

APPENDIX A. HAC TEST PLOTS

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.6 °C /128

Test Date Oct. 12, 2013

DUT: P6070; Type: Folder; Serial: #1
 Procedure Name: E Scan – ER3D: 15 mm from Probe Center to the Device

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

DASY5 Configuration:

- Probe: ER3DV6 – SN2343; ConvF(1, 1, 1); Calibrated: 2013–03–15;
- Sensor–Surface: (Fix Surface)
- Electronics: DAE4 Sn652; Calibrated: 2013–03–21
- 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)

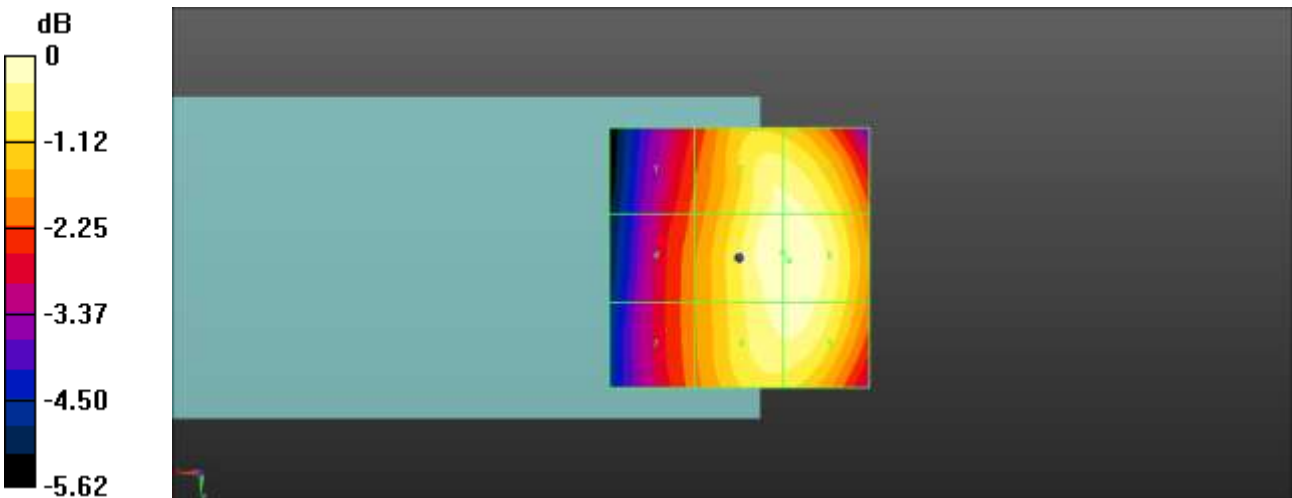
Device E–Field measurement (E–field scan for ANSI C63.19–2007 & –2011 compliance)/E Scan – ER3D: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Interpolated grid: dx=0.5000 mm, dy=0.5000 mm

Device Reference Point: 0, 0, –6.3 mm
 Reference Value = 51.44 V/m; Power Drift = –0.05 dB
 Applied MIF = 3.63 dB
 RF audio interference level = 36.85 dBV/m
 Emission category: M4

MIF scaled E–field

Grid 1 M4 34.76 dBV/m	Grid 2 M4 36.63 dBV/m	Grid 3 M4 36.63 dBV/m
Grid 4 M4 34.97 dBV/m	Grid 5 M4 36.84 dBV/m	Grid 6 M4 36.85 dBV/m
Grid 7 M4 34.97 dBV/m	Grid 8 M4 36.7 dBV/m	Grid 9 M4 36.72 dBV/m

Cursor:
 Total = 36.85 dBV/m
 E Category: M4
 Location: –9.5, 0.5, 8.7 mm



0 dB = 69.56 V/m = 36.85 dBV/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.6 °C /190

Test Date Oct. 12, 2013

DUT: P6070; Type: Folder; Serial: #1

Procedure Name: E Scan – ER3D: 15 mm from Probe Center to the Device

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, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

DASY5 Configuration:

- Probe: ER3DV6 – SN2343; ConvF(1, 1, 1); Calibrated: 2013–03–15;
- Sensor–Surface: (Fix Surface)
- Electronics: DAE4 Sn652; Calibrated: 2013–03–21
- 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)

Device E–Field measurement (E–field scan for ANSI C63.19–2007 & –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 = 62.96 V/m; Power Drift = –0.06 dB

Applied MIF = 3.63 dB

RF audio interference level = 38.71 dBV/m

Emission category: M4

MIF scaled E–field

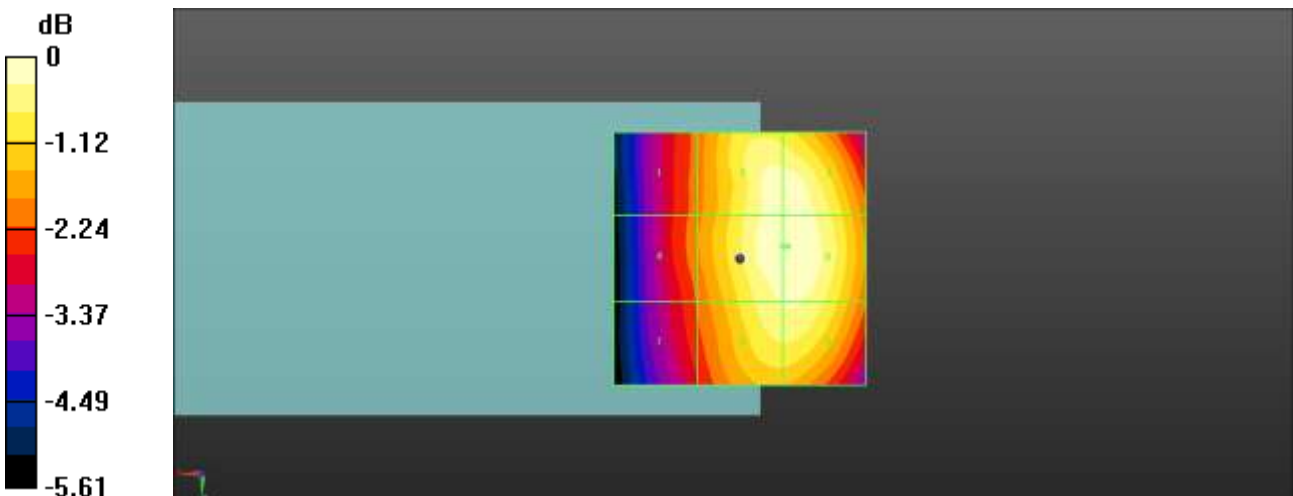
Grid 1 M4 36.73 dBV/m	Grid 2 M4 38.62 dBV/m	Grid 3 M4 38.64 dBV/m
Grid 4 M4 36.82 dBV/m	Grid 5 M4 38.71 dBV/m	Grid 6 M4 38.71 dBV/m
Grid 7 M4 36.53 dBV/m	Grid 8 M4 38.38 dBV/m	Grid 9 M4 38.4 dBV/m

Cursor:

Total = 38.71 dBV/m

E Category: M4

Location: –9.5, –2.5, 8.7 mm



0 dB = 86.23 V/m = 38.71 dBV/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.6 °C /251

Test Date Oct. 12, 2013

DUT: P6070; Type: Folder; Serial: #1

Procedure Name: E Scan – ER3D: 15 mm from Probe Center to the Device

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, $\epsilon_r = 1$; $\rho = 0$ kg/m³
 Phantom section: RF Section

DASY5 Configuration:

- Probe: ER3DV6 – SN2343; ConvF(1, 1, 1); Calibrated: 2013–03–15;
- Sensor–Surface: (Fix Surface)
- Electronics: DAE4 Sn652; Calibrated: 2013–03–21
- 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)

Device E–Field measurement (E–field scan for ANSI C63.19–2007 & –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 = 61.58 V/m; Power Drift = –0.01 dB

Applied MIF = 3.63 dB

RF audio interference level = 38.51 dBV/m

Emission category: M4

MIF scaled E–field

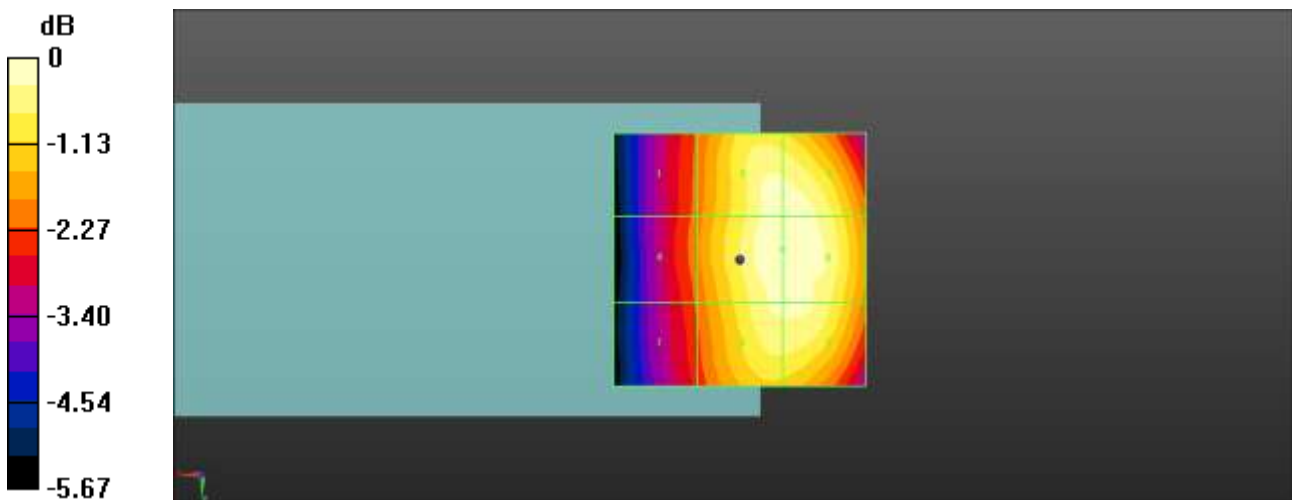
Grid 1 M4 36.46 dBV/m	Grid 2 M4 38.38 dBV/m	Grid 3 M4 38.38 dBV/m
Grid 4 M4 36.55 dBV/m	Grid 5 M4 38.51 dBV/m	Grid 6 M4 38.51 dBV/m
Grid 7 M4 36.34 dBV/m	Grid 8 M4 38.25 dBV/m	Grid 9 M4 38.26 dBV/m

Cursor:

Total = 38.51 dBV/m

E Category: M4

Location: –8.5, –2, 8.7 mm



0 dB = 84.26 V/m = 38.51 dBV/m

Test Laboratory: HCT CO., LTD.
 Ambient Temperature / Channel: 21.6 °C /512
 Test Date: Oct. 12, 2013

DUT: P6070; Type: Folder; Serial: #1
 Procedure Name: E Scan – ER3D: 15 mm from Probe Center to the Device

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

DASY5 Configuration:

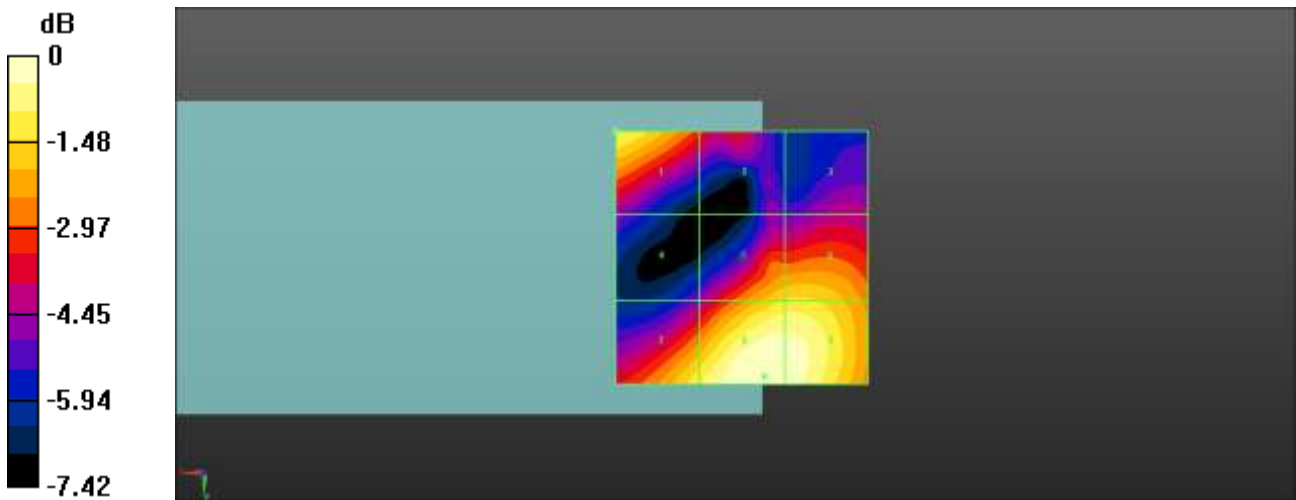
- Probe: ER3DV6 – SN2343; ConvF(1, 1, 1); Calibrated: 2013–03–15;
- Sensor–Surface: (Fix Surface)
- Electronics: DAE4 Sn652; Calibrated: 2013–03–21
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Device E–Field measurement (E–field scan for ANSI C63.19–2007 & –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 = 16.77 V/m; Power Drift = 0.13 dB
 Applied MIF = 3.63 dB
 RF audio interference level = 32.67 dBV/m
Emission category: M3

MIF scaled E–field

Grid 1 M3 31.81 dBV/m	Grid 2 M4 29.42 dBV/m	Grid 3 M4 28.54 dBV/m
Grid 4 M4 28.08 dBV/m	Grid 5 M3 31.23 dBV/m	Grid 6 M3 31.32 dBV/m
Grid 7 M3 31.59 dBV/m	Grid 8 M3 32.67 dBV/m	Grid 9 M3 32.56 dBV/m

Cursor:
 Total = 32.67 dBV/m
 E Category: M3
 Location: –4.5, 23.5, 8.7 mm



0 dB = 42.99 V/m = 32.67 dBV/m

Test Laboratory: HCT CO., LTD.
 Ambient Temperature / Channel 21.6 °C /661
 Test Date Oct. 12, 2013

DUT: P6070; Type: Folder; Serial: #1
 Procedure Name: E Scan – ER3D: 15 mm from Probe Center to the Device

Communication System: UID 10021 – DAA, GSM–FDD (TDMA, GMSK); Frequency: 1880 MHz;Duty Cycle: 1:8.6896
 Medium parameters used: $\sigma = 0$ S/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³
 Phantom section: RF Section

DASY5 Configuration:

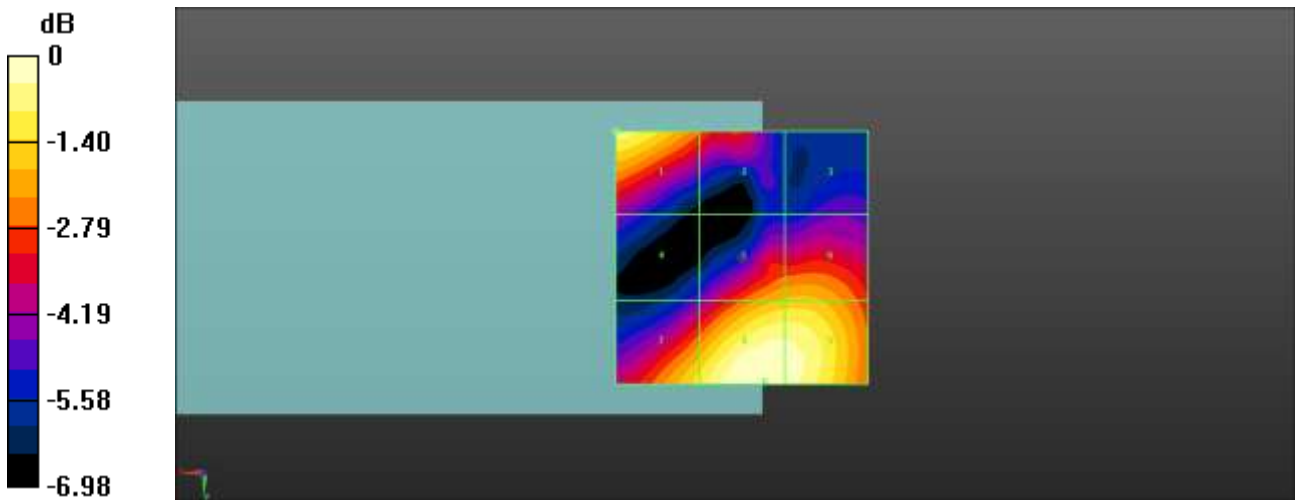
- Probe: ER3DV6 – SN2343; ConvF(1, 1, 1); Calibrated: 2013–03–15;
- Sensor–Surface: (Fix Surface)
- Electronics: DAE4 Sn652; Calibrated: 2013–03–21
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Device E–Field measurement (E–field scan for ANSI C63.19–2007 & –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 = 16.66 V/m; Power Drift = –0.101 dB
 Applied MIF = 3.63 dB
 RF audio interference level = 32.90 dBV/m
Emission category: M3

MIF scaled E–field

Grid 1 M3 32.29 dBV/m	Grid 2 M3 30.19 dBV/m	Grid 3 M4 28.25 dBV/m
Grid 4 M4 28.58 dBV/m	Grid 5 M3 31.15 dBV/m	Grid 6 M3 31.22 dBV/m
Grid 7 M3 31.74 dBV/m	Grid 8 M3 32.9 dBV/m	Grid 9 M3 32.73 dBV/m

Cursor:
 Total = 32.90 dBV/m
 E Category: M3
 Location: –4.5, 24.5, 8.7 mm



0 dB = 44.14 V/m = 32.90 dBV/m

Test Laboratory: HCT CO., LTD.
 Ambient Temperature / Channel 21.6 °C /810
 Test Date Oct. 12, 2013

DUT: P6070; Type: Folder; Serial: #1
 Procedure Name: E Scan – ER3D: 15 mm from Probe Center to the Device

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

DASY5 Configuration:

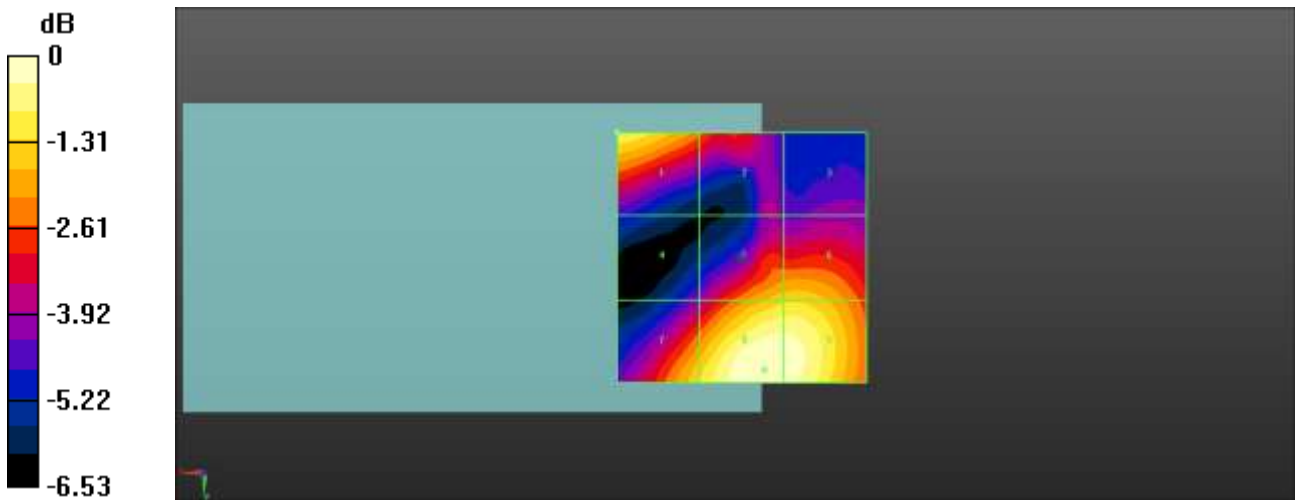
- Probe: ER3DV6 – SN2343; ConvF(1, 1, 1); Calibrated: 2013–03–15;
- Sensor–Surface: (Fix Surface)
- Electronics: DAE4 Sn652; Calibrated: 2013–03–21
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.8 (7); SEMCAD X Version 14.6.10 (7164)

Device E–Field measurement (E–field scan for ANSI C63.19–2007 & –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 = 18.20 V/m; Power Drift = –0.110 dB
 Applied MIF = 3.63 dB
 RF audio interference level = 32.44 dBV/m
Emission category: M3

MIF scaled E–field

Grid 1 M3 31.59 dBV/m	Grid 2 M4 30 dBV/m	Grid 3 M4 28.41 dBV/m
Grid 4 M4 28.39 dBV/m	Grid 5 M3 31.02 dBV/m	Grid 6 M3 31.07 dBV/m
Grid 7 M3 31.15 dBV/m	Grid 8 M3 32.44 dBV/m	Grid 9 M3 32.32 dBV/m

Cursor:
 Total = 32.44 dBV/m
 E Category: M3
 Location: –4.5, 22.5, 8.7 mm



0 dB = 41.88 V/m = 32.44 dBV/m