

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

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Test Laboratory: HCT CO., LTD.  
 Ambient Temperature: 21.4 °C  
 Test Date: Jan.12, 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

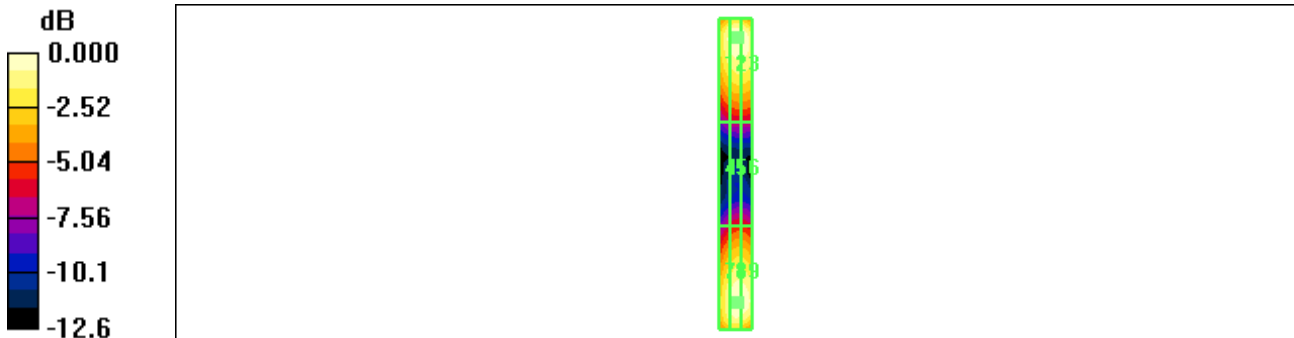
DASY4 Configuration:  
 - Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2011-05-16  
 - Sensor-Surface: (Fix Surface)  
 - Electronics: DAE3 Sn466; Calibrated: 2011-03-01  
 - Phantom: HAC Test Arch; Type: SD HAC P01 BA

**E Scan 10mm above CD 835 MHz/Hearing Aid Compatibility Test (41x361x1):** Measurement grid: dx=5mm, dy=5mm  
 Maximum value of peak Total field = 164.8 V/m  
 Probe Modulation Factor = 1.00  
 Device Reference Point: 0.000, 0.000, 354.7 mm  
 Reference Value = 130.7 V/m; Power Drift = 0.029 dB  
**Hearing Aid Near-Field Category: M4 (AWF 0 dB)**

Peak E-field in V/m

Grid 1 154.9 M4	Grid 2 164.8 M4	Grid 3 163.1 M4
Grid 4 78.5 M4	Grid 5 85.7 M4	Grid 6 85.2 M4
Grid 7 151.0 M4	Grid 8 164.3 M4	Grid 9 163.0 M4

**Cursor:**  
 Total = 164.8 V/m  
 E Category: M4  
 Location: -1, -79, 365.8 mm



0 dB = 164.8V/m

Test Laboratory: HCT CO., LTD.  
 Ambient Temperature 21.4 °C  
 Test Date Jan.12, 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: 2011-05-16
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn466; Calibrated: 2011-03-01
- 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

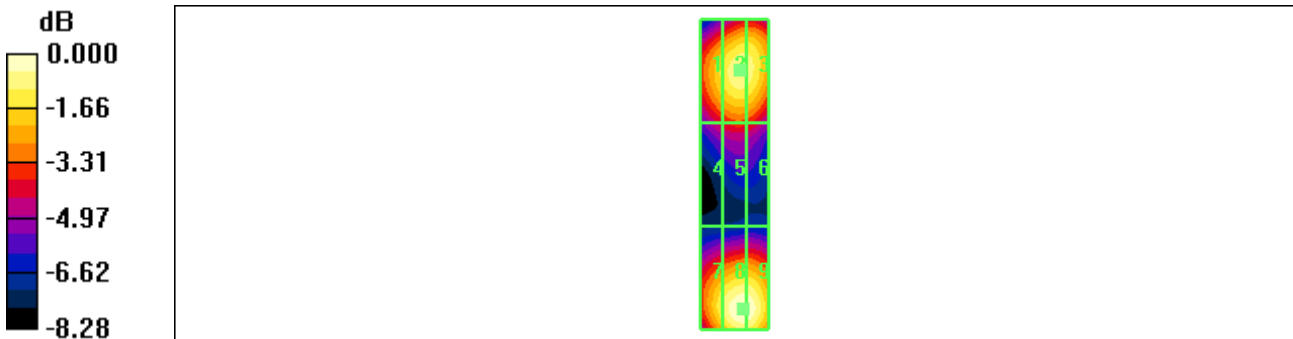
Maximum value of peak Total field = 148.2 V/m  
 Probe Modulation Factor = 1.00  
 Device Reference Point: 0.000, 0.000, 353.7 mm  
 Reference Value = 77.8 V/m; Power Drift = -0.020 dB  
**Hearing Aid Near-Field Category: M2 (AWF 0 dB)**

Peak E-field in V/m

Grid 1 125.4 M2	Grid 2 137.1 M2	Grid 3 136.1 M2
Grid 4 93.2 M3	Grid 5 99.3 M3	Grid 6 97.8 M3
Grid 7 131.3 M2	Grid 8 148.2 M2	Grid 9 147.5 M2

**Cursor:**

Total = 148.2 V/m  
 E Category: M2  
 Location: -2.5, 39, 364.8 mm



0 dB = 148.2V/m

Test Laboratory: HCT CO., LTD.  
 Ambient Temperature: 21.4 °C  
 Test Date: Jan.12, 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

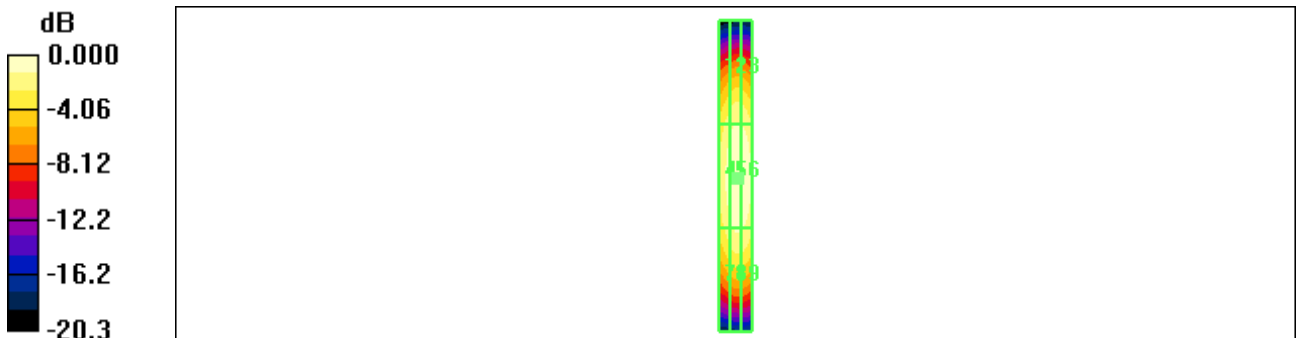
DASY4 Configuration:  
 - Probe: H3DV6 – SN6101; ; Calibrated: 2011-05-18  
 - Sensor–Surface: (Fix Surface)  
 - Electronics: DAE3 Sn466; Calibrated: 2011-03-01  
 - Phantom: HAC Test Arch; Type: SD HAC P01 BA

**H Scan 10mm above CD 835 MHz/Hearing Aid Compatibility Test (41x361x1):** Measurement grid: dx=5mm, dy=5mm  
 Maximum value of peak Total field = 0.488 A/m  
 Probe Modulation Factor = 1.00  
 Device Reference Point: 0.000, 0.000, 354.7 mm  
 Reference Value = 0.597 A/m; Power Drift = -0.078 dB  
**Hearing Aid Near–Field Category: M4 (AWF 0 dB)**

Peak H–field in A/m

Grid 1	Grid 2	Grid 3
0.390 M4	0.423 M4	0.417 M4
Grid 4	Grid 5	Grid 6
0.449 M4	0.488 M4	0.482 M4
Grid 7	Grid 8	Grid 9
0.396 M4	0.431 M4	0.426 M4

**Cursor:**  
 Total = 0.488 A/m  
 H Category: M4  
 Location: -1.5, 1, 366.6 mm



0 dB = 0.488A/m

Test Laboratory: HCT CO., LTD.  
 Ambient Temperature: 21.4 °C  
 Test Date: Jan.12, 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

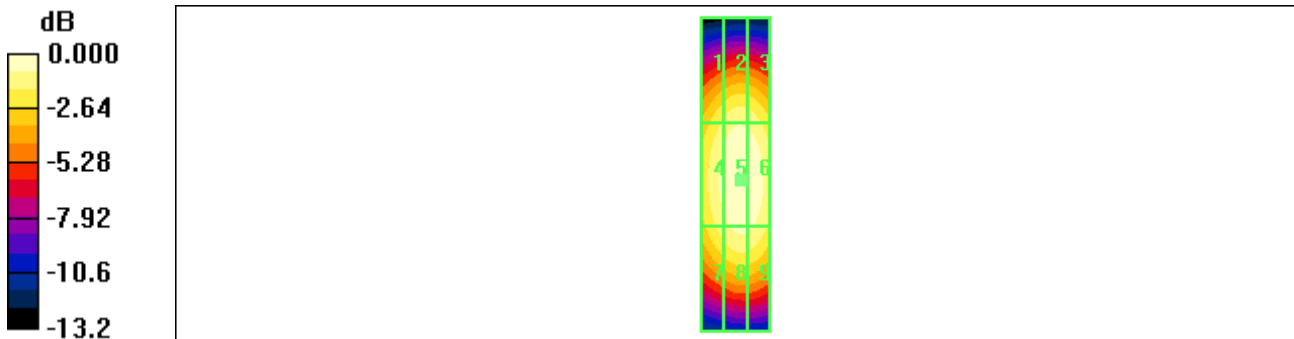
DASY4 Configuration:  
 - Probe: H3DV6 - SN6101; ; Calibrated: 2011-05-18  
 - Sensor-Surface: (Fix Surface)  
 - Electronics: DAE3 Sn466; Calibrated: 2011-03-01  
 - Phantom: HAC Test Arch; Type: SD HAC P01 BA

**H Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (41x181x1):** Measurement grid: dx=5mm, dy=5mm  
 Maximum value of peak Total field = 0.478 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 = 0.016 dB  
**Hearing Aid Near-Field Category: M2 (AWF 0 dB)**

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.396 M2	0.427 M2	0.421 M2
Grid 4	Grid 5	Grid 6
0.445 M2	0.478 M2	0.473 M2
Grid 7	Grid 8	Grid 9
0.413 M2	0.445 M2	0.441 M2

**Cursor:**  
 Total = 0.478 A/m  
 H Category: M2  
 Location: -1.5, 1.5, 366.6 mm



0 dB = 0.478A/m