

## APPENDIX A. HAC TEST PLOTS

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Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /1013

Test Date Feb. 13, 2012

DUT: VS840; Type: bar; Serial: #1

Communication System: CDMA 835MHz FCC; Frequency: 824.7 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2011-05-16
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn466; Calibrated: 2011-03-01
- 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 = 58.9 V/m

Probe Modulation Factor = 0.970

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 83.3 V/m; Power Drift = -0.065 dB

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

Peak E-field in V/m

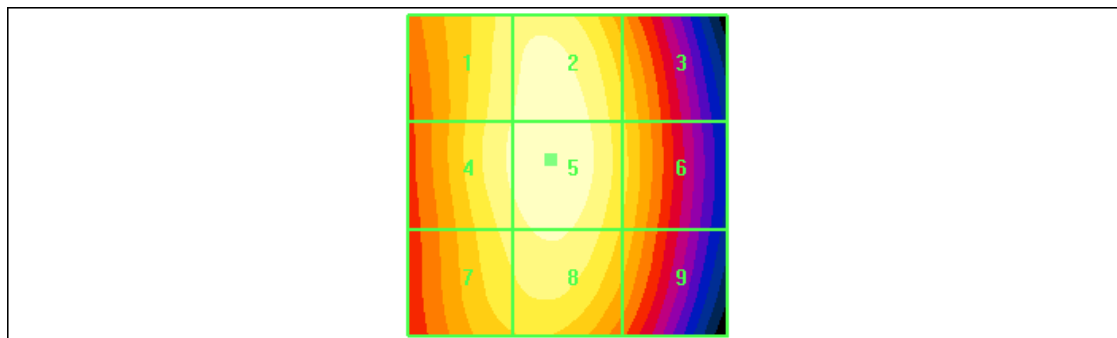
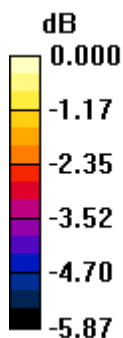
|         |         |         |
|---------|---------|---------|
| Grid 1  | Grid 2  | Grid 3  |
| 56.4 M4 | 58.3 M4 | 52.1 M4 |
| Grid 4  | Grid 5  | Grid 6  |
| 57.0 M4 | 58.9 M4 | 52.5 M4 |
| Grid 7  | Grid 8  | Grid 9  |
| 55.1 M4 | 56.8 M4 | 51.1 M4 |

Cursor:

Total = 58.9 V/m

E Category: M4

Location: 2.5, -2.5, 370.9 mm



0 dB = 58.9V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /384

Test Date Feb. 13, 2012

**DUT: VS840; Type: bar; Serial: #1**

Communication System: CDMA 835MHz FCC; Frequency: 836.52 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2011-05-16
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn466; Calibrated: 2011-03-01
- 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 = 57.7 V/m

Probe Modulation Factor = 0.970

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 82.0 V/m; Power Drift = -0.031 dB

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

Peak E-field in V/m

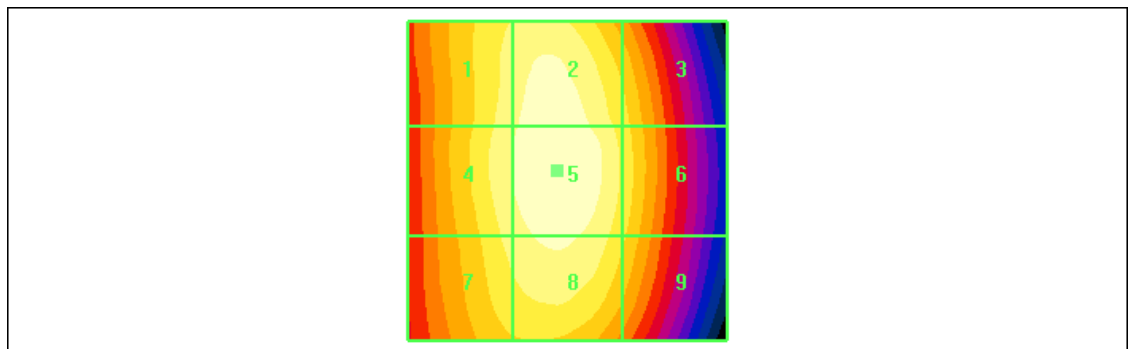
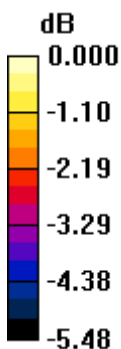
|         |         |         |
|---------|---------|---------|
| Grid 1  | Grid 2  | Grid 3  |
| 54.9 M4 | 57.0 M4 | 52.1 M4 |
| Grid 4  | Grid 5  | Grid 6  |
| 55.5 M4 | 57.7 M4 | 52.7 M4 |
| Grid 7  | Grid 8  | Grid 9  |
| 54.1 M4 | 55.9 M4 | 51.5 M4 |

**Cursor:**

Total = 57.7 V/m

E Category: M4

Location: 1.5, -1.5, 370.9 mm



0 dB = 57.7V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /777

Test Date Feb. 13, 2012

**DUT: VS840; Type: bar; Serial: #1**

Communication System: CDMA 835MHz FCC; Frequency: 848.31 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2011-05-16
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn466; Calibrated: 2011-03-01
- 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 = 54.5 V/m

Probe Modulation Factor = 0.970

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 76.5 V/m; Power Drift = 0.100 dB

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

Peak E-field in V/m

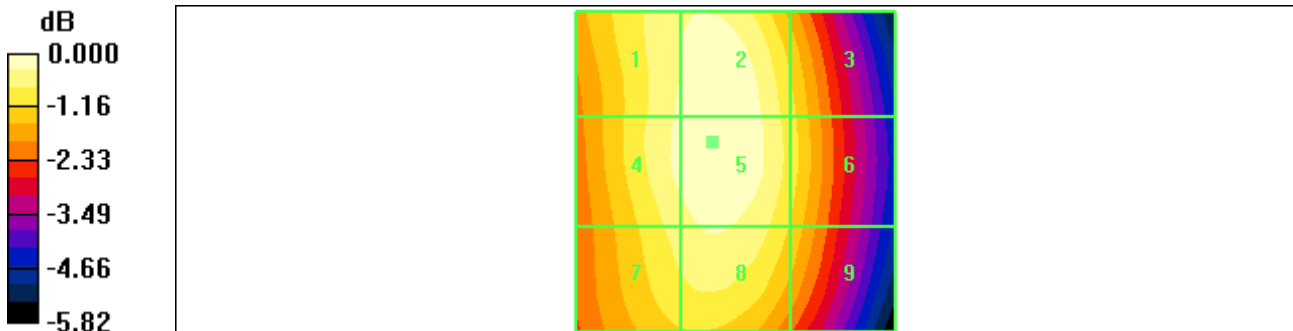
|         |         |         |
|---------|---------|---------|
| Grid 1  | Grid 2  | Grid 3  |
| 52.6 M4 | 54.3 M4 | 48.6 M4 |
| Grid 4  | Grid 5  | Grid 6  |
| 53.0 M4 | 54.5 M4 | 49.0 M4 |
| Grid 7  | Grid 8  | Grid 9  |
| 51.1 M4 | 52.4 M4 | 47.5 M4 |

**Cursor:**

Total = 54.5 V/m

E Category: M4

Location: 3.5, -4.5, 370.9 mm



Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /25

Test Date Feb. 13, 2012

**DUT: VS840; Type: bar; Serial: #1**

Communication System: PCS 1900MHz FCC; Frequency: 1851.25 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2011-05-16
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn466; Calibrated: 2011-03-01
- 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 = 41.4 V/m

Probe Modulation Factor = 0.954

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 31.4 V/m; Power Drift = 0.079 dB

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

Peak E-field in V/m

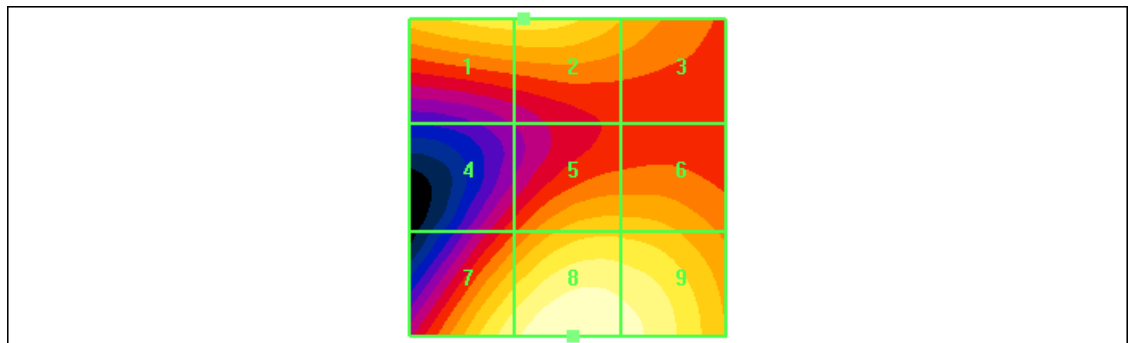
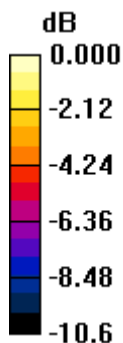
|         |         |         |
|---------|---------|---------|
| Grid 1  | Grid 2  | Grid 3  |
| 34.0 M4 | 34.1 M4 | 30.0 M4 |
| Grid 4  | Grid 5  | Grid 6  |
| 25.1 M4 | 31.9 M4 | 31.7 M4 |
| Grid 7  | Grid 8  | Grid 9  |
| 37.5 M4 | 41.4 M4 | 39.7 M4 |

**Cursor:**

Total = 41.4 V/m

E Category: M4

Location: -1, 25, 370.9 mm



0 dB = 41.4V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /600

Test Date Feb. 13, 2012

**DUT: VS840; Type: bar; Serial: #1**

Communication System: PCS 1900MHz FCC; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2011-05-16
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn466; Calibrated: 2011-03-01
- 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 = 41.2 V/m

Probe Modulation Factor = 0.954

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 35.3 V/m; Power Drift = -0.017 dB

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

Peak E-field in V/m

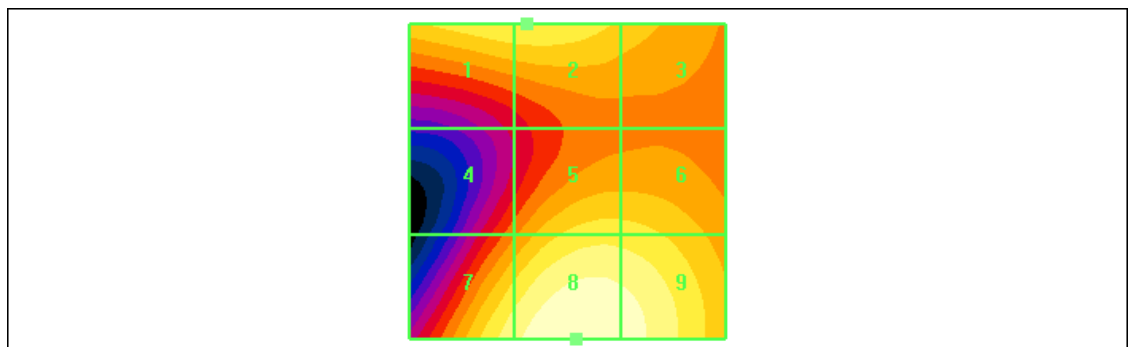
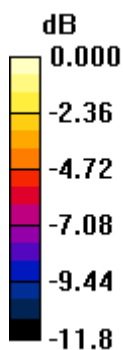
|         |         |         |
|---------|---------|---------|
| Grid 1  | Grid 2  | Grid 3  |
| 34.5 M4 | 34.6 M4 | 30.8 M4 |
| Grid 4  | Grid 5  | Grid 6  |
| 25.8 M4 | 33.3 M4 | 33.1 M4 |
| Grid 7  | Grid 8  | Grid 9  |
| 36.9 M4 | 41.2 M4 | 39.6 M4 |

**Cursor:**

Total = 41.2 V/m

E Category: M4

Location: -1.5, 25, 370.9 mm



0 dB = 41.2V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /1175

Test Date Feb. 13, 2012

**DUT: VS840; Type: bar; Serial: #1**

Communication System: PCS 1900MHz FCC; Frequency: 1908.75 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2011-05-16

- Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn466; Calibrated: 2011-03-01

- 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 = 39.4 V/m

Probe Modulation Factor = 0.954

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 32.1 V/m; Power Drift = 0.000 dB

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

Peak E-field in V/m

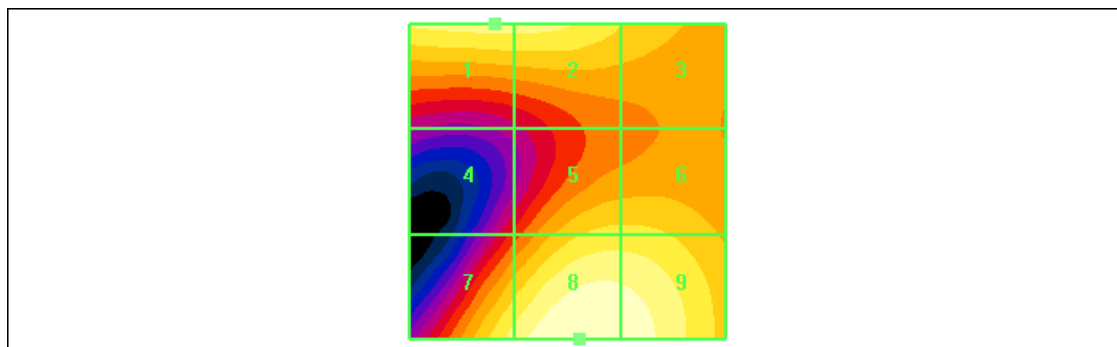
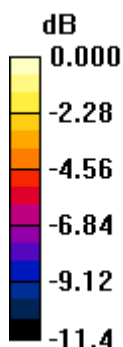
|         |         |         |
|---------|---------|---------|
| Grid 1  | Grid 2  | Grid 3  |
| 34.6 M4 | 34.6 M4 | 30.5 M4 |
| Grid 4  | Grid 5  | Grid 6  |
| 22.3 M4 | 31.5 M4 | 31.5 M4 |
| Grid 7  | Grid 8  | Grid 9  |
| 34.3 M4 | 39.4 M4 | 38.4 M4 |

**Cursor:**

Total = 39.4 V/m

E Category: M4

Location: -2, 25, 370.9 mm



0 dB = 39.4V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /1013

Test Date Feb. 13, 2012

**DUT: VS840; Type: bar; Serial: #1**

Communication System: CDMA 835MHz FCC; Frequency: 824.7 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1$  kg/m<sup>3</sup>

Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2011-05-18
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn466; Calibrated: 2011-03-01
- 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 = 0.107 A/m

Probe Modulation Factor = 0.898

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 0.062 A/m; Power Drift = 0.040 dB

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

Peak H-field in A/m

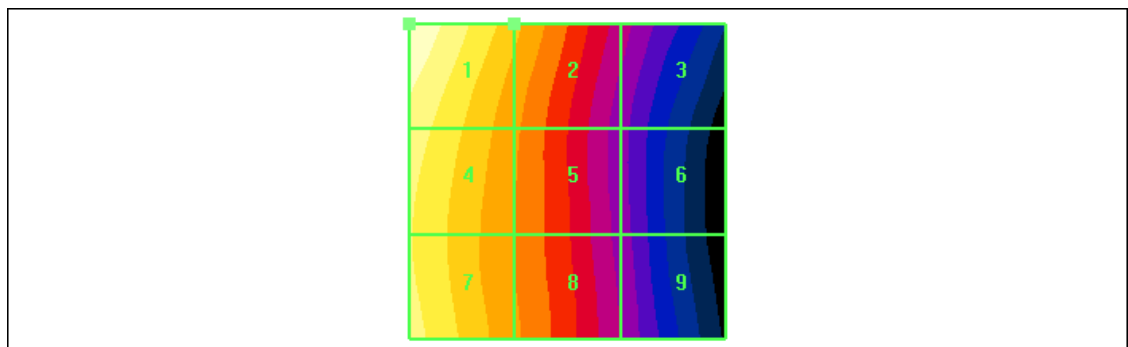
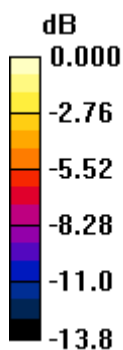
|                    |                    |                    |
|--------------------|--------------------|--------------------|
| Grid 1<br>0.107 M4 | Grid 2<br>0.073 M4 | Grid 3<br>0.044 M4 |
| Grid 4<br>0.093 M4 | Grid 5<br>0.065 M4 | Grid 6<br>0.039 M4 |
| Grid 7<br>0.091 M4 | Grid 8<br>0.065 M4 | Grid 9<br>0.041 M4 |

**Cursor:**

Total = 0.107 A/m

H Category: M4

Location: 25, -25, 370.9 mm



0 dB = 0.107A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /384

Test Date Feb. 13, 2012

**DUT: VS840; Type: bar; Serial: #1**

Communication System: CDMA 835MHz FCC; Frequency: 836.52 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1$  kg/m<sup>3</sup>

Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2011-05-18

- Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn466; Calibrated: 2011-03-01

- 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 = 0.104 A/m

Probe Modulation Factor = 0.898

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 0.057 A/m; Power Drift = -0.021 dB

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

Peak H-field in A/m

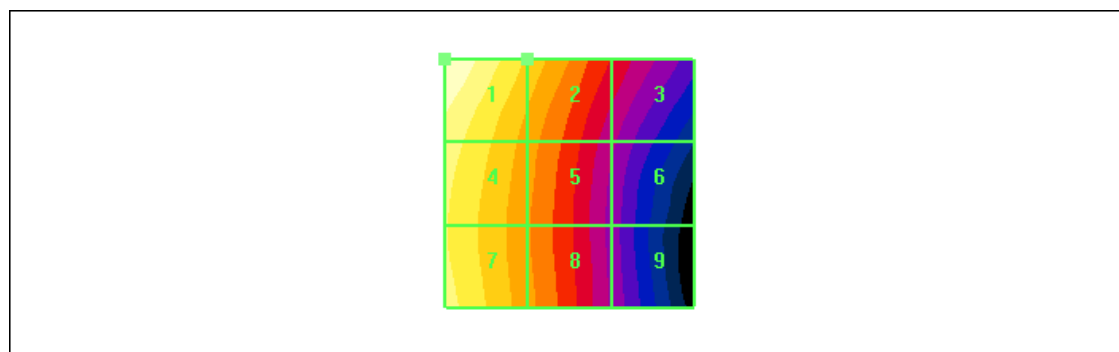
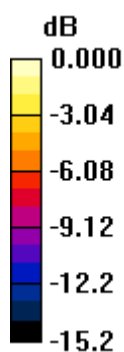
|                    |                    |                    |
|--------------------|--------------------|--------------------|
| Grid 1<br>0.104 M4 | Grid 2<br>0.072 M4 | Grid 3<br>0.046 M4 |
| Grid 4<br>0.089 M4 | Grid 5<br>0.062 M4 | Grid 6<br>0.038 M4 |
| Grid 7<br>0.087 M4 | Grid 8<br>0.061 M4 | Grid 9<br>0.036 M4 |

**Cursor:**

Total = 0.104 A/m

H Category: M4

Location: 25, -25, 370.9 mm



0 dB = 0.104A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /777

Test Date Feb. 13, 2012

**DUT: VS840; Type: bar; Serial: #1**

Communication System: CDMA 835MHz FCC; Frequency: 848.31 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1$  kg/m<sup>3</sup>

Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2011-05-18
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn466; Calibrated: 2011-03-01
- 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 = 0.099 A/m

Probe Modulation Factor = 0.898

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 0.057 A/m; Power Drift = 0.045 dB

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

Peak H-field in A/m

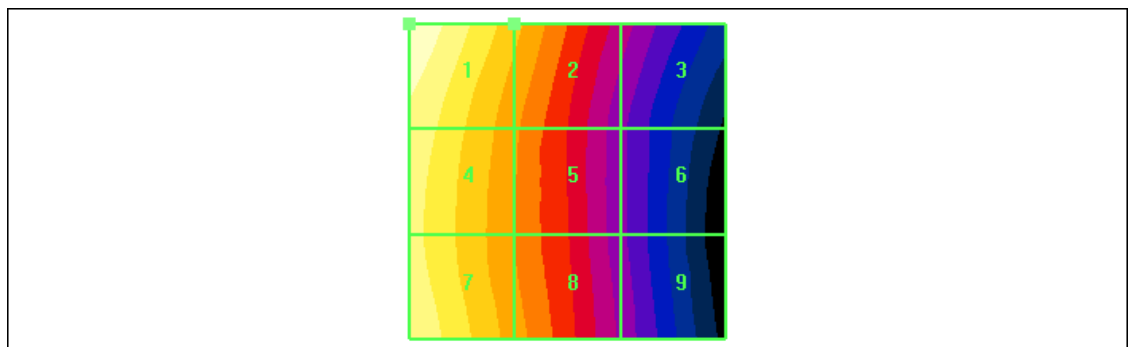
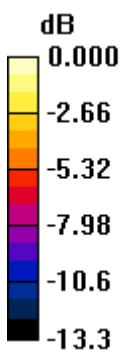
|          |          |          |
|----------|----------|----------|
| Grid 1   | Grid 2   | Grid 3   |
| 0.099 M4 | 0.069 M4 | 0.042 M4 |
| Grid 4   | Grid 5   | Grid 6   |
| 0.087 M4 | 0.061 M4 | 0.037 M4 |
| Grid 7   | Grid 8   | Grid 9   |
| 0.090 M4 | 0.063 M4 | 0.039 M4 |

**Cursor:**

Total = 0.099 A/m

H Category: M4

Location: 25, -25, 370.9 mm



0 dB = 0.099A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /25

Test Date Feb. 13, 2012

**DUT: VS840; Type: bar; Serial: #1**

Communication System: PCS 1900MHz FCC; Frequency: 1851.25 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1$  kg/m<sup>3</sup>

Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2011-05-18
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn466; Calibrated: 2011-03-01
- 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 = 0.095 A/m

Probe Modulation Factor = 0.815

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 0.129 A/m; Power Drift = -0.057 dB

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

Peak H-field in A/m

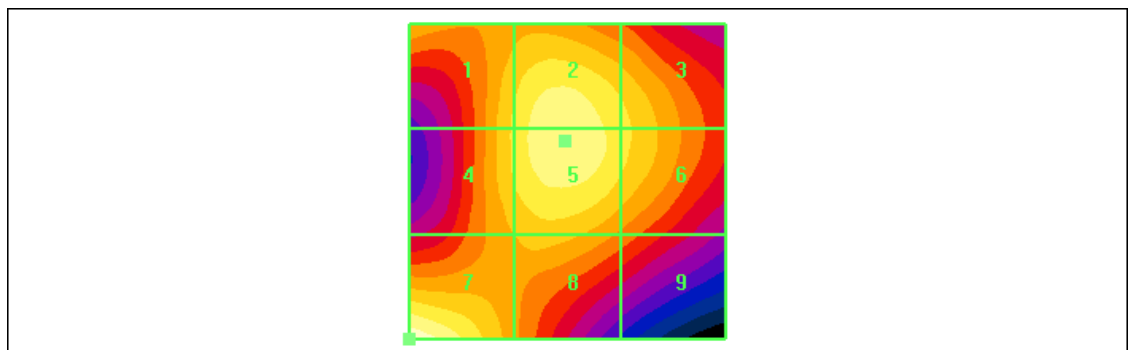
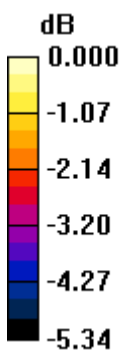
|                    |                    |                    |
|--------------------|--------------------|--------------------|
| Grid 1<br>0.085 M4 | Grid 2<br>0.090 M4 | Grid 3<br>0.085 M4 |
| Grid 4<br>0.085 M4 | Grid 5<br>0.090 M4 | Grid 6<br>0.085 M4 |
| Grid 7<br>0.095 M4 | Grid 8<br>0.082 M4 | Grid 9<br>0.077 M4 |

**Cursor:**

Total = 0.095 A/m

H Category: M4

Location: 25, 25, 370.9 mm



0 dB = 0.095A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /600

Test Date Feb. 13, 2012

**DUT: VS840; Type: bar; Serial: #1**

Communication System: PCS 1900MHz FCC; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1$  kg/m<sup>3</sup>

Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2011-05-18

- Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn466; Calibrated: 2011-03-01

- 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 = 0.100 A/m

Probe Modulation Factor = 0.815

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 0.123 A/m; Power Drift = 0.053 dB

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

Peak H-field in A/m

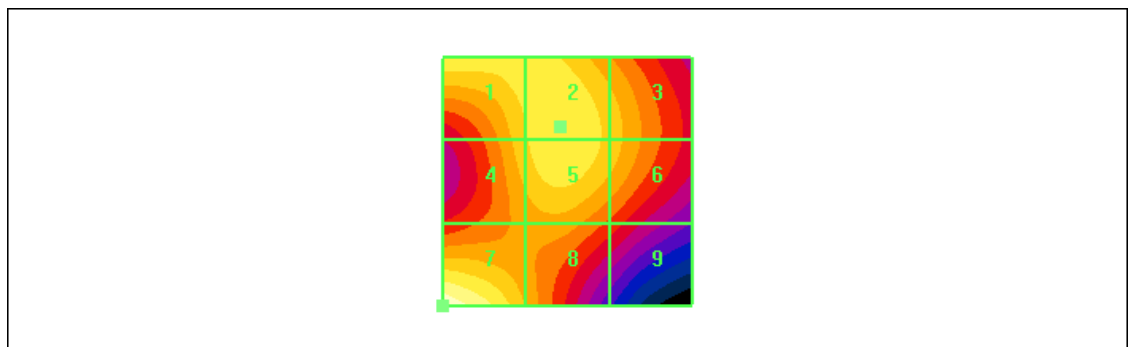
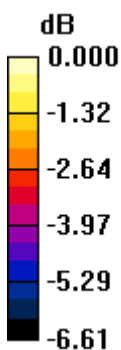
|                    |                    |                    |
|--------------------|--------------------|--------------------|
| Grid 1<br>0.090 M4 | Grid 2<br>0.090 M4 | Grid 3<br>0.084 M4 |
| Grid 4<br>0.085 M4 | Grid 5<br>0.090 M4 | Grid 6<br>0.084 M4 |
| Grid 7<br>0.100 M4 | Grid 8<br>0.082 M4 | Grid 9<br>0.073 M4 |

**Cursor:**

Total = 0.100 A/m

H Category: M4

Location: 25, 25, 370.9 mm



0 dB = 0.100A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /1175

Test Date Feb. 13, 2012

**DUT: VS840; Type: bar; Serial: #1**

Communication System: PCS 1900MHz FCC; Frequency: 1908.75 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1$  kg/m<sup>3</sup>

Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2011-05-18
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn466; Calibrated: 2011-03-01
- 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 = 0.096 A/m

Probe Modulation Factor = 0.815

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 0.127 A/m; Power Drift = 0.082 dB

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

Peak H-field in A/m

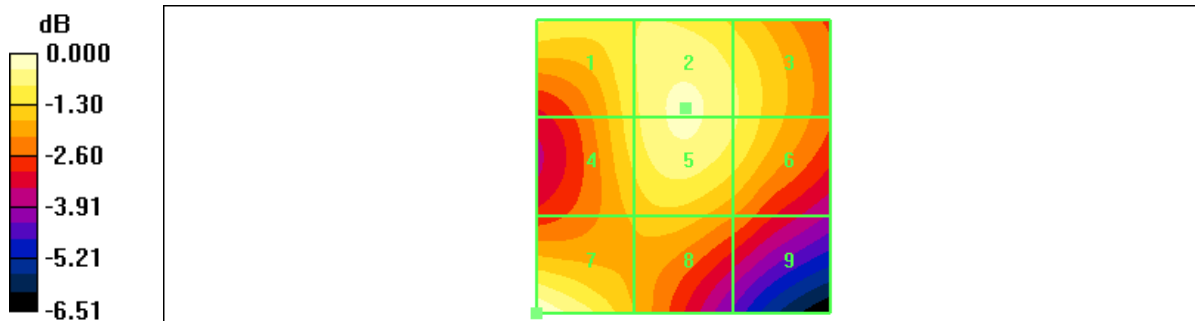
|          |          |          |
|----------|----------|----------|
| Grid 1   | Grid 2   | Grid 3   |
| 0.088 M4 | 0.092 M4 | 0.088 M4 |
| Grid 4   | Grid 5   | Grid 6   |
| 0.085 M4 | 0.092 M4 | 0.088 M4 |
| Grid 7   | Grid 8   | Grid 9   |
| 0.096 M4 | 0.081 M4 | 0.075 M4 |

**Cursor:**

Total = 0.096 A/m

H Category: M4

Location: 25, 25, 370.9 mm



0 dB = 0.096A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /1013

Test Date Feb. 13, 2012

**DUT: VS840; Type: bar; Serial: #1**

Communication System: CDMA 835MHz FCC; Frequency: 824.7 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2011-05-16
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn466; Calibrated: 2011-03-01
- 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 = 64.9 V/m

Probe Modulation Factor = 0.970

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 86.5 V/m; Power Drift = 0.101 dB

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

Peak E-field in V/m

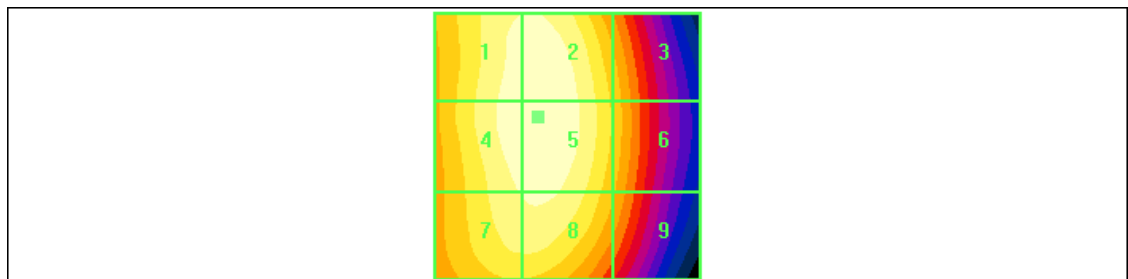
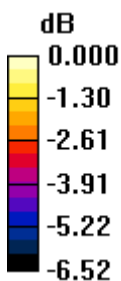
|         |         |         |
|---------|---------|---------|
| Grid 1  | Grid 2  | Grid 3  |
| 64.0 M4 | 64.7 M4 | 55.3 M4 |
| Grid 4  | Grid 5  | Grid 6  |
| 64.3 M4 | 64.9 M4 | 55.5 M4 |
| Grid 7  | Grid 8  | Grid 9  |
| 61.9 M4 | 62.4 M4 | 53.6 M4 |

**Cursor:**

Total = 64.9 V/m

E Category: M4

Location: 5.5, -5.5, 370.9 mm



0 dB = 64.9V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /384

Test Date Feb. 13, 2012

DUT: VS840; Type: bar; Serial: #1

Communication System: CDMA 835MHz FCC; Frequency: 836.52 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2011-05-16

- Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn466; Calibrated: 2011-03-01

- 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 = 60.4 V/m

Probe Modulation Factor = 0.970

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 82.6 V/m; Power Drift = 0.062 dB

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

Peak E-field in V/m

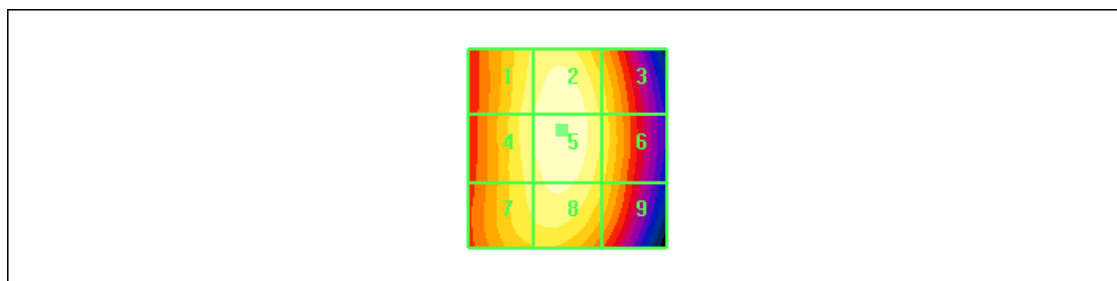
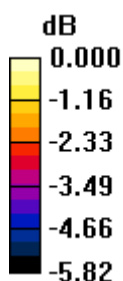
|         |         |         |
|---------|---------|---------|
| Grid 1  | Grid 2  | Grid 3  |
| 57.8 M4 | 60.0 M4 | 54.6 M4 |
| Grid 4  | Grid 5  | Grid 6  |
| 58.2 M4 | 60.4 M4 | 55.1 M4 |
| Grid 7  | Grid 8  | Grid 9  |
| 56.6 M4 | 58.4 M4 | 53.6 M4 |

**Cursor:**

Total = 60.4 V/m

E Category: M4

Location: 1.5, -4.5, 370.9 mm



0 dB = 60.4V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /777

Test Date Feb. 13, 2012

**DUT: VS840; Type: bar; Serial: #1**

Communication System: CDMA 835MHz FCC; Frequency: 848.31 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2011-05-16

- Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn466; Calibrated: 2011-03-01

- 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 = 62.9 V/m

Probe Modulation Factor = 0.970

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 85.8 V/m; Power Drift = 0.136 dB

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

Peak E-field in V/m

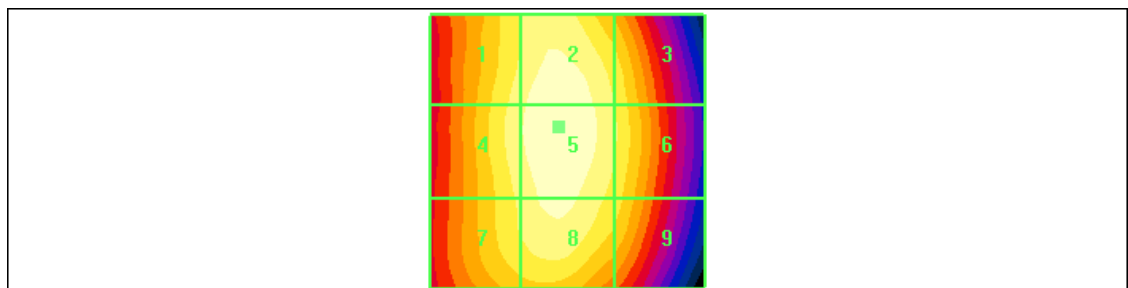
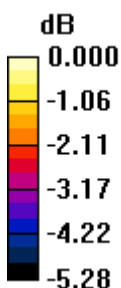
|         |         |         |
|---------|---------|---------|
| Grid 1  | Grid 2  | Grid 3  |
| 59.7 M4 | 62.5 M4 | 58.1 M4 |
| Grid 4  | Grid 5  | Grid 6  |
| 60.2 M4 | 62.9 M4 | 58.5 M4 |
| Grid 7  | Grid 8  | Grid 9  |
| 58.7 M4 | 61.1 M4 | 57.0 M4 |

**Cursor:**

Total = 62.9 V/m

E Category: M4

Location: 1.5, -4.5, 370.9 mm



0 dB = 62.9V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /25

Test Date Feb. 13, 2012

**DUT: VS840; Type: bar; Serial: #1**

Communication System: PCS 1900MHz FCC; Frequency: 1851.25 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2011-05-16
- Sensor-Surface: (Fix Surface)
- Electronics: DAE3 Sn466; Calibrated: 2011-03-01
- 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 = 40.4 V/m

Probe Modulation Factor = 0.954

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 37.8 V/m; Power Drift = -0.109 dB

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

Peak E-field in V/m

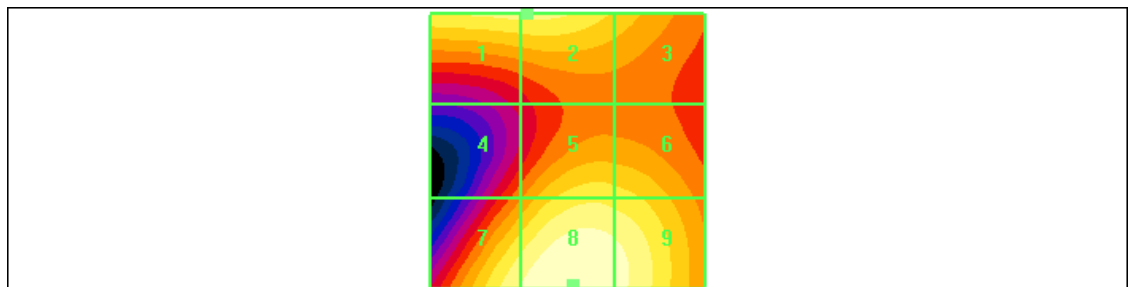
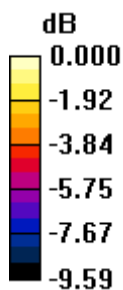
|         |         |         |
|---------|---------|---------|
| Grid 1  | Grid 2  | Grid 3  |
| 35.9 M4 | 35.9 M4 | 32.1 M4 |
| Grid 4  | Grid 5  | Grid 6  |
| 27.8 M4 | 34.3 M4 | 33.8 M4 |
| Grid 7  | Grid 8  | Grid 9  |
| 37.7 M4 | 40.4 M4 | 38.9 M4 |

**Cursor:**

Total = 40.4 V/m

E Category: M4

Location: -1, 24.5, 370.9 mm



0 dB = 40.4V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /600

Test Date Feb. 13, 2012

**DUT: VS840; Type: bar; Serial: #1**

Communication System: PCS 1900MHz FCC; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2011-05-16

- Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn466; Calibrated: 2011-03-01

- 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 = 40.6 V/m

Probe Modulation Factor = 0.954

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 40.6 V/m; Power Drift = 0.090 dB

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

Peak E-field in V/m

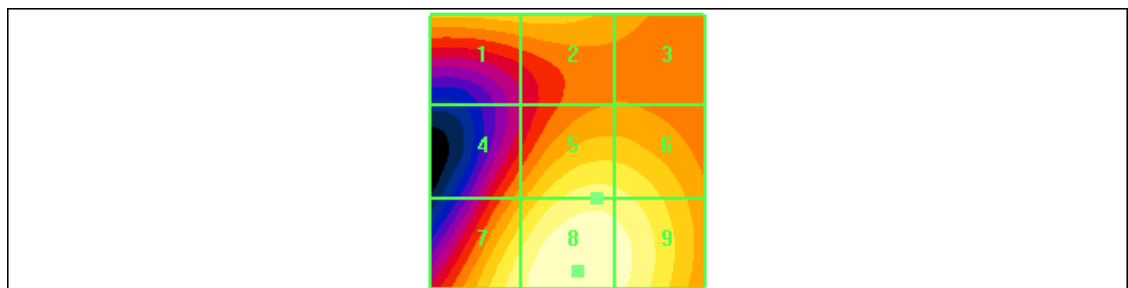
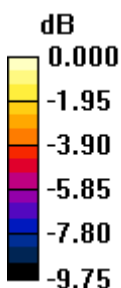
|         |         |         |
|---------|---------|---------|
| Grid 1  | Grid 2  | Grid 3  |
| 31.5 M4 | 31.6 M4 | 29.4 M4 |
| Grid 4  | Grid 5  | Grid 6  |
| 29.4 M4 | 36.4 M4 | 36.1 M4 |
| Grid 7  | Grid 8  | Grid 9  |
| 37.2 M4 | 40.6 M4 | 39.3 M4 |

**Cursor:**

Total = 40.6 V/m

E Category: M4

Location: -2, 22, 370.9 mm



0 dB = 40.6V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /1175

Test Date Feb. 13, 2012

**DUT: VS840; Type: bar; Serial: #1**

Communication System: PCS 1900MHz FCC; Frequency: 1908.75 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: ER3DV6 - SN2343; ConvF(1, 1, 1); Calibrated: 2011-05-16

- Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn466; Calibrated: 2011-03-01

- 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 = 42.6 V/m

Probe Modulation Factor = 0.954

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 35.6 V/m; Power Drift = -0.055 dB

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

Peak E-field in V/m

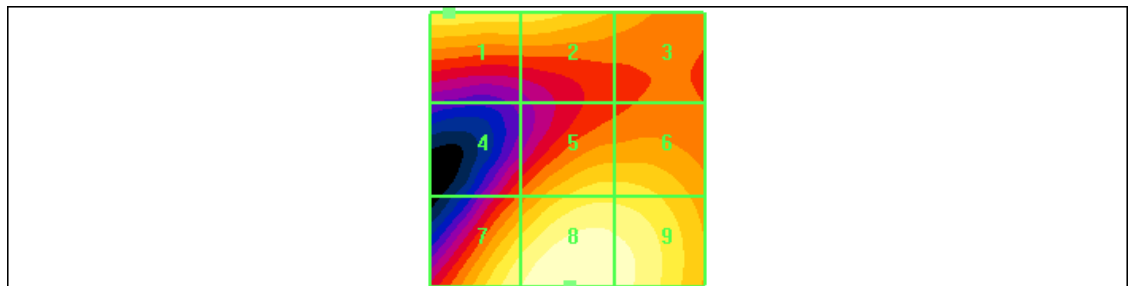
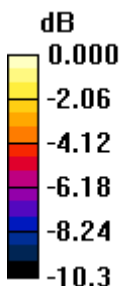
|         |         |         |
|---------|---------|---------|
| Grid 1  | Grid 2  | Grid 3  |
| 36.0 M4 | 35.6 M4 | 30.8 M4 |
| Grid 4  | Grid 5  | Grid 6  |
| 27.4 M4 | 35.6 M4 | 35.5 M4 |
| Grid 7  | Grid 8  | Grid 9  |
| 39.3 M4 | 42.6 M4 | 41.1 M4 |

**Cursor:**

Total = 42.6 V/m

E Category: M4

Location: -0.5, 25, 370.9 mm



0 dB = 42.6V/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /1013

Test Date Feb. 13, 2012

**DUT: VS840; Type: bar; Serial: #1**

Communication System: CDMA 835MHz FCC; Frequency: 824.7 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1$  kg/m<sup>3</sup>

Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2011-05-18

- Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn466; Calibrated: 2011-03-01

- 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 = 0.110 A/m

Probe Modulation Factor = 0.898

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 0.058 A/m; Power Drift = 0.046 dB

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

Peak H-field in A/m

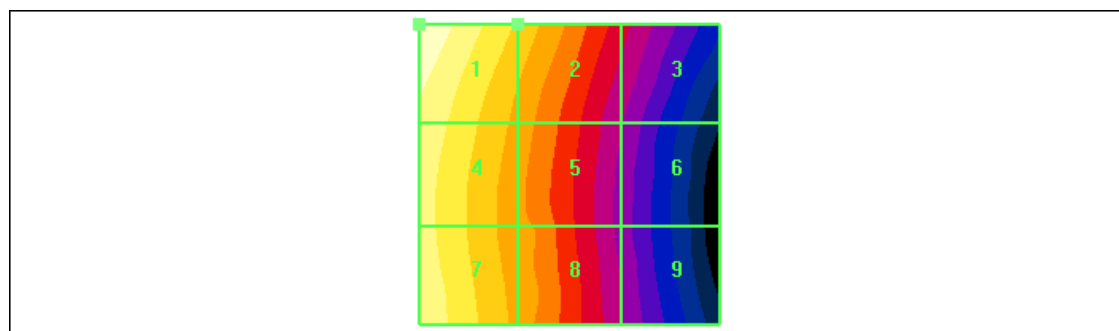
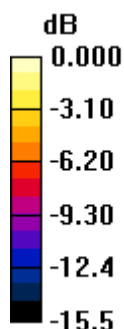
|          |          |          |
|----------|----------|----------|
| Grid 1   | Grid 2   | Grid 3   |
| 0.110 M4 | 0.075 M4 | 0.045 M4 |
| Grid 4   | Grid 5   | Grid 6   |
| 0.095 M4 | 0.065 M4 | 0.038 M4 |
| Grid 7   | Grid 8   | Grid 9   |
| 0.095 M4 | 0.066 M4 | 0.038 M4 |

**Cursor:**

Total = 0.110 A/m

H Category: M4

Location: 25, -25, 370.9 mm



0 dB = 0.110A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /384

Test Date Feb. 13, 2012

**DUT: VS840; Type: bar; Serial: #1**

Communication System: CDMA 835MHz FCC; Frequency: 836.52 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1$  kg/m<sup>3</sup>

Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2011-05-18

- Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn466; Calibrated: 2011-03-01

- 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 = 0.106 A/m

Probe Modulation Factor = 0.898

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 0.059 A/m; Power Drift = -0.822 dB

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

Peak H-field in A/m

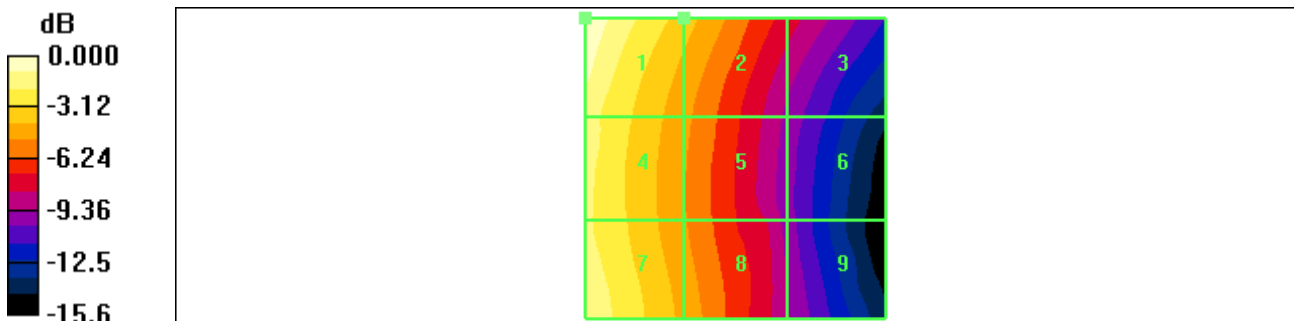
|          |          |          |
|----------|----------|----------|
| Grid 1   | Grid 2   | Grid 3   |
| 0.106 M4 | 0.070 M4 | 0.044 M4 |
| Grid 4   | Grid 5   | Grid 6   |
| 0.090 M4 | 0.060 M4 | 0.035 M4 |
| Grid 7   | Grid 8   | Grid 9   |
| 0.091 M4 | 0.063 M4 | 0.037 M4 |

**Cursor:**

Total = 0.106 A/m

H Category: M4

Location: 25, -25, 370.9 mm



0 dB = 0.106A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /777

Test Date Feb. 13, 2012

**DUT: VS840; Type: bar; Serial: #1**

Communication System: CDMA 835MHz FCC; Frequency: 848.31 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1$  kg/m<sup>3</sup>

Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2011-05-18

- Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn466; Calibrated: 2011-03-01

- 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 = 0.103 A/m

Probe Modulation Factor = 0.898

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 0.056 A/m; Power Drift = -0.197 dB

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

Peak H-field in A/m

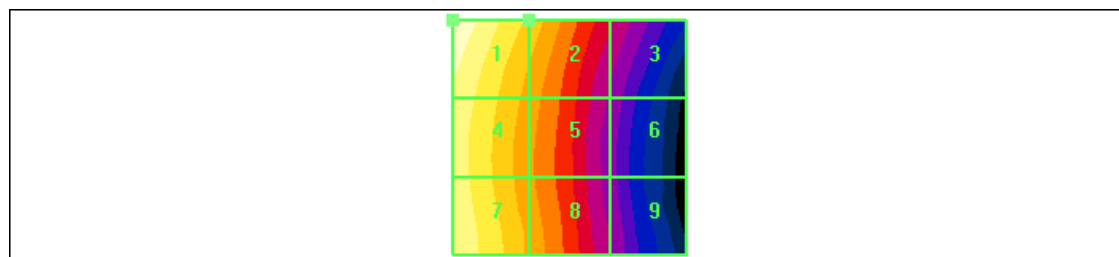
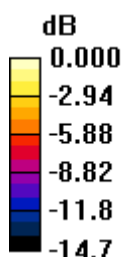
|          |          |          |
|----------|----------|----------|
| Grid 1   | Grid 2   | Grid 3   |
| 0.103 M4 | 0.071 M4 | 0.043 M4 |
| Grid 4   | Grid 5   | Grid 6   |
| 0.091 M4 | 0.063 M4 | 0.037 M4 |
| Grid 7   | Grid 8   | Grid 9   |
| 0.093 M4 | 0.064 M4 | 0.038 M4 |

**Cursor:**

Total = 0.103 A/m

H Category: M4

Location: 25, -25, 370.9 mm



0 dB = 0.103A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /25

Test Date Feb. 13, 2012

**DUT: VS840; Type: bar; Serial: #1**

Communication System: PCS 1900MHz FCC; Frequency: 1851.25 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1$  kg/m<sup>3</sup>

Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2011-05-18

- Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn466; Calibrated: 2011-03-01

- 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 = 0.106 A/m

Probe Modulation Factor = 0.815

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 0.142 A/m; Power Drift = 0.078 dB

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

Peak H-field in A/m

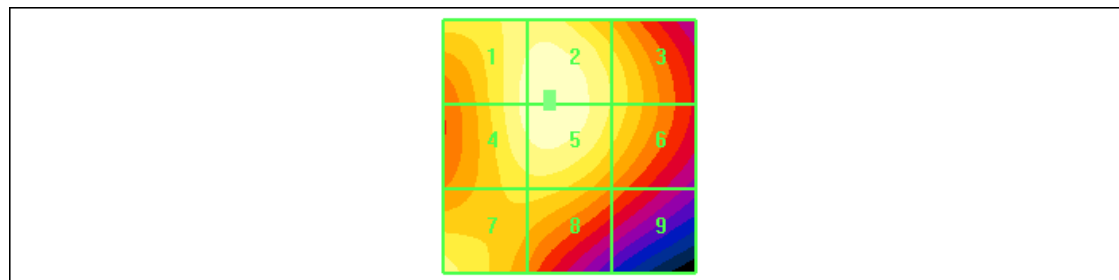
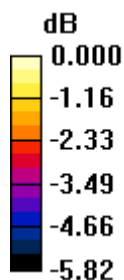
|                    |                    |                    |
|--------------------|--------------------|--------------------|
| Grid 1<br>0.103 M4 | Grid 2<br>0.106 M4 | Grid 3<br>0.097 M4 |
| Grid 4<br>0.103 M4 | Grid 5<br>0.106 M4 | Grid 6<br>0.096 M4 |
| Grid 7<br>0.099 M4 | Grid 8<br>0.095 M4 | Grid 9<br>0.084 M4 |

**Cursor:**

Total = 0.106 A/m

H Category: M4

Location: 4, -10, 370.9 mm



0 dB = 0.106A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /600

Test Date Feb. 13, 2012

**DUT: VS840; Type: bar; Serial: #1**

Communication System: PCS 1900MHz FCC; Frequency: 1880 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1$  kg/m<sup>3</sup>

Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2011-05-18

- Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn466; Calibrated: 2011-03-01

- 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 = 0.095 A/m

Probe Modulation Factor = 0.815

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 0.116 A/m; Power Drift = 0.054 dB

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

Peak H-field in A/m

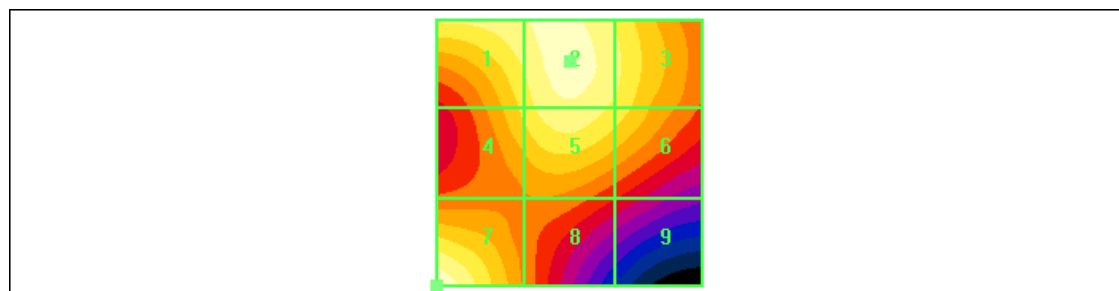
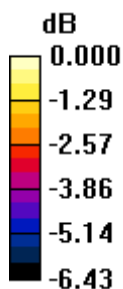
|          |          |          |
|----------|----------|----------|
| Grid 1   | Grid 2   | Grid 3   |
| 0.090 M4 | 0.092 M4 | 0.087 M4 |
| Grid 4   | Grid 5   | Grid 6   |
| 0.083 M4 | 0.090 M4 | 0.085 M4 |
| Grid 7   | Grid 8   | Grid 9   |
| 0.095 M4 | 0.074 M4 | 0.068 M4 |

**Cursor:**

Total = 0.095 A/m

H Category: M4

Location: 25, 25, 370.9 mm



0 dB = 0.095A/m

Test Laboratory: HCT CO., LTD.

Ambient Temperature / Channel 21.3 °C /1175

Test Date Feb. 13, 2012

**DUT: VS840; Type: bar; Serial: #1**

Communication System: PCS 1900MHz FCC; Frequency: 1908.75 MHz;Duty Cycle: 1:1

Medium parameters used:  $\sigma = 0$  mho/m,  $\epsilon_r = 1$ ;  $\rho = 1$  kg/m<sup>3</sup>

Phantom section: E Dipole Section ; Measurement SW: DASY4, V4.7 Build 71; Postprocessing SW: SEMCAD, V1.8 Build 184

DASY4 Configuration:

- Probe: H3DV6 - SN6101; ; Calibrated: 2011-05-18

- Sensor-Surface: (Fix Surface)

- Electronics: DAE3 Sn466; Calibrated: 2011-03-01

- 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 = 0.815

Device Reference Point: 0.000, 0.000, 354.7 mm

Reference Value = 0.129 A/m; Power Drift = 0.063 dB

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

Peak H-field in A/m

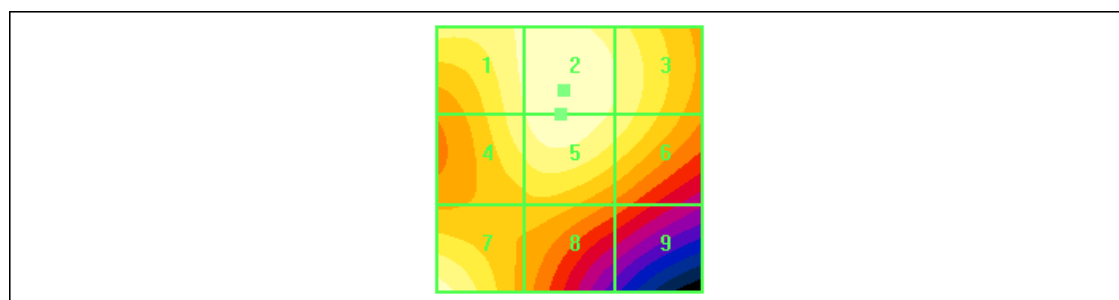
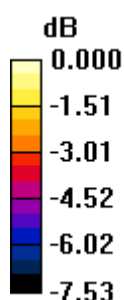
|          |          |          |
|----------|----------|----------|
| Grid 1   | Grid 2   | Grid 3   |
| 0.097 M4 | 0.101 M4 | 0.096 M4 |
| Grid 4   | Grid 5   | Grid 6   |
| 0.095 M4 | 0.100 M4 | 0.094 M4 |
| Grid 7   | Grid 8   | Grid 9   |
| 0.098 M4 | 0.083 M4 | 0.074 M4 |

**Cursor:**

Total = 0.101 A/m

H Category: M4

Location: 1, -13, 370.9 mm



0 dB = 0.101A/m