

Test Laboratory: UL CCS SAR Lab C

1_GSM 850

Communication System: Generic GSM; Frequency: 824.2 MHz; Duty Cycle: 1:8.30042

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2509; ConvF(1, 1, 1); Calibrated: 4/8/2011

- Sensor-Surface: (Fix Surface)

- Electronics: DAE4 Sn1257; Calibrated: 5/3/2011

- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB

- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

E-Field/L ch/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 97.054 V/m

Probe Modulation Factor = 2.790

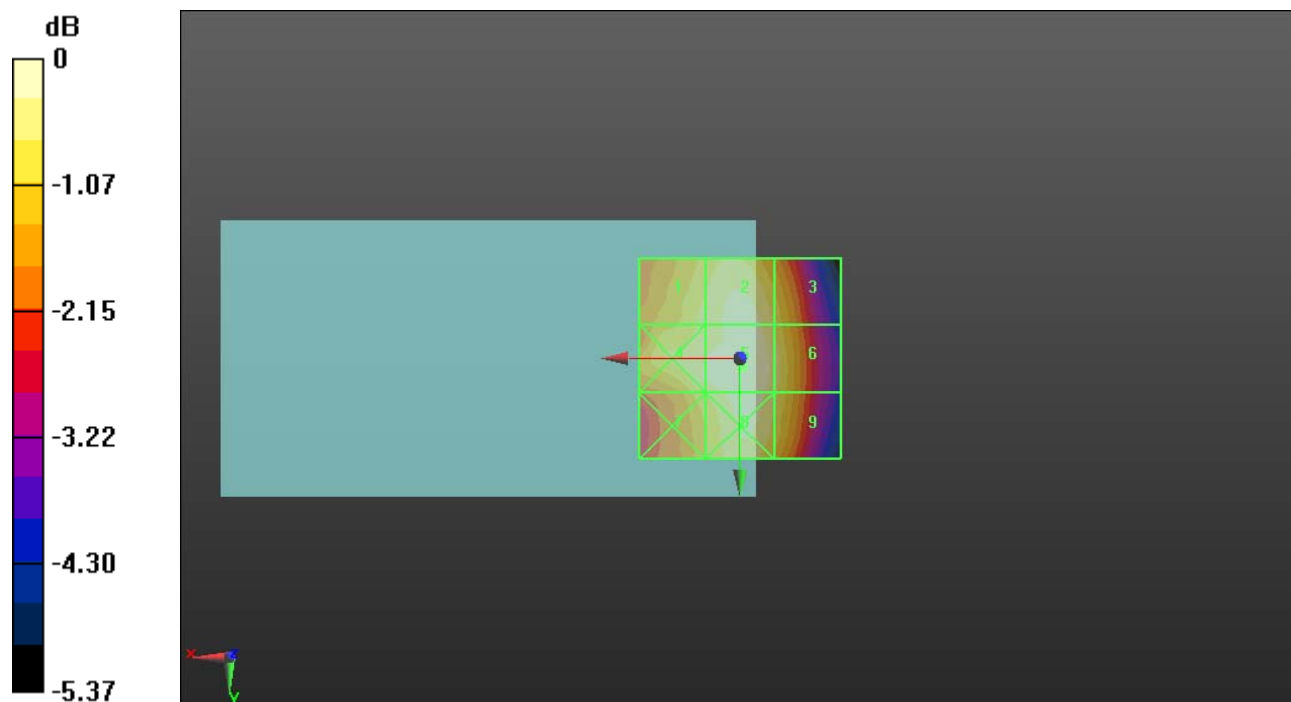
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 46.836 V/m; Power Drift = -0.01 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak E-field in V/m

Grid 1 91.003 M4	Grid 2 95.233 M4	Grid 3 89.095 M4
Grid 4 93.837 M4	Grid 5 97.054 M4	Grid 6 91.518 M4
Grid 7 89.803 M4	Grid 8 95.385 M4	Grid 9 90.533 M4



0 dB = 97.050V/m

Test Laboratory: UL CCS SAR Lab C

1_GSM 850

Communication System: Generic GSM; Frequency: 836.6 MHz; Duty Cycle: 1:8.30042

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2509; ConvF(1, 1, 1); Calibrated: 4/8/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn1257; Calibrated: 5/3/2011
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

E-Field/M ch/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 97.816 V/m

Probe Modulation Factor = 2.790

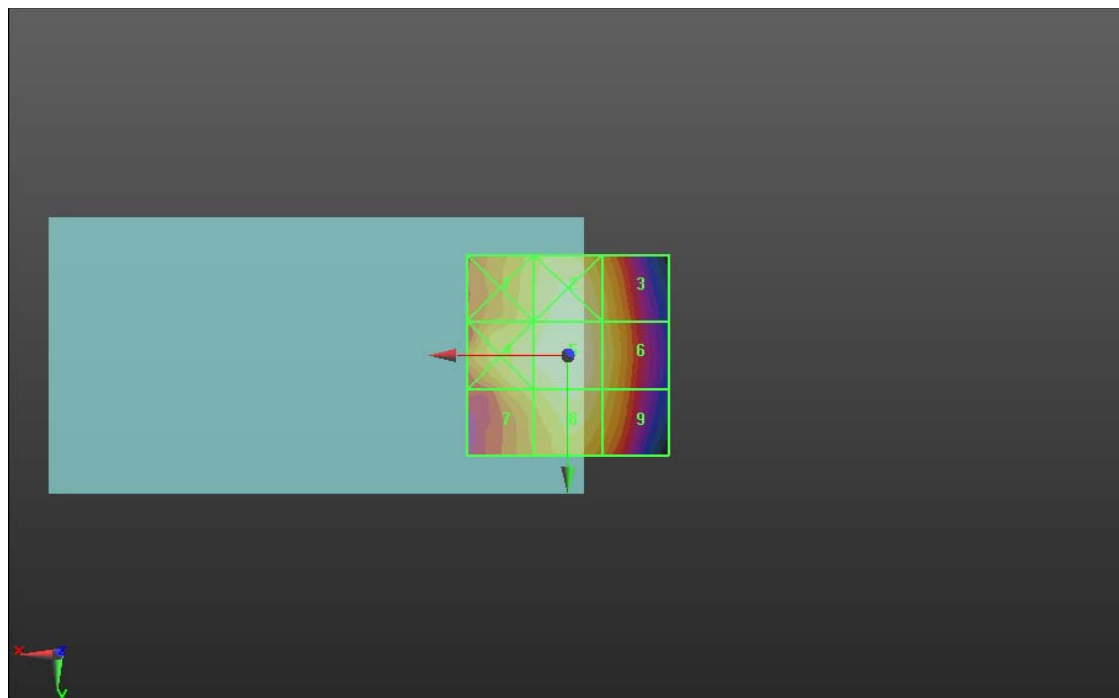
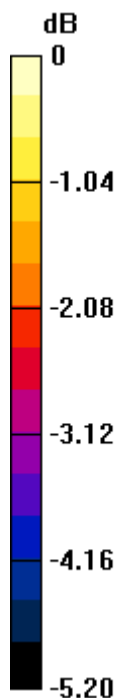
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 47.490 V/m; Power Drift = -0.06 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak E-field in V/m

Grid 1 91.235 M4	Grid 2 96.360 M4	Grid 3 89.859 M4
Grid 4 94.406 M4	Grid 5 97.816 M4	Grid 6 91.522 M4
Grid 7 89.621 M4	Grid 8 95.187 M4	Grid 9 89.430 M4



0 dB = 97.820V/m

Test Laboratory: UL CCS SAR Lab C

1_GSM 850

Communication System: Generic GSM; Frequency: 848.6 MHz; Duty Cycle: 1:8.30042

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2509; ConvF(1, 1, 1); Calibrated: 4/8/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn1257; Calibrated: 5/3/2011
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

E-Field/H ch/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 89.166 V/m

Probe Modulation Factor = 2.790

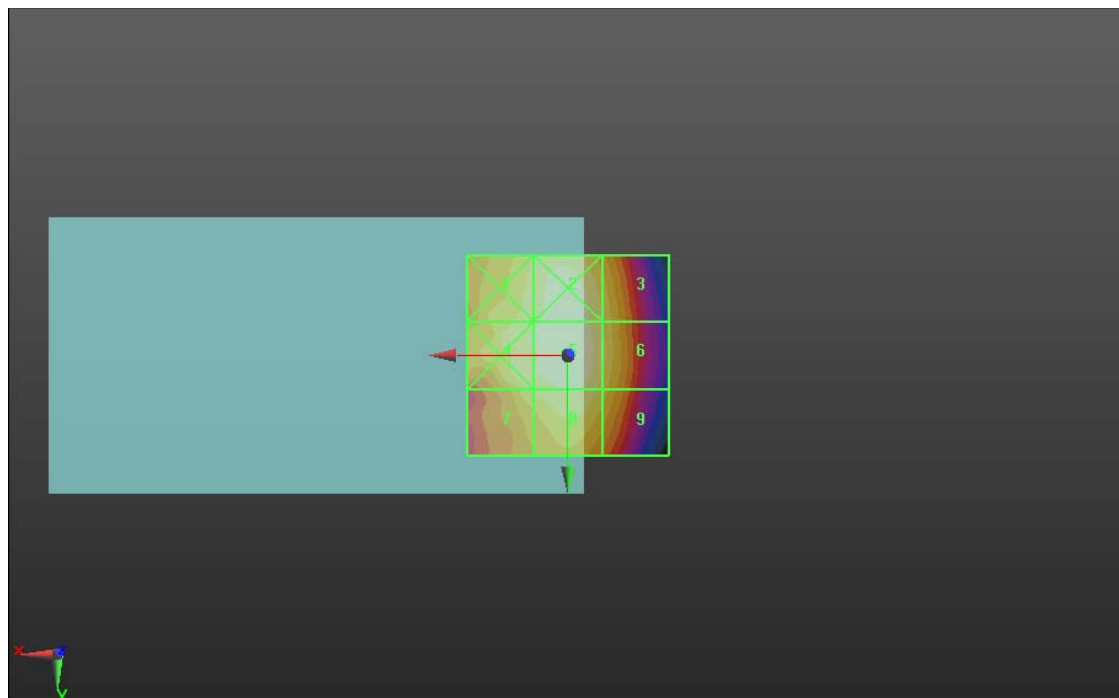
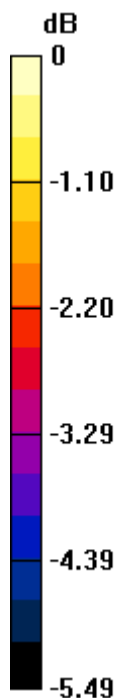
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 43.293 V/m; Power Drift = -0.01 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak E-field in V/m

Grid 1 84.902 M4	Grid 2 88.355 M4	Grid 3 82.198 M4
Grid 4 85.839 M4	Grid 5 89.166 M4	Grid 6 82.995 M4
Grid 7 82.555 M4	Grid 8 86.120 M4	Grid 9 80.487 M4



0 dB = 89.170V/m

Test Laboratory: UL CCS SAR Lab C

2_GSM 1900

Communication System: Generic GSM; Frequency: 1850.2 MHz; Duty Cycle: 1:8.30042

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2509; ConvF(1, 1, 1); Calibrated: 4/8/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn1257; Calibrated: 5/3/2011
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

E-Field/L ch/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 52.730 V/m

Probe Modulation Factor = 2.820

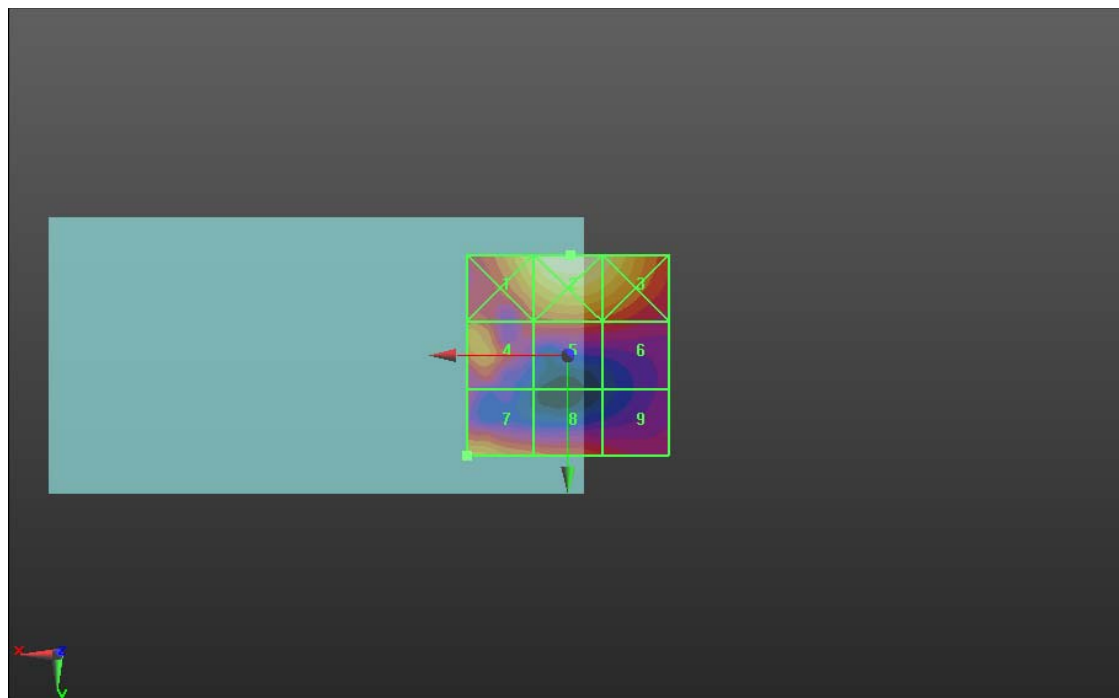
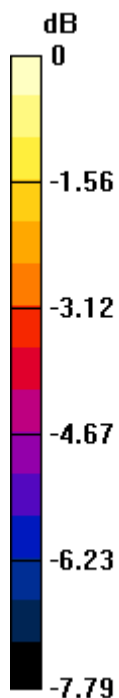
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 14.208 V/m; Power Drift = -0.02 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

Grid 1 57.883 M3	Grid 2 63.860 M3	Grid 3 59.797 M3
Grid 4 49.268 M3	Grid 5 44.639 M4	Grid 6 43.335 M4
Grid 7 52.730 M3	Grid 8 46.736 M4	Grid 9 42.570 M4



0 dB = 63.860V/m

Test Laboratory: UL CCS SAR Lab C

2_GSM 1900

Communication System: Generic GSM; Frequency: 1880 MHz; Duty Cycle: 1:8.30042

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2509; ConvF(1, 1, 1); Calibrated: 4/8/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn1257; Calibrated: 5/3/2011
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

E-Field/M ch/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 51.312 V/m

Probe Modulation Factor = 2.820

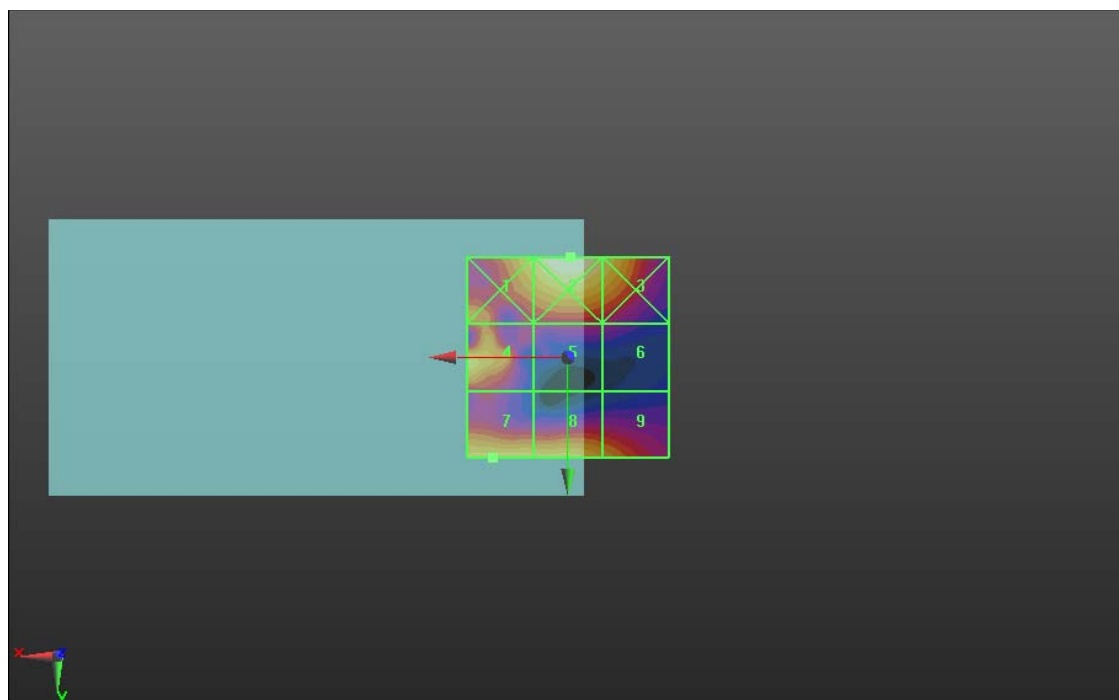
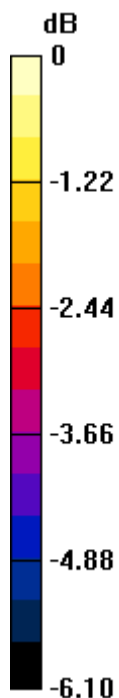
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 13.280 V/m; Power Drift = 0.09 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

Grid 1 51.064 M3	Grid 2 55.999 M3	Grid 3 52.142 M3
Grid 4 51.243 M3	Grid 5 38.931 M4	Grid 6 37.783 M4
Grid 7 51.312 M3	Grid 8 50.983 M3	Grid 9 46.608 M4



0 dB = 56.000V/m

Test Laboratory: UL CCS SAR Lab C

2_GSM 1900

Communication System: Generic GSM; Frequency: 1909.8 MHz; Duty Cycle: 1:8.30042

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2509; ConvF(1, 1, 1); Calibrated: 4/8/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn1257; Calibrated: 5/3/2011
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

E-Field/H ch/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 47.337 V/m

Probe Modulation Factor = 2.820

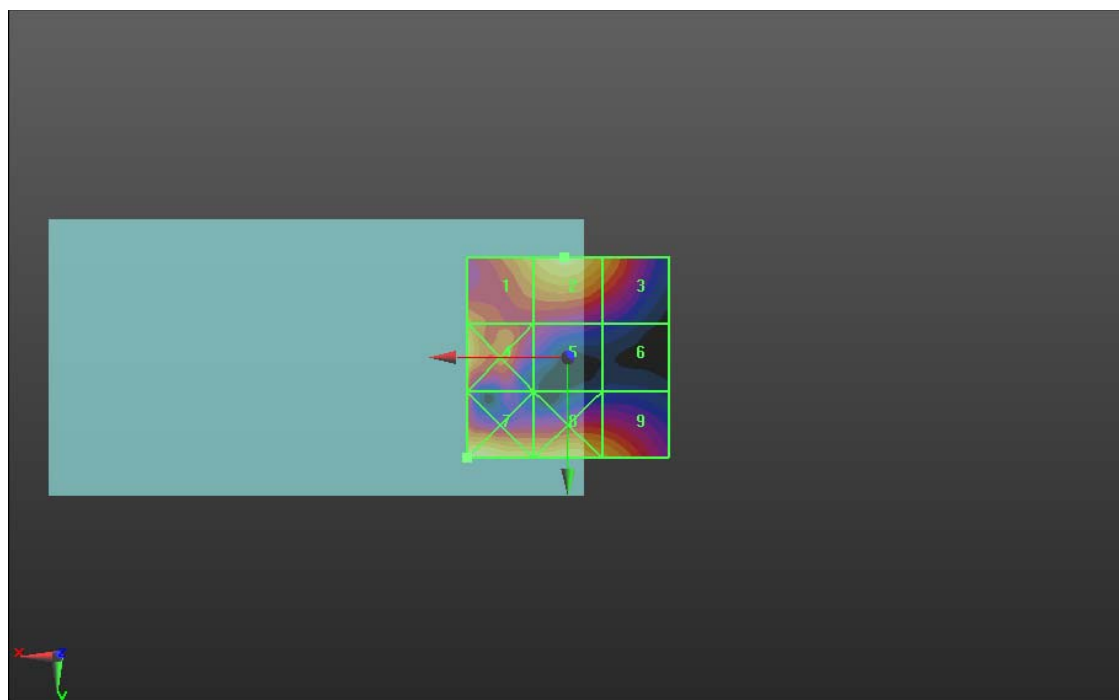
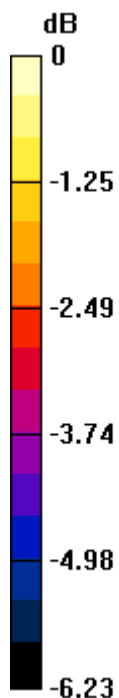
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 11.236 V/m; Power Drift = 0.18 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

Grid 1 44.007 M4	Grid 2 47.337 M3	Grid 3 42.327 M4
Grid 4 45.945 M4	Grid 5 34.831 M4	Grid 6 30.532 M4
Grid 7 50.615 M3	Grid 8 46.959 M4	Grid 9 43.337 M4



0 dB = 50.610V/m

Test Laboratory: UL CCS SAR Lab C

3_UMTS band V

Communication System: UMTS-FDD (WCDMA); Frequency: 826.4 MHz; Duty Cycle: 1:1

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2509; ConvF(1, 1, 1); Calibrated: 4/8/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn1257; Calibrated: 5/3/2011
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

E-Field, R99 RMC 12.2kbps/L ch/Hearing Aid Compatibility Test (101x101x1):

Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 31.660 V/m

Probe Modulation Factor = 0.890

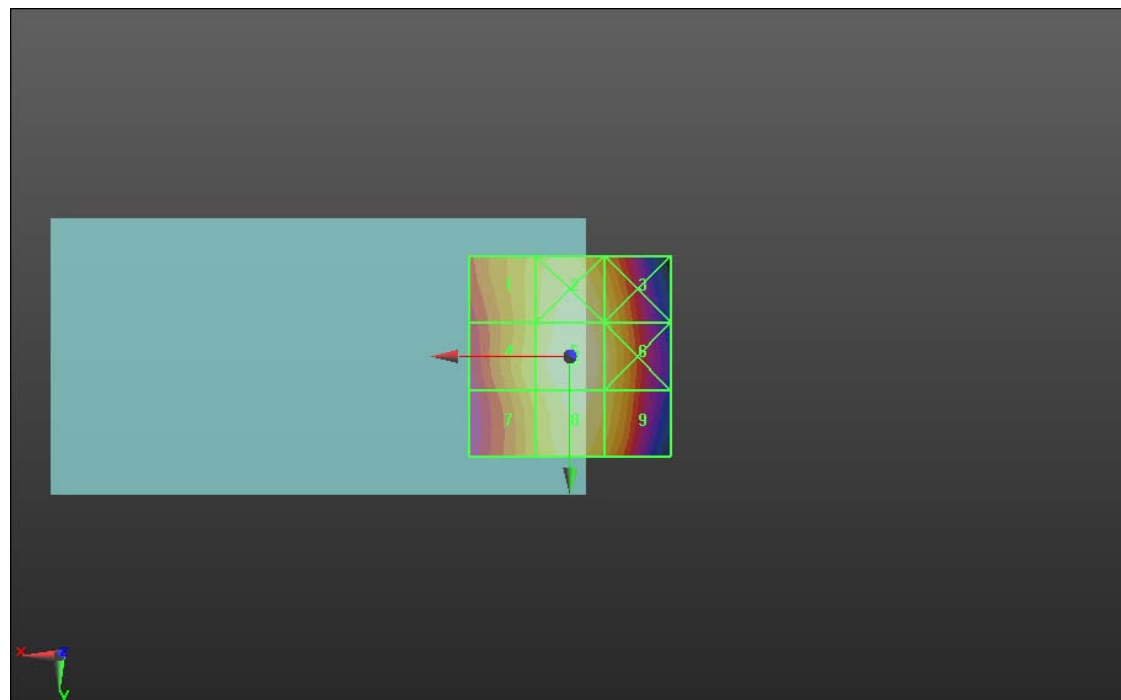
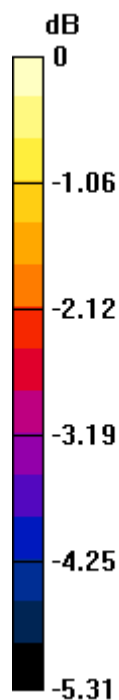
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 48.029 V/m; Power Drift = -0.05 dB

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

Peak E-field in V/m

Grid 1 28.895 M4	Grid 2 31.074 M4	Grid 3 29.142 M4
Grid 4 29.477 M4	Grid 5 31.660 M4	Grid 6 29.832 M4
Grid 7 28.758 M4	Grid 8 31.023 M4	Grid 9 29.432 M4



0 dB = 31.660V/m

Test Laboratory: UL CCS SAR Lab C

3_UMTS band V

Communication System: UMTS-FDD (WCDMA); Frequency: 836.6 MHz; Duty Cycle: 1:1

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2509; ConvF(1, 1, 1); Calibrated: 4/8/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn1257; Calibrated: 5/3/2011
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

E-Field, R99 RMC 12.2kbps/M ch/Hearing Aid Compatibility Test (101x101x1):

Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 35.335 V/m

Probe Modulation Factor = 0.890

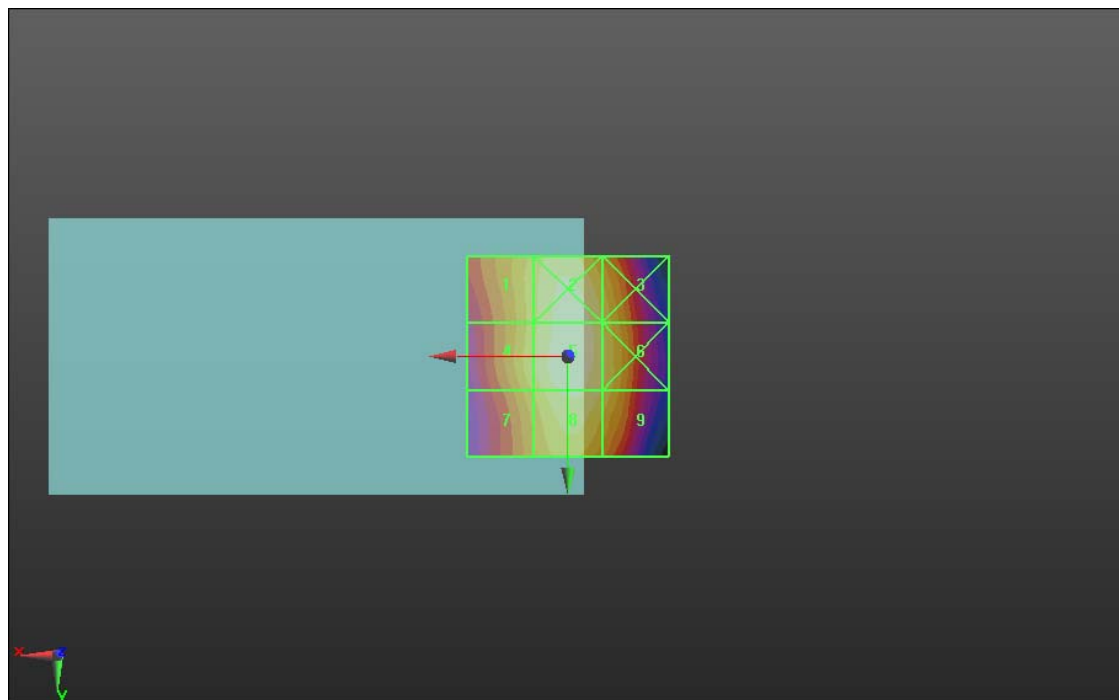
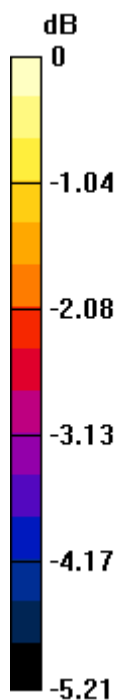
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 53.246 V/m; Power Drift = -0.02 dB

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

Peak E-field in V/m

Grid 1 32.237 M4	Grid 2 34.810 M4	Grid 3 32.645 M4
Grid 4 32.643 M4	Grid 5 35.335 M4	Grid 6 33.048 M4
Grid 7 31.544 M4	Grid 8 34.268 M4	Grid 9 32.549 M4



Test Laboratory: UL CCS SAR Lab C

3_UMTS band V

Communication System: UMTS-FDD (WCDMA); Frequency: 846.6 MHz; Duty Cycle: 1:1

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2509; ConvF(1, 1, 1); Calibrated: 4/8/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn1257; Calibrated: 5/3/2011
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

E-Field, R99 RMC 12.2kbps/H ch/Hearing Aid Compatibility Test (101x101x1):

Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 27.361 V/m

Probe Modulation Factor = 0.890

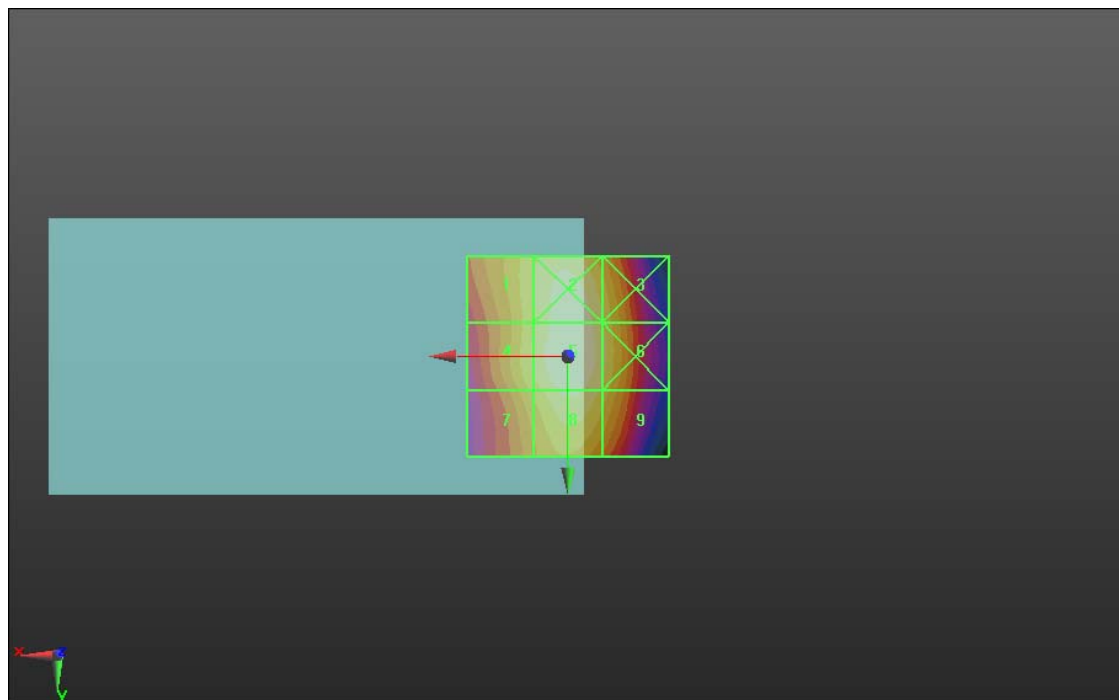
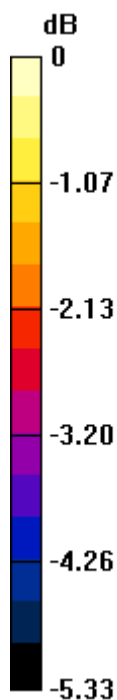
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 41.340 V/m; Power Drift = 0.0027 dB

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

Peak E-field in V/m

Grid 1 25.218 M4	Grid 2 27.041 M4	Grid 3 25.357 M4
Grid 4 25.485 M4	Grid 5 27.361 M4	Grid 6 25.663 M4
Grid 7 24.530 M4	Grid 8 26.499 M4	Grid 9 24.900 M4



0 dB = 27.360V/m

Test Laboratory: UL CCS SAR Lab C

4_UMTS band II

Communication System: UMTS-FDD (WCDMA); Frequency: 1852.4 MHz; Duty Cycle: 1:1

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2509; ConvF(1, 1, 1); Calibrated: 4/8/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn1257; Calibrated: 5/3/2011
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

E-Field, R99 RMC 12.2kbps/L ch/Hearing Aid Compatibility Test (101x101x1):

Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 22.909 V/m

Probe Modulation Factor = 0.960

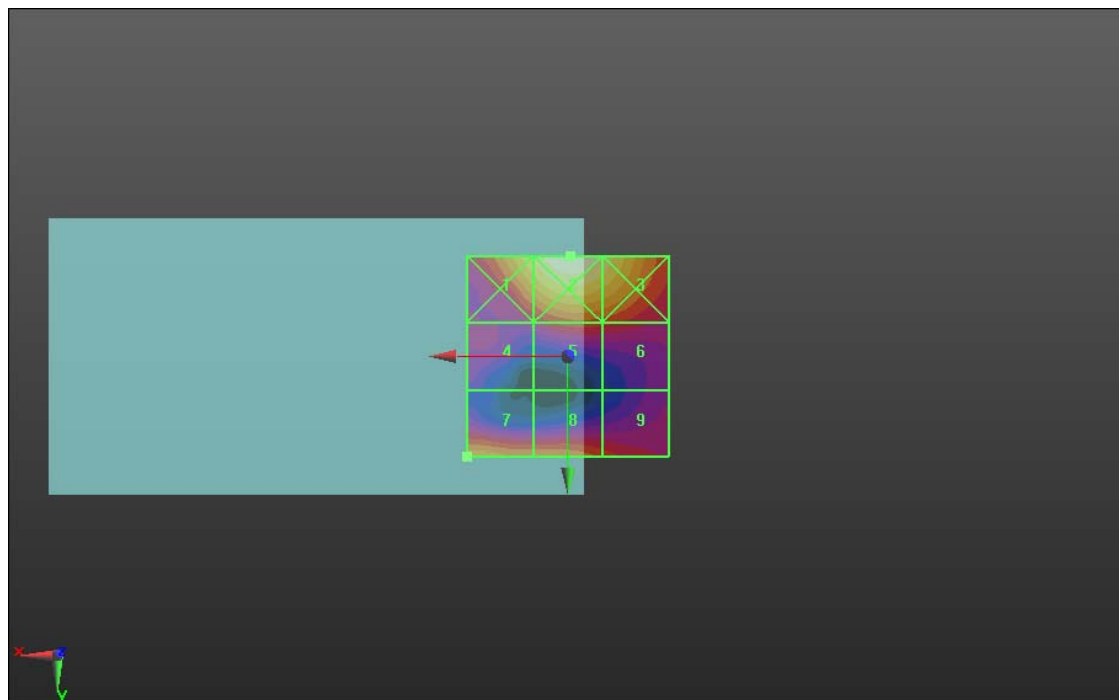
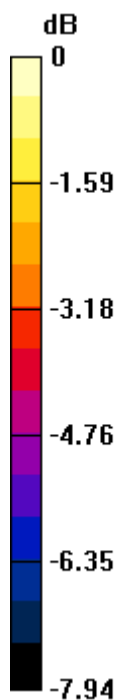
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 18.225 V/m; Power Drift = 0.0022 dB

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

Peak E-field in V/m

Grid 1 25.848 M4	Grid 2 28.730 M4	Grid 3 26.763 M4
Grid 4 17.470 M4	Grid 5 19.608 M4	Grid 6 19.293 M4
Grid 7 22.909 M4	Grid 8 21.480 M4	Grid 9 19.707 M4



Test Laboratory: UL CCS SAR Lab C

4_UMTS band II

Communication System: UMTS-FDD (WCDMA); Frequency: 1880 MHz; Duty Cycle: 1:1

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2509; ConvF(1, 1, 1); Calibrated: 4/8/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn1257; Calibrated: 5/3/2011
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

E-Field, R99 RMC 12.2kbps/M ch/Hearing Aid Compatibility Test (101x101x1):

Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 22.594 V/m

Probe Modulation Factor = 0.960

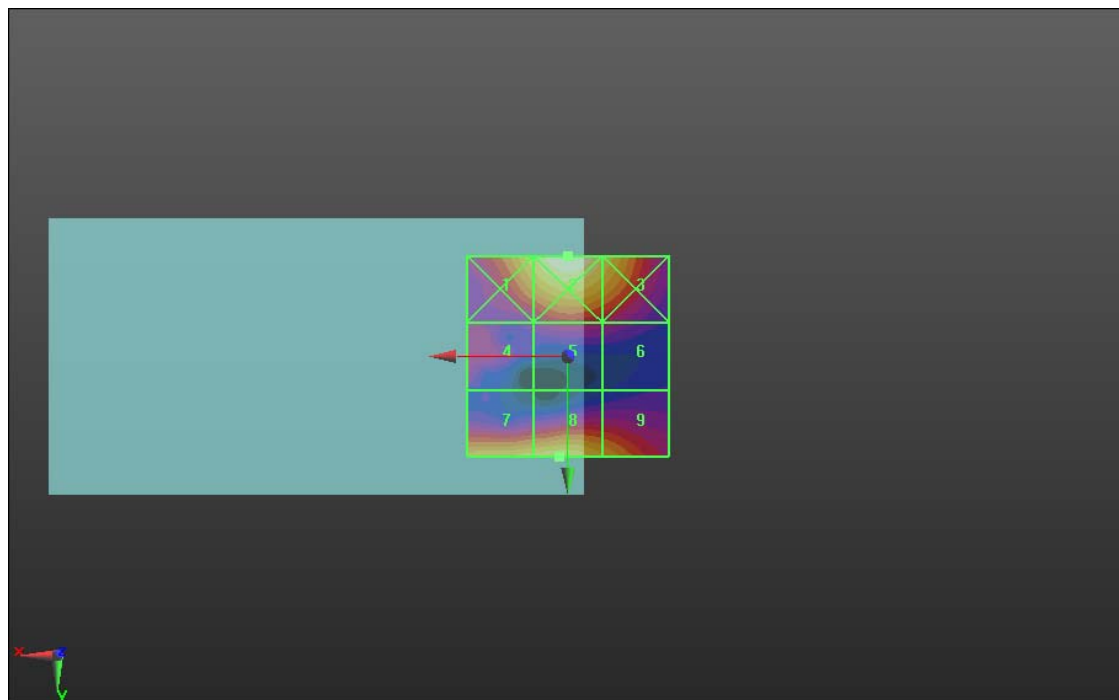
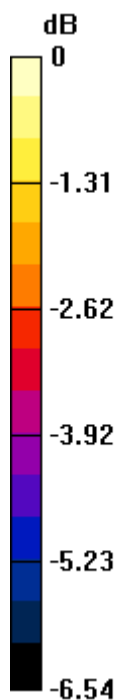
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 16.718 V/m; Power Drift = 0.15 dB

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

Peak E-field in V/m

Grid 1 22.422 M4	Grid 2 24.732 M4	Grid 3 22.536 M4
Grid 4 16.576 M4	Grid 5 17.070 M4	Grid 6 16.397 M4
Grid 7 22.207 M4	Grid 8 22.594 M4	Grid 9 20.629 M4



0 dB = 24.730V/m

Test Laboratory: UL CCS SAR Lab C

4_UMTS band II

Communication System: UMTS-FDD (WCDMA); Frequency: 1907.6 MHz; Duty Cycle: 1:1

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2509; ConvF(1, 1, 1); Calibrated: 4/8/2011
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn1257; Calibrated: 5/3/2011
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.6 (2); SEMCAD X Version 14.4.5 (3634)

E-Field, R99 RMC 12.2kbps/H ch/Hearing Aid Compatibility Test (101x101x1):

Measurement grid: dx=5mm, dy=5mm

Maximum value of peak Total field = 21.245 V/m

Probe Modulation Factor = 0.960

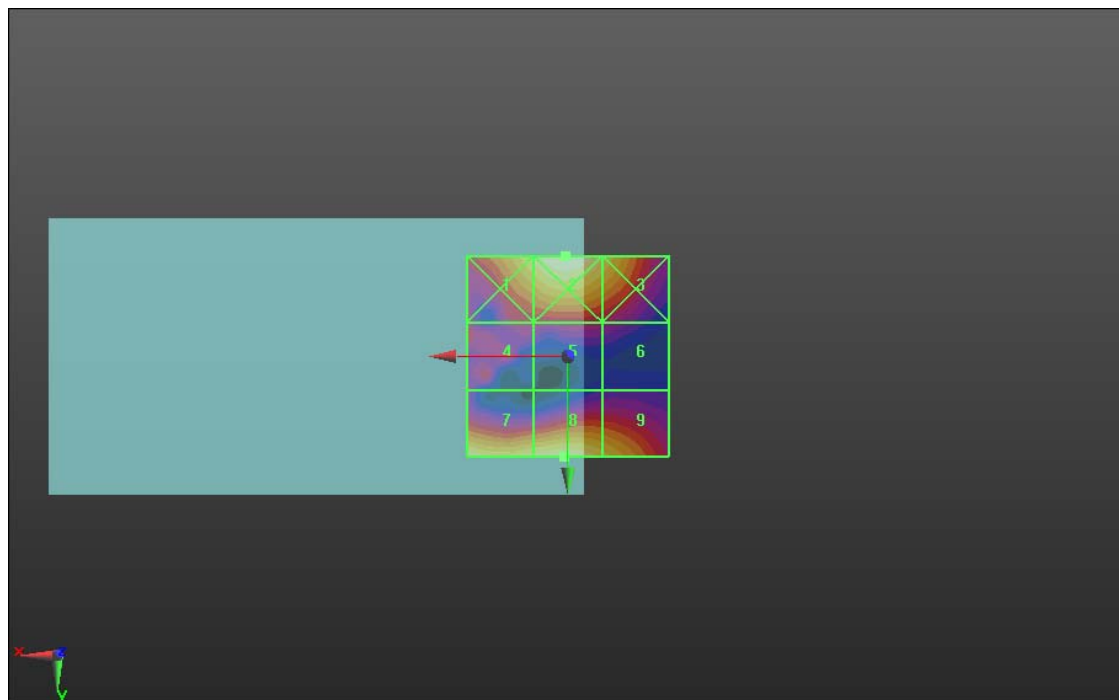
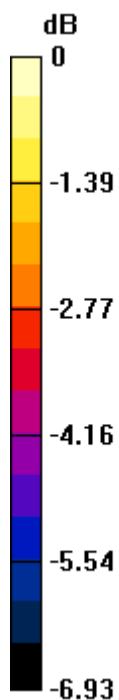
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 14.958 V/m; Power Drift = -0.55 dB

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

Peak E-field in V/m

Grid 1 20.426 M4	Grid 2 22.174 M4	Grid 3 20.111 M4
Grid 4 15.333 M4	Grid 5 14.797 M4	Grid 6 14.240 M4
Grid 7 21.164 M4	Grid 8 21.245 M4	Grid 9 19.558 M4



0 dB = 22.170V/m