

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

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Test Laboratory: HCT CO., LTD.  
 Ambient Temperature: 21.6 °C  
 Test Date: Jan.25, 2010

**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 176

**DASY4 Configuration:**

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2009-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn466; Calibrated: 2009-07-21
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

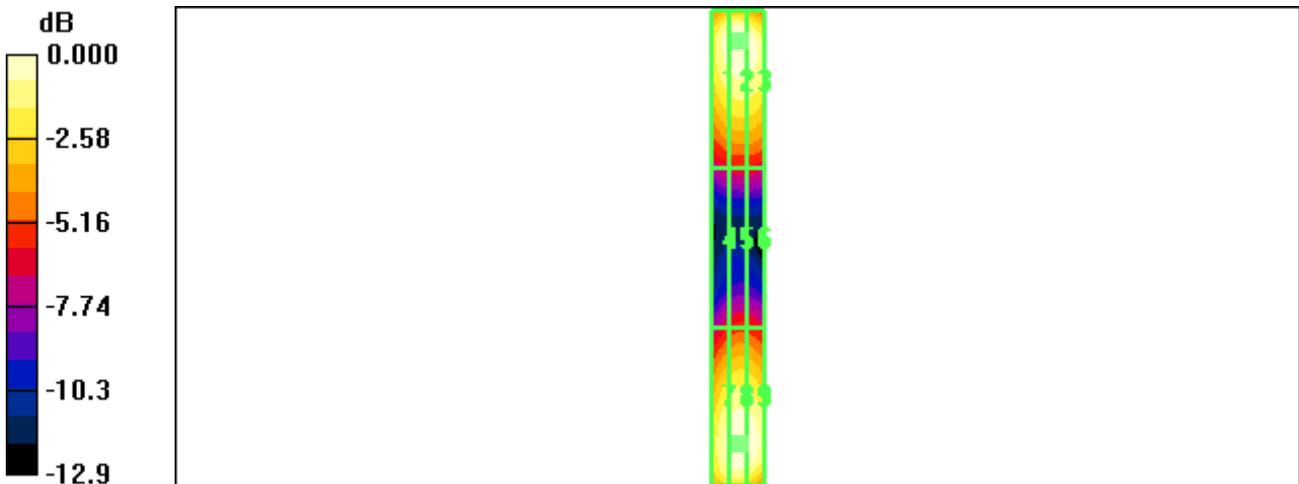
**E Scan 10mm above CD 835 MHz/Hearing Aid Compatibility Test (41x361x1):** Measurement grid: dx=5mm, dy=5mm  
 Maximum value of peak Total field = 158.8 V/m  
 Probe Modulation Factor = 1.00  
 Device Reference Point: 0.000, 0.000, 354.7 mm  
 Reference Value = 127.5 V/m; Power Drift = 0.001 dB  
**Hearing Aid Near-Field Category: M4 (AWF 0 dB)**

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
152.4 M4	158.8 M4	155.9 M4
Grid 4	Grid 5	Grid 6
79.4 M4	84.1 M4	83.3 M4
Grid 7	Grid 8	Grid 9
151.1 M4	158.6 M4	156.9 M4

**Cursor:**

Total = 158.8 V/m  
 E Category: M4  
 Location: -0.5, -78, 365.8 mm



0 dB = 158.8V/m

Test Laboratory: HCT CO., LTD.  
 Ambient Temperature: 21.6 °C  
 Test Date: Jan.25, 2010

**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 Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 176

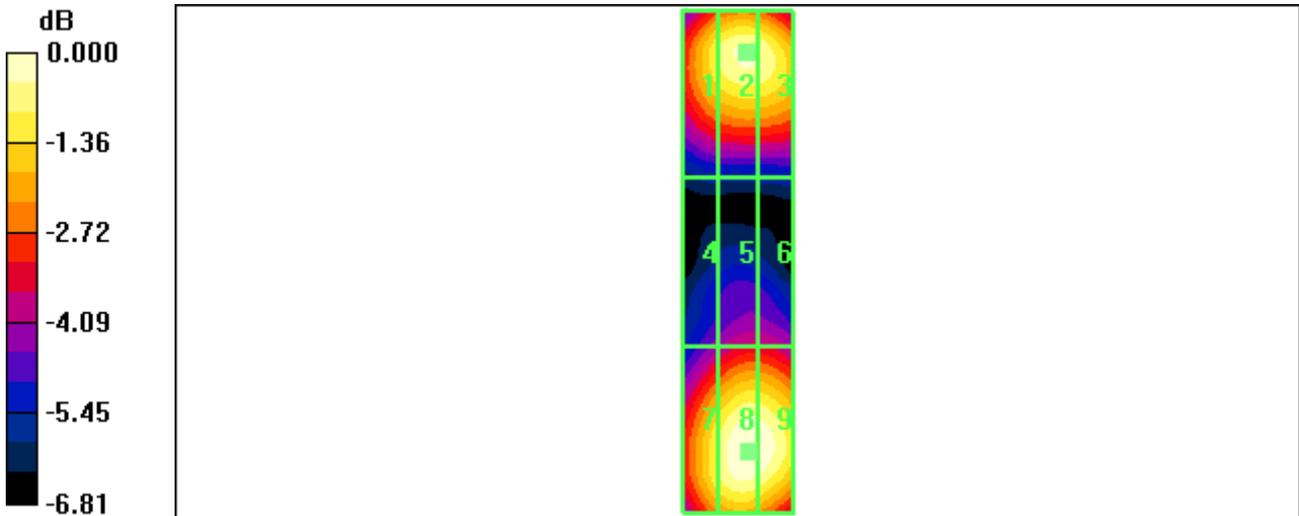
DASY4 Configuration:  
 - Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2009-05-22  
 - Sensor-Surface: (Fix Surface)  
 - Electronics: DAE3 Sn466; Calibrated: 2009-07-21  
 - Phantom: HAC Test Arch; Type: SD HAC P01 BA

**E Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (41x181x1):** Measurement grid: dx=5mm, dy=5mm  
 Maximum value of peak Total field = 140.7 V/m  
 Probe Modulation Factor = 1.00  
 Device Reference Point: 0.000, 0.000, 354.7 mm  
 Reference Value = 167.5 V/m; Power Drift = -0.030 dB  
**Hearing Aid Near-Field Category: M2 (AWF 0 dB)**

Peak E-field in V/m

Grid 1 126.9 M2	Grid 2 135.6 M2	Grid 3 134.0 M2
Grid 4 86.6 M3	Grid 5 93.9 M3	Grid 6 93.9 M3
Grid 7 128.7 M2	Grid 8 140.7 M2	Grid 9 139.8 M2

**Cursor:**  
 Total = 140.7 V/m  
 E Category: M2  
 Location: -2, 34, 365.8 mm



0 dB = 140.7V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature 21.6 °C

Test Date Jan.25, 2010

**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 176

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2009-05-22

- Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn466; Calibrated: 2009-07-21

- 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 = 0.452 A/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 0.564 A/m; Power Drift = -0.010 dB

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

Peak H-field in A/m

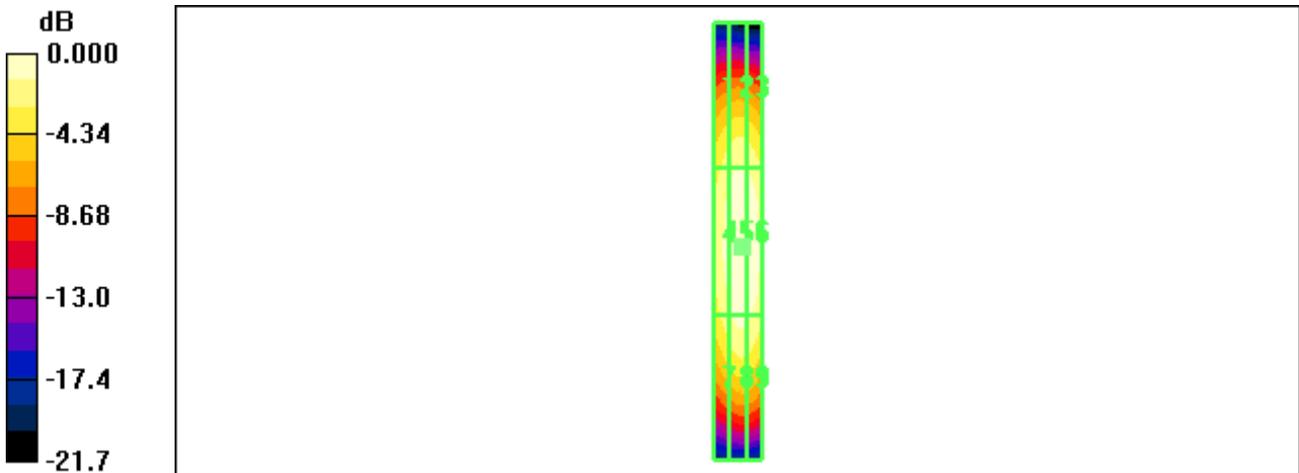
Grid 1	Grid 2	Grid 3
0.362 M4	0.388 M4	0.382 M4
Grid 4	Grid 5	Grid 6
0.415 M4	0.452 M4	0.445 M4
Grid 7	Grid 8	Grid 9
0.370 M4	0.406 M4	0.400 M4

**Cursor:**

Total = 0.452 A/m

H Category: M4

Location: -1.5, 2, 366.6 mm



0 dB = 0.452A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature 21.6 °C

Test Date Jan.25, 2010

**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 176

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2009-05-22

- Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn466; Calibrated: 2009-07-21

- 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 = 0.465 A/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 0.568 A/m; Power Drift = -0.044 dB

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

Peak H-field in A/m

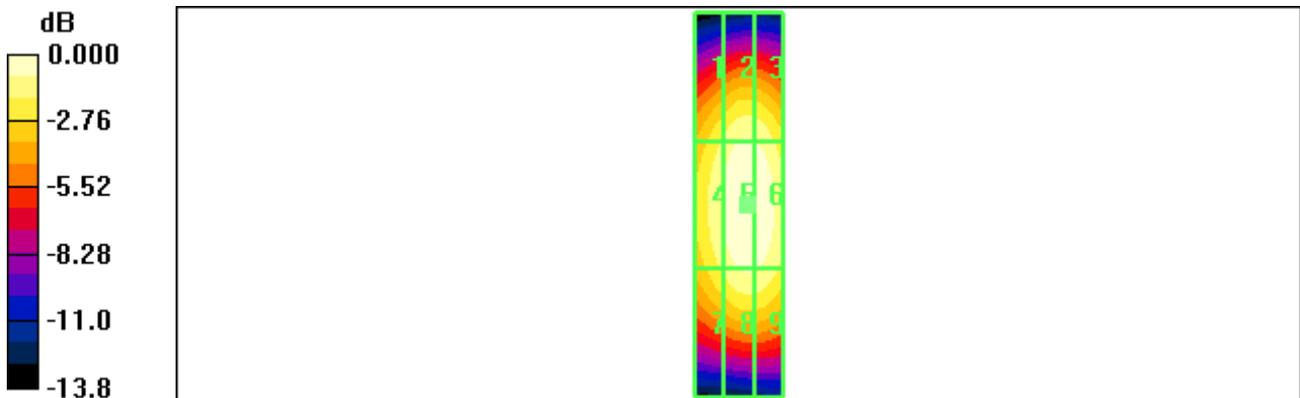
Grid 1	Grid 2	Grid 3
0.383 M2	0.423 M2	0.420 M2
Grid 4	Grid 5	Grid 6
0.422 M2	0.465 M2	0.462 M2
Grid 7	Grid 8	Grid 9
0.385 M2	0.424 M2	0.422 M2

**Cursor:**

Total = 0.465 A/m

H Category: M2

Location: -2, 0, 366.6 mm



0 dB = 0.465A/m