

## APPENDIX C (DIPOLE VALIDATION)

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Test Laboratory: HCT CO., LTD.  
 Ambient Temperature: 21.5 °C  
 Test Date: Nov.17, 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 184

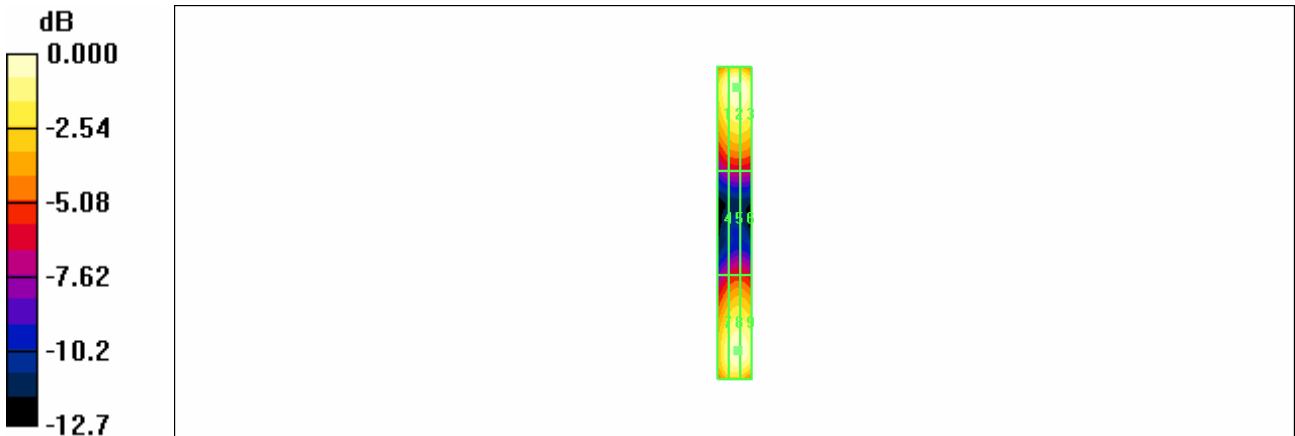
DASY4 Configuration:  
 - Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2010-05-20  
 - Sensor-Surface: (Fix Surface)  
 - Electronics: DAE3 Sn466; Calibrated: 2010-07-21  
 - Phantom: HAC Test Arch; Type: SD HAC P01 BA

**E Scan 10mm above CD 835 MHz/Hearing Aid Compatibility Test (41x361x1):** Measurement grid: dx=5mm, dy=5mm  
 Maximum value of peak Total field = 164.0 V/m  
 Probe Modulation Factor = 1.00  
 Device Reference Point: 0.000, 0.000, 354.7 mm  
 Reference Value = 128.6 V/m; Power Drift = -0.004 dB  
**Hearing Aid Near-Field Category: M4 (AWF 0 dB)**

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
154.4 M4	164.0 M4	161.5 M4
Grid 4	Grid 5	Grid 6
77.1 M4	84.7 M4	84.2 M4
Grid 7	Grid 8	Grid 9
147.6 M4	161.7 M4	160.8 M4

**Cursor:**  
 Total = 164.0 V/m  
 E Category: M4  
 Location: -1, -78.5, 365.8 mm



0 dB = 164.0V/m

Test Laboratory: HCT CO., LTD.  
 Ambient Temperature 21.5 °C  
 Test Date Nov.17, 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 184

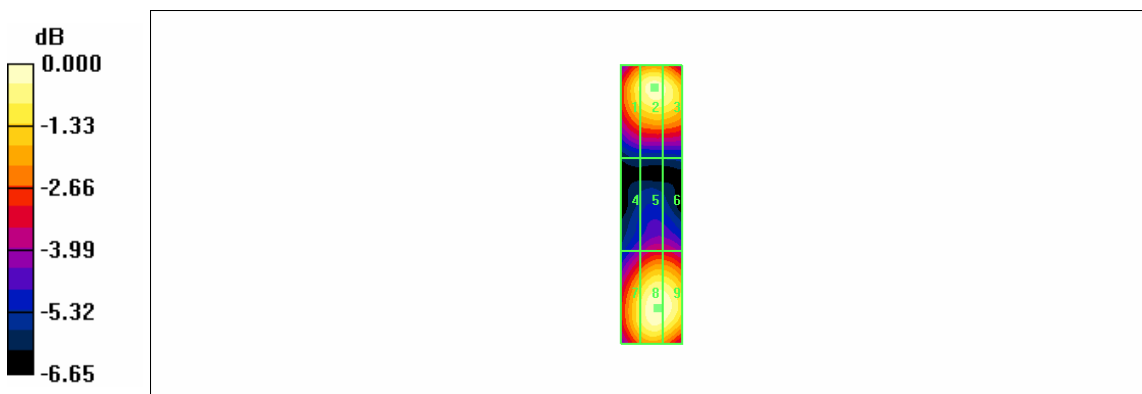
DASY4 Configuration:  
 - Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2010-05-20  
 - Sensor-Surface: (Fix Surface)  
 - Electronics: DAE3 Sn466; Calibrated: 2010-07-21  
 - Phantom: HAC Test Arch; Type: SD HAC P01 BA

**E Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (41x181x1):** Measurement grid: dx=5mm, dy=5mm  
 Maximum value of peak Total field = 143.1 V/m  
 Probe Modulation Factor = 1.00  
 Device Reference Point: 0.000, 0.000, 354.7 mm  
 Reference Value = 169.3 V/m; Power Drift = 0.003 dB  
**Hearing Aid Near-Field Category: M2 (AWF 0 dB)**

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
132.0 M2	140.6 M2	138.5 M2
Grid 4	Grid 5	Grid 6
88.7 M3	96.6 M3	96.5 M3
Grid 7	Grid 8	Grid 9
130.6 M2	143.1 M2	142.3 M2

**Cursor:**  
 Total = 143.1 V/m  
 E Category: M2  
 Location: -2, 33.5, 365.8 mm



0 dB = 143.1V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature 21.5 °C

Test Date Nov.17, 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 184

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2010-05-27
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn466; Calibrated: 2010-07-21
- 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 = 0.470 A/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 0.571 A/m; Power Drift = -0.031 dB

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

Peak H-field in A/m

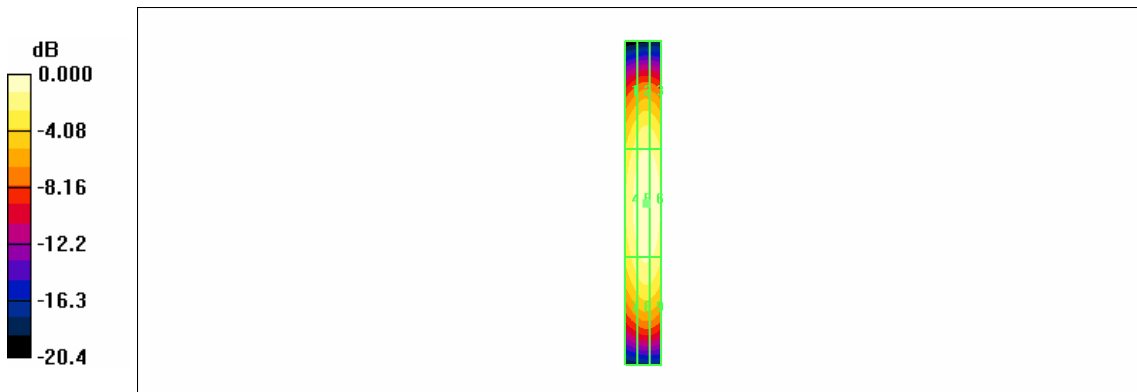
Grid 1 0.374 M4	Grid 2 0.408 M4	Grid 3 0.402 M4
Grid 4 0.433 M4	Grid 5 0.470 M4	Grid 6 0.464 M4
Grid 7 0.384 M4	Grid 8 0.416 M4	Grid 9 0.411 M4

**Cursor:**

Total = 0.470 A/m

H Category: M4

Location: -1.5, 0.5, 366.6 mm



0 dB = 0.470A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature 21.5 °C

Test Date Nov.17, 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 184

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2010-05-27
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn466; Calibrated: 2010-07-21
- 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 = 0.470 A/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 0.559 A/m; Power Drift = 0.040 dB

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

Peak H-field in A/m

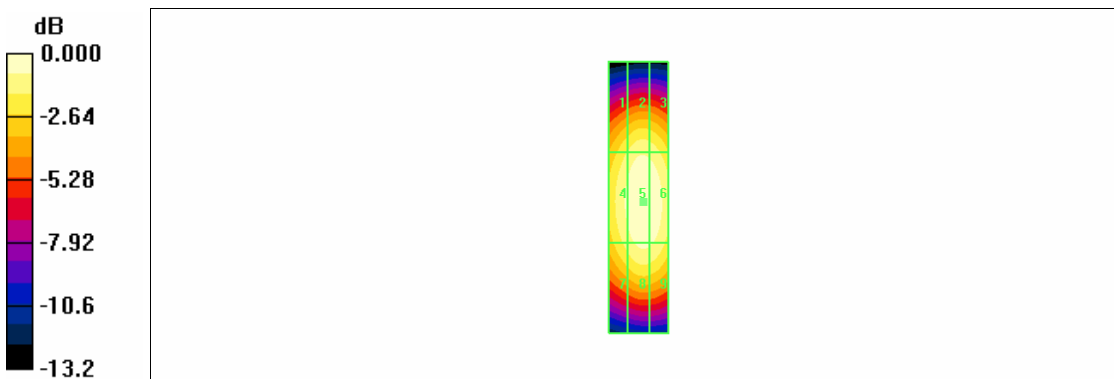
Grid 1	Grid 2	Grid 3
0.388 M2	0.419 M2	0.413 M2
Grid 4	Grid 5	Grid 6
0.437 M2	0.470 M2	0.465 M2
Grid 7	Grid 8	Grid 9
0.404 M2	0.438 M2	0.433 M2

**Cursor:**

Total = 0.470 A/m

H Category: M2

Location: -1.5, 1.5, 366.6 mm



0 dB = 0.470A/m