



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_HUAWEI Y336-A1, Y336-A1-GSM850-251CH with battery 1#

DUT: HUAWEI Y336-A1, Y336-A1; Type: Smart Phone; Serial: SAR1

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

Medium parameters used: $\sigma = 0 \text{ S/m}$, $\epsilon_r = 1$; $\rho = 0 \text{ kg/m}^3$

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: $dx=0.5000 \text{ mm}$, $dy=0.5000 \text{ mm}$

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 82.70 V/m; Power Drift = 0.02 dB

Applied MIF = 3.63 dB

RF audio interference level = 40.04 dBV/m

Emission category: M3

MIF scaled E-field

Grid 1 M4 39.29 dBV/m	Grid 2 M4 39.99 dBV/m	Grid 3 M4 39.92 dBV/m
Grid 4 M4 39.13 dBV/m	Grid 5 M3 40.04 dBV/m	Grid 6 M4 39.96 dBV/m
Grid 7 M4 38.7 dBV/m	Grid 8 M4 39.64 dBV/m	Grid 9 M4 39.55 dBV/m

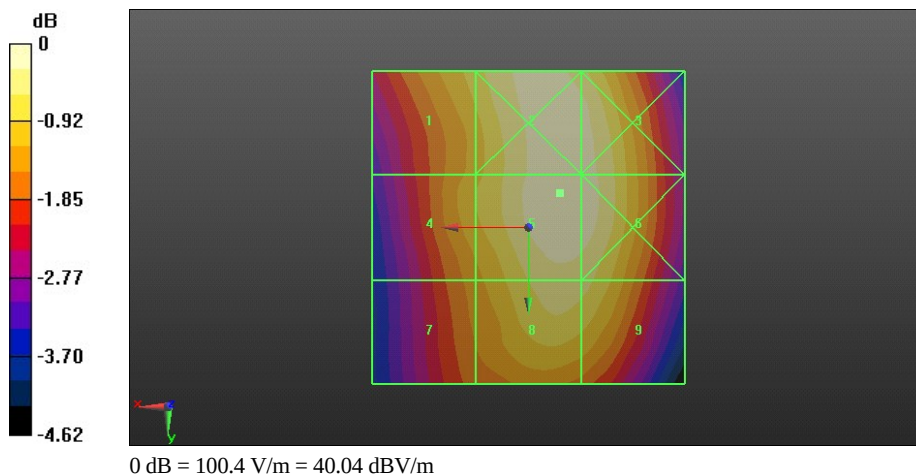
Category	Limits for E-Field Emissions < 960MHz	Limits for E-Field Emissions > 960MHz
M1	50 dBV/m - 55 dB V/m	40 dBV/m - 45 dB V/m
M2	45 dBV/m - 50 dB V/m	35 dBV/m - 40 dB V/m
M3	40 dBV/m - 45 dB V/m	30 dBV/m - 35 dB V/m
M4	<40 dBV/m	<30 dBV/m

Cursor:

Total = 40.04 dBV/m

E Category: M3

Location: -5, -5.5, 8.7 mm



Test Laboratory: HUAWEI SAR/HAC Lab

HAC_ER3DV6_HUAWEI Y336-A1, Y336-A1-GSM850-190CH with battery 1#**DUT: HUAWEI Y336-A1, Y336-A1; Type: Smart Phone; Serial: 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, $\epsilon_r = 1$; $\rho = 0$ kg/m³

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 = 84.25 V/m; Power Drift = -0.00 dB

Applied MIF = 3.63 dB

RF audio interference level = 40.09 dBV/m

Emission category: M3

MIF scaled E-field

Grid 1 M4 39.19 dBV/m	Grid 2 M3 40.01 dBV/m	Grid 3 M4 39.93 dBV/m
Grid 4 M4 39.11 dBV/m	Grid 5 M3 40.09 dBV/m	Grid 6 M3 40 dBV/m
Grid 7 M4 38.77 dBV/m	Grid 8 M4 39.78 dBV/m	Grid 9 M4 39.68 dBV/m

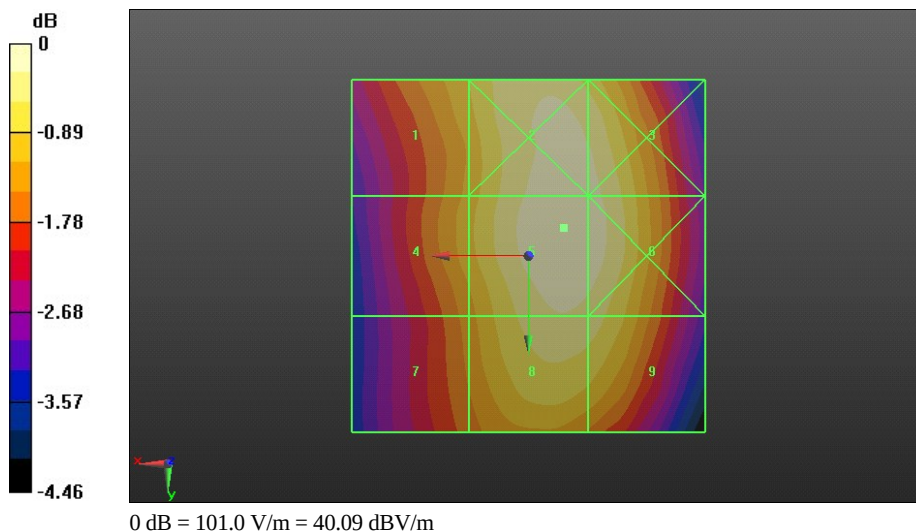
Category	Limits for E-Field Emissions < 960MHz	Limits for E-Field Emissions > 960MHz
M1	50 dBV/m - 55 dB V/m	40 dBV/m - 45 dB V/m
M2	45 dBV/m - 50 dB V/m	35 dBV/m - 40 dB V/m
M3	40 dBV/m - 45 dB V/m	30 dBV/m - 35 dB V/m
M4	<40 dBV/m	<30 dBV/m

Cursor:

Total = 40.09 dBV/m

E Category: M3

Location: -5, -4, 8.7 mm



Test Laboratory: HUAWEI SAR/HAC Lab

HAC_ER3DV6_HUAWEI Y336-A1, Y336-A1-GSM850-128CH with battery 1#

DUT: HUAWEI Y336-A1, Y336-A1; Type: Smart Phone; 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, $\epsilon_r = 1$; $\rho = 0$ kg/m³

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 = 77.97 V/m; Power Drift = 0.10 dB

Applied MIF = 3.63 dB

RF audio interference level = 39.49 dBV/m

Emission category: **M4**

MIF scaled E-field

Grid 1 M4 38.68 dBV/m	Grid 2 M4 39.35 dBV/m	Grid 3 M4 39.34 dBV/m
Grid 4 M4 38.5 dBV/m	Grid 5 M4 39.49 dBV/m	Grid 6 M4 39.42 dBV/m
Grid 7 M4 38.15 dBV/m	Grid 8 M4 39.21 dBV/m	Grid 9 M4 39.11 dBV/m

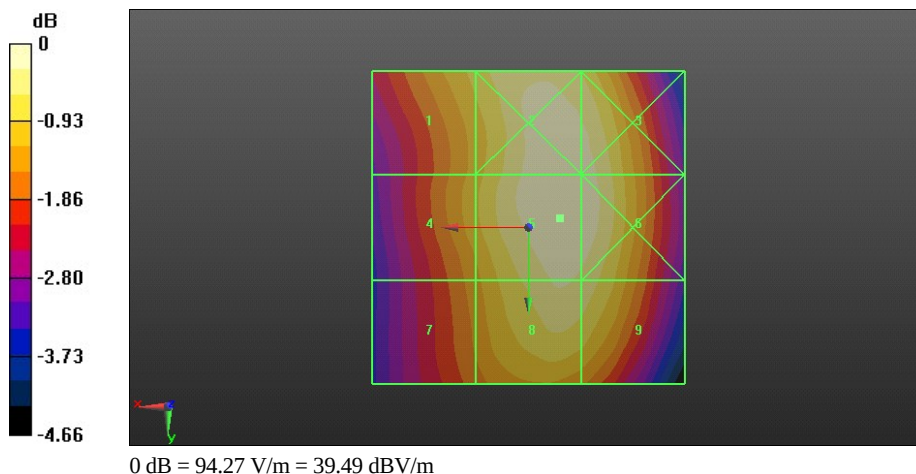
Category	Limits for E-Field Emissions < 960MHz	Limits for E-Field Emissions > 960MHz
M1	50 dBV/m - 55 dB V/m	40 dBV/m - 45 dB V/m
M2	45 dBV/m - 50 dB V/m	35 dBV/m - 40 dB V/m
M3	40 dBV/m - 45 dB V/m	30 dBV/m - 35 dB V/m
M4	<40 dBV/m	<30 dBV/m

Cursor:

Total = 39.49 dBV/m

E Category: M4

Location: -5, -1.5, 8.7 mm



Test Laboratory: HUAWEI SAR/HAC Lab

HAC_ER3DV6_HUAWEI Y336-A1, Y336-A1-GSM850-190CH with battery 2#

DUT: HUAWEI Y336-A1, Y336-A1; Type: Smart Phone; Serial: 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, $\epsilon_r = 1$; $\rho = 0$ kg/m³

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 = 83.13 V/m; Power Drift = 0.08 dB

Applied MIF = 3.63 dB

RF audio interference level = 40.16 dBV/m

Emission category: M3

MIF scaled E-field

Grid 1 M4 39.28 dBV/m	Grid 2 M3 40.08 dBV/m	Grid 3 M4 39.99 dBV/m
Grid 4 M4 39.17 dBV/m	Grid 5 M3 40.16 dBV/m	Grid 6 M3 40.06 dBV/m
Grid 7 M4 38.85 dBV/m	Grid 8 M4 39.84 dBV/m	Grid 9 M4 39.75 dBV/m

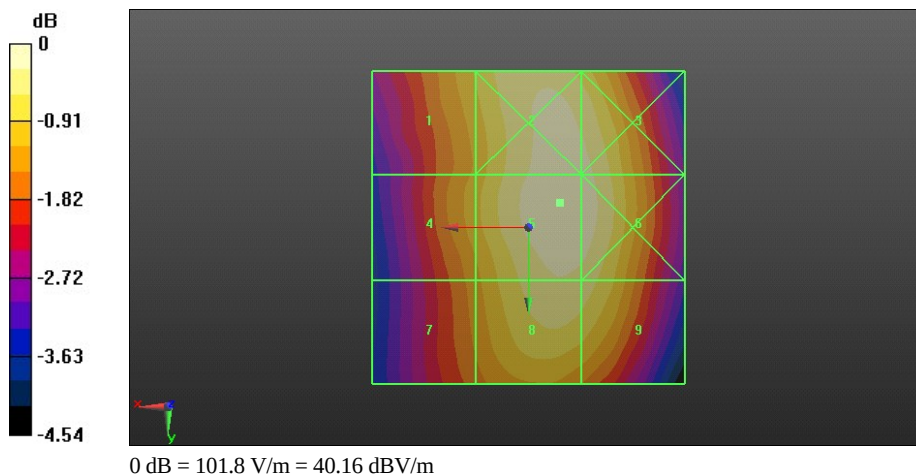
Category	Limits for E-Field Emissions < 960MHz	Limits for E-Field Emissions > 960MHz
M1	50 dBV/m - 55 dB V/m	40 dBV/m - 45 dB V/m
M2	45 dBV/m - 50 dB V/m	35 dBV/m - 40 dB V/m
M3	40 dBV/m - 45 dB V/m	30 dBV/m - 35 dB V/m
M4	<40 dBV/m	<30 dBV/m

Cursor:

Total = 40.16 dBV/m

E Category: M3

Location: -5, -4, 8.7 mm



Test Laboratory: HUAWEI SAR/HAC Lab

HAC_ER3DV6_HUAWEI Y336-A1, Y336-A1-GSM1900-810CH with battery 1#**DUT: HUAWEI Y336-A1, Y336-A1; Type: Smart Phone; 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, $\epsilon_r = 1$; $\rho = 0$ kg/m³

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 = 24.45 V/m; Power Drift = -0.04 dB

Applied MIF = 3.63 dB

RF audio interference level = 32.26 dBV/m

Emission category: M3

MIF scaled E-field

Grid 1 M3 31.44 dBV/m	Grid 2 M3 33.08 dBV/m	Grid 3 M3 32.99 dBV/m
Grid 4 M4 28.26 dBV/m	Grid 5 M3 32.26 dBV/m	Grid 6 M3 32.28 dBV/m
Grid 7 M4 28.95 dBV/m	Grid 8 M4 29.49 dBV/m	Grid 9 M4 29.85 dBV/m

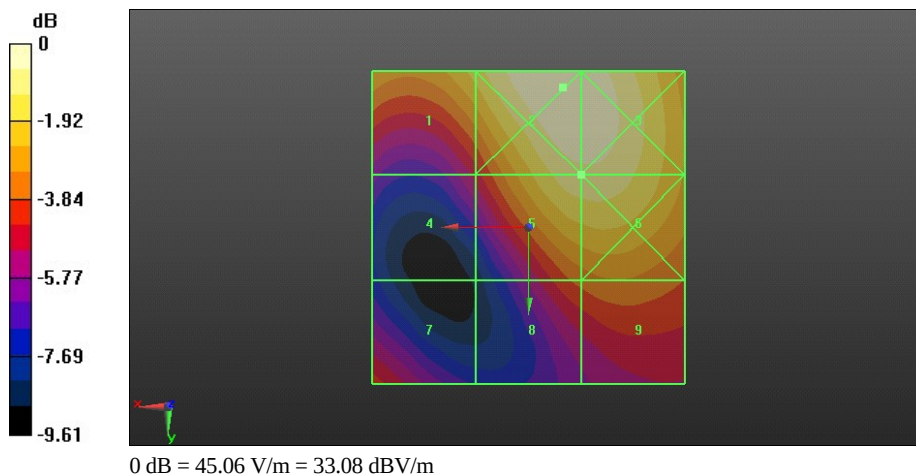
Category	Limits for E-Field Emissions < 960MHz	Limits for E-Field Emissions > 960MHz
M1	50 dBV/m - 55 dB V/m	40 dBV/m - 45 dB V/m
M2	45 dBV/m - 50 dB V/m	35 dBV/m - 40 dB V/m
M3	40 dBV/m - 45 dB V/m	30 dBV/m - 35 dB V/m
M4	<40 dBV/m	<30 dBV/m

Cursor:

Total = 33.08 dBV/m

E Category: M3

Location: -5.5, -22.5, 8.7 mm



Test Laboratory: HUAWEI SAR/HAC Lab

HAC_ER3DV6_HUAWEI Y336-A1, Y336-A1-GSM1900-661CH with battery 1#

DUT: HUAWEI Y336-A1, Y336-A1; Type: Smart Phone; Serial: SAR1

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

Medium parameters used: $\sigma = 0 \text{ S/m}$, $\epsilon_r = 1$; $\rho = 0 \text{ kg/m}^3$

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 = 25.63 V/m; Power Drift = -0.08 dB

Applied MIF = 3.63 dB

RF audio interference level = 32.23 dBV/m

Emission category: M3

MIF scaled E-field

Grid 1 M3 31.82 dBV/m	Grid 2 M3 33.16 dBV/m	Grid 3 M3 32.97 dBV/m
Grid 4 M4 28.79 dBV/m	Grid 5 M3 32.23 dBV/m	Grid 6 M3 32.23 dBV/m
Grid 7 M4 28.05 dBV/m	Grid 8 M4 29.14 dBV/m	Grid 9 M4 29.3 dBV/m

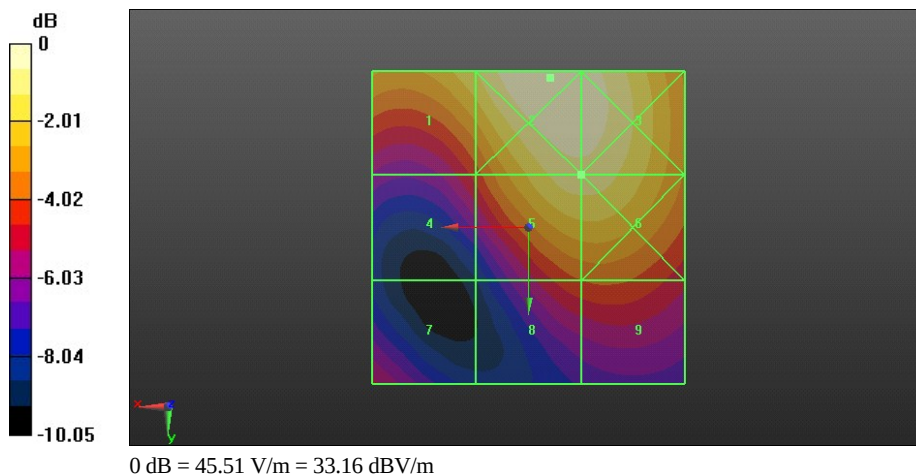
Category	Limits for E-Field Emissions < 960MHz	Limits for E-Field Emissions > 960MHz
M1	50 dBV/m - 55 dB V/m	40 dBV/m - 45 dB V/m
M2	45 dBV/m - 50 dB V/m	35 dBV/m - 40 dB V/m
M3	40 dBV/m - 45 dB V/m	30 dBV/m - 35 dB V/m
M4	<40 dBV/m	<30 dBV/m

Cursor:

Total = 33.16 dBV/m

E Category: M3

Location: -3.5, -24, 8.7 mm



Test Laboratory: HUAWEI SAR/HAC Lab

HAC_ER3DV6_HUAWEI Y336-A1, Y336-A1-GSM1900-512CH with battery 1#

DUT: HUAWEI Y336-A1, Y336-A1; Type: Smart Phone; 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, $\epsilon_r = 1$; $\rho = 0$ kg/m³

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 = 26.86 V/m; Power Drift = -0.02 dB

Applied MIF = 3.63 dB

RF audio interference level = 32.02 dBV/m

Emission category: M3

MIF scaled E-field

Grid 1 M3 31.44 dBV/m	Grid 2 M3 32.66 dBV/m	Grid 3 M3 32.52 dBV/m
Grid 4 M4 29.01 dBV/m	Grid 5 M3 32.02 dBV/m	Grid 6 M3 32.02 dBV/m
Grid 7 M4 27.26 dBV/m	Grid 8 M4 29.54 dBV/m	Grid 9 M4 29.64 dBV/m

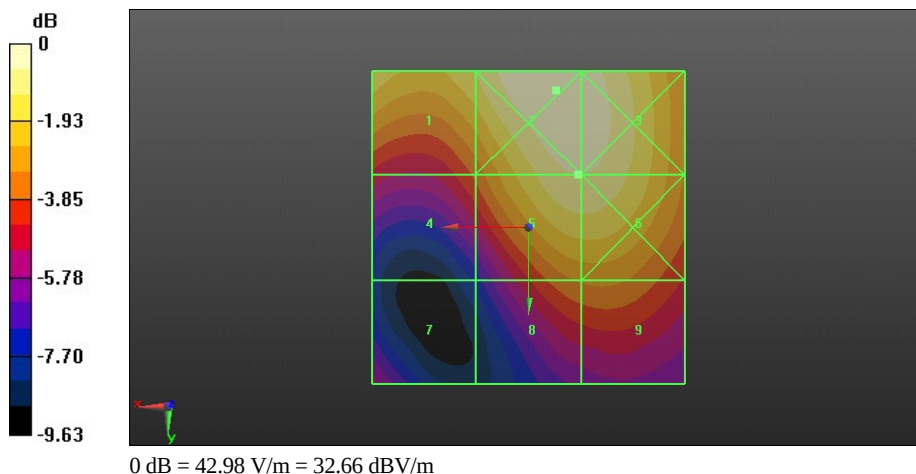
Category	Limits for E-Field Emissions < 960MHz	Limits for E-Field Emissions > 960MHz
M1	50 dBV/m - 55 dB V/m	40 dBV/m - 45 dB V/m
M2	45 dBV/m - 50 dB V/m	35 dBV/m - 40 dB V/m
M3	40 dBV/m - 45 dB V/m	30 dBV/m - 35 dB V/m
M4	<40 dBV/m	<30 dBV/m

Cursor:

Total = 32.66 dBV/m

E Category: M3

Location: -4.5, -22, 8.7 mm



Test Laboratory: HUAWEI SAR/HAC Lab

HAC_ER3DV6_HUAWEI Y336-A1, Y336-A1-GSM1900-810CH with battery 2#**DUT: HUAWEI Y336-A1, Y336-A1; Type: Smart Phone; 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, $\epsilon_r = 1$; $\rho = 0$ kg/m³

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 = 25.59 V/m; Power Drift = -0.11 dB

Applied MIF = 3.63 dB

RF audio interference level = 32.50 dBV/m

Emission category: M3

MIF scaled E-field

Grid 1 M3 31.95 dBV/m	Grid 2 M3 33.4 dBV/m	Grid 3 M3 33.3 dBV/m
Grid 4 M4 28.76 dBV/m	Grid 5 M3 32.5 dBV/m	Grid 6 M3 32.52 dBV/m
Grid 7 M4 29.29 dBV/m	Grid 8 M4 29.71 dBV/m	Grid 9 M3 30.03 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 = 33.40 dBV/m

E Category: M3

Location: -5, -23, 8.7 mm

