

APPENDIX A. HAC TEST PLOTS

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /128

Test Date Jul. 3, 2012

DUT: P9090; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 824.2 MHz; Duty Cycle: 1:8.30042

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

DASY5 Configuration:

- Probe: ER3DV6 – SN2343; ConvF(1, 1, 1); Calibrated: 2012-05-22;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012-04-27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.6 (6477)

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): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 55.51 V/m; Power Drift = -0.01 dB

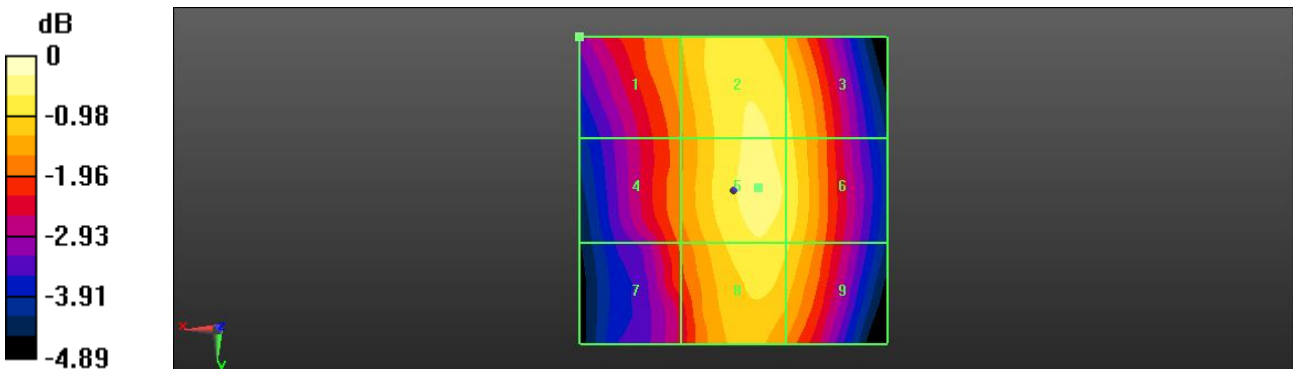
PMR not calibrated. PMF = 2.723 is applied.

E-field emissions = 117.6 V/m

Near-field category: M4 (AWF -5 dB)

PMF scaled E-field

Grid 1 M4 107.1 V/m	Grid 2 M4 116.3 V/m	Grid 3 M4 113.1 V/m
Grid 4 M4 103.6 V/m	Grid 5 M4 117.6 V/m	Grid 6 M4 114.8 V/m
Grid 7 M4 100.6 V/m	Grid 8 M4 115.2 V/m	Grid 9 M4 112.2 V/m



0 dB = 124.4 V/m = 41.90 dB V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /190

Test Date Jul. 3, 2012

DUT: P9090; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.30042

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

DASY5 Configuration:

- Probe: ER3DV6 – SN2343; ConvF(1, 1, 1); Calibrated: 2012-05-22;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012-04-27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.6 (6477)

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): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 54.95 V/m; Power Drift = 0.10 dB

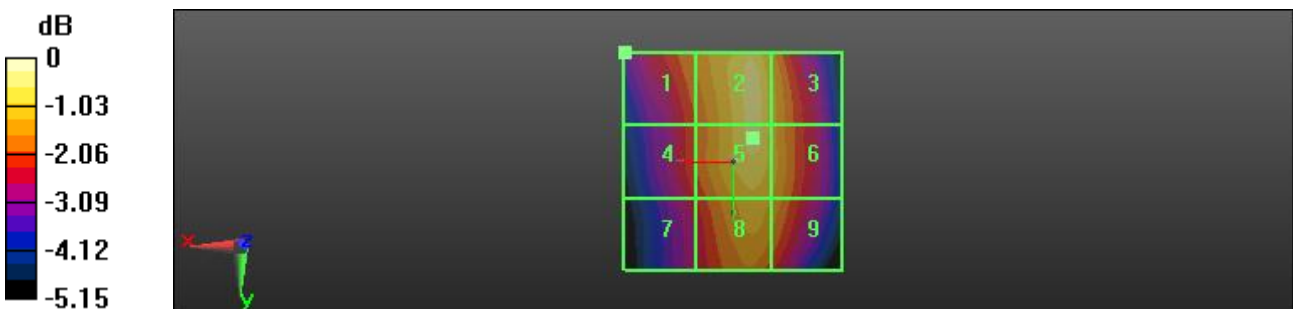
PMR not calibrated. PMF = 2.723 is applied.

E-field emissions = 123.2 V/m

Near-field category: M4 (AWF -5 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
108.3 V/m	123.2 V/m	114.7 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
103.5 V/m	123.1 V/m	114.9 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
99.18 V/m	115.0 V/m	111.5 V/m



0 dB = 130.4 V/m = 42.31 dB V/m

Test Laboratory: HCT CO., LTD.
 Ambient Temperature / Channel 21.3 °C /251
 Test Date Jul. 3, 2012

DUT: P9090; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:8.30042
 Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³
 Phantom section: RF Section

DASY5 Configuration:

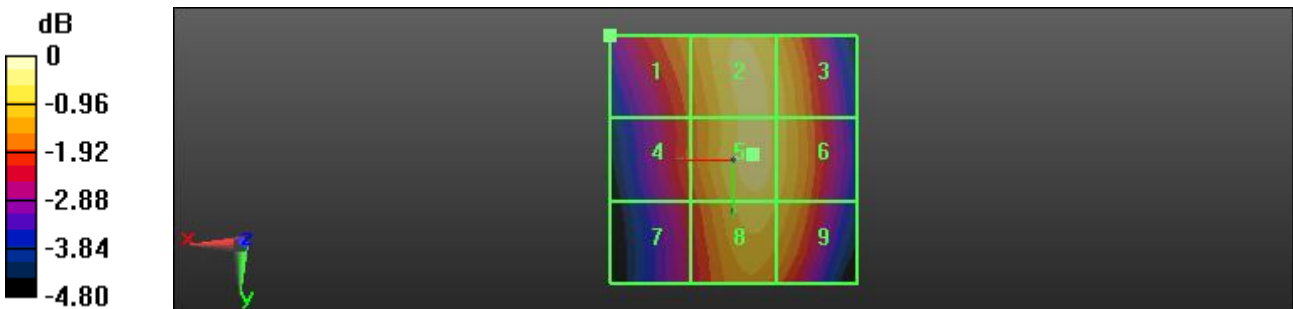
- Probe: ER3DV6 – SN2343; ConvF(1, 1, 1); Calibrated: 2012-05-22;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012-04-27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.6 (6477)

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): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm
 Reference Value = 50.02 V/m; Power Drift = 0.05 dB
 PMR not calibrated. PMF = 2.723 is applied.
 E-field emissions = 106.3 V/m
Near-field category: M4 (AWF -5 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
96.93 V/m	106.1 V/m	103.4 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
91.93 V/m	106.3 V/m	103.7 V/m
Grid 7 M4	Grid 8 M4	Grid 9 M4
88.04 V/m	103.5 V/m	101.3 V/m



0 dB = 112.5 V/m = 41.02 dB V/m

Test Laboratory: HCT CO., LTD.
 Ambient Temperature / Channel 21.3 °C /512
 Test Date Jul. 3, 2012

DUT: P9090; Type: Bar; Serial: #1

Communication System: GSM 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8.30042
 Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³
 Phantom section: RF Section

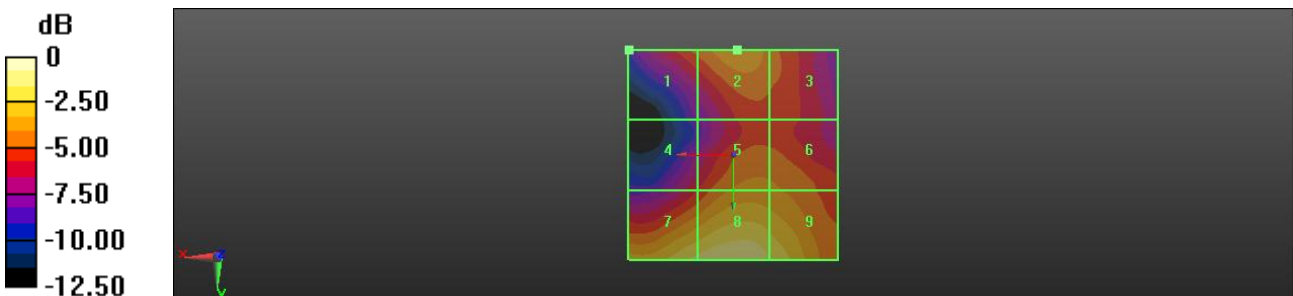
DASY5 Configuration:

- Probe: ER3DV6 – SN2343; ConvF(1, 1, 1); Calibrated: 2012-05-22;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012-04-27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.6 (6477)

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 2/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
 Device Reference Point: 0, 0, -6.3 mm
 Reference Value = 12.23 V/m; Power Drift = -0.12 dB
 Test Arch Compensation is Applied.
 PMR not calibrated. PMF = 2.615 is applied.
 E-field emissions = 50.78 V/m
Near-field category: M3 (AWF -5 dB)

PMF scaled E-field

Grid 1 M4 32.79 V/m	Grid 2 M4 37.25 V/m	Grid 3 M4 33.44 V/m
Grid 4 M4 28.88 V/m	Grid 5 M4 36.32 V/m	Grid 6 M4 35.60 V/m
Grid 7 M3 47.96 V/m	Grid 8 M3 50.78 V/m	Grid 9 M4 46.76 V/m



0 dB = 55.95 V/m = 34.96 dB V/m

Test Laboratory: HCT CO., LTD.
 Ambient Temperature / Channel 21.3 °C /661
 Test Date Jul. 3, 2012

DUT: P9090; Type: Bar; Serial: #1

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.30042
 Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³
 Phantom section: RF Section

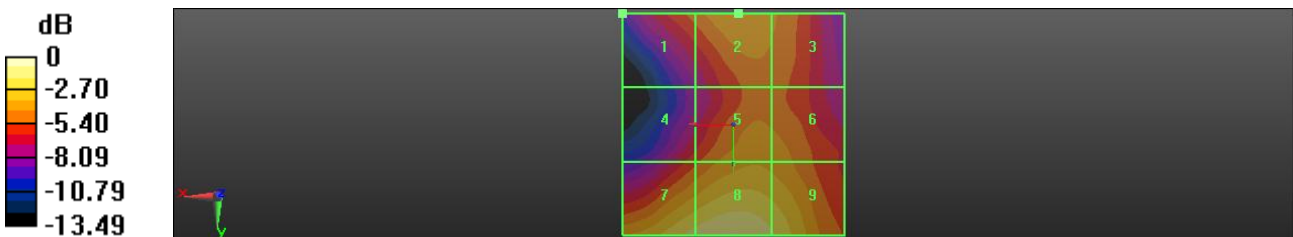
DASY5 Configuration:

- Probe: ER3DV6 – SN2343; ConvF(1, 1, 1); Calibrated: 2012-05-22;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012-04-27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.6 (6477)

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): Measurement grid: dx=5mm, dy=5mm
 Device Reference Point: 0, 0, -6.3 mm
 Reference Value = 13.01 V/m; Power Drift = -0.15 dB
 Test Arch Compensation is Applied.
 PMR not calibrated. PMF = 2.615 is applied.
 E-field emissions = 53.33 V/m
Near-field category: M3 (AWF -5 dB)

PMF scaled E-field

Grid 1 M4	Grid 2 M4	Grid 3 M4
33.50 V/m	39.22 V/m	36.06 V/m
Grid 4 M4	Grid 5 M4	Grid 6 M4
30.93 V/m	38.52 V/m	37.78 V/m
Grid 7 M3	Grid 8 M3	Grid 9 M3
50.06 V/m	53.33 V/m	48.66 V/m



0 dB = 58.76 V/m = 35.38 dB V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /810

Test Date Jul. 3, 2012

DUT: P9090; Type: Bar; Serial: #1

Communication System: GSM 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8.30042

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

DASY5 Configuration:

- Probe: ER3DV6 – SN2343; ConvF(1, 1, 1); Calibrated: 2012-05-22;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012-04-27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.6 (6477)

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 3/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 11.84 V/m; Power Drift = 0.15 dB

Test Arch Compensation is Applied.

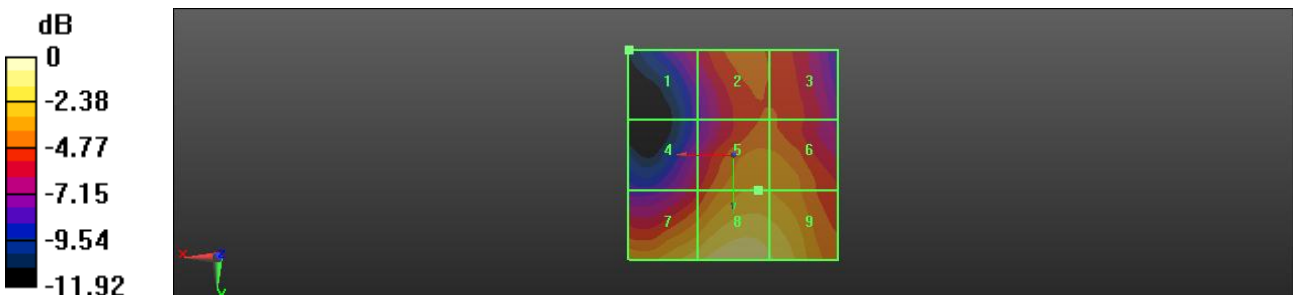
PMR not calibrated. PMF = 2.615 is applied.

E-field emissions = 46.89 V/m

Near-field category: M4 (AWF -5 dB)

PMF scaled E-field

Grid 1 M4 25.52 V/m	Grid 2 M4 31.29 V/m	Grid 3 M4 30.12 V/m
Grid 4 M4 26.98 V/m	Grid 5 M4 36.24 V/m	Grid 6 M4 35.92 V/m
Grid 7 M4 42.14 V/m	Grid 8 M4 46.89 V/m	Grid 9 M4 44.03 V/m



0 dB = 51.66 V/m = 34.26 dB V/m

Test Laboratory: HCT CO., LTD.
 Ambient Temperature / Channel 21.3 °C /128
 Test Date Jul. 3, 2012

DUT: P9090; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 824.2 MHz; Duty Cycle: 1:8.30042

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

DASY5 Configuration:

- Probe: H3DV6 – SN6101; ; Calibrated: 2012-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012-04-27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.6 (6477)

Device H-Field measurement with H3DV6 probe (H-field scan for ANSI C63.19-2007 compliance)/H Scan – H3DV6: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.04400 A/m; Power Drift = 0.02 dB

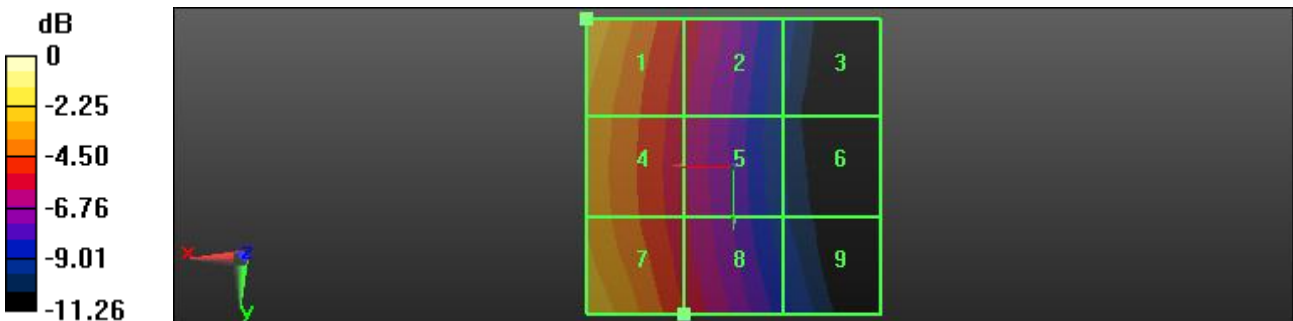
PMR not calibrated. PMF = 2.229 is applied.

H-field emissions = 0.1806 A/m

Near-field category: M4 (AWF -5 dB)

PMF scaled H-field

Grid 1 M4 0.180 A/m	Grid 2 M4 0.127 A/m	Grid 3 M4 0.081 A/m
Grid 4 M4 0.165 A/m	Grid 5 M4 0.120 A/m	Grid 6 M4 0.078 A/m
Grid 7 M4 0.181 A/m	Grid 8 M4 0.129 A/m	Grid 9 M4 0.086 A/m



0 dB = 0.2334 A/m = -12.64 dB A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /190

Test Date Jul. 3, 2012

DUT: P9090; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.30042

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

DASY5 Configuration:

- Probe: H3DV6 – SN6101; ; Calibrated: 2012-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012-04-27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.6 (6477)

Device H-Field measurement with H3DV6 probe (H-field scan for ANSI C63.19-2007 compliance)/H Scan – H3DV6: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.05200 A/m; Power Drift = -0.08 dB

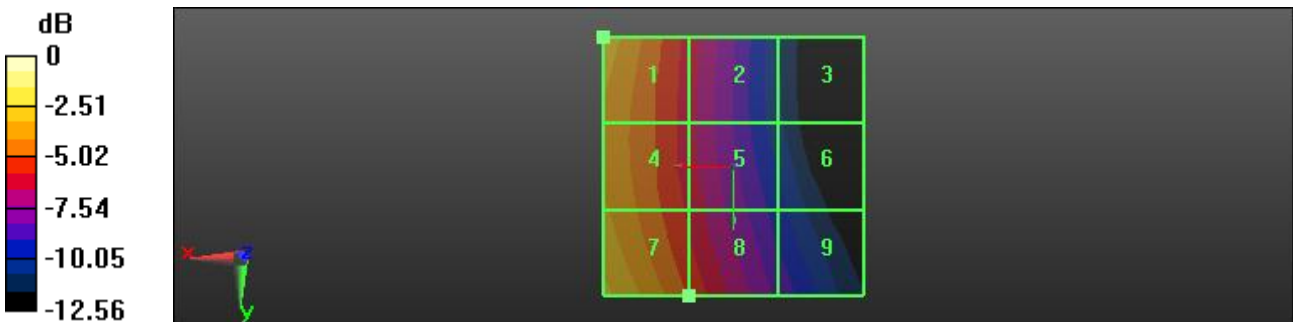
PMR not calibrated. PMF = 2.229 is applied.

H-field emissions = 0.2260 A/m

Near-field category: M4 (AWF -5 dB)

PMF scaled H-field

Grid 1 M4 0.212 A/m	Grid 2 M4 0.143 A/m	Grid 3 M4 0.087 A/m
Grid 4 M4 0.202 A/m	Grid 5 M4 0.146 A/m	Grid 6 M4 0.097 A/m
Grid 7 M4 0.226 A/m	Grid 8 M4 0.162 A/m	Grid 9 M4 0.110 A/m



0 dB = 0.2921 A/m = -10.69 dB A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /251

Test Date Jul. 3, 2012

DUT: P9090; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:8.30042

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

DASY5 Configuration:

- Probe: H3DV6 – SN6101; ; Calibrated: 2012–05–22
- Sensor–Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012–04–27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.6 (6477)

Device H-Field measurement with H3DV6 probe (H-field scan for ANSI C63.19–2007 compliance)/H Scan – H3DV6: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, –6.3 mm

Reference Value = 0.03800 A/m; Power Drift = 0.14 dB

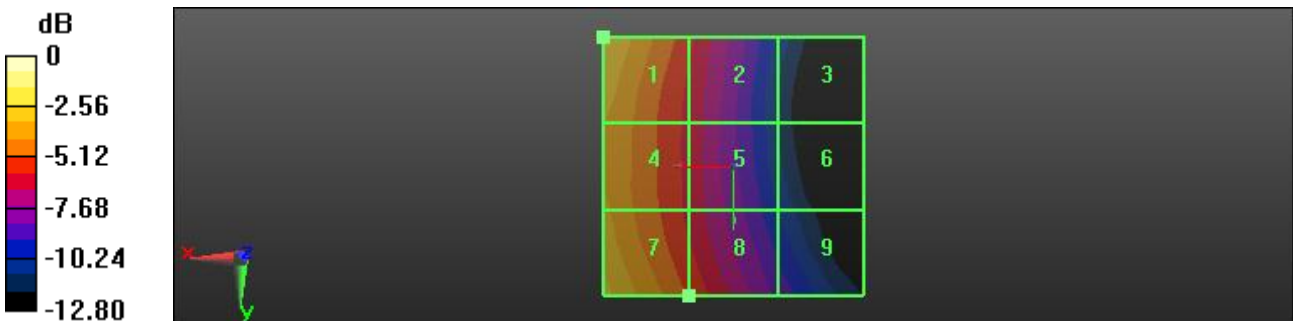
PMR not calibrated. PMF = 2.229 is applied.

H-field emissions = 0.1697 A/m

Near-field category: M4 (AWF –5 dB)

PMF scaled H-field

Grid 1 M4 0.167 A/m	Grid 2 M4 0.114 A/m	Grid 3 M4 0.066 A/m
Grid 4 M4 0.152 A/m	Grid 5 M4 0.108 A/m	Grid 6 M4 0.068 A/m
Grid 7 M4 0.170 A/m	Grid 8 M4 0.120 A/m	Grid 9 M4 0.081 A/m



0 dB = 0.2194 A/m = –13.18 dB A/m

Test Laboratory: HCT CO., LTD.
 Ambient Temperature / Channel 21.3 °C /512
 Test Date Jul. 3, 2012

DUT: P9090; Type: Bar; Serial: #1

Communication System: GSM 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8.30042
 Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³
 Phantom section: RF Section
 DASY5 Configuration:

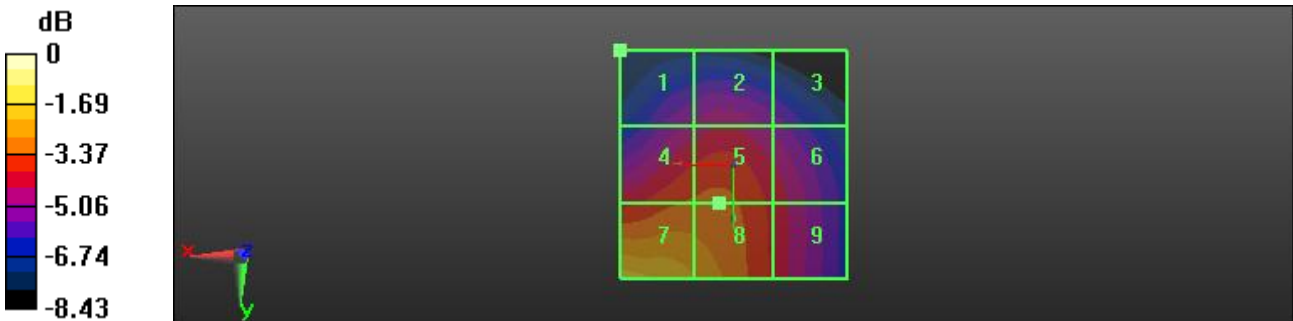
- Probe: H3DV6 – SN6101; ; Calibrated: 2012–05–22
- Sensor–Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012–04–27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.6 (6477)

Device H–Field measurement with H3DV6 probe (H–field scan for ANSI C63.19–2007 compliance)/H Scan – H3DV6: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, –6.3 mm
 Reference Value = 0.04200 A/m; Power Drift = –0.13 dB
 PMR not calibrated. PMF = 2.464 is applied.
 H–field emissions = 0.1205 A/m
Near–field category: M4 (AWF –5 dB)

PMF scaled H–field

Grid 1 M4 0.080 A/m	Grid 2 M4 0.084 A/m	Grid 3 M4 0.077 A/m
Grid 4 M4 0.097 A/m	Grid 5 M4 0.097 A/m	Grid 6 M4 0.088 A/m
Grid 7 M4 0.120 A/m	Grid 8 M4 0.109 A/m	Grid 9 M4 0.089 A/m



0 dB = 0.1409 A/m = –17.02 dB A/m

Test Laboratory: HCT CO., LTD.
 Ambient Temperature / Channel 21.3 °C /661
 Test Date Jul. 3, 2012

DUT: P9090; Type: Bar; Serial: #1

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.30042
 Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³
 Phantom section: RF Section
 DASY5 Configuration:

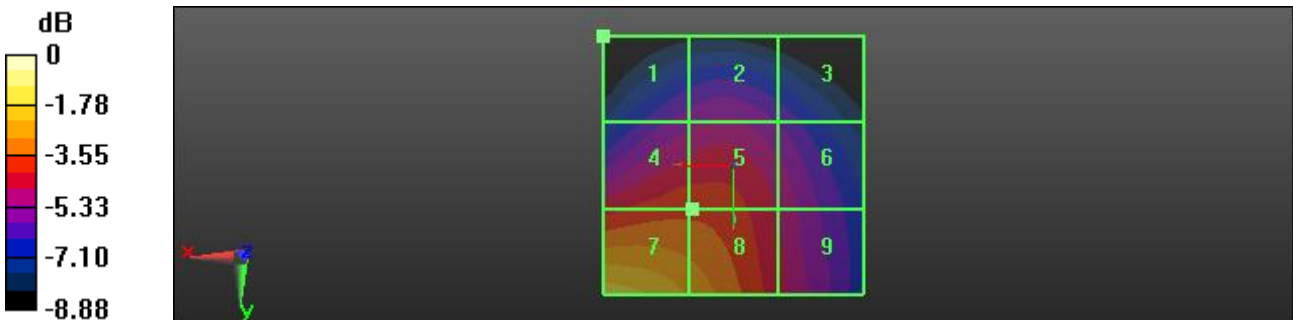
- Probe: H3DV6 – SN6101; ; Calibrated: 2012–05–22
- Sensor–Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012–04–27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.6 (6477)

Device H–Field measurement with H3DV6 probe (H–field scan for ANSI C63.19–2007 compliance)/H Scan – H3DV6:
15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, –6.3 mm
 Reference Value = 0.04200 A/m; Power Drift = –0.01 dB
 PMR not calibrated. PMF = 2.464 is applied.
 H–field emissions = 0.1290 A/m
Near–field category: M4 (AWF –5 dB)

PMF scaled H–field

Grid 1 M4 0.080 A/m	Grid 2 M4 0.083 A/m	Grid 3 M4 0.076 A/m
Grid 4 M4 0.099 A/m	Grid 5 M4 0.099 A/m	Grid 6 M4 0.087 A/m
Grid 7 M4 0.129 A/m	Grid 8 M4 0.114 A/m	Grid 9 M4 0.090 A/m



0 dB = 0.1509 A/m = –16.43 dB A/m

Test Laboratory: HCT CO., LTD.
 Ambient Temperature / Channel 21.3 °C /810
 Test Date Jul. 3, 2012

DUT: P9090; Type: Bar; Serial: #1

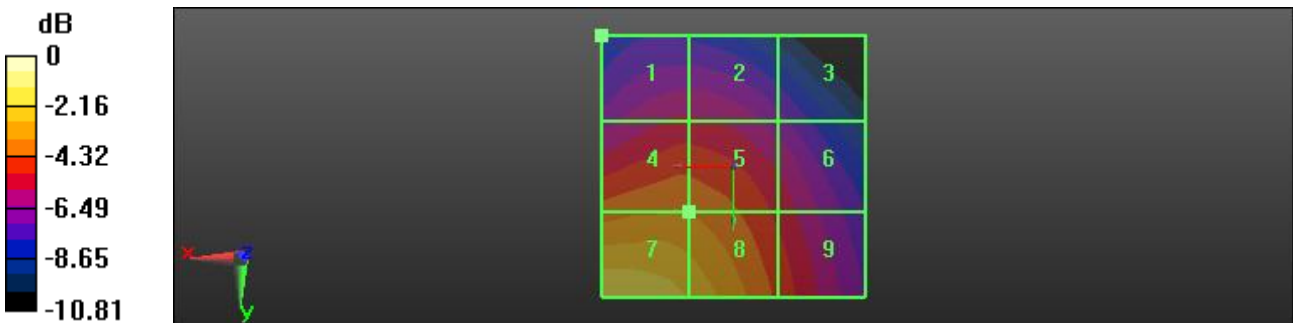
Communication System: GSM 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8.30042
 Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³
 Phantom section: RF Section
 DASY5 Configuration:

- Probe: H3DV6 – SN6101; ; Calibrated: 2012–05–22
- Sensor–Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012–04–27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.6 (6477)

Device H-Field measurement with H3DV6 probe (H-field scan for ANSI C63.19–2007 compliance)/H Scan – H3DV6:
15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm
 Device Reference Point: 0, 0, –6.3 mm
 Reference Value = 0.03500 A/m; Power Drift = 0.00 dB
 PMR not calibrated. PMF = 2.464 is applied.
 H-field emissions = 0.1186 A/m
Near-field category: M4 (AWF –5 dB)

PMF scaled H-field

Grid 1 M4 0.073 A/m	Grid 2 M4 0.073 A/m	Grid 3 M4 0.063 A/m
Grid 4 M4 0.092 A/m	Grid 5 M4 0.092 A/m	Grid 6 M4 0.076 A/m
Grid 7 M4 0.119 A/m	Grid 8 M4 0.108 A/m	Grid 9 M4 0.083 A/m



0 dB = 0.1387 A/m = –17.16 dB A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /4132

Test Date Jul. 3, 2012

DUT: P9090; Type: Bar; Serial: #1

Communication System: WCDMA850; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

DASY5 Configuration:

- Probe: ER3DV6 – SN2343; ConvF(1, 1, 1); Calibrated: 2012-05-22;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012-04-27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.6 (6477)

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): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 56.69 V/m; Power Drift = 0.08 dB

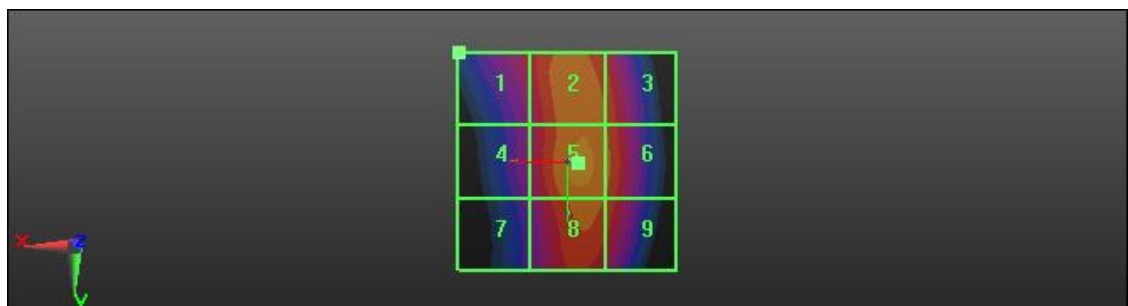
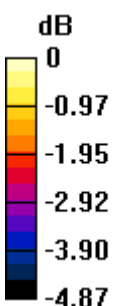
PMR not calibrated. PMF = 0.8390 is applied.

E-field emissions = 37.47 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4 33.98 V/m	Grid 2 M4 37.01 V/m	Grid 3 M4 35.93 V/m
Grid 4 M4 32.60 V/m	Grid 5 M4 37.47 V/m	Grid 6 M4 36.38 V/m
Grid 7 M4 31.61 V/m	Grid 8 M4 36.57 V/m	Grid 9 M4 35.71 V/m



0 dB = 44.66 V/m = 33.00 dB V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /4183

Test Date Jul. 3, 2012

DUT: P9090; Type: Bar; Serial: #1

Communication System: WCDMA850; Frequency: 836.6 MHz; Duty Cycle: 1:1

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

DASY5 Configuration:

- Probe: ER3DV6 – SN2343; ConvF(1, 1, 1); Calibrated: 2012-05-22;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012-04-27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.8 (2); SEMCAD X Version 14.6.6 (6477)

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): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 66.97 V/m; Power Drift = -0.07 dB

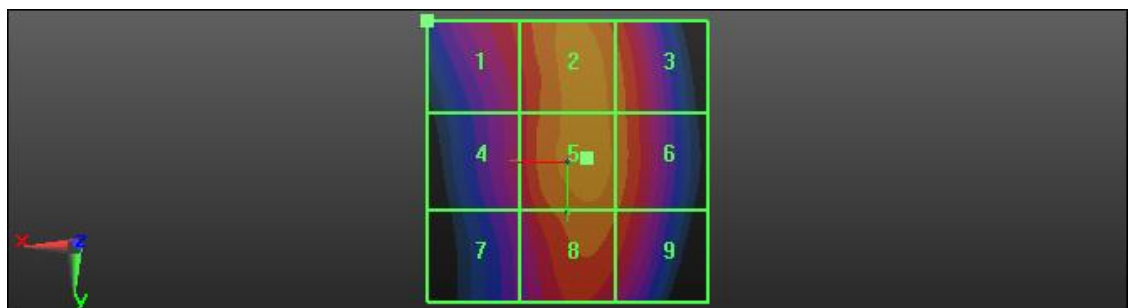
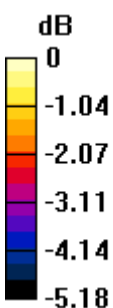
PMR not calibrated. PMF = 0.8390 is applied.

E-field emissions = 43.63 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4 40.07 V/m	Grid 2 M4 43.50 V/m	Grid 3 M4 42.15 V/m
Grid 4 M4 38.39 V/m	Grid 5 M4 43.63 V/m	Grid 6 M4 42.39 V/m
Grid 7 M4 37.10 V/m	Grid 8 M4 42.41 V/m	Grid 9 M4 41.32 V/m



0 dB = 52.01 V/m = 34.32 dB V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /4233

Test Date Jul. 3, 2012

DUT: P9090; Type: Bar; Serial: #1

Communication System: WCDMA850; Frequency: 846.6 MHz;Duty Cycle: 1:1

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

DASY5 Configuration:

- Probe: ER3DV6 – SN2343; ConvF(1, 1, 1); Calibrated: 2012-05-22;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012-04-27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.6 (6477)

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): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 58.78 V/m; Power Drift = -0.03 dB

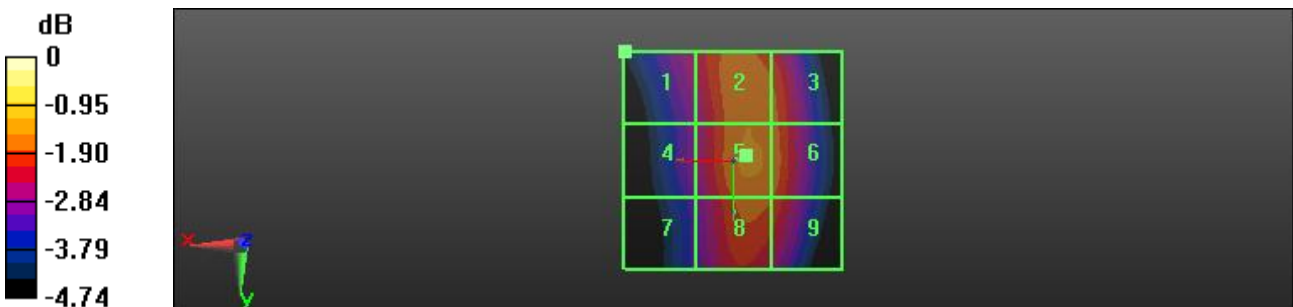
PMR not calibrated. PMF = 0.8390 is applied.

E-field emissions = 38.12 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4 34.35 V/m	Grid 2 M4 37.91 V/m	Grid 3 M4 37.36 V/m
Grid 4 M4 32.86 V/m	Grid 5 M4 38.12 V/m	Grid 6 M4 37.71 V/m
Grid 7 M4 31.85 V/m	Grid 8 M4 37.25 V/m	Grid 9 M4 36.77 V/m



0 dB = 45.44 V/m = 33.15 dB V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /9262

Test Date Jul. 3, 2012

DUT: P9090; Type: Bar; Serial: #1

Communication System: WCDMA1900; Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

DASY5 Configuration:

- Probe: ER3DV6 – SN2343; ConvF(1, 1, 1); Calibrated: 2012-05-22;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012-04-27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.6 (6477)

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): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 12.30 V/m; Power Drift = 0.10 dB

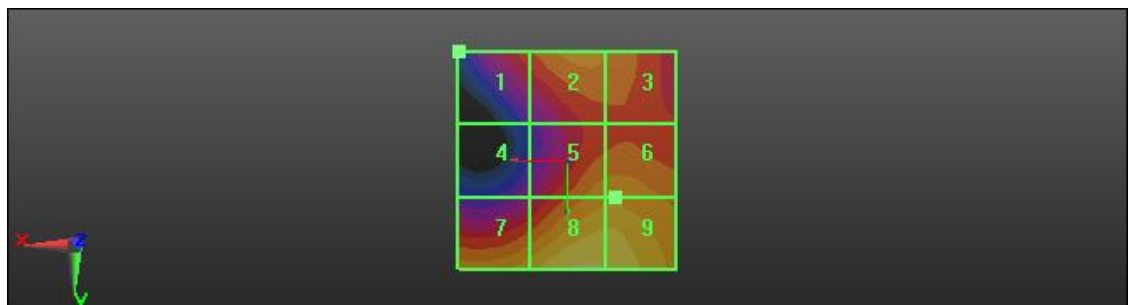
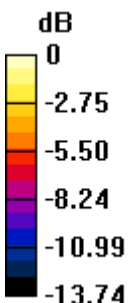
PMR not calibrated. PMF = 0.8280 is applied.

E-field emissions = 14.96 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4 9.477 V/m	Grid 2 M4 11.16 V/m	Grid 3 M4 10.82 V/m
Grid 4 M4 7.259 V/m	Grid 5 M4 11.57 V/m	Grid 6 M4 11.69 V/m
Grid 7 M4 12.83 V/m	Grid 8 M4 14.96 V/m	Grid 9 M4 14.61 V/m



0 dB = 18.07 V/m = 25.14 dB V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /9400

Test Date Jul. 3, 2012

DUT: P9090; Type: Bar; Serial: #1

Communication System: WCDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

DASY5 Configuration:

- Probe: ER3DV6 – SN2343; ConvF(1, 1, 1); Calibrated: 2012-05-22;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012-04-27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.6 (6477)

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): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 13.99 V/m; Power Drift = -0.05 dB

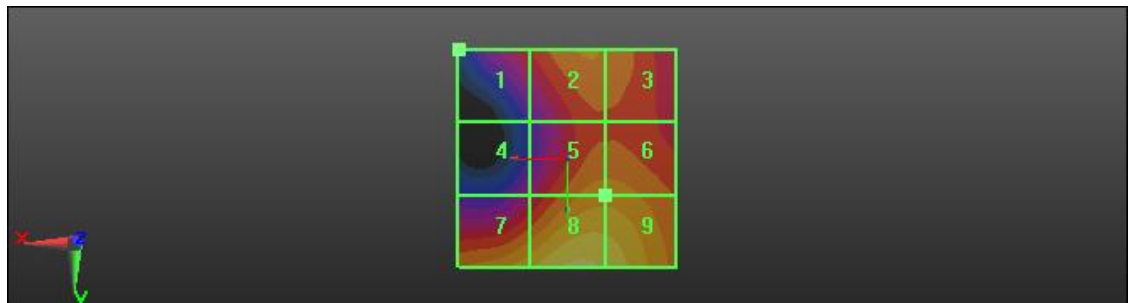
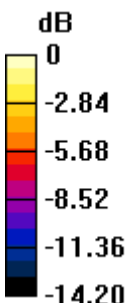
PMR not calibrated. PMF = 0.8280 is applied.

E-field emissions = 16.20 V/m

Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4 9.150 V/m	Grid 2 M4 11.53 V/m	Grid 3 M4 11.21 V/m
Grid 4 M4 7.824 V/m	Grid 5 M4 12.13 V/m	Grid 6 M4 12.13 V/m
Grid 7 M4 13.87 V/m	Grid 8 M4 16.20 V/m	Grid 9 M4 15.56 V/m



0 dB = 19.57 V/m = 25.83 dB V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /9538

Test Date Jul. 3, 2012

DUT: P9090; Type: Bar; Serial: #1

Communication System: WCDMA1900; Frequency: 1907.6 MHz;Duty Cycle: 1:1
 Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³
 Phantom section: RF Section

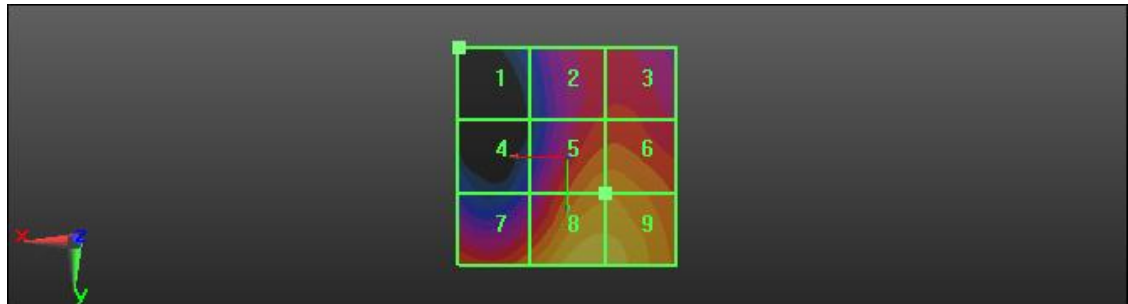
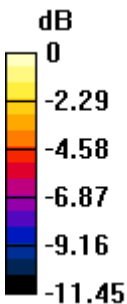
DASY5 Configuration:

- Probe: ER3DV6 – SN2343; ConvF(1, 1, 1); Calibrated: 2012-05-22;
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012-04-27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.6 (6477)

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): Measurement grid: dx=5mm, dy=5mm
 Device Reference Point: 0, 0, -6.3 mm
 Reference Value = 14.00 V/m; Power Drift = -0.13 dB
 PMR not calibrated. PMF = 0.8280 is applied.
 E-field emissions = 14.64 V/m
Near-field category: M4 (AWF 0 dB)

PMF scaled E-field

Grid 1 M4 6.444 V/m	Grid 2 M4 9.756 V/m	Grid 3 M4 9.877 V/m
Grid 4 M4 7.172 V/m	Grid 5 M4 12.26 V/m	Grid 6 M4 12.32 V/m
Grid 7 M4 11.49 V/m	Grid 8 M4 14.64 V/m	Grid 9 M4 14.46 V/m



0 dB = 17.68 V/m = 24.95 dB V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /4132

Test Date Jul. 3, 2012

DUT: P9090; Type: Bar; Serial: #1

Communication System: WCDMA850; Frequency: 826.4 MHz;Duty Cycle: 1:1

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

DASY5 Configuration:

- Probe: H3DV6 – SN6101; ; Calibrated: 2012–05–22
- Sensor–Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012–04–27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.6 (6477)

Device H–Field measurement with H3DV6 probe (H–field scan for ANSI C63.19–2007 compliance)/H Scan – H3DV6: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, –6.3 mm

Reference Value = 0.04900 A/m; Power Drift = –0.02 dB

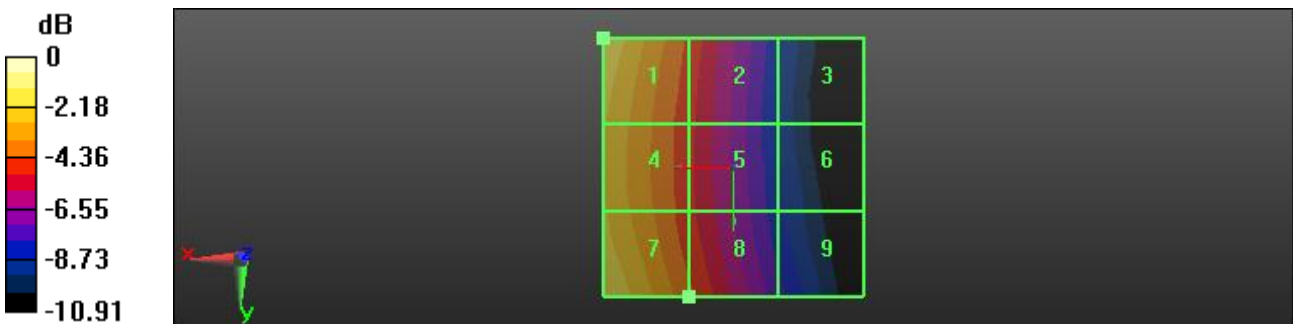
PMR not calibrated. PMF = 0.8540 is applied.

H–field emissions = 0.07544 A/m

Near–field category: M4 (AWF 0 dB)

PMF scaled H–field

Grid 1 M4 0.075 A/m	Grid 2 M4 0.053 A/m	Grid 3 M4 0.033 A/m
Grid 4 M4 0.070 A/m	Grid 5 M4 0.051 A/m	Grid 6 M4 0.034 A/m
Grid 7 M4 0.075 A/m	Grid 8 M4 0.055 A/m	Grid 9 M4 0.037 A/m



0 dB = 0.08833 A/m = –21.08 dB A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /4183

Test Date Jul. 3, 2012

DUT: P9090; Type: Bar; Serial: #1

Communication System: WCDMA850; Frequency: 836.6 MHz;Duty Cycle: 1:1

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

DASY5 Configuration:

- Probe: H3DV6 – SN6101; ; Calibrated: 2012-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012-04-27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.6 (6477)

Device H-Field measurement with H3DV6 probe (H-field scan for ANSI C63.19-2007 compliance)/H Scan – H3DV6: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.05900 A/m; Power Drift = -0.06 dB

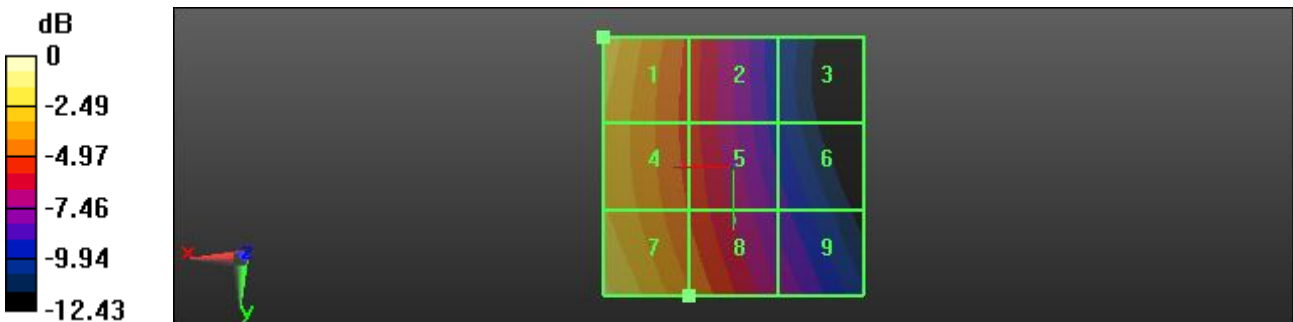
PMR not calibrated. PMF = 0.8540 is applied.

H-field emissions = 0.09545 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4 0.091 A/m	Grid 2 M4 0.062 A/m	Grid 3 M4 0.037 A/m
Grid 4 M4 0.085 A/m	Grid 5 M4 0.063 A/m	Grid 6 M4 0.042 A/m
Grid 7 M4 0.095 A/m	Grid 8 M4 0.070 A/m	Grid 9 M4 0.048 A/m



0 dB = 0.1118 A/m = -19.03 dB A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /4233

Test Date Jul. 3, 2012

DUT: P9090; Type: Bar; Serial: #1

Communication System: WCDMA850; Frequency: 846.6 MHz; Duty Cycle: 1:1

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

DASY5 Configuration:

- Probe: H3DV6 – SN6101; ; Calibrated: 2012–05–22
- Sensor–Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012–04–27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.6 (6477)

Device H–Field measurement with H3DV6 probe (H–field scan for ANSI C63.19–2007 compliance)/H Scan – H3DV6: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, –6.3 mm

Reference Value = 0.04700 A/m; Power Drift = 0.06 dB

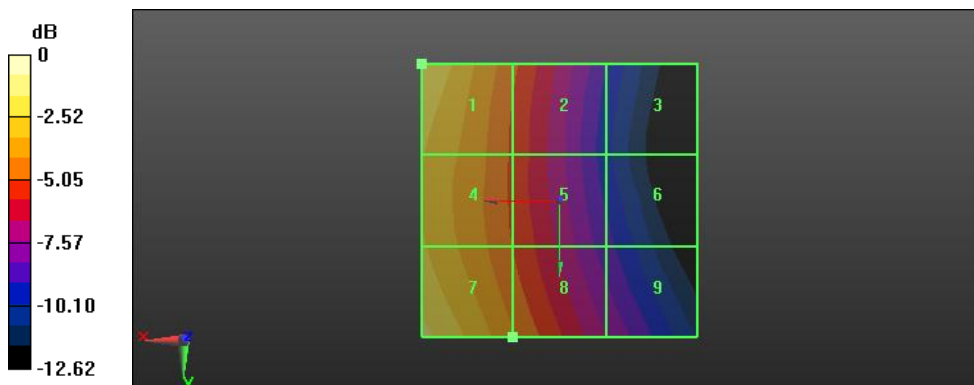
PMR not calibrated. PMF = 0.8540 is applied.

H–field emissions = 0.07743 A/m

Near–field category: M4 (AWF 0 dB)

PMF scaled H–field

Grid 1 M4 0.075 A/m	Grid 2 M4 0.052 A/m	Grid 3 M4 0.032 A/m
Grid 4 M4 0.069 A/m	Grid 5 M4 0.051 A/m	Grid 6 M4 0.033 A/m
Grid 7 M4 0.077 A/m	Grid 8 M4 0.057 A/m	Grid 9 M4 0.038 A/m



0 dB = 0.09067 A/m = –20.85 dB A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /9262

Test Date Jul. 3, 2012

DUT: P9090; Type: Bar; Serial: #1

Communication System: WCDMA1900; Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

DASY5 Configuration:

- Probe: H3DV6 – SN6101; ; Calibrated: 2012-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012-04-27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.6 (6477)

Device H-Field measurement with H3DV6 probe (H-field scan for ANSI C63.19-2007 compliance)/H Scan – H3DV6: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.05500 A/m; Power Drift = -0.06 dB

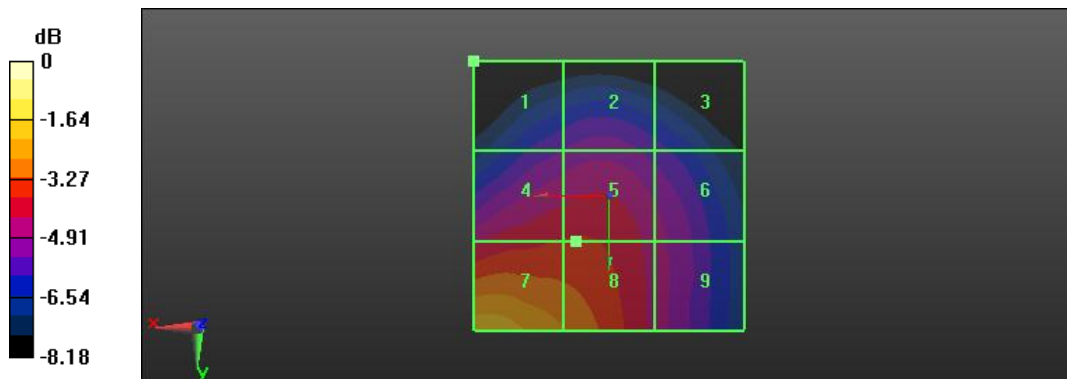
PMR not calibrated. PMF = 0.8190 is applied.

H-field emissions = 0.05304 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4 0.035 A/m	Grid 2 M4 0.036 A/m	Grid 3 M4 0.034 A/m
Grid 4 M4 0.042 A/m	Grid 5 M4 0.042 A/m	Grid 6 M4 0.038 A/m
Grid 7 M4 0.053 A/m	Grid 8 M4 0.048 A/m	Grid 9 M4 0.038 A/m



0 dB = 0.06476 A/m = -23.77 dB A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /9400

Test Date Jul. 3, 2012

DUT: P9090; Type: Bar; Serial: #1

Communication System: WCDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

DASY5 Configuration:

- Probe: H3DV6 – SN6101; ; Calibrated: 2012–05–22
- Sensor–Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012–04–27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.6 (6477)

Device H–Field measurement with H3DV6 probe (H–field scan for ANSI C63.19–2007 compliance)/H Scan – H3DV6: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, –6.3 mm

Reference Value = 0.05300 A/m; Power Drift = –0.08 dB

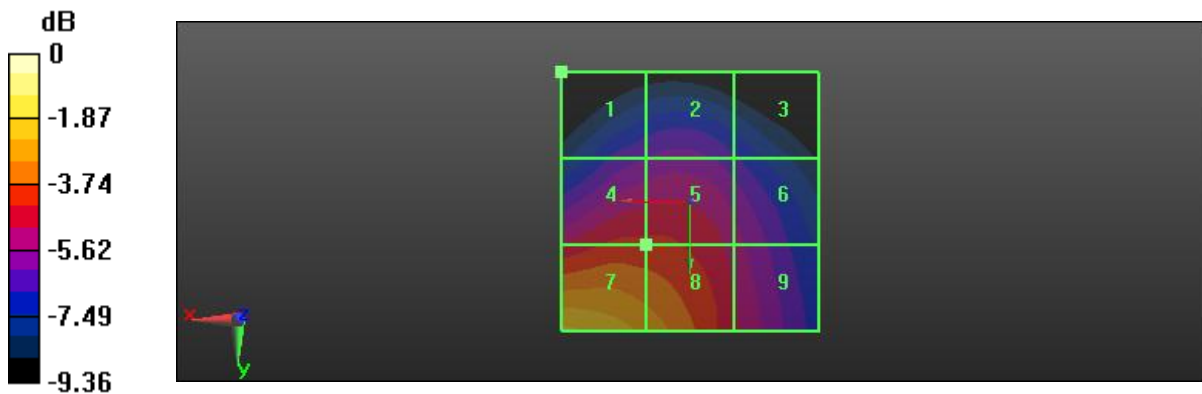
PMR not calibrated. PMF = 0.8190 is applied.

H–field emissions = 0.05618 A/m

Near–field category: M4 (AWF 0 dB)

PMF scaled H–field

Grid 1 M4 0.033 A/m	Grid 2 M4 0.035 A/m	Grid 3 M4 0.032 A/m
Grid 4 M4 0.042 A/m	Grid 5 M4 0.042 A/m	Grid 6 M4 0.037 A/m
Grid 7 M4 0.056 A/m	Grid 8 M4 0.050 A/m	Grid 9 M4 0.040 A/m



0 dB = 0.06860 A/m = –23.27 dB A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /9538

Test Date Jul. 3, 2012

DUT: P9090; Type: Bar; Serial: #1

Communication System: WCDMA1900; Frequency: 1907.6 MHz; Duty Cycle: 1:1

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 0$ kg/m³

Phantom section: RF Section

DASY5 Configuration:

- Probe: H3DV6 – SN6101; ; Calibrated: 2012-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn648; Calibrated: 2012-04-27
- Phantom: HAC Test Arch with AMCC; Type: SD HAC P01 BA
- Measurement SW: DASY52, Version 52.8 (0); SEMCAD X Version 14.6.6 (6477)

Device H-Field measurement with H3DV6 probe (H-field scan for ANSI C63.19-2007 compliance)/H Scan – H3DV6: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1): Measurement grid: dx=5mm, dy=5mm

Device Reference Point: 0, 0, -6.3 mm

Reference Value = 0.04700 A/m; Power Drift = 0.03 dB

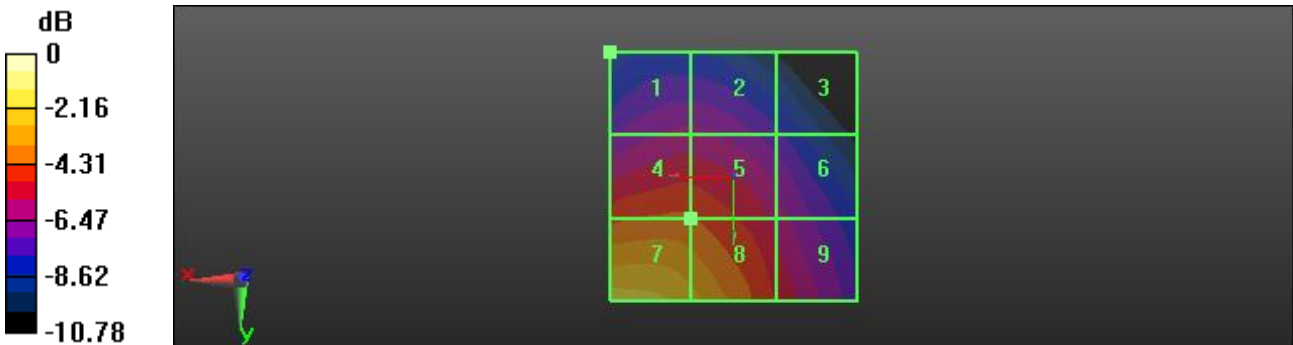
PMR not calibrated. PMF = 0.8190 is applied.

H-field emissions = 0.05559 A/m

Near-field category: M4 (AWF 0 dB)

PMF scaled H-field

Grid 1 M4 0.033 A/m	Grid 2 M4 0.033 A/m	Grid 3 M4 0.028 A/m
Grid 4 M4 0.042 A/m	Grid 5 M4 0.042 A/m	Grid 6 M4 0.034 A/m
Grid 7 M4 0.056 A/m	Grid 8 M4 0.050 A/m	Grid 9 M4 0.038 A/m



0 dB = 0.06788 A/m = -23.37 dB A/m