



Appendix B. SAR Measurement Plots

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HAC RF Measurement plots of GSM850
HAC RF Measurement plots of GSM1900

Test Laboratory: HUAWEI SAR/HAC Lab

HAC_ER3DV6_FRD-L24 GSM850 128CH

DUT: FRD-L24; Type: Smart Phone; Serial: SAR1

Communication System: UID 10021 - DAC, GSM-FDD (TDMA, GMSK); Frequency: 824.2 MHz; Duty Cycle: 1:8.6896

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

Phantom section: RF Section

DASY Configuration:

- ε Probe: ER3DV6 - SN2441; ConvF(1, 1, 1); Calibrated: 2017-11-17;
- ε Sensor-Surface: (Fix Surface), z = 8.7
- ε Electronics: DAE4 Sn1236; Calibrated: 2017-7-21
- ε Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: 1053
- ε DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Device E-Field measurement (E-field scan for ANSI C63.19-2011 compliance)/E Scan - ER3D: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test

(101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 44.27 V/m; Power Drift = 0.04 dB

Applied MIF = 3.63 dB

RF audio interference level = 35.36 dBV/m

Emission category: M4

MIF scaled E-field

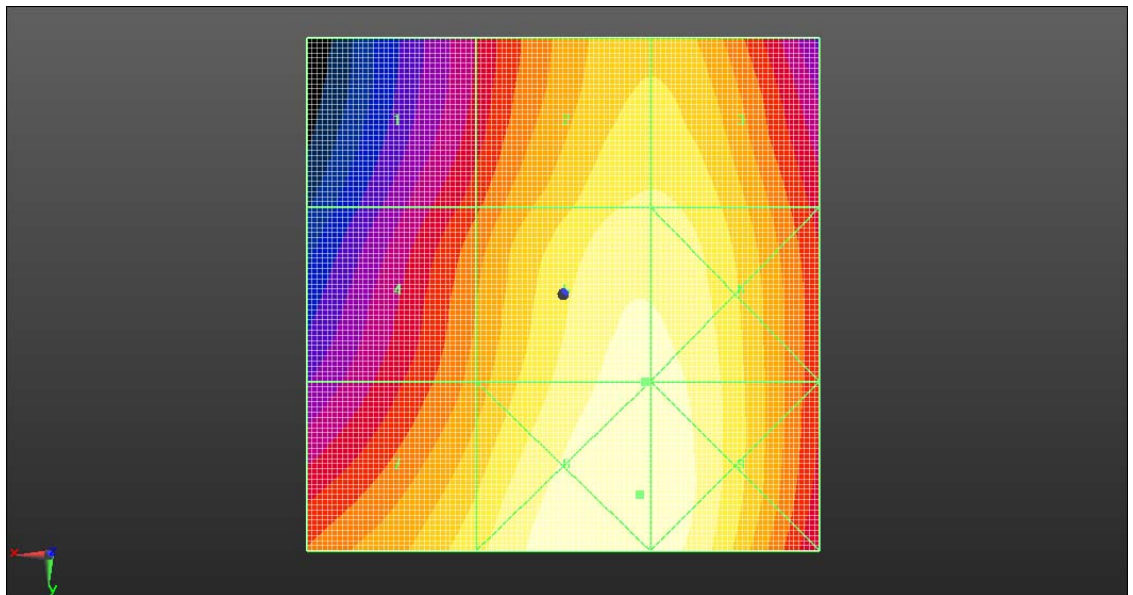
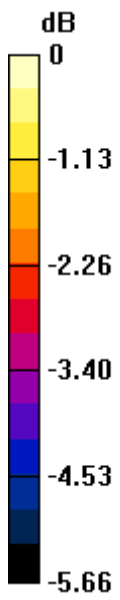
Grid 1 M4 33.23 dBV/m	Grid 2 M4 34.91 dBV/m	Grid 3 M4 34.91 dBV/m
Grid 4 M4 33.87 dBV/m	Grid 5 M4 35.36 dBV/m	Grid 6 M4 35.36 dBV/m
Grid 7 M4 34.71 dBV/m	Grid 8 M4 35.58 dBV/m	Grid 9 M4 35.57 dBV/m

Cursor:

Total = 35.57 dBV/m

E Category: M4

Location: -7.5, 19.5, 8.7 mm



0 dB = 60.08 V/m = 35.57 dBV/m

Test Laboratory: HUAWEI SAR/HAC Lab

HAC_ER3DV6_FRD-L24 GSM850 190CH

DUT: FRD-L24; Type: Smart Phone; Serial: SAR1

Communication System: UID 10021 - DAC, GSM-FDD (TDMA, GMSK); Frequency: 836.6 MHz; Duty Cycle: 1:8.6896

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

Phantom section: RF Section

DASY Configuration:

- ε Probe: ER3DV6 - SN2441; ConvF(1, 1, 1); Calibrated: 2017-11-17;
- ε Sensor-Surface: (Fix Surface), z = 8.7
- ε Electronics: DAE4 Sn1236; Calibrated: 2017-7-21
- ε Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: 1053
- ε DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Device E-Field measurement (E-field scan for ANSI C63.19-2011 compliance)/E Scan - ER3D: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test

(101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 49.16 V/m; Power Drift = 0.01 dB

Applied MIF = 3.63 dB

RF audio interference level = 36.32 dBV/m

Emission category: M4

MIF scaled E-field

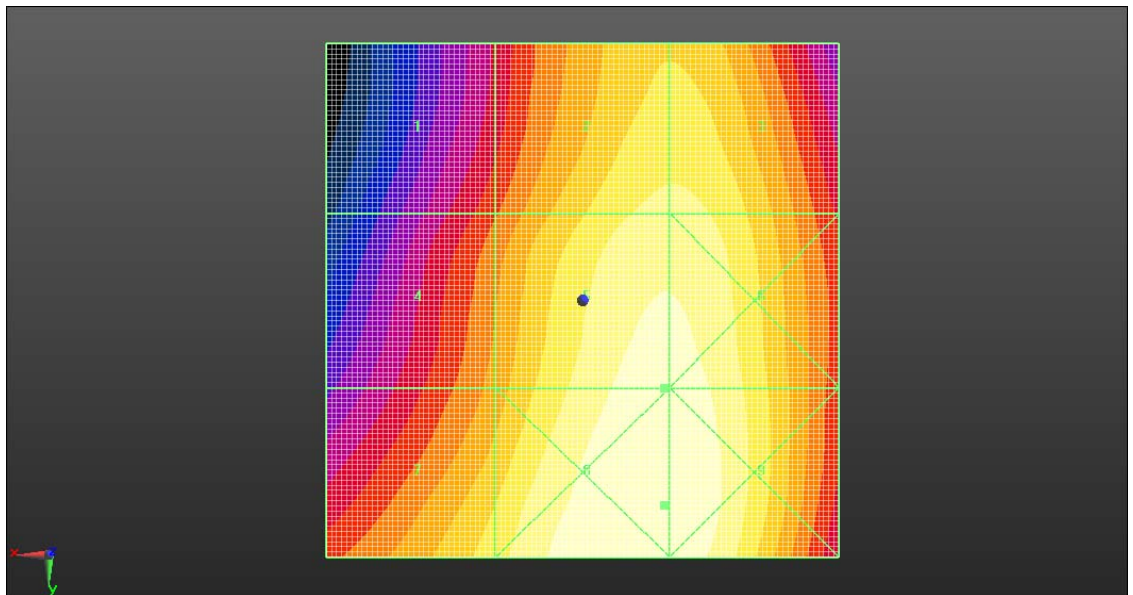
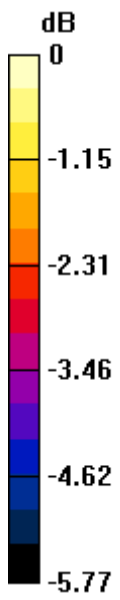
Grid 1 M4 34.17 dBV/m	Grid 2 M4 35.88 dBV/m	Grid 3 M4 35.88 dBV/m
Grid 4 M4 34.78 dBV/m	Grid 5 M4 36.32 dBV/m	Grid 6 M4 36.32 dBV/m
Grid 7 M4 35.59 dBV/m	Grid 8 M4 36.51 dBV/m	Grid 9 M4 36.51 dBV/m

Cursor:

Total = 36.51 dBV/m

E Category: M4

Location: -8, 20, 8.7 mm



0 dB = 66.94 V/m = 36.51 dBV/m

Test Laboratory: HUAWEI SAR/HAC Lab

HAC_ER3DV6_FRD-L24 GSM850 251CH

DUT: FRD-L24; Type: Smart Phone; Serial: SAR1

Communication System: UID 10021 - DAC, GSM-FDD (TDMA, GMSK); Frequency: 848.8 MHz; Duty Cycle: 1:8.6896

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

Phantom section: RF Section

DASY Configuration:

- ε Probe: ER3DV6 - SN2441; ConvF(1, 1, 1); Calibrated: 2017-11-17;
- ε Sensor-Surface: (Fix Surface), z = 8.7
- ε Electronics: DAE4 Sn1236; Calibrated: 2017-7-21
- ε Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: 1053
- ε DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Device E-Field measurement (E-field scan for ANSI C63.19-2011 compliance)/E Scan - ER3D: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test

(101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 51.68 V/m; Power Drift = -0.04 dB

Applied MIF = 3.63 dB

RF audio interference level = 36.78 dBV/m

Emission category: M4

MIF scaled E-field

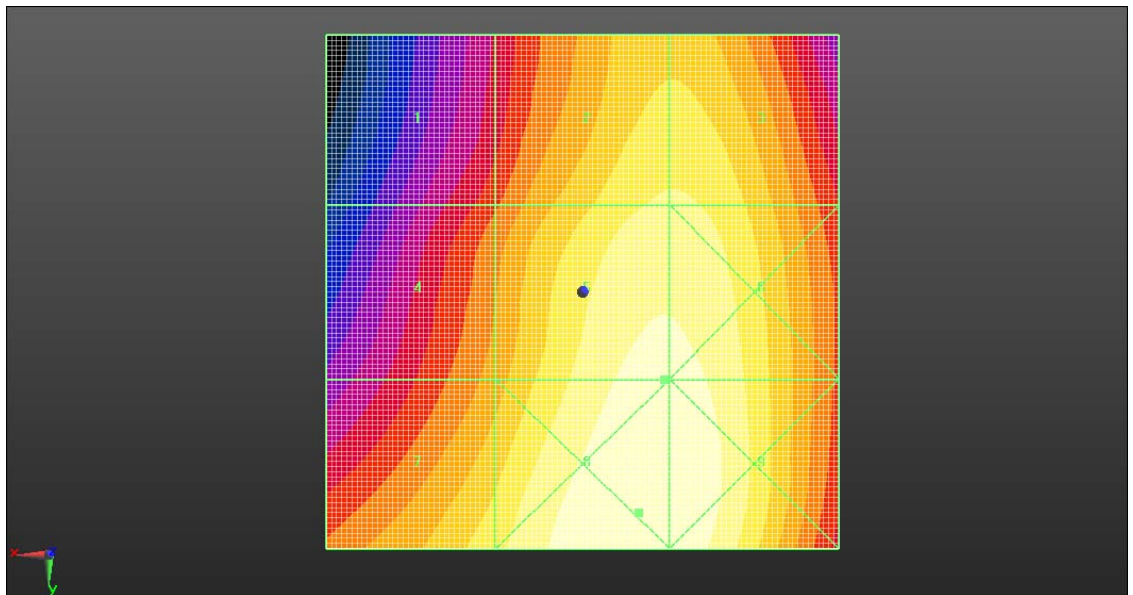
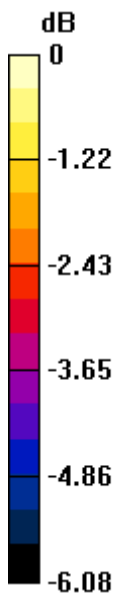
Grid 1 M4 34.54 dBV/m	Grid 2 M4 36.29 dBV/m	Grid 3 M4 36.29 dBV/m
Grid 4 M4 35.23 dBV/m	Grid 5 M4 36.78 dBV/m	Grid 6 M4 36.78 dBV/m
Grid 7 M4 36.11 dBV/m	Grid 8 M4 37.03 dBV/m	Grid 9 M4 36.98 dBV/m

Cursor:

Total = 37.03 dBV/m

E Category: M4

Location: -5.5, 21.5, 8.7 mm



0 dB = 71.01 V/m = 37.03 dBV/m

Test Laboratory: HUAWEI SAR/HAC Lab

HAC_ER3DV6_FRD-L24 GSM1900 512CH

DUT: FRD-L24; Type: Smart Phone; Serial: SAR1

Communication System: UID 10021 - DAC, GSM-FDD (TDMA, GMSK); Frequency: 1850.2 MHz; Duty Cycle: 1:8.6896

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

Phantom section: RF Section

DASY Configuration:

- ε Probe: ER3DV6 - SN2441; ConvF(1, 1, 1); Calibrated: 2017-11-17;
- ε Sensor-Surface: (Fix Surface), z = 8.7
- ε Electronics: DAE4 Sn1236; Calibrated: 2017-7-21
- ε Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: 1053
- ε DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Device E-Field measurement (E-field scan for ANSI C63.19-2011 compliance)/E Scan - ER3D: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test

(101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 7.661 V/m; Power Drift = -0.02 dB

Applied MIF = 3.63 dB

RF audio interference level = 25.62 dBV/m

Emission category: M4

MIF scaled E-field

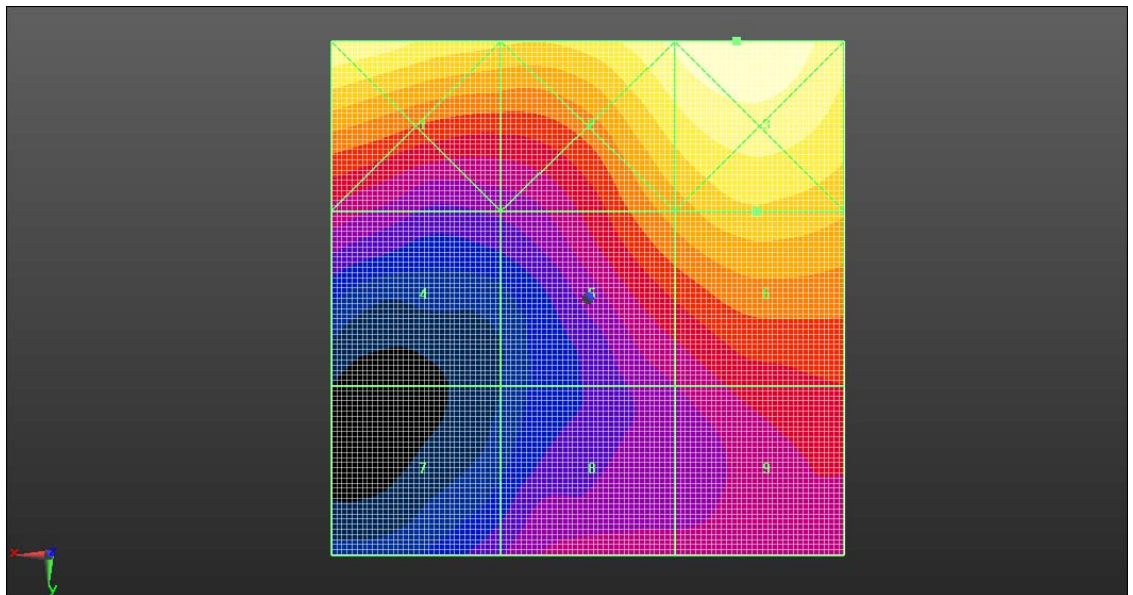
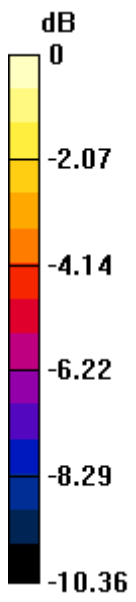
Grid 1 M4 27.18 dBV/m	Grid 2 M4 27.32 dBV/m	Grid 3 M4 27.8 dBV/m
Grid 4 M4 22.08 dBV/m	Grid 5 M4 24.68 dBV/m	Grid 6 M4 25.62 dBV/m
Grid 7 M4 20.88 dBV/m	Grid 8 M4 22.03 dBV/m	Grid 9 M4 22.98 dBV/m

Cursor:

Total = 27.80 dBV/m

E Category: M4

Location: -14.5, -25, 8.7 mm



0 dB = 24.56 V/m = 27.80 dBV/m

Test Laboratory: HUAWEI SAR/HAC Lab

HAC_ER3DV6_FRD-L24 GSM1900 661CH

DUT: FRD-L24; Type: Smart Phone; Serial: SAR1

Communication System: UID 10021 - DAC, GSM-FDD (TDMA, GMSK); Frequency: 1880 MHz; Duty Cycle: 1:8.6896

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

Phantom section: RF Section

DASY Configuration:

- ε Probe: ER3DV6 - SN2441; ConvF(1, 1, 1); Calibrated: 2017-11-17;
- ε Sensor-Surface: (Fix Surface), z = 8.7
- ε Electronics: DAE4 Sn1236; Calibrated: 2017-7-21
- ε Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: 1053
- ε DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Device E-Field measurement (E-field scan for ANSI C63.19-2011 compliance)/E Scan - ER3D: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test

(101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 7.930 V/m; Power Drift = -0.00 dB

Applied MIF = 3.63 dB

RF audio interference level = 24.88 dBV/m

Emission category: M4

MIF scaled E-field

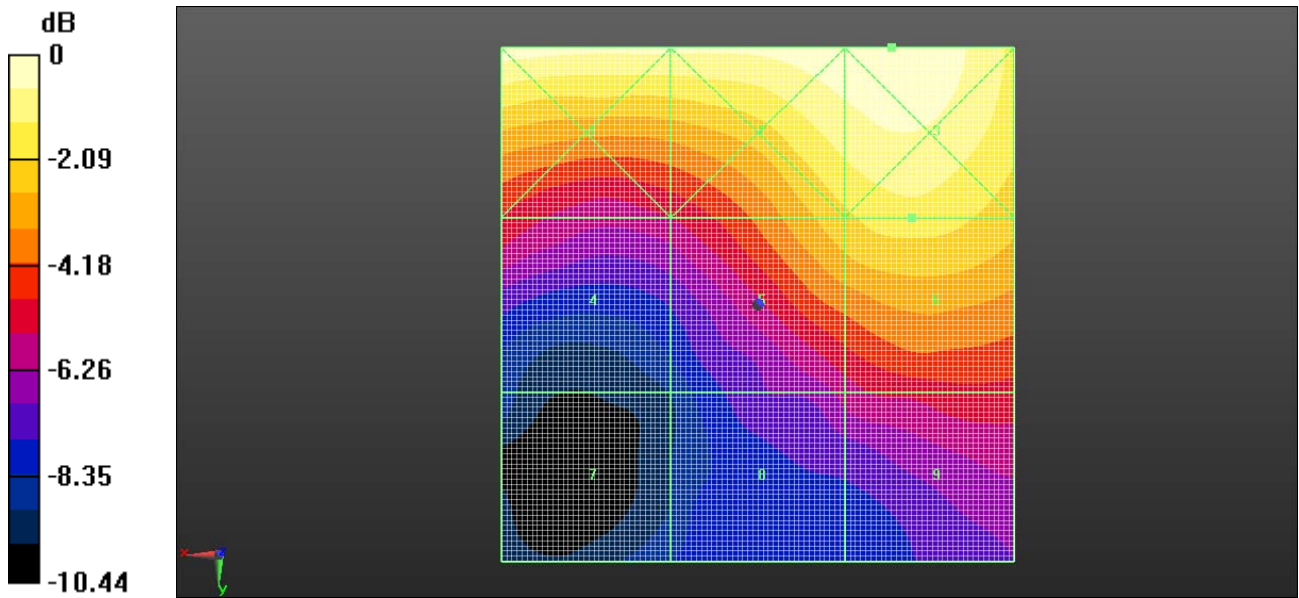
Grid 1 M4 26.31 dBV/m	Grid 2 M4 26.48 dBV/m	Grid 3 M4 26.59 dBV/m
Grid 4 M4 21.66 dBV/m	Grid 5 M4 24.36 dBV/m	Grid 6 M4 24.88 dBV/m
Grid 7 M4 18.2 dBV/m	Grid 8 M4 20.66 dBV/m	Grid 9 M4 21.59 dBV/m

Cursor:

Total = 26.59 dBV/m

E Category: M4

Location: -13, -25, 8.7 mm



0 dB = 21.35 V/m = 26.59 dBV/m

Test Laboratory: HUAWEI SAR/HAC Lab

HAC_ER3DV6_FRD-L24 GSM1900 810CH

DUT: FRD-L24; Type: Smart Phone; Serial: SAR1

Communication System: UID 10021 - DAC, GSM-FDD (TDMA, GMSK); Frequency: 1909.8 MHz; Duty Cycle: 1:8.6896

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

Phantom section: RF Section

DASY Configuration:

- ε Probe: ER3DV6 - SN2441; ConvF(1, 1, 1); Calibrated: 2017-11-17;
- ε Sensor-Surface: (Fix Surface), z = 8.7
- ε Electronics: DAE4 Sn1236; Calibrated: 2017-7-21
- ε Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: 1053
- ε DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Device E-Field measurement (E-field scan for ANSI C63.19-2011 compliance)/E Scan - ER3D: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test

(101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 8.022 V/m; Power Drift = -0.13 dB

Applied MIF = 3.63 dB

RF audio interference level = 25.34 dBV/m

Emission category: M4

MIF scaled E-field

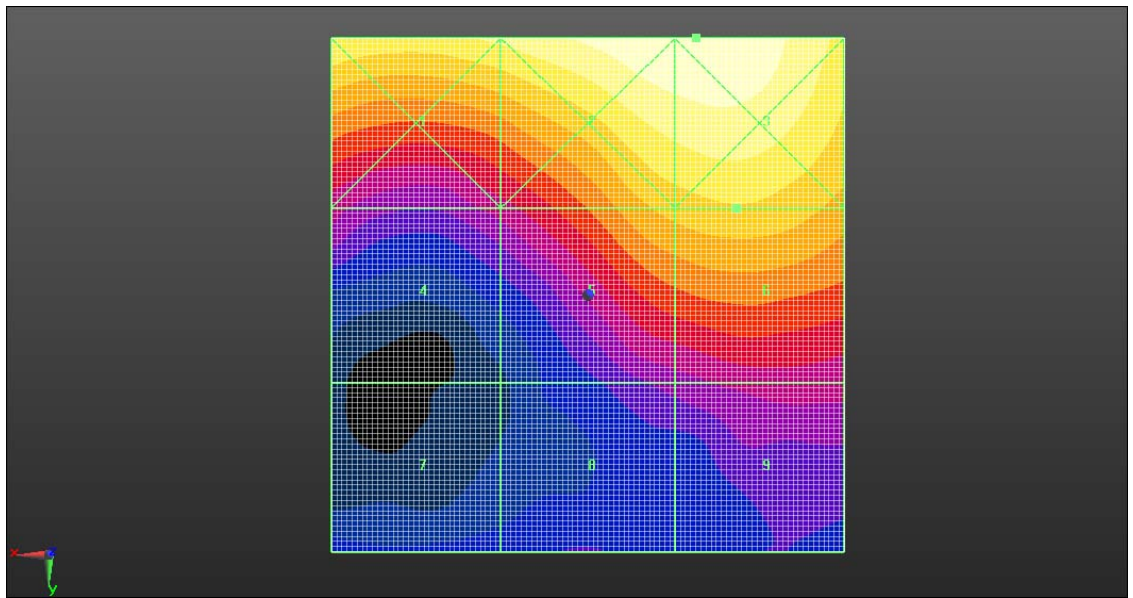
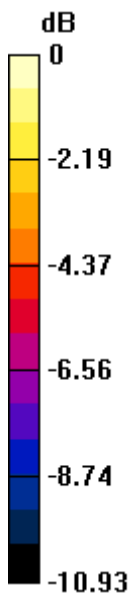
Grid 1 M4 26.33 dBV/m	Grid 2 M4 27.56 dBV/m	Grid 3 M4 27.6 dBV/m
Grid 4 M4 21.47 dBV/m	Grid 5 M4 24.98 dBV/m	Grid 6 M4 25.34 dBV/m
Grid 7 M4 19.4 dBV/m	Grid 8 M4 20.7 dBV/m	Grid 9 M4 21.49 dBV/m

Cursor:

Total = 27.60 dBV/m

E Category: M4

Location: -10.5, -25, 8.7 mm



0 dB = 23.99 V/m = 27.60 dBV/m