

## **APPENDIX C (DIPOLE VALIDATION)**

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Test Laboratory: HCT CO., LTD.  
 Ambient Temperature: 21.1 °C  
 Test Date: Feb. 15, 2011

**DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial:1024**

Communication System: CW; Frequency: 835 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: 2010-05-20
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn869; Calibrated: 2010-09-21
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

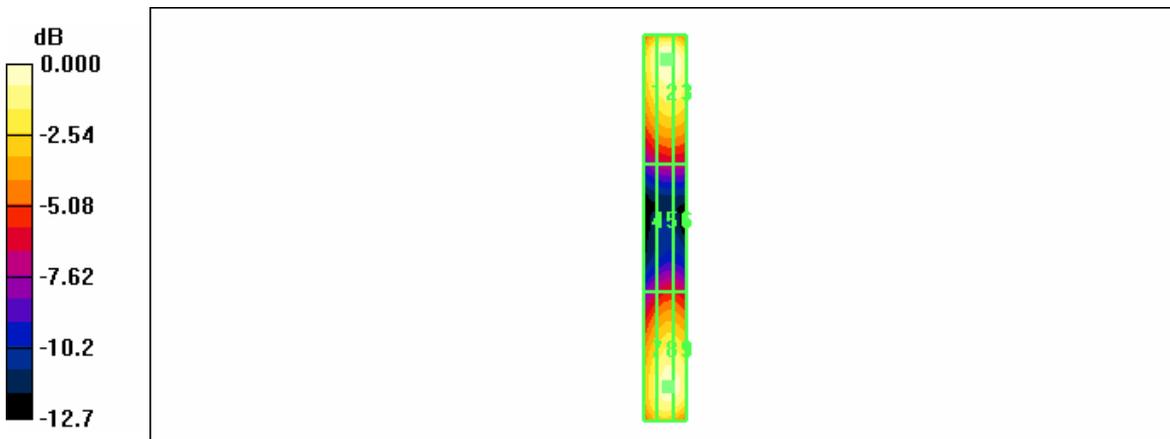
**E Scan 10mm above CD 835 MHz/Hearing Aid Compatibility Test (41x361x1):** Measurement grid: dx=5mm, dy=5mm  
 Maximum value of peak Total field = 168.2 V/m  
 Probe Modulation Factor = 1.00  
 Device Reference Point: 0.000, 0.000, 354.7 mm  
 Reference Value = 130.0 V/m; Power Drift = -0.013 dB  
**Hearing Aid Near-Field Category: M4 (AWF 0 dB)**

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
157.5 M4	168.2 M4	165.8 M4
Grid 4	Grid 5	Grid 6
77.9 M4	85.3 M4	84.9 M4
Grid 7	Grid 8	Grid 9
148.6 M4	162.1 M4	161.1 M4

**Cursor:**

Total = 168.2 V/m  
 E Category: M4  
 Location: -1, -79, 365.8 mm



0 dB = 168.2V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature 21.1 °C

Test Date Feb. 15, 2011

**DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial:1019**

Communication System: CW; 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 Device 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: 2010-05-20

- Sensor-Surface: (Fix Surface)

- Electronics: DAE4 Sn869; Calibrated: 2010-09-21

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

**E Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (41x181x1):** Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 139.4 V/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 74.5 V/m; Power Drift = -0.034 dB

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

Peak E-field in V/m

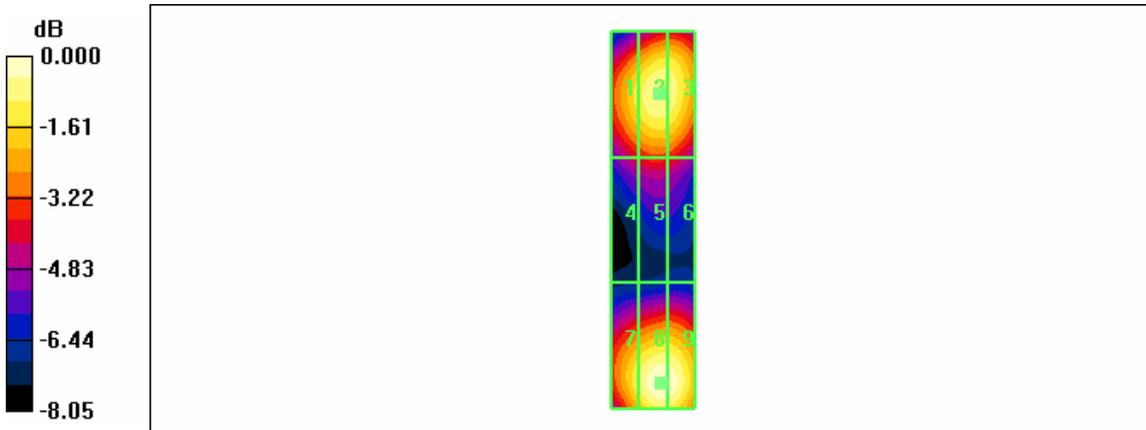
Grid 1 120.0 M2	Grid 2 131.3 M2	Grid 3 129.9 M2
Grid 4 89.2 M3	Grid 5 94.6 M3	Grid 6 92.9 M3
Grid 7 123.4 M2	Grid 8 139.4 M2	Grid 9 138.6 M2

**Cursor:**

Total = 139.4 V/m

E Category: M2

Location: -2, 39, 364.8 mm



0 dB = 139.4V/m

Test Laboratory: HCT CO., LTD.  
 Ambient Temperature: 21.1 °C  
 Test Date: Feb. 15, 2011

**DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial:1024**

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

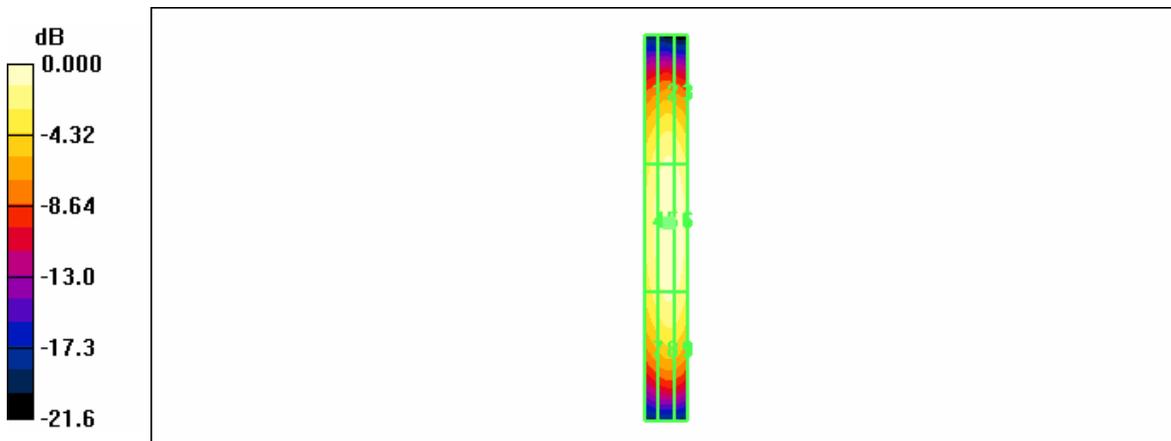
DASY4 Configuration:  
 - Probe: H3DV6 - SN6101; ; Calibrated: 2010-05-27  
 - Sensor-Surface: (Fix Surface)  
 - Electronics: DAE4 Sn869; Calibrated: 2010-09-21  
 - Phantom: HAC Test Arch; Type: SD HAC P01 BA

**H Scan 10mm above CD 835 MHz/Hearing Aid Compatibility Test (41x361x1):** Measurement grid: dx=5mm, dy=5mm  
 Maximum value of peak Total field = 0.453 A/m  
 Probe Modulation Factor = 1.00  
 Device Reference Point: 0.000, 0.000, 354.7 mm  
 Reference Value = 0.565 A/m; Power Drift = -0.028 dB  
**Hearing Aid Near-Field Category: M4 (AWF 0 dB)**

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.366 M4	0.398 M4	0.392 M4
Grid 4	Grid 5	Grid 6
0.413 M4	0.453 M4	0.446 M4
Grid 7	Grid 8	Grid 9
0.365 M4	0.403 M4	0.396 M4

**Cursor:**  
 Total = 0.453 A/m  
 H Category: M4  
 Location: -1.5, -2.5, 366.6 mm



0 dB = 0.453A/m

Test Laboratory: HCT CO., LTD.  
 Ambient Temperature 21.1 °C  
 Test Date Feb. 15, 2011

**DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial:1019**

Communication System: CW; 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: H Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

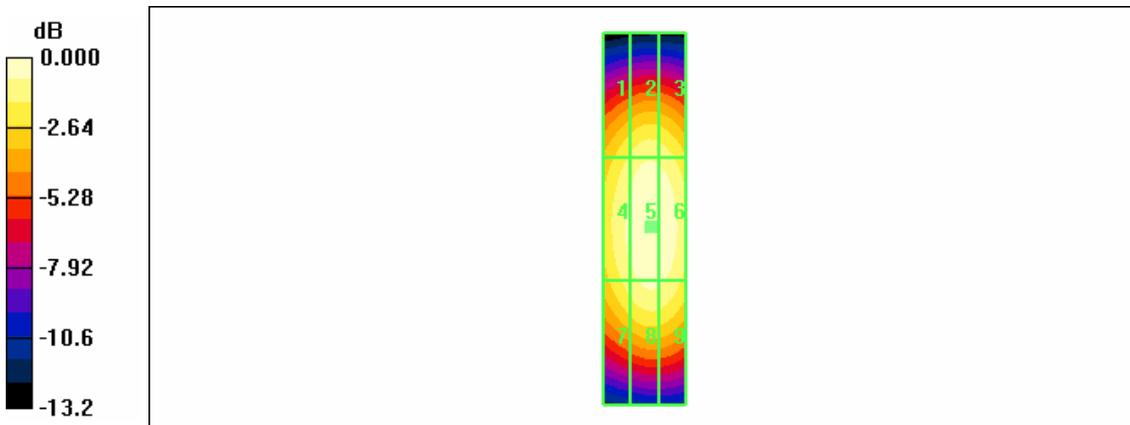
DASY4 Configuration:  
 - Probe: H3DV6 - SN6101; ; Calibrated: 2010-05-27  
 - Sensor-Surface: (Fix Surface)  
 - Electronics: DAE4 Sn869; Calibrated: 2010-09-21  
 - Phantom: HAC Test Arch; Type: SD HAC P01 BA

**H Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (41x181x1):** Measurement grid: dx=5mm, dy=5mm  
 Maximum value of peak Total field = 0.452 A/m  
 Probe Modulation Factor = 1.00  
 Device Reference Point: 0.000, 0.000, 354.7 mm  
 Reference Value = 0.539 A/m; Power Drift = 0.003 dB  
**Hearing Aid Near-Field Category: M2 (AWF 0 dB)**

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.374 M2	0.402 M2	0.397 M2
Grid 4	Grid 5	Grid 6
0.421 M2	0.452 M2	0.447 M2
Grid 7	Grid 8	Grid 9
0.390 M2	0.421 M2	0.416 M2

**Cursor:**  
 Total = 0.452 A/m  
 H Category: M2  
 Location: -1.5, 2, 366.6 mm



0 dB = 0.452A/m