

Report No.: HCT-IA0907-3101-02 **FCC ID:** US7-A300 **Date of Issue:** Aug. 21, 2009

APPENDIX C (DIPOLE VALIDATION)



Test Laboratory: HCT CO., LTD.

Ambient Temperature 21.4 °C

Test Date Aug. 20, 2009

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

Communication System: CW; Frequency: 835 MHz; Duty Cycle; 1:1

Medium parameters used: σ = 0 mho/m, ϵ_r = 1; ρ = 1000 kg/m³ 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 = 169.5 V/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, 354.7 mm Reference Value = 131.6 V/m; Power Drift = -0.019 dB Hearing Aid Near-Field Category: M4 (AWF 0 dB)

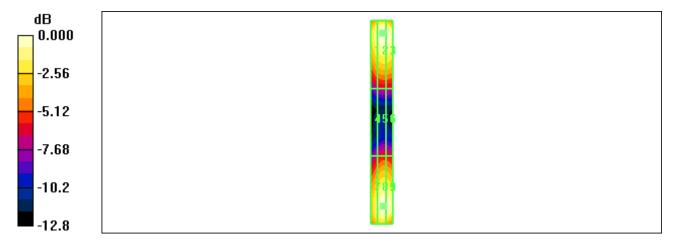
Peak E-field in V/m

Grid 4	Grid 5	Grid 6
158.6 M4	169.5 M4	167.4 M4
Grid 1	Grid 2	Grid 3

Cursor:

Total = 169.5 V/m

E Category: M4 Location: -1, -79, 365.8 mm



0 dB = 169.5 V/m



Test Laboratory: HCT CO., LTD.

Ambient Temperature 21.4 °C

Test Date Aug. 20, 2009

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, $\varepsilon_r = 1$; $\rho = 1000$ kg/m

Phantom section: E Device 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 = 149.9 V/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, 353.7 mm Reference Value = 78.8 V/m; Power Drift = -0.022 dB Hearing Aid Near-Field Category: M2 (AWF 0 dB)

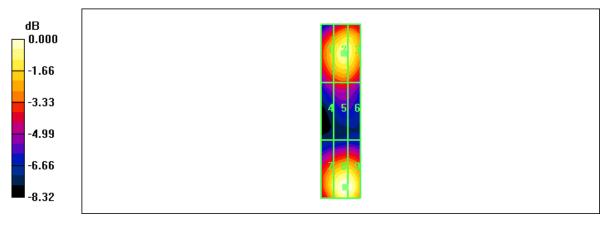
Peak E-field in V/m

G	rid 1	Grid 2	Grid 3
12	26.7 M2	139.1 M2	138.0 M2
G	rid 4	Grid 5	Grid 6
94	4.2 M3	100.6 M3	99.0 M3
G	rid 7	Grid 8	Grid 9
13	32.5 M2	149.9 M2	149.1 M2

Cursor:

Total = 149.9 V/m

E Category: M2 Location: -2.5, 39, 364.8 mm



0 dB = 149.9V/m



Test Laboratory: HCT CO., LTD.

Ambient Temperature 21.4 °C

Test Date Aug. 20, 2009

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

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used: σ = 0 mho/m, ϵ_r = 1; ρ = 1 kg/m³ 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 = $0.4\overline{5}9$ A/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 0.576 A/m; Power Drift = -0.028 dB Hearing Aid Near-Field Category: M4 (AWF 0 dB)

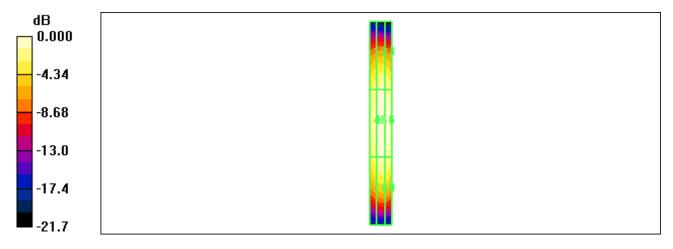
Peak H-field in A/m

10.466 1014		
Grid 4 0.422 M4	Grid 5 0 459 M4	Grid 6
0.373 M4	0.403 M4	0.396 M4
Grid 1	Grid 2	Grid 3

Cursor:

Total = 0.459 A/m

H Category: M4 Location: -1.5, -2.5, 366.6 mm



0 dB = 0.459A/m



Test Laboratory: HCT CO., LTD.

Ambient Temperature 21.4 °C

Test Date Aug. 20, 2009

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

Communication System: CW; Frequency: 1880 MHz; Duty Cycle: 1:1 Medium parameters used: σ = 0 mho/m, ϵ_r = 1; ρ = 1 kg/m³

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,

H Scan Tomin above CD 1880 MHz/Hearing Aid Compating dy=5mm

Maximum value of peak Total field = 0.477 A/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 0.583 A/m; Power Drift = -0.031 dB

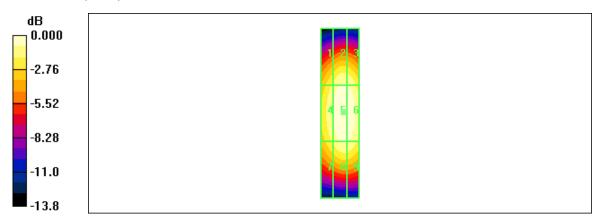
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.396 M2	0.437 M2	0.433 M2
Grid 4	Grid 5	Grid 6
0.435 M2	0.477 M2	0.473 M2
Grid 7	Grid 8	Grid 9
0.395 M2	0.434 M2	0.431 M2

Cursor:

Total = 0.477 A/mH Category: M2 Location: -2, -0.5, 366.6 mm



0 dB = 0.477A/m