

Test Laboratory: Compliance Certification Services

HAC_E_Dipole 835 MHz - WD Signal

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 1014

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

Measurement Standard: DAS4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2339; ConvF(1, 1, 1); Calibrated: 3/11/2005
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn500; Calibrated: 2/7/2005
- Phantom: HAC Test Arch; Type: SD HAC P01 BA; Serial: 1011
- Measurement SW: DAS4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

E Scan - WD Signal = 23.7 dBm/Hearing Aid Compatibility Test (41x361x1): Measurement grid:

dx=5mm, dy=5mm

Maximum value of peak Total field = 247.5 V/m

Probe Modulation Factor = 1.00

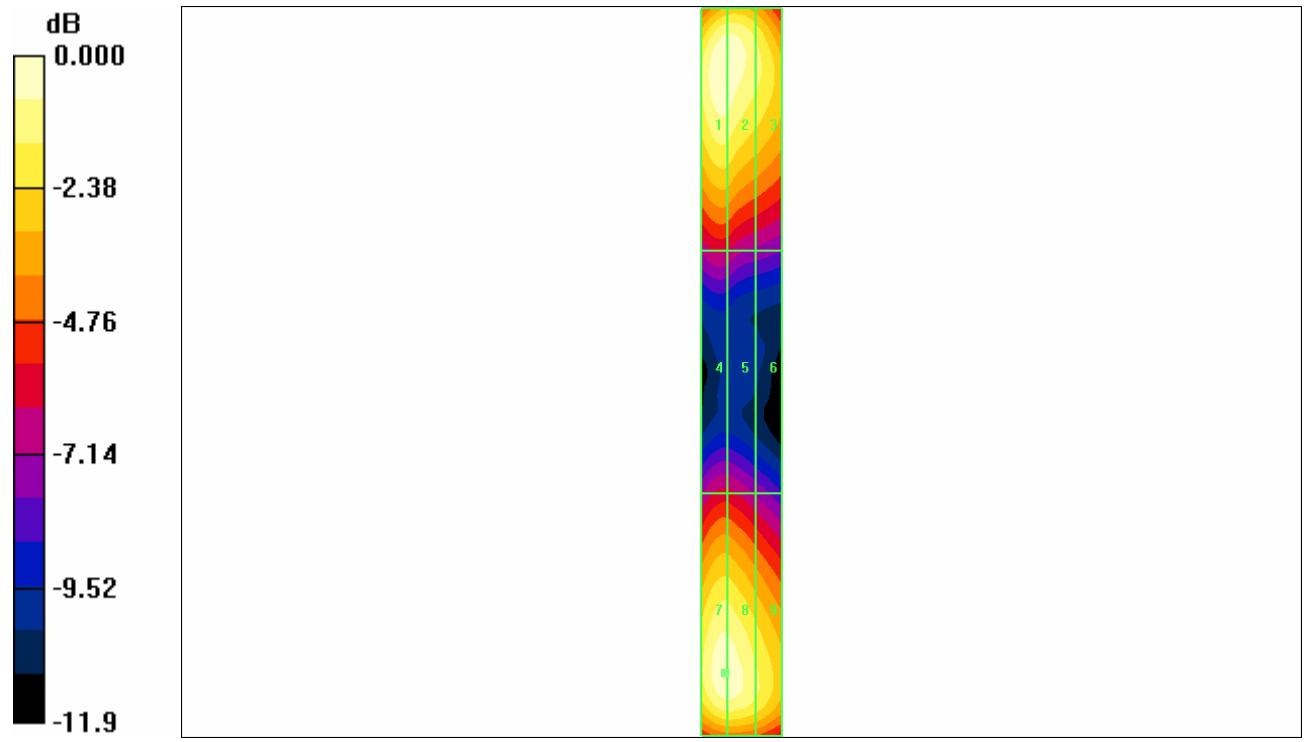
Reference Value = 159.5 V/m; Power Drift = -0.058 dB

Hearing Aid Near-Field Category: M1 (AWF 0 dB)

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
247.5	246.7	214.2
Grid 4	Grid 5	Grid 6
124.0	123.8	107.6
Grid 7	Grid 8	Grid 9
241.5	241.1	211.2

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 = 247.5V/m

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HAC_E_Dipole 835 MHz - CW Signal

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 1014

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

Measurement Standard: DAS4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2339; ConvF(1, 1, 1); Calibrated: 3/11/2005
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn500; Calibrated: 2/7/2005
- Phantom: HAC Test Arch; Type: SD HAC P01 BA; Serial: 1011
- Measurement SW: DAS4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

E Scan - CW Signal = 23.7 dBm/Hearing Aid Compatibility Test (41x361x1): Measurement grid:

dx=5mm, dy=5mm

Maximum value of peak Total field = 241.3 V/m

Probe Modulation Factor = 1.00

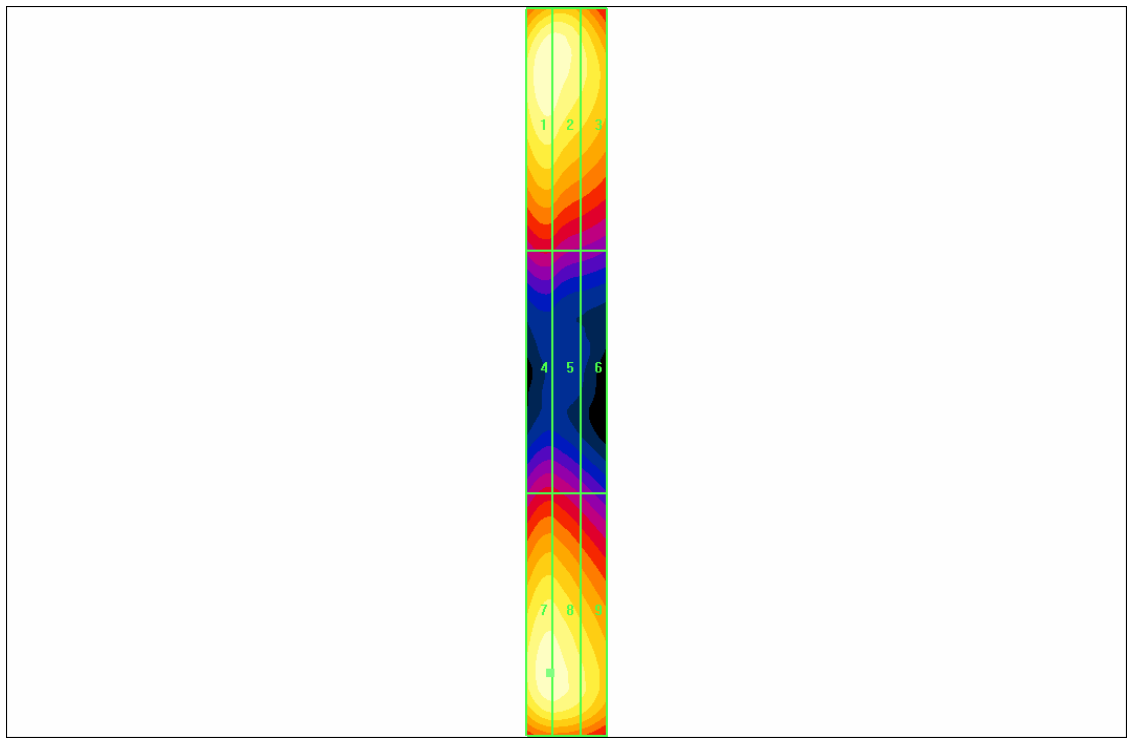
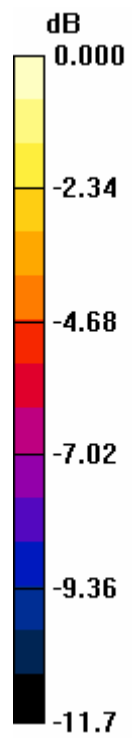
Reference Value = 157.7 V/m; Power Drift = -0.005 dB

Hearing Aid Near-Field Category: M1 (AWF 0 dB)

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
241.3	240.6	209.9
Grid 4	Grid 5	Grid 6
123.2	122.9	106.5
Grid 7	Grid 8	Grid 9
236.2	235.6	207.9

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 = 241.3V/m

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HAC_H_Dipole 835 MHz_WD Signal

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 1014

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

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6157; ; Calibrated: 3/11/2005
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn500; Calibrated: 2/7/2005
- Phantom: HAC Test Arch; Type: SD HAC P01 BA; Serial: 1011
- Measurement SW: DASYS4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

H Scan - WD Signal = 23.7 dBm/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.567 A/m

Probe Modulation Factor = 1.00

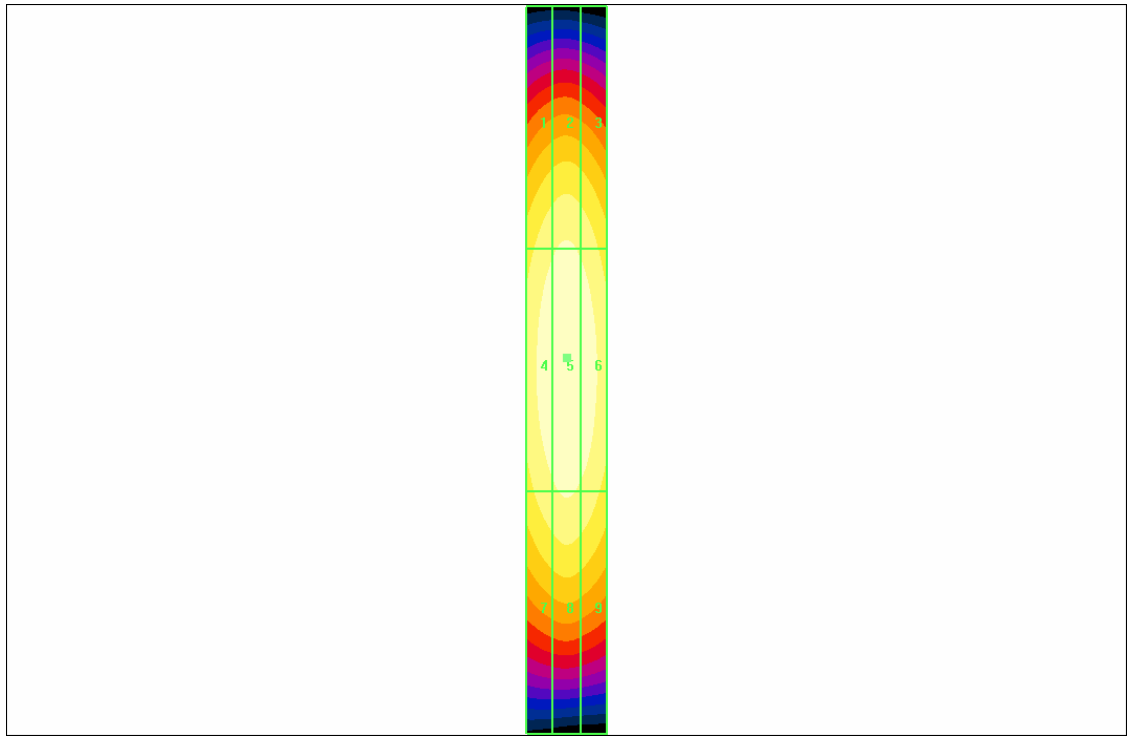
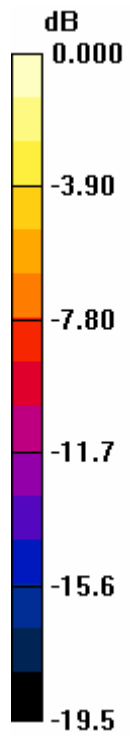
Reference Value = 0.705 A/m; Power Drift = -0.011 dB

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

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.479	0.499	0.478
Grid 4	Grid 5	Grid 6
0.541	0.567	0.545
Grid 7	Grid 8	Grid 9
0.475	0.496	0.476

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 = 0.567A/m

Test Laboratory: Compliance Certification Services

HAC_H_Dipole 835 MHz_CW Signal

DUT: HAC-Dipole 835 MHz; Type: D835V3; Serial: 1014

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

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6157; ; Calibrated: 3/11/2005
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn500; Calibrated: 2/7/2005
- Phantom: HAC Test Arch; Type: SD HAC P01 BA; Serial: 1011
- Measurement SW: DASYS4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

H Scan - CW Signal = 23.7 dBm/Hearing Aid Compatibility Test (41x361x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.560 A/m

Probe Modulation Factor = 1.00

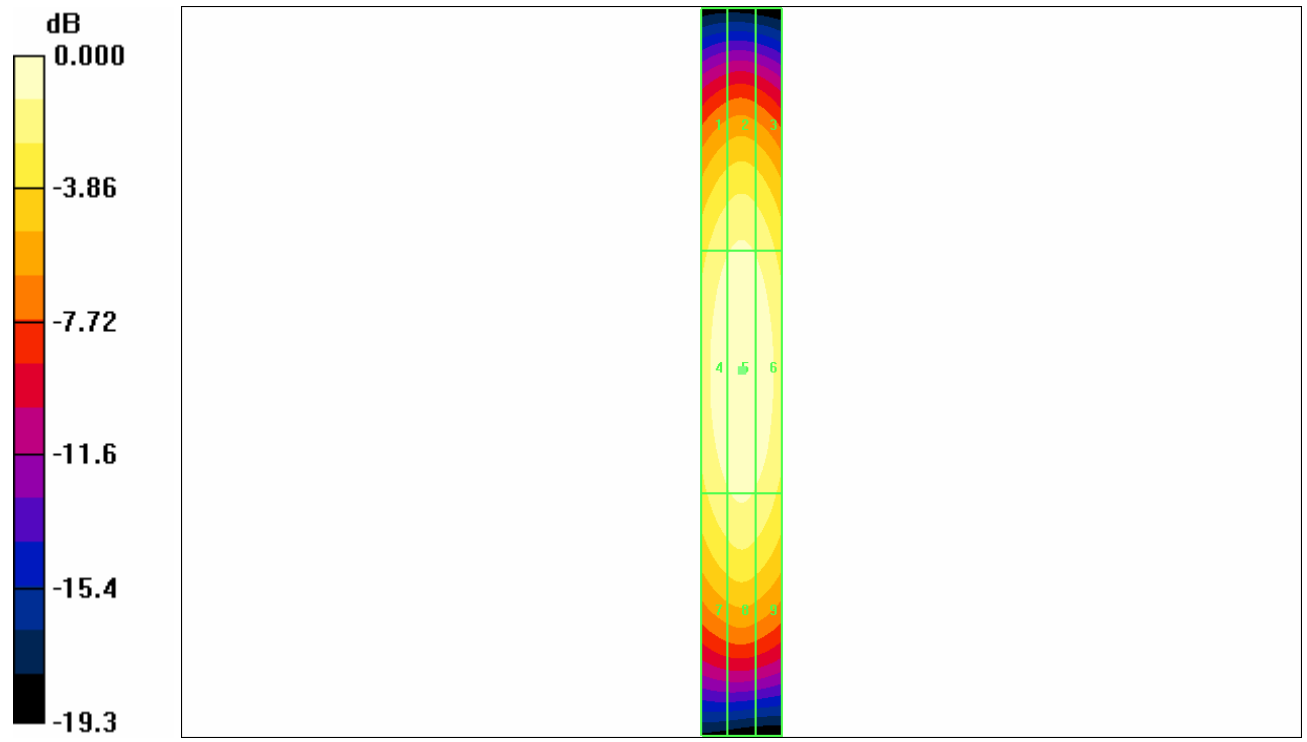
Reference Value = 0.690 A/m; Power Drift = -0.025 dB

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

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.478	0.496	0.478
Grid 4	Grid 5	Grid 6
0.538	0.560	0.542
Grid 7	Grid 8	Grid 9
0.477	0.494	0.476

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 = 0.560A/m

Test Laboratory: Compliance Certification Services

HAC_E_Dipole 1880 MHz - WD Signal

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 1010

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

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2339; ConvF(1, 1, 1); Calibrated: 3/11/2005
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn500; Calibrated: 2/7/2005
- Phantom: HAC Test Arch; Type: SD HAC P01 BA; Serial: 1011
- Measurement SW: DASYS4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

E Scan - WD Signal = 24 dBm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 144.5 V/m

Probe Modulation Factor = 1.00

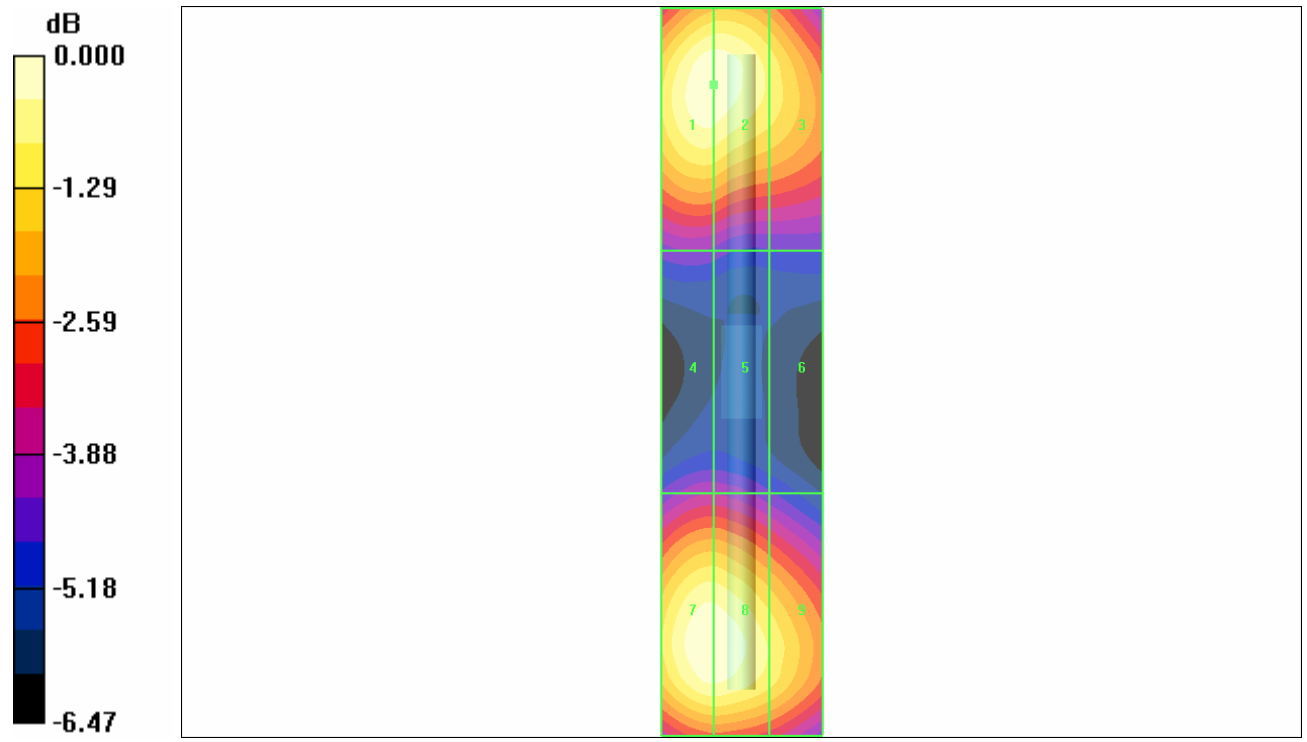
Reference Value = 161.1 V/m; Power Drift = -0.001 dB

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

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
143.5	143.5	129.4
Grid 4	Grid 5	Grid 6
92.5	92.4	84.7
Grid 7	Grid 8	Grid 9
144.5	144.5	130.3

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



0 dB = 144.5V/m

Test Laboratory: Compliance Certification Services

HAC_E_Dipole 1880 MHz – CW Signal

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 1010

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

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ER3DV6 - SN2339; ConvF(1, 1, 1); Calibrated: 3/11/2005
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn500; Calibrated: 2/7/2005
- Phantom: HAC Test Arch; Type: SD HAC P01 BA; Serial: 1011
- Measurement SW: DASYS4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

E Scan - CW Signal = 24 dBm 2/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 142.5 V/m

Probe Modulation Factor = 1.00

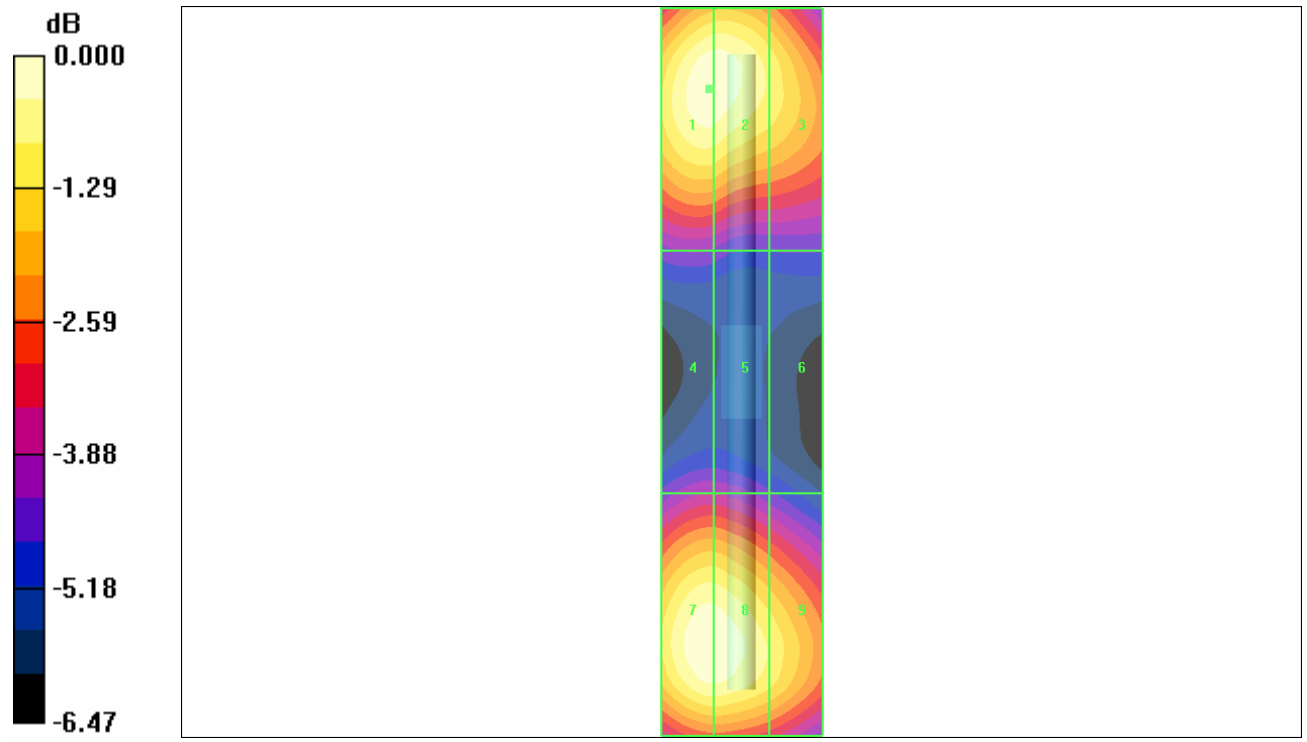
Reference Value = 158.0 V/m; Power Drift = 0.011 dB

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

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
141.3	141.3	127.8
Grid 4	Grid 5	Grid 6
91.6	91.5	83.7
Grid 7	Grid 8	Grid 9
142.5	142.4	128.3

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



0 dB = 142.5V/m

Test Laboratory: Compliance Certification Services

HAC_H_Dipole 1880 MHz- WD Signal

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 1010

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

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6157; ; Calibrated: 3/11/2005
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn500; Calibrated: 2/7/2005
- Phantom: HAC Test Arch; Type: SD HAC P01 BA; Serial: 1011
- Measurement SW: DASYS4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

H Scan - WD Signal = 24 dBm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.680 A/m

Probe Modulation Factor = 1.00

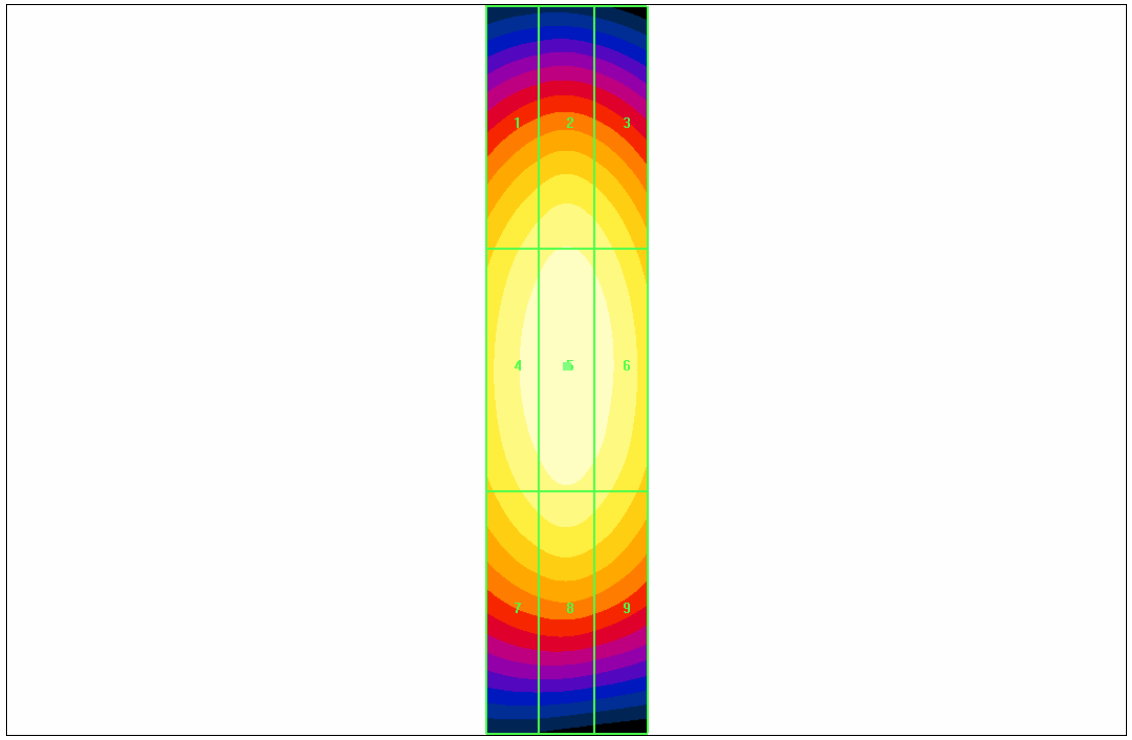
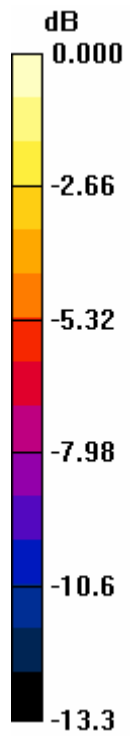
Reference Value = 0.845 A/m; Power Drift = -0.002 dB

Hearing Aid Near-Field Category: M1 (AWF 0 dB)

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.589	0.617	0.590
Grid 4	Grid 5	Grid 6
0.650	0.680	0.652
Grid 7	Grid 8	Grid 9
0.582	0.607	0.581

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 = 0.680A/m

Test Laboratory: Compliance Certification Services

HAC_H_Dipole 1880 MHz- CW Signal

DUT: HAC Dipole 1880 MHz; Type: CD1880V3; Serial: 1010

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

Measurement Standard: DASYS4 (High Precision Assessment)

DASY4 Configuration:

- Probe: H3DV6 - SN6157; ; Calibrated: 3/11/2005
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn500; Calibrated: 2/7/2005
- Phantom: HAC Test Arch; Type: SD HAC P01 BA; Serial: 1011
- Measurement SW: DASYS4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

H Scan - CW Signal = 24 dBm/Hearing Aid Compatibility Test (41x181x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 0.629 A/m

Probe Modulation Factor = 1.00

Reference Value = 0.770 A/m; Power Drift = 0.000 dB

Hearing Aid Near-Field Category: M1 (AWF 0 dB)

Peak H-field in A/m

Grid 1	Grid 2	Grid 3
0.555	0.576	0.556
Grid 4	Grid 5	Grid 6
0.607	0.629	0.609
Grid 7	Grid 8	Grid 9
0.550	0.568	0.549

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

