



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

5029D HAC-RF-GSM850 GSM Voice 128CH

DUT: 5029D; Type: LTE/UMTS/GSM mobile phone; Serial: UCZXCALZUS7XJFS8

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-field scan for ANSI C63.19-2007 & -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 = 110.1 V/m; Power Drift = -0.04 dB

Applied MIF = 3.63 dB

RF audio interference level = 40.90 dBV/m

Emission category: M3

MIF scaled E-field

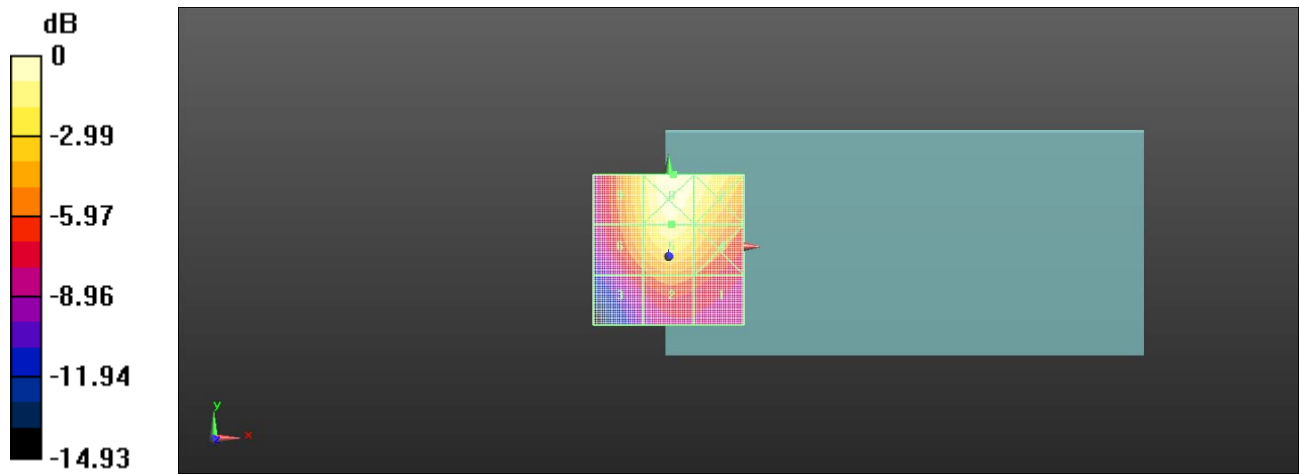
Grid 1 M4 36.13 dBV/m	Grid 2 M4 37.01 dBV/m	Grid 3 M4 35.59 dBV/m
Grid 4 M4 39.64 dBV/m	Grid 5 M3 40.9 dBV/m	Grid 6 M4 38.83 dBV/m
Grid 7 M3 41.27 dBV/m	Grid 8 M3 42.09 dBV/m	Grid 9 M4 39.6 dBV/m

Cursor:

Total = 42.09 dBV/m

E Category: M3

Location: 1.5, 25, 7.7 mm



0 dB = 127.2 V/m = 42.09 dBV/m

Test Laboratory: SGS-SAR Lab

5029D HAC-RF-GSM850 GSM Voice 190CH

DUT: 5029D; Type: LTE/UMTS/GSM mobile phone; Serial: UCZXCALZUS7XJFS8

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-field scan for ANSI C63.19-2007 & -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 = 116.7 V/m; Power Drift = -0.03 dB

Applied MIF = 3.63 dB

RF audio interference level = 41.74 dBV/m

Emission category: M3

MIF scaled E-field

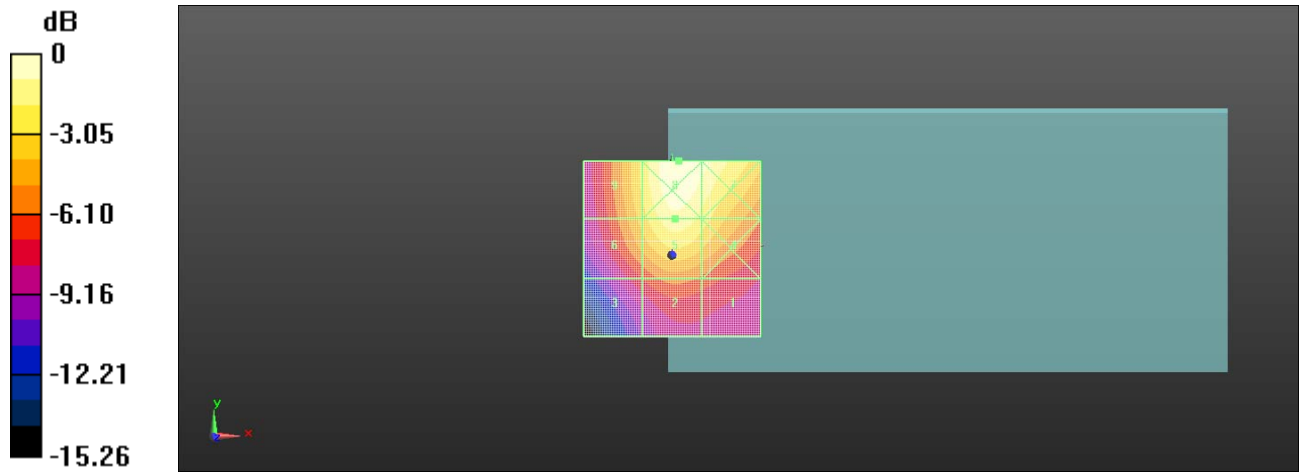
Grid 1 M4 36.74 dBV/m	Grid 2 M4 37.45 dBV/m	Grid 3 M4 35.98 dBV/m
Grid 4 M3 40.61 dBV/m	Grid 5 M3 41.74 dBV/m	Grid 6 M4 39.47 dBV/m
Grid 7 M3 42.43 dBV/m	Grid 8 M3 43.11 dBV/m	Grid 9 M3 40.33 dBV/m

Cursor:

Total = 43.11 dBV/m

E Category: M3

Location: 2, 25, 7.7 mm



Test Laboratory: SGS-SAR Lab

5029D HAC-RF-GSM850 GSM Voice 251CH

DUT: 5029D; Type: LTE/UMTS/GSM mobile phone; Serial: UCZXCALZUS7XJFS8

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-field scan for ANSI C63.19-2007 & -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 = 133.8 V/m; Power Drift = -0.04 dB

Applied MIF = 3.63 dB

RF audio interference level = 42.72 dBV/m

Emission category: M3

MIF scaled E-field

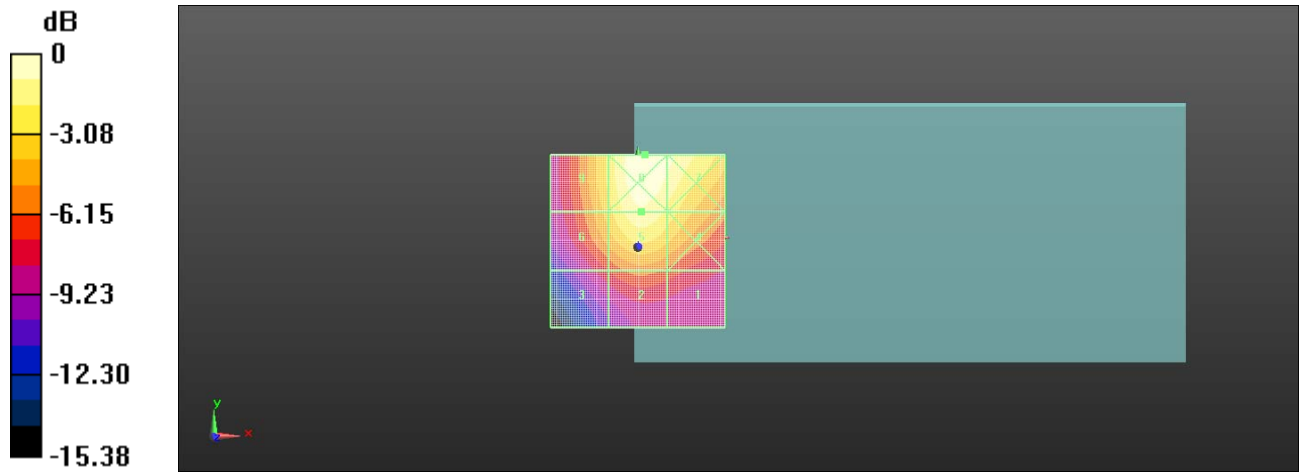
Grid 1 M4 37.52 dBV/m	Grid 2 M4 38.32 dBV/m	Grid 3 M4 36.84 dBV/m
Grid 4 M3 41.55 dBV/m	Grid 5 M3 42.72 dBV/m	Grid 6 M3 40.44 dBV/m
Grid 7 M3 43.33 dBV/m	Grid 8 M3 43.97 dBV/m	Grid 9 M3 41.19 dBV/m

Cursor:

Total = 43.97 dBV/m

E Category: M3

Location: 2, 25, 7.7 mm



Test Laboratory: SGS-SAR Lab

5029D HAC-RF-GSM1900 GSM Voice 512CH

DUT: 5029D; Type: LTE/UMTS/GSM mobile phone; Serial: UCZXCALZUS7XJFS8

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-field scan for ANSI C63.19-2007 & -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 = 9.018 V/m; Power Drift = 0.16 dB

Applied MIF = 3.63 dB

RF audio interference level = 30.36 dBV/m

Emission category: M3

MIF scaled E-field

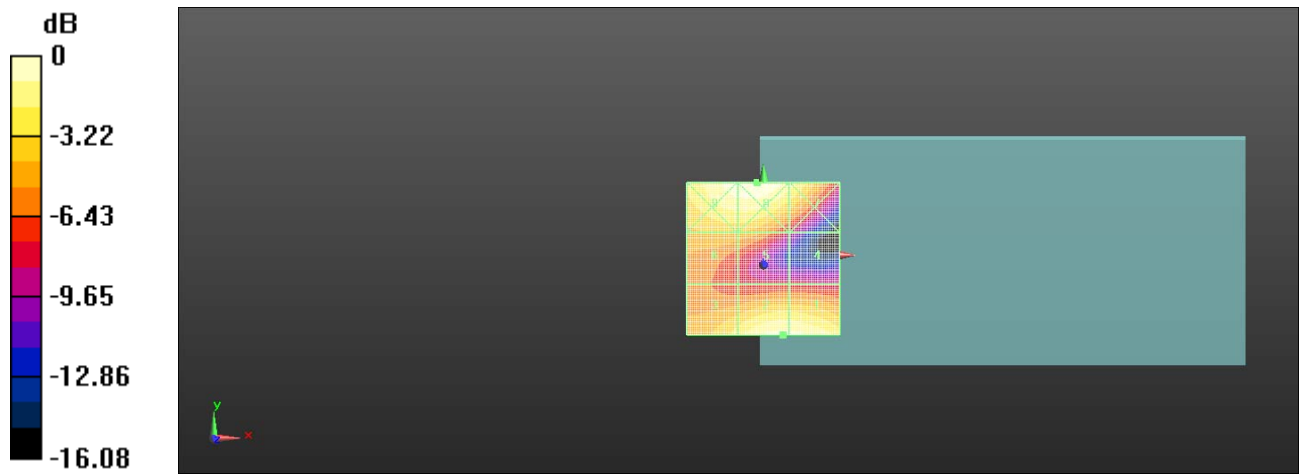
Grid 1 M3 30.34 dBV/m	Grid 2 M3 30.36 dBV/m	Grid 3 M4 28.45 dBV/m
Grid 4 M4 23.18 dBV/m	Grid 5 M4 26.83 dBV/m	Grid 6 M4 26.98 dBV/m
Grid 7 M4 29.61 dBV/m	Grid 8 M3 31.07 dBV/m	Grid 9 M3 30.72 dBV/m

Cursor:

Total = 31.07 dBV/m

E Category: M3

Location: -2, 25, 7.7 mm



0 dB = 35.77 V/m = 31.07 dBV/m

Test Laboratory: SGS-SAR Lab

5029D HAC-RF-GSM1900 GSM Voice 661CH

DUT: 5029D; Type: LTE/UMTS/GSM mobile phone; Serial: UCZXCALZUS7XJFS8

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-field scan for ANSI C63.19-2007 & -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 = 13.52 V/m; Power Drift = -0.08 dB

Applied MIF = 3.63 dB

RF audio interference level = 29.22 dBV/m

Emission category: M4

MIF scaled E-field

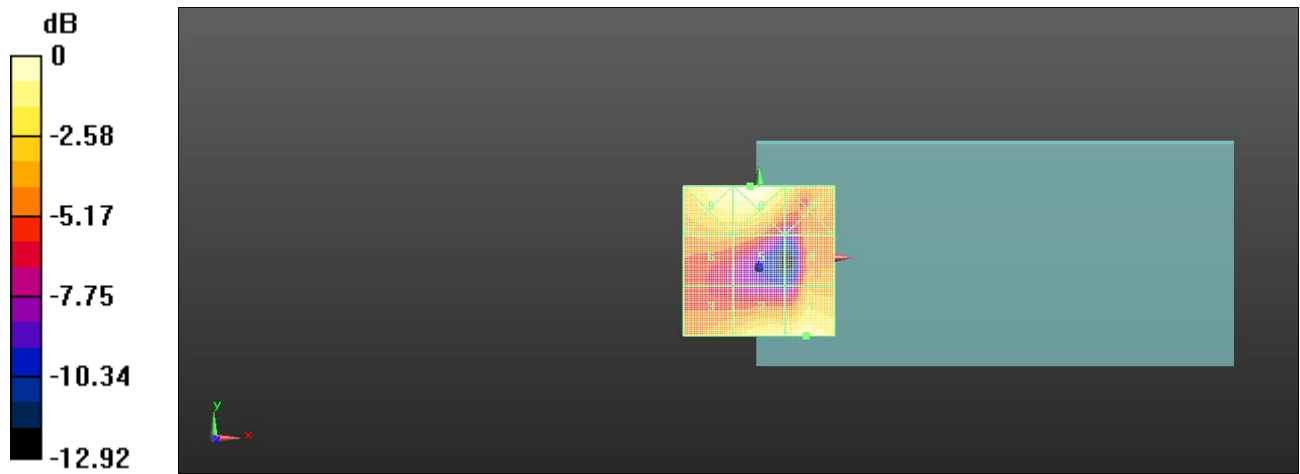
Grid 1 M4 29.22 dBV/m	Grid 2 M4 28.89 dBV/m	Grid 3 M4 27.42 dBV/m
Grid 4 M4 26.64 dBV/m	Grid 5 M4 26.38 dBV/m	Grid 6 M4 26.51 dBV/m
Grid 7 M4 28.55 dBV/m	Grid 8 M3 30.29 dBV/m	Grid 9 M4 29.98 dBV/m

Cursor:

Total = 30.29 dBV/m

E Category: M3

Location: -3, 25, 7.7 mm



0 dB = 32.69 V/m = 30.29 dBV/m

Test Laboratory: SGS-SAR Lab

5029D HAC-RF-GSM1900 GSM Voice 810CH

DUT: 5029D; Type: LTE/UMTS/GSM mobile phone; Serial: UCZXCALZUS7XJFS8

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-field scan for ANSI C63.19-2007 & -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 = 10.06 V/m; Power Drift = -0.03 dB

Applied MIF = 3.63 dB

RF audio interference level = 28.45 dBV/m

Emission category: M4

MIF scaled E-field

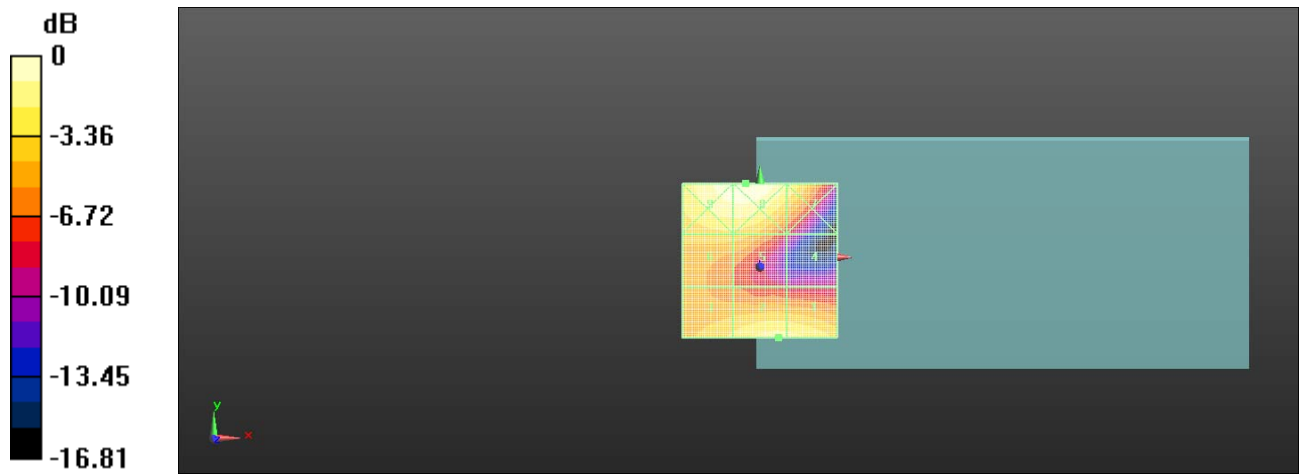
Grid 1 M4 28.38 dBV/m	Grid 2 M4 28.45 dBV/m	Grid 3 M4 27.14 dBV/m
Grid 4 M4 21.87 dBV/m	Grid 5 M4 26.39 dBV/m	Grid 6 M4 26.47 dBV/m
Grid 7 M4 28.32 dBV/m	Grid 8 M3 30.1 dBV/m	Grid 9 M4 29.92 dBV/m

Cursor:

Total = 30.10 dBV/m

E Category: M3

Location: -4.5, 25, 7.7 mm



Test Laboratory: SGS-SAR Lab

5029D HAC-RF-LTE Band 38 20M QPSK 1RB50 37850CH

DUT: 5029D; Type: LTE/UMTS/GSM mobile phone; Serial: UCZXCALZUS7XJFS8

Communication System: UID 10172 - CAG, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK);

Frequency: 2580 MHz; Duty Cycle: 1:1.579

Medium: Air; Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 1000$ 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 Sn1267; Calibrated: 2019-12-17
- 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-field scan for ANSI C63.19-2007 & -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 = 11.71 V/m; Power Drift = 0.19 dB

Applied MIF = -1.62 dB

RF audio interference level = 19.04 dBV/m

Emission category: M4

MIF scaled E-field

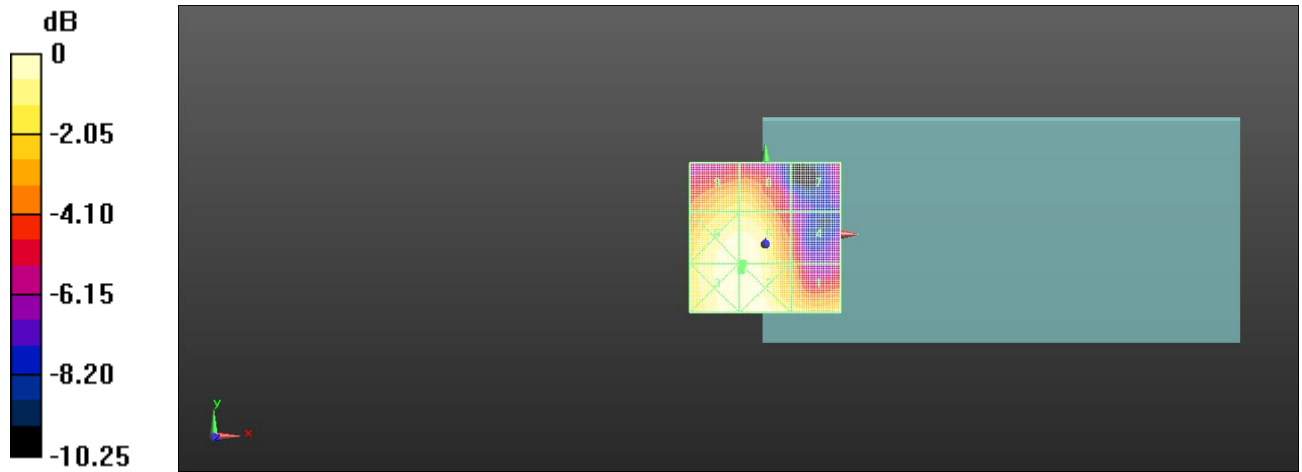
Grid 1 M4 17.83 dBV/m	Grid 2 M4 19.08 dBV/m	Grid 3 M4 19.07 dBV/m
Grid 4 M4 15.54 dBV/m	Grid 5 M4 19.04 dBV/m	Grid 6 M4 19.03 dBV/m
Grid 7 M4 13.94 dBV/m	Grid 8 M4 17.56 dBV/m	Grid 9 M4 17.5 dBV/m

Cursor:

Total = 19.08 dBV/m

E Category: M4

Location: -8, -11, 7.7 mm



Test Laboratory: SGS-SAR Lab

5029D HAC-RF-LTE Band 38 20M QPSK 1RB50 38000CH

DUT: 5029D; Type: LTE/UMTS/GSM mobile phone; Serial: UCZXCALZUS7XJFS8

Communication System: UID 10172 - CAG, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK);

Frequency: 2595 MHz; Duty Cycle: 1:1.579

Medium: Air; Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 1000$ 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 Sn1267; Calibrated: 2019-12-17
- 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-field scan for ANSI C63.19-2007 & -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 = 11.72 V/m; Power Drift = 0.17 dB

Applied MIF = -1.62 dB

RF audio interference level = 19.02 dBV/m

Emission category: M4

MIF scaled E-field

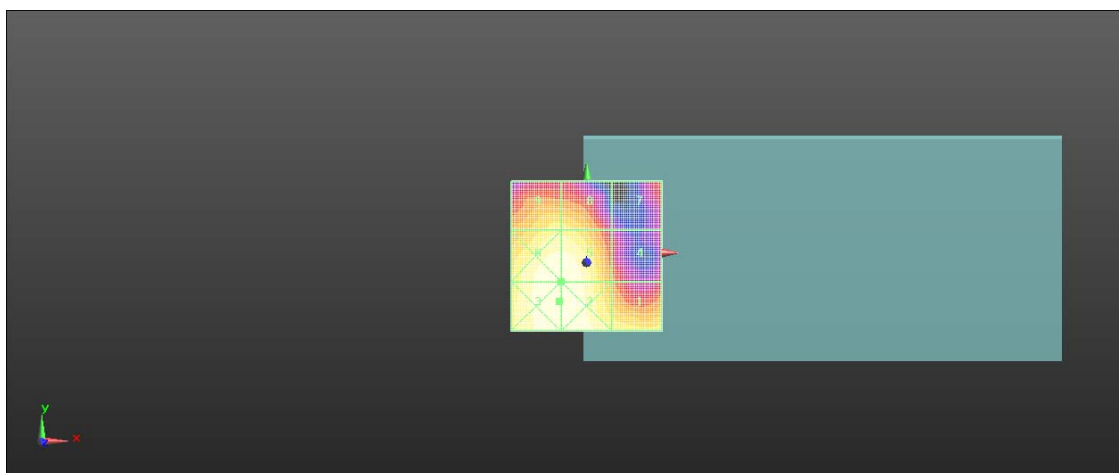
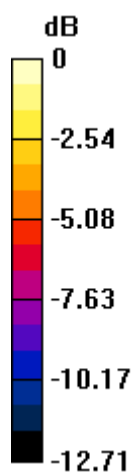
Grid 1 M4 17.64 dBV/m	Grid 2 M4 19.2 dBV/m	Grid 3 M4 19.21 dBV/m
Grid 4 M4 14.53 dBV/m	Grid 5 M4 19.02 dBV/m	Grid 6 M4 19.02 dBV/m
Grid 7 M4 13.8 dBV/m	Grid 8 M4 17.32 dBV/m	Grid 9 M4 17.37 dBV/m

Cursor:

Total = 19.21 dBV/m

E Category: M4

Location: -9, -15, 7.7 mm



0 dB = 9.129 V/m = 19.21 dBV/m

Test Laboratory: SGS-SAR Lab

5029D HAC-RF-LTE Band 38 20M QPSK 1RB50 38150CH

DUT: 5029D; Type: LTE/UMTS/GSM mobile phone; Serial: UCZXCALZUS7XJFS8

Communication System: UID 10172 - CAG, LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK);

Frequency: 2610 MHz; Duty Cycle: 1:1.579

Medium: Air; Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 1000$ 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 Sn1267; Calibrated: 2019-12-17
- 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-field scan for ANSI C63.19-2007 & -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 = 11.98 V/m; Power Drift = 0.03 dB

Applied MIF = -1.62 dB

RF audio interference level = 19.37 dBV/m

Emission category: M4

MIF scaled E-field

Grid 1 M4 17.86 dBV/m	Grid 2 M4 19.49 dBV/m	Grid 3 M4 19.53 dBV/m
Grid 4 M4 15.56 dBV/m	Grid 5 M4 19.37 dBV/m	Grid 6 M4 19.39 dBV/m
Grid 7 M4 15.21 dBV/m	Grid 8 M4 17.51 dBV/m	Grid 9 M4 17.63 dBV/m

Cursor:

Total = 19.53 dBV/m

E Category: M4

Location: -10.5, -16, 7.7 mm

