

ATTACHMENT C – PROBE MODULATION FACTOR

■ Probe Modulation Factor (E-Field 835MHz CW)

Test Laboratory : HCT

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

Program Name: HAC E Dipole

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

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

Phantom section: E Dipole Section

DASY4 Configuration:

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

- Sensor-Surface: (Fix Surface)

- Electronics: DAE4 Sn614; Calibrated: 2005-04-21

- 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 = 167.2 V/m

Probe Modulation Factor = 1.00

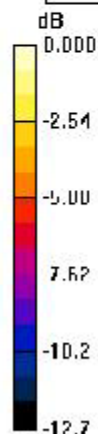
Reference Value = 102.5 V/m; Power Drift = -0.038 dB

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

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
154.4	167.2	160.5
Grid 4	Grid 5	Grid 6
72.0	85.7	85.9
Grid 7	Grid 8	Grid 9
135.2	159.4	160.7

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



0 dB = 167.2V/m



■ Probe Modulation Factor (E-Field 835MHz AM80)

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: $\sigma = 0$ 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: DAE4 Sn614; Calibrated: 2005-04-21

- 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 = 104.3 V/m

Probe Modulation Factor = 1.00

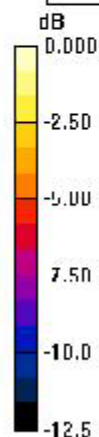
Reference Value = 64.2 V/m; Power Drift = -0.038 dB

Hearing Aid Hear-Field Category: M3 (AWF 0 dB)

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
96.8	104.3	99.9
Grid 4	Grid 5	Grid 6
45.8	54.3	54.4
Grid 7	Grid 8	Grid 9
85.6	99.8	100.7

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



0 dB = 104.3V/m

■ Probe Modulation Factor (E-Field 835MHz WD)

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial
Program Name: HAC E Dipole

Communication System: CW; Frequency: 835 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: DAE4 Sn614; Calibrated: 2005-04-21

- 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 = 168.6 V/m

Probe Modulation Factor = 1.00

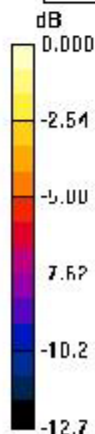
Reference Value = 103.6 V/m; Power Drift = -0.044 dB

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

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
155.5	168.6	162.0
Grid 4	Grid 5	Grid 6
72.7	86.4	86.6
Grid 7	Grid 8	Grid 9
136.4	160.7	162.0

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



0 dB = 168.6V/m

■ Probe Modulation Factor (E-Field 1880MHz CW)

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: $\sigma = 0 \text{ mho/m}$, $\epsilon_r = 1$; $\rho = 1000 \text{ kg/m}^3$
Phantom section: E Dipole Section

DASY4 Configuration:
- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2005-04-27
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn614; Calibrated: 2005-04-21
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

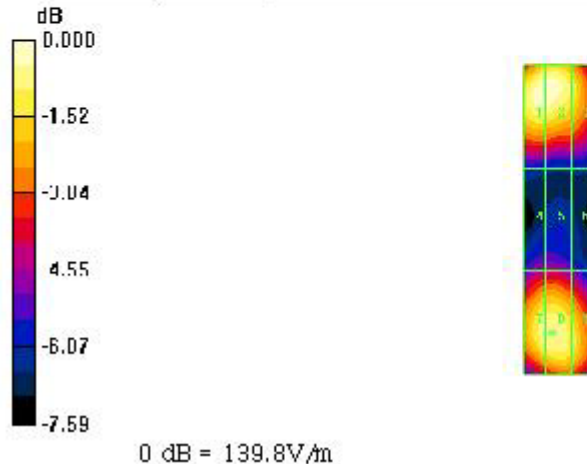
H Scan 10mm above CD 1880 MHz/Hearing Aid Compatibility Test (41x181x1):

Measurement grid: $d_x = 5 \text{ mm}$, $d_y = 5 \text{ mm}$
Maximum value of peak Total field = 139.8 V/m
Probe Modulation Factor = 1.00
Reference Value = 148.1 V/m ; Power Drift = 0.022 dB
Hearing Aid Near-Field Category: M2 (AWF 0 dB)

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
139.8	139.8	124.9
Grid 4	Grid 5	Grid 6
86.2	86.3	79.4
Grid 7	Grid 8	Grid 9
131.2	132.2	123.5

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



■ Probe Modulation Factor (E-Field 1880MHz AM80)

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

Phantom section: E Dipole Section

DASY4 Configuration:

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

- Sensor-Surface: (Fix Surface)

- Electronics: DAE4 Sn614; Calibrated: 2005-04-21

- Phantom: HAC Test Arch; Type: SD HAC F01 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 = 86.7 V/m

Probe Modulation Factor = 1.00

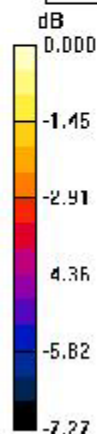
Reference Value = 86.8 V/m; Power Drift = -0.008 dB

Hearing Aid Near-Field Category: M3 (AWF 0 dB)

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
86.7	86.7	78.0
Grid 4	Grid 5	Grid 6
55.7	55.8	51.2
Grid 7	Grid 8	Grid 9
85.3	85.7	79.8

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



0 dB = 86.7 V/m

■ Probe Modulation Factor (E-Field 1880MHz WD)

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

Phantom section: E Dipole Section

DASY4 Configuration:

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

- Sensor-Surface: (Fix Surface)

- Electronics: DAE4 Sn614; Calibrated: 2005-04-21

- 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, dy=5mm

Maximum value of peak Total field = 138.5 V/m

Probe Modulation Factor = 1.00

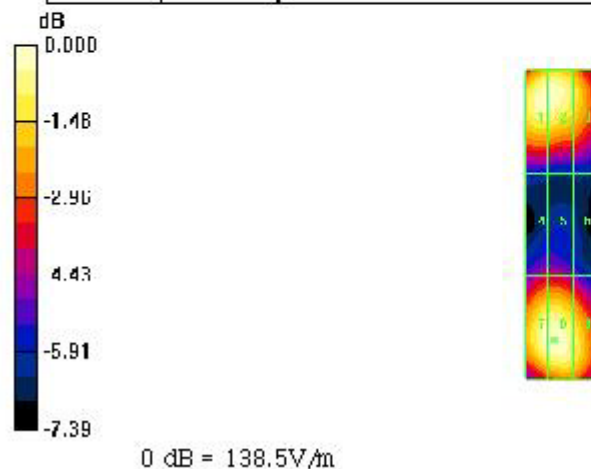
Reference Value = 154.8 V/m; Power Drift = -0.020 dB

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

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
138.5	138.5	124.1
Grid 4	Grid 5	Grid 6
88.2	88.3	80.8
Grid 7	Grid 8	Grid 9
136.2	136.9	127.1

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



■ Probe Modulation Factor (H-Field 835MHz CW)

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

Phantom section: H Dipole Section

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2005-07-20

- Sensor-Surface: (Fix Surface)

- Electronics: DAE4 Sn614; Calibrated: 2005-04-21

- 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 = 0.450 A/m

Probe Modulation Factor = 1.00

Reference Value = 0.477 A/m; Power Drift = -0.003 dB

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

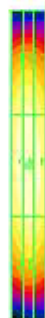
Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.386	0.400	0.373
Grid 4	Grid 5	Grid 6
0.430	0.450	0.424
Grid 7	Grid 8	Grid 9
0.371	0.394	0.375

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



0 dB = 0.450 A/m



■ Probe Modulation Factor (H-Field 835MHz AM80)

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

Phantom section: H Dipole Section

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2005-07-20

- Sensor-Surface: (Fix Surface)

- Electronics: DAE4 Sn614; Calibrated: 2005-04-21

- 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 = 0.282 A/m

Probe Modulation Factor = 1.00

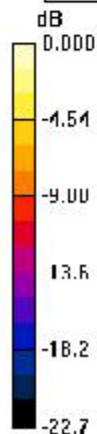
Reference Value = 0.808 A/m; Power Drift = 0.012 dB

Hearing Aid Near-Field Category: M3 (AWF 0 dB)

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.251	0.260	0.240
Grid 4	Grid 5	Grid 6
0.278	0.292	0.274
Grid 7	Grid 8	Grid 9
0.239	0.255	0.241

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



0 dB = 0.292 A/m



■ Probe Modulation Factor (H-Field 835MHz WD)

Test Laboratory : HCT

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

Program Name: HAC E Dipole

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

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

Phantom section: H Dipole Section

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2005-07-20

- Sensor-Surface: (Fix Surface)

- Electronics: DAE4 Sn614; Calibrated: 2005-04-21

- 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 = 0.453 A/m

Probe Modulation Factor = 1.00

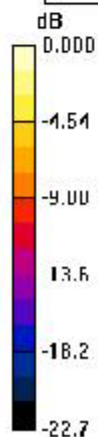
Reference Value = 0.477 A/m; Power Drift = 0.008 dB

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

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.386	0.399	0.374
Grid 4	Grid 5	Grid 6
0.430	0.453	0.425
Grid 7	Grid 8	Grid 9
0.371	0.396	0.376

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



0 dB = 0.453 A/m

■ Probe Modulation Factor (H-Field 1880MHz CW)

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: DAE4 Sn614; Calibrated: 2005-04-21

- 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, dy=5mm

Maximum value of peak Total field = 0.481 A/m

Probe Modulation Factor = 1.00

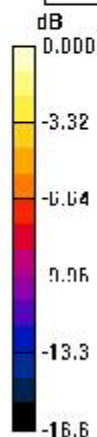
Reference Value = 0.514 A/m; Power Drift = -0.018 dB

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

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.423	0.456	0.438
Grid 4	Grid 5	Grid 6
0.444	0.481	0.467
Grid 7	Grid 8	Grid 9
0.385	0.428	0.417

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



0 dB = 0.481 A/m



■ Probe Modulation Factor (H-Field 1880MHz AM80)

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: DAE4 Sn614; Calibrated: 2005-04-21

- 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, dy=5mm

Maximum value of peak Total field = 0.320 A/m

Probe Modulation Factor = 1.00

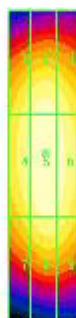
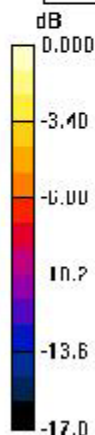
Reference Value = 0.345 A/m; Power Drift = -0.016 dB

Hearing Aid Near-Field Category: M3 (AWF 0 dB)

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.277	0.302	0.288
Grid 4	Grid 5	Grid 6
0.292	0.320	0.308
Grid 7	Grid 8	Grid 9
0.251	0.283	0.274

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



0 dB = 0.320 A/m

■ Probe Modulation Factor (H-Field 1880MHz WD)

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: H3DW6 - SN6101;; Calibrated: 2002-01-07

- Sensor-Surface: (Fix Surface)

- Electronics: DAE4 Sn614; Calibrated: 2005-04-21

- 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, dy=5mm

Maximum value of peak Total field = 0.480 A/m

Probe Modulation Factor = 1.00

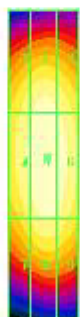
Reference Value = 0.518 A/m; Power Drift = -0.017 dB

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

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.421	0.455	0.437
Grid 4	Grid 5	Grid 6
0.443	0.480	0.465
Grid 7	Grid 8	Grid 9
0.384	0.427	0.416

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



0 dB = 0.480 A/m