



Appendix B

Detailed Test Results

1. GSM
GSM850 for E-Field Emission
GSM1900 for E-Field Emission

Test Laboratory: SGS-SAR Lab

5029E HAC-RF-GSM850 GSM Voice 128CH

DUT: 5029E; Type: LTE/WCDMA/GSM mobile phone; Serial: AYGYY9L7GEYHMJAA

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 = 108.9 V/m; Power Drift = 0.02 dB

Applied MIF = 3.63 dB

RF audio interference level = 40.91 dBV/m

Emission category: M3

MIF scaled E-field

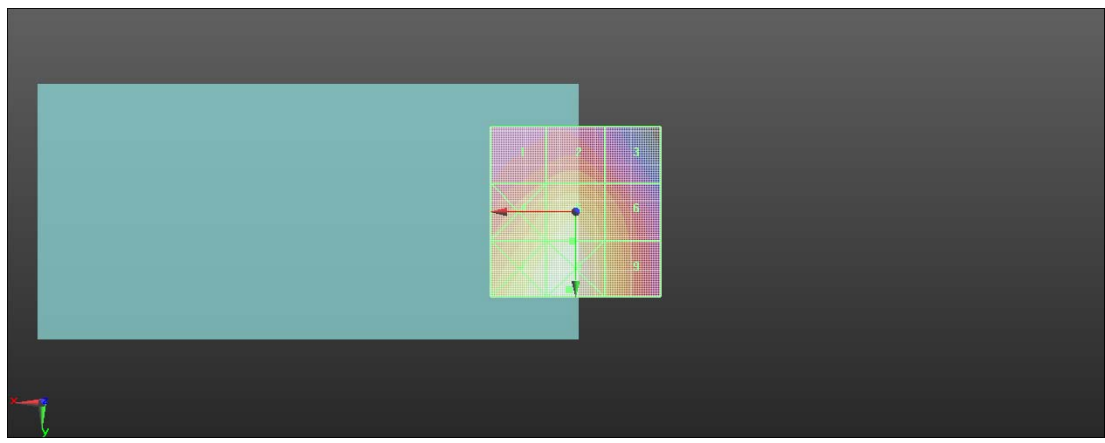
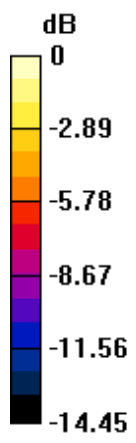
Grid 1 M4 36.31 dBV/m	Grid 2 M4 37.17 dBV/m	Grid 3 M4 35.67 dBV/m
Grid 4 M4 39.71 dBV/m	Grid 5 M3 40.91 dBV/m	Grid 6 M4 38.77 dBV/m
Grid 7 M3 41.21 dBV/m	Grid 8 M3 41.89 dBV/m	Grid 9 M4 39.44 dBV/m

Cursor:

Total = 41.89 dBV/m

E Category: M3

Location: 2, 23, 7.7 mm



0 dB = 124.3 V/m = 41.89 dBV/m

Test Laboratory: SGS-SAR Lab

5029E HAC-RF-GSM850 GSM Voice 190CH

DUT: 5029E; Type: LTE/WCDMA/GSM mobile phone; Serial: AYGYY9L7GEYHMJAA

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 = 119.2 V/m; Power Drift = 0.04 dB

Applied MIF = 3.63 dB

RF audio interference level = 41.83 dBV/m

Emission category: M3

MIF scaled E-field

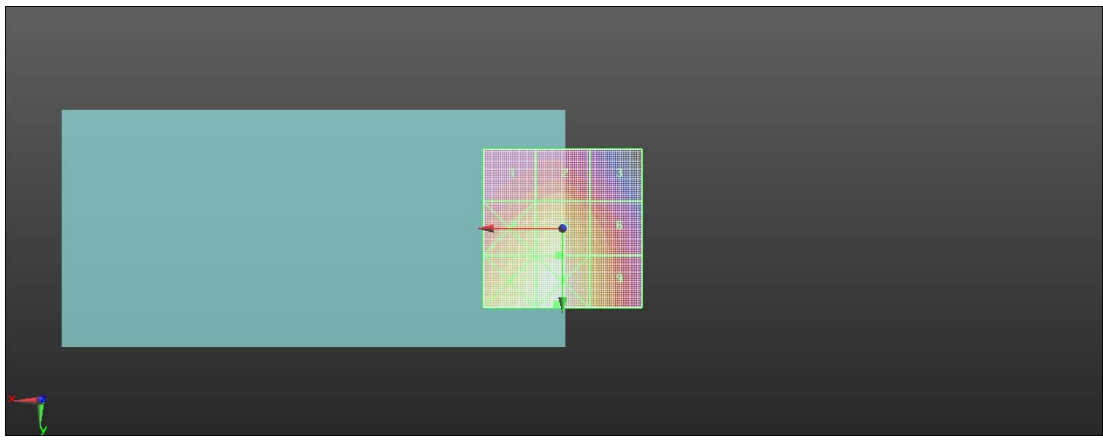
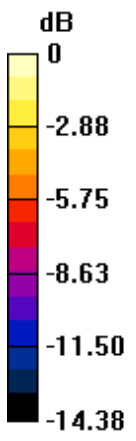
Grid 1 M4 37.14 dBV/m	Grid 2 M4 37.94 dBV/m	Grid 3 M4 36.4 dBV/m
Grid 4 M3 40.68 dBV/m	Grid 5 M3 41.83 dBV/m	Grid 6 M4 39.65 dBV/m
Grid 7 M3 42.21 dBV/m	Grid 8 M3 42.91 dBV/m	Grid 9 M3 40.37 dBV/m

Cursor:

Total = 42.91 dBV/m

E Category: M3

Location: 2, 24, 7.7 mm



0 dB = 139.9 V/m = 42.92 dBV/m

Test Laboratory: SGS-SAR Lab

5029E HAC-RF-GSM850 GSM Voice 251CH

DUT: 5029E; Type: LTE/WCDMA/GSM mobile phone; Serial: AYGYY9L7GEYHMJAA

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 = 127.5 V/m; Power Drift = -0.01 dB

Applied MIF = 3.63 dB

RF audio interference level = 42.49 dBV/m

Emission category: M3

MIF scaled E-field

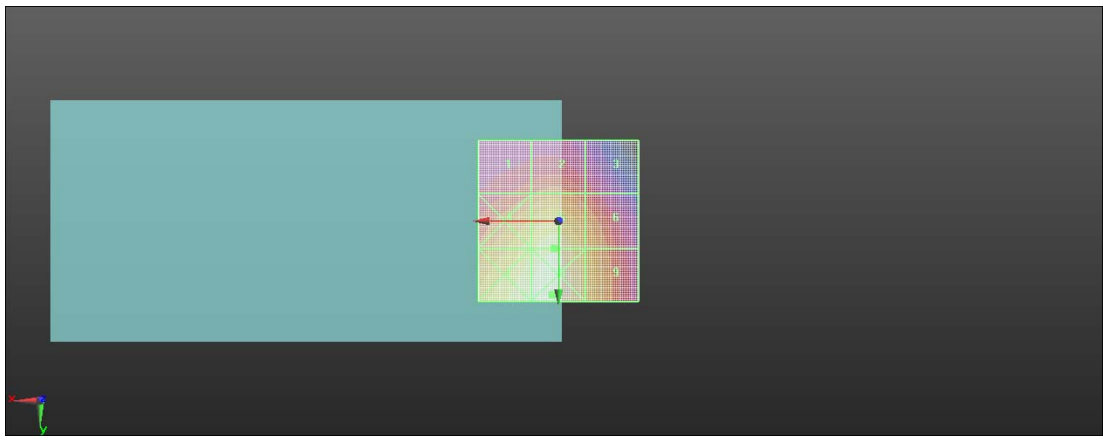
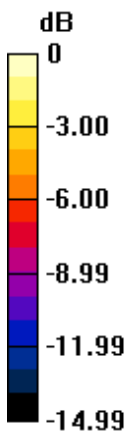
Grid 1 M4 37.62 dBV/m	Grid 2 M4 38.33 dBV/m	Grid 3 M4 36.77 dBV/m
Grid 4 M3 41.41 dBV/m	Grid 5 M3 42.49 dBV/m	Grid 6 M3 40.26 dBV/m
Grid 7 M3 43.04 dBV/m	Grid 8 M3 43.68 dBV/m	Grid 9 M3 41.04 dBV/m

Cursor:

Total = 43.68 dBV/m

E Category: M3

Location: 2, 23, 7.7 mm



0 dB = 152.8 V/m = 43.68 dBV/m

Test Laboratory: SGS-SAR Lab

5029E HAC-RF-GSM850 GSM Voice 251CH with Battery 2

DUT: 5029E; Type: LTE/WCDMA/GSM mobile phone; Serial: NRMZ4HX4ONPJOFM7

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 = 121.5 V/m; Power Drift = -0.13 dB

Applied MIF = 3.63 dB

RF audio interference level = 42.20 dBV/m

Emission category: M3

MIF scaled E-field

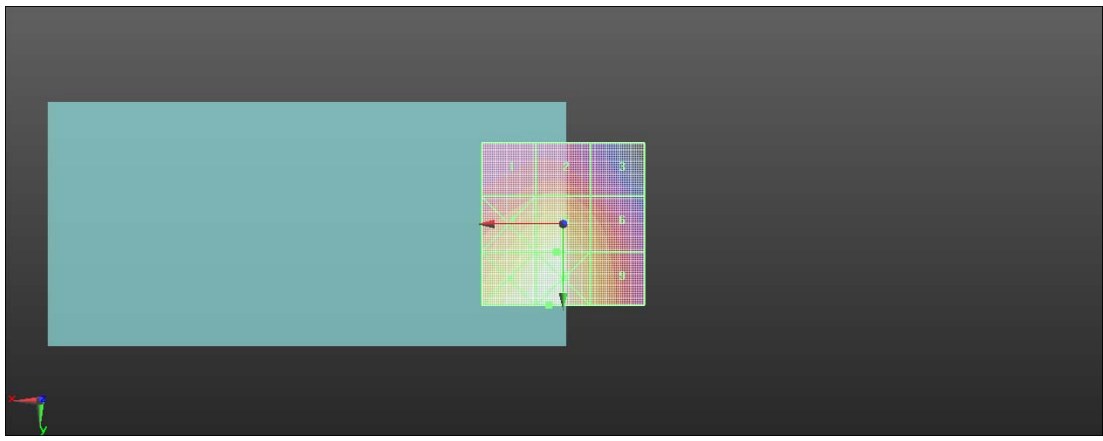
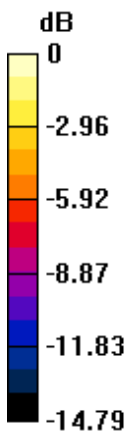
Grid 1 M4 37.43 dBV/m	Grid 2 M4 37.94 dBV/m	Grid 3 M4 36.21 dBV/m
Grid 4 M3 41.38 dBV/m	Grid 5 M3 42.2 dBV/m	Grid 6 M4 39.63 dBV/m
Grid 7 M3 43.02 dBV/m	Grid 8 M3 43.41 dBV/m	Grid 9 M3 40.44 dBV/m

Cursor:

Total = 43.41 dBV/m

E Category: M3

Location: 4.5, 25, 7.7 mm



0 dB = 148.0 V/m = 43.41 dBV/m

Test Laboratory: SGS-SAR Lab

5029E HAC-RF-GSM1900 GSM Voice 512CH

DUT: 5029E; Type: LTE/WCDMA/GSM mobile phone; Serial: AYGYY9L7GEYHMJAA

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 = 10.52 V/m; Power Drift = -0.04 dB

Applied MIF = 3.63 dB

RF audio interference level = 27.47 dBV/m

Emission category: M4

MIF scaled E-field

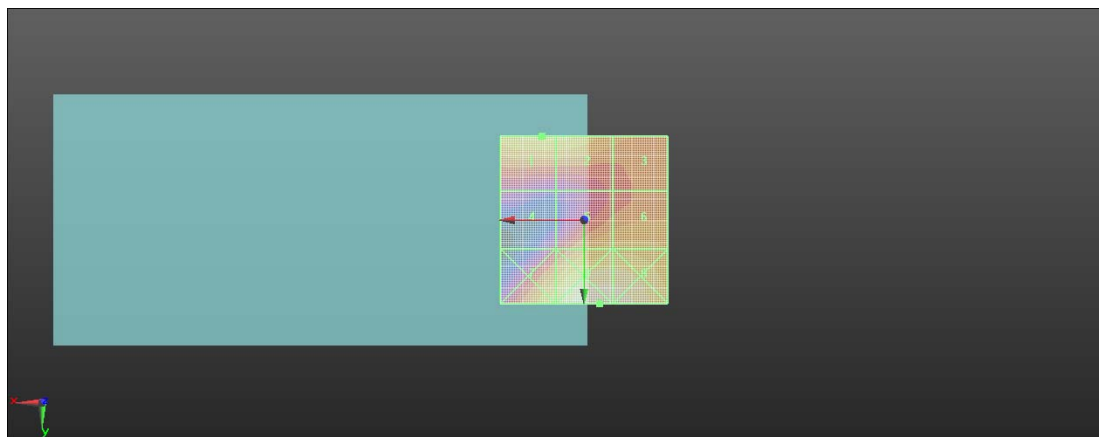
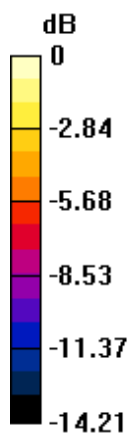
Grid 1 M4 27.47 dBV/m	Grid 2 M4 27.43 dBV/m	Grid 3 M4 25.64 dBV/m
Grid 4 M4 22.53 dBV/m	Grid 5 M4 26.62 dBV/m	Grid 6 M4 26.73 dBV/m
Grid 7 M4 28.02 dBV/m	Grid 8 M4 29.88 dBV/m	Grid 9 M4 29.64 dBV/m

Cursor:

Total = 29.88 dBV/m

E Category: M4

Location: -4.5, 25, 7.7 mm



0 dB = 31.19 V/m = 29.88 dBV/m

Test Laboratory: SGS-SAR Lab

5029E HAC-RF-GSM1900 GSM Voice 661CH

DUT: 5029E; Type: LTE/WCDMA/GSM mobile phone; Serial: AYGYY9L7GEYHMJAA

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 = 11.02 V/m; Power Drift = -0.06 dB

Applied MIF = 3.63 dB

RF audio interference level = 27.08 dBV/m

Emission category: M4

MIF scaled E-field

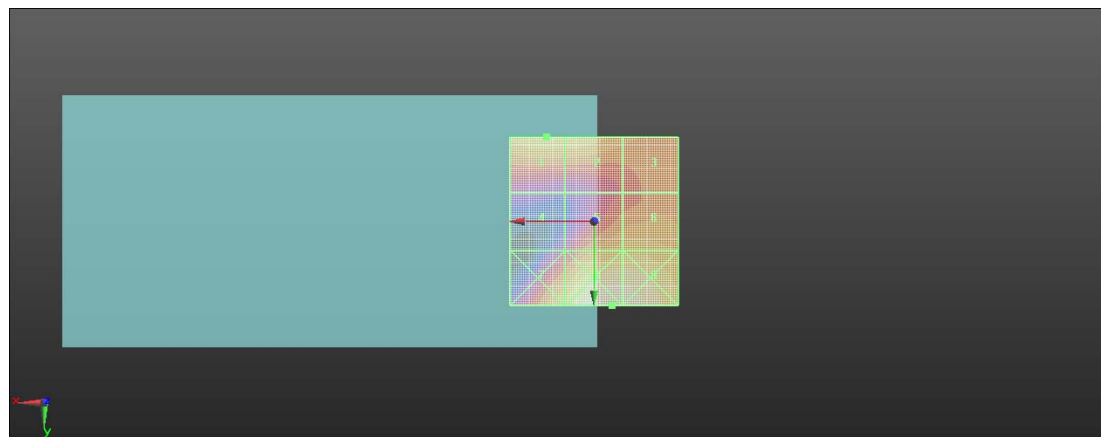
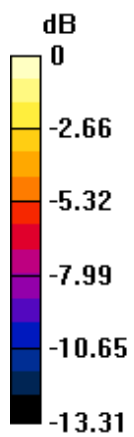
Grid 1 M4 27.08 dBV/m	Grid 2 M4 26.92 dBV/m	Grid 3 M4 25.38 dBV/m
Grid 4 M4 22.06 dBV/m	Grid 5 M4 26.45 dBV/m	Grid 6 M4 26.57 dBV/m
Grid 7 M4 27.23 dBV/m	Grid 8 M4 29.44 dBV/m	Grid 9 M4 29.33 dBV/m

Cursor:

Total = 29.44 dBV/m

E Category: M4

Location: -5.5, 25, 7.7 mm



0 dB = 29.66 V/m = 29.44 dBV/m

Test Laboratory: SGS-SAR Lab

5029E HAC-RF-GSM1900 GSM Voice 810CH

DUT: 5029E; Type: LTE/WCDMA/GSM mobile phone; Serial: AYGYY9L7GEYHMJAA

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 = 12.21 V/m; Power Drift = -0.19 dB

Applied MIF = 3.63 dB

RF audio interference level = 27.21 dBV/m

Emission category: M4

MIF scaled E-field

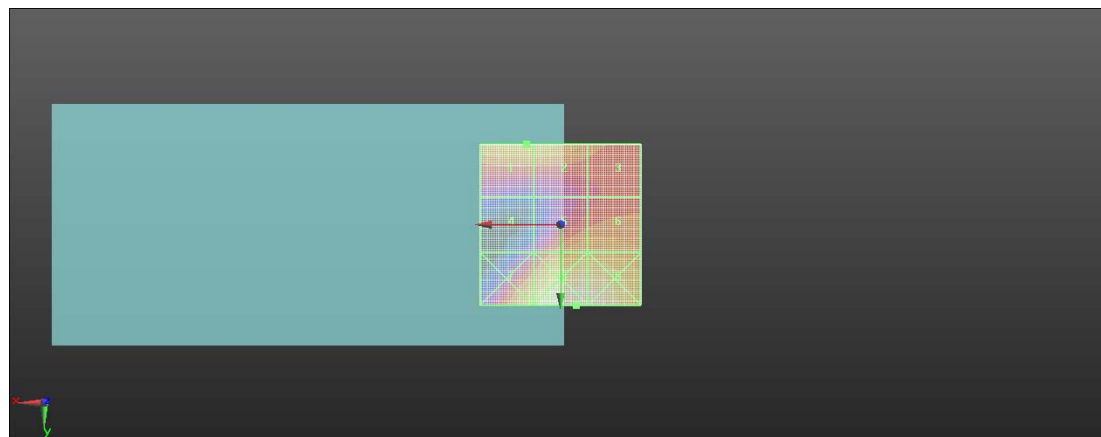
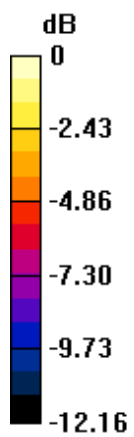
Grid 1 M4 27.21 dBV/m	Grid 2 M4 27.18 dBV/m	Grid 3 M4 25.46 dBV/m
Grid 4 M4 22.66 dBV/m	Grid 5 M4 26.77 dBV/m	Grid 6 M4 26.81 dBV/m
Grid 7 M4 27.73 dBV/m	Grid 8 M4 29.79 dBV/m	Grid 9 M4 29.62 dBV/m

Cursor:

Total = 29.79 dBV/m

E Category: M4

Location: -5, 25, 7.7 mm



0 dB = 30.85 V/m = 29.79 dBV/m

Test Laboratory: SGS-SAR Lab

5029E HAC-RF-GSM1900 GSM Voice 512CH with Battery 2

DUT: 5029E; Type: LTE/WCDMA/GSM mobile phone; Serial: NRMZ4HX4ONPJOFM7

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 = 11.01 V/m; Power Drift = 0.17 dB

Applied MIF = 3.63 dB

RF audio interference level = 28.98 dBV/m

Emission category: M4

MIF scaled E-field

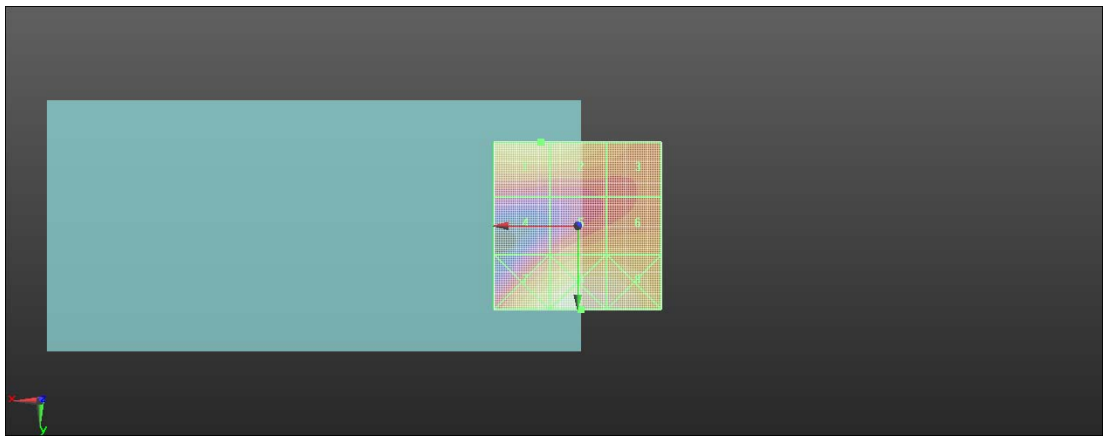
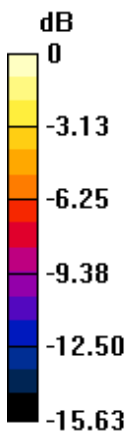
Grid 1 M4 28.98 dBV/m	Grid 2 M4 28.95 dBV/m	Grid 3 M4 26.88 dBV/m
Grid 4 M4 23.99 dBV/m	Grid 5 M4 27.14 dBV/m	Grid 6 M4 27.19 dBV/m
Grid 7 M4 29.64 dBV/m	Grid 8 M3 30.91 dBV/m	Grid 9 M3 30.42 dBV/m

Cursor:

Total = 30.91 dBV/m

E Category: M3

Location: -1, 25, 7.7 mm



0 dB = 35.11 V/m = 30.91 dBV/m