

APPENDIX A. HAC TEST PLOTS

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.6 °C /128

Test Date Dec.18, 2009

DUT: P9020; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 824.2 MHz; Duty Cycle: 1:8.3
 Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³
 Phantom section: E Device Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2009-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn869; Calibrated: 2009-09-18
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):

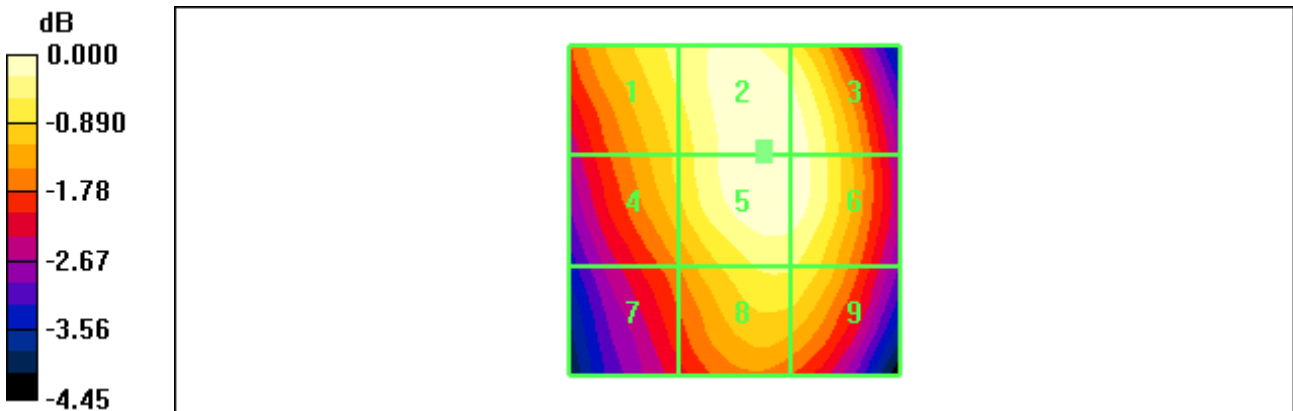
Measurement grid: dx=5mm, dy=5mm
 Maximum value of peak Total field = 102.9 V/m
 Probe Modulation Factor = 2.72
 Device Reference Point: 0.000, 0.000, 353.7 mm
 Reference Value = 50.6 V/m; Power Drift = 0.022 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak E-field in V/m

| | | |
|---------|----------|----------|
| Grid 1 | Grid 2 | Grid 3 |
| 97.3 M4 | 102.9 M4 | 102.0 M4 |
| Grid 4 | Grid 5 | Grid 6 |
| 93.8 M4 | 102.9 M4 | 102.1 M4 |
| Grid 7 | Grid 8 | Grid 9 |
| 86.6 M4 | 96.8 M4 | 96.5 M4 |

Cursor:

Total = 102.9 V/m
 E Category: M4
 Location: -4.5, -9.5, 369.9 mm



0 dB = 102.9V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.6 °C /190

Test Date Dec.18, 2009

DUT: P9020; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³

Phantom section: E Device Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2009-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn869; Calibrated: 2009-09-18
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):

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

Maximum value of peak Total field = 141.5 V/m

Probe Modulation Factor = 2.72

Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 70.6 V/m; Power Drift = -0.048 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak E-field in V/m

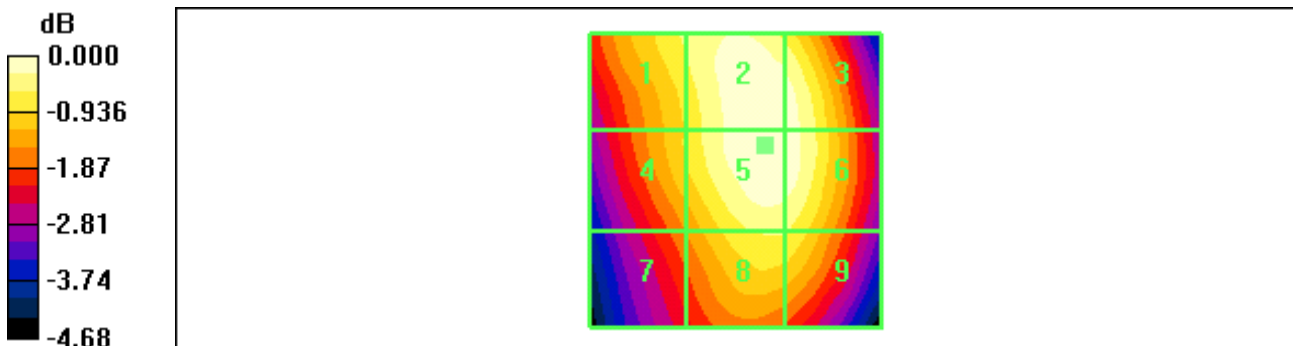
| | | |
|----------|----------|----------|
| Grid 1 | Grid 2 | Grid 3 |
| 132.5 M4 | 141.1 M4 | 139.8 M4 |
| Grid 4 | Grid 5 | Grid 6 |
| 127.8 M4 | 141.5 M4 | 140.1 M4 |
| Grid 7 | Grid 8 | Grid 9 |
| 118.5 M4 | 132.5 M4 | 132.1 M4 |

Cursor:

Total = 141.5 V/m

E Category: M4

Location: -5, -6, 369.9 mm



0 dB = 141.5V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.6 °C /251

Test Date Dec.18, 2009

DUT: P9020; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:8.3

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³

Phantom section: E Device Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2009-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn869; Calibrated: 2009-09-18
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):

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

Maximum value of peak Total field = 146.4 V/m

Probe Modulation Factor = 2.72

Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 73.0 V/m; Power Drift = -0.050 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak E-field in V/m

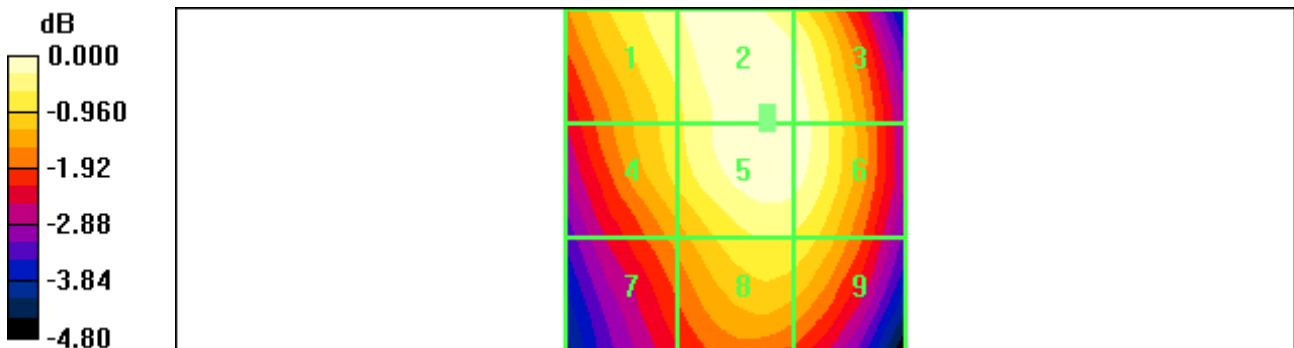
| | | |
|----------|----------|----------|
| Grid 1 | Grid 2 | Grid 3 |
| 140.7 M4 | 146.4 M4 | 144.5 M4 |
| Grid 4 | Grid 5 | Grid 6 |
| 134.7 M4 | 146.2 M4 | 144.6 M4 |
| Grid 7 | Grid 8 | Grid 9 |
| 123.8 M4 | 136.1 M4 | 135.2 M4 |

Cursor:

Total = 146.4 V/m

E Category: M4

Location: -4.5, -10, 369.9 mm



0 dB = 146.4V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.6 °C /512

Test Date Dec.18, 2009

DUT: P9020; Type: Bar; Serial: #1

Communication System: GSM 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8.3
 Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³
 Phantom section: E Device Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2009-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn869; Calibrated: 2009-09-18
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):

Measurement grid: dx=5mm, dy=5mm
 Maximum value of peak Total field = 51.5 V/m
 Probe Modulation Factor = 2.67
 Device Reference Point: 0.000, 0.000, 353.7 mm
 Reference Value = 20.7 V/m; Power Drift = 0.070 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

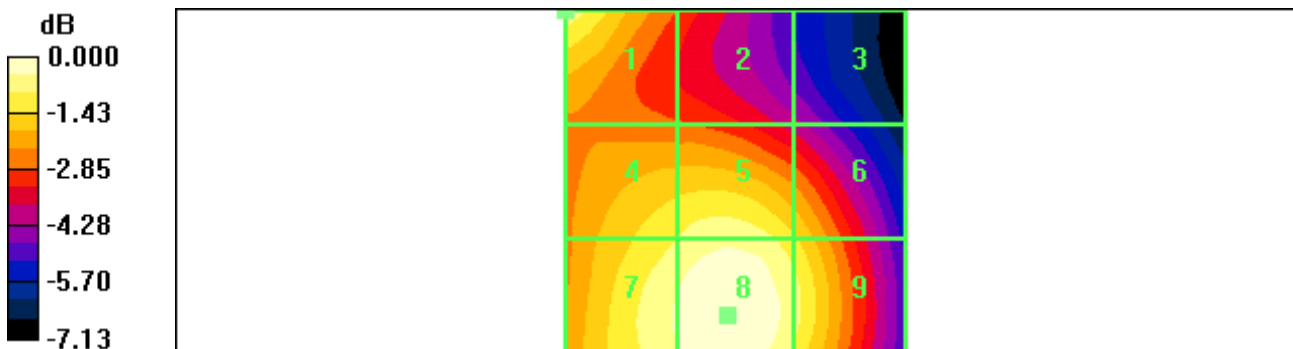
| | | |
|---------|---------|---------|
| Grid 1 | Grid 2 | Grid 3 |
| 48.2 M3 | 37.4 M4 | 32.3 M4 |
| Grid 4 | Grid 5 | Grid 6 |
| 46.3 M4 | 48.1 M3 | 44.3 M4 |
| Grid 7 | Grid 8 | Grid 9 |
| 49.1 M3 | 51.5 M3 | 47.2 M4 |

Cursor:

Total = 51.5 V/m

E Category: M3

Location: 1, 19.5, 369.9 mm



0 dB = 51.5V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.6 °C /661

Test Date Dec.18, 2009

DUT: P9020; Type: Bar; Serial: #1

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³

Phantom section: E Device Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2009-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn869; Calibrated: 2009-09-18
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):

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

Maximum value of peak Total field = 49.2 V/m

Probe Modulation Factor = 2.67

Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 17.6 V/m; Power Drift = 0.066 dB

Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

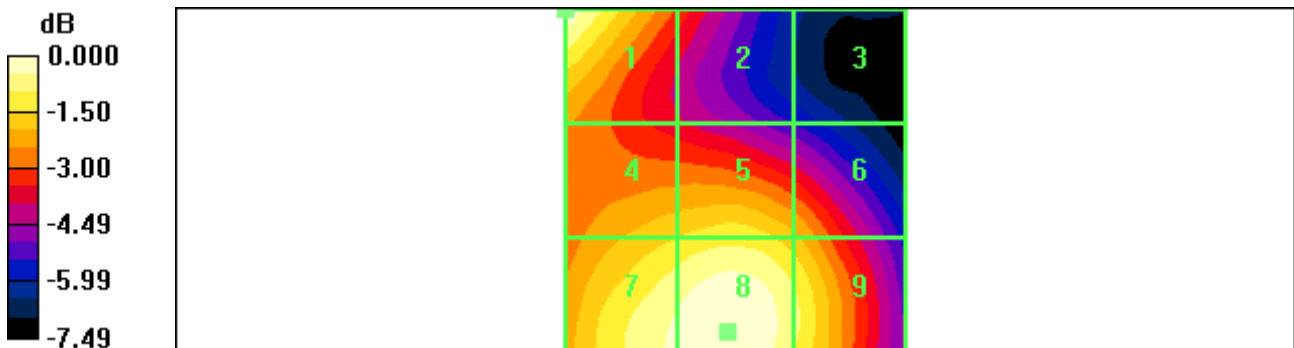
| | | |
|---------|---------|---------|
| Grid 1 | Grid 2 | Grid 3 |
| 49.0 M3 | 34.6 M4 | 26.0 M4 |
| Grid 4 | Grid 5 | Grid 6 |
| 41.5 M4 | 43.1 M4 | 39.9 M4 |
| Grid 7 | Grid 8 | Grid 9 |
| 47.2 M4 | 49.2 M3 | 44.8 M4 |

Cursor:

Total = 49.2 V/m

E Category: M3

Location: 1, 22, 369.9 mm



0 dB = 49.2V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.6 °C /810

Test Date Dec.18, 2009

DUT: P9020; Type: Bar; Serial: #1

Communication System: GSM 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3
 Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³
 Phantom section: E Device Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2009-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn869; Calibrated: 2009-09-18
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):

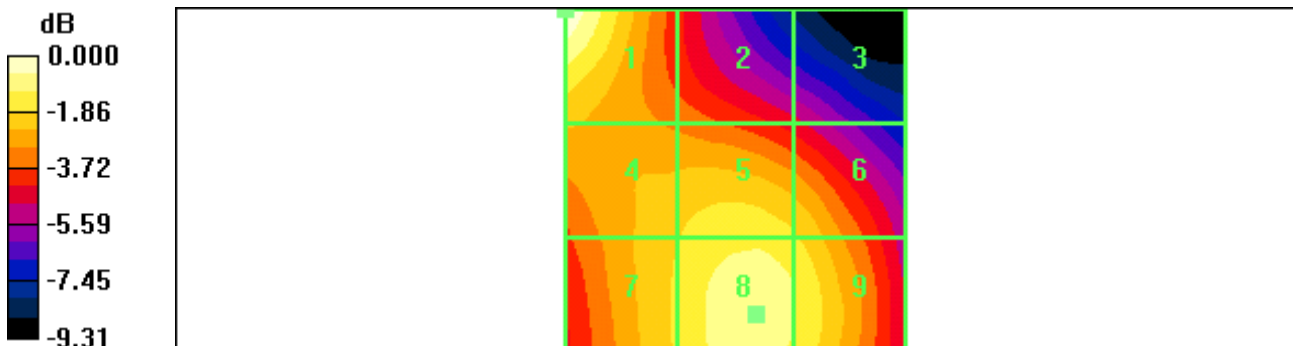
Measurement grid: dx=5mm, dy=5mm
 Maximum value of peak Total field = 49.2 V/m
 Probe Modulation Factor = 2.67
 Device Reference Point: 0.000, 0.000, 353.7 mm
 Reference Value = 18.7 V/m; Power Drift = 0.024 dB
Hearing Aid Near-Field Category: M3 (AWF -5 dB)

Peak E-field in V/m

| | | |
|---------|---------|---------|
| Grid 1 | Grid 2 | Grid 3 |
| 49.2 M3 | 33.8 M4 | 28.6 M4 |
| Grid 4 | Grid 5 | Grid 6 |
| 39.6 M4 | 42.1 M4 | 40.3 M4 |
| Grid 7 | Grid 8 | Grid 9 |
| 40.4 M4 | 44.7 M4 | 42.9 M4 |

Cursor:

Total = 49.2 V/m
 E Category: M3
 Location: 25, -25, 369.9 mm



0 dB = 49.2V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.6 °C /128

Test Date Dec.18, 2009

DUT: P9020; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 824.2 MHz; Duty Cycle: 1:8.3

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

Phantom section: H Device Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2009-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn869; Calibrated: 2009-09-18
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):

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

Maximum value of peak Total field = 0.138 A/m

Probe Modulation Factor = 1.87

Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.045 A/m; Power Drift = 0.001 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

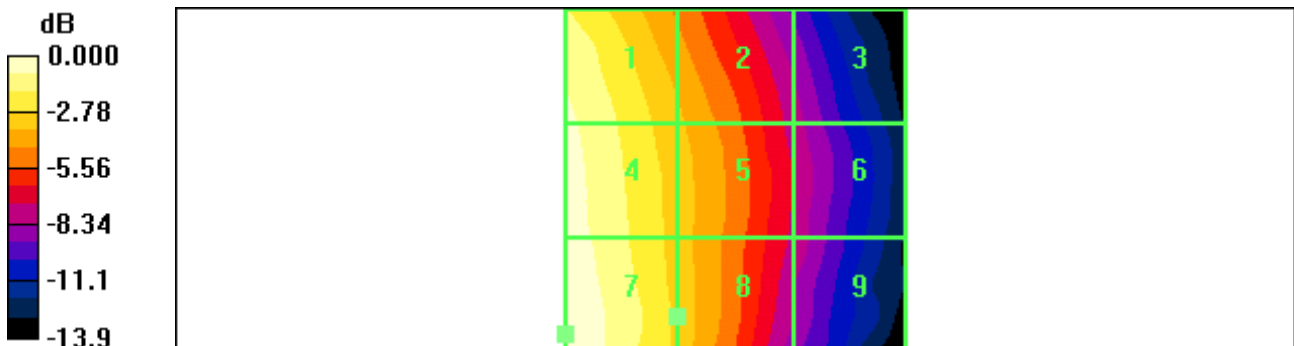
| | | |
|----------|----------|----------|
| Grid 1 | Grid 2 | Grid 3 |
| 0.127 M4 | 0.092 M4 | 0.056 M4 |
| Grid 4 | Grid 5 | Grid 6 |
| 0.132 M4 | 0.096 M4 | 0.059 M4 |
| Grid 7 | Grid 8 | Grid 9 |
| 0.138 M4 | 0.098 M4 | 0.057 M4 |

Cursor:

Total = 0.138 A/m

H Category: M4

Location: 25, 22.5, 369.4 mm



0 dB = 0.138A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.6 °C /190

Test Date Dec.18, 2009

DUT: P9020; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

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

Phantom section: H Device Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2009-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn869; Calibrated: 2009-09-18
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):

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

Maximum value of peak Total field = 0.199 A/m

Probe Modulation Factor = 1.87

Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.062 A/m; Power Drift = 0.089 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

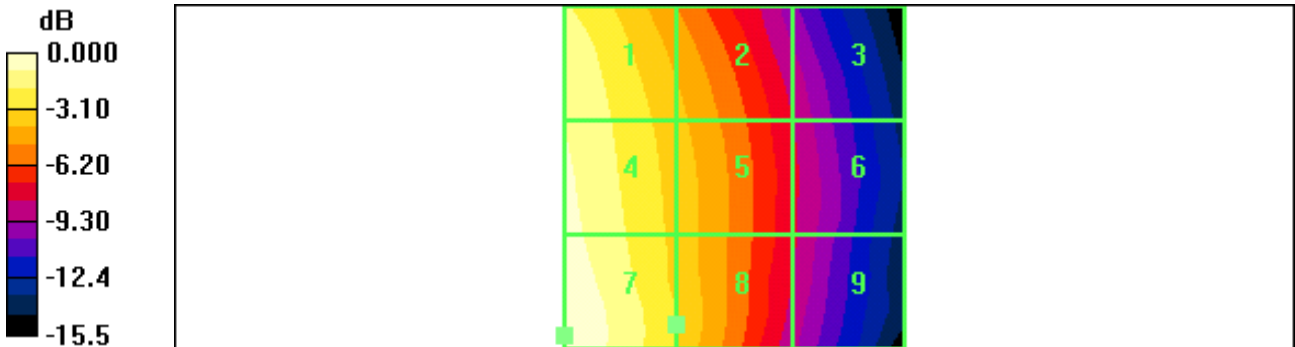
| | | |
|----------|----------|----------|
| Grid 1 | Grid 2 | Grid 3 |
| 0.177 M4 | 0.129 M4 | 0.077 M4 |
| Grid 4 | Grid 5 | Grid 6 |
| 0.186 M4 | 0.134 M4 | 0.080 M4 |
| Grid 7 | Grid 8 | Grid 9 |
| 0.199 M4 | 0.139 M4 | 0.079 M4 |

Cursor:

Total = 0.199 A/m

H Category: M4

Location: 25, 23, 369.4 mm



0 dB = 0.199A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.6 °C /251

Test Date Dec.18, 2009

DUT: P9020; Type: Bar; Serial: #1

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:8.3

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

Phantom section: H Device Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2009-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn869; Calibrated: 2009-09-18
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):

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

Maximum value of peak Total field = 0.209 A/m

Probe Modulation Factor = 1.87

Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.067 A/m; Power Drift = -0.015 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

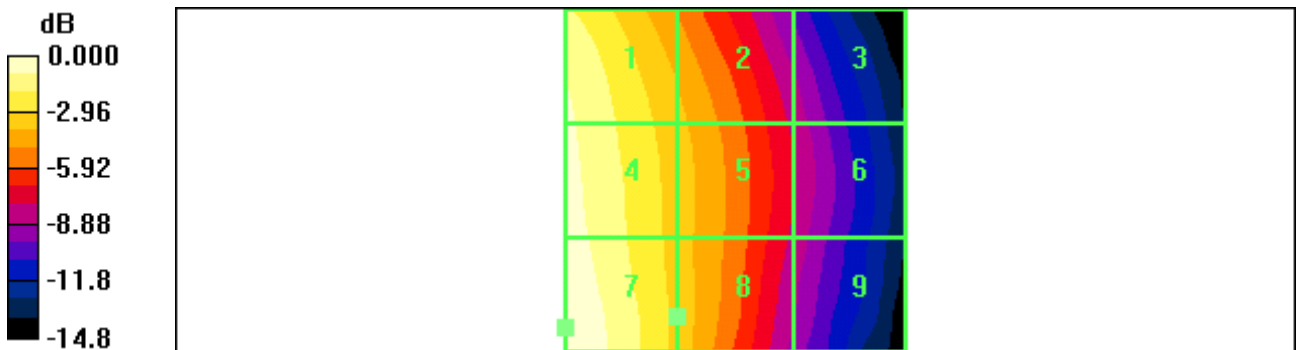
| | | |
|----------|----------|----------|
| Grid 1 | Grid 2 | Grid 3 |
| 0.192 M4 | 0.137 M4 | 0.082 M4 |
| Grid 4 | Grid 5 | Grid 6 |
| 0.198 M4 | 0.142 M4 | 0.085 M4 |
| Grid 7 | Grid 8 | Grid 9 |
| 0.209 M4 | 0.144 M4 | 0.082 M4 |

Cursor:

Total = 0.209 A/m

H Category: M4

Location: 25, 21.5, 369.4 mm



0 dB = 0.209A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.6 °C /512

Test Date Dec.18, 2009

DUT: P9020; Type: Bar; Serial: #1

Communication System: GSM 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8.3

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

Phantom section: H Device Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2009-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn869; Calibrated: 2009-09-18
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):

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

Maximum value of peak Total field = 0.115 A/m

Probe Modulation Factor = 2.22

Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.050 A/m; Power Drift = -0.105 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

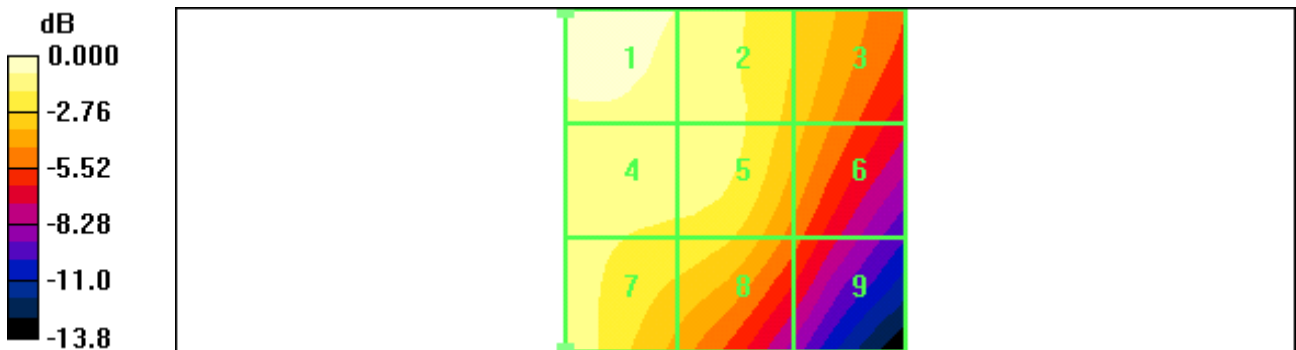
| | | |
|----------|----------|----------|
| Grid 1 | Grid 2 | Grid 3 |
| 0.115 M4 | 0.103 M4 | 0.084 M4 |
| Grid 4 | Grid 5 | Grid 6 |
| 0.102 M4 | 0.101 M4 | 0.079 M4 |
| Grid 7 | Grid 8 | Grid 9 |
| 0.103 M4 | 0.090 M4 | 0.064 M4 |

Cursor:

Total = 0.115 A/m

H Category: M4

Location: 25, -25, 369.4 mm



0 dB = 0.115A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.6 °C /661

Test Date Dec.18, 2009

DUT: P9020; Type: Bar; Serial: #1

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8.3
 Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1$ kg/m³
 Phantom section: H Device Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 176

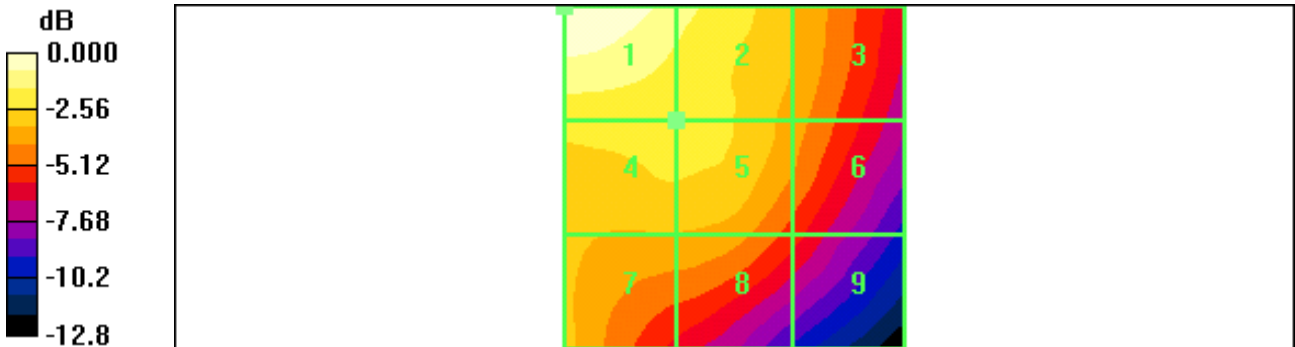
- DASY4 Configuration:
- Probe: H3DV6 - SN6101; ; Calibrated: 2009-05-22
 - Sensor-Surface: (Fix Surface)
 - Electronics: DAE4 Sn869; Calibrated: 2009-09-18
 - Phantom: HAC Test Arch; Type: SD HAC P01 BA

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):
 Measurement grid: dx=5mm, dy=5mm
 Maximum value of peak Total field = 0.101 A/m
 Probe Modulation Factor = 2.22
 Device Reference Point: 0.000, 0.000, 353.7 mm
 Reference Value = 0.040 A/m; Power Drift = -0.198 dB
Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

| | | |
|----------|----------|----------|
| Grid 1 | Grid 2 | Grid 3 |
| 0.101 M4 | 0.088 M4 | 0.069 M4 |
| Grid 4 | Grid 5 | Grid 6 |
| 0.079 M4 | 0.078 M4 | 0.065 M4 |
| Grid 7 | Grid 8 | Grid 9 |
| 0.072 M4 | 0.068 M4 | 0.053 M4 |

Cursor:
 Total = 0.101 A/m
 H Category: M4
 Location: 25, -25, 369.4 mm



0 dB = 0.101A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.6 °C /810

Test Date Dec.18, 2009

DUT: P9020; Type: Bar; Serial: #1

Communication System: GSM 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

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

Phantom section: H Device Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2009-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn869; Calibrated: 2009-09-18
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):

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

Maximum value of peak Total field = 0.109 A/m

Probe Modulation Factor = 2.22

Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.033 A/m; Power Drift = 0.026 dB

Hearing Aid Near-Field Category: M4 (AWF -5 dB)

Peak H-field in A/m

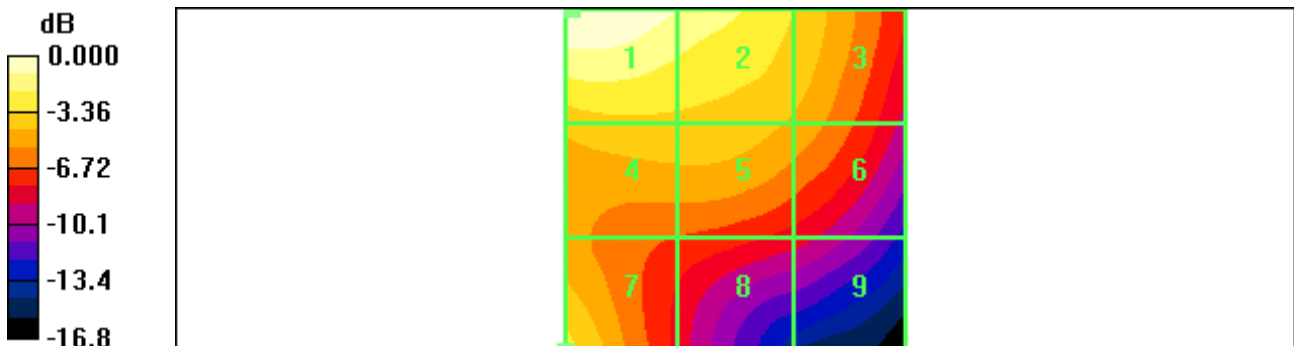
| | | |
|----------|----------|----------|
| Grid 1 | Grid 2 | Grid 3 |
| 0.109 M4 | 0.096 M4 | 0.074 M4 |
| Grid 4 | Grid 5 | Grid 6 |
| 0.072 M4 | 0.072 M4 | 0.064 M4 |
| Grid 7 | Grid 8 | Grid 9 |
| 0.079 M4 | 0.050 M4 | 0.042 M4 |

Cursor:

Total = 0.109 A/m

H Category: M4

Location: 24, -25, 369.4 mm



0 dB = 0.109A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.6 °C /4132

Test Date Dec.18, 2009

DUT: P9020; Type: Bar; Serial: #1

Communication System: WCDMA850; Frequency: 826.4 MHz; Duty Cycle: 1:1
 Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³
 Phantom section: E Device Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2009-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn869; Calibrated: 2009-09-18
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):

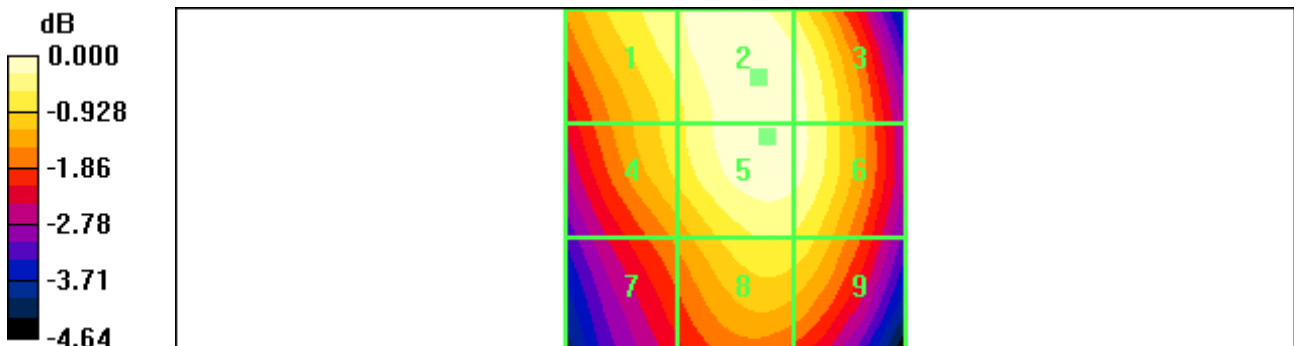
Measurement grid: dx=5mm, dy=5mm
 Maximum value of peak Total field = 34.9 V/m
 Probe Modulation Factor = 0.837
 Device Reference Point: 0.000, 0.000, 353.7 mm
 Reference Value = 55.6 V/m; Power Drift = 0.006 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

| | | |
|---------|---------|---------|
| Grid 1 | Grid 2 | Grid 3 |
| 33.5 M4 | 34.9 M4 | 34.3 M4 |
| Grid 4 | Grid 5 | Grid 6 |
| 32.1 M4 | 34.8 M4 | 34.3 M4 |
| Grid 7 | Grid 8 | Grid 9 |
| 29.5 M4 | 32.6 M4 | 32.3 M4 |

Cursor:

Total = 34.9 V/m
 E Category: M4
 Location: -3.5, -15, 369.9 mm



0 dB = 34.9V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.6 °C /4183

Test Date Dec.18, 2009

DUT: P9020; Type: Bar; Serial: #1

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

Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³

Phantom section: E Device Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2009-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn869; Calibrated: 2009-09-18
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):

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

Maximum value of peak Total field = 43.9 V/m

Probe Modulation Factor = 0.837

Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 70.1 V/m; Power Drift = 0.036 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

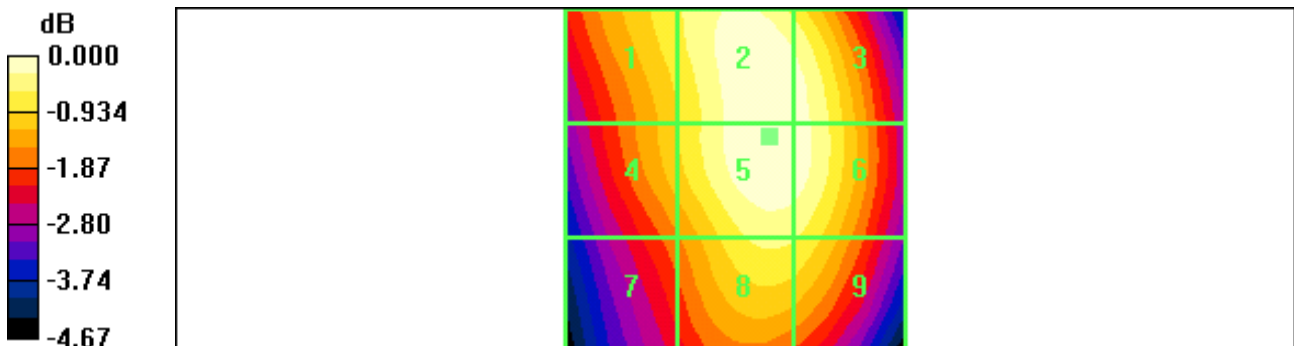
| | | |
|---------|---------|---------|
| Grid 1 | Grid 2 | Grid 3 |
| 40.7 M4 | 43.9 M4 | 43.4 M4 |
| Grid 4 | Grid 5 | Grid 6 |
| 39.4 M4 | 43.9 M4 | 43.5 M4 |
| Grid 7 | Grid 8 | Grid 9 |
| 36.5 M4 | 41.3 M4 | 41.0 M4 |

Cursor:

Total = 43.9 V/m

E Category: M4

Location: -5, -6.5, 369.9 mm



0 dB = 43.9V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.6 °C /4233

Test Date Dec.18, 2009

DUT: P9020; Type: Bar; Serial: #1

Communication System: WCDMA850; Frequency: 846.6 MHz; Duty Cycle: 1:1
 Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³
 Phantom section: E Device Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2009-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn869; Calibrated: 2009-09-18
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):

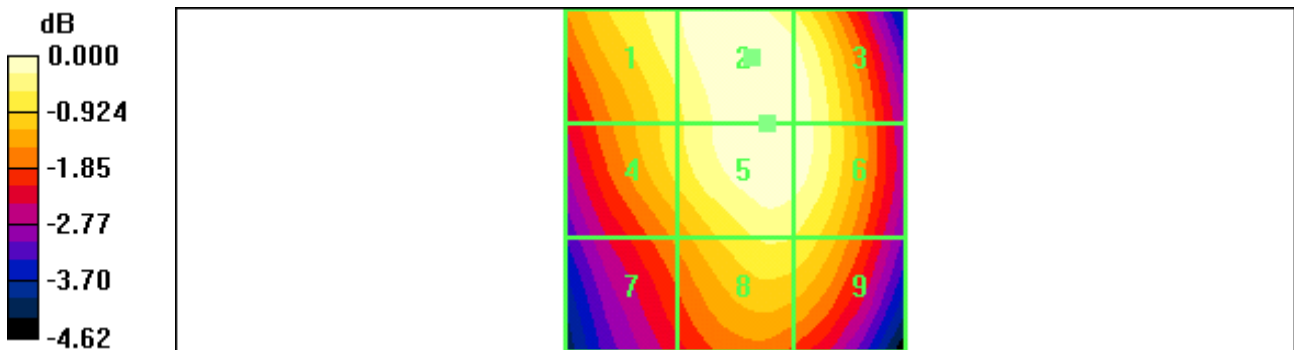
Measurement grid: dx=5mm, dy=5mm
 Maximum value of peak Total field = 34.9 V/m
 Probe Modulation Factor = 0.837
 Device Reference Point: 0.000, 0.000, 353.7 mm
 Reference Value = 55.5 V/m; Power Drift = 0.037 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

| | | |
|---------|---------|---------|
| Grid 1 | Grid 2 | Grid 3 |
| 33.6 M4 | 34.9 M4 | 34.6 M4 |
| Grid 4 | Grid 5 | Grid 6 |
| 32.2 M4 | 34.9 M4 | 34.6 M4 |
| Grid 7 | Grid 8 | Grid 9 |
| 29.6 M4 | 32.7 M4 | 32.5 M4 |

Cursor:

Total = 34.9 V/m
 E Category: M4
 Location: -2.5, -18, 369.9 mm



0 dB = 34.9V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.6 °C /9262

Test Date Dec.18, 2009

DUT: P9020; Type: Bar; Serial: #1

Communication System: WCDMA1900; Frequency: 1852.4 MHz; Duty Cycle: 1:1
 Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³
 Phantom section: E Device Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2009-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn869; Calibrated: 2009-09-18
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):

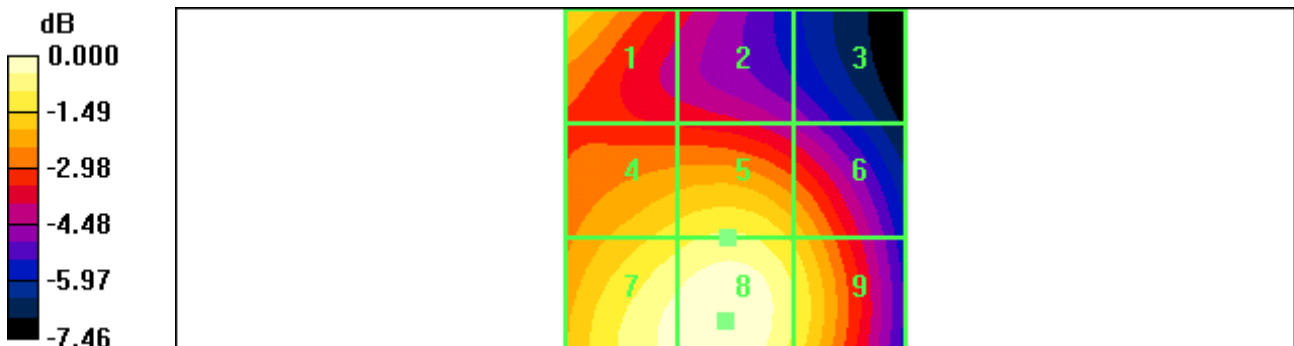
Measurement grid: dx=5mm, dy=5mm
 Maximum value of peak Total field = 29.2 V/m
 Probe Modulation Factor = 0.855
 Device Reference Point: 0.000, 0.000, 353.7 mm
 Reference Value = 35.7 V/m; Power Drift = 0.004 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

| | | |
|---------|---------|---------|
| Grid 1 | Grid 2 | Grid 3 |
| 24.9 M4 | 19.4 M4 | 17.2 M4 |
| Grid 4 | Grid 5 | Grid 6 |
| 25.5 M4 | 26.5 M4 | 24.3 M4 |
| Grid 7 | Grid 8 | Grid 9 |
| 28.3 M4 | 29.2 M4 | 26.2 M4 |

Cursor:

Total = 29.2 V/m
 E Category: M4
 Location: 1.5, 20.5, 369.9 mm



0 dB = 29.2V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.6 °C /9400

Test Date Dec.18, 2009

DUT: P9020; Type: Bar; Serial: #1

Communication System: WCDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1
 Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³
 Phantom section: E Device Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2009-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn869; Calibrated: 2009-09-18
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):

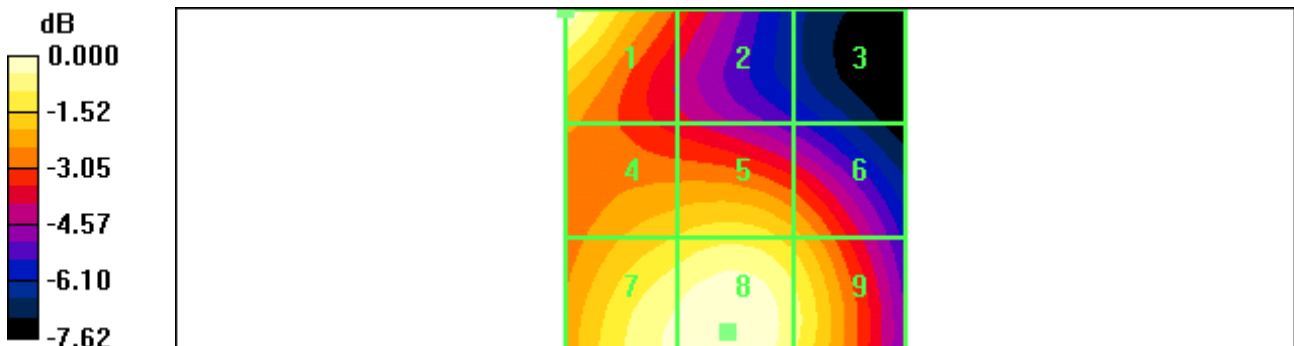
Measurement grid: dx=5mm, dy=5mm
 Maximum value of peak Total field = 26.7 V/m
 Probe Modulation Factor = 0.855
 Device Reference Point: 0.000, 0.000, 353.7 mm
 Reference Value = 30.0 V/m; Power Drift = 0.038 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

| | | |
|---------|---------|---------|
| Grid 1 | Grid 2 | Grid 3 |
| 26.5 M4 | 18.6 M4 | 14.2 M4 |
| Grid 4 | Grid 5 | Grid 6 |
| 22.6 M4 | 23.5 M4 | 21.8 M4 |
| Grid 7 | Grid 8 | Grid 9 |
| 25.7 M4 | 26.7 M4 | 24.4 M4 |

Cursor:

Total = 26.7 V/m
 E Category: M4
 Location: 1, 22, 369.9 mm



0 dB = 26.7V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.6 °C /9538

Test Date Dec.18, 2009

DUT: P9020; Type: Bar; Serial: #1

Communication System: WCDMA1900; Frequency: 1907.6 MHz; Duty Cycle: 1:1
 Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1000$ kg/m³
 Phantom section: E Device Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2009-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn869; Calibrated: 2009-09-18
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

E Scan - ER3D - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):

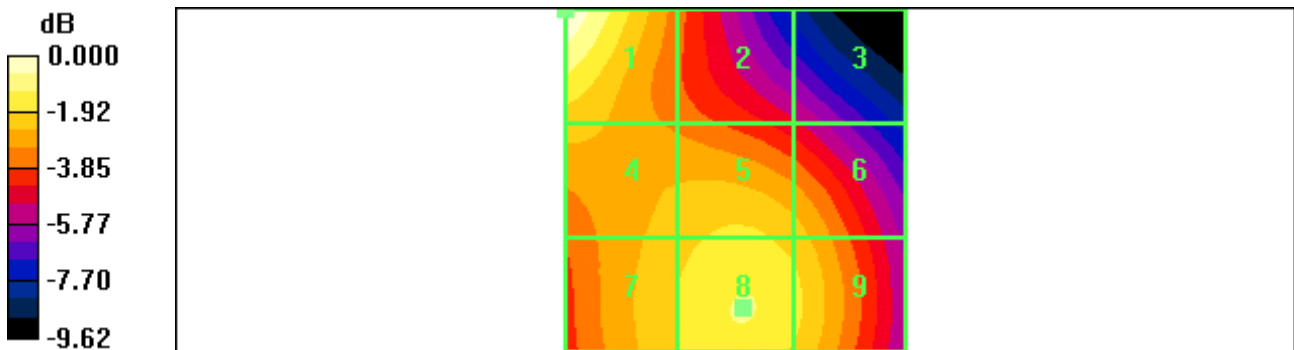
Measurement grid: dx=5mm, dy=5mm
 Maximum value of peak Total field = 26.5 V/m
 Probe Modulation Factor = 0.855
 Device Reference Point: 0.000, 0.000, 353.7 mm
 Reference Value = 30.7 V/m; Power Drift = -0.014 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak E-field in V/m

| | | |
|---------|---------|---------|
| Grid 1 | Grid 2 | Grid 3 |
| 26.5 M4 | 18.0 M4 | 14.9 M4 |
| Grid 4 | Grid 5 | Grid 6 |
| 20.6 M4 | 21.7 M4 | 20.6 M4 |
| Grid 7 | Grid 8 | Grid 9 |
| 21.3 M4 | 22.9 M4 | 21.7 M4 |

Cursor:

Total = 26.5 V/m
 E Category: M4
 Location: 25, -25, 369.9 mm



0 dB = 26.5V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.6 °C /4132

Test Date Dec.18, 2009

DUT: P9020; Type: Bar; Serial: #1

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

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

Phantom section: H Device Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2009-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn869; Calibrated: 2009-09-18
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):

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

Maximum value of peak Total field = 0.067 A/m

Probe Modulation Factor = 0.825

Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.051 A/m; Power Drift = -0.061 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

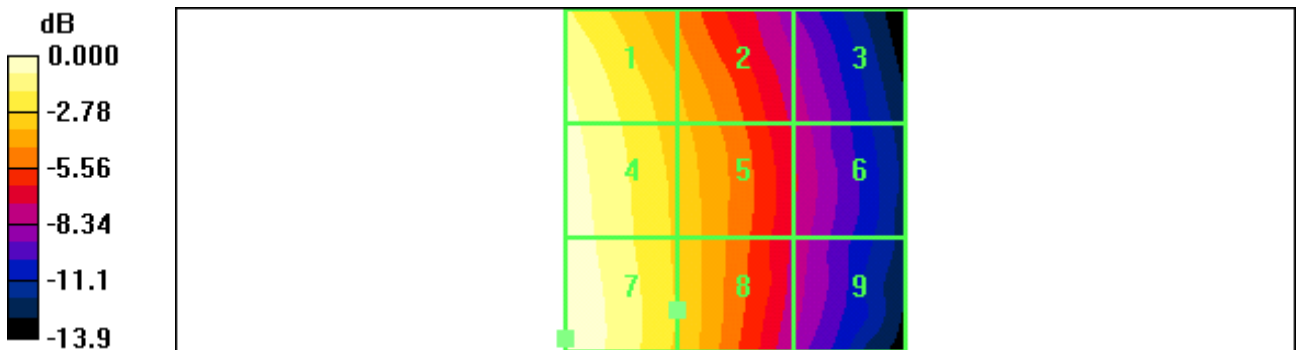
| | | |
|----------|----------|----------|
| Grid 1 | Grid 2 | Grid 3 |
| 0.062 M4 | 0.046 M4 | 0.028 M4 |
| Grid 4 | Grid 5 | Grid 6 |
| 0.065 M4 | 0.048 M4 | 0.029 M4 |
| Grid 7 | Grid 8 | Grid 9 |
| 0.067 M4 | 0.048 M4 | 0.028 M4 |

Cursor:

Total = 0.067 A/m

H Category: M4

Location: 25, 23, 369.4 mm



0 dB = 0.067A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.6 °C /4183

Test Date Dec.18, 2009

DUT: P9020; Type: Bar; Serial: #1

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

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

Phantom section: H Device Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2009-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn869; Calibrated: 2009-09-18
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):

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

Maximum value of peak Total field = 0.085 A/m

Probe Modulation Factor = 0.825

Device Reference Point: 0.000, 0.000, 353.7 mm

Reference Value = 0.061 A/m; Power Drift = 0.038 dB

Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

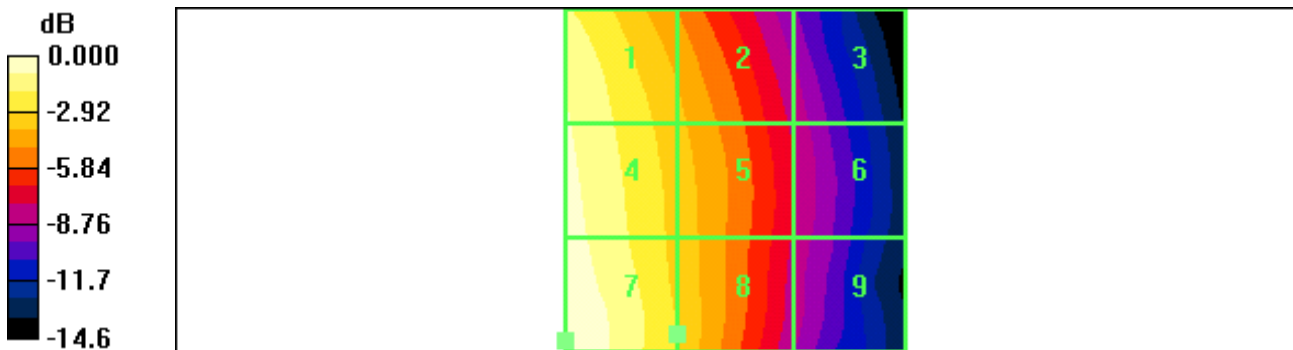
| | | |
|----------|----------|----------|
| Grid 1 | Grid 2 | Grid 3 |
| 0.077 M4 | 0.056 M4 | 0.034 M4 |
| Grid 4 | Grid 5 | Grid 6 |
| 0.080 M4 | 0.058 M4 | 0.035 M4 |
| Grid 7 | Grid 8 | Grid 9 |
| 0.085 M4 | 0.060 M4 | 0.034 M4 |

Cursor:

Total = 0.085 A/m

H Category: M4

Location: 25, 23.5, 369.4 mm



0 dB = 0.085A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.6 °C /4233

Test Date Dec.18, 2009

DUT: P9020; Type: Bar; Serial: #1

Communication System: WCDMA850; Frequency: 846.6 MHz; Duty Cycle: 1:1
 Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1$ kg/m³
 Phantom section: H Device Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2009-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn869; Calibrated: 2009-09-18
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):

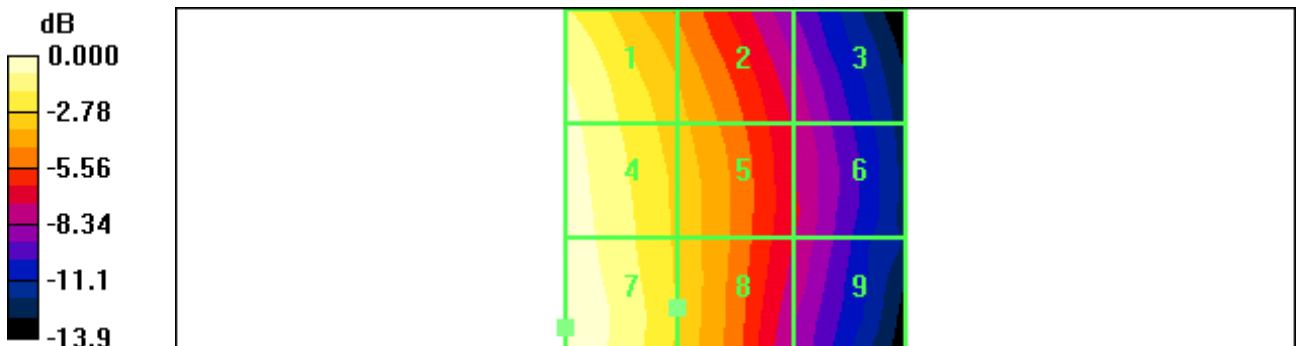
Measurement grid: dx=5mm, dy=5mm
 Maximum value of peak Total field = 0.065 A/m
 Probe Modulation Factor = 0.825
 Device Reference Point: 0.000, 0.000, 353.7 mm
 Reference Value = 0.049 A/m; Power Drift = -0.017 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

| | | |
|----------|----------|----------|
| Grid 1 | Grid 2 | Grid 3 |
| 0.061 M4 | 0.044 M4 | 0.027 M4 |
| Grid 4 | Grid 5 | Grid 6 |
| 0.063 M4 | 0.046 M4 | 0.029 M4 |
| Grid 7 | Grid 8 | Grid 9 |
| 0.065 M4 | 0.047 M4 | 0.028 M4 |

Cursor:

Total = 0.065 A/m
 H Category: M4
 Location: 25, 21.5, 369.4 mm



0 dB = 0.065A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.6 °C /9262

Test Date Dec.18, 2009

DUT: P9020; Type: Bar; Serial: #1

Communication System: WCDMA1900; Frequency: 1852.4 MHz; Duty Cycle: 1:1
 Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1$ kg/m³
 Phantom section: H Device Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 176

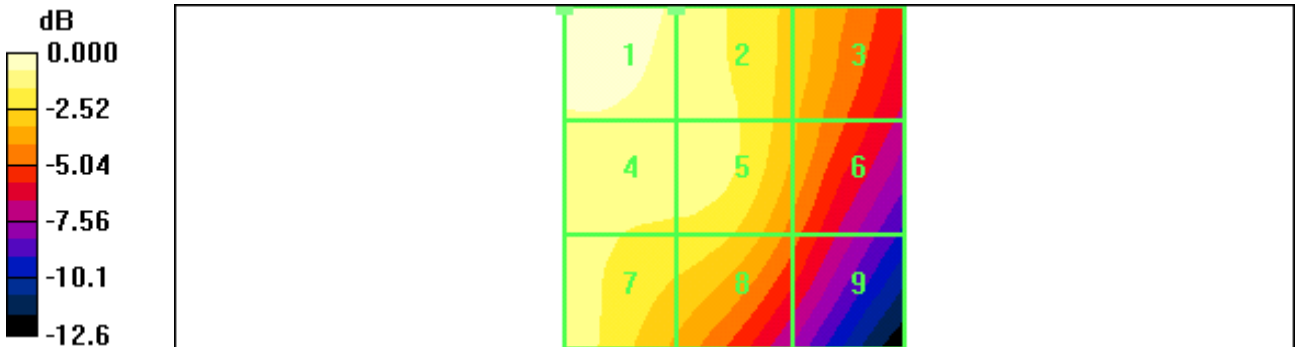
- DASY4 Configuration:
- Probe: H3DV6 - SN6101; ; Calibrated: 2009-05-22
 - Sensor-Surface: (Fix Surface)
 - Electronics: DAE4 Sn869; Calibrated: 2009-09-18
 - Phantom: HAC Test Arch; Type: SD HAC P01 BA

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):
 Measurement grid: dx=5mm, dy=5mm
 Maximum value of peak Total field = 0.063 A/m
 Probe Modulation Factor = 0.814
 Device Reference Point: 0.000, 0.000, 353.7 mm
 Reference Value = 0.075 A/m; Power Drift = -0.072 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

| | | |
|----------|----------|----------|
| Grid 1 | Grid 2 | Grid 3 |
| 0.063 M4 | 0.056 M4 | 0.046 M4 |
| Grid 4 | Grid 5 | Grid 6 |
| 0.057 M4 | 0.056 M4 | 0.044 M4 |
| Grid 7 | Grid 8 | Grid 9 |
| 0.057 M4 | 0.051 M4 | 0.037 M4 |

Cursor:
 Total = 0.063 A/m
 H Category: M4
 Location: 25, -25, 369.4 mm



0 dB = 0.063A/m

Test Laboratory: HCT CO., LTD.
 Ambient Temperature / Channel 21.6 °C /9400
 Test Date Dec.18, 2009

DUT: P9020; Type: Bar; Serial: #1

Communication System: WCDMA1900; Frequency: 1880 MHz; Duty Cycle: 1:1
 Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1$ kg/m³
 Phantom section: H Device Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 176

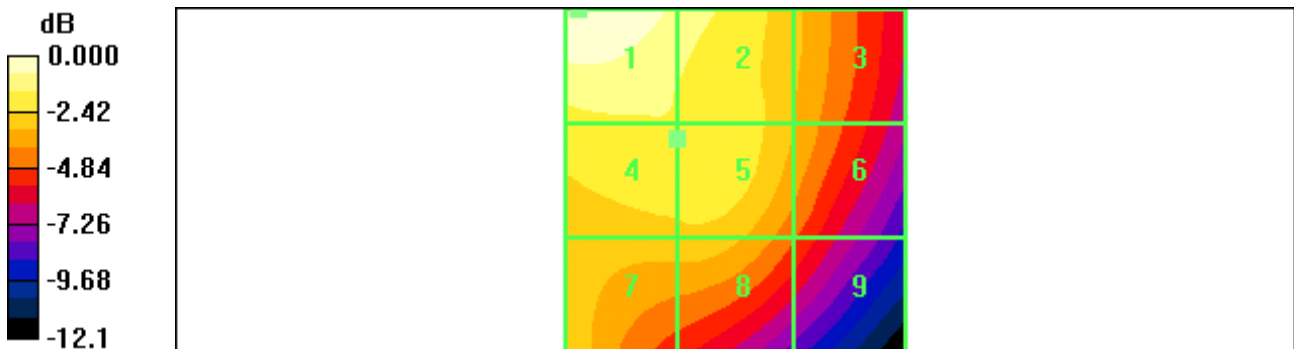
DASY4 Configuration:
 - Probe: H3DV6 - SN6101; ; Calibrated: 2009-05-22
 - Sensor-Surface: (Fix Surface)
 - Electronics: DAE4 Sn869; Calibrated: 2009-09-18
 - Phantom: HAC Test Arch; Type: SD HAC P01 BA

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):
 Measurement grid: dx=5mm, dy=5mm
 Maximum value of peak Total field = 0.060 A/m
 Probe Modulation Factor = 0.814
 Device Reference Point: 0.000, 0.000, 353.7 mm
 Reference Value = 0.069 A/m; Power Drift = -0.003 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

| | | |
|----------|----------|----------|
| Grid 1 | Grid 2 | Grid 3 |
| 0.060 M4 | 0.054 M4 | 0.043 M4 |
| Grid 4 | Grid 5 | Grid 6 |
| 0.050 M4 | 0.050 M4 | 0.041 M4 |
| Grid 7 | Grid 8 | Grid 9 |
| 0.045 M4 | 0.044 M4 | 0.035 M4 |

Cursor:
 Total = 0.060 A/m
 H Category: M4
 Location: 23, -25, 369.4 mm



0 dB = 0.060A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.6 °C /9538

Test Date Dec.18, 2009

DUT: P9020; Type: Bar; Serial: #1

Communication System: WCDMA1900; Frequency: 1907.6 MHz; Duty Cycle: 1:1
 Medium parameters used: $\sigma = 0$ mho/m, $\epsilon_r = 1$; $\rho = 1$ kg/m³
 Phantom section: H Device Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 176

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2009-05-22
- Sensor-Surface: (Fix Surface)
- Electronics: DAE4 Sn869; Calibrated: 2009-09-18
- Phantom: HAC Test Arch; Type: SD HAC P01 BA

H Scan - H3DV6 - 2007: 15 mm from Probe Center to the Device/Hearing Aid Compatibility Test (101x101x1):

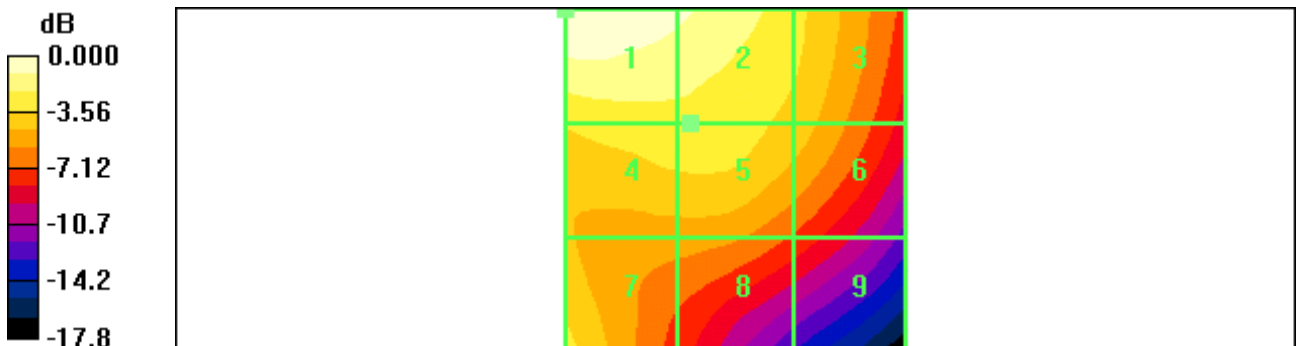
Measurement grid: dx=5mm, dy=5mm
 Maximum value of peak Total field = 0.058 A/m
 Probe Modulation Factor = 0.814
 Device Reference Point: 0.000, 0.000, 353.7 mm
 Reference Value = 0.054 A/m; Power Drift = -0.097 dB
Hearing Aid Near-Field Category: M4 (AWF 0 dB)

Peak H-field in A/m

| | | |
|----------|----------|----------|
| Grid 1 | Grid 2 | Grid 3 |
| 0.058 M4 | 0.053 M4 | 0.040 M4 |
| Grid 4 | Grid 5 | Grid 6 |
| 0.042 M4 | 0.043 M4 | 0.037 M4 |
| Grid 7 | Grid 8 | Grid 9 |
| 0.041 M4 | 0.031 M4 | 0.025 M4 |

Cursor:

Total = 0.058 A/m
 H Category: M4
 Location: 25, -25, 369.4 mm



0 dB = 0.058A/m