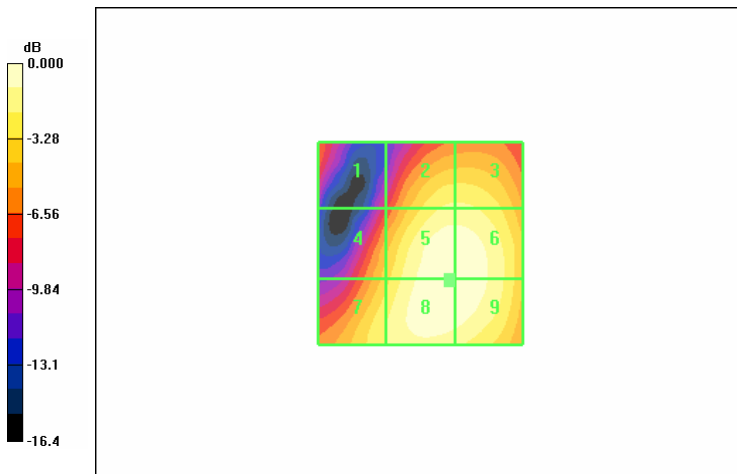
Grid 1	Grid 2	Grid 3
32.4 M4	55.2 M4	55.2 M4
Grid 4	Grid 5	Grid 6
44.3 M4	68.3 M3	68.1 M3
Grid 7	Grid 8	Grid 9
53.5 M4	68.3 M3	68.1 M3

Cursor:

Total = 68.3 V/m

E Category: M3

Location: -7, 9.5, 364.8 mm



0 dB = 68.3V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.4 °C /600

Test Date Feb.9, 2008

DUT: CDM7176; Type: Folder; 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/m³

Phantom section: E Device Section ; Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2007-06-25

- Sensor-Surface: (Fix Surface)

- Electronics: DAE4 Sn447; Calibrated: 2007-09-13

- Phantom: HAC Test Arch; Type: SD HAC P01 BA

E Scan 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid:

dx=5mm, dy=5mm

Maximum value of peak Total field = 63.5 V/m

Probe Modulation Factor = 0.964

Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 55.3 V/m; Power Drift = 0.168 dB

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

Peak E-field in V/m

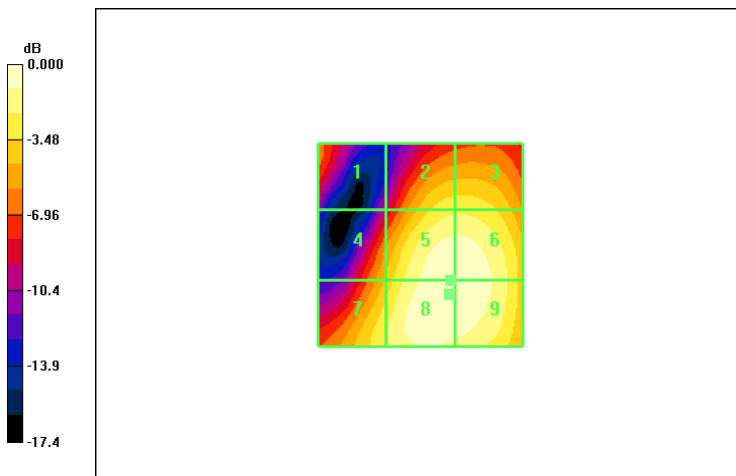
Grid 1	Grid 2	Grid 3
31.3 M4	47.3 M4	47.5 M4
Grid 4	Grid 5	Grid 6
38.4 M4	63.0 M4	62.9 M4
Grid 7	Grid 8	Grid 9
48.5 M4	63.5 M3	63.3 M3

Cursor:

Total = 63.5 V/m

E Category: M3

Location: -7, 12, 364.8 mm



0 dB = 63.5V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.4 °C /1175

Test Date Feb.9, 2008

DUT: CDM7176; Type: Folder; 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/m³

Phantom section: E Device Section ; Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2007-06-25

- Sensor-Surface: (Fix Surface)

- Electronics: DAE4 Sn447; Calibrated: 2007-09-13

- Phantom: HAC Test Arch; Type: SD HAC P01 BA

E Scan 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid:

dx=5mm, dy=5mm

Maximum value of peak Total field = 57.8 V/m

Probe Modulation Factor = 0.964

Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 51.8 V/m; Power Drift = -0.034 dB

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

Peak E-field in V/m

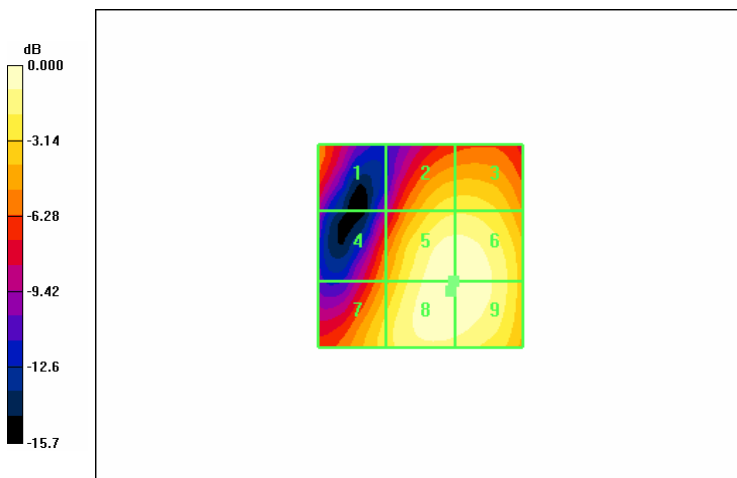
Grid 1	Grid 2	Grid 3
30.7 M4	44.6 M4	44.8 M4
Grid 4	Grid 5	Grid 6
34.0 M4	57.5 M4	57.5 M4
Grid 7	Grid 8	Grid 9
43.2 M4	57.8 M4	57.7 M4

Cursor:

Total = 57.8 V/m

E Category: M4

Location: -7.5, 11, 364.8 mm



0 dB = 57.8V/m

Test Laboratory: HCT CO., LTD.
Ambient Temperature / Channel 21.4 °C /1013
Test Date Feb.9, 2008

DUT: CDM7176; Type: Folder; 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/m³
Phantom section: H Device Section ; Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2007-07-25
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn447; Calibrated: 2007-09-13
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

H Scan 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid:
dx=5mm, dy=5mm

Maximum value of peak Total field = 0.077 A/m

Probe Modulation Factor = 0.869

Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.055 A/m; Power Drift = 0.135 dB

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

Peak H-field in A/m

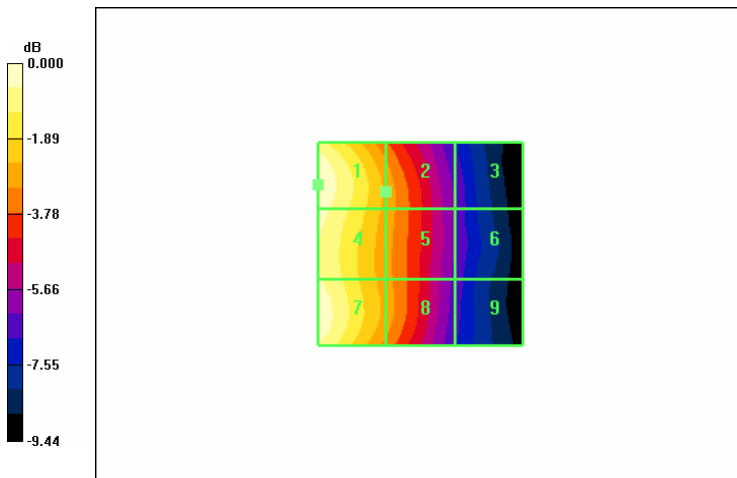
Grid 1 0.077 M4	Grid 2 0.057 M4	Grid 3 0.037 M4
Grid 4 0.074 M4	Grid 5 0.056 M4	Grid 6 0.037 M4
Grid 7 0.075 M4	Grid 8 0.056 M4	Grid 9 0.037 M4

Cursor:

Total = 0.077 A/m

H Category: M4

Location: 25, -14.5, 365.6 mm



0 dB = 0.077A/m

Test Laboratory: HCT CO., LTD.
Ambient Temperature / Channel 21.4 °C /384
Test Date Feb.9, 2008

DUT: CDM7176; Type: Folder; 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/m³
Phantom section: H Device Section ; Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 176

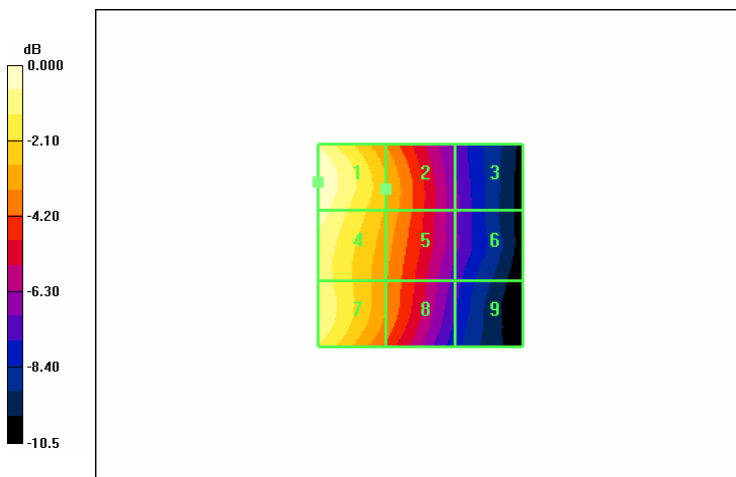
DASY4 Configuration:
- Probe: H3DV6 - SN6101; ; Calibrated: 2007-07-25
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn447; Calibrated: 2007-09-13
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

H Scan 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid:
dx=5mm, dy=5mm
Maximum value of peak Total field = 0.077 A/m
Probe Modulation Factor = 0.869
Device Reference Point: 0.000, 0.000, 353.7 mm
Reference Value = 0.052 A/m; Power Drift = 0.119 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.077 M4	0.056 M4	0.035 M4
Grid 4	Grid 5	Grid 6
0.074 M4	0.055 M4	0.035 M4
Grid 7	Grid 8	Grid 9
0.070 M4	0.052 M4	0.033 M4

Cursor:
Total = 0.077 A/m
H Category: M4
Location: 25, -15.5, 365.6 mm



0 dB = 0.077A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.4 °C /777

Test Date Feb.9, 2008

DUT: CDM7176; Type: Folder; 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/m³

Phantom section: H Device Section ; Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2007-07-25
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn447; Calibrated: 2007-09-13
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

H Scan 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid:

dx=5mm, dy=5mm

Maximum value of peak Total field = 0.078 A/m

Probe Modulation Factor = 0.869

Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.049 A/m; Power Drift = -0.112 dB

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

Peak H-field in A/m

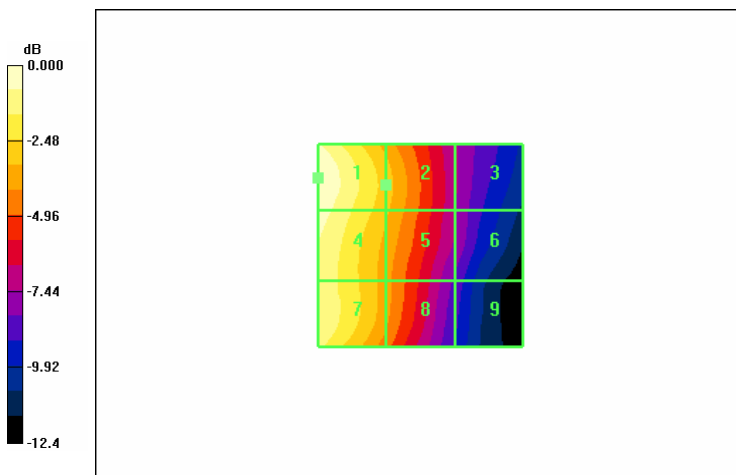
Grid 1	Grid 2	Grid 3
0.078 M4	0.056 M4	0.034 M4
Grid 4	Grid 5	Grid 6
0.075 M4	0.054 M4	0.033 M4
Grid 7	Grid 8	Grid 9
0.071 M4	0.051 M4	0.030 M4

Cursor:

Total = 0.078 A/m

H Category: M4

Location: 25, -16.5, 365.6 mm



0 dB = 0.078A/m

Test Laboratory: HCT CO., LTD.
Ambient Temperature / Channel 21.4 °C /25
Test Date Feb.9, 2008

DUT: CDM7176; Type: Folder; 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/m³
Phantom section: H Device Section ; Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:
- Probe: H3DV6 - SN6101; ; Calibrated: 2007-07-25
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn447; Calibrated: 2007-09-13
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

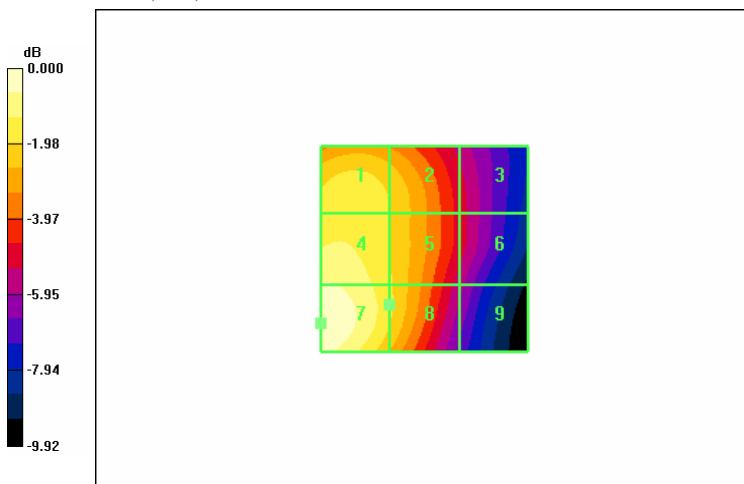
H Scan 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid:
dx=5mm, dy=5mm
Maximum value of peak Total field = 0.144 A/m
Probe Modulation Factor = 0.742
Device Reference Point: 0.000, 0.000, 353.7 mm
Reference Value = 0.141 A/m; Power Drift = -0.047 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.122 M4	0.115 M4	0.082 M4
Grid 4	Grid 5	Grid 6
0.134 M4	0.116 M4	0.082 M4
Grid 7	Grid 8	Grid 9
0.144 M4	0.117 M4	0.075 M4

Cursor:

Total = 0.144 A/m
H Category: M4
Location: 25, 18, 365.6 mm



0 dB = 0.144A/m

Test Laboratory: HCT CO., LTD.
Ambient Temperature / Channel 21.4 °C /600
Test Date Feb.9, 2008

DUT: CDM7176; Type: Folder; 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/m³

Phantom section: H Device Section ; Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2007-07-25
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn447; Calibrated: 2007-09-13
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

H Scan 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.125 A/m

Probe Modulation Factor = 0.742

Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.123 A/m; Power Drift = 0.124 dB

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

Peak H-field in A/m

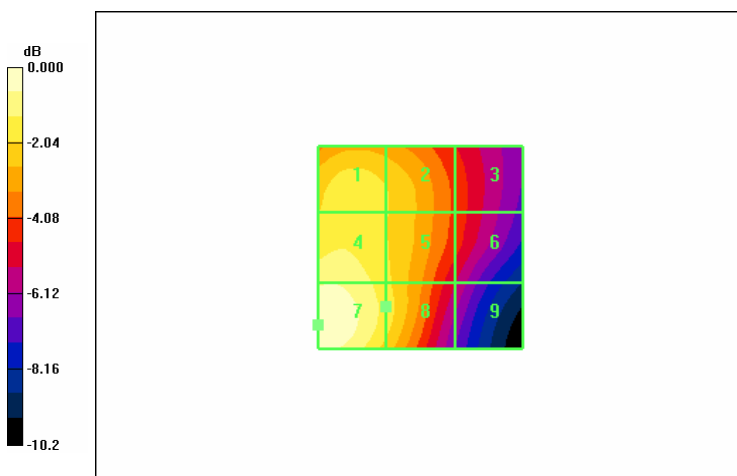
Grid 1	Grid 2	Grid 3
0.104 M4	0.100 M4	0.077 M4
Grid 4	Grid 5	Grid 6
0.115 M4	0.102 M4	0.077 M4
Grid 7	Grid 8	Grid 9
0.125 M4	0.103 M4	0.067 M4

Cursor:

Total = 0.125 A/m

H Category: M4

Location: 25, 19, 365.6 mm



0 dB = 0.125A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.4 °C /1175

Test Date Feb.9, 2008

DUT: CDM7176; Type: Folder; 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/m³

Phantom section: H Device Section ; Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2007-07-25

- Sensor-Surface: (Fix Surface)

- Electronics: DAE4 Sn447; Calibrated: 2007-09-13

- Phantom: HAC Test Arch; Type: SD HAC P01 BA

H Scan 10mm above Device Reference/Hearing Aid Compatibility Test (101x101x1): Measurement grid:

dx=5mm, dy=5mm

Maximum value of peak Total field = 0.123 A/m

Probe Modulation Factor = 0.742

Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.126 A/m; Power Drift = -0.005 dB

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

Peak H-field in A/m

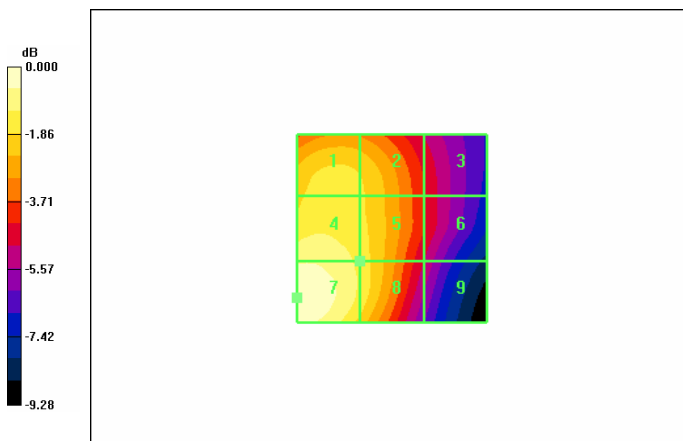
Grid 1	Grid 2	Grid 3
0.103 M4	0.101 M4	0.075 M4
Grid 4	Grid 5	Grid 6
0.114 M4	0.104 M4	0.075 M4
Grid 7	Grid 8	Grid 9
0.123 M4	0.105 M4	0.070 M4

Cursor:

Total = 0.123 A/m

H Category: M4

Location: 25, 18.5, 365.6 mm



0 dB = 0.123A/m