Appendix B. HAC Measurement Plots

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HAC Measurement Plots of GSM850
HAC Measurement Plots of GSM1900

Test Laboratory: HUAWEI SAR/HAC Lab

HAC_ER3DV6_MT2-L03-GSM850-251CH

DUT: MT2-L03; Type: NVGfWO VUᵁℬ ctᵛRj qpg=ᴵJ WCY GKCuegpf 'O cvg4=Serial: SAR1

Communication System: UID 10021 - DAA, GSM-FDD (TDMA, GMSK); Frequency: 848.6 MHz;Duty Cycle: 1:8.6896

Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3

Phantom section: RF Section

DASY Configuration:

- Probe: ER3DV6 - SN2441; ConvF(1, 1, 1); Calibrated: 2013-11-29;
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE4 Sn1236; Calibrated: 2013-11-25
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: 1053
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

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 = 42.30 V/m; Power Drift = -0.01 dB

Applied MIF = 3.63 dB

RF audio interference level = 34.44 dBV/m

Emission category: M4

MIF scaled E-field

Grid 1 **M4** 33.85 dBV/m	Grid 2 **M4** 34.9 dBV/m	Grid 3 **M4** 34.65 dBV/m
Grid 4 **M4** 32.93 dBV/m	Grid 5 **M4** 34.44 dBV/m	Grid 6 **M4** 34.38 dBV/m
Grid 7 **M4** 32.04 dBV/m	Grid 8 **M4** 33.78 dBV/m	Grid 9 **M4** 33.76 dBV/m

Category	Limits for E-Field Emissions < 960MHz	Limits for E-Field Emissions > 960MHz
M1	50 dBV/m - 55 dB V/m	40 dBV/m - 45 dB V/m
M2	45 dBV/m - 50 dB V/m	35 dBV/m - 40 dB V/m
M3	40 dBV/m - 45 dB V/m	30 dBV/m - 35 dB V/m
M4	<40 dBV/m	<30 dBV/m

Cursor:

Total = 34.90 dBV/m

E Category: M4

Location: -4, -25, 8.7 mm
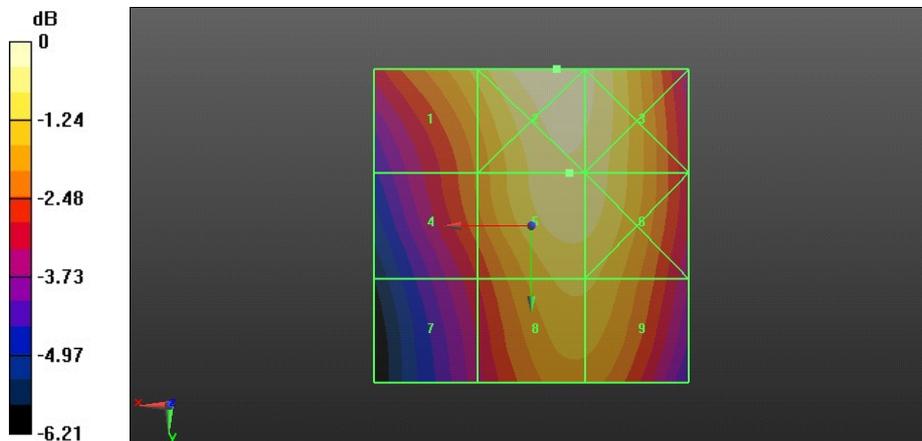
0 dB = 55.59 V/m = 34.90 dBV/m

Test Laboratory: HUAWEI SAR/HAC Lab

HAC_ER3DV6_MT2-L03-GSM850-190CH

DUT: MT2-L03; Type: NVGfWO VUÙ ct v'Rj qpg=¹J WCY GKCuegpf 'O cvg4=¹Serial: SAR1

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

Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3

Phantom section: RF Section

DASY Configuration:

- Probe: ER3DV6 - SN2441; ConvF(1, 1, 1); Calibrated: 2013-11-29;
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE4 Sn1236; Calibrated: 2013-11-25
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: 1053
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

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 = 41.39 V/m; Power Drift = -0.06 dB

Applied MIF = 3.63 dB

RF audio interference level = 34.16 dBV/m

Emission category: M4

MIF scaled E-field

Grid 1 **M4** 33.6 dBV/m	Grid 2 **M4** 34.61 dBV/m	Grid 3 **M4** 34.38 dBV/m
Grid 4 **M4** 32.69 dBV/m	Grid 5 **M4** 34.16 dBV/m	Grid 6 **M4** 34.12 dBV/m
Grid 7 **M4** 31.79 dBV/m	Grid 8 **M4** 33.51 dBV/m	Grid 9 **M4** 33.5 dBV/m

Category	Limits for E-Field Emissions < 960MHz	Limits for E-Field Emissions > 960MHz
M1	50 dBV/m - 55 dB V/m	40 dBV/m - 45 dB V/m
M2	45 dBV/m - 50 dB V/m	35 dBV/m - 40 dB V/m
M3	40 dBV/m - 45 dB V/m	30 dBV/m - 35 dB V/m
M4	<40 dBV/m	<30 dBV/m

Cursor:

Total = 34.61 dBV/m

E Category: M4

Location: -4, -25, 8.7 mm
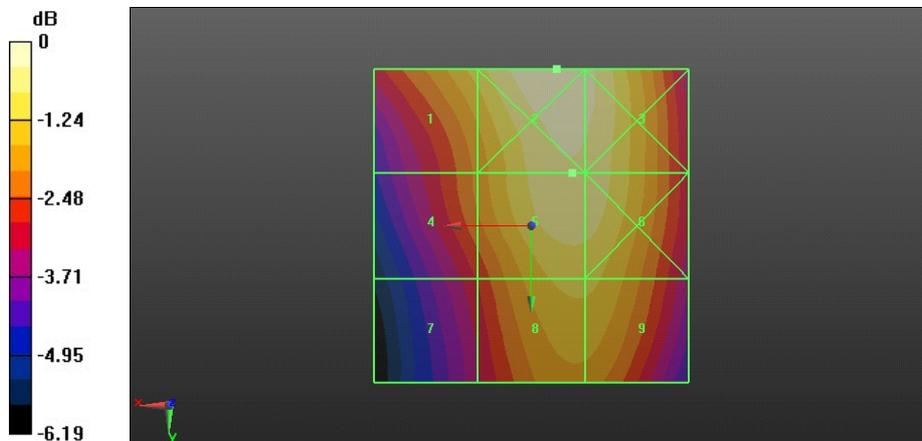
0 dB = 53.76 V/m = 34.61 dBV/m

Test Laboratory: HUAWEI SAR/HAC Lab

HAC_ER3DV6_MT2-L03-GSM850-128CH

DUT: MT2-L03; Type: LTE/UMTS Smart Phone; HUAWEI Ascend Mate2;Serial: SAR1

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

Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3

Phantom section: RF Section

DASY Configuration:

- Probe: ER3DV6 - SN2441; ConvF(1, 1, 1); Calibrated: 2013-11-29;
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE4 Sn1236; Calibrated: 2013-11-25
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: 1053
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

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 = 40.37 V/m; Power Drift = -0.06 dB

Applied MIF = 3.63 dB

RF audio interference level = 33.88 dBV/m

Emission category: M4

MIF scaled E-field

Grid 1 **M4**	Grid 2 **M4**	Grid 3 **M4**
33.27 dBV/m	**34.34 dBV/m**	**34.11 dBV/m**
Grid 4 **M4**	Grid 5 **M4**	Grid 6 **M4**
32.51 dBV/m	**33.88 dBV/m**	**33.85 dBV/m**
Grid 7 **M4**	Grid 8 **M4**	Grid 9 **M4**
31.72 dBV/m	**33.25 dBV/m**	**33.24 dBV/m**

Category	Limits for E-Field Emissions < 960MHz	Limits for E-Field Emissions > 960MHz
M1	50 dBV/m - 55 dB V/m	40 dBV/m - 45 dB V/m
M2	45 dBV/m - 50 dB V/m	35 dBV/m - 40 dB V/m
M3	40 dBV/m - 45 dB V/m	30 dBV/m - 35 dB V/m
M4	<40 dBV/m	<30 dBV/m

Cursor:

Total = 34.34 dBV/m

E Category: M4

Location: -2.5, -25, 8.7 mm
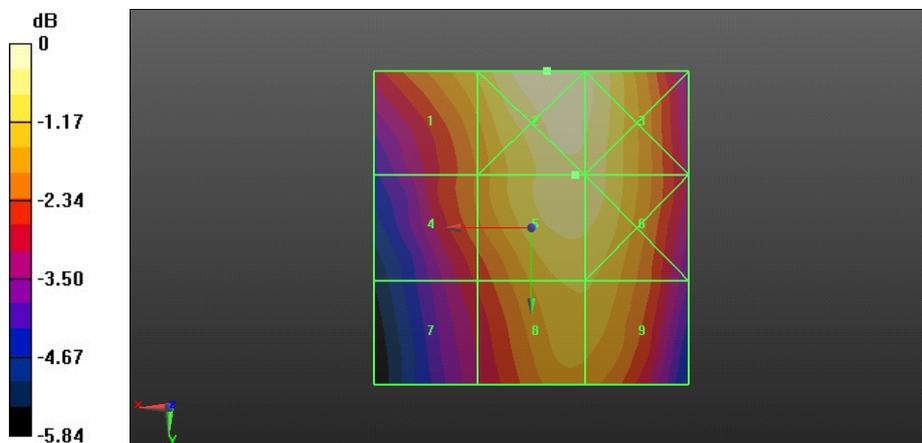
0 dB = 52.14 V/m = 34.34 dBV/m

Test Laboratory: HUAWEI SAR/HAC Lab

HAC_ER3DV6_MT2-L03-GSM1900-810CH

DUT: MT2-L03; Type: LTE/UMTS Smart Phone; HUAWEI Ascend Mate2; Serial: SAR1

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

Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3

Phantom section: RF Section

DASY Configuration:

- Probe: ER3DV6 - SN2441; ConvF(1, 1, 1); Calibrated: 2013-11-29;
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE4 Sn1236; Calibrated: 2013-11-25
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: 1053
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

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 = 5.983 V/m; Power Drift = 0.17 dB

Applied MIF = 3.63 dB

RF audio interference level = 24.20 dBV/m

Emission category: M4

MIF scaled E-field

Grid 1 **M4** **21.38 dBV/m**	Grid 2 **M4** **24.2 dBV/m**	Grid 3 **M4** **24.19 dBV/m**
Grid 4 **M4** **20.56 dBV/m**	Grid 5 **M4** **23.18 dBV/m**	Grid 6 **M4** **23.32 dBV/m**
Grid 7 **M4** **25.52 dBV/m**	Grid 8 **M4** **27.36 dBV/m**	Grid 9 **M4** **27.31 dBV/m**

Category	Limits for E-Field Emissions < 960MHz	Limits for E-Field Emissions > 960MHz
M1	50 dBV/m - 55 dB V/m	40 dBV/m - 45 dB V/m
M2	45 dBV/m - 50 dB V/m	35 dBV/m - 40 dB V/m
M3	40 dBV/m - 45 dB V/m	30 dBV/m - 35 dB V/m
M4	<40 dBV/m	<30 dBV/m

Cursor:

Total = 27.36 dBV/m

E Category: M4

Location: -6, 25, 8.7 mm
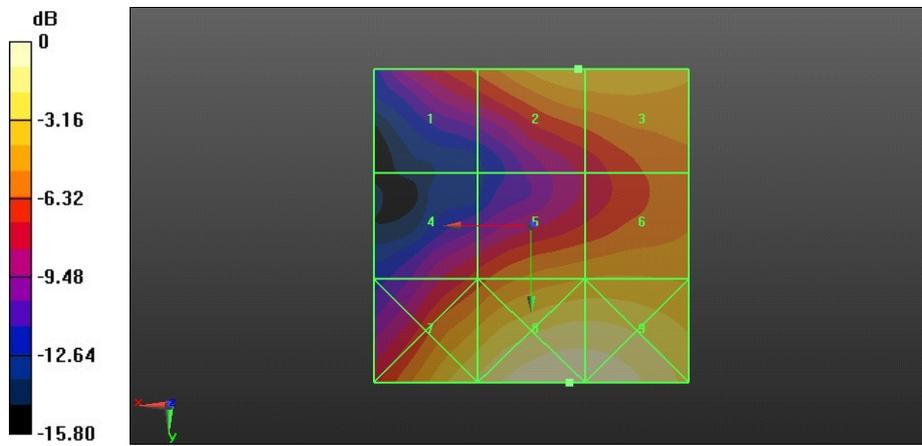
0 dB = 23.34 V/m = 27.36 dBV/m

Test Laboratory: HUAWEI SAR/HAC Lab

HAC_ER3DV6_MT2-L03-GSM1900-661CH

DUT: MT2-L03; Type: LTE/UMTS Smart Phone; HUAWEI Ascend Mate2; Serial: SAR1

Communication System: UID 10021 - DAA, GSM-FDD (TDMA, GMSK); Frequency: 1880 MHz;Duty Cycle: 1:8.6896
Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3
Phantom section: RF Section

DASY Configuration:

- Probe: ER3DV6 - SN2441; ConvF(1, 1, 1); Calibrated: 2013-11-29;
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE4 Sn1236; Calibrated: 2013-11-25
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: 1053
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

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 = 6.153 V/m; Power Drift = 0.12 dB
Applied MIF = 3.63 dB
RF audio interference level = 24.63 dBV/m
Emission category: M4

MIF scaled E-field

Grid 1 **M4**	Grid 2 **M4**	Grid 3 **M4**
22.15 dBV/m	**24.63 dBV/m**	**24.63 dBV/m**
Grid 4 **M4**	Grid 5 **M4**	Grid 6 **M4**
21.11 dBV/m	**23.56 dBV/m**	**23.59 dBV/m**
Grid 7 **M4**	Grid 8 **M4**	Grid 9 **M4**
26.66 dBV/m	**28.1 dBV/m**	**27.98 dBV/m**

Category	Limits for E-Field Emissions < 960MHz	Limits for E-Field Emissions > 960MHz
M1	50 dBV/m - 55 dB V/m	40 dBV/m - 45 dB V/m
M2	45 dBV/m - 50 dB V/m	35 dBV/m - 40 dB V/m
M3	40 dBV/m - 45 dB V/m	30 dBV/m - 35 dB V/m
M4	<40 dBV/m	<30 dBV/m

Cursor:
Total = 28.10 dBV/m
E Category: M4
Location: -4.5, 25, 8.7 mm
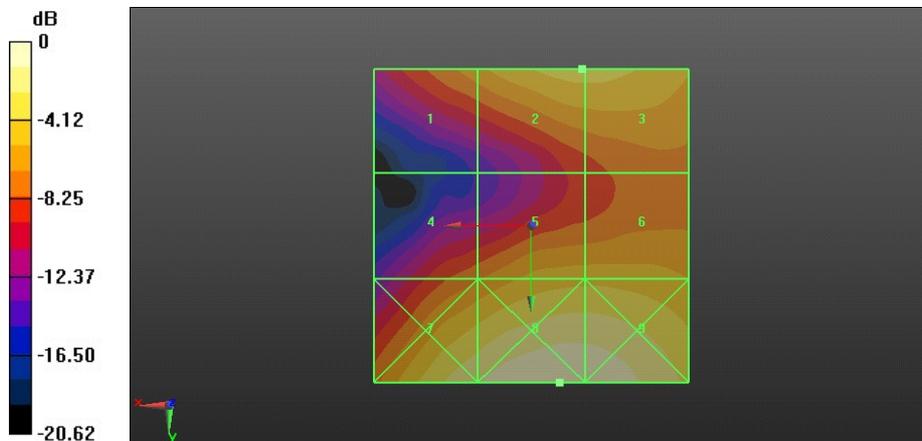
0 dB = 25.42 V/m = 28.10 dBV/m

Test Laboratory: HUAWEI SAR/HAC Lab

HAC_ER3DV6_MT2-L03-GSM1900-512CH

DUT: MT2-L03; Type: LTE/UMTS Smart Phone; HUAWEI Ascend Mate2; Serial: SAR1

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

Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 0$ kg/m^3

Phantom section: RF Section

DASY Configuration:

- Probe: ER3DV6 - SN2441; ConvF(1, 1, 1); Calibrated: 2013-11-29;
- Sensor-Surface: (Fix Surface), z = 8.7
- Electronics: DAE4 Sn1236; Calibrated: 2013-11-25
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA; Serial: 1053
- DASY52 52.8.7(1137); SEMCAD X 14.6.10(7164)

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 = 6.606 V/m; Power Drift = -0.09 dB

Applied MIF = 3.63 dB

RF audio interference level = 25.92 dBV/m

Emission category: M4

MIF scaled E-field

Grid 1 **M4** 23.74 dBV/m	Grid 2 **M4** 25.92 dBV/m	Grid 3 **M4** 25.92 dBV/m
Grid 4 **M4** 22.55 dBV/m	Grid 5 **M4** 24.26 dBV/m	Grid 6 **M4** 24.25 dBV/m
Grid 7 **M4** 27.83 dBV/m	Grid 8 **M4** 28.89 dBV/m	Grid 9 **M4** 28.63 dBV/m

Category	Limits for E-Field Emissions < 960MHz	Limits for E-Field Emissions > 960MHz
M1	50 dBV/m - 55 dB V/m	40 dBV/m - 45 dB V/m
M2	45 dBV/m - 50 dB V/m	35 dBV/m - 40 dB V/m
M3	40 dBV/m - 45 dB V/m	30 dBV/m - 35 dB V/m
M4	<40 dBV/m	<30 dBV/m

Cursor:

Total = 28.89 dBV/m

E Category: M4

Location: -3.5, 25, 8.7 mm

0 dB = 27.83 V/m = 28.89 dBV/m