

FCC ID: US7-A200 **Date of Issue:** May 20, 2009 Report No.: HCT-IA0905-1302-02

APPENDIX C (DIPOLE VALIDATION)



HCT CO., LTD. Test Laboratory:

Ambient Temperature 21.4 °C

Test Date May 15, 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 SN2417; ConvF(1, 1, 1); Calibrated: 2008-08-22 Sensor-Surface: (Fix Surface) Electronics: DAE3 Sn479; Calibrated: 2009-03-13 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 = 162.5 V/m

Probe Modulation Factor = 1.00 Device Reference Point: 0.000, 0.000, 354.7 mm Reference Value = 107.3 V/m; Power Drift = -0.024 dB

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

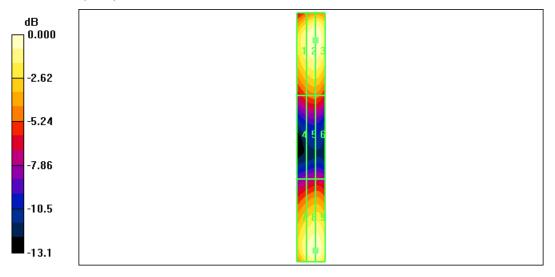
Peak E-field in V/m

Grid 1	Grid 2	Grid 3
148.6 M4	162.5 M4	162.4 M4
Grid 4	Grid 5	Grid 6
87.4 M4	94.3 M4	94.0 M4
Grid 7	Grid 8	Grid 9

Cursor:

Total = 162.5 V/m

E Category: M4 Location: -3, -70, 365.8 mm



0 dB = 162.5 V/m



HCT CO., LTD. Test Laboratory:

21.4 °C Ambient Temperature

Test Date May 15, 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 = 1000 kg/m³ Phantom section: E Device Section; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8

Build 176

DASY4 Configuration:

- Probe: ER3DV6 - SN2417; ConvF(1, 1, 1); Calibrated: 2008-08-22 - Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn479; Calibrated: 2009-03-13 - 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,

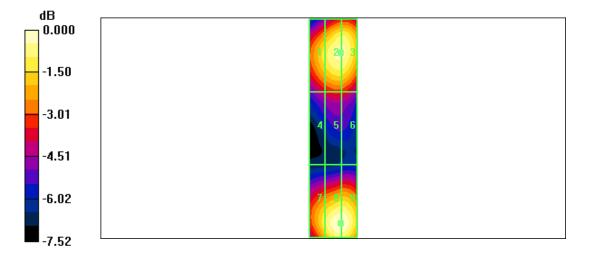
Maximum value of peak Total field = 142.7 V/m
Probe Modulation Factor = 1.00
Device Reference Point: 0.000, 0.000, 353.7 mm
Reference Value = 81.2 V/m; Power Drift = -0.013 dB
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
124.2 M2	136.7 M2	136.6 M2
Grid 4	Grid 5	Grid 6
92.2 M3	97.9 M3	97.0 M3
Grid 7	Grid 8	Grid 9
126.0 M2	142.7 M2	142.6 M2

Cursor:

Total = 142.7 V/m E Category: M2 Location: -3, 39, 364.8 mm



0 dB = 142.7 V/m



Test Laboratory: HCT CO., LTD.

Ambient Temperature 21.4 °C

Test Date May 15, 2009

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, $\varepsilon_r = 1$; $\rho = 1$ 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 - SN6251; ; Calibrated: 2008-08-22
- Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn479; Calibrated: 2009-03-13
- 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

Davies Reference Reint: 0.000, 0.000, 254.7 mm

Device Reference Point: 0.000, 0.000, 354.7 mm Reference Value = 0.550 A/m; Power Drift = 0.013 dB Hearing Aid Near-Field Category: M4 (AWF 0 dB)

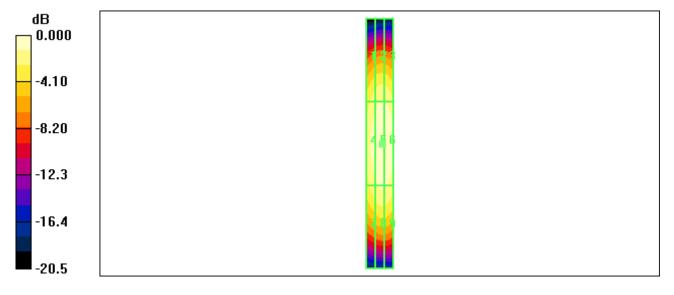
Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.365 M4	0.392 M4	0.389 M4
Grid 4	Grid 5	Grid 6
0.420 M4	0.453 M4	0.450 M4
Grid 7	Grid 8	Grid 9
0.371 M4	0.400 M4	0.397 M4

Cursor:

Total = 0.453 A/m

H Category: M4 Location: -2, 0.5, 366.6 mm



0 dB = 0.453A/m



HCT CO., LTD. Test Laboratory:

21.4 °C Ambient Temperature

Test Date May 15, 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, $\varepsilon_r = 1$; $\rho = 1$ kg/m

Phantom section: H Dipole Section; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8

Build 176

DASY4 Configuration:

- Probe: H3DV6 - SN6251; ; Calibrated: 2008-08-22 - Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn479; Calibrated: 2009-03-13 - 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 = 0.472 A/m

Probe Modulation Factor = 1.00

Device Reference Point: 0.000, 0.000, 354.7 mm Reference Value = 0.566 A/m; Power Drift = 0.016 dB Hearing Aid Near-Field Category: M2 (AWF 0 dB)

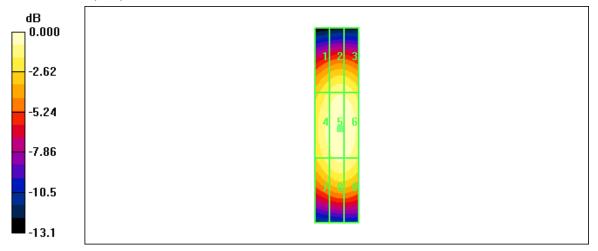
Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.394 M2	0.421 M2	0.417 M2
Grid 4	Grid 5	Grid 6
0.444 M2	0.472 M2	0.469 M2
Grid 7	Grid 8	Grid 9
0.411 M2	0.439 M2	0.437 M2

Cursor:

Total = 0.472 A/m

H Category: M2 Location: -1.5, 1.5, 366.6 mm



0 dB = 0.472A/m