

ATTACHMENT B – DIPOLE VALIDATION

■ Validation Data (E-Field CDMA)

Test Laboratory: HCT

DUT: HAC-Dipole 835 MHz; Type: D835V3

Program Name: HAC E Dipole

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

Medium parameters used: $\sigma = 0 \text{ mho/m}$, $\epsilon_r = 1$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: H Dipole Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2005-04-27

- Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn447; Calibrated: 2005-05-27

- Phantom: HAC Test Arch; Type: SD HAC P01 BA

E Scan 10mm above CD 835 MHz/Hearing Aid Compatibility Test (41x361x1):

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$

Maximum value of peak Total field = 181.0 V/m

Probe Modulation Factor = 1.00

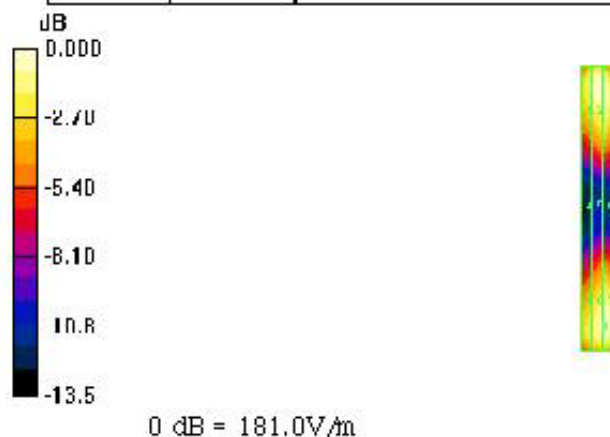
Reference Value = 55.2 V/m; Power Drift = -0.048 dB

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

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
161.9	181.0	178.7
Grid 4	Grid 5	Grid 6
74.9	91.8	92.5
Grid 7	Grid 8	Grid 9
146.8	176.2	178.3

Category	AWF (dB)	Limits for E-Field Emissions (V/m)	Limits for H-Field Emissions (A/m)
M1	0	199.5 - 354.8	0.6 - 1.07
	-5	149.6 - 266.1	0.45 - 0.8
M2	0	112.2 - 199.5	0.34 - 0.6
	-5	84.1 - 149.6	0.25 - 0.45
M3	0	63.1 - 112.2	0.19 - 0.34
	-5	47.3 - 84.1	0.15 - 0.25
M4	0	<63.1	<0.19
	-5	<47.3	<0.15



Validation Data (E-Field PCS)

Test Laboratory: HCT

DUT: HAC Dipole 1880 MHz; Type: CD1880V3

Program Name: HAC E Dipole

Communication System: CW; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³

Phantom section: E Dipole Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2005-04-27

- Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn447; Calibrated: 2005-05-27

- 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 = 143.7 V/m

Probe Modulation Factor = 1.00

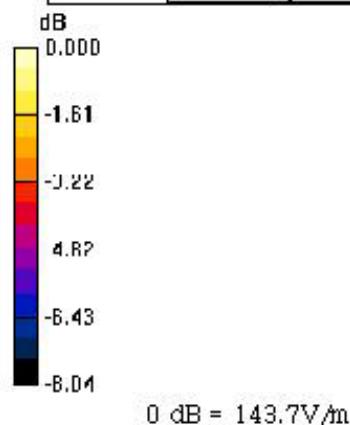
Reference Value = 70.8 V/m; Power Drift = -0.034 dB

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

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
142.8	143.1	132.1
Grid 4	Grid 5	Grid 6
88.3	89.6	83.5
Grid 7	Grid 8	Grid 9
139.8	143.7	135.6

Category	AWF (dB)	Limits for E-Field Emissions (V/m)	Limits for H-Field Emissions (A/m)
M1	0	199.5 - 354.8	0.6 - 1.07
	-5	149.6 - 266.1	0.45 - 0.8
M2	0	112.2 - 199.5	0.34 - 0.6
	-5	84.1 - 149.6	0.25 - 0.45
M3	0	63.1 - 112.2	0.19 - 0.34
	-5	47.3 - 84.1	0.15 - 0.25
M4	0	<63.1	<0.19
	-5	<47.3	<0.15



Validation Data (H-Field CDMA)

Test Laboratory: HCT

DUT: HA C-Dipole 835 MHz; Type: D835V3

Program Name: HAC H Dipole

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

Medium parameters used: $\sigma = 0 \text{ mho/m}$, $\epsilon_r = 1$; $\rho = 1 \text{ kg/m}^3$

Phantom section: H Dipole Section

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2002-01-07

- Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn447; Calibrated: 2005-05-27

- 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 = 0.459 A/m

Probe Modulation Factor = 1.00

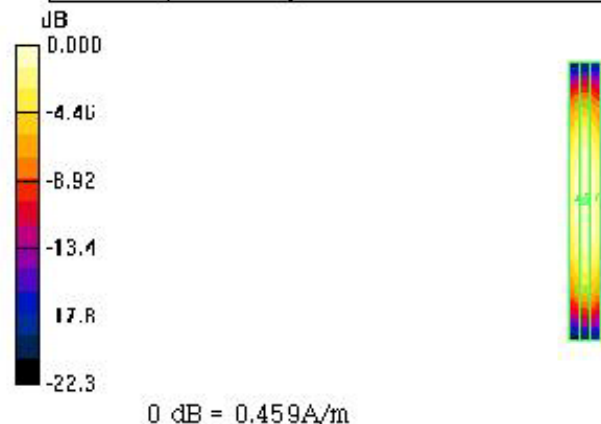
Reference Value = 0.485 A/m; Power Drift = -0.043 dB

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

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.388	0.409	0.388
Grid 4	Grid 5	Grid 6
0.430	0.459	0.442
Grid 7	Grid 8	Grid 9
0.372	0.404	0.392

Category	AWF (dB)	Limits for E-Field Emissions (V/m)	Limits for H-Field Emissions (A/m)
M1	0	199.5 - 354.8	0.6 - 1.07
	-5	149.6 - 266.1	0.45 - 0.8
M2	0	112.2 - 199.5	0.34 - 0.6
	-5	84.1 - 149.6	0.25 - 0.45
M3	0	63.1 - 112.2	0.19 - 0.34
	-5	47.3 - 84.1	0.15 - 0.25
M4	0	<63.1	<0.19
	-5	<47.3	<0.15



Validation Data (H-Field PCS)

Test Laboratory: HCT

DUT: HAC Dipole 1880 MHz; Type: CD1880V3
Program Name: HAC H Dipole

Communication System: CW; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1$ kg/m³

Phantom section: H Dipole Section

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2002-01-07

- Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn447; Calibrated: 2005-05-27

- 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 = 0.481 A/m

Probe Modulation Factor = 1.00

Reference Value = 0.511 A/m; Power Drift = -0.018 dB

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

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.413	0.443	0.427
Grid 4	Grid 5	Grid 6
0.450	0.481	0.464
Grid 7	Grid 8	Grid 9
0.408	0.442	0.427

Category	AWF (dB)	Limits for E-Field Emissions (V/m)	Limits for H-Field Emissions (A/m)
M1	0	199.5 - 354.8	0.6 - 1.07
	-5	149.6 - 266.1	0.45 - 0.8
M2	0	112.2 - 199.5	0.34 - 0.6
	-5	84.1 - 149.6	0.25 - 0.45
M3	0	63.1 - 112.2	0.19 - 0.34
	-5	47.3 - 84.1	0.15 - 0.25
M4	0	<63.1	<0.19
	-5	<47.3	<0.15

