

APPENDIX C (DIPOLE VALIDATION)

Test Laboratory: HCT CO., LTD.
 Ambient Temperature 21.3 °C
 Test Date Jun. 3, 2012

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, $\epsilon_r = 1$; $\rho = 0$ kg/m³
 Phantom section: RF Section

DASY5 Configuration:

- Probe: ER3DV6 – SN2343; ConvF(1, 1, 1); Calibrated: 2012-05-22;
- Sensor–Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012-04-27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.6 (6477)

Dipole E–Field measurement (E–field scan for ANSI C63.19–2007 & –2011 compliance)/E Scan – measurement distance from the probe sensor center to CD835 = 10mm/Hearing Aid Compatibility Test at 10mm distance (41x361x1):

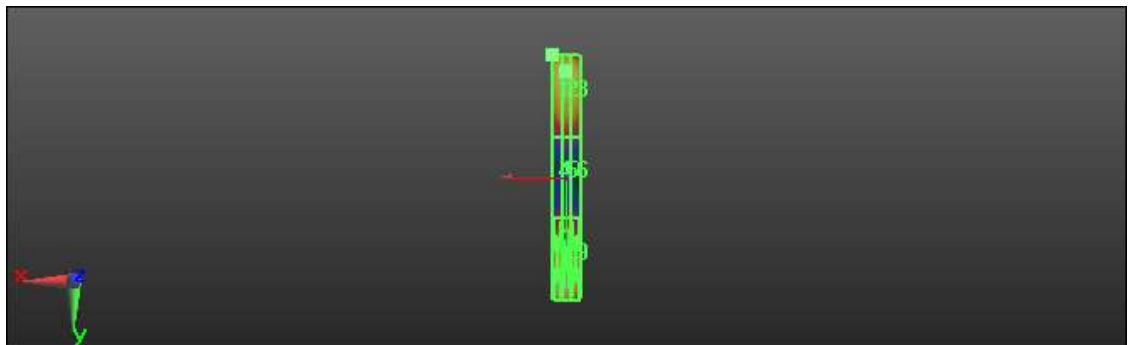
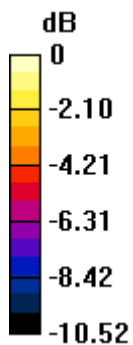
Measurement grid: dx=5mm, dy=5mm
 Device Reference Point: 0, 0, –6.3 mm
 Reference Value = 126.0 V/m; Power Drift = 0.10 dB
 PMR not calibrated. PMF = 1.000 is applied.
 E–field emissions = 158.3 V/m
Near–field category: M4 (AWF 0 dB)

PMF scaled E–field

Grid 1 M4 155.0 V/m	Grid 2 M4 158.3 V/m	Grid 3 M4 152.8 V/m
Grid 4 M4 91.66 V/m	Grid 5 M4 93.13 V/m	Grid 6 M4 89.30 V/m
Grid 7 M4 167.7 V/m	Grid 8 M4 169.6 V/m	Grid 9 M4 160.6 V/m

Cursor:

Total = 91.46 V/m
 E Category: M4
 Location: 10, –90, 4.7 mm



0 dB = 169.6 V/m = 44.59 dB V/m

Test Laboratory: HCT CO., LTD.
 Ambient Temperature: 21.3 °C
 Test Date: Jun. 3, 2012

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, $\epsilon_r = 1$; $\rho = 0$ kg/m³
 Phantom section: RF Section
 DASY5 Configuration:

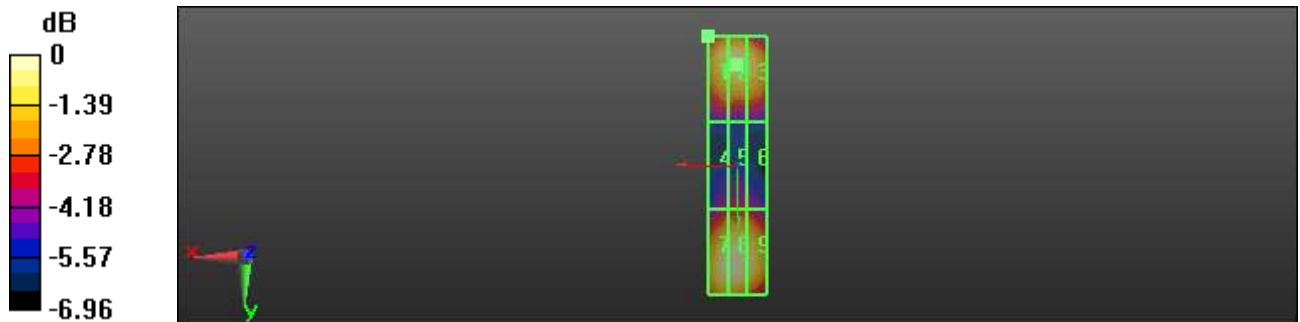
- Probe: ER3DV6 – SN2343; ConvF(1, 1, 1); Calibrated: 2012-05-22;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012-04-27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.6 (6477)

Dipole E-Field measurement (E-field scan for ANSI C63.19-2007 & -2011 compliance)/E Scan – measurement distance from the probe sensor center to CD1880 = 10mm/Hearing Aid Compatibility Test at 10mm distance (41x181x1):
 Measurement grid: dx=5mm, dy=5mm
 Device Reference Point: 0, 0, -6.3 mm
 Reference Value = 145.5 V/m; Power Drift = 0.04 dB
 PMR not calibrated. PMF = 1.000 is applied.
 E-field emissions = 142.7 V/m
Near-field category: M2 (AWF 0 dB)

PMF scaled E-field

Grid 1 M2 133.7 V/m	Grid 2 M2 136.4 V/m	Grid 3 M2 131.4 V/m
Grid 4 M3 93.90 V/m	Grid 5 M3 96.33 V/m	Grid 6 M3 94.45 V/m
Grid 7 M2 140.9 V/m	Grid 8 M2 142.7 V/m	Grid 9 M2 136.8 V/m

Cursor:
 Total = 86.65 V/m
 E Category: M3
 Location: 10, -45, 4.7 mm



0 dB = 142.7 V/m = 43.09 dB V/m

Test Laboratory: HCT CO., LTD.
 Ambient Temperature: 21.3 °C
 Test Date: Jun. 3, 2012

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, $\epsilon_r = 1$; $\rho = 0$ kg/m³
 Phantom section: RF Section

DASY5 Configuration:

- Probe: H3DV6 – SN6101; ; Calibrated: 2012–05–22
- Sensor–Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012–04–27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.6 (6477)

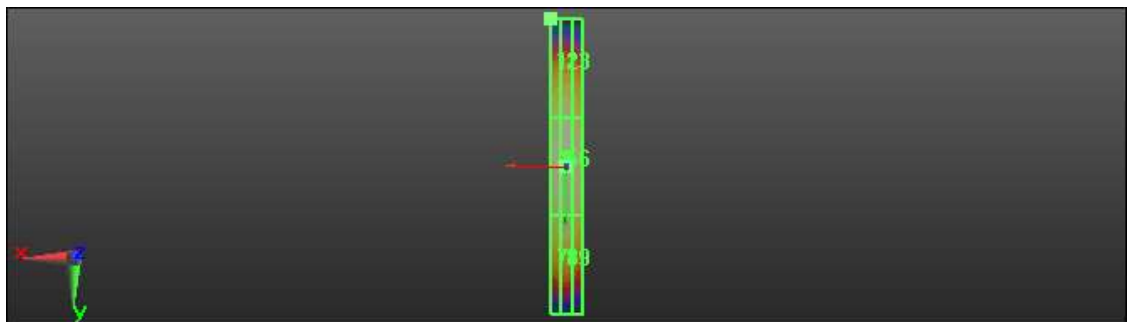
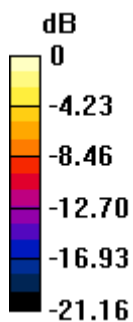
Dipole H–Field measurement with H3DV6 probe (H–field scan for ANSI C63.19–2007 compliance)/H Scan – measurement distance from the probe sensor center to CD835 Dipole = 10mm/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm
 Device Reference Point: 0, 0, –6.3 mm
 Reference Value = 0.5160 A/m; Power Drift = –0.01 dB
 PMR not calibrated. PMF = 1.000 is applied.
 H–field emissions = 0.4854 A/m
 Near–field category: M4 (AWF 0 dB)

PMF scaled H–field

Grid 1 M4 0.412 A/m	Grid 2 M4 0.423 A/m	Grid 3 M4 0.392 A/m
Grid 4 M4 0.472 A/m	Grid 5 M4 0.485 A/m	Grid 6 M4 0.450 A/m
Grid 7 M4 0.419 A/m	Grid 8 M4 0.429 A/m	Grid 9 M4 0.391 A/m

Cursor:

Total = 0.04732 A/m
 H Category: M4
 Location: 10, –90, 4.7 mm



0 dB = 0.4854 A/m = –6.28 dB A/m

Test Laboratory: HCT CO., LTD.
 Ambient Temperature 21.3 °C
 Test Date Jun. 3, 2012

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, $\epsilon_r = 1$; $\rho = 0$ kg/m³
 Phantom section: RF Section
 DASY5 Configuration:

- Probe: H3DV6 – SN6101; ; Calibrated: 2012-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012-04-27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.6 (6477)

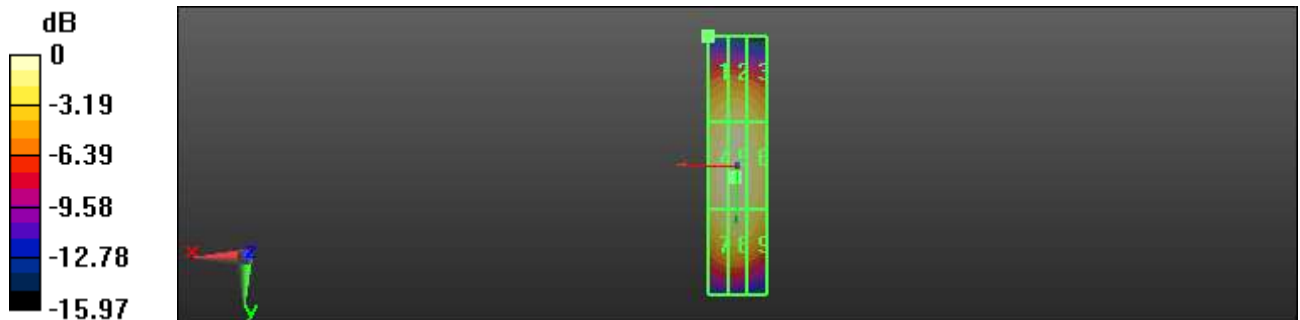
Dipole H-Field measurement with H3DV6 probe (H-field scan for ANSI C63.19-2007 compliance)/H Scan – measurement distance from the probe sensor center to CD1880 Dipole = 10mm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm
 Reference Value = 0.4970 A/m; Power Drift = -0.01 dB
 PMR not calibrated. PMF = 1.000 is applied.
 H-field emissions = 0.4722 A/m
Near-field category: M2 (AWF 0 dB)

PMF scaled H-field

Grid 1 M2 0.400 A/m	Grid 2 M2 0.411 A/m	Grid 3 M2 0.384 A/m
Grid 4 M2 0.459 A/m	Grid 5 M2 0.472 A/m	Grid 6 M2 0.440 A/m
Grid 7 M2 0.433 A/m	Grid 8 M2 0.447 A/m	Grid 9 M2 0.413 A/m

Cursor:
 Total = 0.09731 A/m
 H Category: M4
 Location: 10, -45, 4.7 mm



0 dB = 0.4722 A/m = -6.52 dB A/m