



Appendix B

Detailed Test Results

1. GSM
GSM850 for E-Field Emission
GSM1900 for E-Field Emission
2. LTE
LTE Band 38 for E-Field Emission

Test Laboratory: SGS-SAR Lab

5028D HAC-RF-GSM850 GSM Voice 128CH**DUT: 5028D; Type: LTE/WCDMA/GSM mobile phone; Serial: HQ9TTCPB7LXC65V8**

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

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

Phantom section: RF Section

DASY 5 Configuration:

- Probe: EF3DV3 - SN4051; ConvF(1, 1, 1); Calibrated: 2019-06-18;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn896; Calibrated: 2019-09-18
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Device E-Field measurement/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 = 112.7 V/m; Power Drift = -0.01 dB

Applied MIF = 3.63 dB

RF audio interference level = 41.42 dBV/m

Emission category: M3

MIF scaled E-field

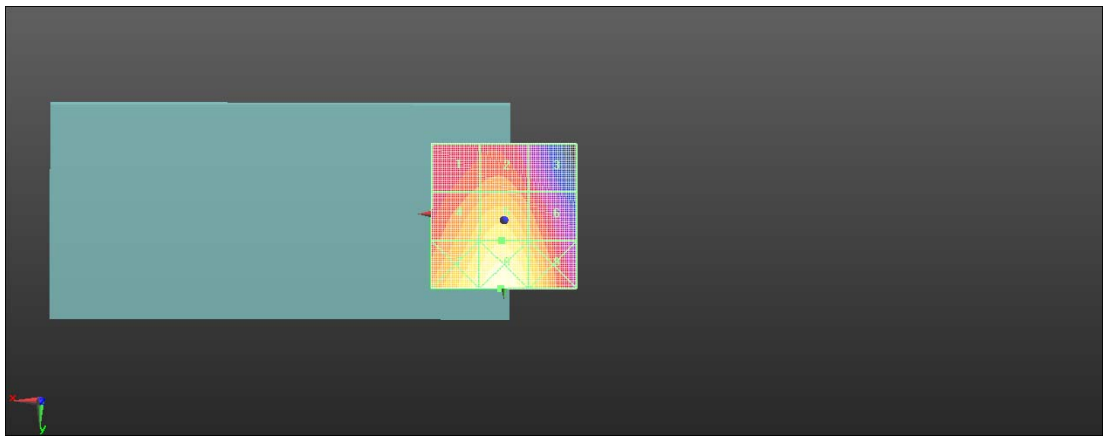
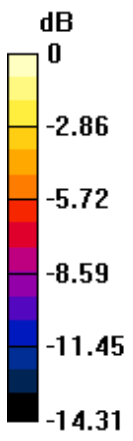
Grid 1 M4 38.05 dBV/m	Grid 2 M4 38.66 dBV/m	Grid 3 M4 36.79 dBV/m
Grid 4 M3 40.38 dBV/m	Grid 5 M3 41.42 dBV/m	Grid 6 M4 39.43 dBV/m
Grid 7 M3 42.31 dBV/m	Grid 8 M3 43.44 dBV/m	Grid 9 M3 41.37 dBV/m

Cursor:

Total = 43.44 dBV/m

E Category: M3

Location: 1, 25, 7.7 mm



0 dB = 148.5 V/m = 43.43 dBV/m

Test Laboratory: SGS-SAR Lab

5028D HAC-RF-GSM850 GSM Voice 190CH**DUT: 5028D; Type: LTE/WCDMA/GSM mobile phone; Serial: HQ9TTCPB7LXC65V8**

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

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

Phantom section: RF Section

DASY 5 Configuration:

- Probe: EF3DV3 - SN4051; ConvF(1, 1, 1); Calibrated: 2019-06-18;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn896; Calibrated: 2019-09-18
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Device E-Field measurement/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 = 115.1 V/m; Power Drift = -0.01 dB

Applied MIF = 3.63 dB

RF audio interference level = 41.88 dBV/m

Emission category: M3

MIF scaled E-field

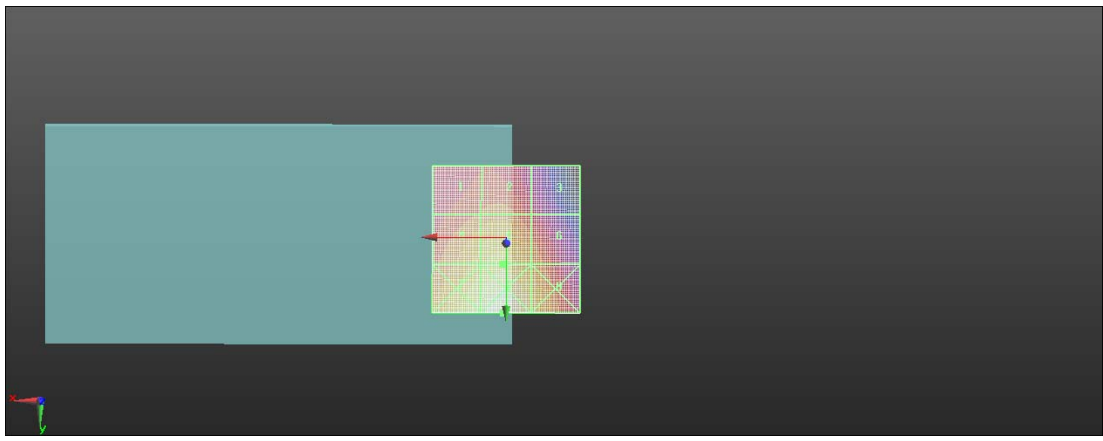
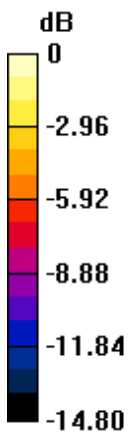
Grid 1 M4 38.39 dBV/m	Grid 2 M4 38.87 dBV/m	Grid 3 M4 36.85 dBV/m
Grid 4 M3 40.9 dBV/m	Grid 5 M3 41.88 dBV/m	Grid 6 M4 39.81 dBV/m
Grid 7 M3 42.97 dBV/m	Grid 8 M3 44.1 dBV/m	Grid 9 M3 42.03 dBV/m

Cursor:

Total = 44.10 dBV/m

E Category: M3

Location: 1, 25, 7.7 mm



0 dB = 160.4 V/m = 44.10 dBV/m

Test Laboratory: SGS-SAR Lab

5028D HAC-RF-GSM850 GSM Voice 251CH**DUT: 5028D; Type: LTE/WCDMA/GSM mobile phone; Serial: HQ9TTCPB7LXC65V8**

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

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

Phantom section: RF Section

DASY 5 Configuration:

- Probe: EF3DV3 - SN4051; ConvF(1, 1, 1); Calibrated: 2019-06-18;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn896; Calibrated: 2019-09-18
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Device E-Field measurement/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 = 116.4 V/m; Power Drift = -0.01 dB

Applied MIF = 3.63 dB

RF audio interference level = 42.20 dBV/m

Emission category: M3

MIF scaled E-field

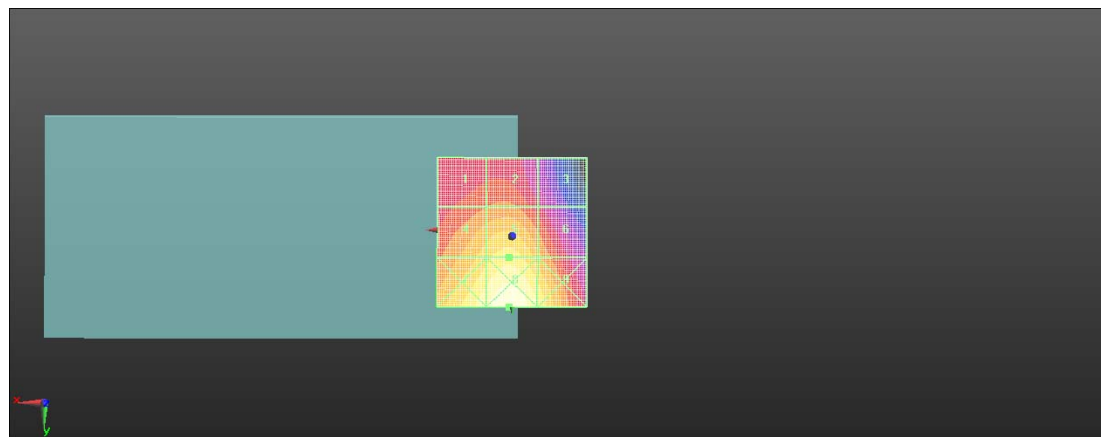
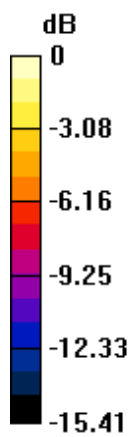
Grid 1 M4 38.51 dBV/m	Grid 2 M4 38.87 dBV/m	Grid 3 M4 36.85 dBV/m
Grid 4 M3 41.27 dBV/m	Grid 5 M3 42.2 dBV/m	Grid 6 M3 40.13 dBV/m
Grid 7 M3 43.54 dBV/m	Grid 8 M3 44.67 dBV/m	Grid 9 M3 42.6 dBV/m

Cursor:

Total = 44.67 dBV/m

E Category: M3

Location: 1, 25, 7.7 mm



0 dB = 171.3 V/m = 44.68 dBV/m

Test Laboratory: SGS-SAR Lab

5028D HAC-RF-GSM1900 GSM Voice 512CH**DUT: 5028D; Type: LTE/WCDMA/GSM mobile phone; Serial: HQ9TTCPB7LXC65V8**

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

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

Phantom section: RF Section

DASY 5 Configuration:

- Probe: EF3DV3 - SN4051; ConvF(1, 1, 1); Calibrated: 2019-06-18;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn896; Calibrated: 2019-09-18
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Device E-Field measurement/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 = 7.713 V/m; Power Drift = -0.04 dB

Applied MIF = 3.63 dB

RF audio interference level = 28.28 dBV/m

Emission category: M4

MIF scaled E-field

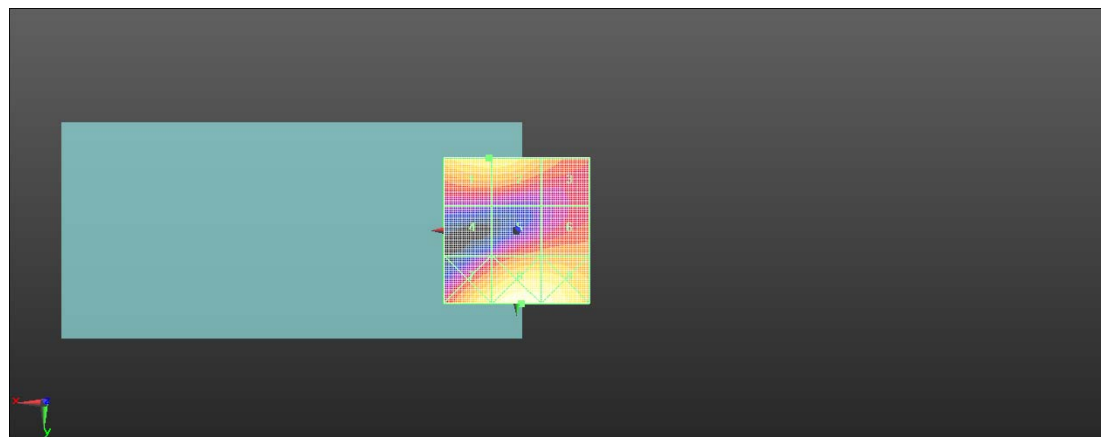
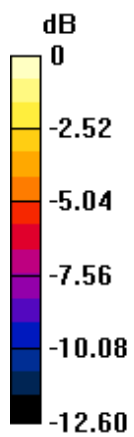
Grid 1 M4 28.28 dBV/m	Grid 2 M4 28.28 dBV/m	Grid 3 M4 26.13 dBV/m
Grid 4 M4 22.27 dBV/m	Grid 5 M4 25.51 dBV/m	Grid 6 M4 25.76 dBV/m
Grid 7 M4 28.65 dBV/m	Grid 8 M4 29.85 dBV/m	Grid 9 M4 29.56 dBV/m

Cursor:

Total = 29.85 dBV/m

E Category: M4

Location: -1.5, 25, 7.7 mm



0 dB = 31.10 V/m = 29.86 dBV/m

Test Laboratory: SGS-SAR Lab

5028D HAC-RF-GSM1900 GSM Voice 661CH**DUT: 5028D; Type: LTE/WCDMA/GSM mobile phone; Serial: HQ9TTCPB7LXC65V8**

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

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

Phantom section: RF Section

DASY 5 Configuration:

- Probe: EF3DV3 - SN4051; ConvF(1, 1, 1); Calibrated: 2019-06-18;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn896; Calibrated: 2019-09-18
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Device E-Field measurement/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 = 9.106 V/m; Power Drift = 0.01 dB

Applied MIF = 3.63 dB

RF audio interference level = 28.07 dBV/m

Emission category: M4

MIF scaled E-field

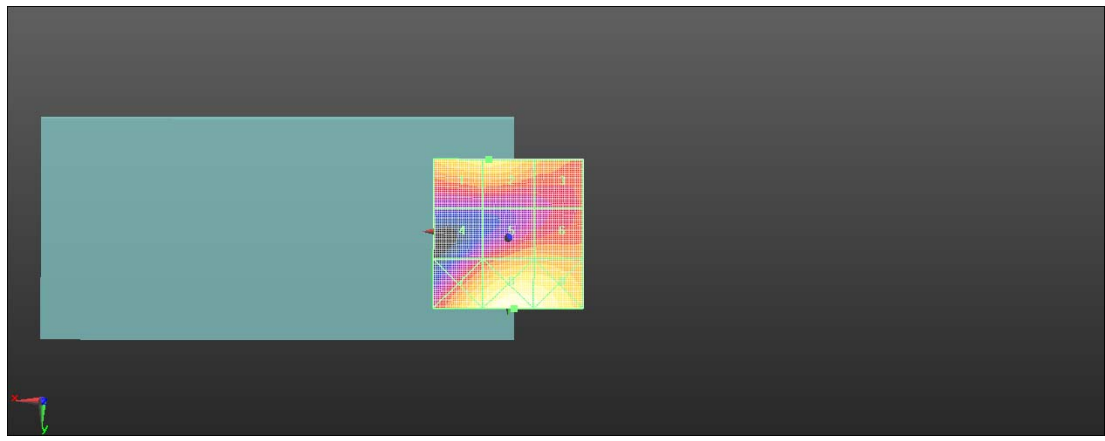
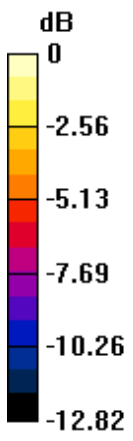
Grid 1 M4 28.04 dBV/m	Grid 2 M4 28.07 dBV/m	Grid 3 M4 26.28 dBV/m
Grid 4 M4 23.52 dBV/m	Grid 5 M4 26.25 dBV/m	Grid 6 M4 26.28 dBV/m
Grid 7 M4 28.88 dBV/m	Grid 8 M3 30.06 dBV/m	Grid 9 M4 29.67 dBV/m

Cursor:

Total = 30.06 dBV/m

E Category: M3

Location: -2, 25, 7.7 mm



0 dB = 31.84 V/m = 30.06 dBV/m

Test Laboratory: SGS-SAR Lab

5028D HAC-RF-GSM1900 GSM Voice 810CH

DUT: 5028D; Type: LTE/WCDMA/GSM mobile phone; Serial: HQ9TTCPB7LXC65V8

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

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

Phantom section: RF Section

DASY 5 Configuration:

- Probe: EF3DV3 - SN4051; ConvF(1, 1, 1); Calibrated: 2019-06-18;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn896; Calibrated: 2019-09-18
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Device E-Field measurement/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 = 9.938 V/m; Power Drift = -0.03 dB

Applied MIF = 3.63 dB

RF audio interference level = 27.68 dBV/m

Emission category: M4

MIF scaled E-field

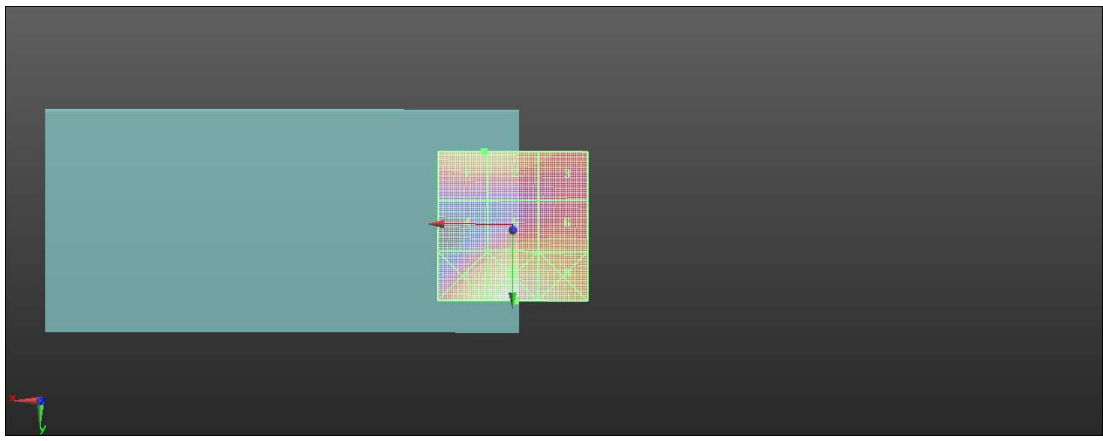
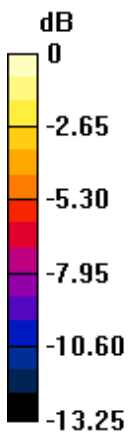
Grid 1 M4 27.68 dBV/m	Grid 2 M4 27.68 dBV/m	Grid 3 M4 25.8 dBV/m
Grid 4 M4 23.78 dBV/m	Grid 5 M4 26.49 dBV/m	Grid 6 M4 26.44 dBV/m
Grid 7 M4 29.17 dBV/m	Grid 8 M3 30.34 dBV/m	Grid 9 M4 29.88 dBV/m

Cursor:

Total = 30.34 dBV/m

E Category: M3

Location: -1, 25, 7.7 mm



0 dB = 32.90 V/m = 30.34 dBV/m

Test Laboratory: SGS-SAR Lab

5028D HAC-RF-LTE Band 38 20M QPSK 1RB50 37850CH**DUT: 5028D; Type: LTE/WCDMA/GSM mobile phone; Serial: HQ9TTCPB7LXC65V8**Communication System: UID 10172 - CAG, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK);
Frequency: 2580 MHz; Duty Cycle: 1:8.33681Medium: Air; Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

DASY 5 Configuration:

- Probe: EF3DV3 - SN4051; ConvF(1, 1, 1); Calibrated: 2019-06-18;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn896; Calibrated: 2019-09-18
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Device E-Field measurement/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 = 23.31 V/m; Power Drift = 0.00 dB

Applied MIF = -1.62 dB

RF audio interference level = 24.29 dBV/m

Emission category: M4

MIF scaled E-field

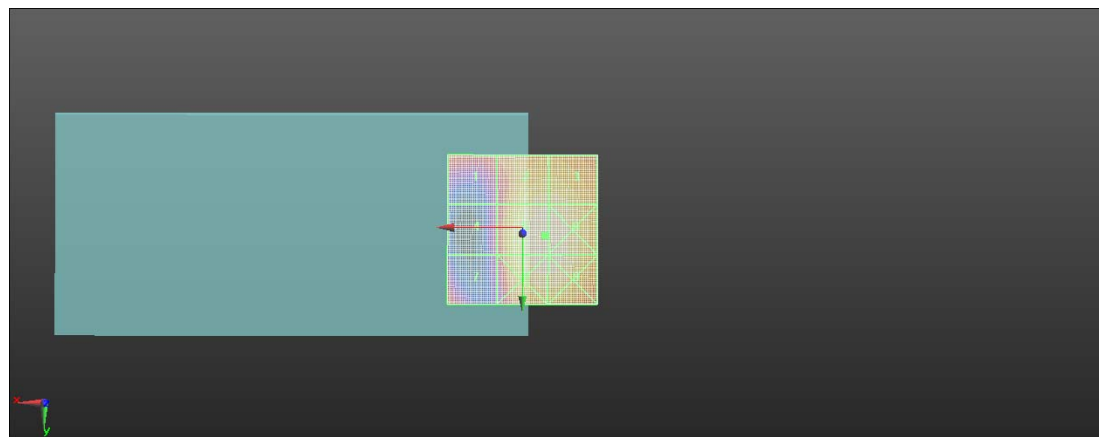
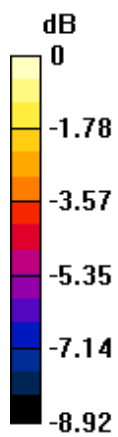
Grid 1 M4 21.24 dBV/m	Grid 2 M4 23.6 dBV/m	Grid 3 M4 23.59 dBV/m
Grid 4 M4 19.94 dBV/m	Grid 5 M4 24.29 dBV/m	Grid 6 M4 24.27 dBV/m
Grid 7 M4 21.28 dBV/m	Grid 8 M4 24.16 dBV/m	Grid 9 M4 24.14 dBV/m

Cursor:

Total = 24.29 dBV/m

E Category: M4

Location: -7.5, 2, 7.7 mm



0 dB = 16.38 V/m = 24.29 dBV/m

Test Laboratory: SGS-SAR Lab

5028D HAC-RF-LTE Band 38 20M QPSK 1RB50 38000CH**DUT: 5028D; Type: LTE/WCDMA/GSM mobile phone; Serial: HQ9TTCPB7LXC65V8**Communication System: UID 10172 - CAG, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK);
Frequency: 2595 MHz; Duty Cycle: 1:8.33681Medium: Air; Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

DASY 5 Configuration:

- Probe: EF3DV3 - SN4051; ConvF(1, 1, 1); Calibrated: 2019-06-18;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn896; Calibrated: 2019-09-18
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Device E-Field measurement/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 = 22.84 V/m; Power Drift = 0.03 dB

Applied MIF = -1.62 dB

RF audio interference level = 24.39 dBV/m

Emission category: M4

MIF scaled E-field

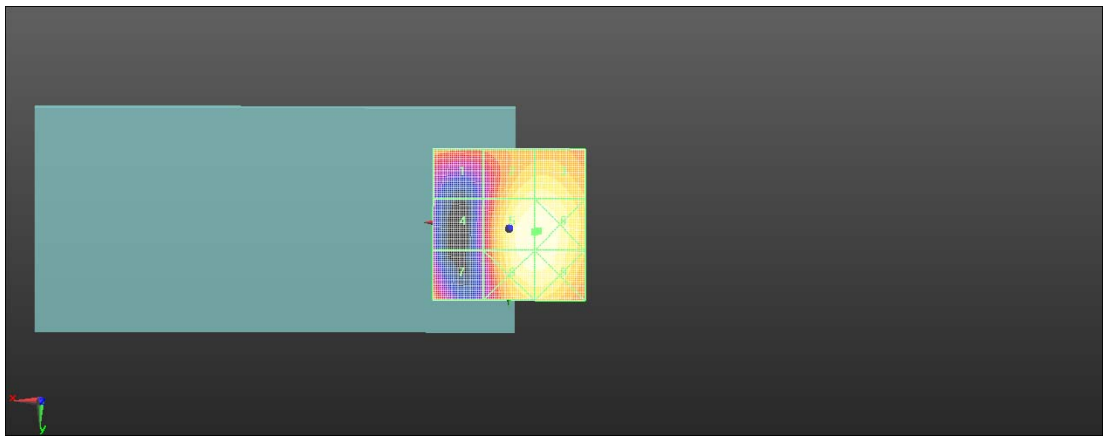
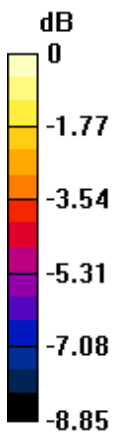
Grid 1 M4 21.6 dBV/m	Grid 2 M4 23.58 dBV/m	Grid 3 M4 23.61 dBV/m
Grid 4 M4 19.44 dBV/m	Grid 5 M4 24.39 dBV/m	Grid 6 M4 24.39 dBV/m
Grid 7 M4 21.55 dBV/m	Grid 8 M4 24.27 dBV/m	Grid 9 M4 24.27 dBV/m

Cursor:

Total = 24.39 dBV/m

E Category: M4

Location: -9.5, 2, 7.7 mm



0 dB = 16.57 V/m = 24.39 dBV/m

Test Laboratory: SGS-SAR Lab

5028D HAC-RF-LTE Band 38 20M QPSK 1RB50 38150CH**DUT: 5028D; Type: LTE/WCDMA/GSM mobile phone; Serial: HQ9TTCPB7LXC65V8**Communication System: UID 10172 - CAG, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK);
Frequency: 2610 MHz; Duty Cycle: 1:8.33681Medium: Air; Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

DASY 5 Configuration:

- Probe: EF3DV3 - SN4051; ConvF(1, 1, 1); Calibrated: 2019-06-18;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn896; Calibrated: 2019-09-18
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- DASY52 52.8.8(1222); SEMCAD X 14.6.10(7331)

Device E-Field measurement/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 = 23.06 V/m; Power Drift = -0.04 dB

Applied MIF = -1.62 dB

RF audio interference level = 24.53 dBV/m

Emission category: M4

MIF scaled E-field

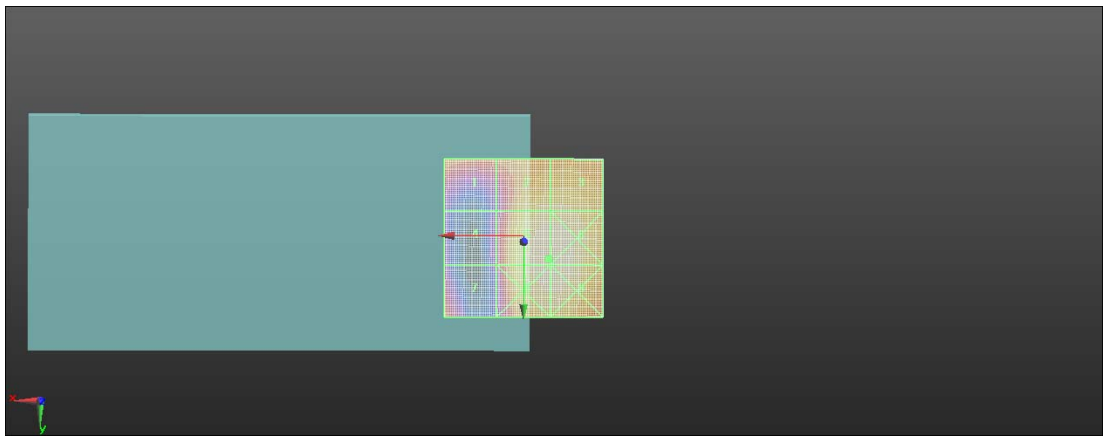
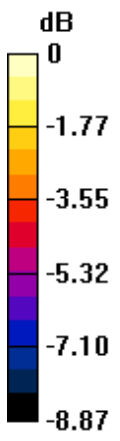
Grid 1 M4 21.77 dBV/m	Grid 2 M4 23.62 dBV/m	Grid 3 M4 23.6 dBV/m
Grid 4 M4 19.65 dBV/m	Grid 5 M4 24.53 dBV/m	Grid 6 M4 24.53 dBV/m
Grid 7 M4 21.61 dBV/m	Grid 8 M4 24.51 dBV/m	Grid 9 M4 24.51 dBV/m

Cursor:

Total = 24.53 dBV/m

E Category: M4

Location: -8, 6.5, 7.7 mm



0 dB = 16.85 V/m = 24.53 dBV/m