

Test Laboratory: UL CCS SAR Lab C

GSM 850

Communication System: GPRS-FDD (TDMA, GMSK, 1 slot); Frequency: 824.4 MHz; Duty Cycle: 1:8.00018

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2339; ConvF(1, 1, 1); Calibrated: 1/20/2012

- Sensor-Surface: (Fix Surface)

- Electronics: DAE4 Sn1257; Calibrated: 10/25/2011

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

- Measurement SW: DASY52, Version 52.8 (0); 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 = 194.1 V/m

Probe Modulation Factor = 2.790

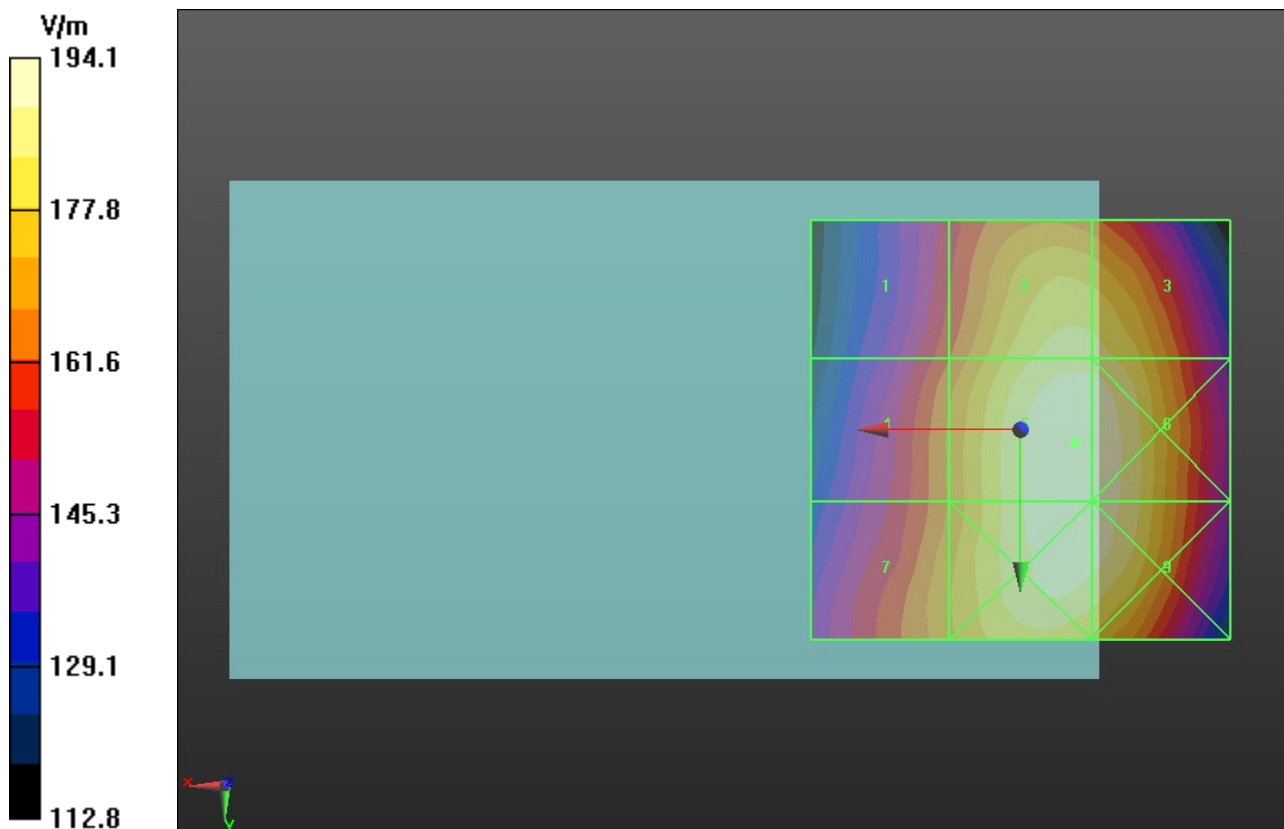
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 87.061 V/m; Power Drift = -0.06 dB

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

Peak E-field in V/m

Grid 1 161.6 M3	Grid 2 187.0 M3	Grid 3 186.5 M3
Grid 4 168.2 M3	Grid 5 194.1 M3	Grid 6 193.6 M3
Grid 7 172.2 M3	Grid 8 193.6 M3	Grid 9 193.2 M3



Test Laboratory: UL CCS SAR Lab C

GSM 850

Communication System: GPRS-FDD (TDMA, GMSK, 1 slot); Frequency: 836.6 MHz; Duty Cycle: 1:8.00018

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2339; ConvF(1, 1, 1); Calibrated: 1/20/2012
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn1257; Calibrated: 10/25/2011
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.8 (0); 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 = 202.7 V/m

Probe Modulation Factor = 2.790

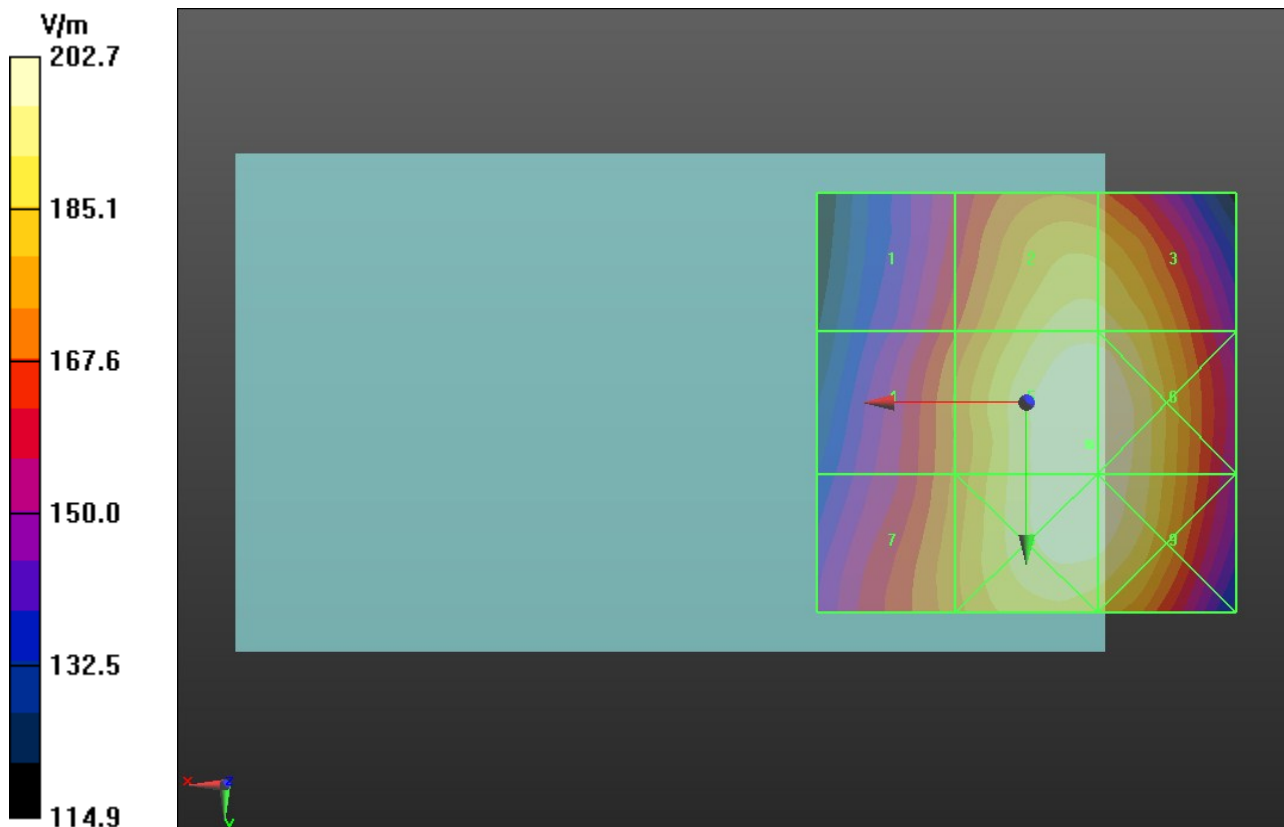
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 90.502 V/m; Power Drift = 0.0042 dB

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

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
167.3 M3	195.1 M3	194.7 M3
Grid 4	Grid 5	Grid 6
174.9 M3	202.7 M3	202.5 M3
Grid 7	Grid 8	Grid 9
178.4 M3	202.5 M3	202.0 M3



Test Laboratory: UL CCS SAR Lab C

GSM 850

Communication System: GPRS-FDD (TDMA, GMSK, 1 slot); Frequency: 848.8 MHz; Duty Cycle: 1:8.00018

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2339; ConvF(1, 1, 1); Calibrated: 1/20/2012
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn1257; Calibrated: 10/25/2011
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.8 (0); 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 = 173.3 V/m

Probe Modulation Factor = 2.790

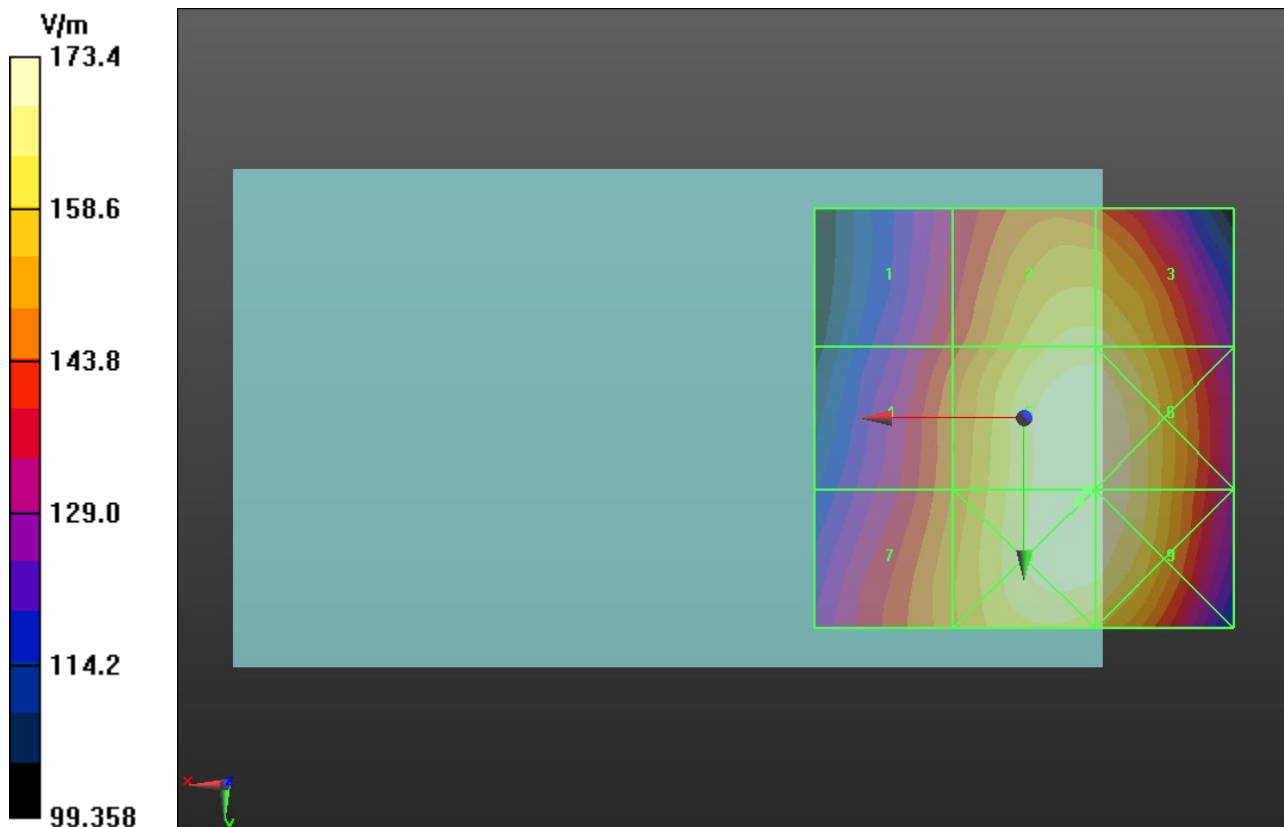
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 76.853 V/m; Power Drift = 0.03 dB

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

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
141.7 M4	166.3 M3	166.2 M3
Grid 4	Grid 5	Grid 6
149.2 M4	173.3 M3	173.1 M3
Grid 7	Grid 8	Grid 9
153.3 M3	173.4 M3	173.2 M3



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GSM 1900

Communication System: GPRS-FDD (TDMA, GMSK, 1 slot); Frequency: 1850.2 MHz; Duty Cycle: 1:8.00018

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2339; ConvF(1, 1, 1); Calibrated: 1/20/2012
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn1257; Calibrated: 10/25/2011
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.8 (0); 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 = 57.182 V/m

Probe Modulation Factor = 2.820

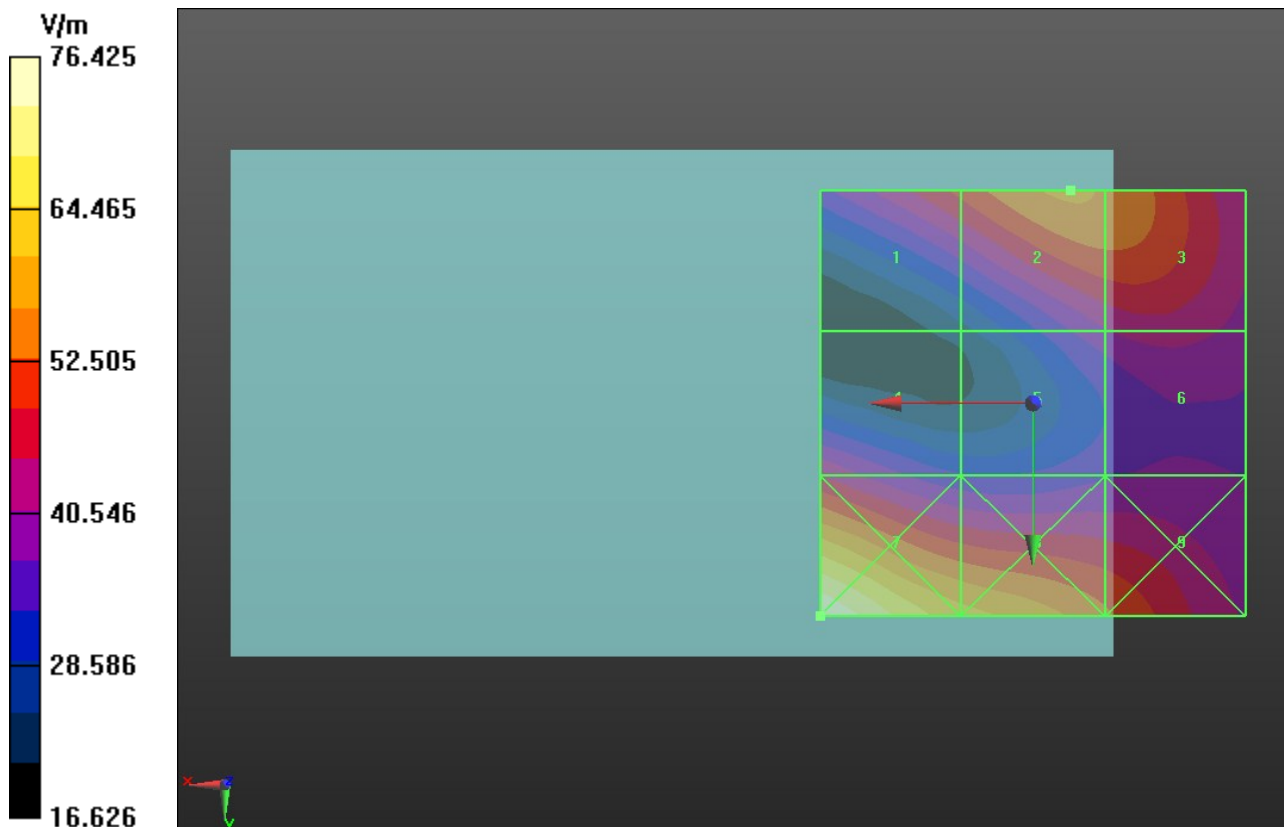
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 9.317 V/m; Power Drift = -0.09 dB

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

Peak E-field in V/m

Grid 1 49.811 M3	Grid 2 57.182 M3	Grid 3 56.038 M3
Grid 4 44.651 M4	Grid 5 40.247 M4	Grid 6 42.748 M4
Grid 7 76.425 M3	Grid 8 62.337 M3	Grid 9 53.425 M3



Test Laboratory: UL CCS SAR Lab C

GSM 1900

Communication System: GPRS-FDD (TDMA, GMSK, 1 slot); Frequency: 1880 MHz; Duty Cycle: 1:8.00018

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2339; ConvF(1, 1, 1); Calibrated: 1/20/2012
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn1257; Calibrated: 10/25/2011
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.8 (0); 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 = 50.622 V/m

Probe Modulation Factor = 2.820

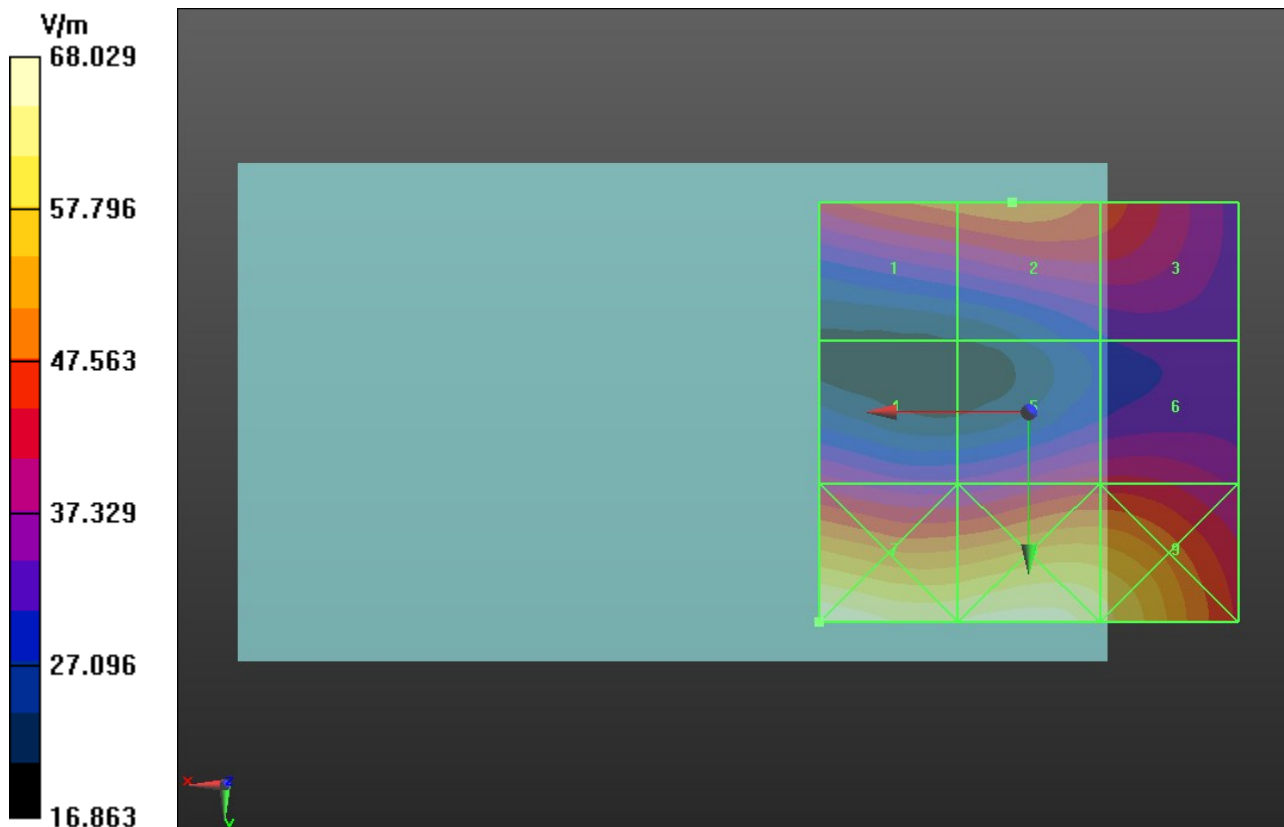
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 8.468 V/m; Power Drift = 0.07 dB

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

Peak E-field in V/m

Grid 1 49.441 M3	Grid 2 50.622 M3	Grid 3 46.599 M4
Grid 4 39.447 M4	Grid 5 42.223 M4	Grid 6 42.362 M4
Grid 7 68.029 M3	Grid 8 66.113 M3	Grid 9 62.789 M3



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GSM 1900

Communication System: GPRS-FDD (TDMA, GMSK, 1 slot); Frequency: 1909.8 MHz; Duty Cycle: 1:8.00018

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2339; ConvF(1, 1, 1); Calibrated: 1/20/2012
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn1257; Calibrated: 10/25/2011
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BB
- Measurement SW: DASY52, Version 52.8 (0); 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 = 44.718 V/m

Probe Modulation Factor = 2.820

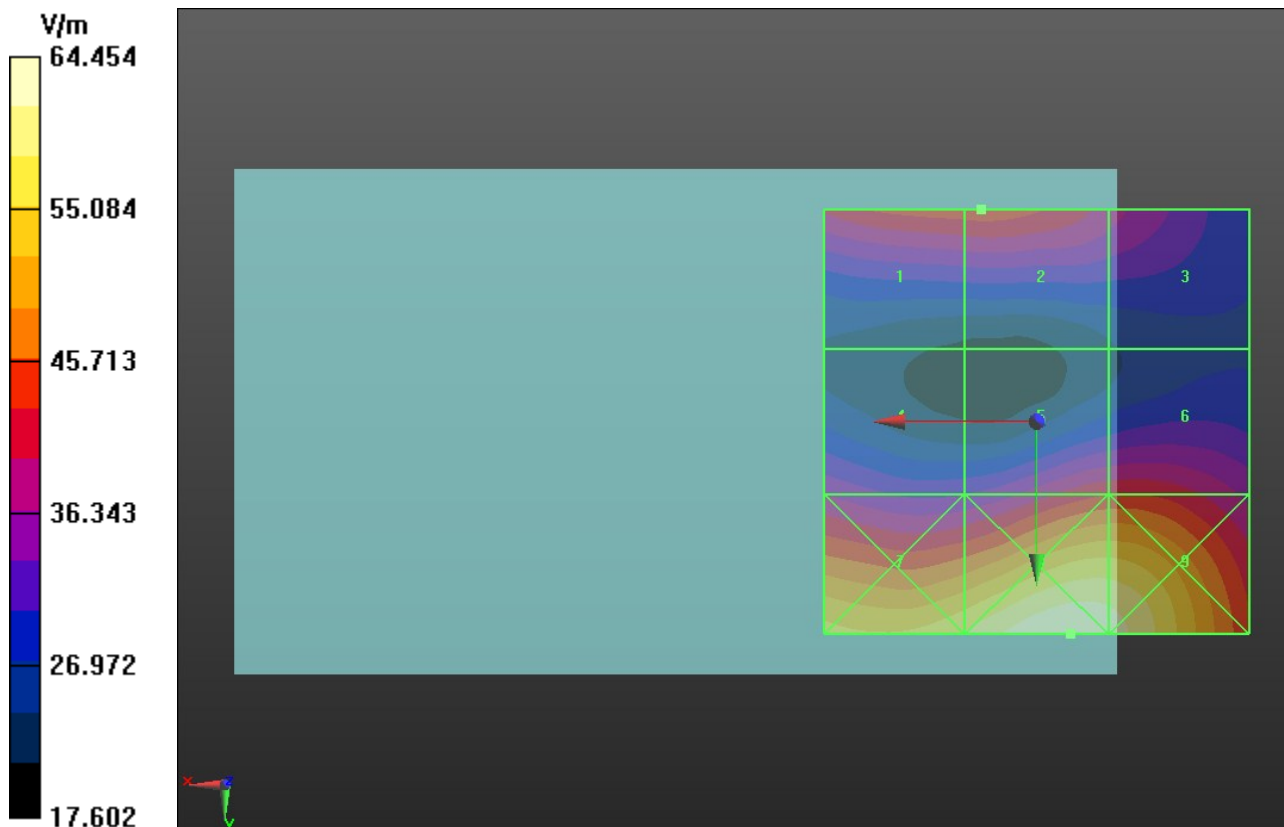
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 7.710 V/m; Power Drift = 0.03 dB

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

Peak E-field in V/m

Grid 1 44.524 M4	Grid 2 44.718 M4	Grid 3 38.054 M4
Grid 4 36.415 M4	Grid 5 42.493 M4	Grid 6 42.738 M4
Grid 7 58.567 M3	Grid 8 64.454 M3	Grid 9 63.023 M3



Test Laboratory: UL CCS SAR Lab C

W-CDMA Band V

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2339; ConvF(1, 1, 1); Calibrated: 1/20/2012

- Sensor-Surface: (Fix Surface)

- Electronics: DAE4 Sn1257; Calibrated: 10/25/2011

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

- Measurement SW: DASY52, Version 52.8 (0); 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 = 54.814 V/m

Probe Modulation Factor = 0.890

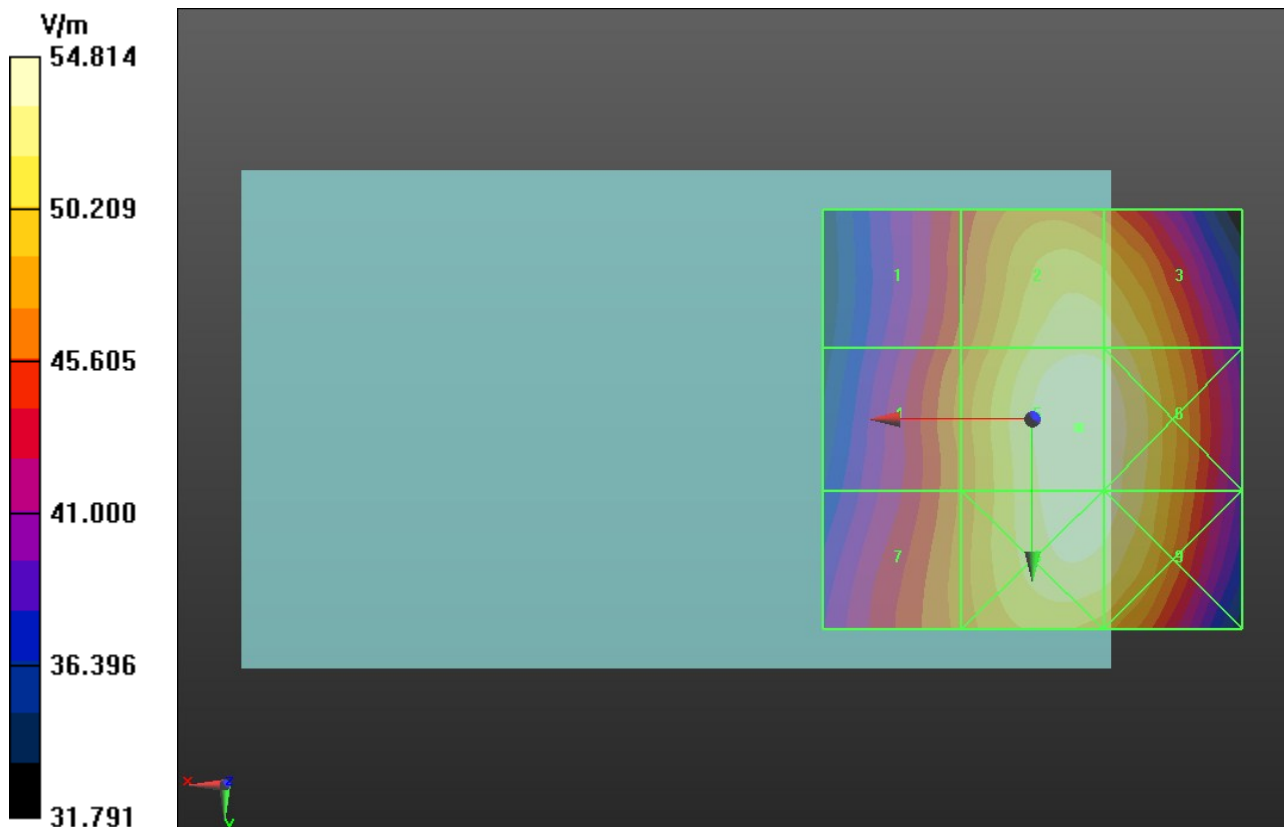
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 76.277 V/m; Power Drift = 0.12 dB

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

Peak E-field in V/m

Grid 1 46.424 M4	Grid 2 53.079 M4	Grid 3 52.862 M4
Grid 4 47.876 M4	Grid 5 54.814 M4	Grid 6 54.424 M4
Grid 7 48.021 M4	Grid 8 54.302 M4	Grid 9 54.089 M4



Test Laboratory: UL CCS SAR Lab C

W-CDMA Band V

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2339; ConvF(1, 1, 1); Calibrated: 1/20/2012

- Sensor-Surface: (Fix Surface)

- Electronics: DAE4 Sn1257; Calibrated: 10/25/2011

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

- Measurement SW: DASY52, Version 52.8 (0); 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 = 53.285 V/m

Probe Modulation Factor = 0.890

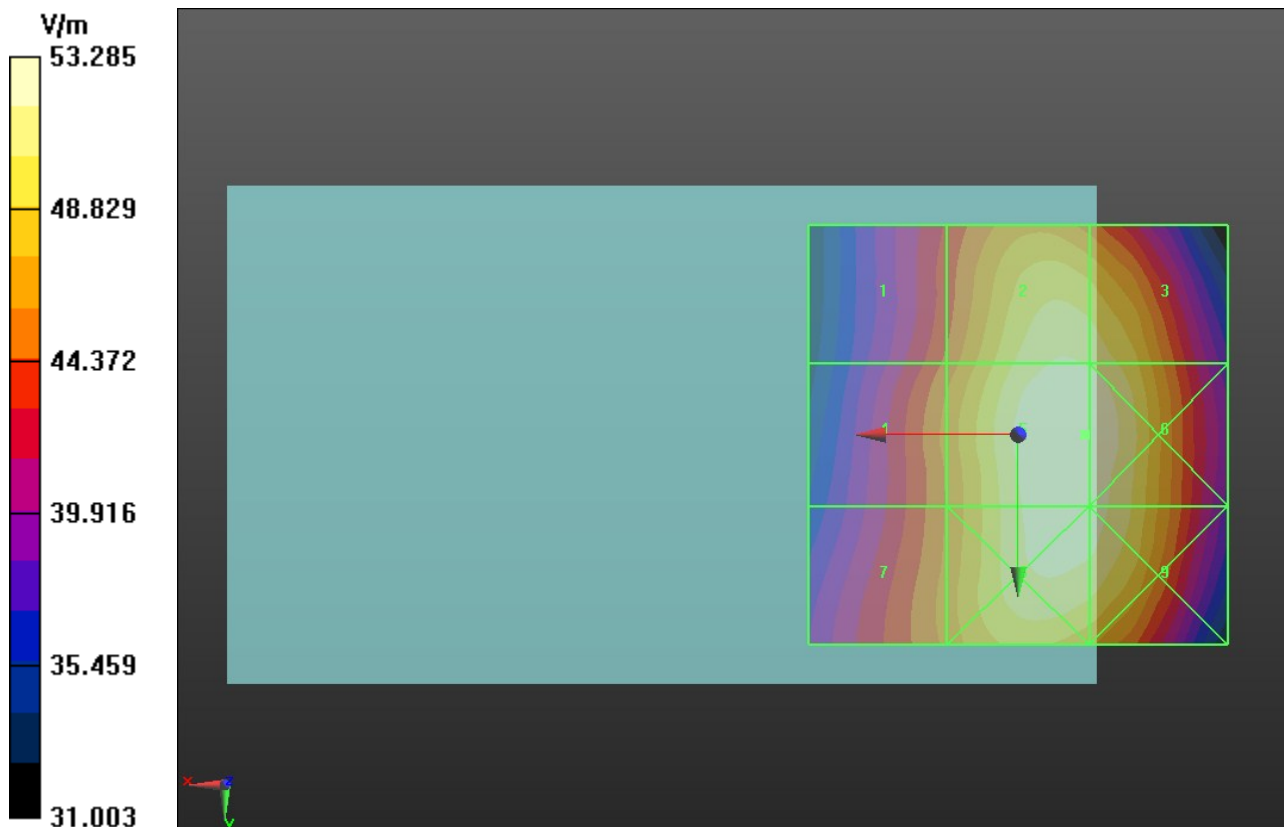
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 75.376 V/m; Power Drift = -0.08 dB

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

Peak E-field in V/m

Grid 1 44.907 M4	Grid 2 51.980 M4	Grid 3 51.663 M4
Grid 4 46.487 M4	Grid 5 53.285 M4	Grid 6 53.281 M4
Grid 7 46.599 M4	Grid 8 52.854 M4	Grid 9 52.608 M4



Test Laboratory: UL CCS SAR Lab C

W-CDMA Band V

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2339; ConvF(1, 1, 1); Calibrated: 1/20/2012

- Sensor-Surface: (Fix Surface)

- Electronics: DAE4 Sn1257; Calibrated: 10/25/2011

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

- Measurement SW: DASY52, Version 52.8 (0); 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 = 44.116 V/m

Probe Modulation Factor = 0.890

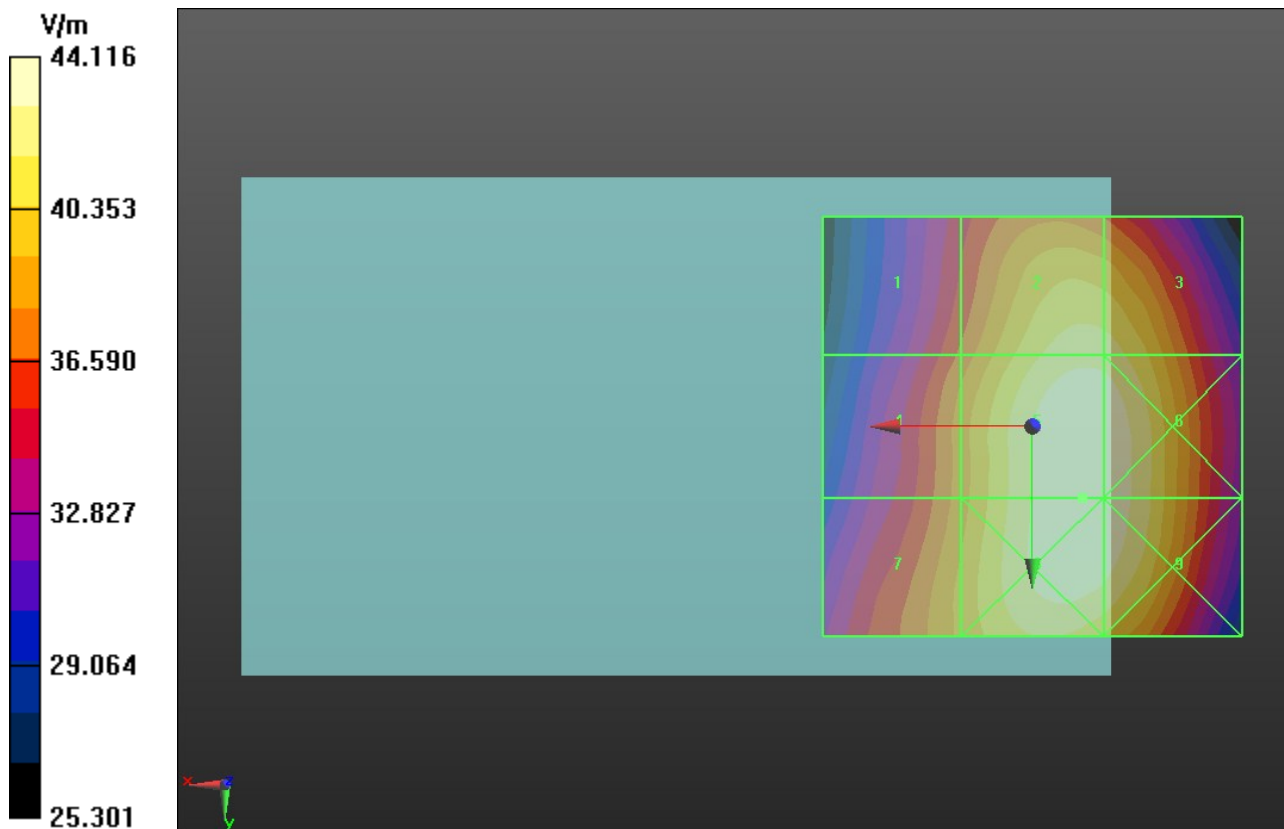
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 61.957 V/m; Power Drift = -0.02 dB

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

Peak E-field in V/m

Grid 1	Grid 2	Grid 3
36.989 M4	42.480 M4	42.377 M4
Grid 4	Grid 5	Grid 6
38.568 M4	44.116 M4	43.961 M4
Grid 7	Grid 8	Grid 9
39.525 M4	44.116 M4	43.965 M4



Test Laboratory: UL CCS SAR Lab C

W-CDMA Band II

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2339; ConvF(1, 1, 1); Calibrated: 1/20/2012

- Sensor-Surface: (Fix Surface)

- Electronics: DAE4 Sn1257; Calibrated: 10/25/2011

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

- Measurement SW: DASY52, Version 52.8 (0); 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 = 20.926 V/m

Probe Modulation Factor = 0.960

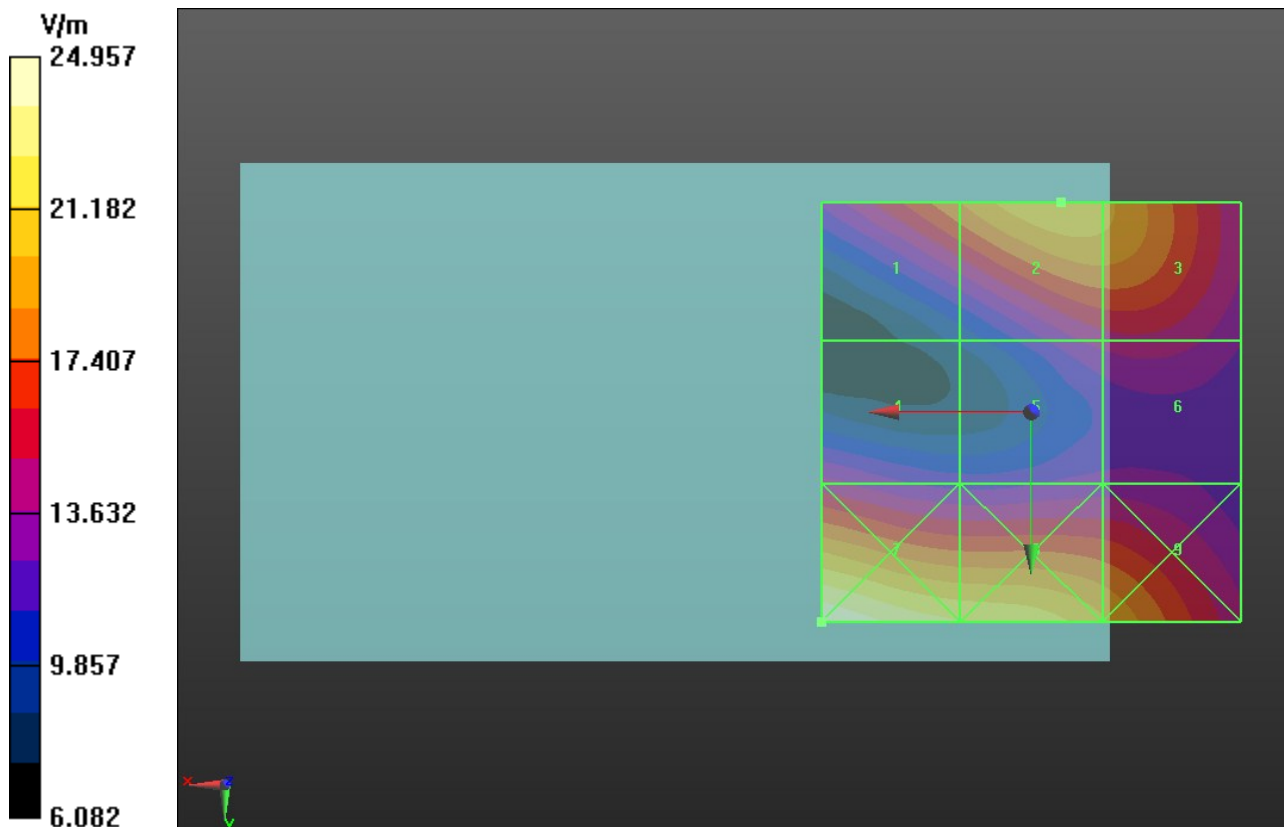
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 9.671 V/m; Power Drift = -0.17 dB

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

Peak E-field in V/m

Grid 1 18.681 M4	Grid 2 20.926 M4	Grid 3 20.301 M4
Grid 4 14.218 M4	Grid 5 14.228 M4	Grid 6 14.588 M4
Grid 7 24.957 M4	Grid 8 22.546 M4	Grid 9 20.173 M4



Test Laboratory: UL CCS SAR Lab C

W-CDMA Band II

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2339; ConvF(1, 1, 1); Calibrated: 1/20/2012

- Sensor-Surface: (Fix Surface)

- Electronics: DAE4 Sn1257; Calibrated: 10/25/2011

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

- Measurement SW: DASY52, Version 52.8 (0); 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 = 22.549 V/m

Probe Modulation Factor = 0.960

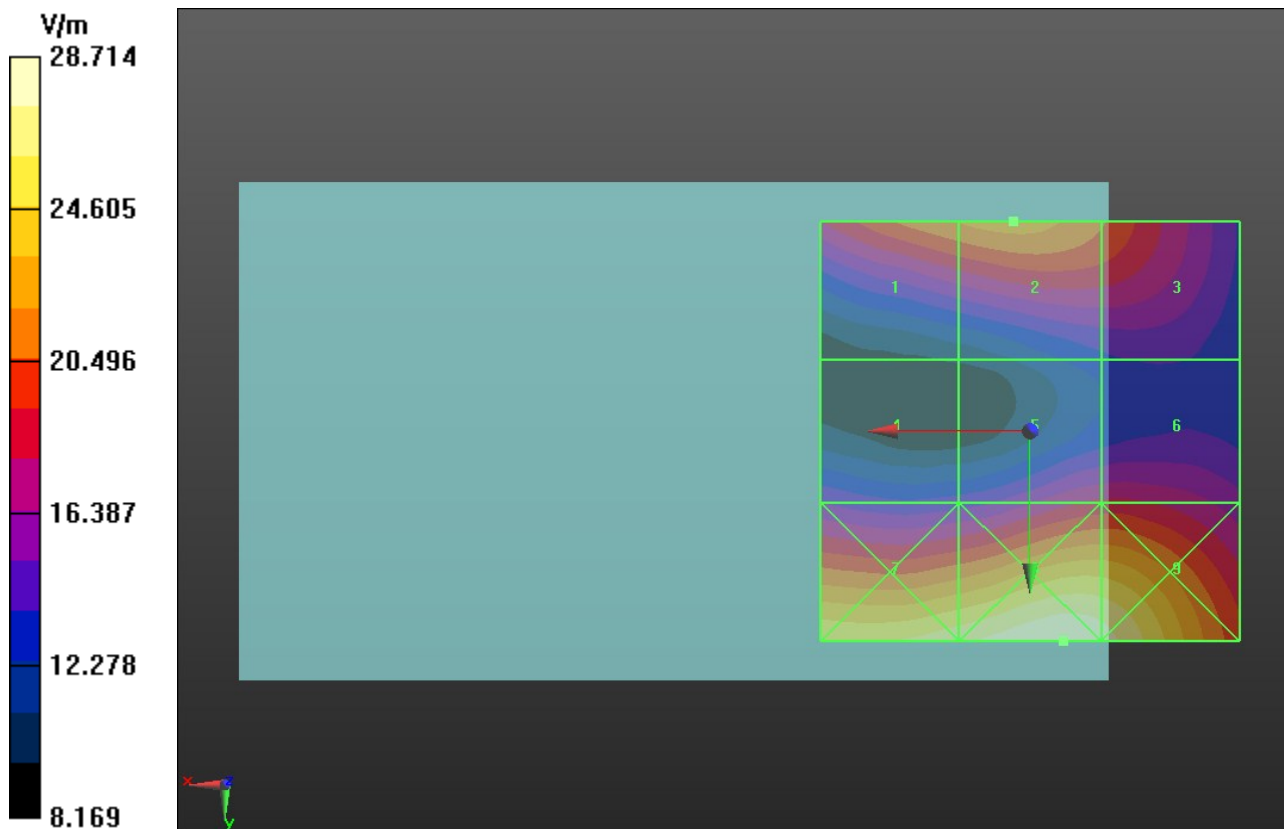
Device Reference Point: 0, 0, -6.3 mm

Reference Value = 10.122 V/m; Power Drift = 0.19 dB

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

Peak E-field in V/m

Grid 1 21.980 M4	Grid 2 22.549 M4	Grid 3 20.687 M4
Grid 4 15.067 M4	Grid 5 18.115 M4	Grid 6 18.187 M4
Grid 7 27.034 M4	Grid 8 28.714 M4	Grid 9 28.021 M4



Test Laboratory: UL CCS SAR Lab C

W-CDMA Band II

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

Phantom section: RF Section

DASY4 Configuration:

- Probe: ER3DV6 - SN2339; ConvF(1, 1, 1); Calibrated: 1/20/2012

- Sensor-Surface: (Fix Surface)

- Electronics: DAE4 Sn1257; Calibrated: 10/25/2011

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

- Measurement SW: DASY52, Version 52.8 (0); 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 = 24.017 V/m

Probe Modulation Factor = 0.960

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 10.801 V/m; Power Drift = -0.20 dB

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

Peak E-field in V/m

Grid 1 24.011 M4	Grid 2 24.017 M4	Grid 3 19.994 M4
Grid 4 17.273 M4	Grid 5 20.661 M4	Grid 6 20.683 M4
Grid 7 29.827 M4	Grid 8 32.287 M4	Grid 9 31.207 M4

