

Test Laboratory: Compliance Certification Services Inc.

## **D900v2 SN179 Head**

**DUT: Dipole 900 MHz; Type: D900V2; Serial: 179**

Communication System: CW; Frequency: 900 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 900$  MHz;  $\sigma = 0.93$  mho/m;  $\epsilon_r = 39.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Air Temperature: 24.5 deg C; Liquid Temperature: 23.5 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1763; ConvF(6.46, 6.46, 6.46); Calibrated: 3/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection) Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 8/24/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.3 Build 16; Postprocessing SW: SEMCAD, V1.8 Build 123

**d=10mm, Pin=250mW/Area Scan (6x6x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.77 mW/g

**d=10mm, Pin=250mW/Z Scan (1x1x6):** Measurement grid: dx=20mm, dy=20mm, dz=20mm

Maximum value of SAR (measured) = 2.15 mW/g

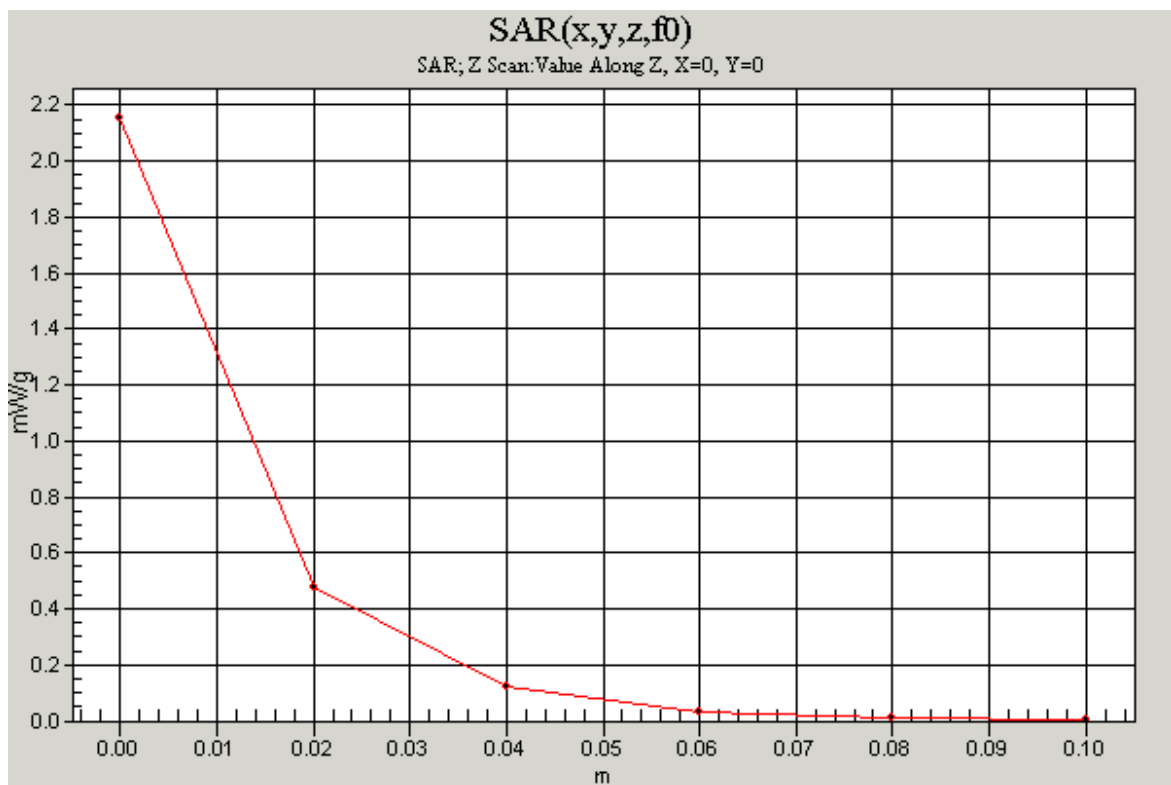
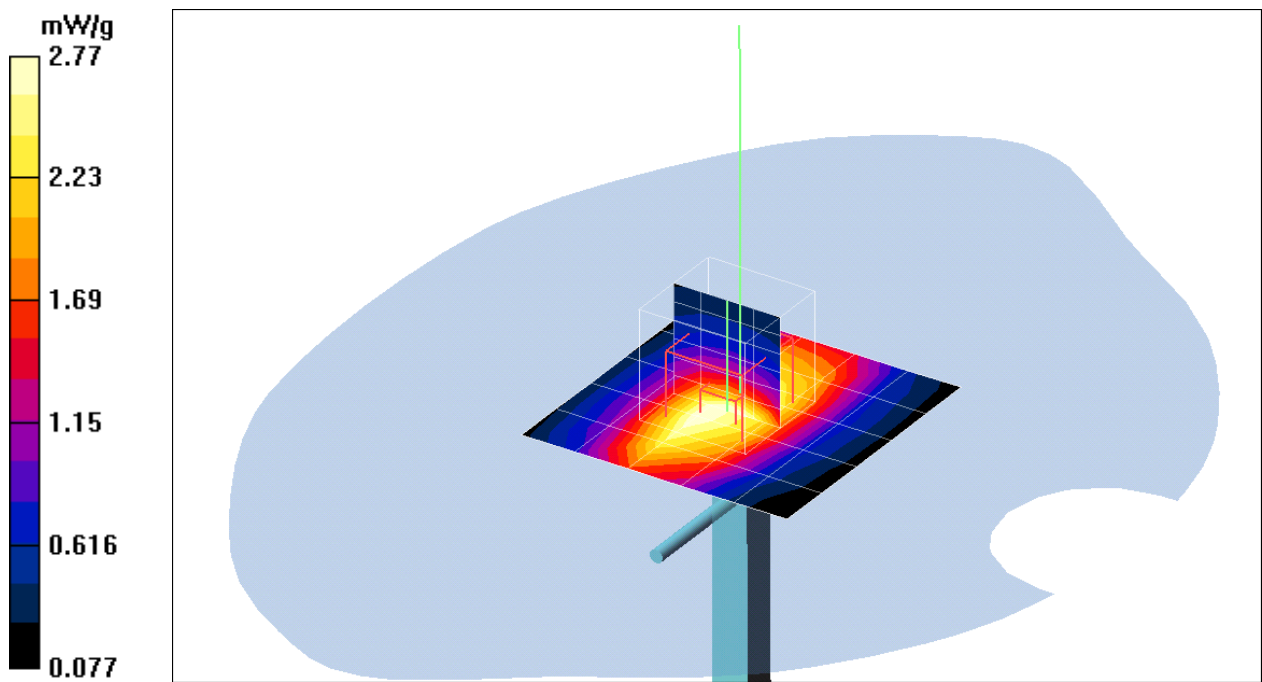
**d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 58.1 V/m; Power Drift = -0.1 dB

Peak SAR (extrapolated) = 4.13 W/kg

**SAR(1 g) = 2.73 mW/g; SAR(10 g) = 1.74 mW/g**

Maximum value of SAR (measured) = 2.95 mW/g



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## **D900v2 SN179 Body**

**DUT: Dipole 900 MHz; Type: D900V2; Serial: 179**

Communication System: CW; Frequency: 900 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 900$  MHz;  $\sigma = 1.05$  mho/m;  $\epsilon_r = 53$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Air Temperature: 25.0 deg C; Liquid Temperature: 24.0 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1763; ConvF(6.14, 6.14, 6.14); Calibrated: 3/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection) Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 8/24/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.3 Build 16; Postprocessing SW: SEMCAD, V1.8 Build 123

**d=10mm, Pin=250mW/Area Scan (6x6x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.75 mW/g

**d=10mm, Pin=250mW/Z Scan (1x1x6):** Measurement grid: dx=20mm, dy=20mm, dz=20mm

Maximum value of SAR (measured) = 2.19 mW/g

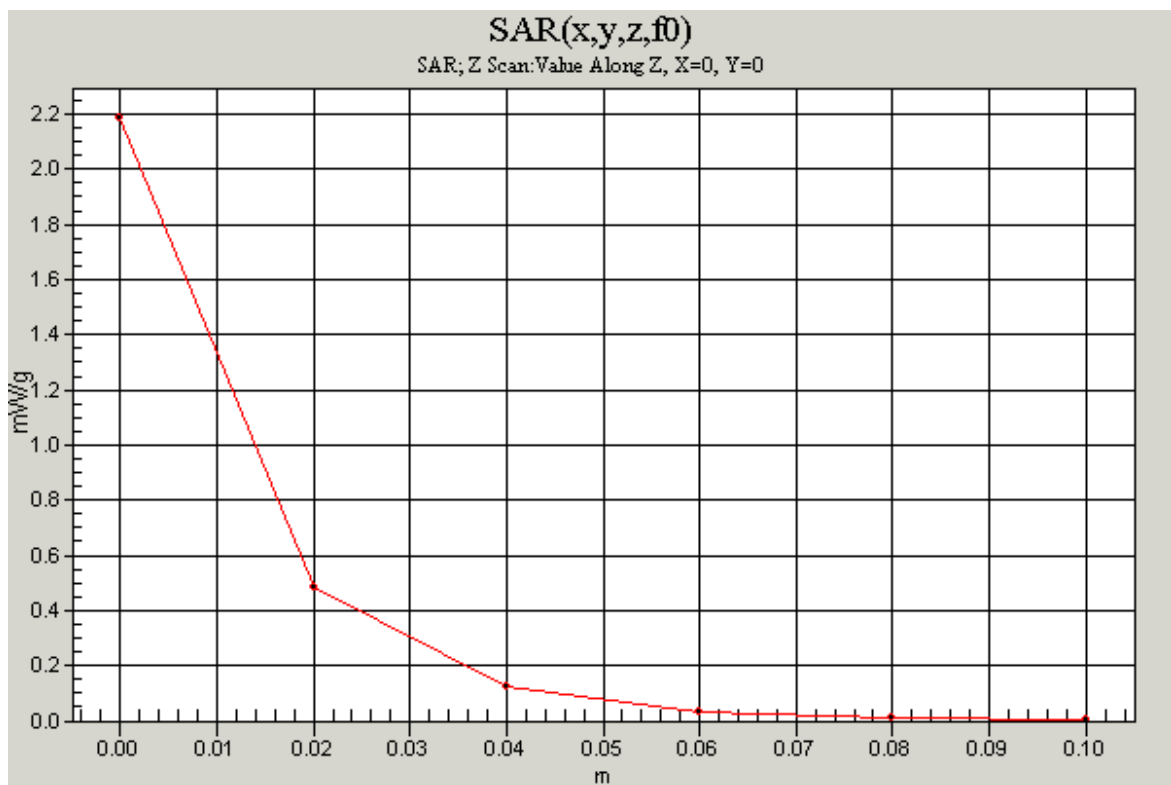
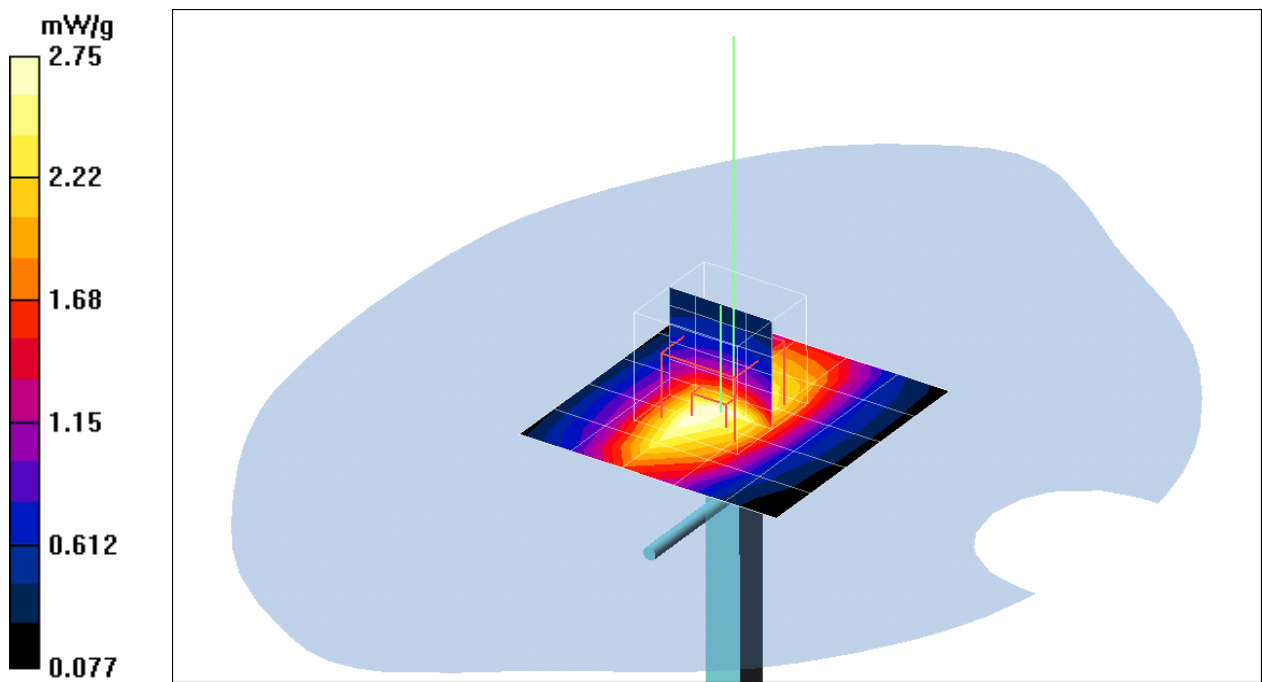
**d=10mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 54.9 V/m; Power Drift = -0.0 dB

Peak SAR (extrapolated) = 4.04 W/kg

**SAR(1 g) = 2.73 mW/g; SAR(10 g) = 1.75 mW/g**

Maximum value of SAR (measured) = 2.96 mW/g



Test Laboratory: Compliance Certification Services Inc.

## **D1800V2 SN-3 Head**

**DUT: Dipole 1800 MHz; Type: D1800V2; Serial: D1800V2 - SN:2d062**

Communication System: CW1800; Frequency: 1800 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1800$  MHz;  $\sigma = 1.34$  mho/m;  $\epsilon_r = 38.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Air Temperature: 25.0 deg C; Liquid Temperature: 24.0 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1763; ConvF(5.34, 5.34, 5.34); Calibrated: 3/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection) Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 8/24/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.3 Build 16; Postprocessing SW: SEMCAD, V1.8 Build 123

**Pin=250mW, d=10mm/Area Scan (6x6x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 9.29 mW/g

**Pin=250mW, d=10mm/Z Scan (1x1x21):** Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 8.6 mW/g

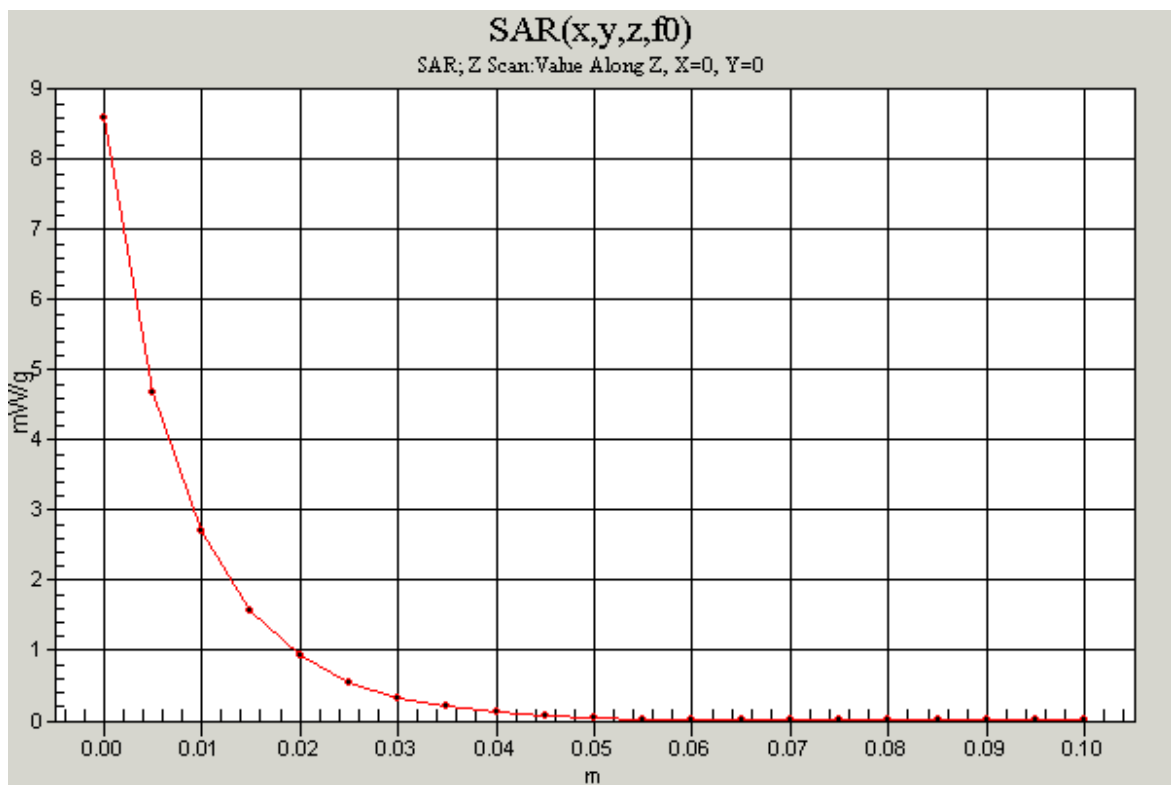
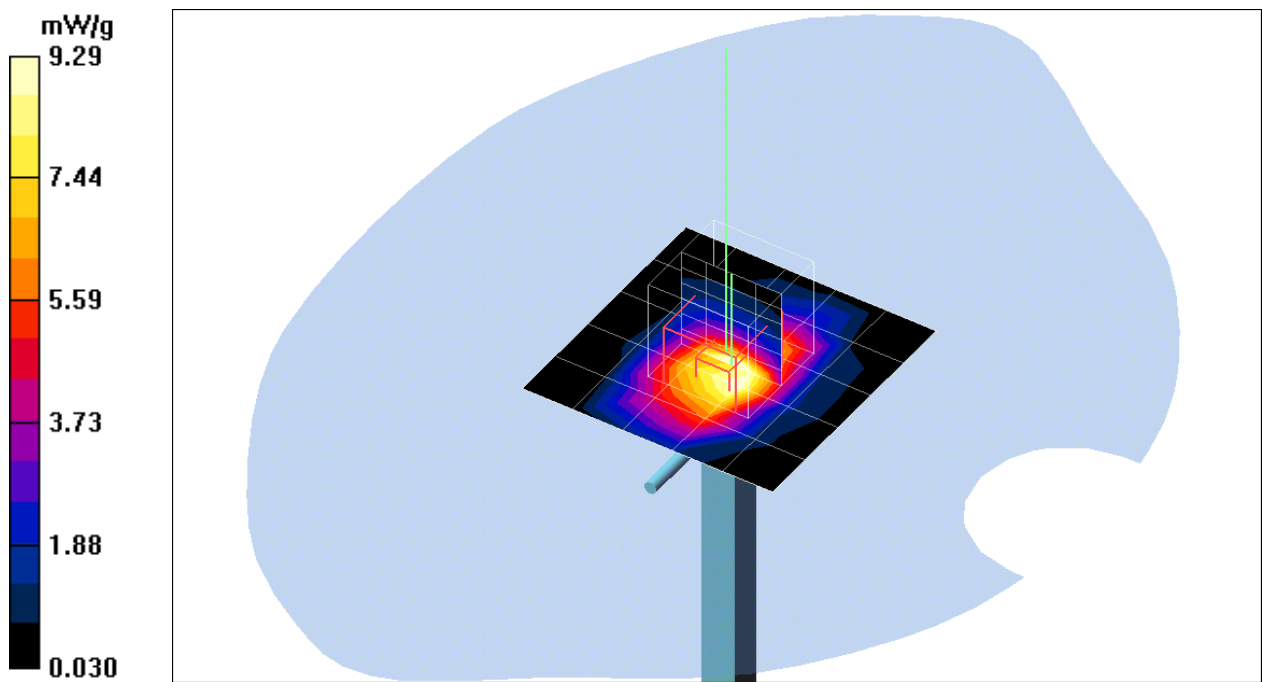
**Pin=250mW, d=10mm/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 94.1 V/m; Power Drift = 0.0 dB

Peak SAR (extrapolated) = 17.6 W/kg

**SAR(1 g) = 10.00 mW/g; SAR(10 g) = 5.27 mW/g**

Maximum value of SAR (measured) = 11.2 mW/g



Test Laboratory: Compliance Certification Services Inc.

## **D1800V2 SN-3 Body**

**DUT: Dipole 1800 MHz; Type: D1800V2; Serial: D1800V2 - SN:2d062**

Communication System: CW1800; Frequency: 1800 MHz; Duty Cycle: 1:1

Medium parameters used:  $f = 1800$  MHz;  $\sigma = 1.47$  mho/m;  $\epsilon_r = 52.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Air Temperature: 25.0 deg C; Liquid Temperature: 24.0 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1763; ConvF(4.66, 4.66, 4.66); Calibrated: 3/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection) Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 8/24/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.3 Build 16; Postprocessing SW: SEMCAD, V1.8 Build 123

**Pin=250mW, d=10mm/Area Scan (6x6x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 8.31 mW/g

**Pin=250mW, d=10mm/Z Scan (1x1x21):** Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 8.25 mW/g

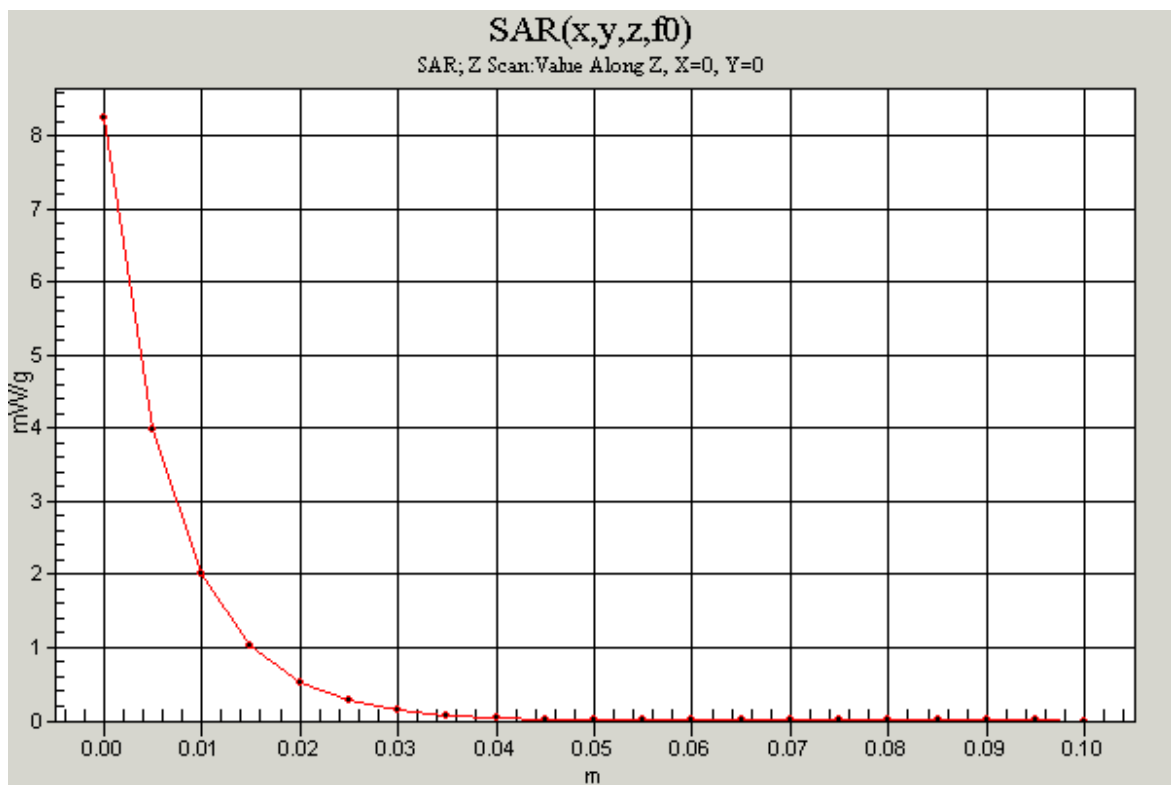
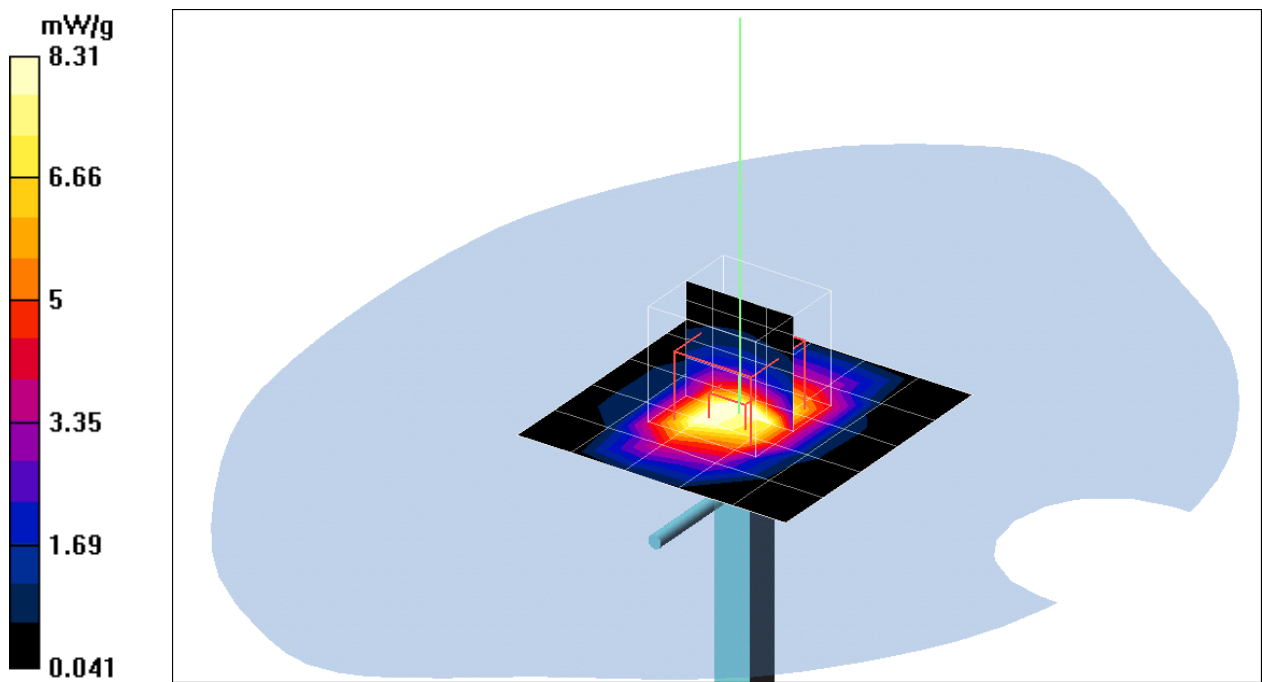
**Pin=250mW, d=10mm/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 99.2 V/m; Power Drift = -0.1 dB

Peak SAR (extrapolated) = 19.4 W/kg

**SAR(1 g) = 10.10 mW/g; SAR(10 g) = 4.93 mW/g**

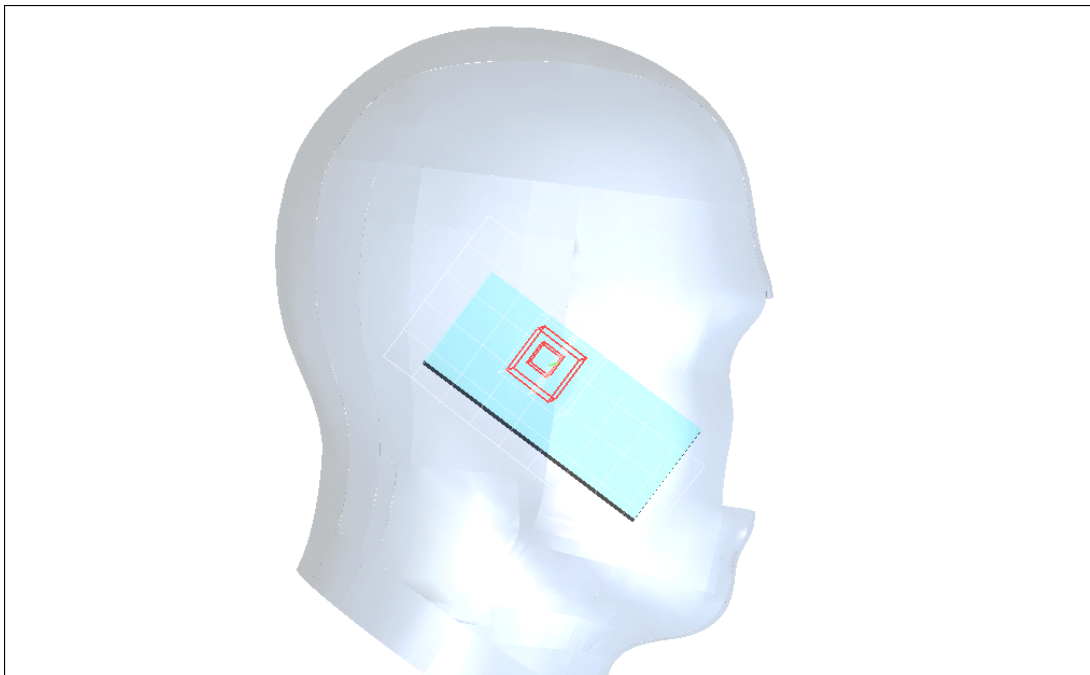
Maximum value of SAR (measured) = 11.4 mW/g





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# Left Head



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## **GSM 850-Left**

**DUT: ST-20L; Type: GSM Dual Band Mobile Phone; Serial: N/A**

Communication System: GSM850; Frequency: 836.6 MHz; Duty Cycle: 1:8

Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.89$  mho/m;  $\epsilon_r = 39.7$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Air Temperature: 24.5 deg C; Liquid Temperature: 23.5 deg C

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1763; ConvF(6.46, 6.46, 6.46); Calibrated: 3/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection) Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 8/24/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.3 Build 16; Postprocessing SW: SEMCAD, V1.8 Build 123

**Cheek Middle CH190/Area Scan (6x10x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.315 mW/g

**Cheek Middle CH190/Z Scan (1x1x21):** Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 0.322 mW/g

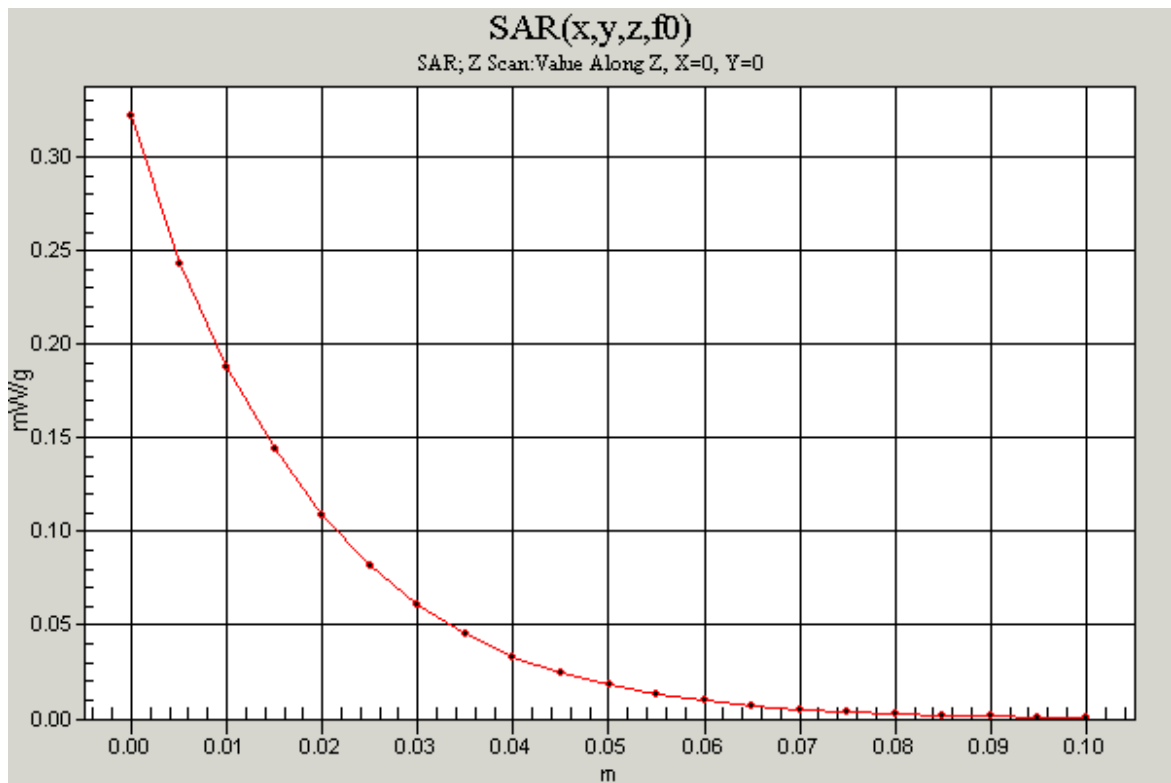
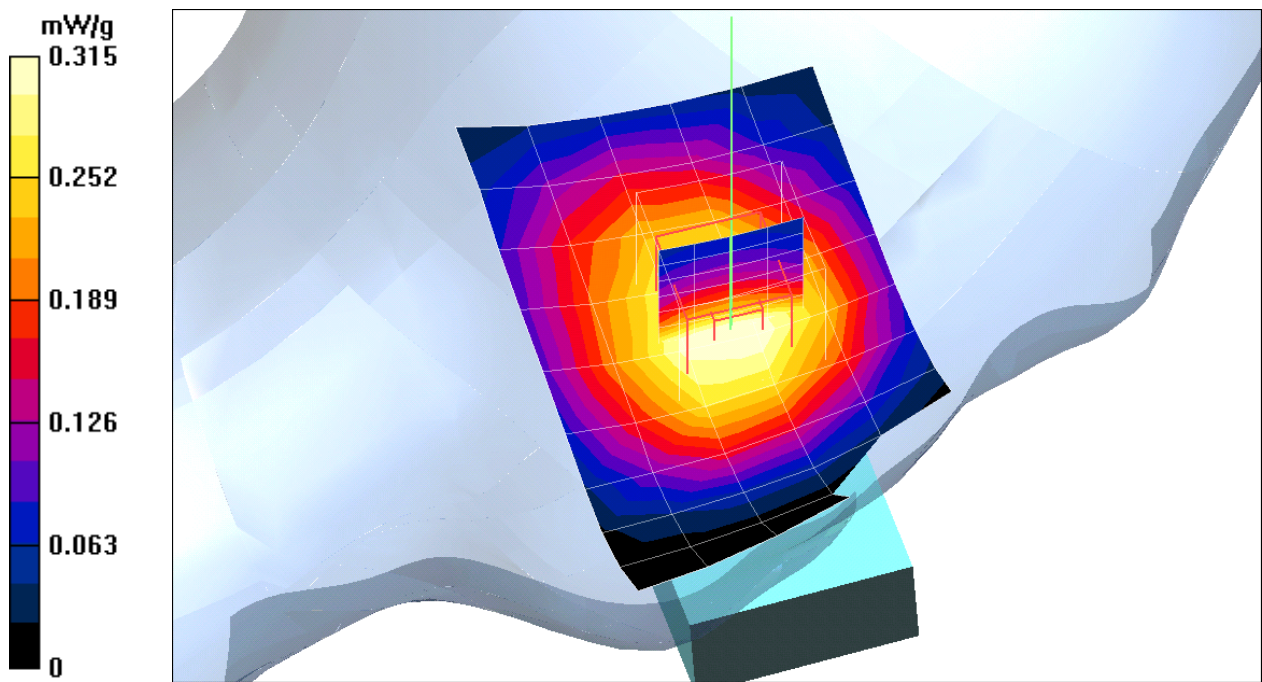
**Cheek Middle CH190/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 17.5 V/m; Power Drift = -0.1 dB

Peak SAR (extrapolated) = 0.404 W/kg

**SAR(1 g) = 0.308 mW/g; SAR(10 g) = 0.226 mW/g**

Maximum value of SAR (measured) = 0.324 mW/g



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## **GSM 1900-Left**

**DUT: ST-20L; Type: GSM Dual Band Mobile Phone; Serial: N/A**

Communication System: PCS 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8

Medium parameters used:  $f = 1909.8$  MHz;  $\sigma = 1.46$  mho/m;  $\epsilon_r = 41.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Air Temperature: 25.0 deg C; Liquid Temperature: 24.0 deg C

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1763; ConvF(5.34, 5.34, 5.34); Calibrated: 3/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection) Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 8/24/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.3 Build 16; Postprocessing SW: SEMCAD, V1.8 Build 123

**Tilted High CH810/Area Scan (6x10x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.398 mW/g

**Tilted High CH810/Z Scan (1x1x21):** Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 0.359 mW/g

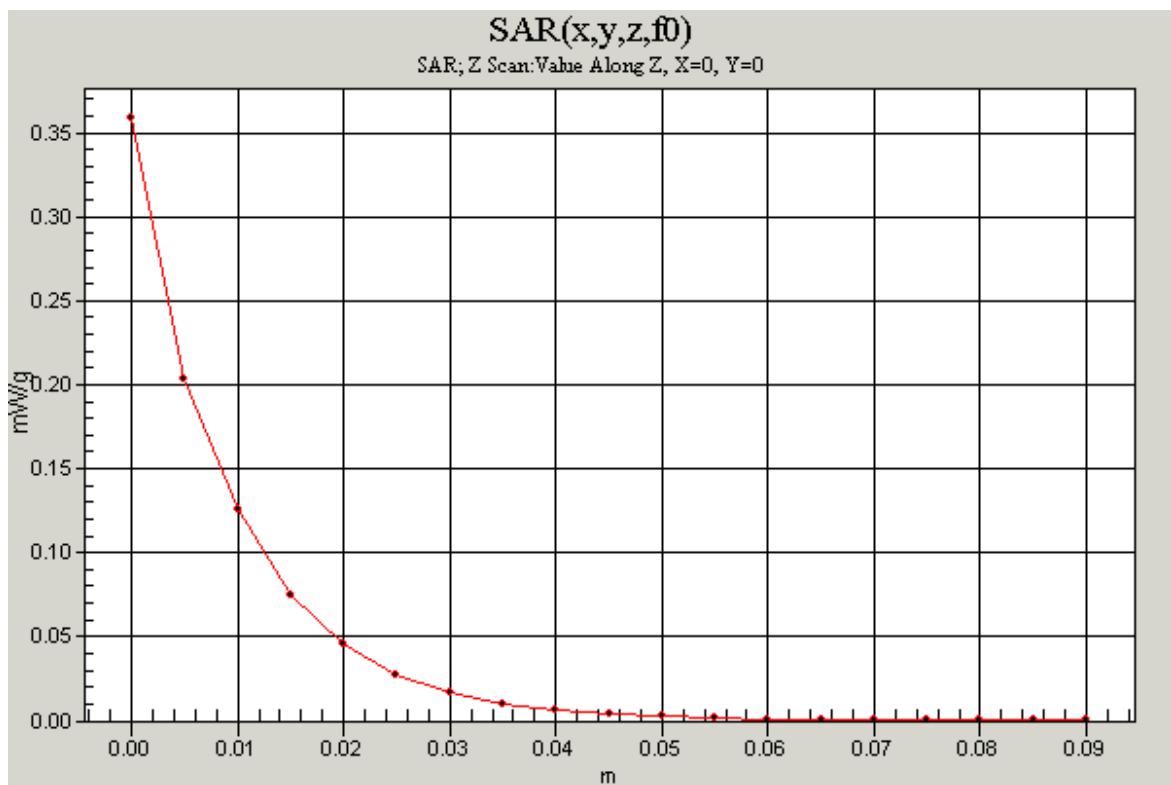
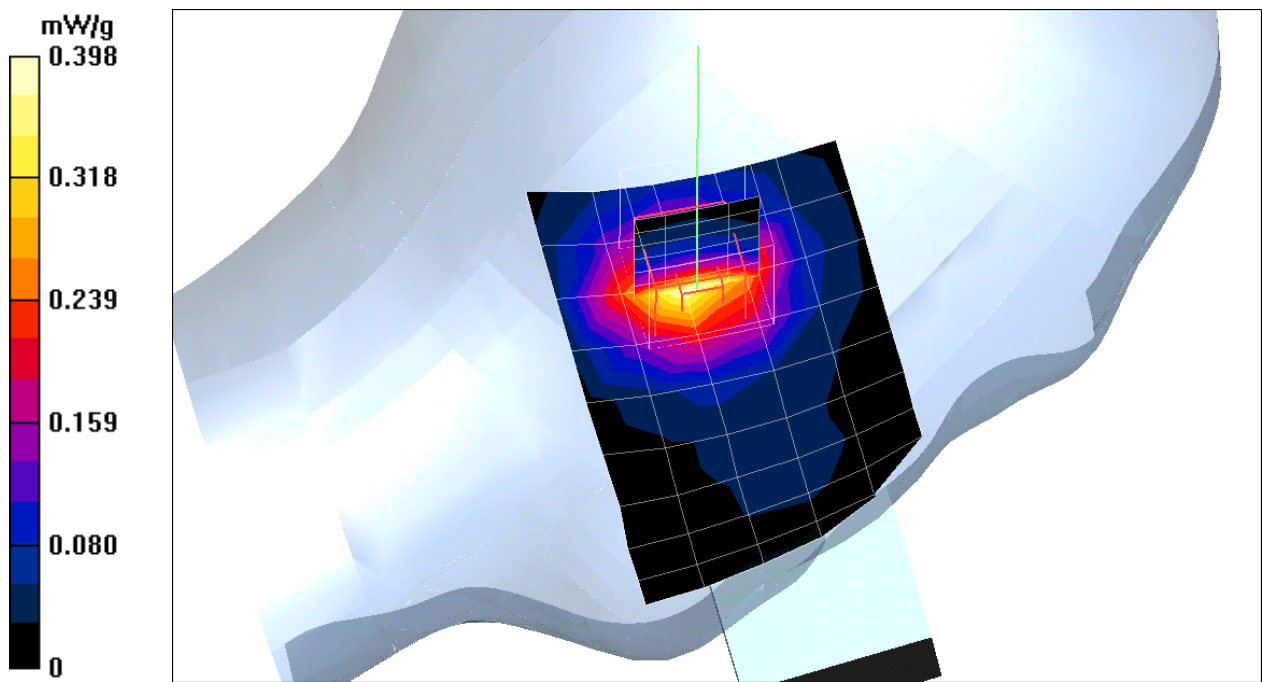
**Tilted High CH810/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 16.5 V/m; Power Drift = 0.005 dB

Peak SAR (extrapolated) = 0.645 W/kg

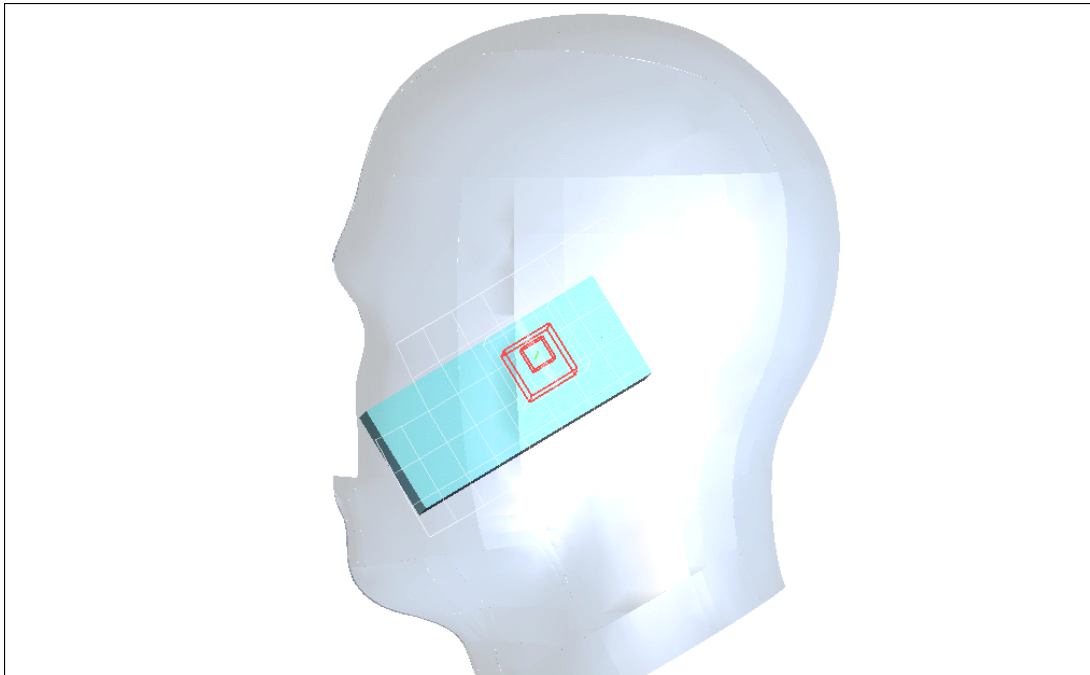
**SAR(1 g) = 0.367 mW/g; SAR(10 g) = 0.203 mW/g**

Maximum value of SAR (measured) = 0.408 mW/g



Test Laboratory: Compliance Certification Services Inc.

# Right Head



Test Laboratory: Compliance Certification Services Inc.

## **GSM 850-Right**

**DUT: ST-20L; Type: GSM Dual Band Mobile Phone; Serial: N/A**

Communication System: GSM850; Frequency: 836.6 MHz; Duty Cycle: 1:8

Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.89$  mho/m;  $\epsilon_r = 39.7$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Air Temperature: 24.5 deg C; Liquid Temperature: 23.5 deg C

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1763; ConvF(6.46, 6.46, 6.46); Calibrated: 3/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection) Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 8/24/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.3 Build 16; Postprocessing SW: SEMCAD, V1.8 Build 123

**Cheek Middle CH190/Area Scan (6x10x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.363 mW/g

**Cheek Middle CH190/Z Scan (1x1x21):** Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 0.378 mW/g

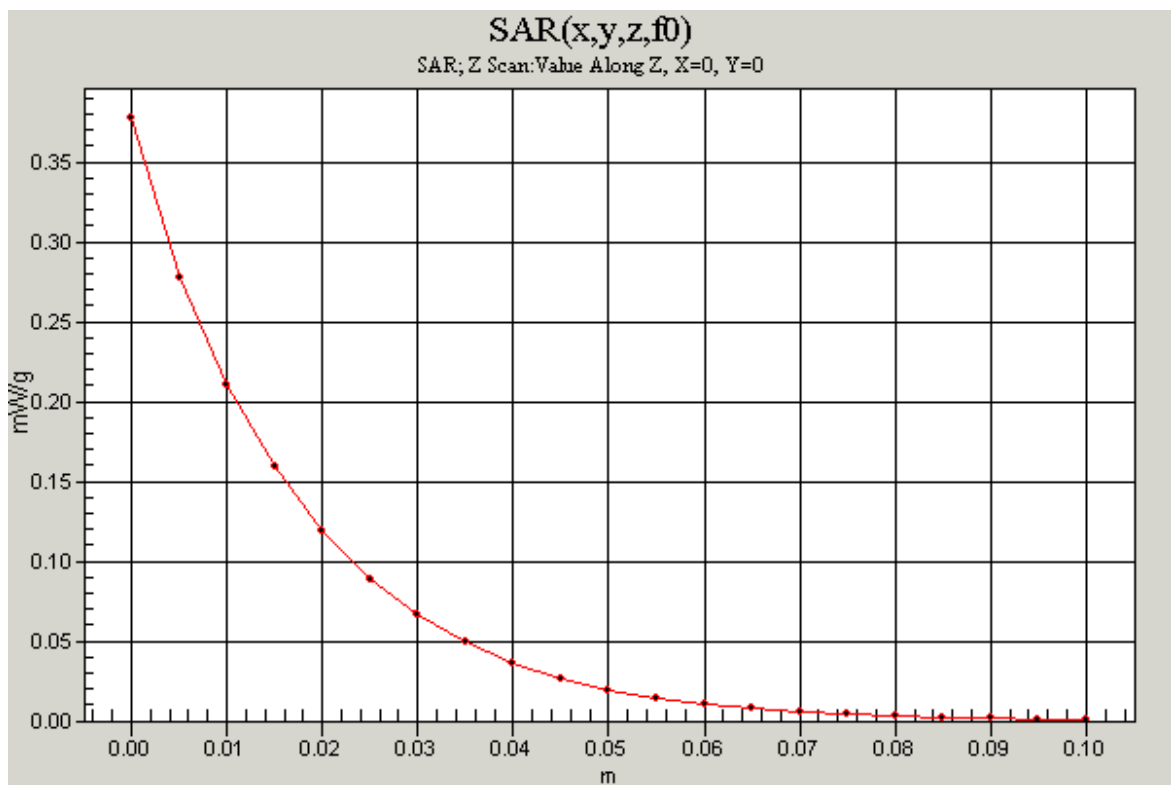
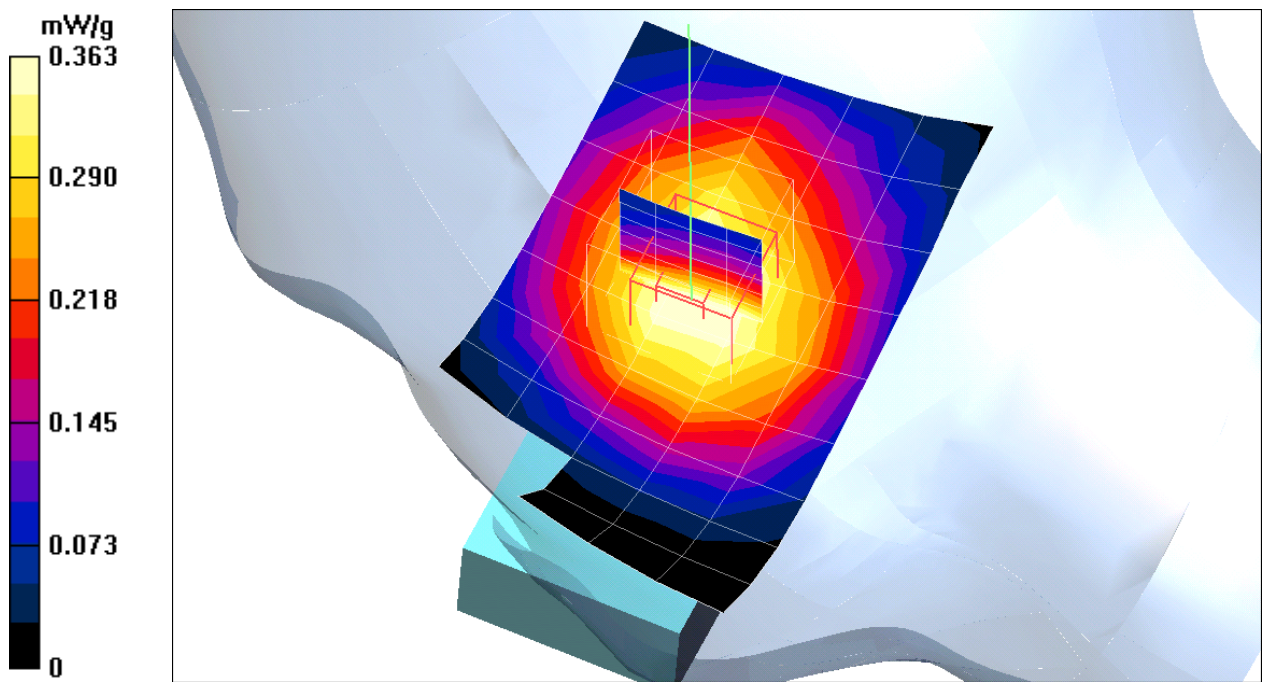
**Cheek Middle CH190/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 12.9 V/m; Power Drift = -0.2 dB

Peak SAR (extrapolated) = 0.525 W/kg

**SAR(1 g) = 0.357 mW/g; SAR(10 g) = 0.261 mW/g**







Test Laboratory: Compliance Certification Services Inc.

## **GSM 1900-Right**

**DUT: ST-20L; Type: GSM Dual Band Mobile Phone; Serial: N/A**

Communication System: PCS 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8

Medium parameters used:  $f = 1909.8$  MHz;  $\sigma = 1.46$  mho/m;  $\epsilon_r = 41.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Air Temperature: 25.0 deg C; Liquid Temperature: 24.0 deg C

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1763; ConvF(5.34, 5.34, 5.34); Calibrated: 3/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection) Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 8/24/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.3 Build 16; Postprocessing SW: SEMCAD, V1.8 Build 123

**Cheek High CH810/Area Scan (6x10x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.348 mW/g

**Cheek High CH810/Z Scan (1x1x21):** Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 0.400 mW/g

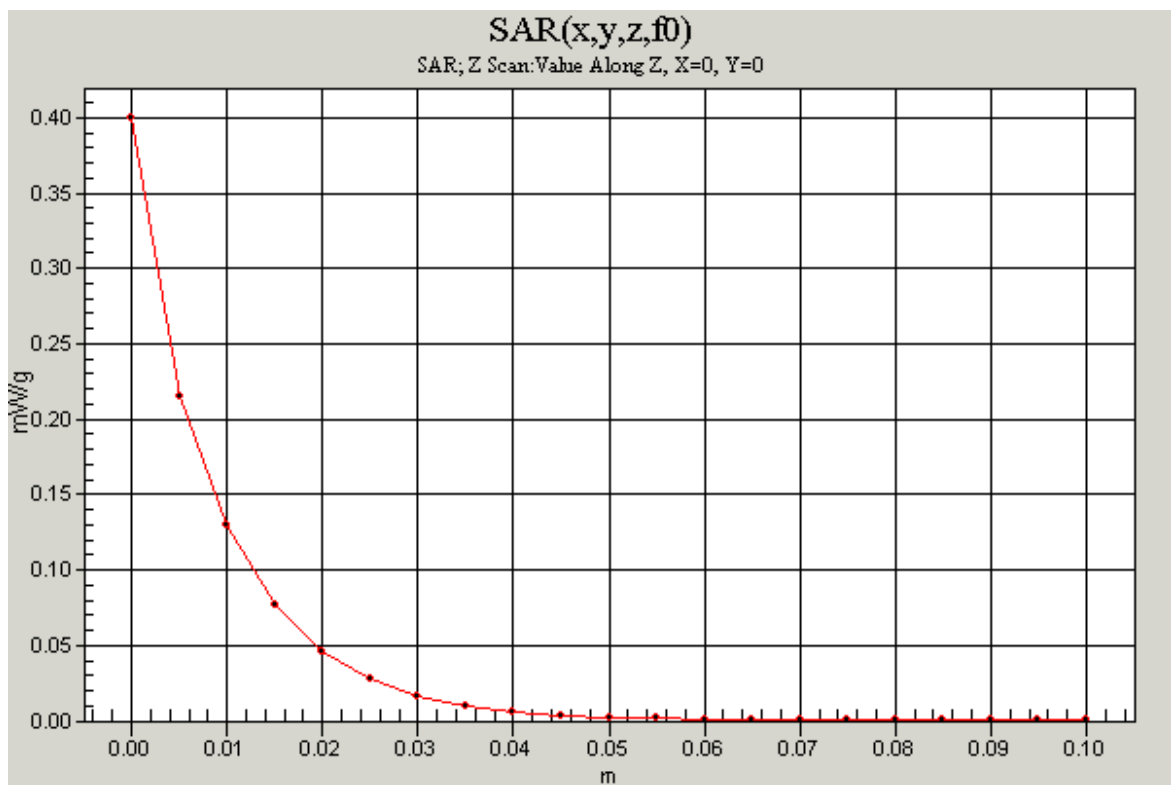
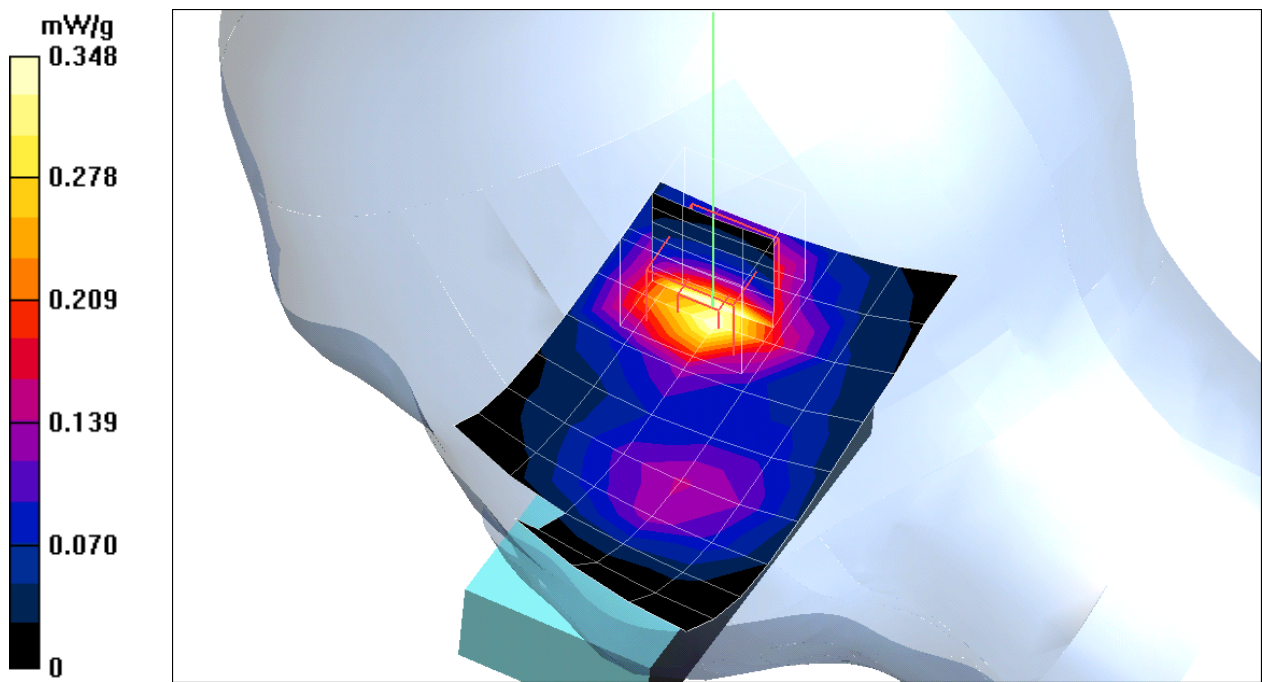
**Cheek High CH810/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.88 V/m; Power Drift = -0.0 dB

Peak SAR (extrapolated) = 0.667 W/kg

**SAR(1 g) = 0.357 mW/g; SAR(10 g) = 0.191 mW/g**

Maximum value of SAR (measured) = 0.398 mW/g



Test Laboratory: Compliance Certification Services Inc.

## **GSM 850-Right**

**DUT: ST-20A; Type: GSM Dual Band Mobile Phone; Serial: N/A**

Communication System: GSM850; Frequency: 848.8 MHz; Duty Cycle: 1:8

Medium parameters used:  $f = 848.8$  MHz;  $\sigma = 0.89$  mho/m;  $\epsilon_r = 39.7$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Air Temperature: 24.5 deg C; Liquid Temperature: 23.5 deg C

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1763; ConvF(6.46, 6.46, 6.46); Calibrated: 3/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection) Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 8/24/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.3 Build 16; Postprocessing SW: SEMCAD, V1.8 Build 123

### **co-location Cheek High CH251 with BT+GSM/Area Scan (6x10x1):**

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.415 mW/g

### **co-location Cheek High CH251 with BT+GSM/Z Scan (1x1x21):**

Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 0.436 mW/g

### **co-location Cheek High CH251 with BT+GSM/Zoom Scan (5x5x7)/Cube**

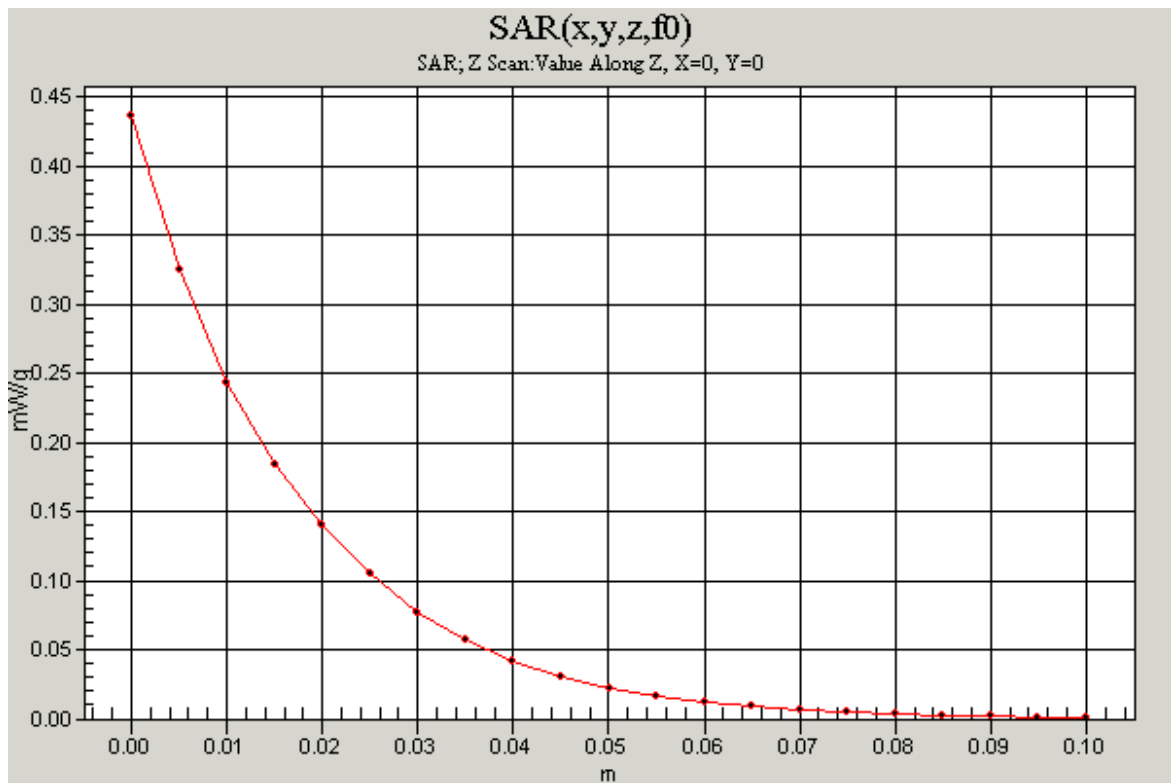
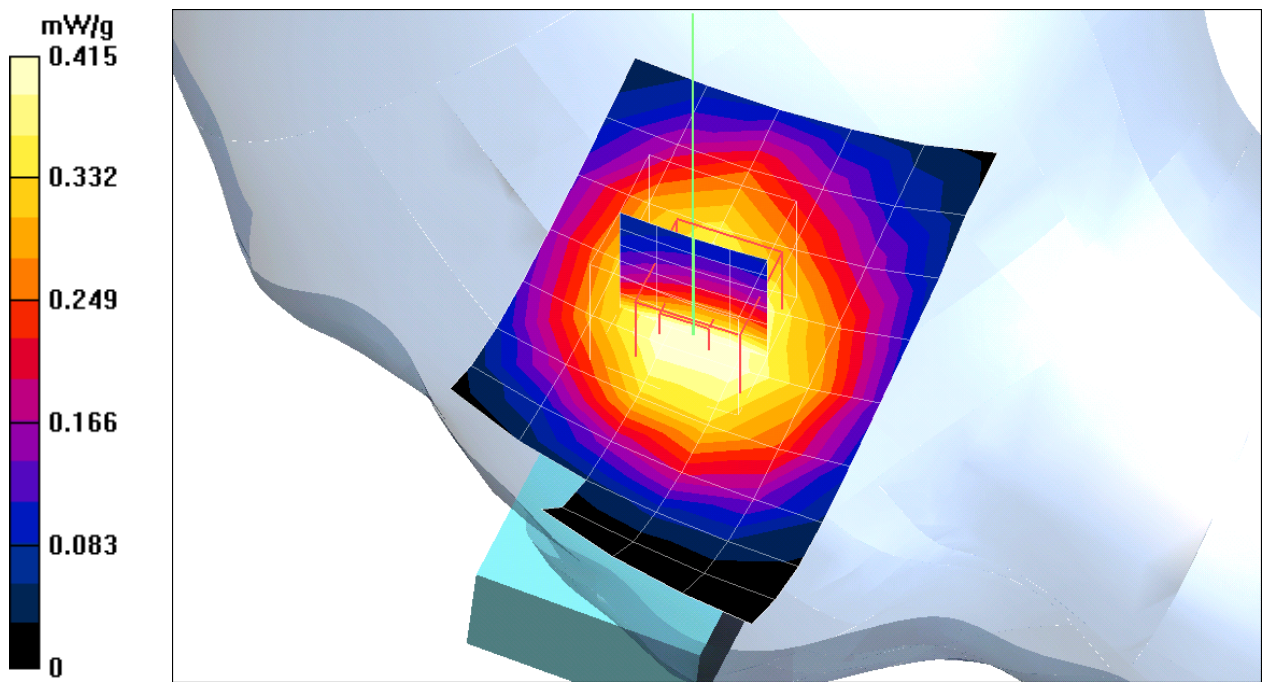
**0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 12.4 V/m; Power Drift = -0.2 dB

Peak SAR (extrapolated) = 0.600 W/kg

**SAR(1 g) = 0.413 mW/g; SAR(10 g) = 0.305 mW/g**

Maximum value of SAR (measured) = 0.437 mW/g



Test Laboratory: Compliance Certification Services Inc.

## **GSM 1900-Right**

**DUT: ST-20L; Type: GSM Dual Band Mobile Phone; Serial: N/A**

Communication System: PCS 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8

Medium parameters used:  $f = 1909.8$  MHz;  $\sigma = 1.46$  mho/m;  $\epsilon_r = 41.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Air Temperature: 25.0 deg C; Liquid Temperature: 24.0 deg C

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1763; ConvF(5.34, 5.34, 5.34); Calibrated: 3/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection) Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 8/24/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.3 Build 16; Postprocessing SW: SEMCAD, V1.8 Build 123

**Tilted High CH810/Area Scan (6x10x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.414 mW/g

**Tilted High CH810/Z Scan (1x1x21):** Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 0.429 mW/g

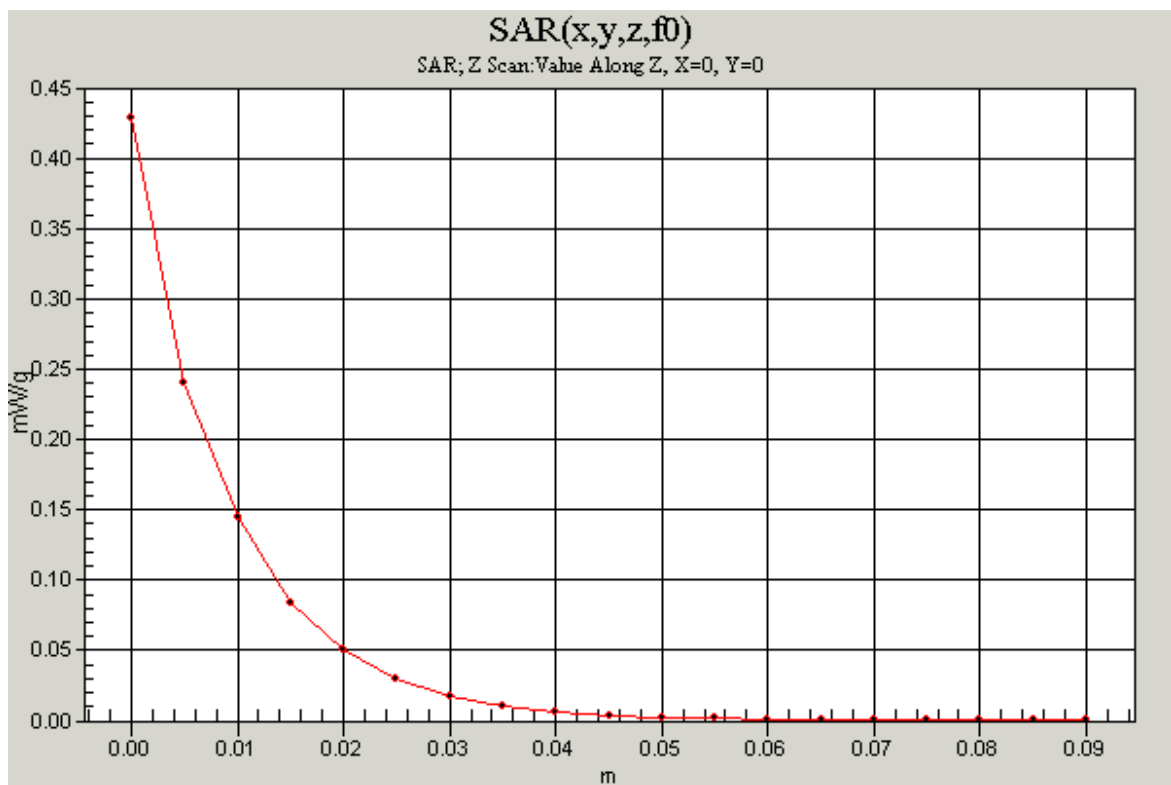
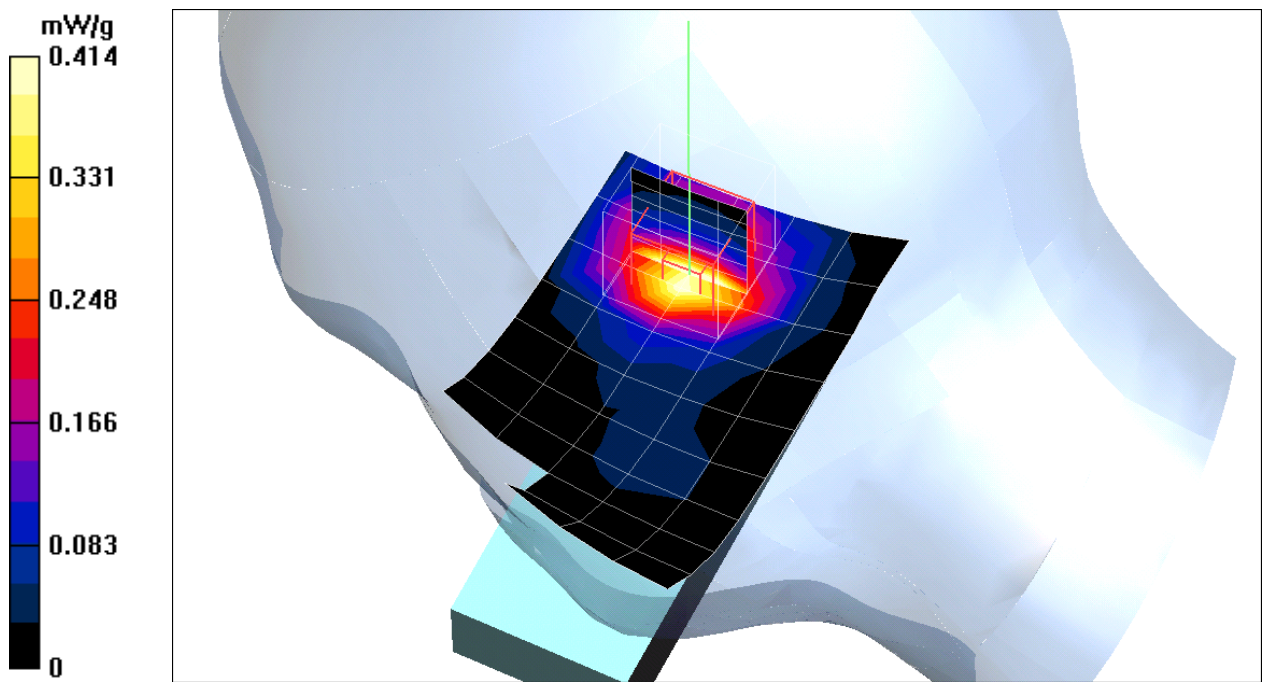
**Tilted High CH810/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 17.4 V/m; Power Drift = 0.0 dB

Peak SAR (extrapolated) = 0.810 W/kg

**SAR(1 g) = 0.439 mW/g; SAR(10 g) = 0.233 mW/g**

Maximum value of SAR (measured) = 0.495 mW/g





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## **GSM 1900-Right**

**DUT: ST-20L; Type: GSM Dual Band Mobile Phone; Serial: N/A**

Communication System: PCS 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8

Medium parameters used:  $f = 1909.8$  MHz;  $\sigma = 1.46$  mho/m;  $\epsilon_r = 41.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Air Temperature: 25.0 deg C; Liquid Temperature: 24.0 deg C

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1763; ConvF(5.34, 5.34, 5.34); Calibrated: 3/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection) Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 8/24/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.3 Build 16; Postprocessing SW: SEMCAD, V1.8 Build 123

### **co-location Tilted High CH810 with BT+GSM/Area Scan (6x10x1):**

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.410 mW/g

### **co-location Tilted High CH810 with BT+GSM/Z Scan (1x1x21):**

Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 0.418 mW/g

### **co-location Tilted High CH810 with BT+GSM/Zoom Scan (5x5x7)/Cube**

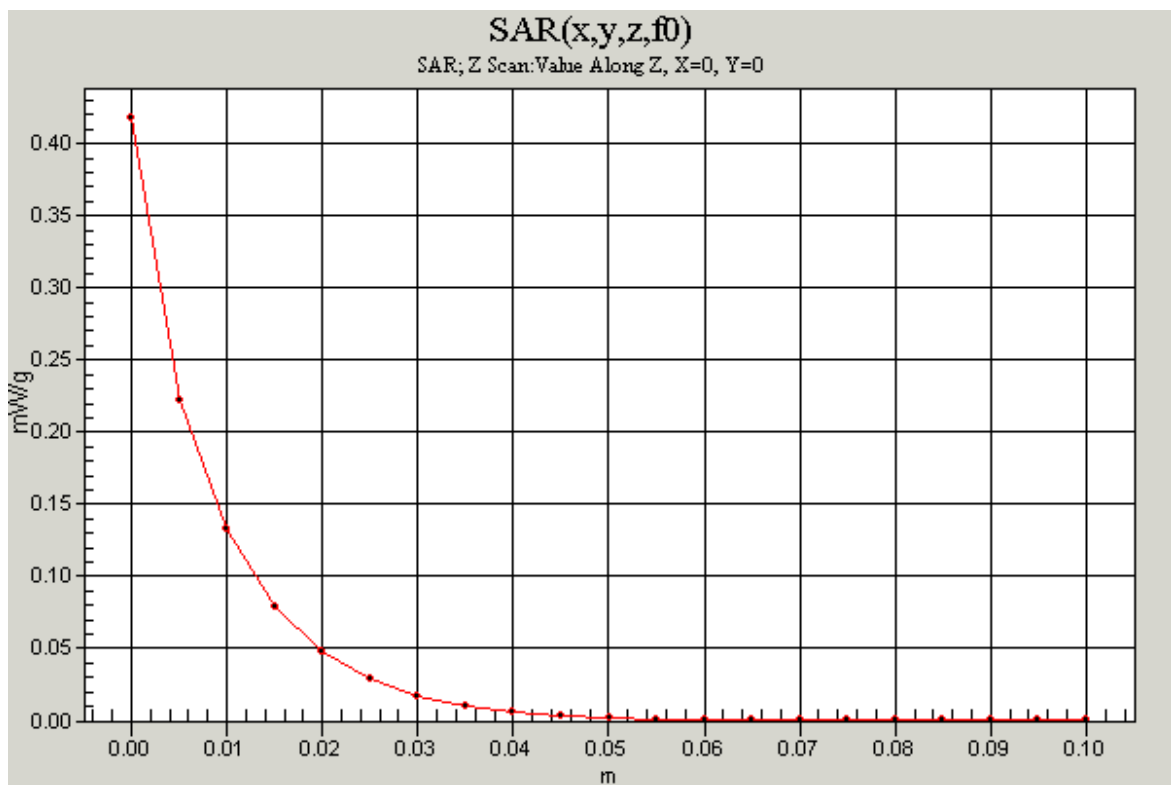
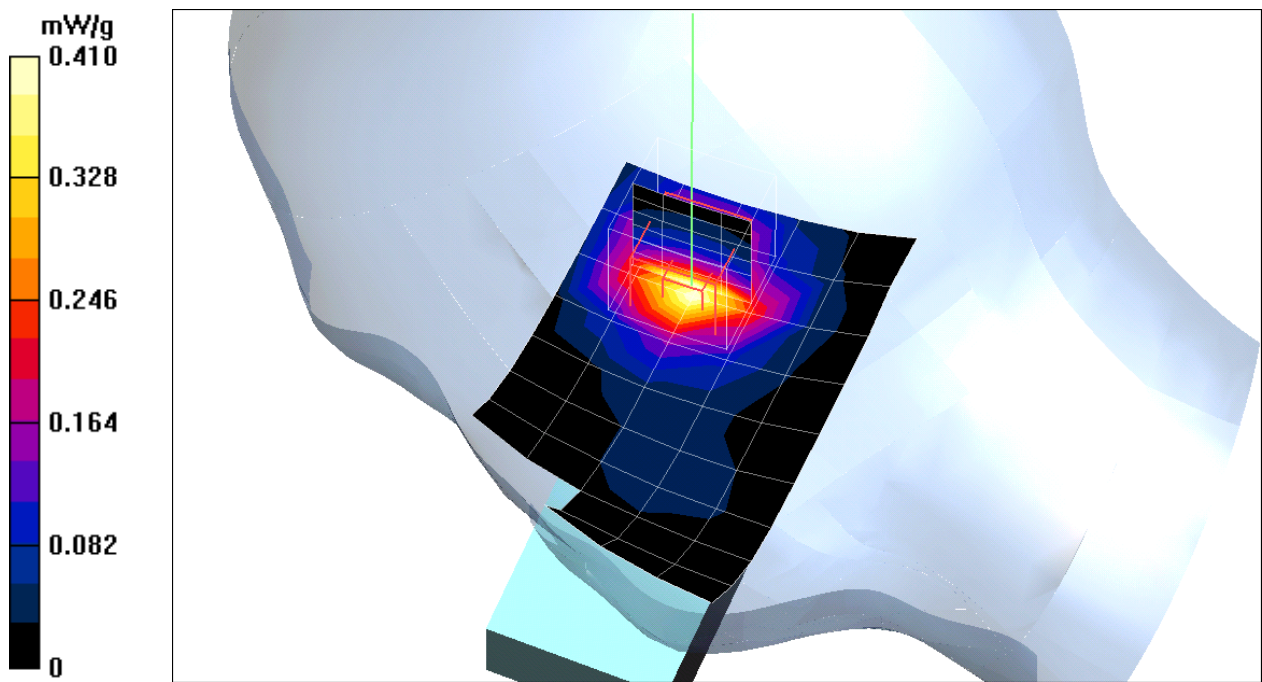
**0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 15.1 V/m; Power Drift = -0.1 dB

Peak SAR (extrapolated) = 0.694 W/kg

**SAR(1 g) = 0.377 mW/g; SAR(10 g) = 0.202 mW/g**

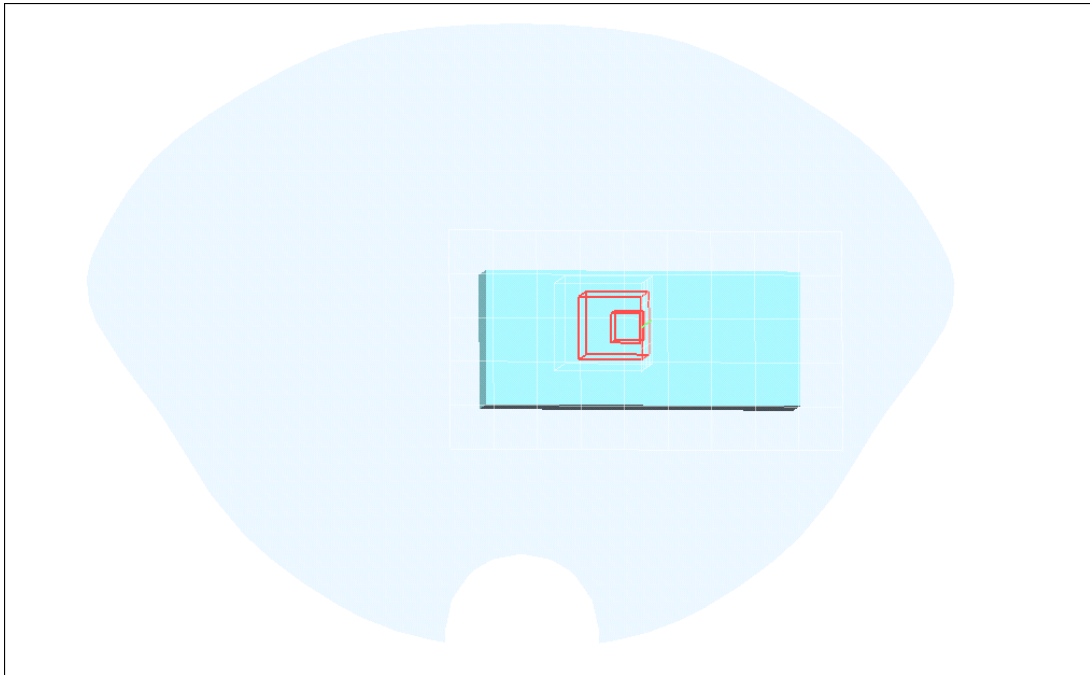
Maximum value of SAR (measured) = 0.419 mW/g





Test Laboratory: Compliance Certification Services Inc.

# Body



Test Laboratory: Compliance Certification Services Inc.

## **GSM 850-Body**

**DUT: ST-20L; Type: GSM Dual Band Mobile Phone; Serial: N/A**

Communication System: GSM850; Frequency: 836.6 MHz; Duty Cycle: 1:8

Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 1$  mho/m;  $\epsilon_r = 53$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Air Temperature: 25.0 deg C; Liquid Temperature: 24.0 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1763; ConvF(6.14, 6.14, 6.14); Calibrated: 3/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection) Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 8/24/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.3 Build 16; Postprocessing SW: SEMCAD, V1.8 Build 123

**15mm Middle CH190/Area Scan (6x10x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.684 mW/g

**15mm Middle CH190/Z Scan (1x1x21):** Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 0.727 mW/g

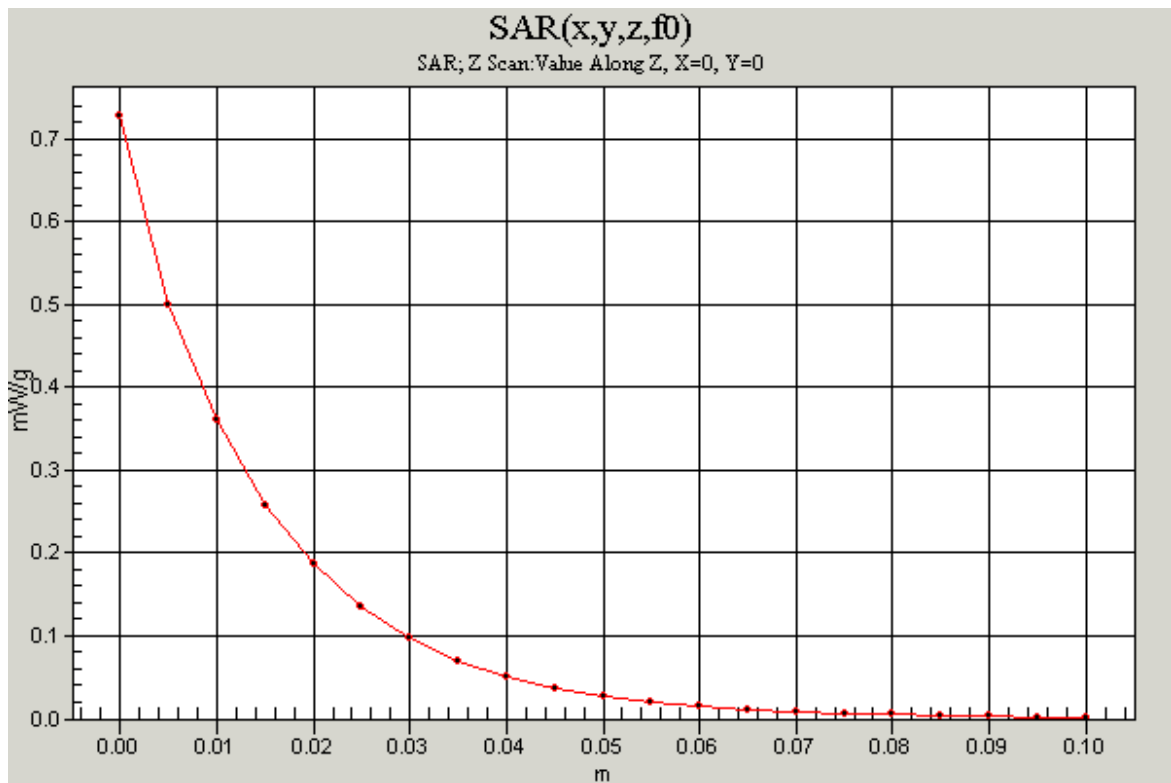
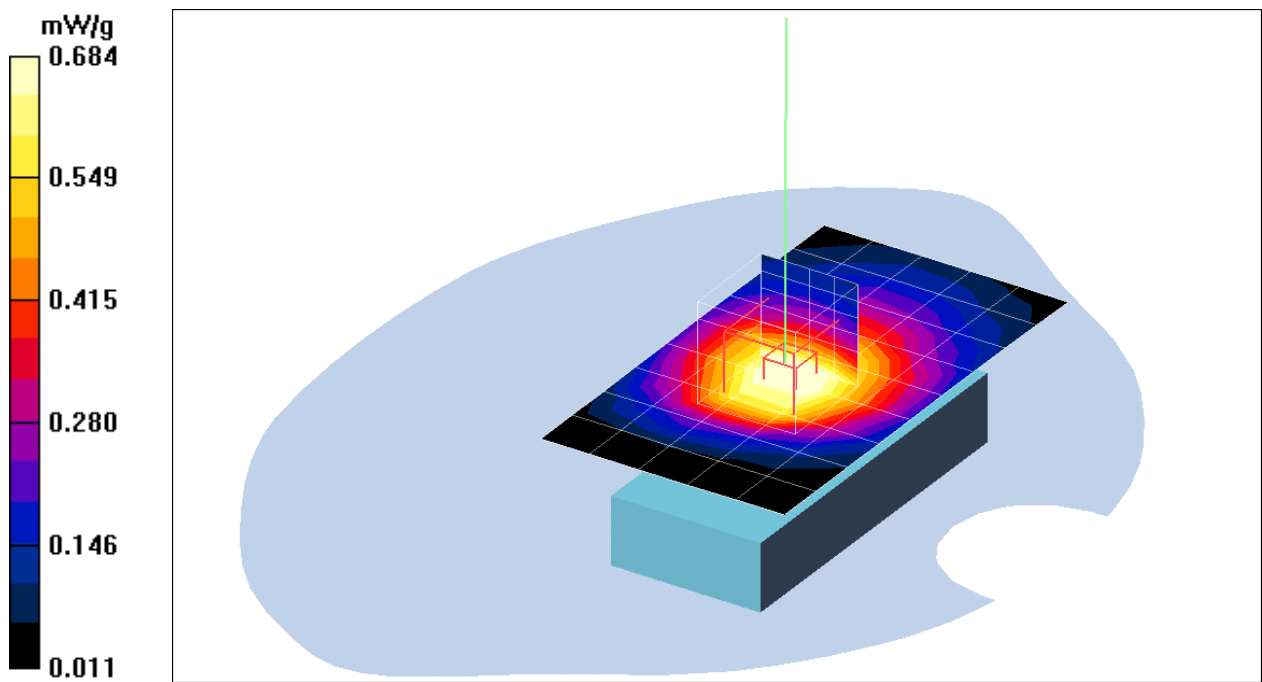
**15mm Middle CH190/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 12.3 V/m; Power Drift = -0.007 dB

Peak SAR (extrapolated) = 0.951 W/kg

**SAR(1 g) = 0.681 mW/g; SAR(10 g) = 0.469 mW/g**

Maximum value of SAR (measured) = 0.726 mW/g



Test Laboratory: Compliance Certification Services Inc.

## **GSM 850-Body**

**DUT: ST-20L; Type: GSM Dual Band Mobile Phone; Serial: N/A**

Communication System: GSM850; Frequency: 848.8 MHz; Duty Cycle: 1:8

Medium parameters used:  $f = 848.8$  MHz;  $\sigma = 1$  mho/m;  $\epsilon_r = 53$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Air Temperature: 25.0 deg C; Liquid Temperature: 24.0 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1763; ConvF(6.14, 6.14, 6.14); Calibrated: 3/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection) Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 8/24/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.3 Build 16; Postprocessing SW: SEMCAD, V1.8 Build 123

**15mm High CH251/Area Scan (6x10x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.955 mW/g

**15mm High CH251/Z Scan (1x1x21):** Measurement grid: dx=20mm, dy=20mm, dz=5mm

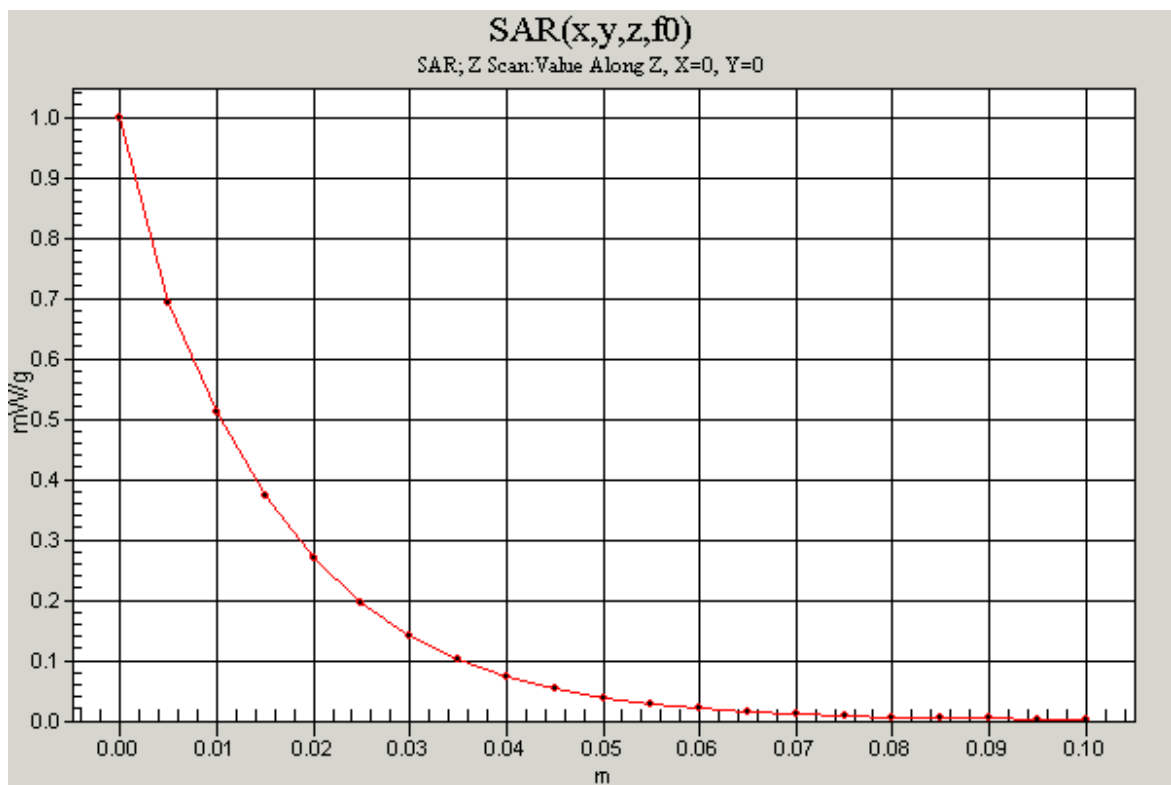
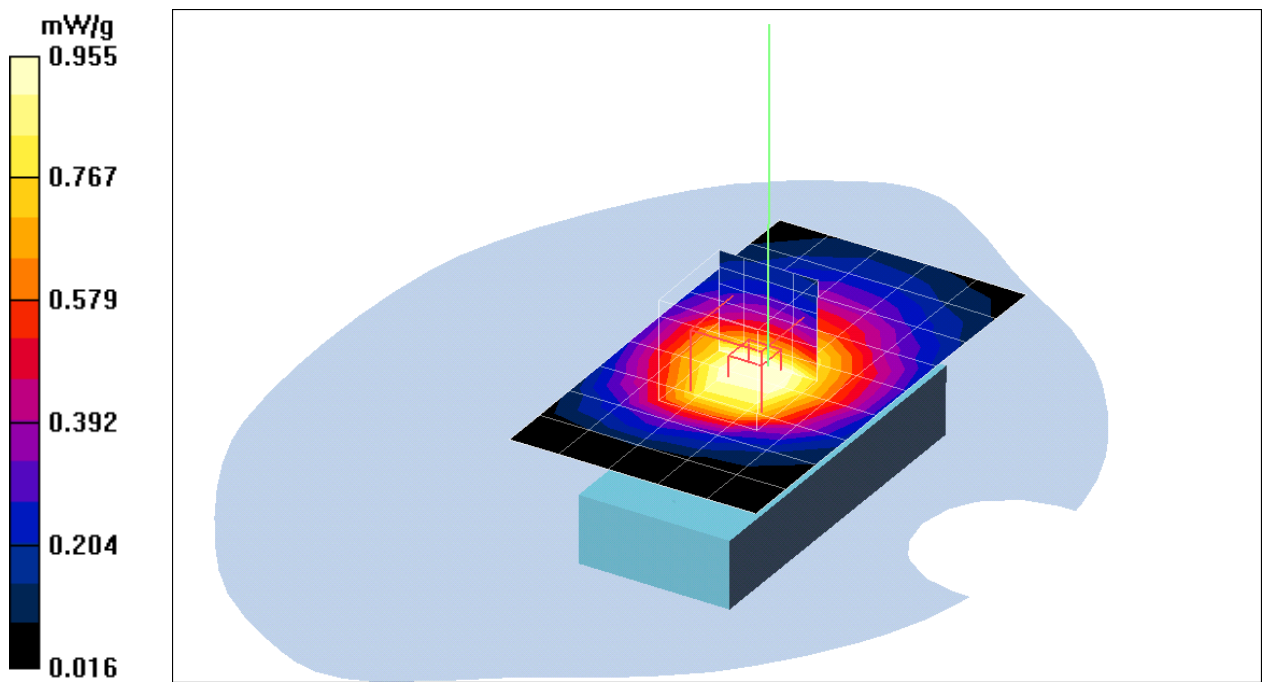
Maximum value of SAR (measured) = 0.999 mW/g

**15mm High CH251/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 14.5 V/m; Power Drift = -0.1 dB

Peak SAR (extrapolated) = 1.31 W/kg

**SAR(1 g) = 0.937 mW/g; SAR(10 g) = 0.643 mW/g**



Test Laboratory: Compliance Certification Services Inc.

## **GSM 850-Body**

**DUT: ST-20L; Type: GSM Dual Band Mobile Phone; Serial: N/A**

Communication System: GSM850; Frequency: 848.8 MHz; Duty Cycle: 1:8

Medium parameters used:  $f = 848.8$  MHz;  $\sigma = 1$  mho/m;  $\epsilon_r = 53$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Air Temperature: 25.0 deg C; Liquid Temperature: 24.0 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1763; ConvF(6.14, 6.14, 6.14); Calibrated: 3/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection) Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 8/24/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.3 Build 16; Postprocessing SW: SEMCAD, V1.8 Build 123

### **co-location 15mm High CH251 GSM+BT/Area Scan (6x8x1):**

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.06 mW/g

### **co-location 15mm High CH251 GSM+BT/Z Scan (1x1x21):** Measurement

grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 1.09 mW/g

### **co-location 15mm High CH251 GSM+BT/Zoom Scan (5x5x7)/Cube 0:**

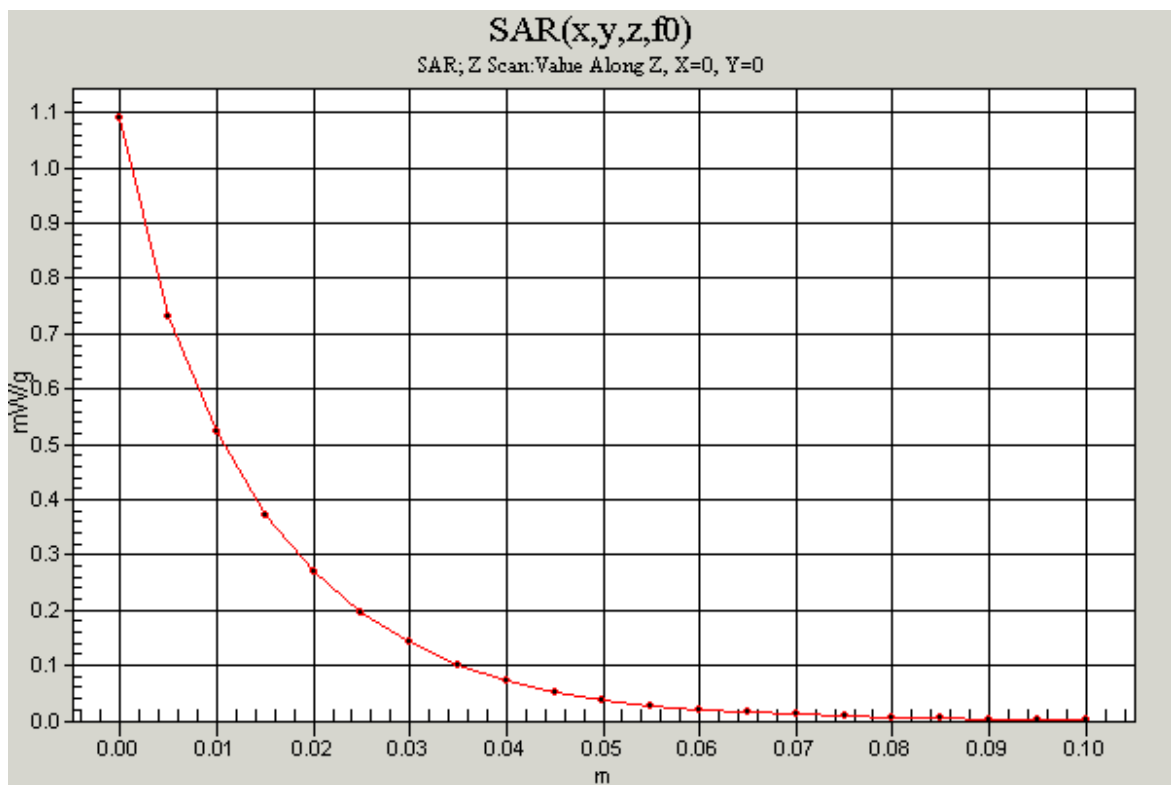
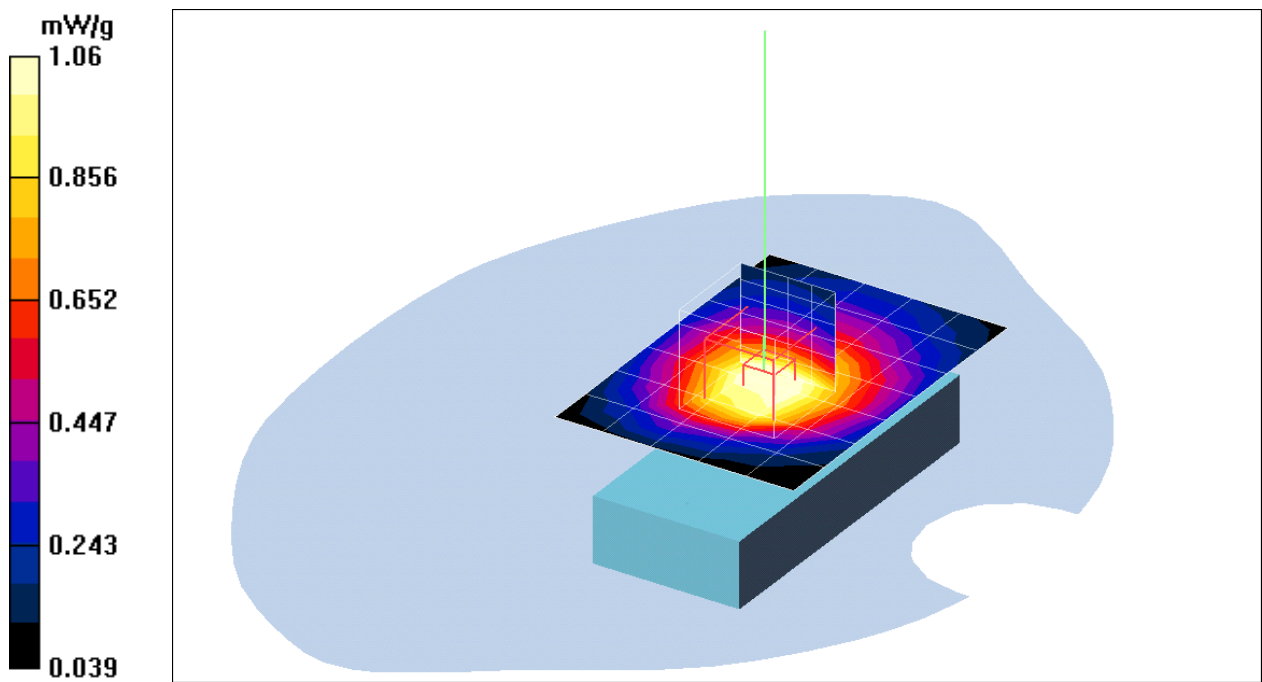
Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 16.3 V/m; Power Drift = -0.1 dB

Peak SAR (extrapolated) = 1.47 W/kg

**SAR(1 g) = 1.030 mW/g; SAR(10 g) = 0.707 mW/g**

Maximum value of SAR (measured) = 1.1 mW/g



Test Laboratory: Compliance Certification Services Inc.

## **GSM 1900-Body**

**DUT: ST-20L; Type: GSM Dual Band Mobile Phone; Serial: N/A**

Communication System: PCS 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8

Medium parameters used:  $f = 1909.8$  MHz;  $\sigma = 1.57$  mho/m;  $\epsilon_r = 51$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Air Temperature: 25.0 deg C; Liquid Temperature: 24.0 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1763; ConvF(4.66, 4.66, 4.66); Calibrated: 3/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection) Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 8/24/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.3 Build 16; Postprocessing SW: SEMCAD, V1.8 Build 123

**15mm High CH810/Area Scan (6x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.372 mW/g

**15mm High CH810/Z Scan (1x1x21):** Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 0.388 mW/g

**15mm High CH810/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

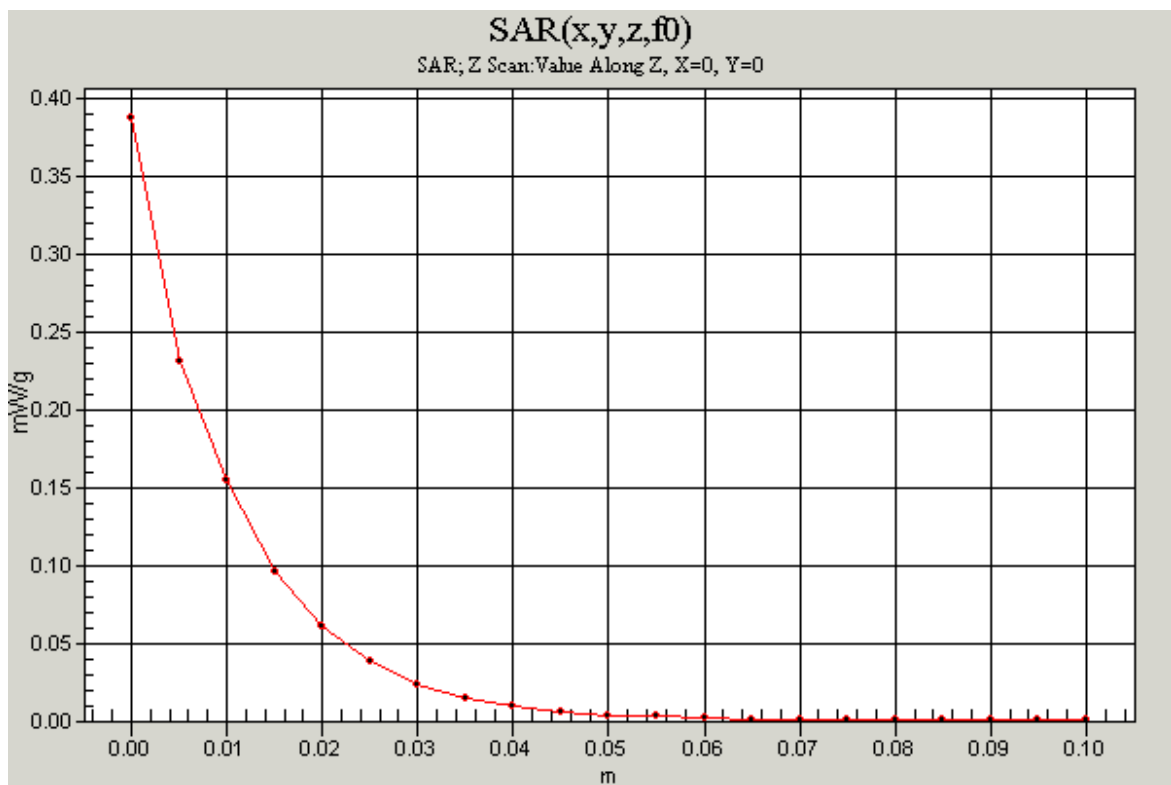
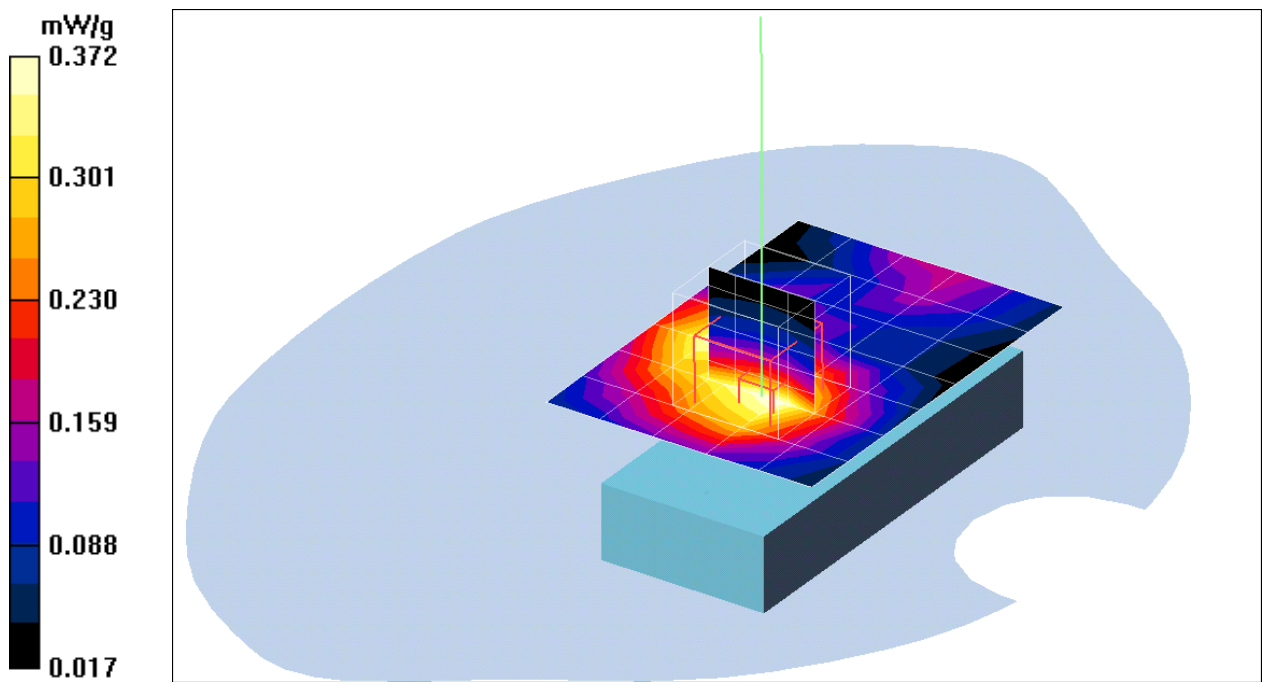
Reference Value = 14.3 V/m; Power Drift = -0.008 dB

Peak SAR (extrapolated) = 0.547 W/kg

**SAR(1 g) = 0.351 mW/g; SAR(10 g) = 0.223 mW/g**

Maximum value of SAR (measured) = 0.370 mW/g





Test Laboratory: Compliance Certification Services Inc.

## **GSM 1900-Body**

**DUT: ST-20L; Type: GSM Dual Band Mobile Phone; Serial: N/A**

Communication System: PCS 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8

Medium parameters used:  $f = 1909.8$  MHz;  $\sigma = 1.57$  mho/m;  $\epsilon_r = 51$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Air Temperature: 25.0 deg C; Liquid Temperature: 24.0 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1763; ConvF(4.66, 4.66, 4.66); Calibrated: 3/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection) Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 8/24/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.3 Build 16; Postprocessing SW: SEMCAD, V1.8 Build 123

**co-location 15mm High CH810 GSM+BT/Area Scan (6x8x1):** Measurement

grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.467 mW/g

**co-location 15mm High CH810 GSM+BT/Z Scan (1x1x21):** Measurement

grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 0.480 mW/g

**co-location 15mm High CH810 GSM+BT/Zoom Scan (5x5x7)/Cube 0:**

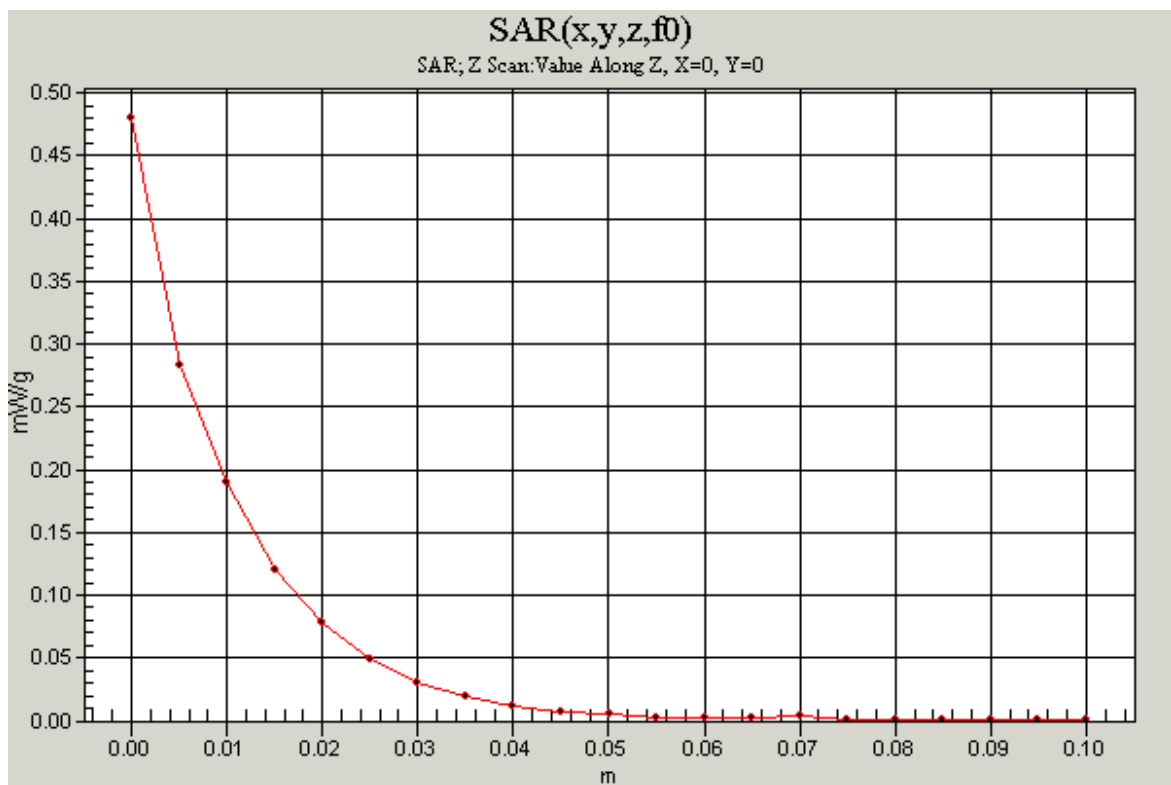
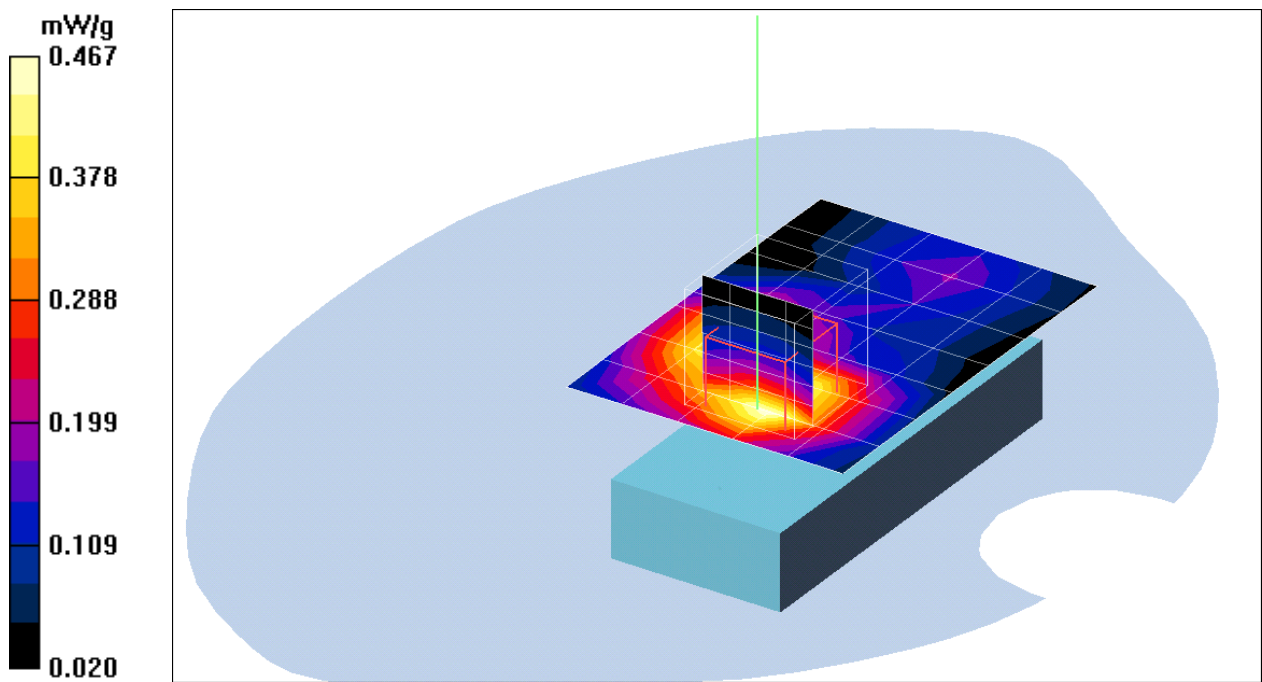
Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 16.4 V/m; Power Drift = -0.1 dB

Peak SAR (extrapolated) = 0.686 W/kg

**SAR(1 g) = 0.436 mW/g; SAR(10 g) = 0.274 mW/g**

Maximum value of SAR (measured) = 0.456 mW/g



Test Laboratory: Compliance Certification Services Inc.

## **GPRS 850-Body**

**DUT: ST-20L; Type: GSM Dual Band Mobile Phone; Serial: N/A**

Communication System: GSM 850; Frequency: 824.2 MHz; Duty Cycle: 1:4

Medium parameters used:  $f = 824.2$  MHz;  $\sigma = 1$  mho/m;  $\epsilon_r = 53$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Air Temperature: 25.0 deg C; Liquid Temperature: 24.0 deg C

Phantom section: Flat Section

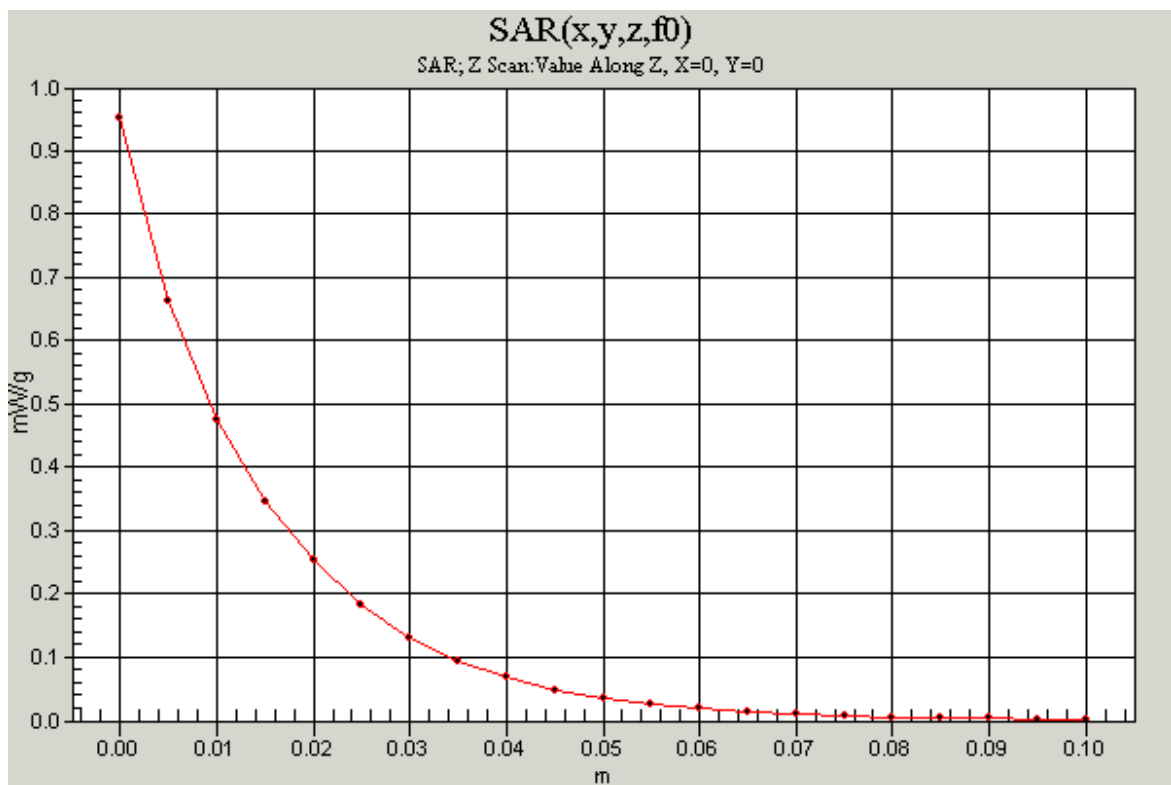
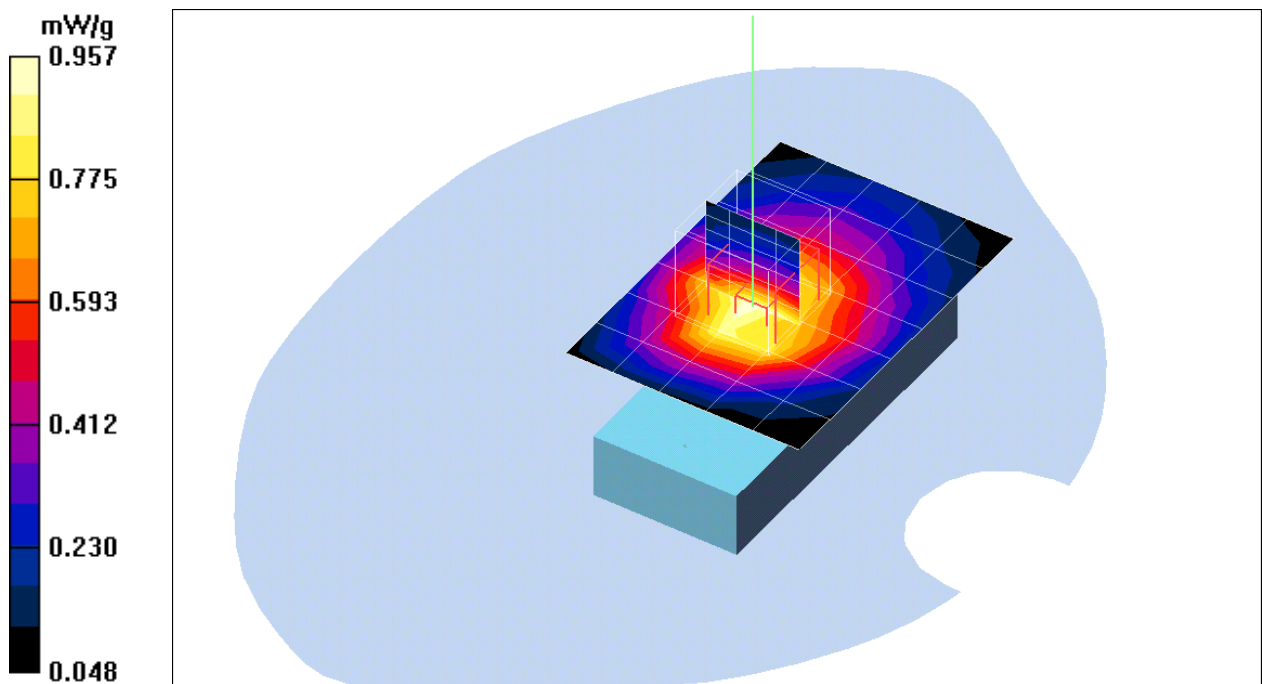
DASY4 Configuration:

- Probe: ET3DV6 - SN1763; ConvF(6.14, 6.14, 6.14); Calibrated: 3/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection) Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 8/24/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.3 Build 16; Postprocessing SW: SEMCAD, V1.8 Build 123

**15mm Low CH128/Area Scan (6x8x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 0.957 mW/g

**15mm Low CH128/Z Scan (1x1x21):** Measurement grid: dx=20mm, dy=20mm, dz=5mm  
Maximum value of SAR (measured) = 0.952 mW/g

**15mm Low CH128/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm  
Reference Value = 8.71 V/m; Power Drift = -0.1 dB  
Peak SAR (extrapolated) = 1.16 W/kg  
**SAR(1 g) = 0.884 mW/g; SAR(10 g) = 0.623 mW/g**



Test Laboratory: Compliance Certification Services Inc.

## **GPRS 850-Body**

**DUT: ST-20L; Type: GSM Dual Band Mobile Phone; Serial: N/A**

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:4

Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 1$  mho/m;  $\epsilon_r = 53$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Air Temperature: 25.0 deg C; Liquid Temperature: 24.0 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1763; ConvF(6.14, 6.14, 6.14); Calibrated: 3/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection) Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 8/24/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.3 Build 16; Postprocessing SW: SEMCAD, V1.8 Build 123

**15mm Middle CH190/Area Scan (6x10x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.3 mW/g

**15mm Middle CH190/Z Scan (1x1x21):** Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 1.32 mW/g

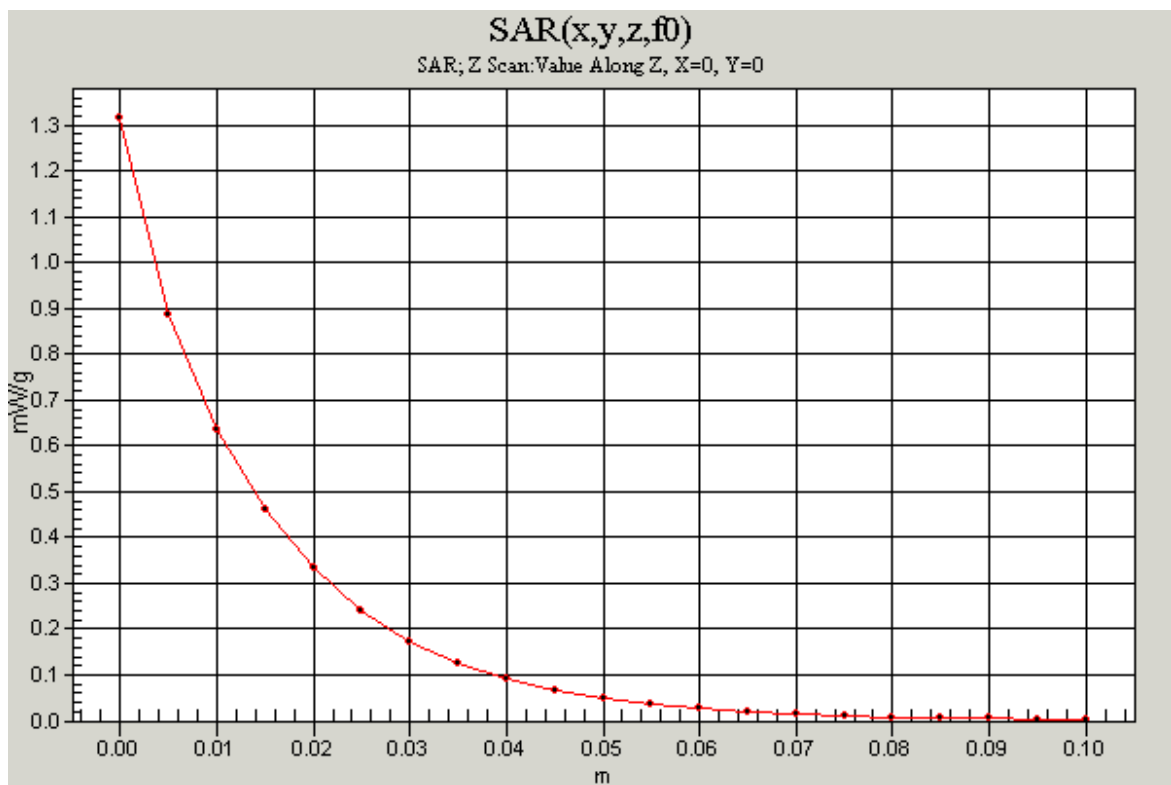
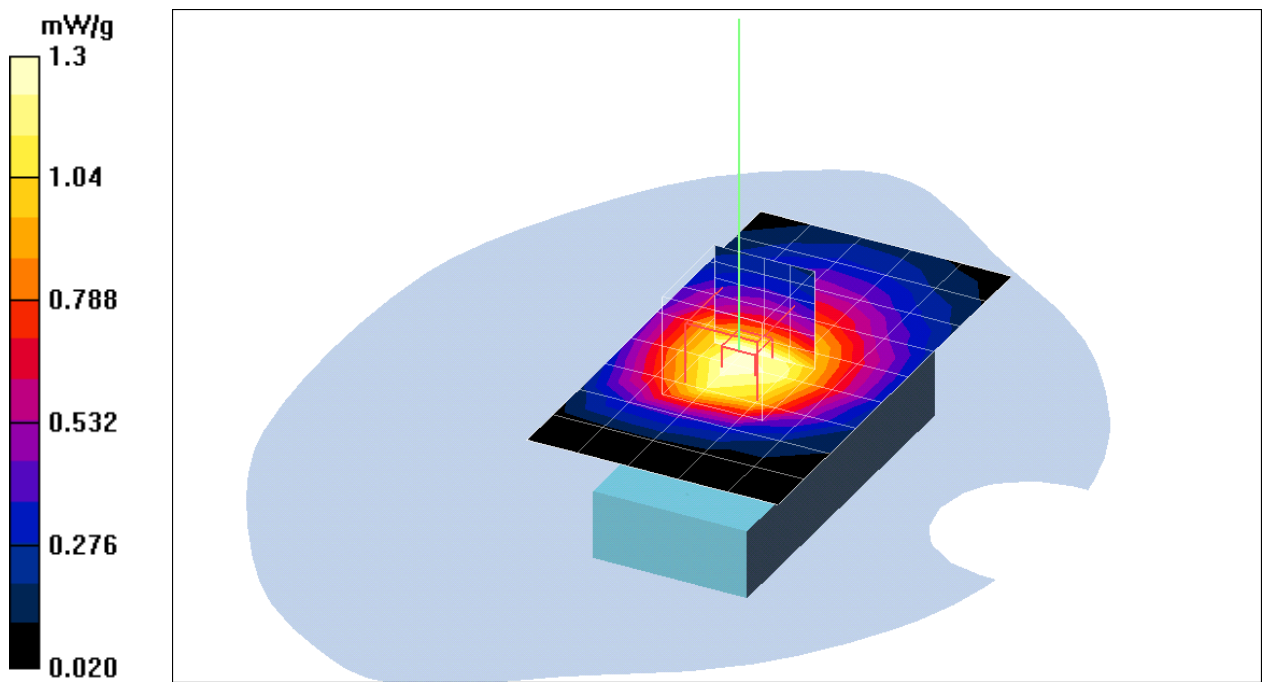
**15mm Middle CH190/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.7 V/m; Power Drift = -0.1 dB

Peak SAR (extrapolated) = 1.77 W/kg

**SAR(1 g) = 1.250 mW/g; SAR(10 g) = 0.862 mW/g**

Maximum value of SAR (measured) = 1.34 mW/g



Test Laboratory: Compliance Certification Services Inc.

## **GPRS 850-Body**

**DUT: ST-20L; Type: GSM Dual Band Mobile Phone; Serial: N/A**

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:4

Medium parameters used:  $f = 848.8$  MHz;  $\sigma = 1$  mho/m;  $\epsilon_r = 53$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Air Temperature: 25.0 deg C; Liquid Temperature: 24.0 deg C

Phantom section: Flat Section

DASY4 Configuration:

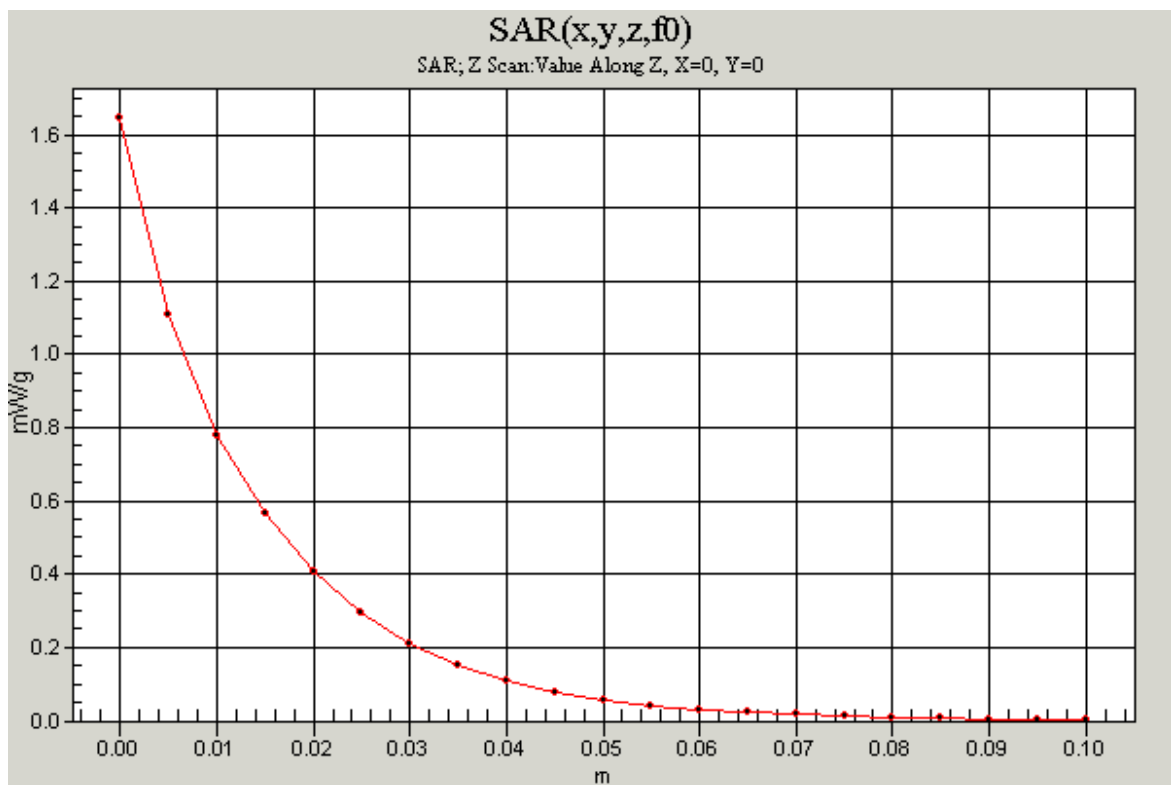
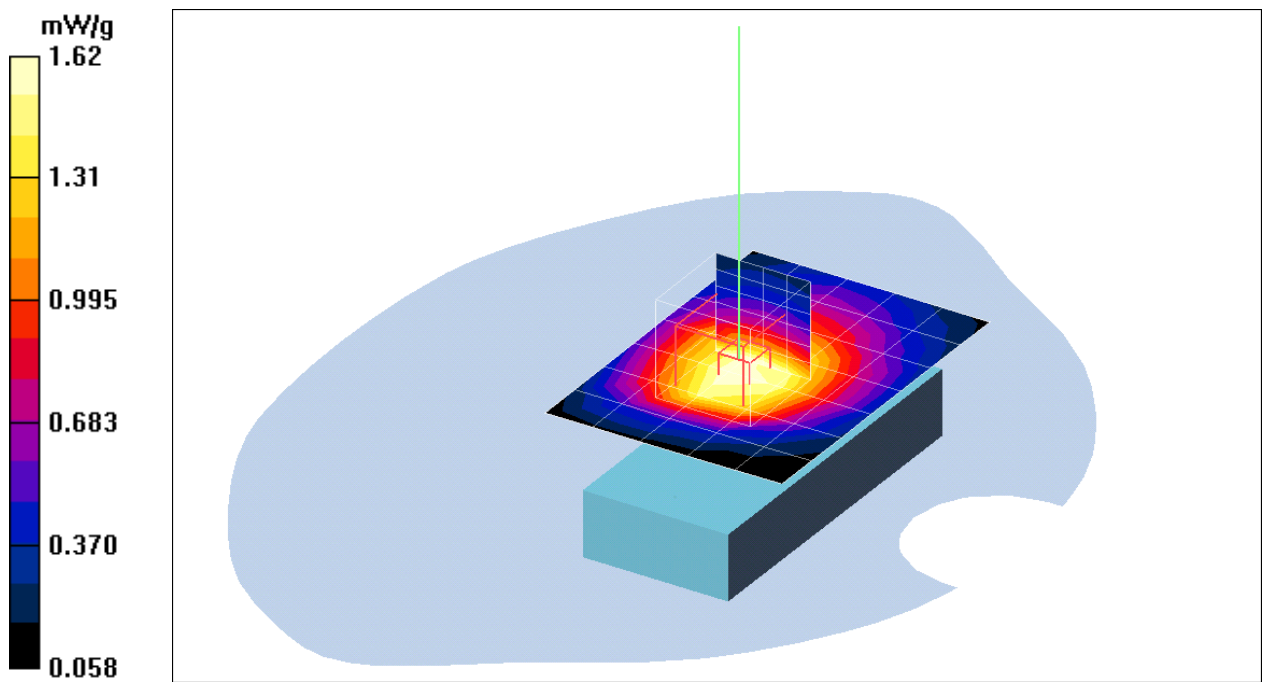
- Probe: ET3DV6 - SN1763; ConvF(6.14, 6.14, 6.14); Calibrated: 3/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection) Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 8/24/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.3 Build 16; Postprocessing SW: SEMCAD, V1.8 Build 123

**15mm High CH251/Area Scan (6x8x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 1.62 mW/g

**15mm High CH251/Z Scan (1x1x21):** Measurement grid: dx=20mm, dy=20mm, dz=5mm  
Maximum value of SAR (measured) = 1.65 mW/g

**15mm High CH251/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  
dx=7.5mm, dy=7.5mm, dz=5mm  
Reference Value = 17.5 V/m; Power Drift = -0.2 dB  
Peak SAR (extrapolated) = 2.48 W/kg  
**SAR(1 g) = 1.560 mW/g; SAR(10 g) = 1.060 mW/g**





Test Laboratory: Compliance Certification Services Inc.

## **GPRS 850-Body**

**DUT: ST-20L; Type: GSM Dual Band Mobile Phone; Serial: N/A**

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:4

Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 1$  mho/m;  $\epsilon_r = 53$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Air Temperature: 25.0 deg C; Liquid Temperature: 24.0 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1763; ConvF(6.14, 6.14, 6.14); Calibrated: 3/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection) Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 8/24/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.3 Build 16; Postprocessing SW: SEMCAD, V1.8 Build 123

### **co-location 15mm Middle CH251 with BT+GPRS/Area Scan (6x8x1):**

Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.63 mW/g

### **co-location 15mm Middle CH251 with BT+GPRS/Z Scan (1x1x21):**

Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 1.56 mW/g

### **co-location 15mm Middle CH251 with BT+GPRS/Zoom Scan**

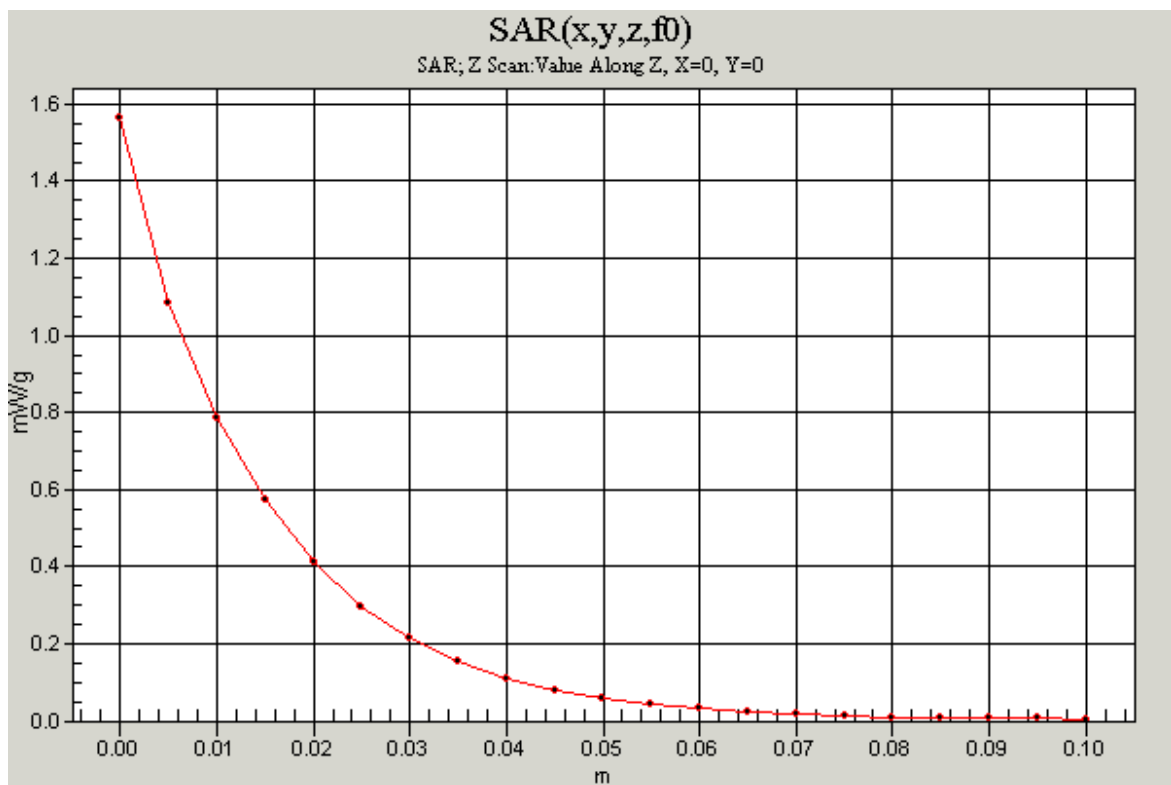
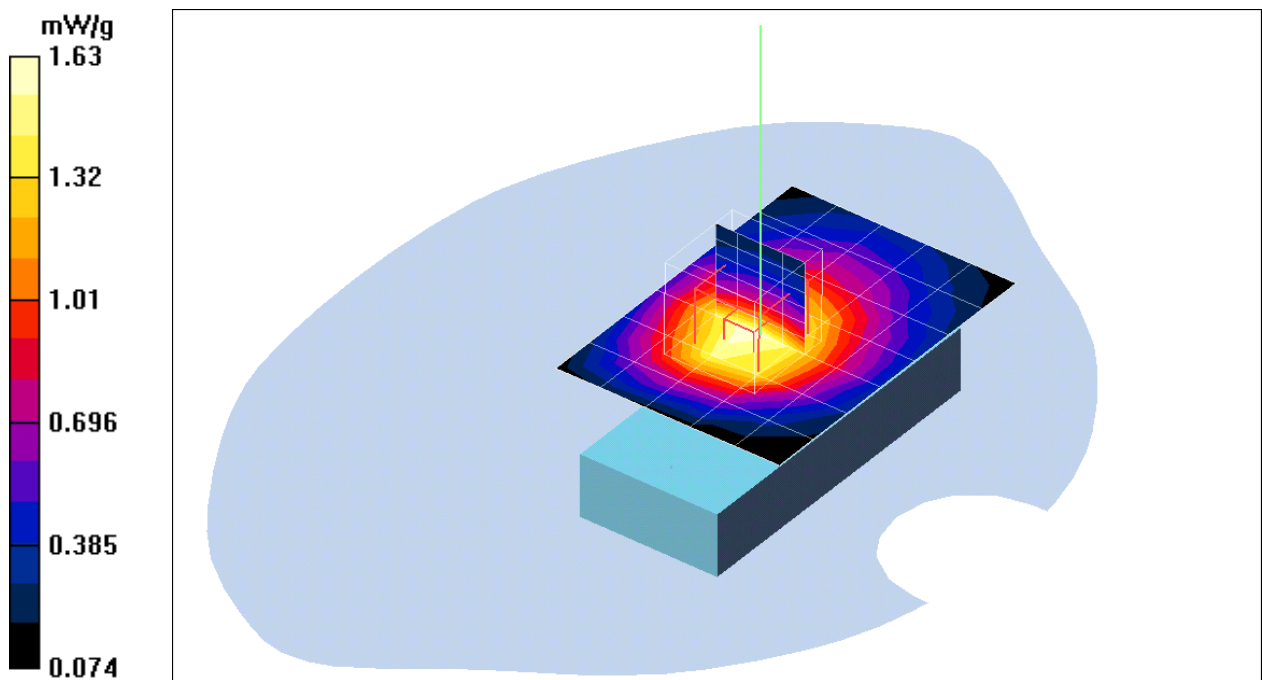
**(5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 16.3 V/m; Power Drift = -0.1 dB

Peak SAR (extrapolated) = 2.04 W/kg

**SAR(1 g) = 1.480 mW/g; SAR(10 g) = 1.030 mW/g**

Maximum value of SAR (measured) = 1.58 mW/g



Test Laboratory: Compliance Certification Services Inc.

## **GPRS 1900-Body**

**DUT: ST-20L; Type: GSM Dual Band Mobile Phone; Serial: N/A**

Communication System: PCS 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:4

Medium parameters used:  $f = 1909.8$  MHz;  $\sigma = 1.57$  mho/m;  $\epsilon_r = 51$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Air Temperature: 25.0 deg C; Liquid Temperature: 24.0 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1763; ConvF(4.66, 4.66, 4.66); Calibrated: 3/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection) Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 8/24/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.3 Build 16; Postprocessing SW: SEMCAD, V1.8 Build 123

**15mm High CH810/Area Scan (7x9x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.707 mW/g

**15mm High CH810/Z Scan (1x1x21):** Measurement grid: dx=20mm, dy=20mm, dz=5mm

Maximum value of SAR (measured) = 0.786 mW/g

**15mm High CH810/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 18.9 V/m; Power Drift = -0.0 dB

Peak SAR (extrapolated) = 1.06 W/kg

**SAR(1 g) = 0.696 mW/g; SAR(10 g) = 0.435 mW/g**

Maximum value of SAR (measured) = 0.751 mW/g

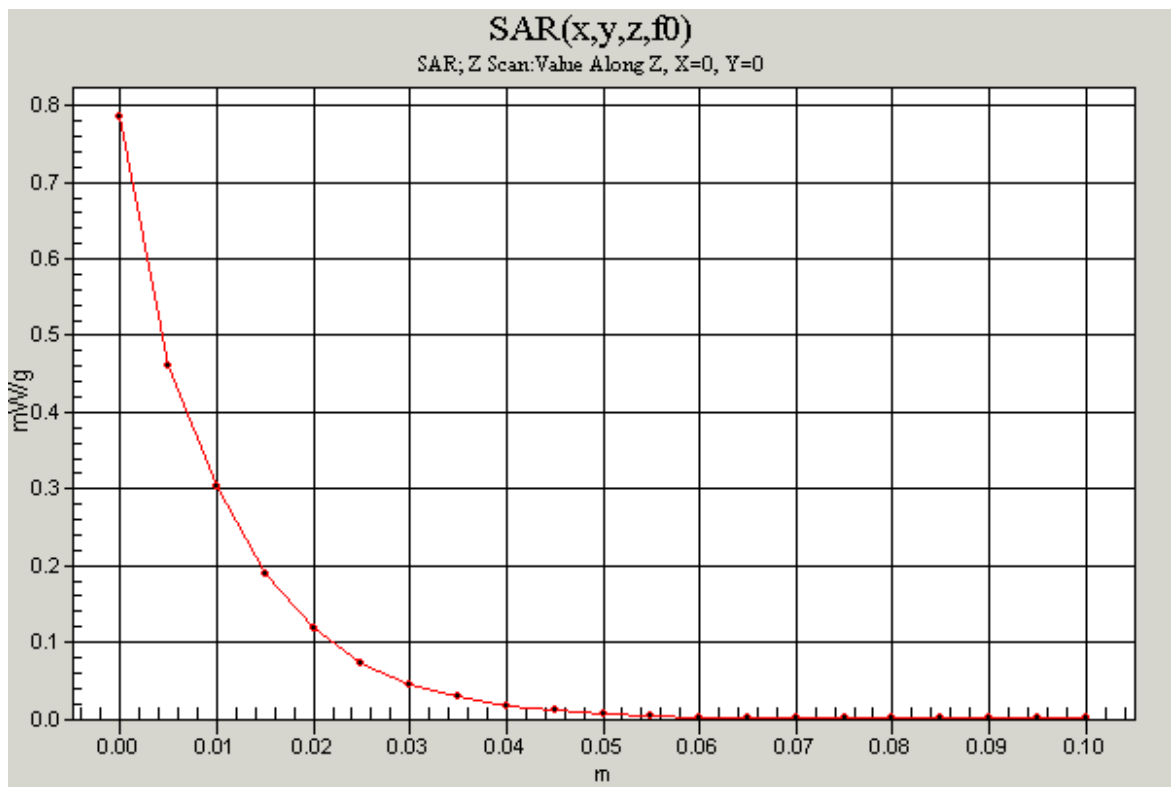
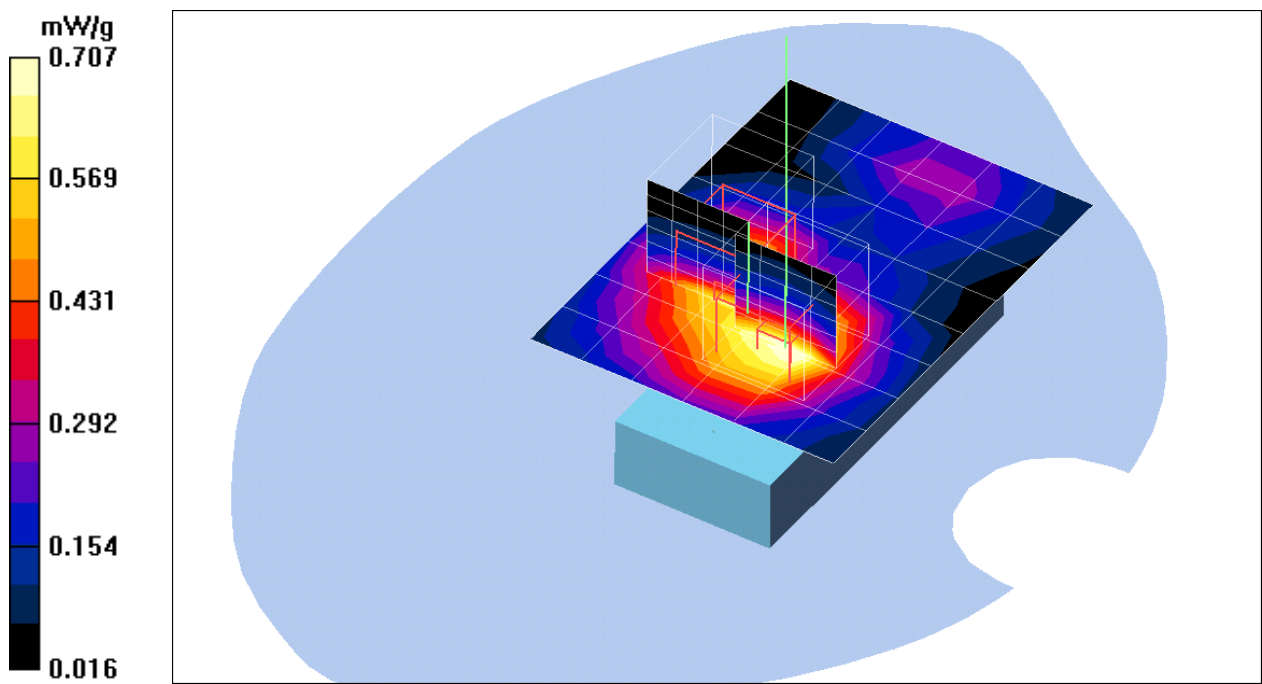
**15mm High CH810/Zoom Scan (5x5x7)/Cube 1:** Measurement grid:

dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 18.9 V/m; Power Drift = -0.0 dB

Peak SAR (extrapolated) = 1.04 W/kg

SAR(1 g) = 0.605 mW/g; SAR(10 g) = 0.366 mW/g  
Maximum value of SAR (measured) = 0.660 mW/g



Test Laboratory: Compliance Certification Services Inc.

## **GPRS 1900-Body**

**DUT: ST-20L; Type: GSM Dual Band Mobile Phone; Serial: N/A**

Communication System: PCS 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:4

Medium parameters used:  $f = 1909.8$  MHz;  $\sigma = 1.57$  mho/m;  $\epsilon_r = 51$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Air Temperature: 25.0 deg C; Liquid Temperature: 24.0 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1763; ConvF(4.66, 4.66, 4.66); Calibrated: 3/23/2004
- Sensor-Surface: 4mm (Mechanical Surface Detection) Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn558; Calibrated: 8/24/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.3 Build 16; Postprocessing SW: SEMCAD, V1.8 Build 123

**co-location 15mm High CH810 GPRS+BT/Area Scan (7x8x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 0.754 mW/g

**co-location 15mm High CH810 GPRS+BT/Z Scan (1x1x21):** Measurement grid: dx=20mm, dy=20mm, dz=5mm  
Maximum value of SAR (measured) = 0.846 mW/g

**co-location 15mm High CH810 GPRS+BT/Zoom Scan (5x5x7)/Cube 0:**  
Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm  
Reference Value = 22.4 V/m; Power Drift = -0.2 dB  
Peak SAR (extrapolated) = 1.09 W/kg  
**SAR(1 g) = 0.735 mW/g; SAR(10 g) = 0.459 mW/g**  
Maximum value of SAR (measured) = 0.811 mW/g

**co-location 15mm High CH810 GPRS+BT/Zoom Scan (5x5x7)/Cube 1:**  
Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm  
Reference Value = 22.4 V/m; Power Drift = -0.2 dB  
Peak SAR (extrapolated) = 1.09 W/kg

SAR(1 g) = 0.644 mW/g; SAR(10 g) = 0.387 mW/g  
Maximum value of SAR (measured) = 0.727 mW/g

