Appendix B. HAC Measurement Plots

Table of contents
HAC Measurement Plots of GSM850
HAC Measurement Plots of GSM1900

Date: 2014-6-7

Test Laboratory: HUAWEI SAR/HAC Lab

HAC_ER3DV6_Y536A1-GSM850-251CH

DUT: Y536A1; 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: $\sigma = 0$ 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)

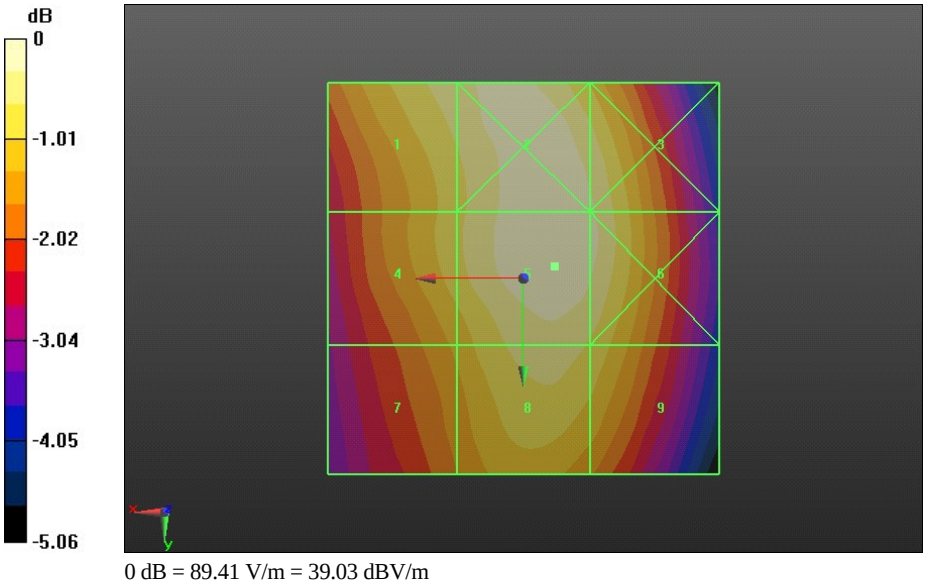
Device E-Field measurement (E-field scan for ANSI C63.19-2011 compliance)/E Scan - ER3D: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 76.15 V/m; Power Drift = 0.02 dB
Applied MIF = 3.63 dB
RF audio interference level = 39.03 dBV/m
Emission category: M4

MIF scaled E-field

Grid 1 **M4** **38.58 dBV/m**	Grid 2 **M4** **38.98 dBV/m**	Grid 3 **M4** **38.75 dBV/m**
Grid 4 **M4** **38.29 dBV/m**	Grid 5 **M4** **39.03 dBV/m**	Grid 6 **M4** **38.8 dBV/m**
Grid 7 **M4** **37.78 dBV/m**	Grid 8 **M4** **38.54 dBV/m**	Grid 9 **M4** **38.31 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 = 39.03 dBV/m
E Category: M4
Location: -4, -1.5, 8.7 mm



0 dB = 89.41 V/m = 39.03 dBV/m

Date: 2014-6-7

Test Laboratory: HUAWEI SAR/HAC Lab

HAC_ER3DV6_Y536A1-GSM850-190CH

DUT: Y536A1; Type: Smart Phone; Serial: SAR1

Communication System: UID 10021 - DAA, 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)

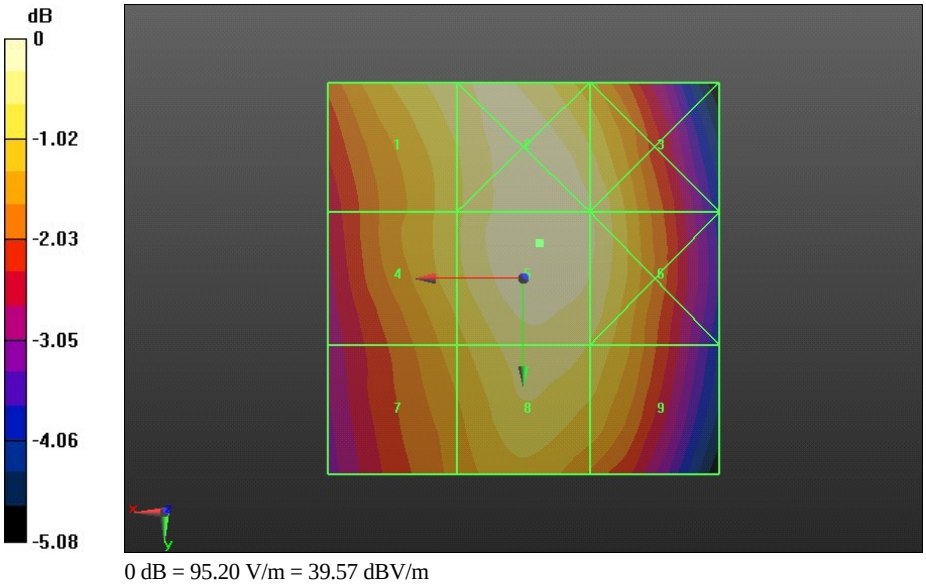
Device E-Field measurement (E-field scan for ANSI C63.19-2011 compliance)/E Scan - ER3D: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 81.71 V/m; Power Drift = 0.01 dB
Applied MIF = 3.63 dB
RF audio interference level = 39.57 dBV/m
Emission category: M4

MIF scaled E-field

Grid 1 **M4** **39.14 dBV/m**	Grid 2 **M4** **39.53 dBV/m**	Grid 3 **M4** **39.28 dBV/m**
Grid 4 **M4** **38.85 dBV/m**	Grid 5 **M4** **39.57 dBV/m**	Grid 6 **M4** **39.31 dBV/m**
Grid 7 **M4** **38.43 dBV/m**	Grid 8 **M4** **39.12 dBV/m**	Grid 9 **M4** **38.87 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 = 39.57 dBV/m
E Category: M4
Location: -2, -4.5, 8.7 mm



0 dB = 95.20 V/m = 39.57 dBV/m

Date: 2014-6-7

Test Laboratory: HUAWEI SAR/HAC Lab

HAC_ER3DV6_Y536A1-GSM850-128CH

DUT: Y536A1; 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, $\varepsilon_r = 1$; $\rho = 0$ 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)

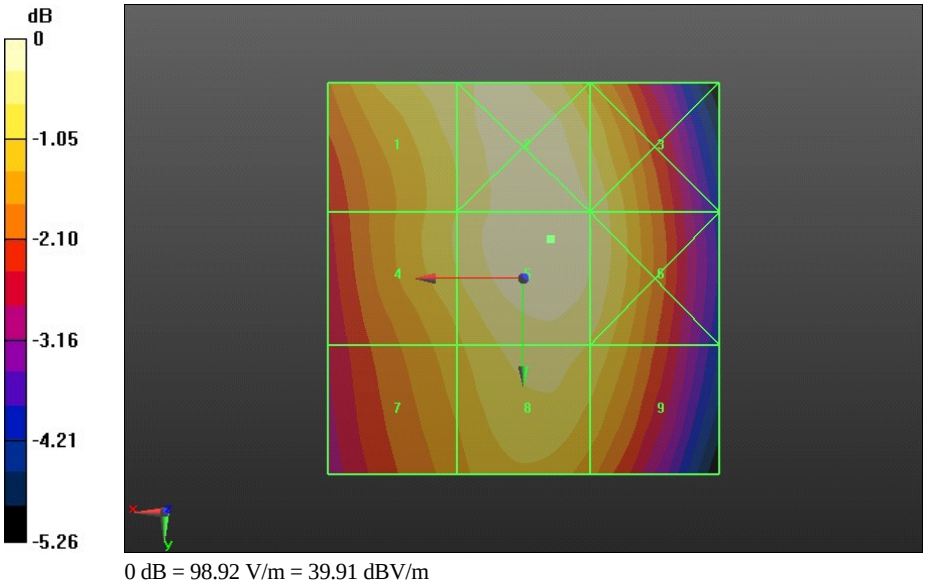
Device E-Field measurement (E-field scan for ANSI C63.19-2011 compliance)/E Scan - ER3D: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 85.56 V/m; Power Drift = -0.07 dB
Applied MIF = 3.63 dB
RF audio interference level = 39.91 dBV/m
Emission category: M4

MIF scaled E-field

Grid 1 **M4** **39.47 dBV/m**	Grid 2 **M4** **39.85 dBV/m**	Grid 3 **M4** **39.55 dBV/m**
Grid 4 **M4** **39.27 dBV/m**	Grid 5 **M4** **39.91 dBV/m**	Grid 6 **M4** **39.59 dBV/m**
Grid 7 **M4** **38.78 dBV/m**	Grid 8 **M4** **39.4 dBV/m**	Grid 9 **M4** **39.17 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 = 39.91 dBV/m
E Category: M4
Location: -3.5, -5, 8.7 mm



0 dB = 98.92 V/m = 39.91 dBV/m

Date: 2014-6-7

Test Laboratory: HUAWEI SAR/HAC Lab

HAC_ER3DV6_Y536A1-GSM1900-810CH

DUT: Y536A1; 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, $\varepsilon_r = 1$; $\rho = 0$ 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)

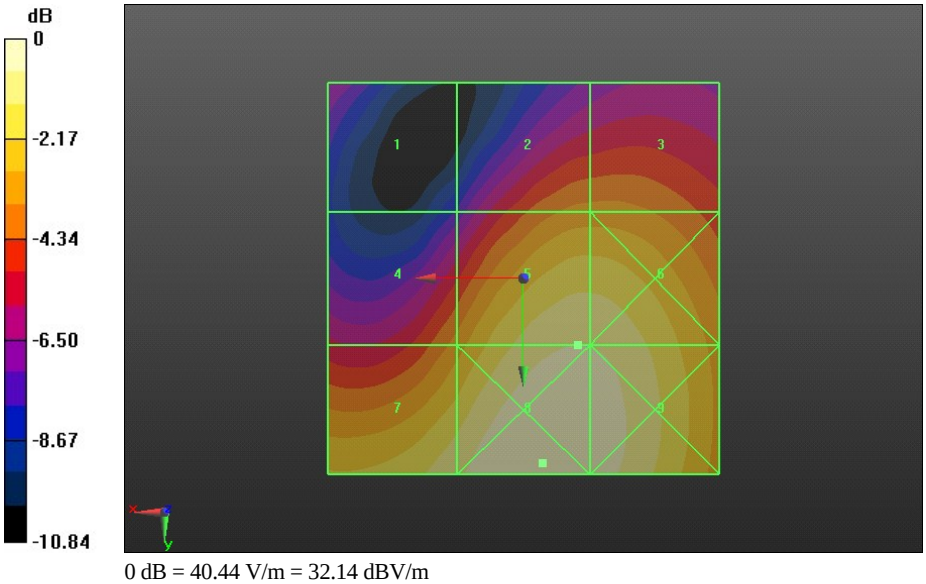
Device E-Field measurement (E-field scan for ANSI C63.19-2011 compliance)/E Scan - ER3D: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 26.08 V/m; Power Drift = -0.00 dB
Applied MIF = 3.63 dB
RF audio interference level = 31.42 dBV/m
Emission category: M3

MIF scaled E-field

Grid 1 **M4** **25.87 dBV/m**	Grid 2 **M4** **28.82 dBV/m**	Grid 3 **M4** **28.85 dBV/m**
Grid 4 **M4** **28.88 dBV/m**	Grid 5 **M3** **31.42 dBV/m**	Grid 6 **M3** **31.4 dBV/m**
Grid 7 **M3** **31.26 dBV/m**	Grid 8 **M3** **32.14 dBV/m**	Grid 9 **M3** **31.92 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 = 32.14 dBV/m
E Category: M3
Location: -2.5, 23.5, 8.7



0 dB = 40.44 V/m = 32.14 dBV/m

Date: 2014-6-7

Test Laboratory: HUAWEI SAR/HAC Lab

HAC_ER3DV6_Y536A1-GSM1900-661CH

DUT: Y536A1; 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: $\sigma = 0$ 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)

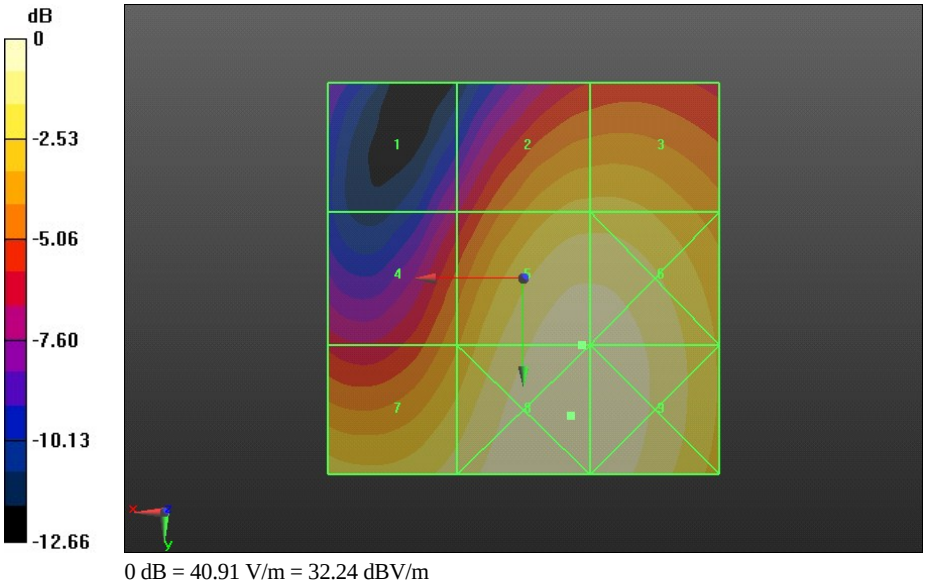
Device E-Field measurement (E-field scan for ANSI C63.19-2011 compliance)/E Scan - ER3D: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 28.71 V/m; Power Drift = 0.02 dB
Applied MIF = 3.63 dB
RF audio interference level = 31.96 dBV/m
Emission category: M3

MIF scaled E-field

Grid 1 **M4** **25.36 dBV/m**	Grid 2 **M3** **30.07 dBV/m**	Grid 3 **M3** **30.09 dBV/m**
Grid 4 **M4** **28.77 dBV/m**	Grid 5 **M3** **31.96 dBV/m**	Grid 6 **M3** **31.95 dBV/m**
Grid 7 **M3** **30.95 dBV/m**	Grid 8 **M3** **32.24 dBV/m**	Grid 9 **M3** **32.18 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 = 32.24 dBV/m
E Category: M3
Location: -6, 17.5, 8.7



0 dB = 40.91 V/m = 32.24 dBV/m

Date: 2014-6-7

Test Laboratory: HUAWEI SAR/HAC Lab

HAC_ER3DV6_Y536A1-GSM1900-512CH

DUT: Y536A1; 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, $\varepsilon_r = 1$; $\rho = 0$ 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)

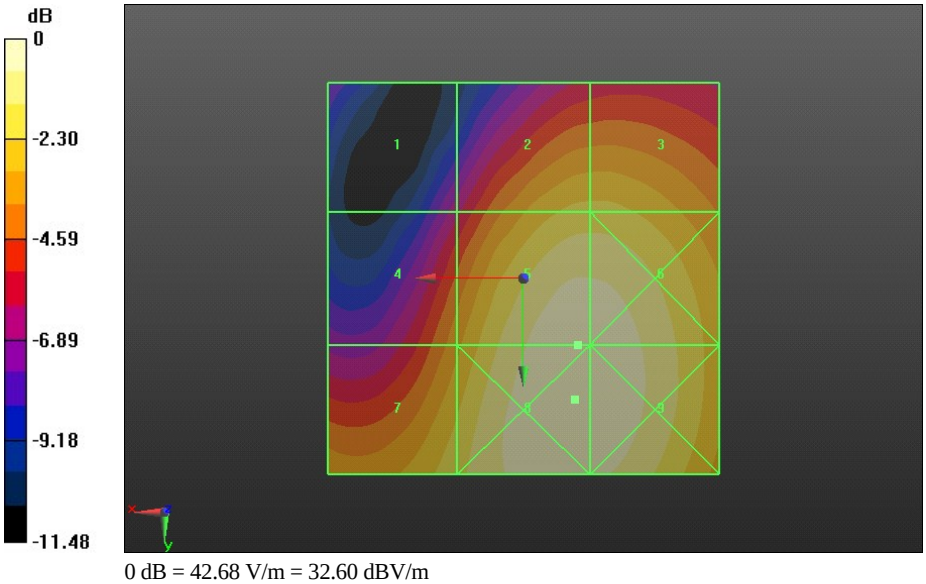
Device E-Field measurement (E-field scan for ANSI C63.19-2011 compliance)/E Scan - ER3D: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm
Device Reference Point: 0, 0, -6.3 mm
Reference Value = 30.97 V/m; Power Drift = -0.02 dB
Applied MIF = 3.63 dB
RF audio interference level = 32.45 dBV/m
Emission category: M3

MIF scaled E-field

Grid 1 **M4** **26.29 dBV/m**	Grid 2 **M3** **30.59 dBV/m**	Grid 3 **M3** **30.6 dBV/m**
Grid 4 **M4** **29.34 dBV/m**	Grid 5 **M3** **32.45 dBV/m**	Grid 6 **M3** **32.43 dBV/m**
Grid 7 **M3** **30.84 dBV/m**	Grid 8 **M3** **32.6 dBV/m**	Grid 9 **M3** **32.57 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 = 32.60 dBV/m
E Category: M3
Location: -6.5, 15.5, 8.7



0 dB = 42.68 V/m = 32.60 dBV/m