Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2014/7/21

#01_HAC_E_GSM850_GSM Voice_Ch128

Communication System: GSM-FDD (TDMA, GMSK); Frequency: 824.2 MHz;Duty Cycle: 1:8.6896
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m^3
Ambient Temperature：23.6 ℃

DASY5 Configuration
- Probe: ER3DV6 - SN2358; ConvF(1, 1, 1); Calibrated: 2014/1/30;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn778; Calibrated: 2013/8/21
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Ch128/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 = 67.39 V/m; Power Drift = -0.06 dB
Applied MIF = 3.63 dB
RF audio interference level = 38.37 dBV/m
Emission category: M4

MIF scaled E-field

Grid 1 **M4** **37.34 dBV/m**	Grid 2 **M4** **38.17 dBV/m**	Grid 3 **M4** **38.01 dBV/m**
Grid 4 **M4** **37.85 dBV/m**	Grid 5 **M4** **38.29 dBV/m**	Grid 6 **M4** **38.05 dBV/m**
Grid 7 **M4** **38.14 dBV/m**	Grid 8 **M4** **38.37 dBV/m**	Grid 9 **M4** **37.92 dBV/m**

Cursor:
Total = 38.37 dBV/m
E Category: M4
Location: 2, 25, 8.7 mm

0 dB = 82.89 V/m = 38.37 dBV/m

#02_HAC_E_GSM850_GSM Voice_Ch189

Communication System: GSM-FDD (TDMA, GMSK); Frequency: 836.6 MHz;Duty Cycle: 1:8.6896
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m^3
Ambient Temperature：23.6 ℃

DASY5 Configuration
- Probe: ER3DV6 - SN2358; ConvF(1, 1, 1); Calibrated: 2014/1/30;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn778; Calibrated: 2013/8/21
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Ch189/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 = 61.78 V/m; Power Drift = -0.02 dB
Applied MIF = 3.63 dB
RF audio interference level = 37.81 dBV/m
Emission category: M4

MIF scaled E-field

Grid 1 **M4** **36.66 dBV/m**	Grid 2 **M4** **37.55 dBV/m**	Grid 3 **M4** **37.47 dBV/m**
Grid 4 **M4** **37.12 dBV/m**	Grid 5 **M4** **37.67 dBV/m**	Grid 6 **M4** **37.49 dBV/m**
Grid 7 **M4** **37.54 dBV/m**	Grid 8 **M4** **37.81 dBV/m**	Grid 9 **M4** **37.42 dBV/m**

Cursor:
Total = 37.81 dBV/m
E Category: M4
Location: 1.5, 25, 8.7 mm

0 dB = 77.68 V/m = 37.81 dBV/m

#03_HAC_E_GSM850_GSM Voice_Ch251

Communication System: GSM-FDD (TDMA, GMSK); Frequency: 848.6 MHz;Duty Cycle: 1:8.6896
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m^3
Ambient Temperature：23.6 ℃

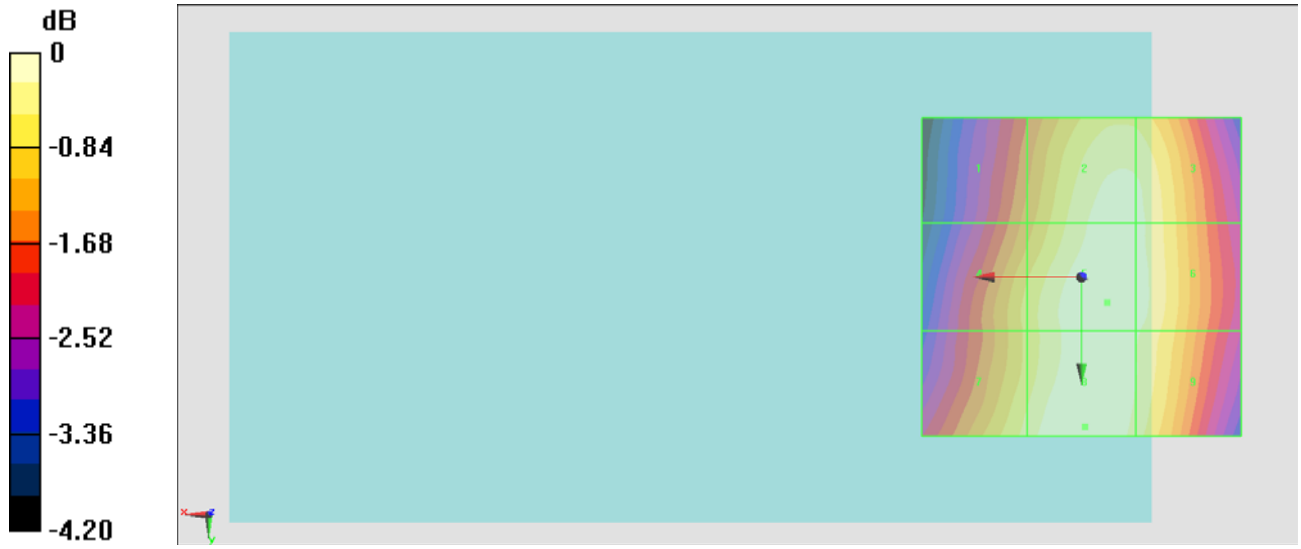
DASY5 Configuration
- Probe: ER3DV6 - SN2358; ConvF(1, 1, 1); Calibrated: 2014/1/30;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn778; Calibrated: 2013/8/21
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Ch251/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 = 60.35 V/m; Power Drift = -0.00 dB
Applied MIF = 3.63 dB
RF audio interference level = 37.56 dBV/m
Emission category: M4

MIF scaled E-field

Grid 1 **M4** **36.31 dBV/m**	Grid 2 **M4** **37.43 dBV/m**	Grid 3 **M4** **37.37 dBV/m**
Grid 4 **M4** **36.84 dBV/m**	Grid 5 **M4** **37.55 dBV/m**	Grid 6 **M4** **37.44 dBV/m**
Grid 7 **M4** **37.13 dBV/m**	Grid 8 **M4** **37.56 dBV/m**	Grid 9 **M4** **37.33 dBV/m**

Cursor:
Total = 37.56 dBV/m
E Category: M4
Location: -0.5, 23.5, 8.7 mm



0 dB = 75.51 V/m = 37.56 dBV/m

#04_HAC_E_GSM1900_GSM Voice_Ch512

Communication System: GSM-FDD (TDMA, GMSK); Frequency: 1850.2 MHz;Duty Cycle: 1:8.6896
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m^3
Ambient Temperature：23.6 ℃

DASY5 Configuration
- Probe: ER3DV6 - SN2358; ConvF(1, 1, 1); Calibrated: 2014/1/30;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn778; Calibrated: 2013/8/21
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Ch512/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 = 11.43 V/m; Power Drift = -0.17 dB
Applied MIF = 3.63 dB
RF audio interference level = 29.46 dBV/m
Emission category: M4

MIF scaled E-field

Grid 1 **M4** **26.43 dBV/m**	Grid 2 **M4** **26.52 dBV/m**	Grid 3 **M4** **25.71 dBV/m**
Grid 4 **M4** **23.72 dBV/m**	Grid 5 **M4** **26.4 dBV/m**	Grid 6 **M4** **26.74 dBV/m**
Grid 7 **M4** **25.76 dBV/m**	Grid 8 **M4** **29.43 dBV/m**	Grid 9 **M4** **29.46 dBV/m**

Cursor:
Total = 29.46 dBV/m
E Category: M4
Location: -10, 25, 8.7 mm

0 dB = 29.70 V/m = 29.46 dBV/m

#05_HAC_E_GSM1900_GSM Voice_Ch661

Communication System: GSM-FDD (TDMA, GMSK); Frequency: 1880 MHz;Duty Cycle: 1:8.6896
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m^3
Ambient Temperature：23.6 ℃

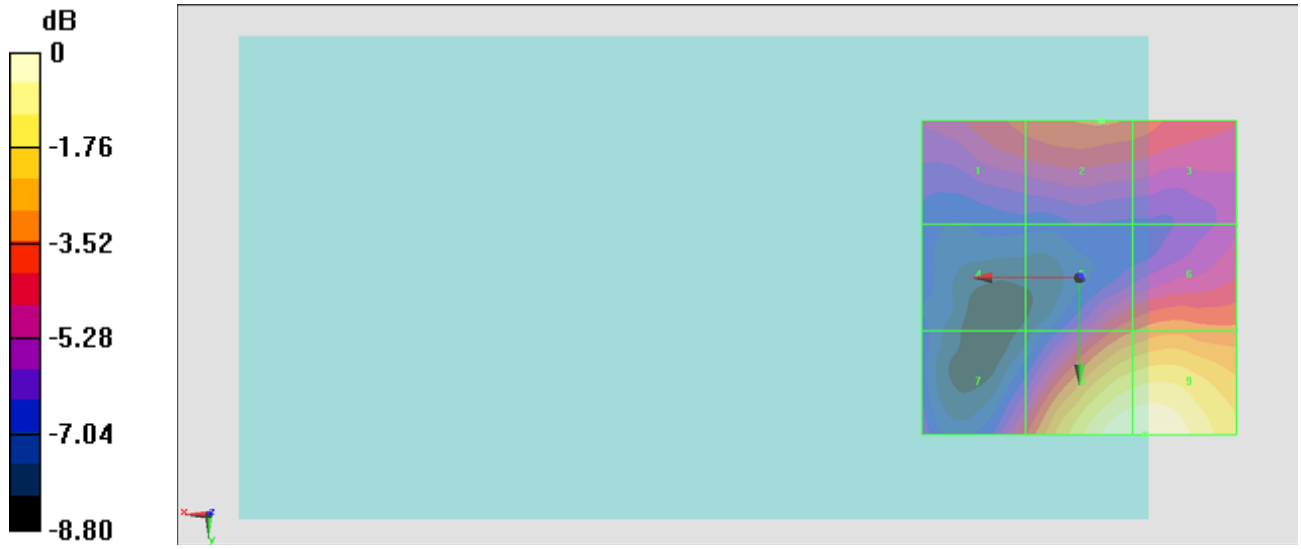
DASY5 Configuration
- Probe: ER3DV6 - SN2358; ConvF(1, 1, 1); Calibrated: 2014/1/30;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn778; Calibrated: 2013/8/21
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Ch661/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 = 10.51 V/m; Power Drift = -0.16 dB
Applied MIF = 3.63 dB
RF audio interference level = 30.04 dBV/m
Emission category: M3

MIF scaled E-field

Grid 1 **M4** **26.14 dBV/m**	Grid 2 **M4** **26.64 dBV/m**	Grid 3 **M4** **26.38 dBV/m**
Grid 4 **M4** **23.52 dBV/m**	Grid 5 **M4** **26.51 dBV/m**	Grid 6 **M4** **27 dBV/m**
Grid 7 **M4** **25.93 dBV/m**	Grid 8 **M4** **30 dBV/m**	Grid 9 **M3** **30.04 dBV/m**

Cursor:
Total = 30.04 dBV/m
E Category: M3
Location: -10.5, 25, 8.7 mm



0 dB = 31.76 V/m = 30.04 dBV/m

#06_HAC_E_GSM1900_GSM Voice_Ch810

Communication System: GSM-FDD (TDMA, GMSK); Frequency: 1909.8 MHz;Duty Cycle: 1:8.6896
Medium: Air Medium parameters used: $\sigma = 0$ S/m, $\varepsilon_r = 1$; $\rho = 1000$ kg/m^3
Ambient Temperature：23.6 ℃

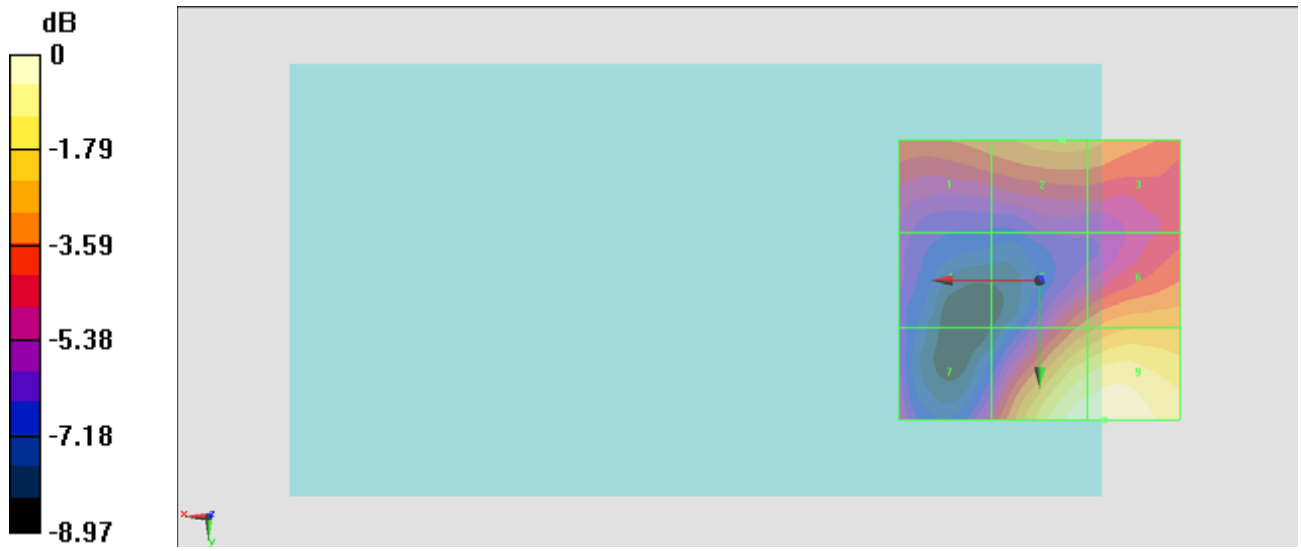
DASY5 Configuration
- Probe: ER3DV6 - SN2358; ConvF(1, 1, 1); Calibrated: 2014/1/30;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn778; Calibrated: 2013/8/21
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA;
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Ch810/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 = 9.691 V/m; Power Drift = -0.17 dB
Applied MIF = 3.63 dB
RF audio interference level = 29.26 dBV/m
Emission category: M4

MIF scaled E-field

Grid 1 **M4** **26.02 dBV/m**	Grid 2 **M4** **26.62 dBV/m**	Grid 3 **M4** **26.51 dBV/m**
Grid 4 **M4** **23.74 dBV/m**	Grid 5 **M4** **26.05 dBV/m**	Grid 6 **M4** **26.88 dBV/m**
Grid 7 **M4** **24.58 dBV/m**	Grid 8 **M4** **29.13 dBV/m**	Grid 9 **M4** **29.26 dBV/m**

Cursor:
Total = 29.26 dBV/m
E Category: M4
Location: -11.5, 25, 8.7 mm



0 dB = 29.05 V/m = 29.26 dBV/m