

Test Laboratory: Compliance Certification Services Inc.

SystemPerformanceCheck-D900

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

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

Medium parameters used: $f = 900 \text{ MHz}$; $\sigma = 0.95 \text{ mho/m}$; $\epsilon_r = 42.8$; $\rho = 1000 \text{ kg/m}^3$

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.9, 4.9, 4.9); Calibrated: 9/23/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

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

Reference Value = 55.9 V/m; Power Drift = -0.0 dB

Maximum value of SAR (measured) = 2.73 mW/g

d=15mm, Pin=250mW/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm

Reference Value = 55.9 V/m; Power Drift = -0.0 dB

Maximum value of SAR (measured) = 1.52 mW/g

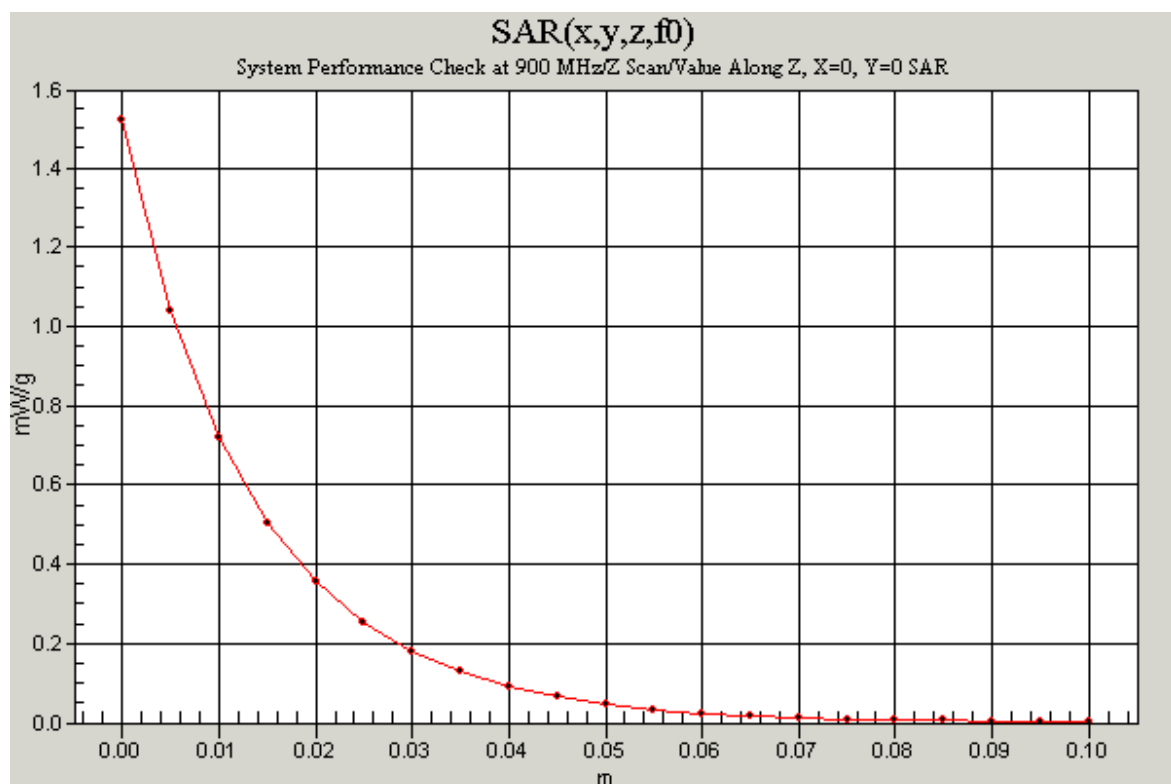
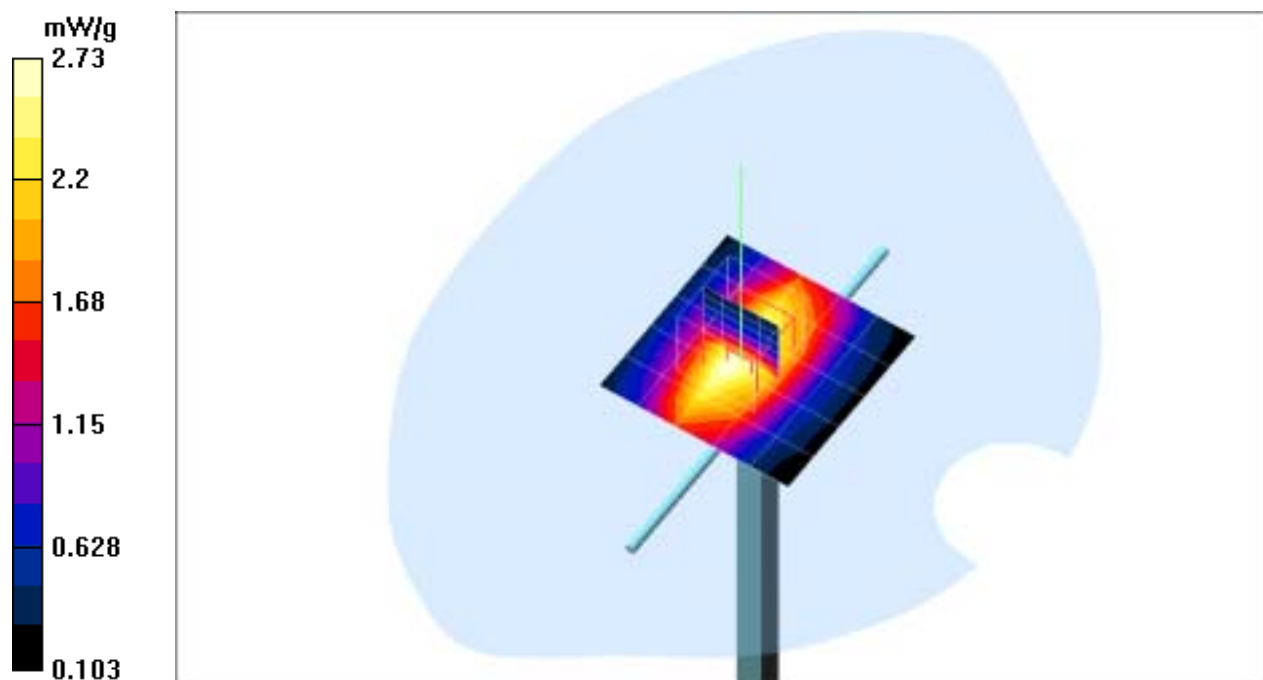
d=15mm, Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 55.9 V/m; Power Drift = -0.0 dB

Maximum value of SAR (measured) = 2.88 mW/g

Peak SAR (extrapolated) = 4.08 W/kg

SAR(1 g) = 2.67 mW/g; SAR(10 g) = 1.71 mW/g



Test Laboratory: Compliance Certification Services Inc.

D1800V2 SN-3

DUT: Dipole 1800 MHz; Type: D1800V2; Serial: 2d062

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

Medium parameters used: $f = 1800 \text{ MHz}$; $\sigma = 1.36 \text{ mho/m}$; $\epsilon_r = 39$; $\rho = 1000 \text{ kg/m}^3$

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

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.9, 4.9, 4.9); Calibrated: 9/23/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1271
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

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

Reference Value = 93.8 V/m; Power Drift = -0.0 dB

Maximum value of SAR (measured) = 8 mW/g

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

Reference Value = 93.8 V/m; Power Drift = -0.0 dB

Maximum value of SAR (measured) = 12 mW/g

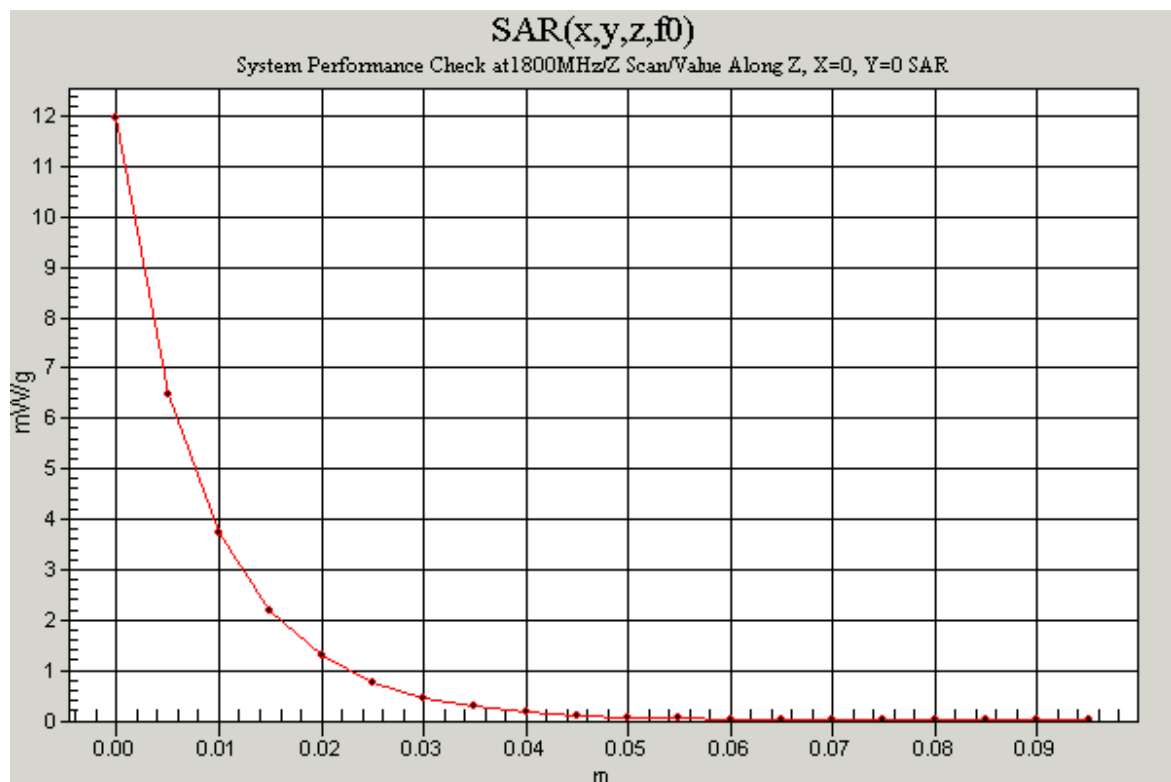
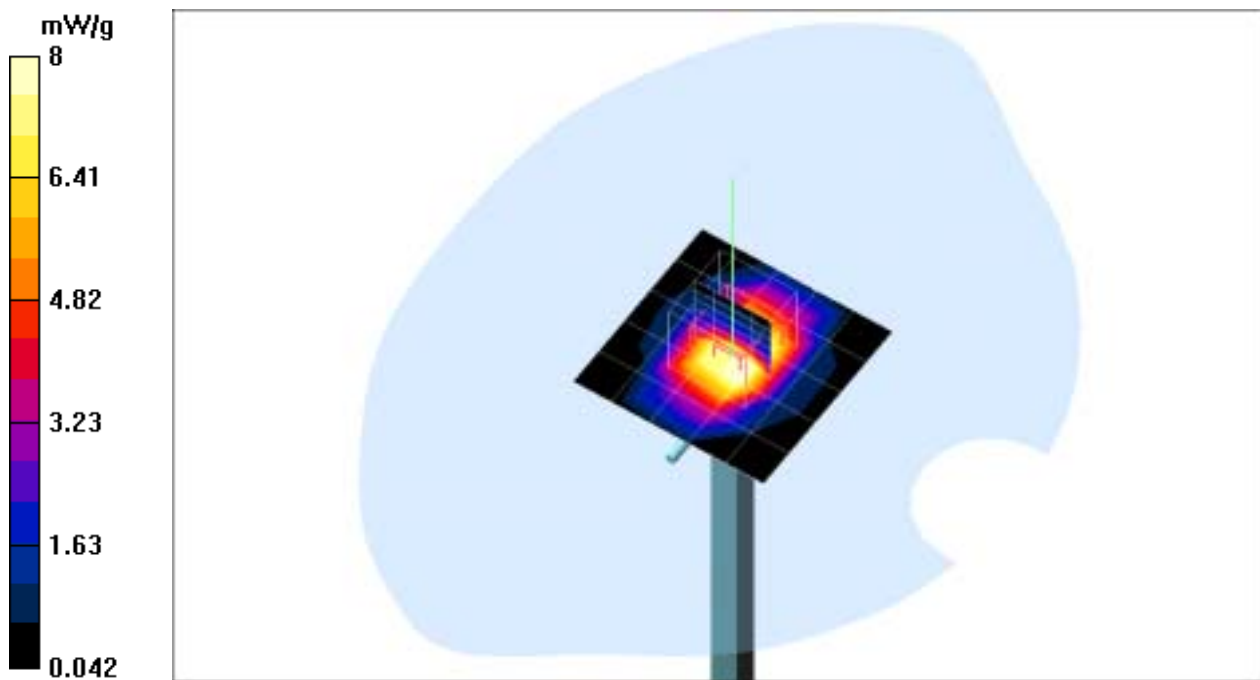
Pin=250mW,d=10mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 93.8 V/m; Power Drift = -0.0 dB

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

Peak SAR (extrapolated) = 17.7 W/kg

SAR(1 g) = 10.1 mW/g; SAR(10 g) = 5.34 mW/g



Test Laboratory: Compliance Certification Services Inc.

D2450V2 SN 728

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 728

Communication System: CW2450; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2450 \text{ MHz}$; $\sigma = 1.98 \text{ mho/m}$; $\epsilon_r = 51$; $\rho = 1000 \text{ kg/m}^3$

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.1, 4.1, 4.1); Calibrated: 9/23/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

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

Reference Value = 89.5 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 9.5 mW/g

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

Reference Value = 89.5 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 15.8 mW/g

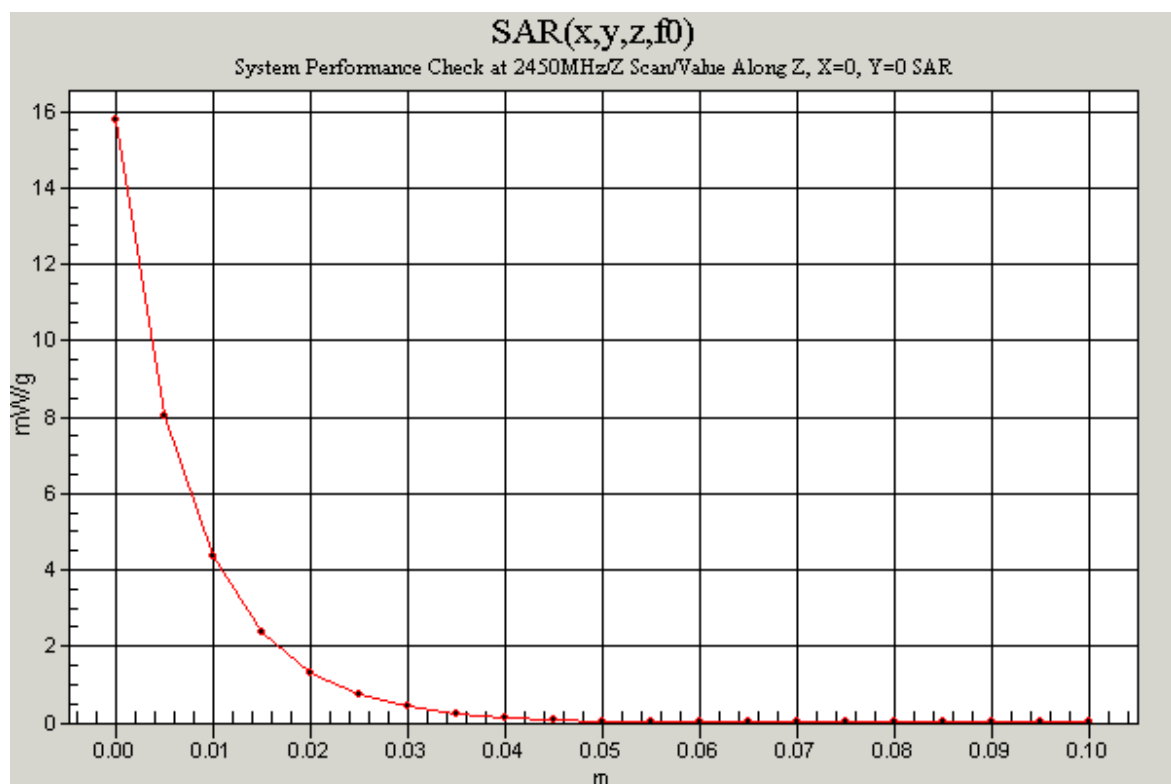
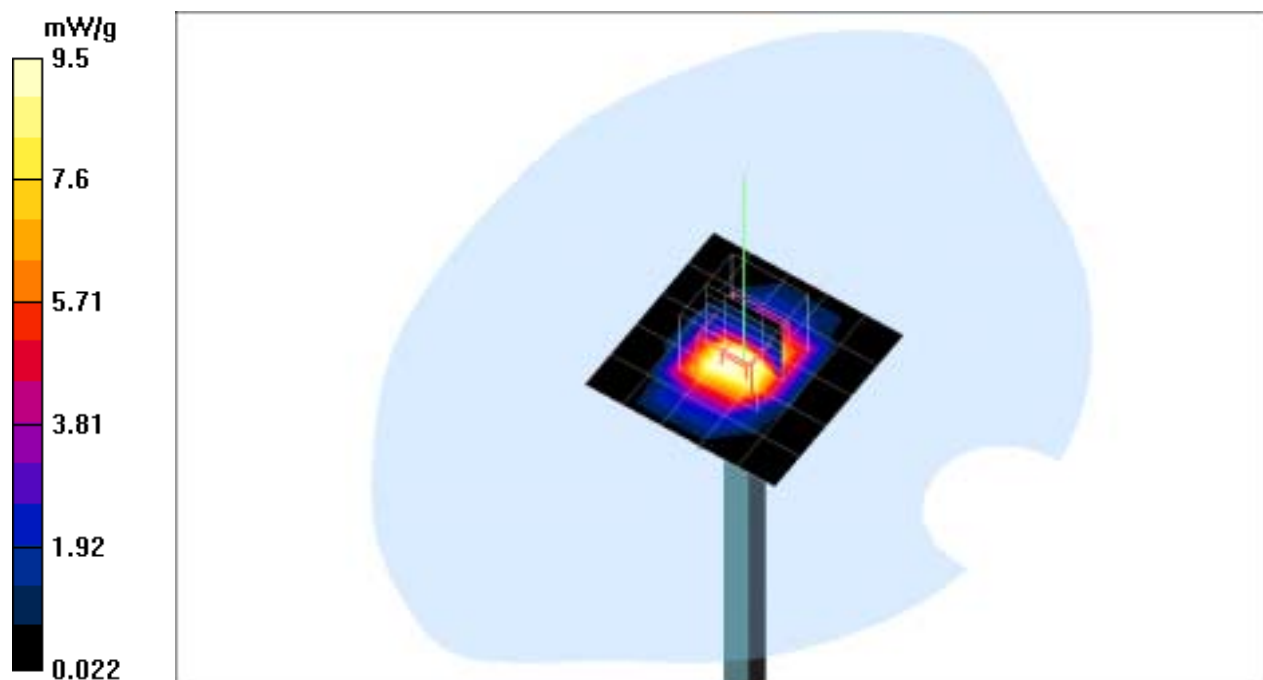
Pin=250mW,d=10mm/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 89.5 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 15.6 mW/g

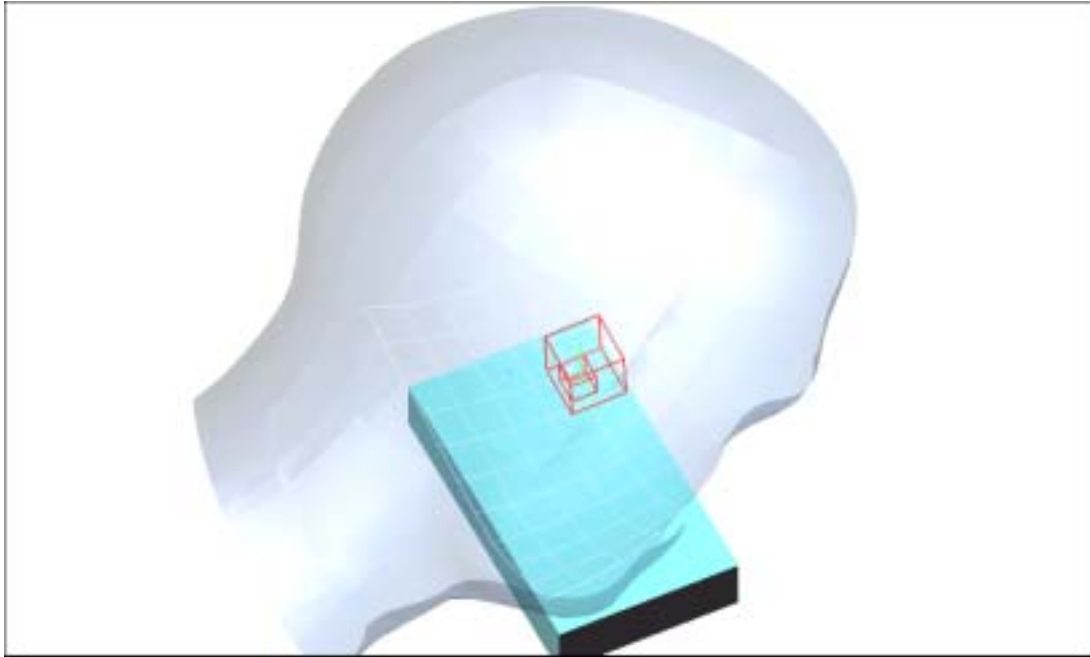
Peak SAR (extrapolated) = 27.1 W/kg

SAR(1 g) = 13.5 mW/g; SAR(10 g) = 6.31 mW/g



Test Laboratory: Compliance Certification Services Inc.

Left Head(Close cover)



Test Laboratory: Compliance Certification Services Inc.

gsm850-LEFT

DUT: PH20B Series; Type: PH20B; Serial: N/A

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

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.92$ mho/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(6, 6, 6); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1271
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

touch 190/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 9.23 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.131 mW/g

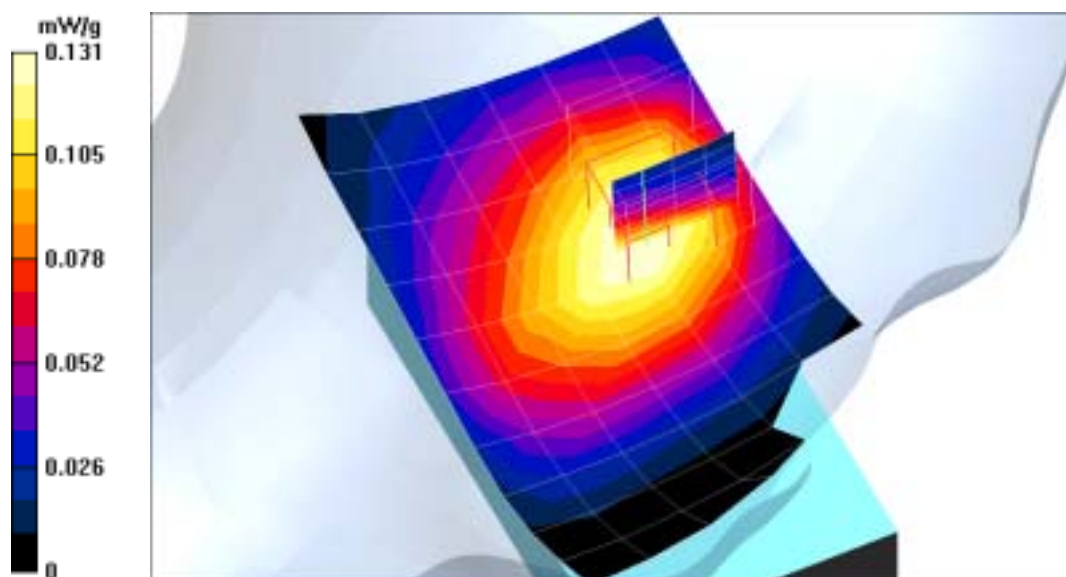
touch 190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.23 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.133 mW/g

Peak SAR (extrapolated) = 0.167 W/kg

SAR(1 g) = **0.119 mW/g**; SAR(10 g) = **0.083 mW/g**



Test Laboratory: Compliance Certification Services Inc.

gsm850-LEFT-Co-location with BT

DUT: PH20B Series; Type: PH20B; Serial: N/A

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

Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.92 \text{ mho/m}$; $\epsilon_r = 42.6$; $\rho = 1000 \text{ kg/m}^3$

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(6, 6, 6); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1271
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

touch 190-Co-location with BT/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 9.11 V/m; Power Drift = 0.1 dB

Maximum value of SAR (measured) = 0.121 mW/g

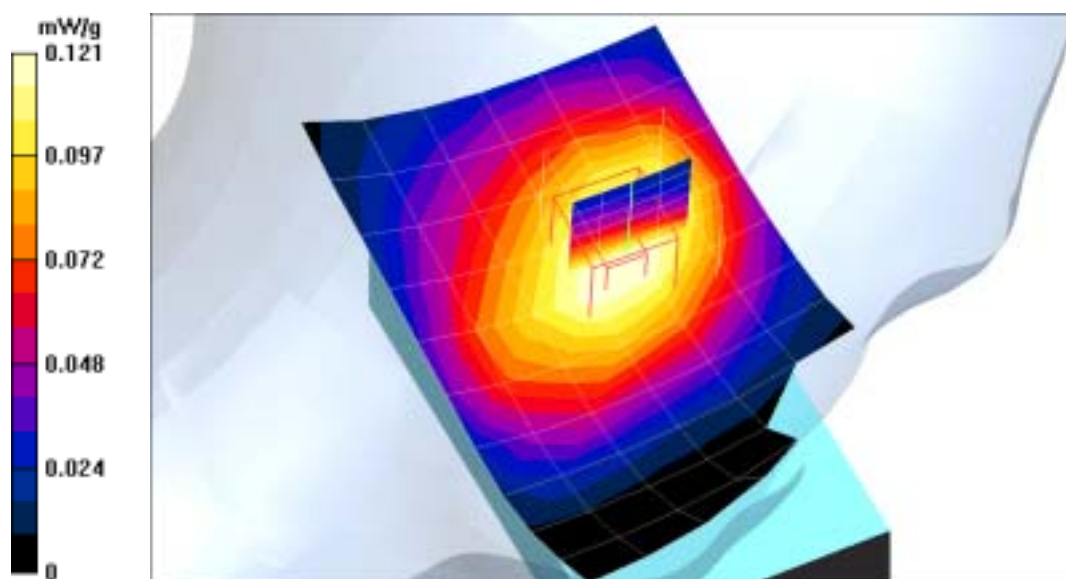
touch 190-Co-location with BT/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.11 V/m; Power Drift = 0.1 dB

Maximum value of SAR (measured) = 0.124 mW/g

Peak SAR (extrapolated) = 0.149 W/kg

SAR(1 g) = **0.112 mW/g**; SAR(10 g) = **0.082 mW/g**



Test Laboratory: Compliance Certification Services Inc.

gsm850-LEFT-Co-location with WLAN

DUT: PH20B Series; Type: PH20B; Serial: N/A

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

Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.92 \text{ mho/m}$; $\epsilon_r = 42.6$; $\rho = 1000 \text{ kg/m}^3$

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(6, 6, 6); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1271
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

touch 190-Co-location with WLAN/Area Scan (7x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Reference Value = 8.86 V/m; Power Drift = 0.1 dB

Maximum value of SAR (measured) = 0.118 mW/g

touch 190-Co-location with WLAN/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 8.86 V/m; Power Drift = 0.1 dB

Maximum value of SAR (measured) = 0.123 mW/g

Peak SAR (extrapolated) = 0.151 W/kg

SAR(1 g) = 0.110 mW/g; SAR(10 g) = 0.077 mW/g

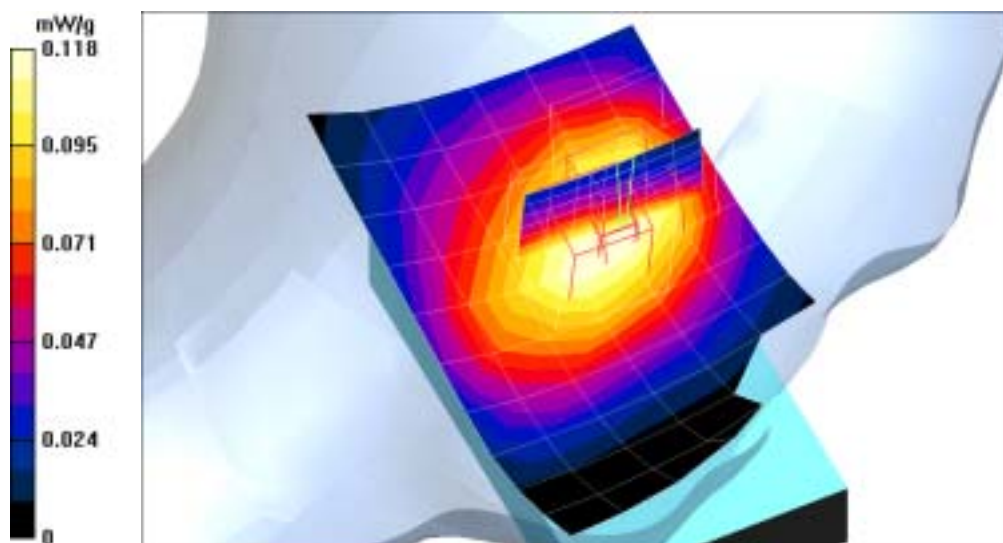
touch 190-Co-location with WLAN/Zoom Scan (5x5x7)/Cube 1: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 8.86 V/m; Power Drift = 0.1 dB

Maximum value of SAR (measured) = 0.123 mW/g

Peak SAR (extrapolated) = 0.147 W/kg

SAR(1 g) = 0.110 mW/g; SAR(10 g) = 0.081 mW/g



Test Laboratory: Compliance Certification Services Inc.

gsm850-LEFT-Co-location with WLAN+BT

DUT: PH20B Series; Type: PH20B; Serial: N/A

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

Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.92 \text{ mho/m}$; $\epsilon_r = 42.6$; $\rho = 1000 \text{ kg/m}^3$

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(6, 6, 6); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1271
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

touch 190-Co-location with WLAN+BT/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 8.96 V/m; Power Drift = 0.007 dB

Maximum value of SAR (measured) = 0.120 mW/g

touch 190-Co-location with WLAN+BT/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.96 V/m; Power Drift = 0.007 dB

Maximum value of SAR (measured) = 0.124 mW/g

Peak SAR (extrapolated) = 0.151 W/kg

SAR(1 g) = 0.111 mW/g; SAR(10 g) = 0.077 mW/g

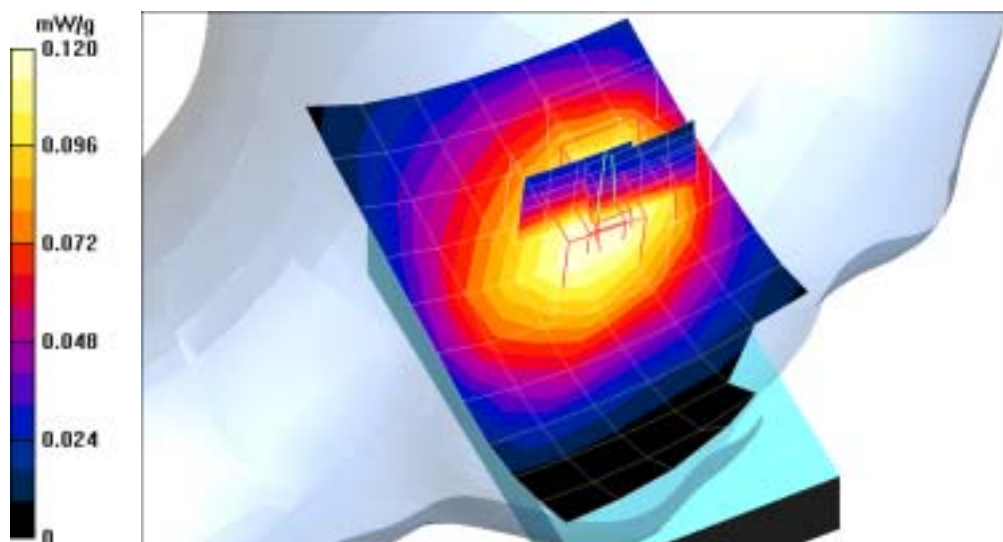
touch 190-Co-location with WLAN+BT/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.96 V/m; Power Drift = 0.007 dB

Maximum value of SAR (measured) = 0.124 mW/g

Peak SAR (extrapolated) = 0.147 W/kg

SAR(1 g) = 0.112 mW/g; SAR(10 g) = 0.082 mW/g



Test Laboratory: Compliance Certification Services Inc.

gsm1900-LEFT

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: GSM1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 40.1$; $\rho = 1000$ kg/m³

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

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.9, 4.9, 4.9); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

touch 661/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 7.13 V/m; Power Drift = 0.1 dB

Maximum value of SAR (measured) = 0.140 mW/g

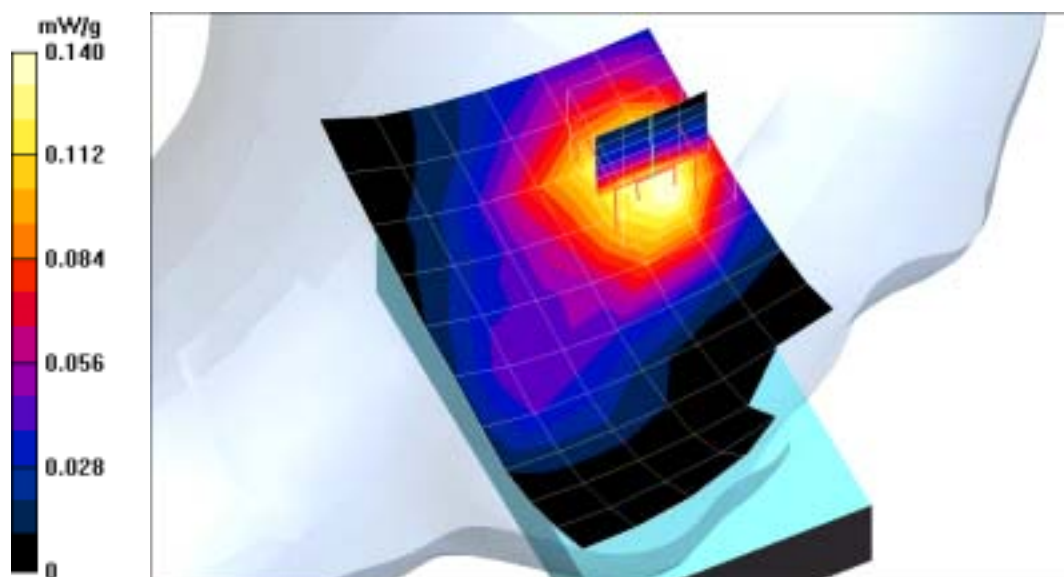
touch 661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.13 V/m; Power Drift = 0.1 dB

Maximum value of SAR (measured) = 0.148 mW/g

Peak SAR (extrapolated) = 0.192 W/kg

SAR(1 g) = **0.125 mW/g**; SAR(10 g) = **0.078 mW/g**



Test Laboratory: Compliance Certification Services Inc.

gsm1900-LEFT-co location with BT

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: GSM1900; Frequency: 1880 MHz; Duty Cycle: 1:8
Medium parameters used: $f = 1880$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 40.1$; $\rho = 1000$

kg/m³ Air Temperature: 24.5 deg C; Liquid Temperature: 23.5 deg C

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.9, 4.9, 4.9); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

touch 661 with BT/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 7.04 V/m; Power Drift = -0.0 dB

Maximum value of SAR (measured) = 0.144 mW/g

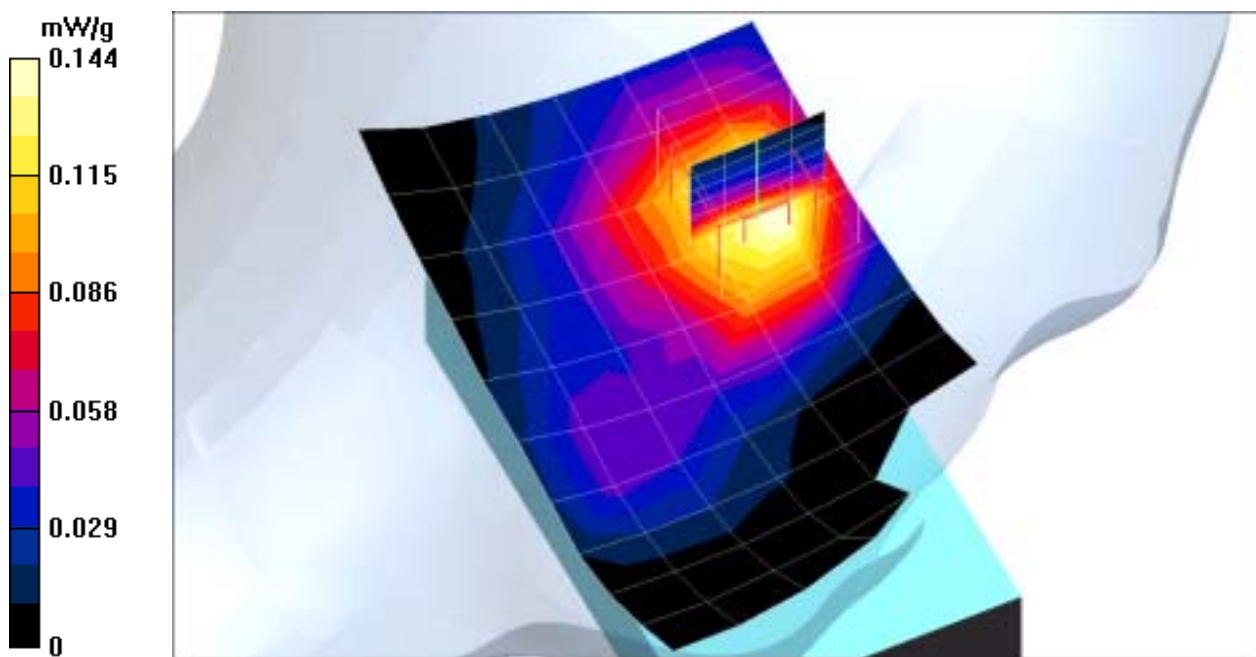
touch 661 with BT/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.04 V/m; Power Drift = -0.0 dB

Maximum value of SAR (measured) = 0.150 mW/g

Peak SAR (extrapolated) = 0.191 W/kg

SAR(1 g) = **0.127 mW/g**; SAR(10 g) = **0.081 mW/g**



Test Laboratory: Compliance Certification Services Inc.

gsm1900-LEFT-co location with WLAN

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: GSM1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 40.1$; $\rho = 1000$ kg/m³

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

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.9, 4.9, 4.9); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

touch 661 with WALN/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 6.91 V/m; Power Drift = -0.2 dB

Maximum value of SAR (measured) = 0.149 mW/g

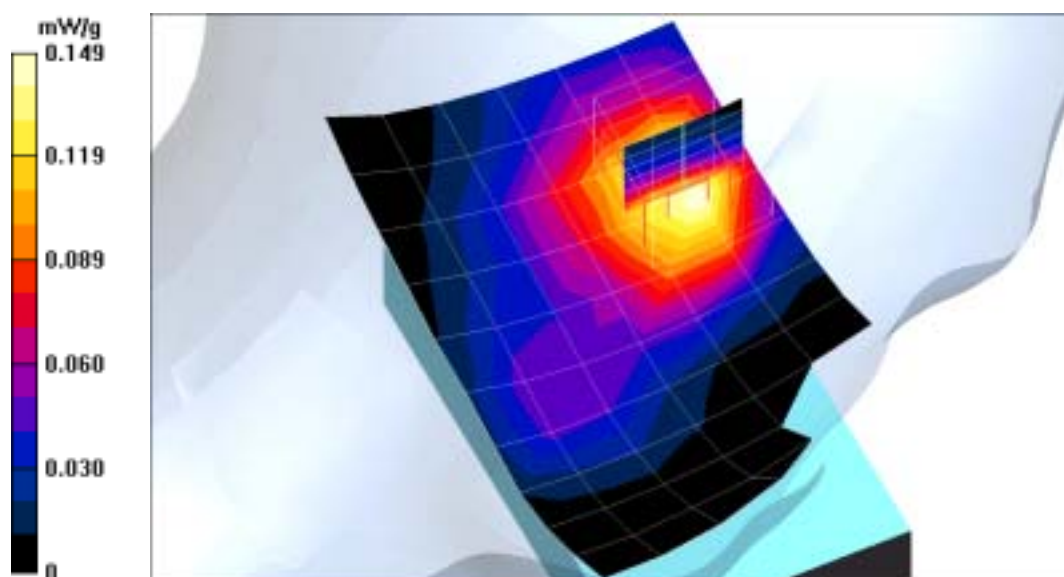
touch 661 with WALN/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 6.91 V/m; Power Drift = -0.2 dB

Maximum value of SAR (measured) = 0.153 mW/g

Peak SAR (extrapolated) = 0.196 W/kg

SAR(1 g) = **0.129 mW/g**; SAR(10 g) = **0.081 mW/g**



Test Laboratory: Compliance Certification Services Inc.

gsm1900-LEFT-co location with WLAN +BT

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: GSM1900; Frequency: 1880 MHz;Duty Cycle: 1:8

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.43 \text{ mho/m}$; $\epsilon_r = 40.1$; $\rho = 1000 \text{ kg/m}^3$

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

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.9, 4.9, 4.9); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

touch 661 with WLAN + BT/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 7.04 V/m; Power Drift = -0.002 dB

Maximum value of SAR (measured) = 0.147 mW/g

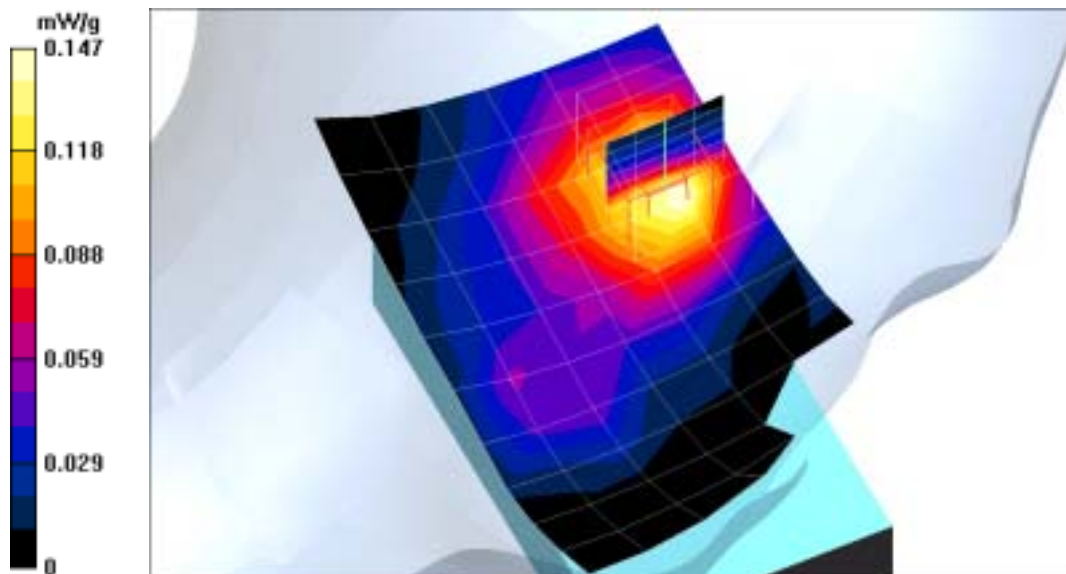
touch 661 with WLAN + BT/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.04 V/m; Power Drift = -0.002 dB

Maximum value of SAR (measured) = 0.149 mW/g

Peak SAR (extrapolated) = 0.191 W/kg

SAR(1 g) = **0.127 mW/g**; SAR(10 g) = **0.080 mW/g**



Test Laboratory: Compliance Certification Services Inc.

Left Head(Open cover)



Test Laboratory: Compliance Certification Services Inc.

gsm850-LEFT-slide cover

DUT: PH20B Series; Type: PH20B; Serial: N/A

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

Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.92 \text{ mho/m}$; $\epsilon_r = 42.6$; $\rho = 1000 \text{ kg/m}^3$

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(6, 6, 6); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1271
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

touch 190/Area Scan (7x13x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Reference Value = 3.4 V/m; Power Drift = 0.2 dB

Maximum value of SAR (measured) = 0.030 mW/g

touch 190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 3.4 V/m; Power Drift = 0.2 dB

Maximum value of SAR (measured) = 0.033 mW/g

Peak SAR (extrapolated) = 0.039 W/kg

SAR(1 g) = 0.029 mW/g; SAR(10 g) = 0.020 mW/g

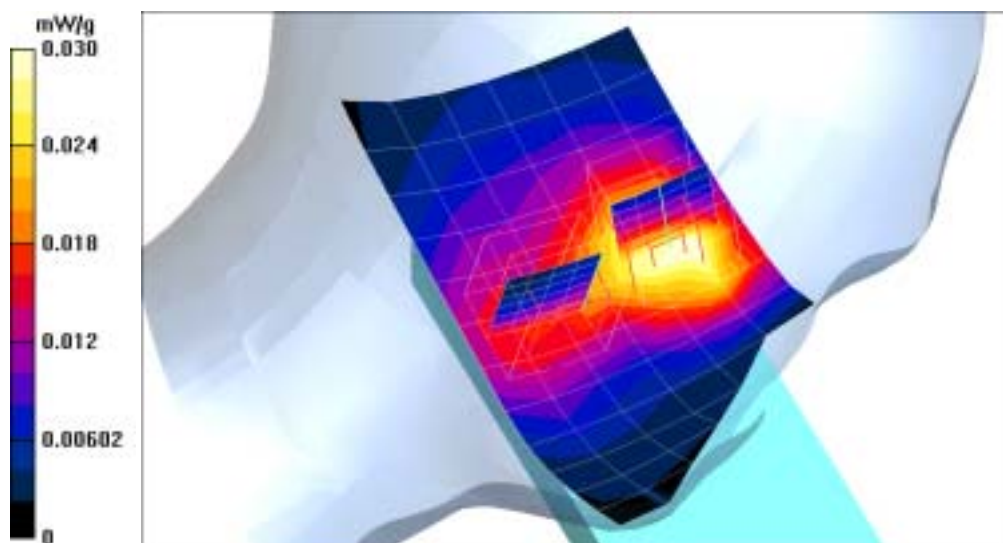
touch 190/Zoom Scan (5x5x7)/Cube 1: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 3.4 V/m; Power Drift = 0.2 dB

Maximum value of SAR (measured) = 0.018 mW/g

Peak SAR (extrapolated) = 0.022 W/kg

SAR(1 g) = 0.016 mW/g; SAR(10 g) = 0.011 mW/g



Test Laboratory: Compliance Certification Services Inc.

gsm1900-LEFT-slide cover

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: GSM1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.43 \text{ mho/m}$; $\epsilon_r = 40.1$; $\rho = 1000 \text{ kg/m}^3$

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

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.9, 4.9, 4.9); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

touch 661/Area Scan (9x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Reference Value = 2.52 V/m; Power Drift = 0.1 dB

Maximum value of SAR (measured) = 0.039 mW/g

touch 661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 2.52 V/m; Power Drift = 0.1 dB

Maximum value of SAR (measured) = 0.041 mW/g

Peak SAR (extrapolated) = 0.058 W/kg

SAR(1 g) = 0.034 mW/g; SAR(10 g) = 0.021 mW/g

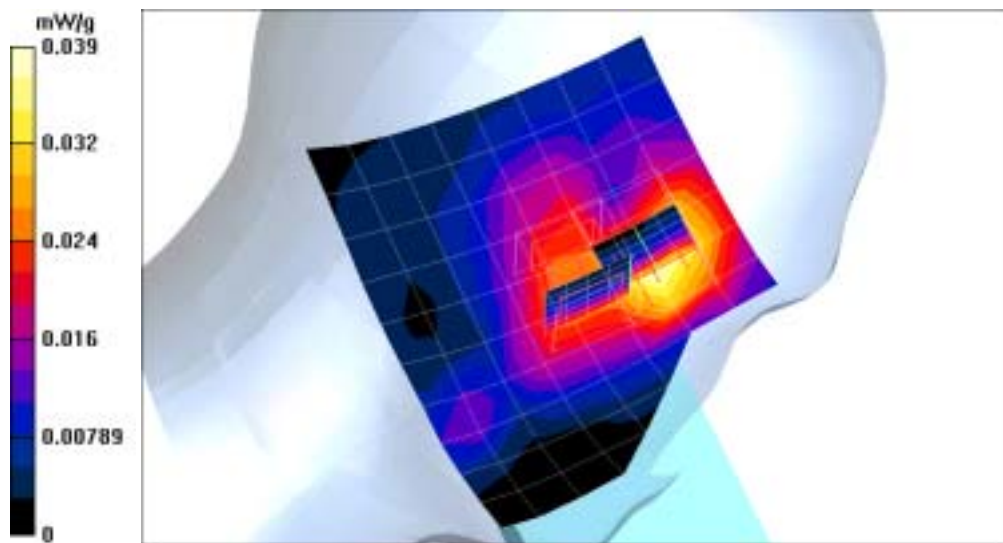
touch 661/Zoom Scan (5x5x7)/Cube 1: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 2.52 V/m; Power Drift = 0.1 dB

Maximum value of SAR (measured) = 0.030 mW/g

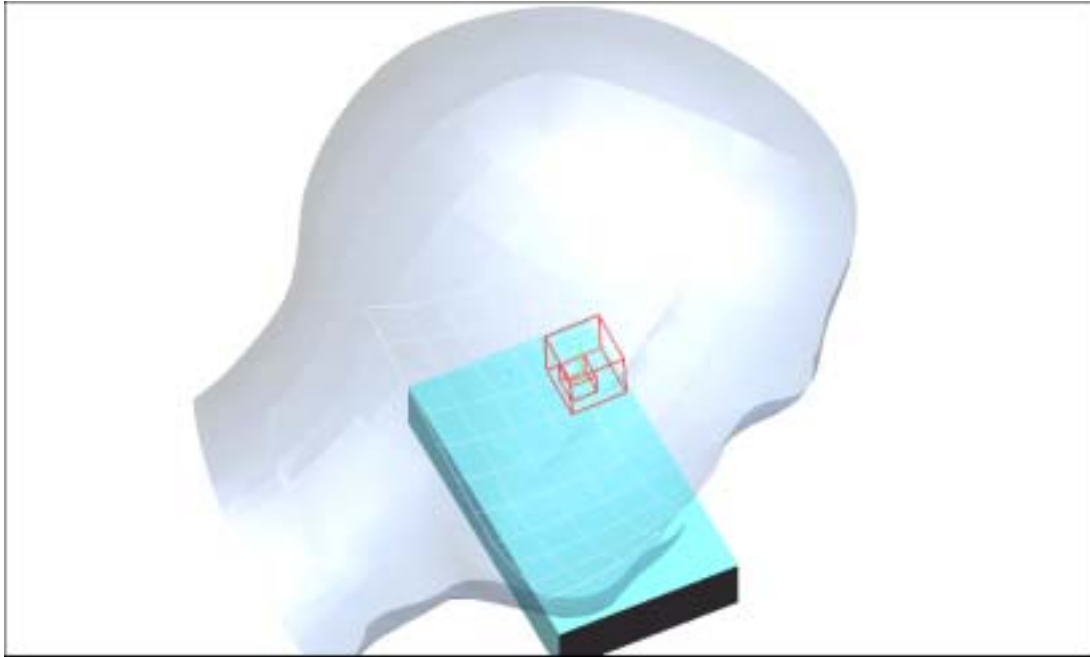
Peak SAR (extrapolated) = 0.041 W/kg

SAR(1 g) = 0.025 mW/g; SAR(10 g) = 0.017 mW/g



Test Laboratory: Compliance Certification Services Inc.

Left Head(Close cover)



Test Laboratory: Compliance Certification Services Inc.

gsm850-LEFT

DUT: PH20B Series; Type: PH20B; Serial: N/A

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

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.92$ mho/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(6, 6, 6); Calibrated: 9/23/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1271
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

tilte 190/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 8.77 V/m; Power Drift = -0.008 dB

Maximum value of SAR (measured) = 0.091 mW/g

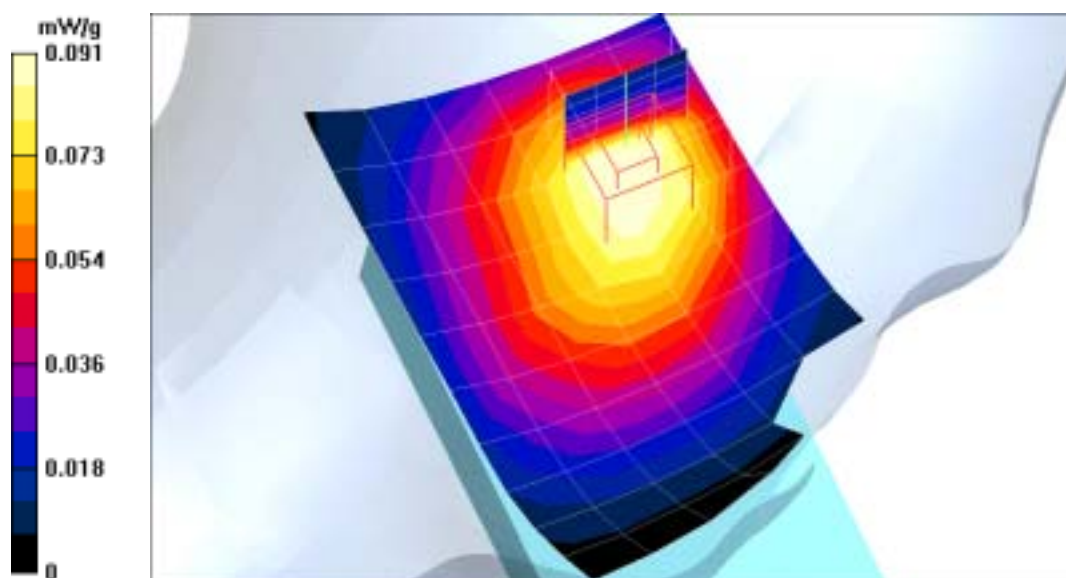
tilte 190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 8.77 V/m; Power Drift = -0.008 dB

Maximum value of SAR (measured) = 0.094 mW/g

Peak SAR (extrapolated) = 0.127 W/kg

SAR(1 g) = **0.089 mW/g**; SAR(10 g) = 0.064 mW/g



Test Laboratory: Compliance Certification Services Inc.

gsm1900-LEFT

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: GSM1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.43 \text{ mho/m}$; $\epsilon_r = 40.1$; $\rho = 1000 \text{ kg/m}^3$

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

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.9, 4.9, 4.9); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

tilte 661/Area Scan (7x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Reference Value = 9.19 V/m; Power Drift = -0.0 dB

Maximum value of SAR (measured) = 0.137 mW/g

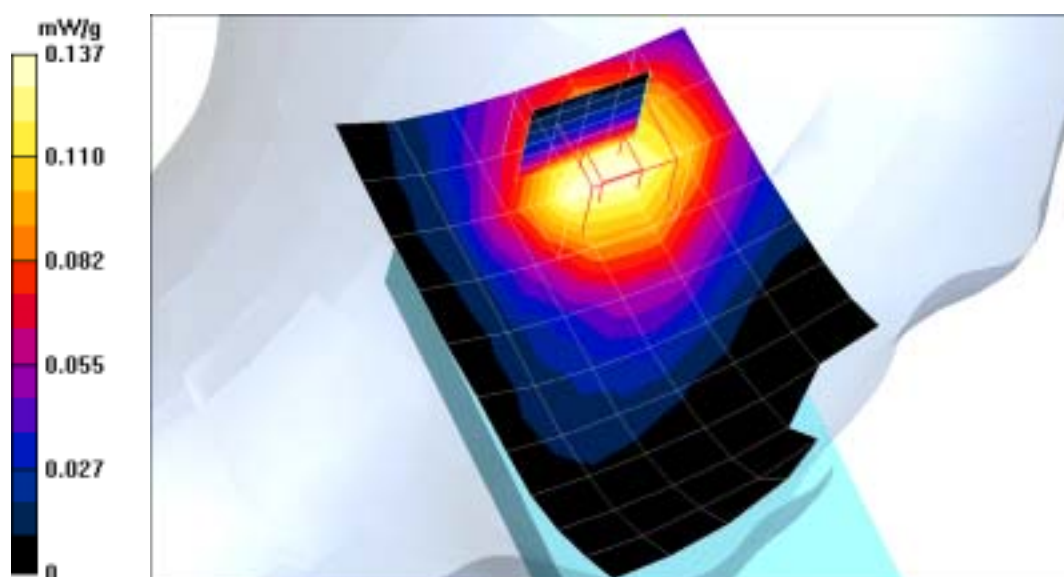
tilte 661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 9.19 V/m; Power Drift = -0.0 dB

Maximum value of SAR (measured) = 0.142 mW/g

Peak SAR (extrapolated) = 0.194 W/kg

SAR(1 g) = **0.120 mW/g**; SAR(10 g) = 0.077 mW/g



Test Laboratory: Compliance Certification Services Inc.

Left Head(Open cover)



Test Laboratory: Compliance Certification Services Inc.

gsm850-LEFT-slide cover

DUT: PH20B Series; Type: PH20B; Serial: N/A

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

Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.92 \text{ mho/m}$; $\epsilon_r = 42.6$; $\rho = 1000 \text{ kg/m}^3$

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(6, 6, 6); Calibrated: 9/23/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1271
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

tilte 190/Area Scan (7x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Reference Value = 3.2 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.016 mW/g

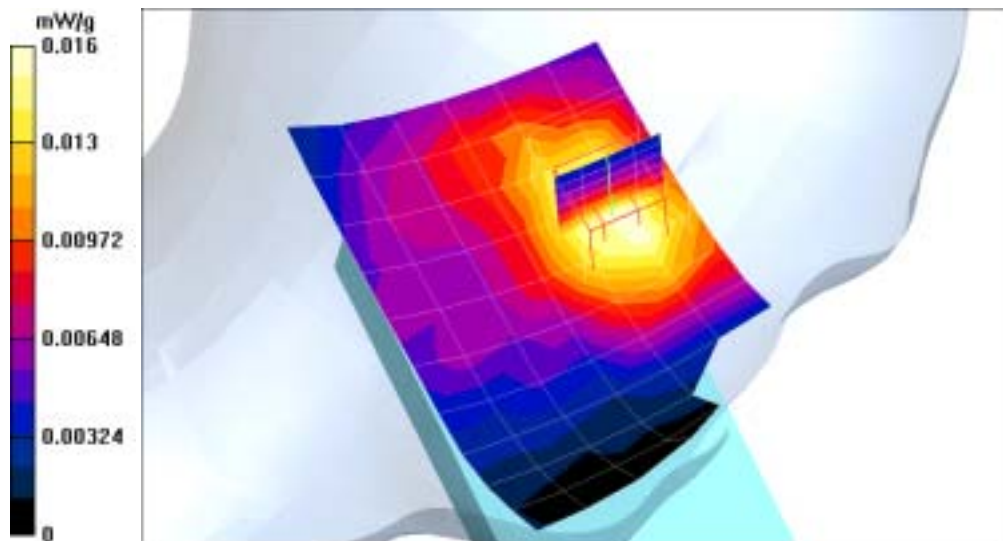
tilte 190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 3.2 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.017 mW/g

Peak SAR (extrapolated) = 0.022 W/kg

SAR(1 g) = 0.016 mW/g; SAR(10 g) = 0.012 mW/g



Test Laboratory: Compliance Certification Services Inc.

gsm1900-LEFT-slide cover

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: GSM1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.43 \text{ mho/m}$; $\epsilon_r = 40.1$; $\rho = 1000 \text{ kg/m}^3$

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

Phantom section: Left Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.9, 4.9, 4.9); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

tilte 661/Area Scan (9x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Reference Value = 5.8 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.055 mW/g

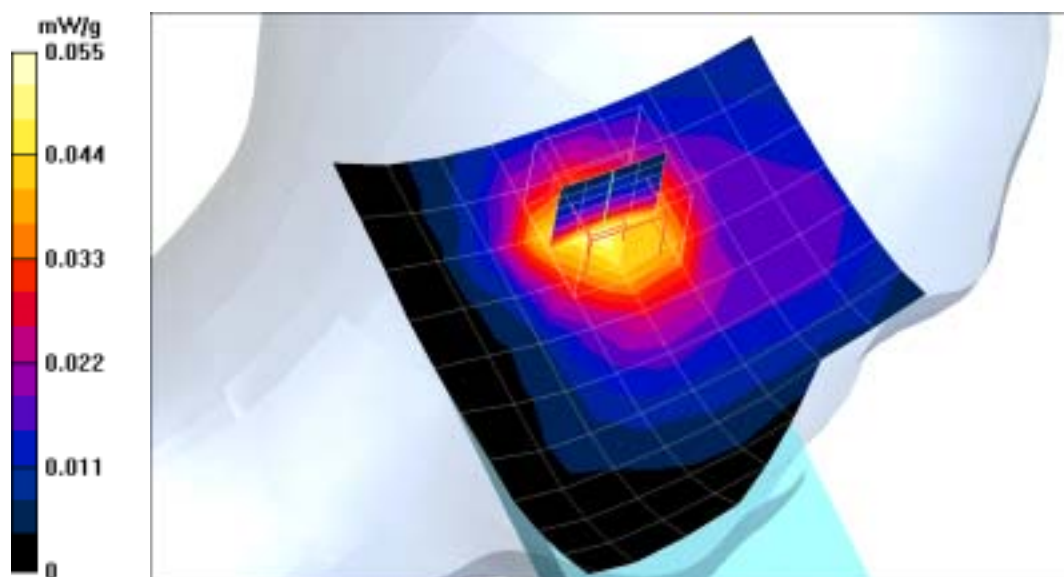
tilte 661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 5.8 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.056 mW/g

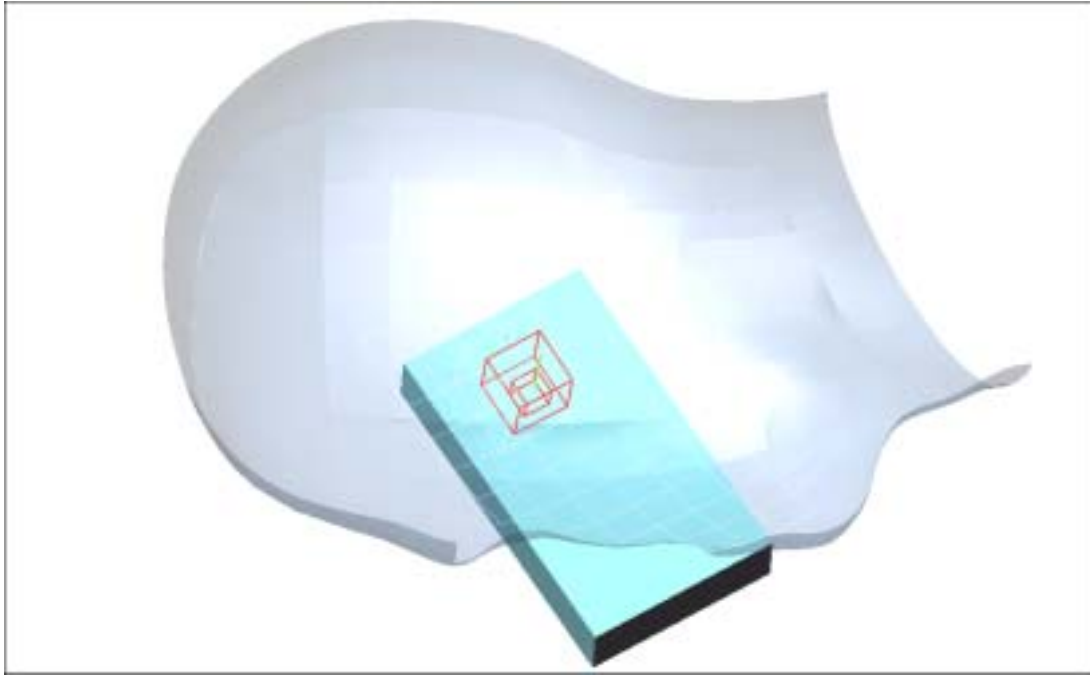
Peak SAR (extrapolated) = 0.070 W/kg

SAR(1 g) = **0.048 mW/g**; SAR(10 g) = 0.030 mW/g



Test Laboratory: Compliance Certification Services Inc.

Right Head(Close cover)



Test Laboratory: Compliance Certification Services Inc.

gsm850-RIGHT

DUT: PH20B Series; Type: PH20B; Serial: N/A

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

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.92$ mho/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(6, 6, 6); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1271
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

touch 190/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 10.2 V/m; Power Drift = 0.0 dB

Maximum value of SAR (measured) = 0.126 mW/g

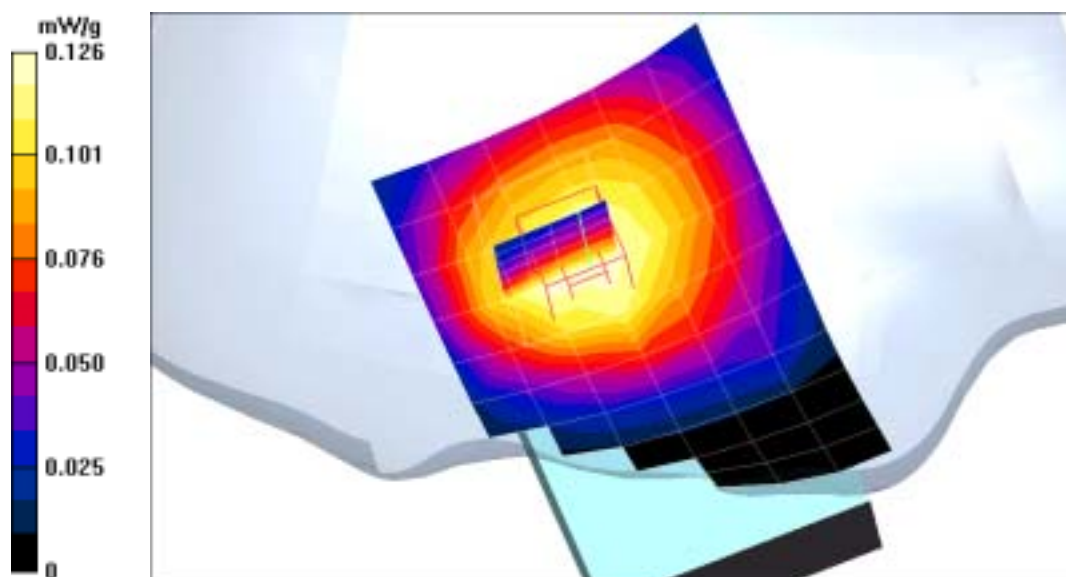
touch 190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.2 V/m; Power Drift = 0.0 dB

Maximum value of SAR (measured) = 0.129 mW/g

Peak SAR (extrapolated) = 0.148 W/kg

SAR(1 g) = **0.118 mW/g**; SAR(10 g) = 0.090 mW/g



Test Laboratory: Compliance Certification Services Inc.

gsm1900-RIGHT

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: GSM1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 40.1$; $\rho = 1000$ kg/m³

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

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.9, 4.9, 4.9); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

touch 661/Area Scan (9x11x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 7.82 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.112 mW/g

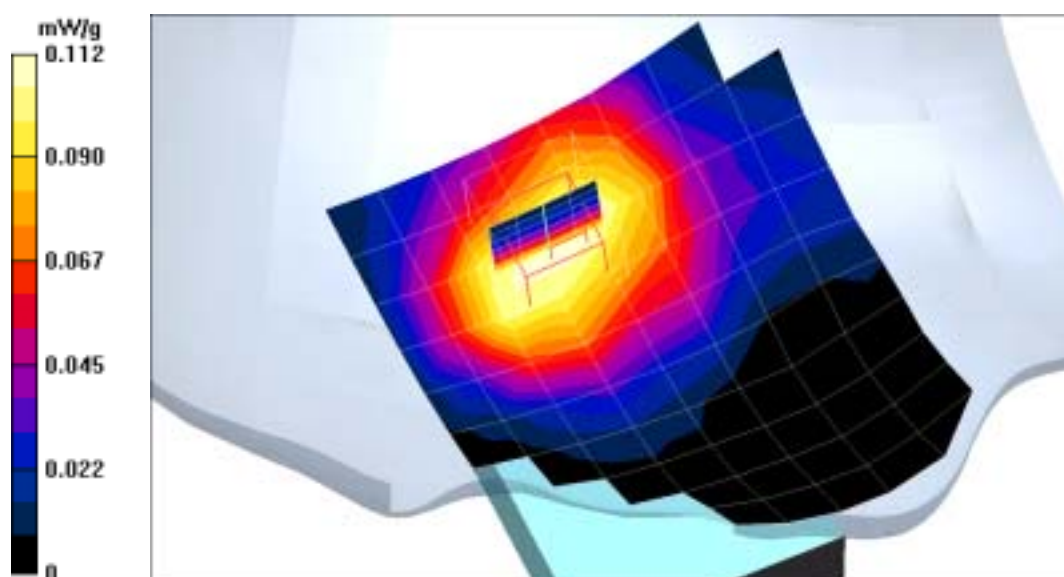
touch 661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 7.82 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.114 mW/g

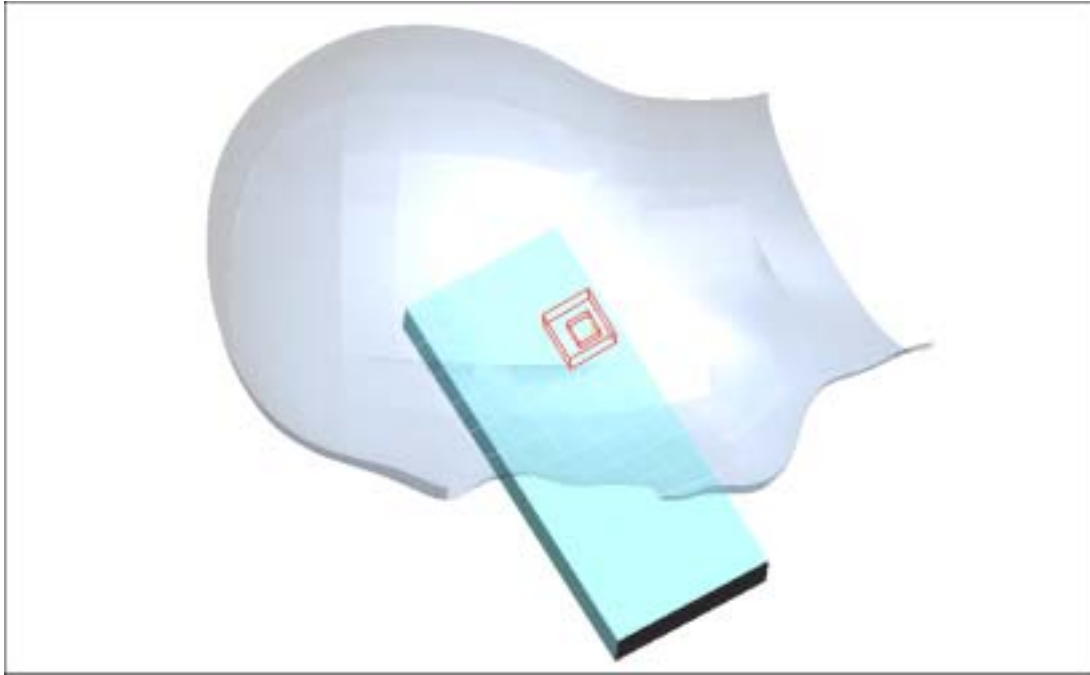
Peak SAR (extrapolated) = 0.147 W/kg

SAR(1 g) = **0.099 mW/g**; SAR(10 g) = **0.064 mW/g**



Test Laboratory: Compliance Certification Services Inc.

Right Head(Open cover)



Test Laboratory: Compliance Certification Services Inc.

gsm850-RIGHT-slide cover

DUT: PH20B Series; Type: PH20B; Serial: N/A

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

Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.92 \text{ mho/m}$; $\epsilon_r = 42.6$; $\rho = 1000 \text{ kg/m}^3$

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(6, 6, 6); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1271
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

touch 190/Area Scan (7x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Reference Value = 3.47 V/m; Power Drift = 0.2 dB

Maximum value of SAR (measured) = 0.029 mW/g

touch 190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 3.47 V/m; Power Drift = 0.2 dB

Maximum value of SAR (measured) = 0.029 mW/g

Peak SAR (extrapolated) = 0.035 W/kg

SAR(1 g) = 0.026 mW/g; SAR(10 g) = 0.019 mW/g

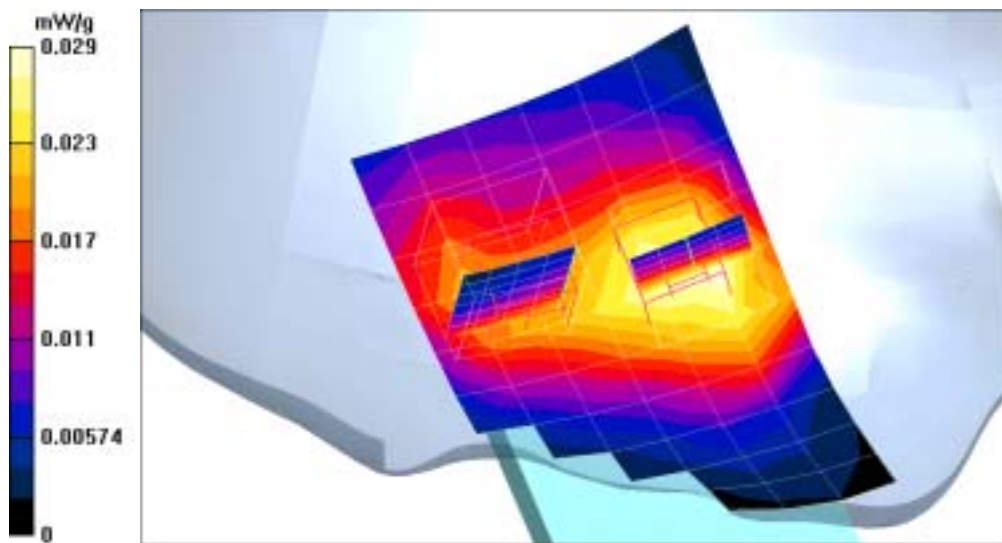
touch 190/Zoom Scan (5x5x7)/Cube 1: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 3.47 V/m; Power Drift = 0.2 dB

Maximum value of SAR (measured) = 0.022 mW/g

Peak SAR (extrapolated) = 0.027 W/kg

SAR(1 g) = 0.019 mW/g; SAR(10 g) = 0.014 mW/g



Test Laboratory: Compliance Certification Services Inc.

gsm1900-RIGHT-slide cover

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: GSM1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.43 \text{ mho/m}$; $\epsilon_r = 40.1$; $\rho = 1000 \text{ kg/m}^3$

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

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.9, 4.9, 4.9); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

touch 661/Area Scan (9x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Reference Value = 3.22 V/m; Power Drift = 0.0 dB

Maximum value of SAR (measured) = 0.037 mW/g

touch 661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 3.22 V/m; Power Drift = 0.0 dB

Maximum value of SAR (measured) = 0.042 mW/g

Peak SAR (extrapolated) = 0.054 W/kg

SAR(1 g) = 0.036 mW/g; SAR(10 g) = 0.021 mW/g

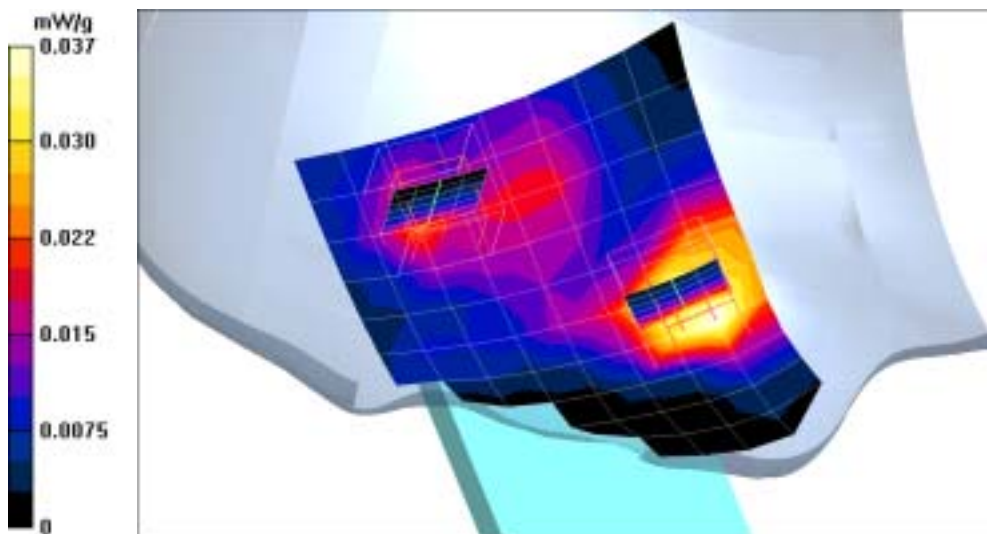
touch 661/Zoom Scan (5x5x7)/Cube 1: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 3.22 V/m; Power Drift = 0.0 dB

Maximum value of SAR (measured) = 0.023 mW/g

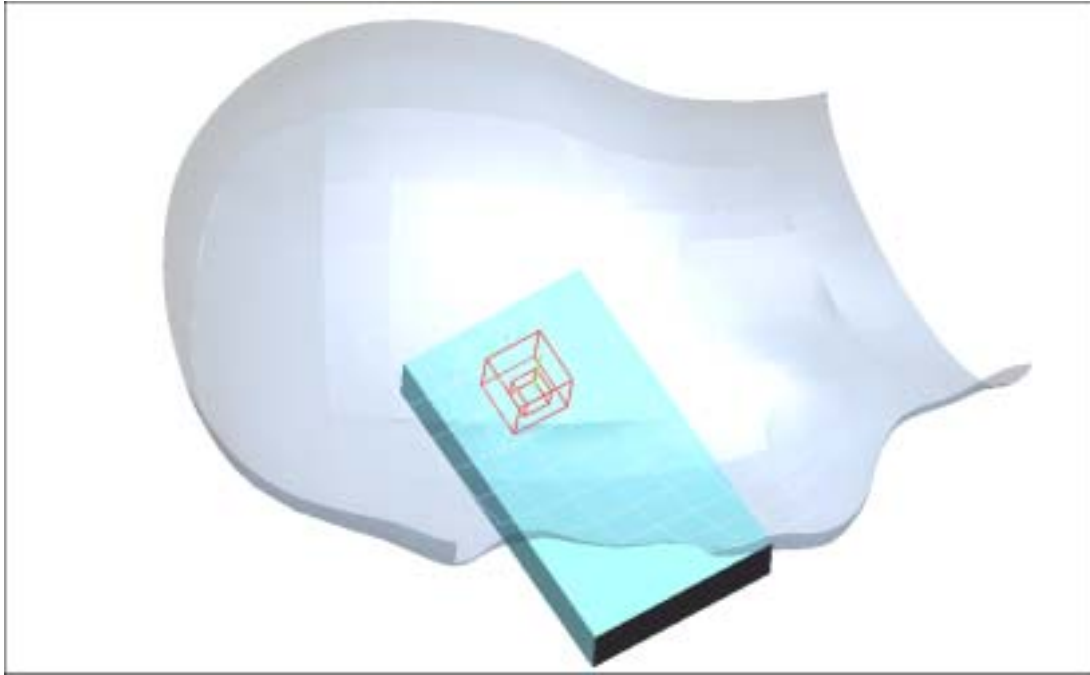
Peak SAR (extrapolated) = 0.025 W/kg

SAR(1 g) = 0.019 mW/g; SAR(10 g) = 0.011 mW/g



Test Laboratory: Compliance Certification Services Inc.

Right Head(Close cover)



Test Laboratory: Compliance Certification Services Inc.

gsm850-RIGHT

DUT: PH20B Series; Type: PH20B; Serial: N/A

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

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.92$ mho/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(6, 6, 6); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1271
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

tilte 190/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 9.06 V/m; Power Drift = -0.006 dB

Maximum value of SAR (measured) = 0.081 mW/g

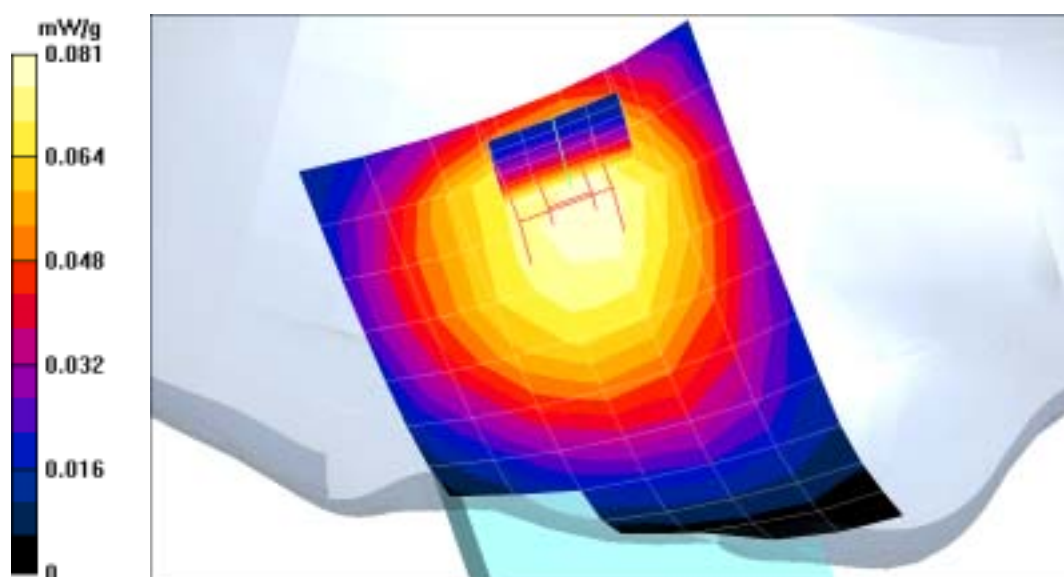
tilte 190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.06 V/m; Power Drift = -0.006 dB

Maximum value of SAR (measured) = 0.084 mW/g

Peak SAR (extrapolated) = 0.101 W/kg

SAR(1 g) = **0.074 mW/g**; SAR(10 g) = **0.054 mW/g**



Test Laboratory: Compliance Certification Services Inc.

gsm1900-RIGHT

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: GSM1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.43$ mho/m; $\epsilon_r = 40.1$; $\rho = 1000$ kg/m³

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

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.9, 4.9, 4.9); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

tilte 661/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 9.63 V/m; Power Drift = 0.003 dB

Maximum value of SAR (measured) = 0.135 mW/g

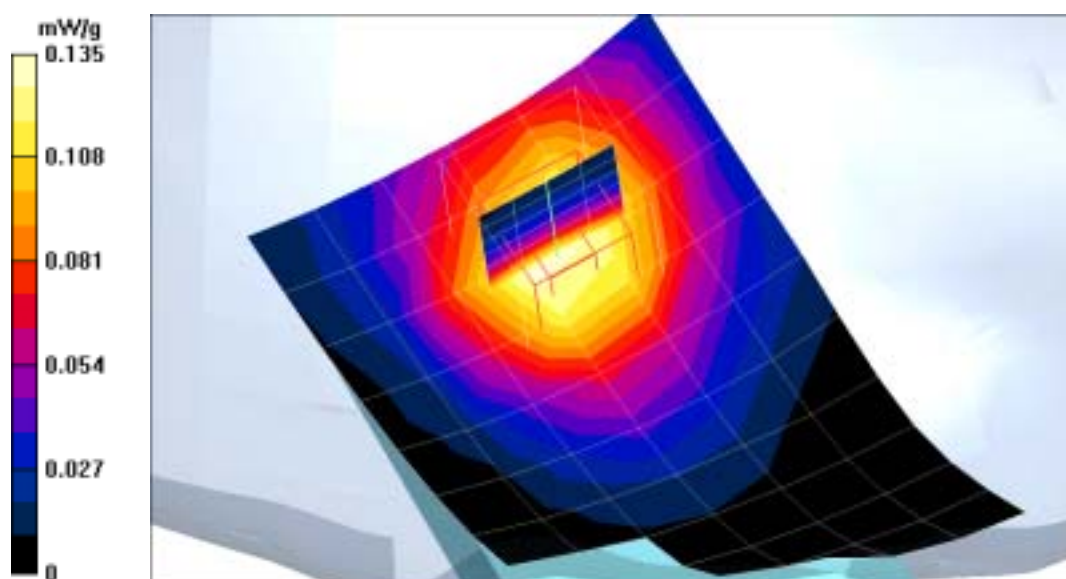
tilte 661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 9.63 V/m; Power Drift = 0.003 dB

Maximum value of SAR (measured) = 0.146 mW/g

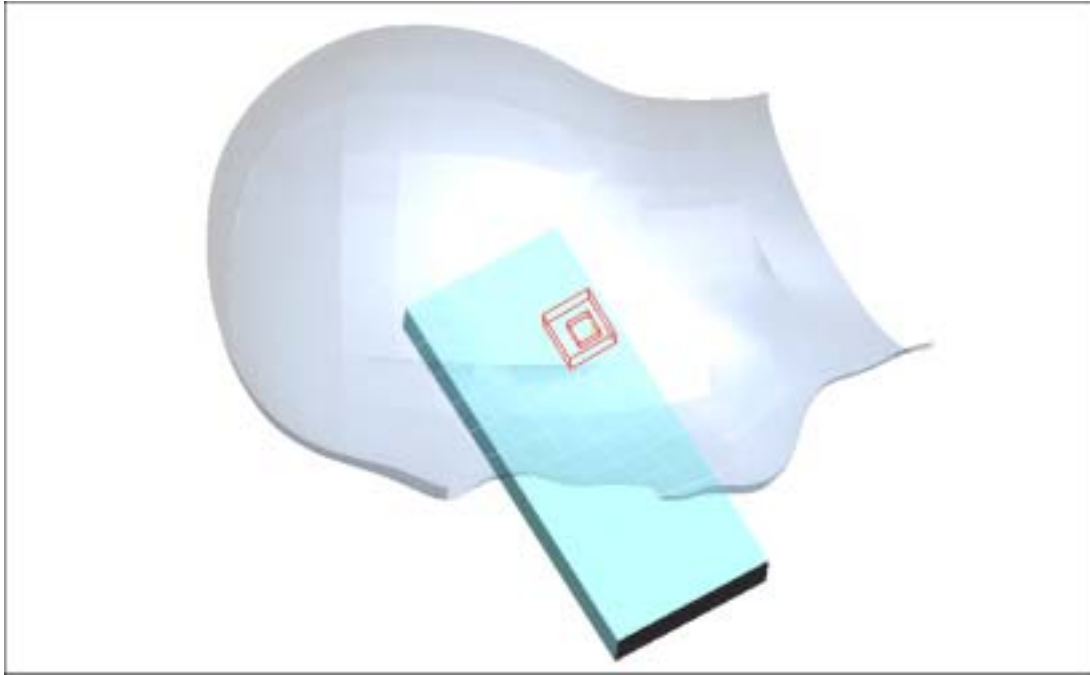
Peak SAR (extrapolated) = 0.184 W/kg

SAR(1 g) = **0.124 mW/g**; SAR(10 g) = **0.078 mW/g**



Test Laboratory: Compliance Certification Services Inc.

Right Head(Open cover)



Test Laboratory: Compliance Certification Services Inc.

gsm850-RIGHT-slide cover

DUT: PH20B Series; Type: PH20B; Serial: N/A

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

Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.92 \text{ mho/m}$; $\epsilon_r = 42.6$; $\rho = 1000 \text{ kg/m}^3$

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(6, 6, 6); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1271
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

tilte 190/Area Scan (7x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Reference Value = 2.98 V/m; Power Drift = 0.2 dB

Maximum value of SAR (measured) = 0.012 mW/g

tilte 190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 2.98 V/m; Power Drift = 0.2 dB

Maximum value of SAR (measured) = 0.012 mW/g

Peak SAR (extrapolated) = 0.014 W/kg

SAR(1 g) = 0.011 mW/g; SAR(10 g) = 0.00801 mW/g

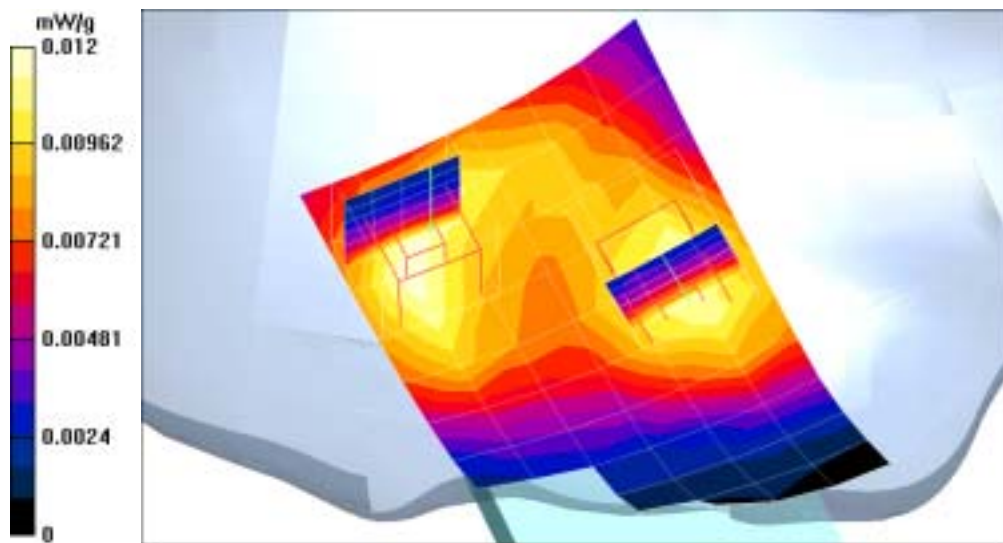
tilte 190/Zoom Scan (5x5x7)/Cube 1: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 2.98 V/m; Power Drift = 0.2 dB

Maximum value of SAR (measured) = 0.013 mW/g

Peak SAR (extrapolated) = 0.016 W/kg

SAR(1 g) = 0.011 mW/g; SAR(10 g) = 0.00729 mW/g



Test Laboratory: Compliance Certification Services Inc.

gsm1900-RIGHT-slide cover

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: GSM1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.43 \text{ mho/m}$; $\epsilon_r = 40.1$; $\rho = 1000 \text{ kg/m}^3$

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

Phantom section: Right Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.9, 4.9, 4.9); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

tilte 661/Area Scan (7x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Reference Value = 5.96 V/m; Power Drift = -0.0 dB

Maximum value of SAR (measured) = 0.051 mW/g

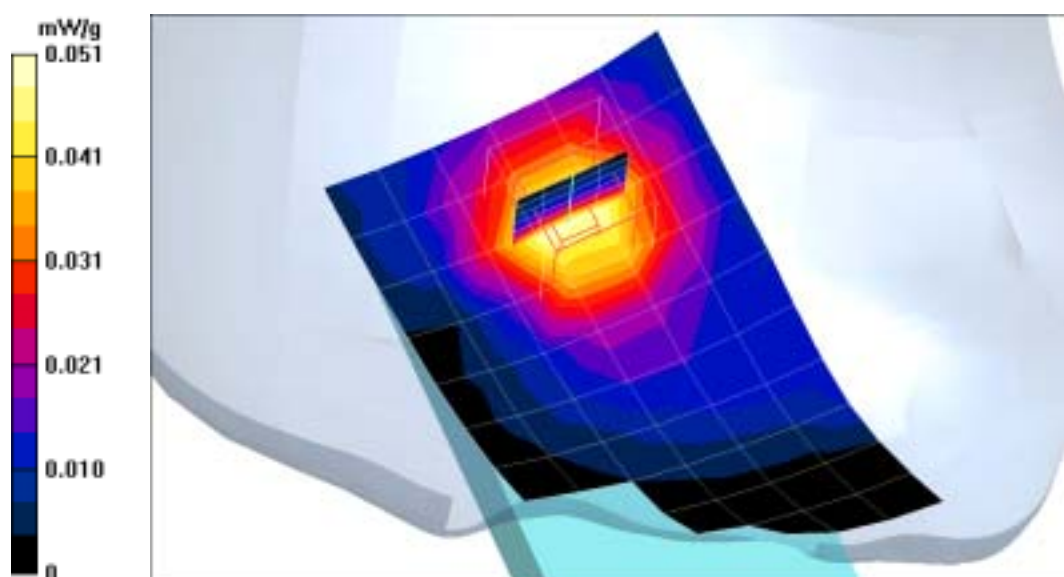
tilte 661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 5.96 V/m; Power Drift = -0.0 dB

Maximum value of SAR (measured) = 0.055 mW/g

Peak SAR (extrapolated) = 0.069 W/kg

SAR(1 g) = **0.046 mW/g**; SAR(10 g) = **0.029 mW/g**



Test Laboratory: Compliance Certification Services Inc.

Lound speaker



Test Laboratory: Compliance Certification Services Inc.

gsm850-loud speaker

DUT: PH20B Series; Type: PH20B; Serial: N/A

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

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.92$ mho/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(6, 6, 6); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1271
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

CH 190/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 10.4 V/m; Power Drift = -0.0 dB

Maximum value of SAR (measured) = 0.120 mW/g

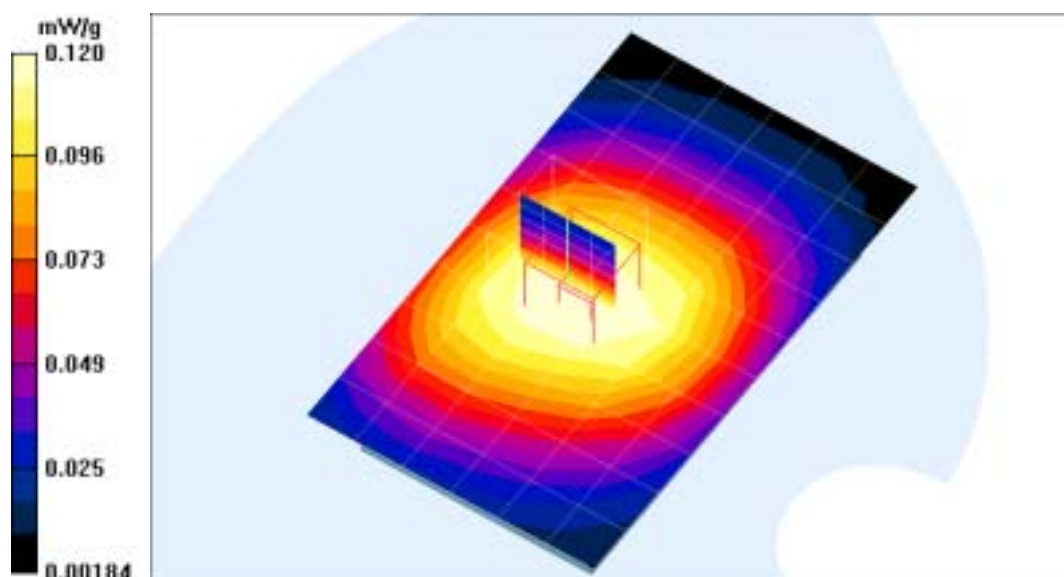
CH 190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.4 V/m; Power Drift = -0.0 dB

Maximum value of SAR (measured) = 0.120 mW/g

Peak SAR (extrapolated) = 0.141 W/kg

SAR(1 g) = 0.109 mW/g; SAR(10 g) = 0.082 mW/g



Test Laboratory: Compliance Certification Services Inc.

gsm850-Lound speaker-Co location with BT

DUT: PH20B Series; Type: PH20B; Serial: N/A

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

Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.92 \text{ mho/m}$; $\epsilon_r = 42.6$; $\rho = 1000 \text{ kg/m}^3$

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(6, 6, 6); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1271
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

CH 190-Co location with BT/Area Scan (7x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Reference Value = 10.3 V/m; Power Drift = 0.006 dB

Maximum value of SAR (measured) = 0.117 mW/g

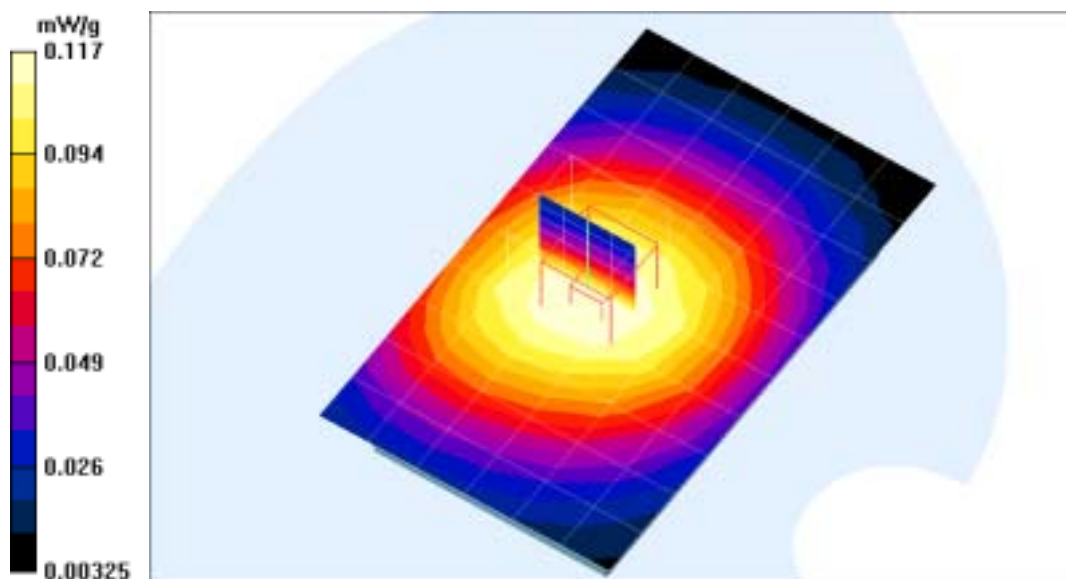
CH 190-Co location with BT/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 10.3 V/m; Power Drift = 0.006 dB

Maximum value of SAR (measured) = 0.118 mW/g

Peak SAR (extrapolated) = 0.138 W/kg

SAR(1 g) = **0.107 mW/g**; SAR(10 g) = **0.080 mW/g**



Test Laboratory: Compliance Certification Services Inc.

gsm850-Lound speaker-Co location with WLAN

DUT: PH20B Series; Type: PH20B; Serial: N/A

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

Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.92 \text{ mho/m}$; $\epsilon_r = 42.6$; $\rho = 1000 \text{ kg/m}^3$

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(6, 6, 6); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1271
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

CH 190-Co location with WLAN/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 10.6 V/m; Power Drift = 0.0 dB

Maximum value of SAR (measured) = 0.117 mW/g

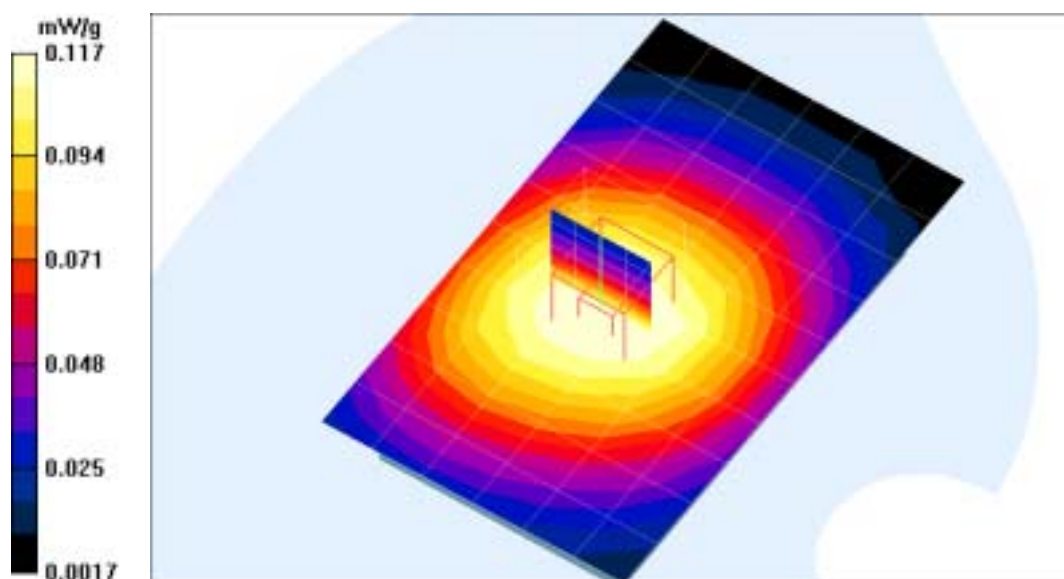
CH 190-Co location with WLAN/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.6 V/m; Power Drift = 0.0 dB

Maximum value of SAR (measured) = 0.120 mW/g

Peak SAR (extrapolated) = 0.138 W/kg

SAR(1 g) = **0.108 mW/g**; SAR(10 g) = **0.081 mW/g**



Test Laboratory: Compliance Certification Services Inc.

gsm850-Lound speaker-Co location with WLAN+BT

DUT: PH20B Series; Type: PH20B; Serial: N/A

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

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.92$ mho/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(6, 6, 6); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1271
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

CH 190-Co location with WLAN+BT/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 10.8 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.118 mW/g

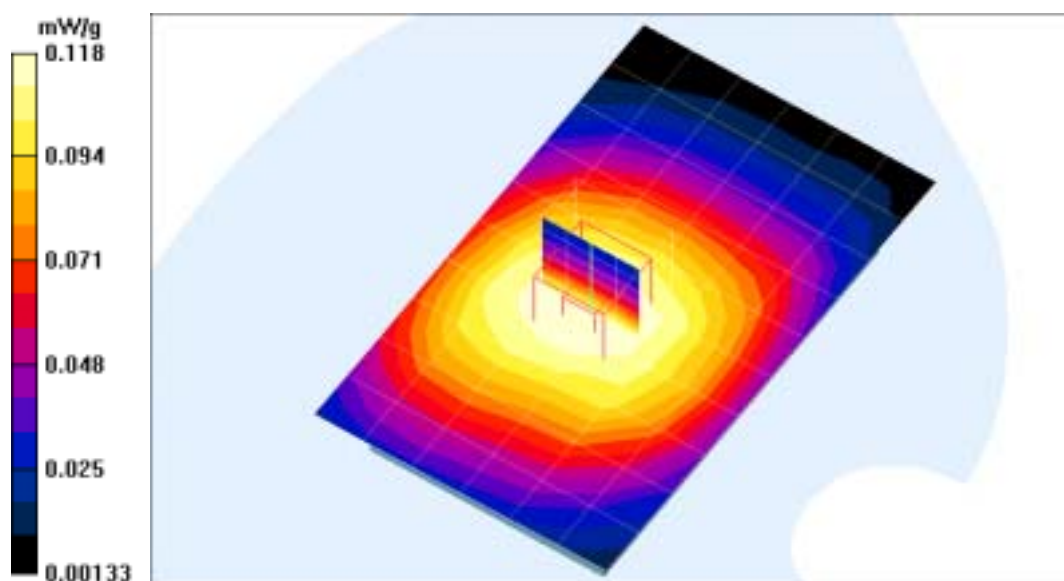
CH 190-Co location with WLAN+BT/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.8 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.119 mW/g

Peak SAR (extrapolated) = 0.139 W/kg

SAR(1 g) = 0.108 mW/g; SAR(10 g) = 0.082 mW/g



Test Laboratory: Compliance Certification Services Inc.

gsm1900-Lond speaker

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: GSM1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.43 \text{ mho/m}$; $\epsilon_r = 40.1$; $\rho = 1000 \text{ kg/m}^3$

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

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.9, 4.9, 4.9); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Loud speaker 661/Area Scan (8x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Reference Value = 6.79 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.075 mW/g

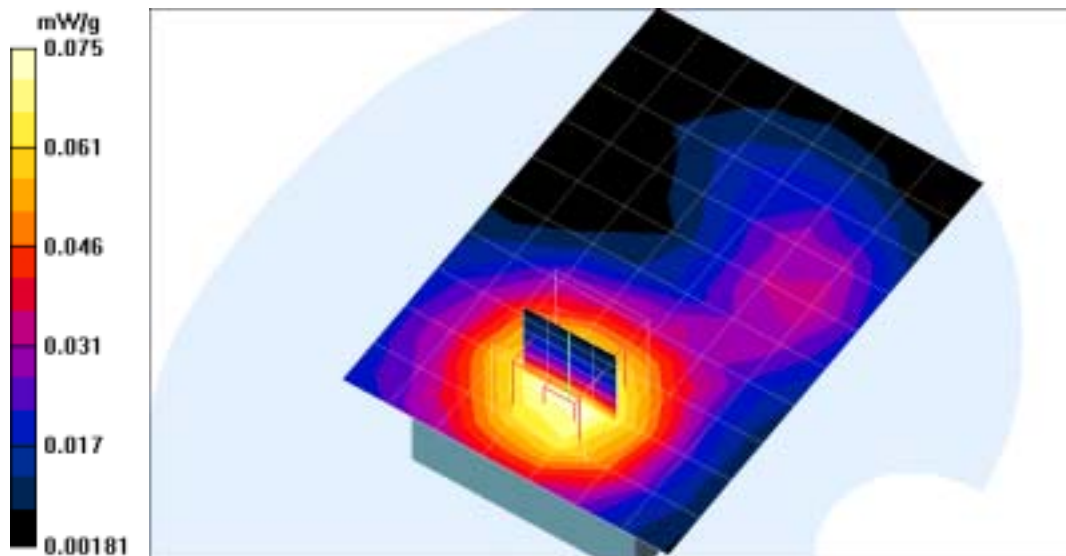
Loud speaker 661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 6.79 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.078 mW/g

Peak SAR (extrapolated) = 0.098 W/kg

SAR(1 g) = 0.067 mW/g; SAR(10 g) = 0.044 mW/g



Test Laboratory: Compliance Certification Services Inc.

gsm1900-Lond speaker-co location with BT

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: GSM1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.43 \text{ mho/m}$; $\epsilon_r = 40.1$; $\rho = 1000 \text{ kg/m}^3$

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

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.9, 4.9, 4.9); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Lound speaker 661 with BT/Area Scan (7x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Reference Value = 6.65 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.064 mW/g

Lound speaker 661 with BT/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 6.65 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.067 mW/g

Peak SAR (extrapolated) = 0.088 W/kg

SAR(1 g) = 0.057 mW/g; SAR(10 g) = 0.037 mW/g

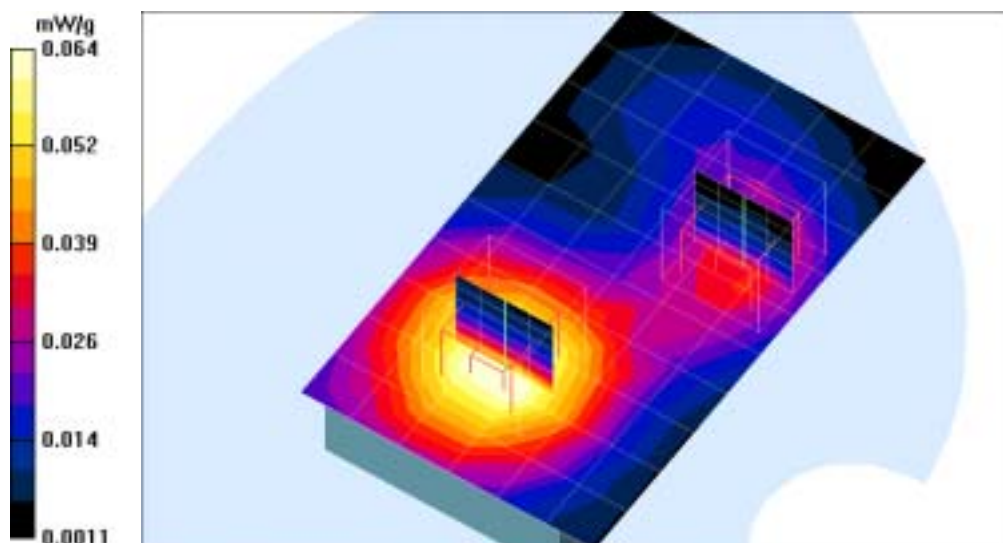
Lound speaker 661 with BT/Zoom Scan (5x5x7)/Cube 1: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 6.65 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.038 mW/g

Peak SAR (extrapolated) = 0.049 W/kg

SAR(1 g) = 0.033 mW/g; SAR(10 g) = 0.020 mW/g



Test Laboratory: Compliance Certification Services Inc.

gsm1900-Lond speaker-co location with WLAN

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: GSM1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.43 \text{ mho/m}$; $\epsilon_r = 40.1$; $\rho = 1000 \text{ kg/m}^3$

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

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.9, 4.9, 4.9); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Lound speaker 661 with WLAN/Area Scan (8x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Reference Value = 6.69 V/m; Power Drift = 0.0 dB

Maximum value of SAR (measured) = 0.064 mW/g

Lound speaker 661 with WLAN/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 6.69 V/m; Power Drift = 0.0 dB

Maximum value of SAR (measured) = 0.068 mW/g

Peak SAR (extrapolated) = 0.087 W/kg

SAR(1 g) = 0.058 mW/g; SAR(10 g) = 0.038 mW/g

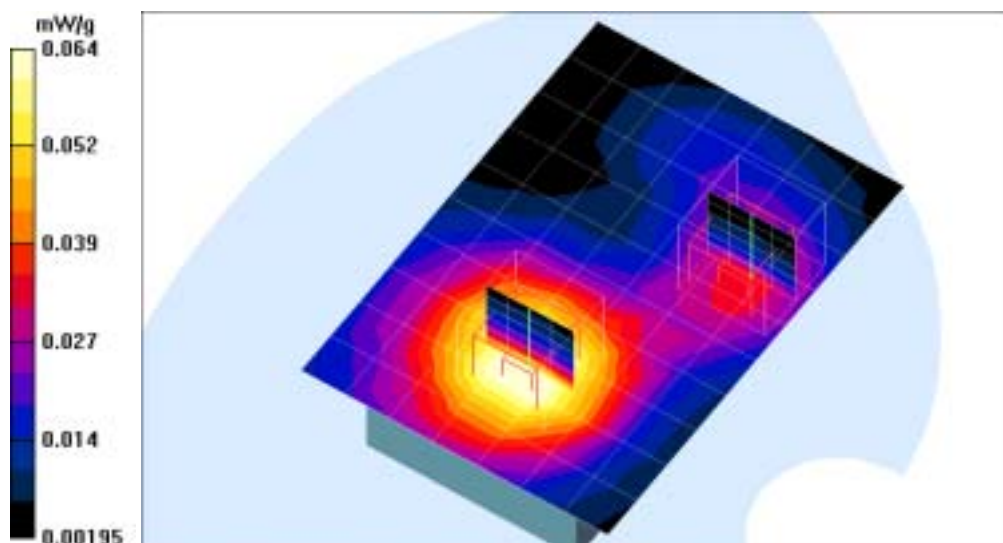
Lound speaker 661 with WLAN/Zoom Scan (5x5x7)/Cube 1: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 6.69 V/m; Power Drift = 0.0 dB

Maximum value of SAR (measured) = 0.038 mW/g

Peak SAR (extrapolated) = 0.049 W/kg

SAR(1 g) = 0.032 mW/g; SAR(10 g) = 0.020 mW/g



Test Laboratory: Compliance Certification Services Inc.

gsm1900-Lond speaker-co location with WLAN+BT

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: GSM1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.43 \text{ mho/m}$; $\epsilon_r = 40.1$; $\rho = 1000 \text{ kg/m}^3$

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

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.9, 4.9, 4.9); Calibrated: 9/23/2003
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Lound speaker 661 with WALN + BT/Area Scan (8x11x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 6.52 V/m; Power Drift = -0.007 dB

Maximum value of SAR (measured) = 0.064 mW/g

Lound speaker 661 with WALN + BT/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 6.52 V/m; Power Drift = -0.007 dB

Maximum value of SAR (measured) = 0.066 mW/g

Peak SAR (extrapolated) = 0.086 W/kg

SAR(1 g) = 0.057 mW/g; SAR(10 g) = 0.037 mW/g

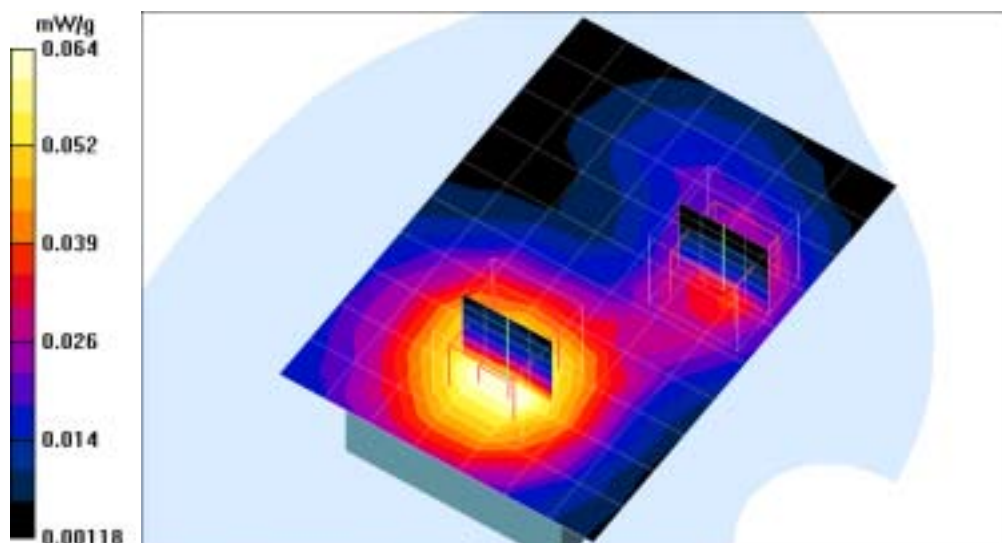
Lound speaker 661 with WALN + BT/Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 6.52 V/m; Power Drift = -0.007 dB

Maximum value of SAR (measured) = 0.037 mW/g

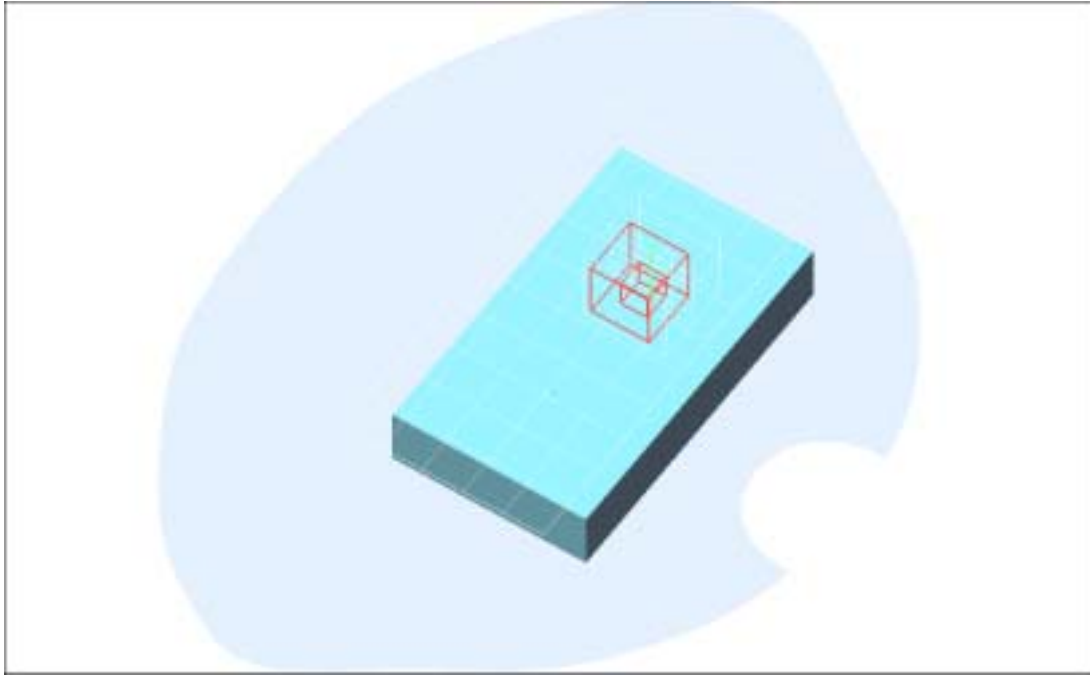
Peak SAR (extrapolated) = 0.047 W/kg

SAR(1 g) = 0.032 mW/g; SAR(10 g) = 0.020 mW/g



Test Laboratory: Compliance Certification Services Inc.

Body(Close cover)



0 dB = 0.525mW/g

Test Laboratory: Compliance Certification Services Inc.

gsm850-body

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: GSM835; Frequency: 836.6 MHz; Duty Cycle: 1:8

Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.97 \text{ mho/m}$; $\epsilon_r = 54$; $\rho = 1000 \text{ kg/m}^3$

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(6, 6, 6); Calibrated: 9/23/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Belt-clips CH 190/Area Scan (6x11x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 19.9 V/m; Power Drift = -0.0 dB

Maximum value of SAR (measured) = 0.521 mW/g

Belt-clips CH 190/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm

Reference Value = 19.9 V/m; Power Drift = -0.0 dB

Maximum value of SAR (measured) = 0.537 mW/g

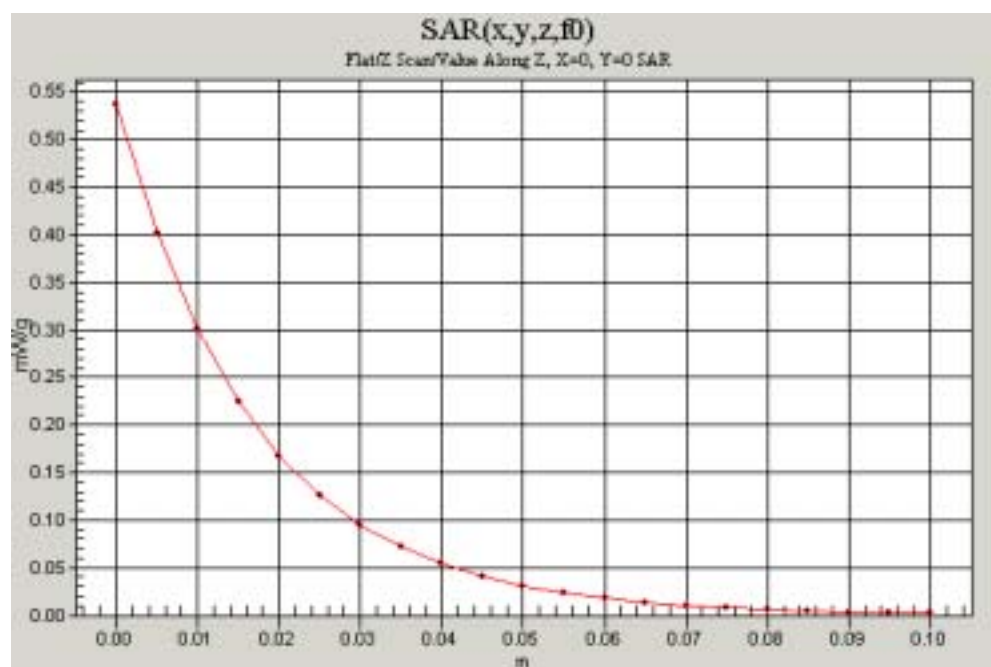
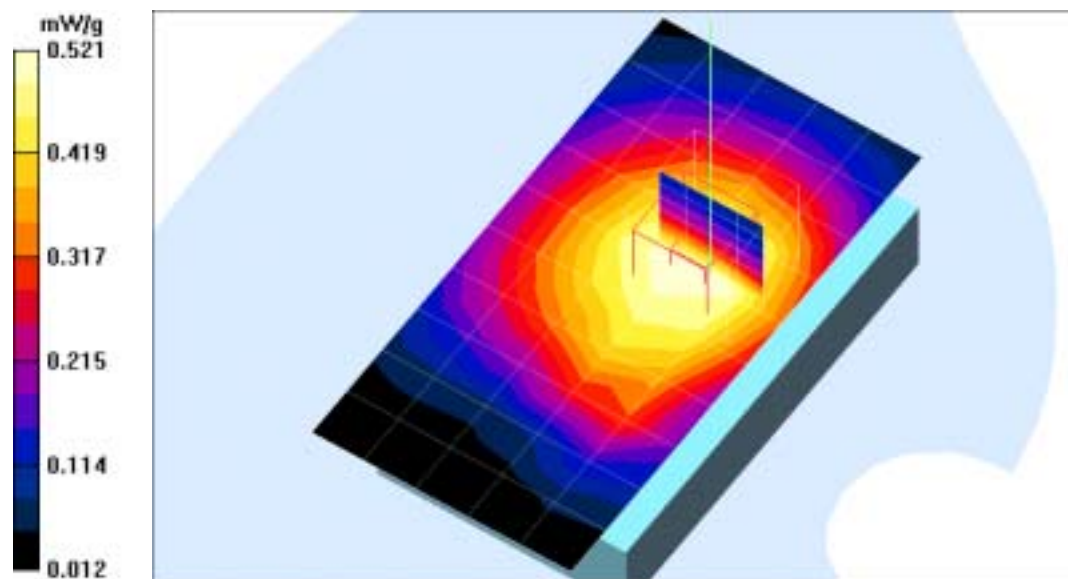
Belt-clips CH 190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 19.9 V/m; Power Drift = -0.0 dB

Maximum value of SAR (measured) = 0.525 mW/g

Peak SAR (extrapolated) = 0.638 W/kg

SAR(1 g) = 0.502 mW/g; SAR(10 g) = 0.373 mW/g



Test Laboratory: Compliance Certification Services Inc.

gsm850-body-GPRS

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: GSM835; Frequency: 836.6 MHz; Duty Cycle: 1:4

Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.97 \text{ mho/m}$; $\epsilon_r = 54$; $\rho = 1000 \text{ kg/m}^3$

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(6, 6, 6); Calibrated: 9/23/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Belt clips CH 190/Area Scan (6x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Maximum value of SAR (measured) = 0.484 mW/g

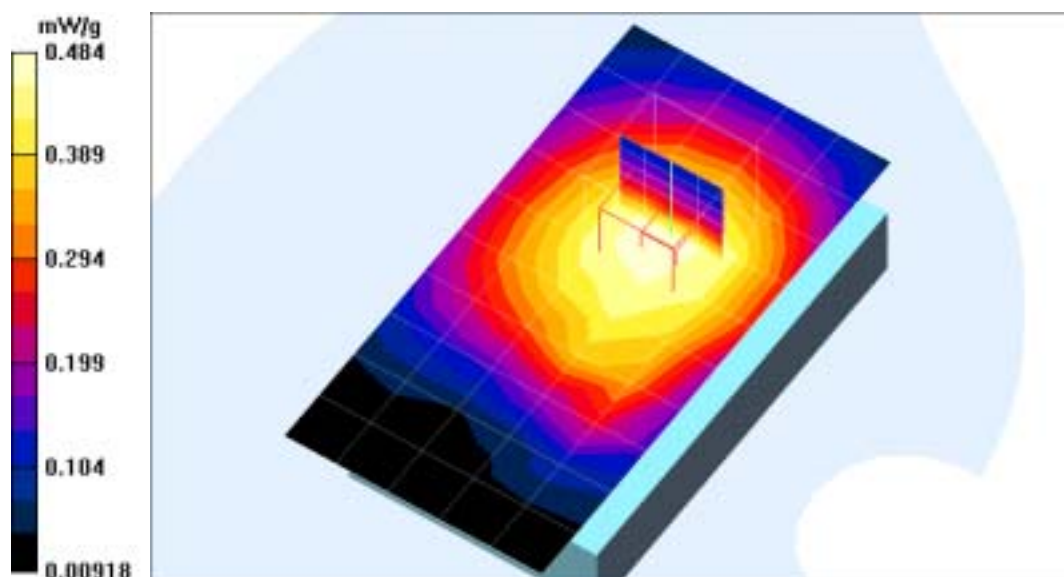
Belt clips CH 190/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

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

Maximum value of SAR (measured) = 0.482 mW/g

Peak SAR (extrapolated) = 0.560 W/kg

SAR(1 g) = **0.460 mW/g**; SAR(10 g) = 0.349 mW/g



Test Laboratory: Compliance Certification Services Inc.

gsm850-body-GPRS-co location with BT

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: GSM835; Frequency: 836.6 MHz; Duty Cycle: 1:4

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.97$ mho/m; $\epsilon_r = 54$; $\rho = 1000$ kg/m³

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(6, 6, 6); Calibrated: 9/23/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Belt-Clips CH 190-co location with BT/Area Scan (6x11x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 18.6 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.496 mW/g

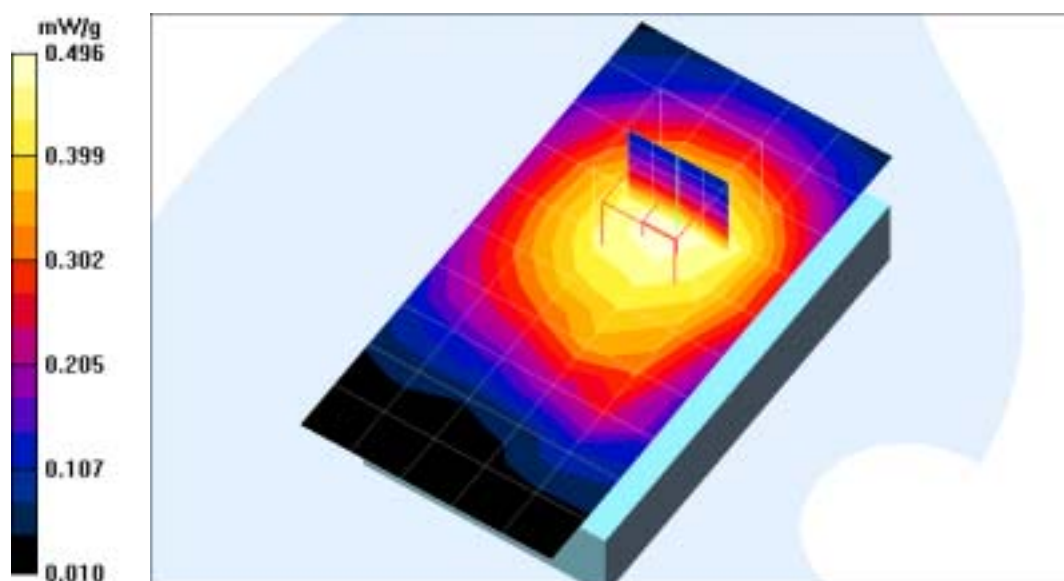
Belt-Clips CH 190-co location with BT/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 18.6 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.501 mW/g

Peak SAR (extrapolated) = 0.590 W/kg

SAR(1 g) = 0.476 mW/g; SAR(10 g) = 0.359 mW/g



Test Laboratory: Compliance Certification Services Inc.

gsm850-body-GPRS-co location with WLAN

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: GSM835; Frequency: 836.6 MHz; Duty Cycle: 1:4

Medium parameters used: $f = 836.6 \text{ MHz}$; $\sigma = 0.97 \text{ mho/m}$; $\epsilon_r = 54$; $\rho = 1000 \text{ kg/m}^3$

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(6, 6, 6); Calibrated: 9/23/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Belt-Clips CH 190-co location with WLAN/Area Scan (6x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Reference Value = 18.7 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.494 mW/g

Belt-Clips CH 190-co location with WLAN/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 18.7 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.490 mW/g

Peak SAR (extrapolated) = 0.588 W/kg

SAR(1 g) = 0.468 mW/g; SAR(10 g) = 0.354 mW/g

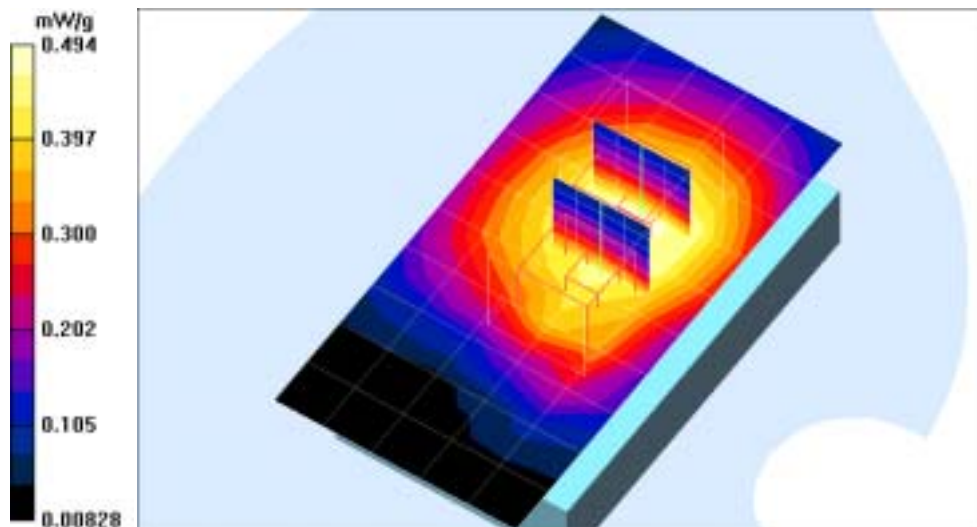
Belt-Clips CH 190-co location with WLAN/Zoom Scan (5x5x7)/Cube 1: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 18.7 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.448 mW/g

Peak SAR (extrapolated) = 0.561 W/kg

SAR(1 g) = 0.409 mW/g; SAR(10 g) = 0.282 mW/g



Test Laboratory: Compliance Certification Services Inc.

gsm850-body-GPRS-co location with WLAN BT

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: GSM835; Frequency: 836.6 MHz; Duty Cycle: 1:4

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.97$ mho/m; $\epsilon_r = 54$; $\rho = 1000$ kg/m³

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(6, 6, 6); Calibrated: 9/23/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Belt-Clips CH 190-co location with WLAN BT/Area Scan (6x11x1): Measurement grid:

dx=15mm, dy=15mm

Reference Value = 18.9 V/m; Power Drift = -0.2 dB

Maximum value of SAR (measured) = 0.474 mW/g

Belt-Clips CH 190-co location with WLAN BT/Zoom Scan (5x5x7)/Cube 0: Measurement

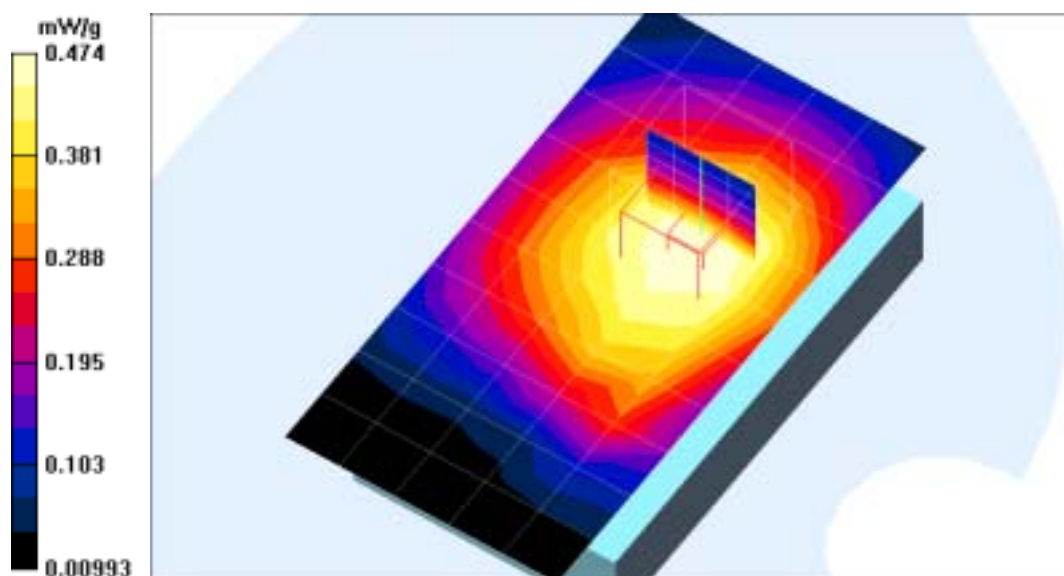
grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 18.9 V/m; Power Drift = -0.2 dB

Maximum value of SAR (measured) = 0.481 mW/g

Peak SAR (extrapolated) = 0.569 W/kg

SAR(1 g) = 0.459 mW/g; SAR(10 g) = 0.347 mW/g



Test Laboratory: Compliance Certification Services Inc.

gsm1900-body

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: GSM1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.54 \text{ mho/m}$; $\epsilon_r = 52$; $\rho = 1000 \text{ kg/m}^3$

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

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.5, 4.5, 4.5); Calibrated: 9/23/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1271
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Belt-clips CH 661/Area Scan (7x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Reference Value = 3.66 V/m; Power Drift = 0.2 dB

Maximum value of SAR (measured) = 0.229 mW/g

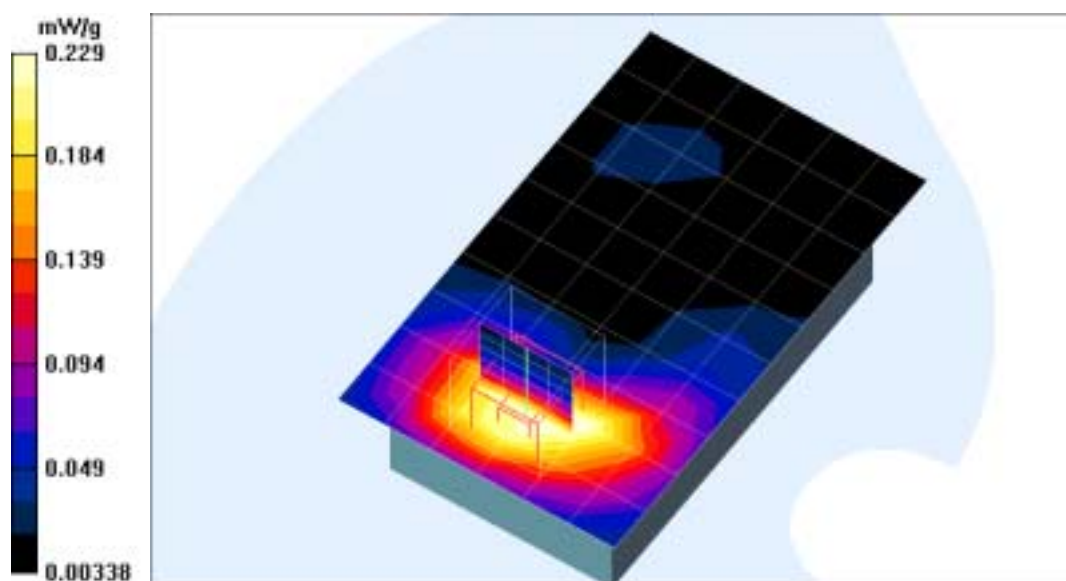
Belt-clips CH 661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 3.66 V/m; Power Drift = 0.2 dB

Maximum value of SAR (measured) = 0.262 mW/g

Peak SAR (extrapolated) = 0.361 W/kg

SAR(1 g) = 0.240 mW/g; SAR(10 g) = 0.147 mW/g



Test Laboratory: Compliance Certification Services Inc.

gsm1900-body-gprs

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: GSM1900; Frequency: 1880 MHz; Duty Cycle: 1:4

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 52$; $\rho = 1000$ kg/m³

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

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.5, 4.5, 4.5); Calibrated: 9/23/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1271
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Belt-clips CH 661/Area Scan (7x11x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 3.98 V/m; Power Drift = -0.2 dB

Maximum value of SAR (measured) = 0.079 mW/g

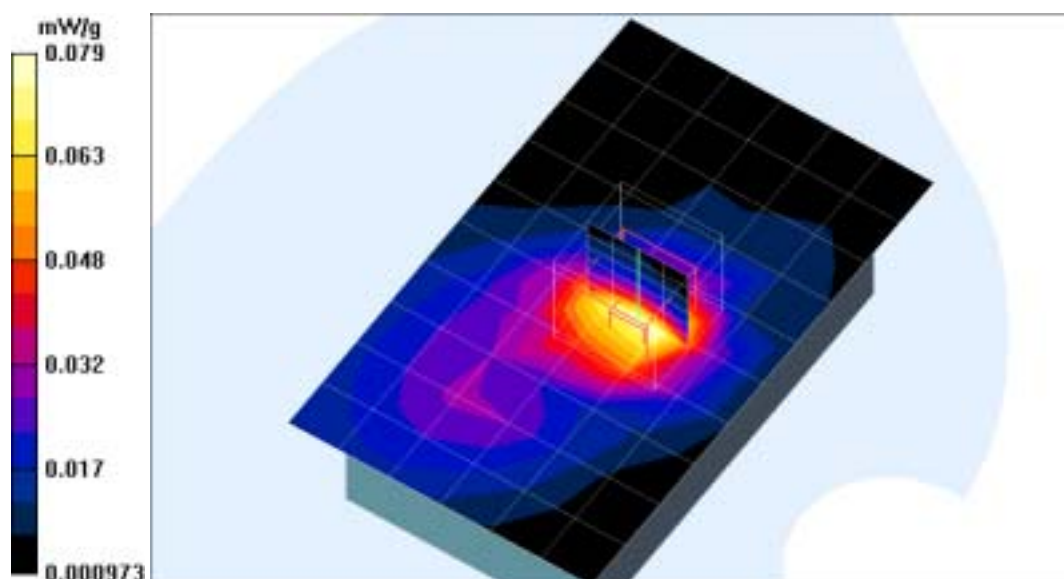
Belt-clips CH 661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 3.98 V/m; Power Drift = -0.2 dB

Maximum value of SAR (measured) = 0.088 mW/g

Peak SAR (extrapolated) = 0.113 W/kg

SAR(1 g) = 0.079 mW/g; SAR(10 g) = 0.046 mW/g



Test Laboratory: Compliance Certification Services Inc.

gsm1900-body-co location with BT

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: GSM1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.54 \text{ mho/m}$; $\epsilon_r = 52$; $\rho = 1000 \text{ kg/m}^3$

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

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.5, 4.5, 4.5); Calibrated: 9/23/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1271
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Belt-clips CH 661 with BT/Area Scan (7x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Reference Value = 4.51 V/m; Power Drift = 0.2 dB

Maximum value of SAR (measured) = 0.229 mW/g

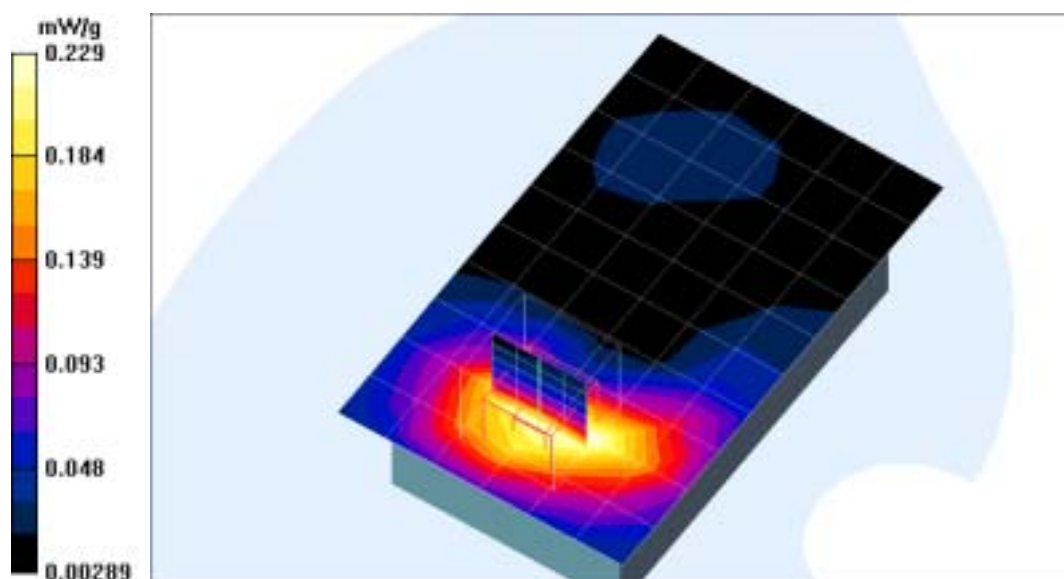
Belt-clips CH 661 with BT/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

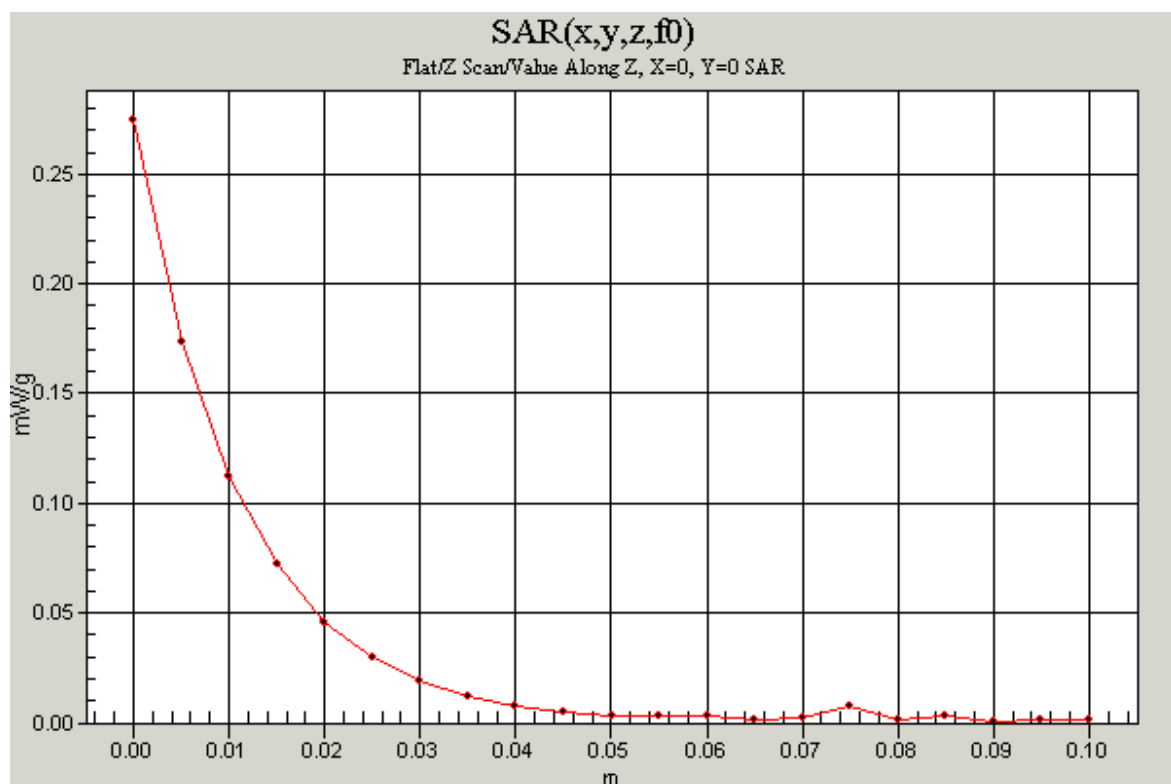
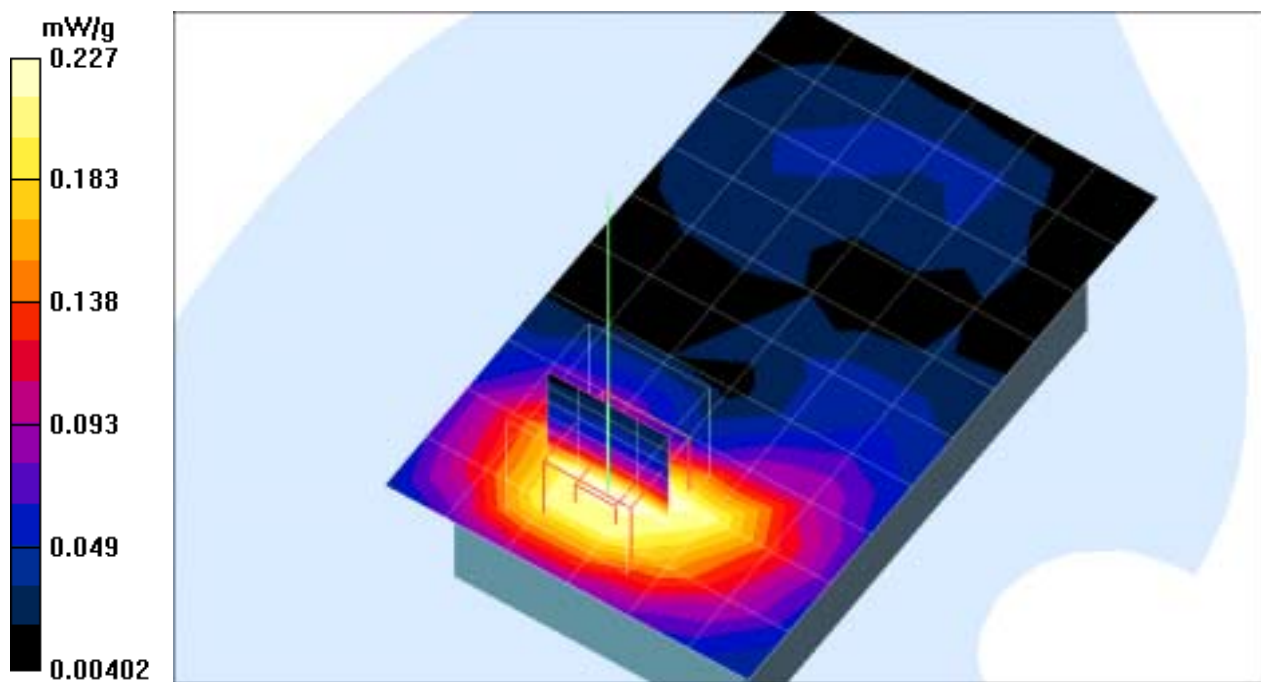
Reference Value = 4.51 V/m; Power Drift = 0.2 dB

Maximum value of SAR (measured) = 0.248 mW/g

Peak SAR (extrapolated) = 0.348 W/kg

SAR(1 g) = 0.226 mW/g; SAR(10 g) = 0.138 mW/g





Test Laboratory: Compliance Certification Services Inc.

gsm1900-body-co location with WLAN

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: GSM1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.54 \text{ mho/m}$; $\epsilon_r = 52$; $\rho = 1000 \text{ kg/m}^3$

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

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.5, 4.5, 4.5); Calibrated: 9/23/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1271
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Belt-clips CH 661 with WLAN/Area Scan (7x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Reference Value = 2.99 V/m; Power Drift = 0.2 dB

Maximum value of SAR (measured) = 0.204 mW/g

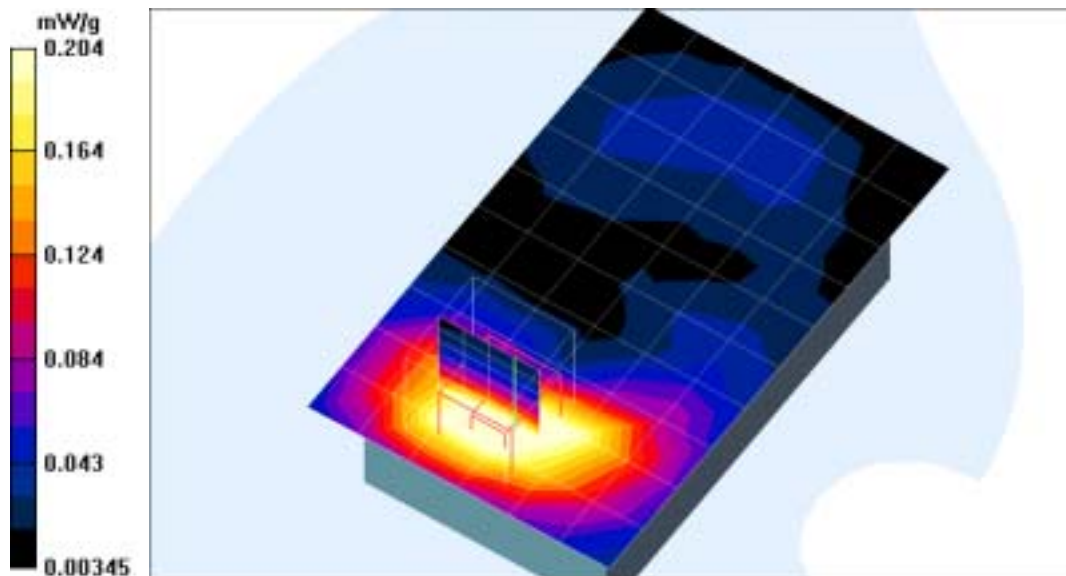
Belt-clips CH 661 with WLAN/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 2.99 V/m; Power Drift = 0.2 dB

Maximum value of SAR (measured) = 0.244 mW/g

Peak SAR (extrapolated) = 0.334 W/kg

SAR(1 g) = 0.224 mW/g; SAR(10 g) = 0.138 mW/g



Test Laboratory: Compliance Certification Services Inc.

gsm1900-body-co location with WLAN+BT

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: GSM1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.54 \text{ mho/m}$; $\epsilon_r = 52$; $\rho = 1000 \text{ kg/m}^3$

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

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.5, 4.5, 4.5); Calibrated: 9/23/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 12; Type: SAM V4.0; Serial: TP-1271
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Belt-clips CH 661 with WLAN + BT/Area Scan (7x11x1): Measurement grid:

$dx=15\text{mm}$, $dy=15\text{mm}$

Reference Value = 3.81 V/m; Power Drift = 0.1 dB

Maximum value of SAR (measured) = 0.227 mW/g

Belt-clips CH 661 with WLAN + BT/Z Scan (1x1x21): Measurement grid:

$dx=20\text{mm}$, $dy=20\text{mm}$, $dz=5\text{mm}$

Reference Value = 3.81 V/m; Power Drift = 0.0 dB

Maximum value of SAR (measured) = 0.275 mW/g

Belt-clips CH 661 with WLAN + BT/Zoom Scan (5x5x7)/Cube 0:

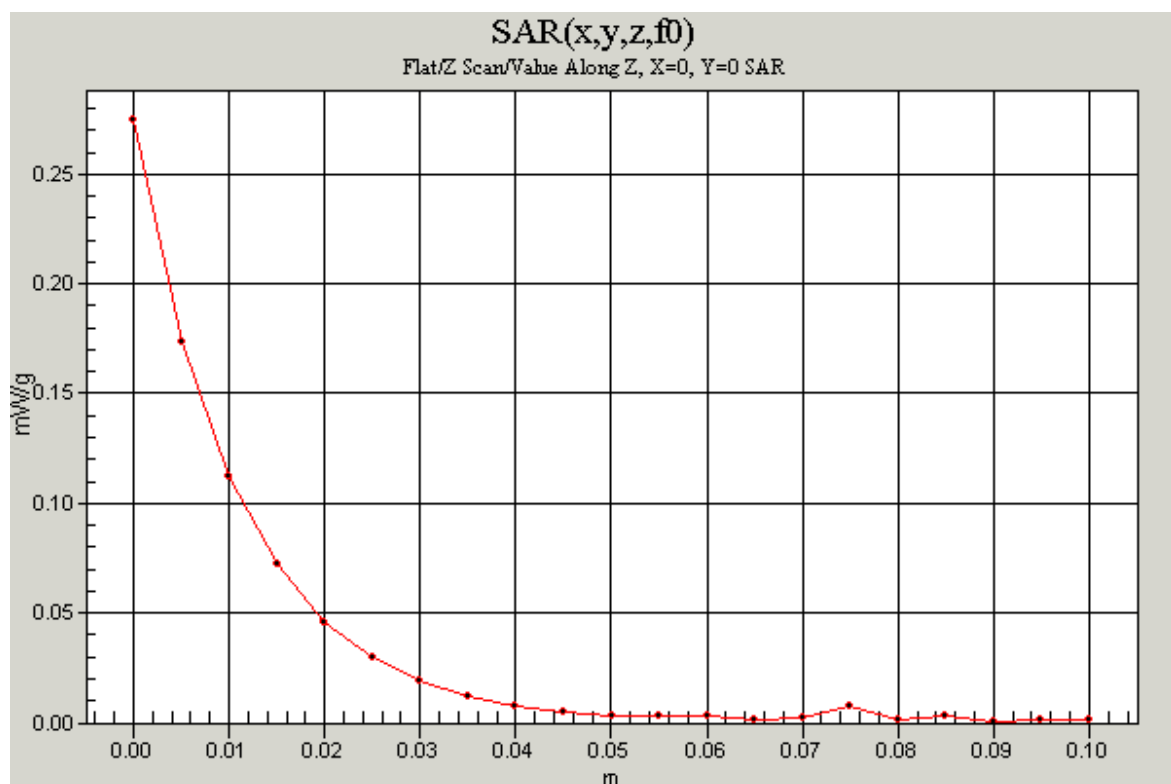
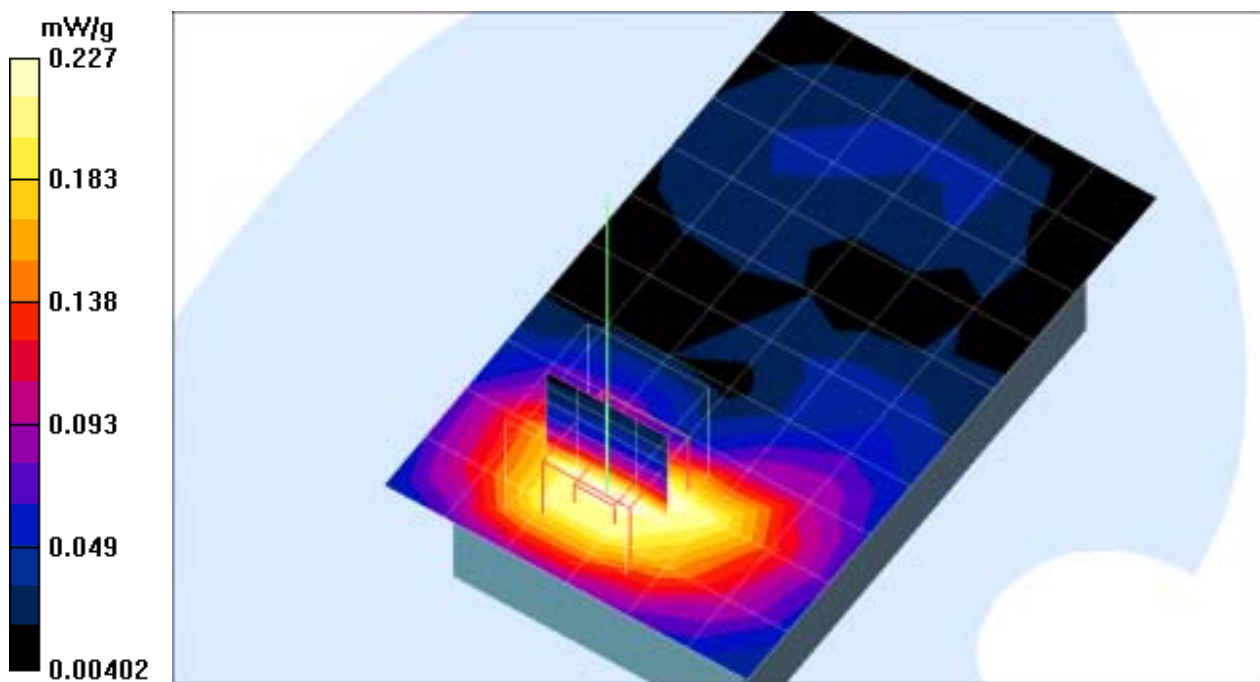
Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 3.81 V/m; Power Drift = 0.1 dB

Maximum value of SAR (measured) = 0.262 mW/g

Peak SAR (extrapolated) = 0.359 W/kg

SAR(1 g) = **0.241 mW/g**; SAR(10 g) = **0.148 mW/g**



Test Laboratory: Compliance Certification Services Inc.

Test Configuration-1(Close cover)



Test Laboratory: Compliance Certification Services Inc.

Touch mode

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: IEEE802.11b; Frequency: 2412 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2412$ MHz; $\sigma = 1.98$ mho/m; $\epsilon_r = 51$; $\rho = 1000$ kg/m³

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.1, 4.1, 4.1); Calibrated: 9/23/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

Low Rate=11M bit/Area Scan (8x11x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 1.12 V/m; Power Drift = -0.2 dB

Maximum value of SAR (measured) = 0.302 mW/g

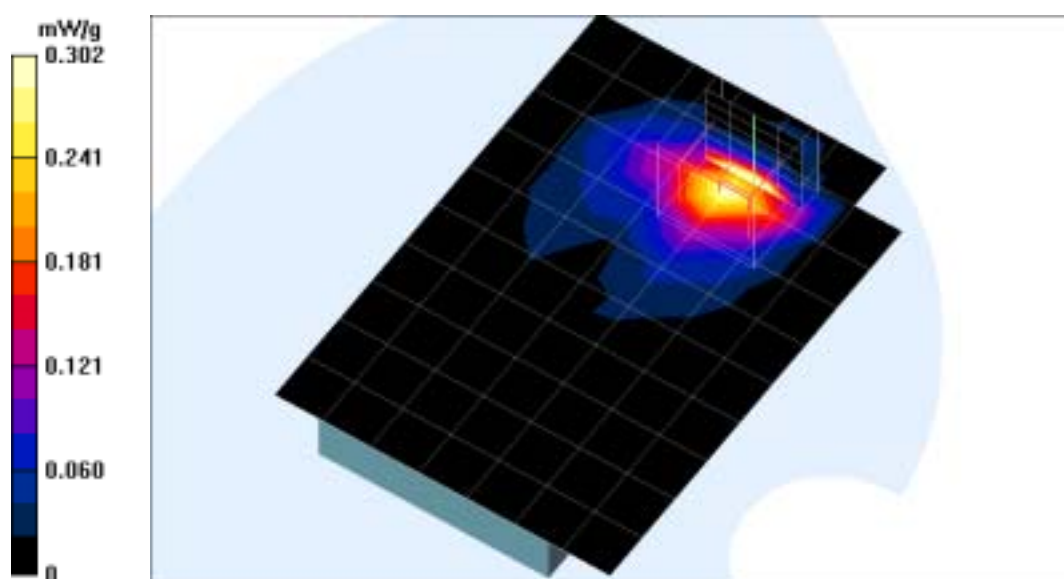
Low Rate=11M bit/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 1.12 V/m; Power Drift = -0.2 dB

Maximum value of SAR (measured) = 0.474 mW/g

Peak SAR (extrapolated) = 1.09 W/kg

SAR(1 g) = 0.392 mW/g; SAR(10 g) = 0.152 mW/g



Test Laboratory: Compliance Certification Services Inc.

Touch mode

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: IEEE802.11b; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2437 \text{ MHz}$; $\sigma = 1.98 \text{ mho/m}$; $\epsilon_r = 51$; $\rho = 1000 \text{ kg/m}^3$

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.1, 4.1, 4.1); Calibrated: 9/23/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
Sensor-Surface: 0mm (Fix Surface)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

mid Rate=11M bit/Area Scan (8x11x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 1.31 V/m; Power Drift = -0.2 dB

Maximum value of SAR (measured) = 0.397 mW/g

mid Rate=11M bit/Z Scan (1x1x21): Measurement grid: dx=20mm, dy=20mm, dz=5mm

Reference Value = 1.31 V/m; Power Drift = 0.2 dB

Maximum value of SAR (measured) = 0.262 mW/g

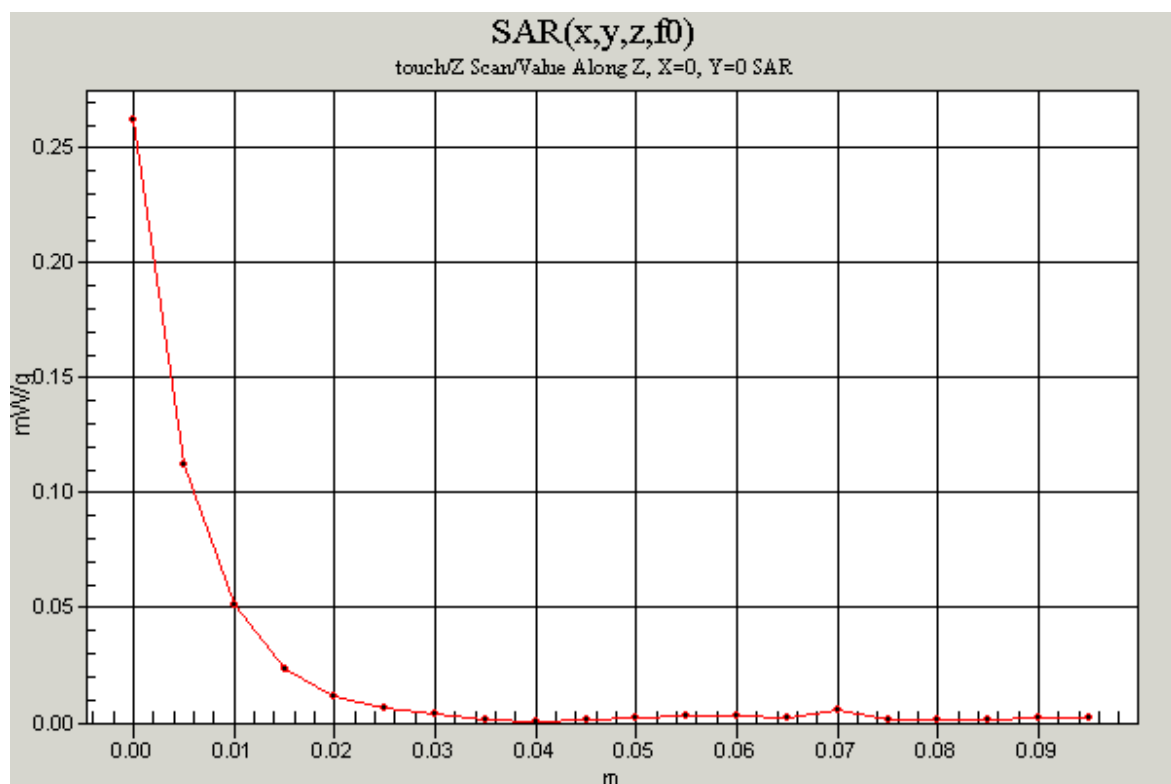
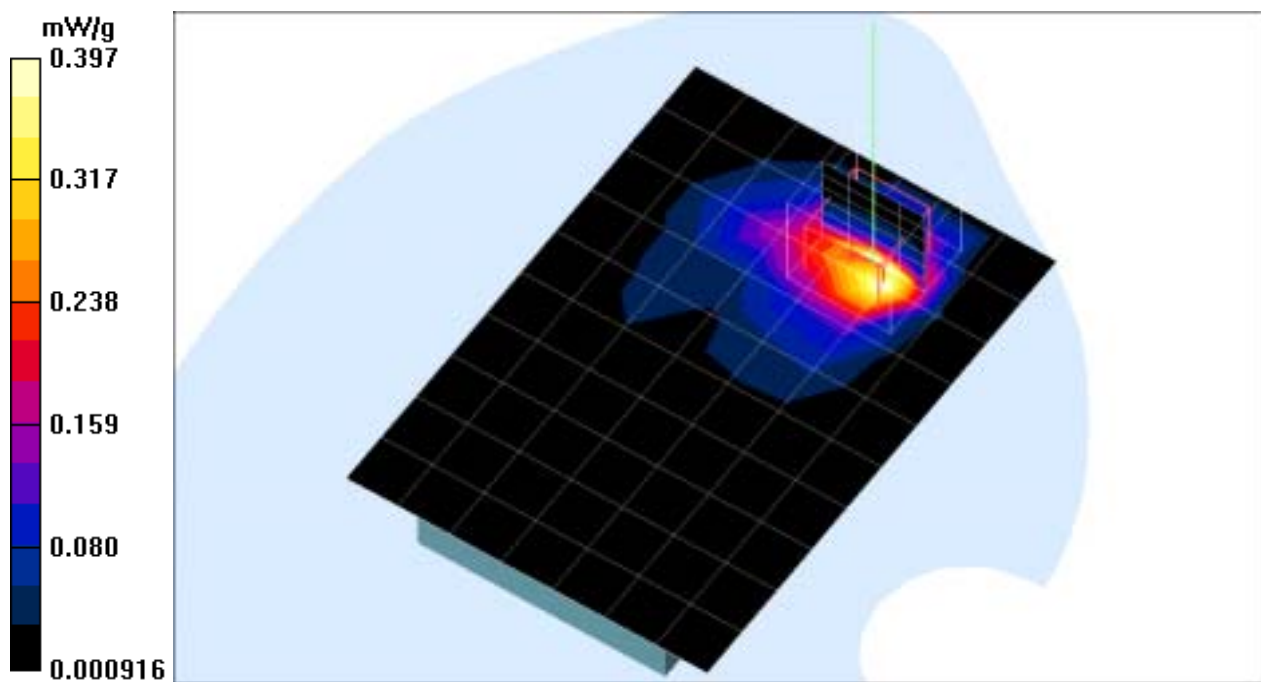
mid Rate=11M bit/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 1.31 V/m; Power Drift = -0.2 dB

Maximum value of SAR (measured) = 0.618 mW/g

Peak SAR (extrapolated) = 1.5 W/kg

SAR(1 g) = **0.548 mW/g**; SAR(10 g) = **0.209 mW/g**



Test Laboratory: Compliance Certification Services Inc.

Touch mode

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: IEEE802.11b; Frequency: 2462 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2462 \text{ MHz}$; $\sigma = 1.98 \text{ mho/m}$; $\epsilon_r = 51$; $\rho = 1000 \text{ kg/m}^3$

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.1, 4.1, 4.1); Calibrated: 9/23/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

High Rate=11M bit/Area Scan (7x11x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Reference Value = 1.2 V/m; Power Drift = -0.2 dB

Maximum value of SAR (measured) = 0.352 mW/g

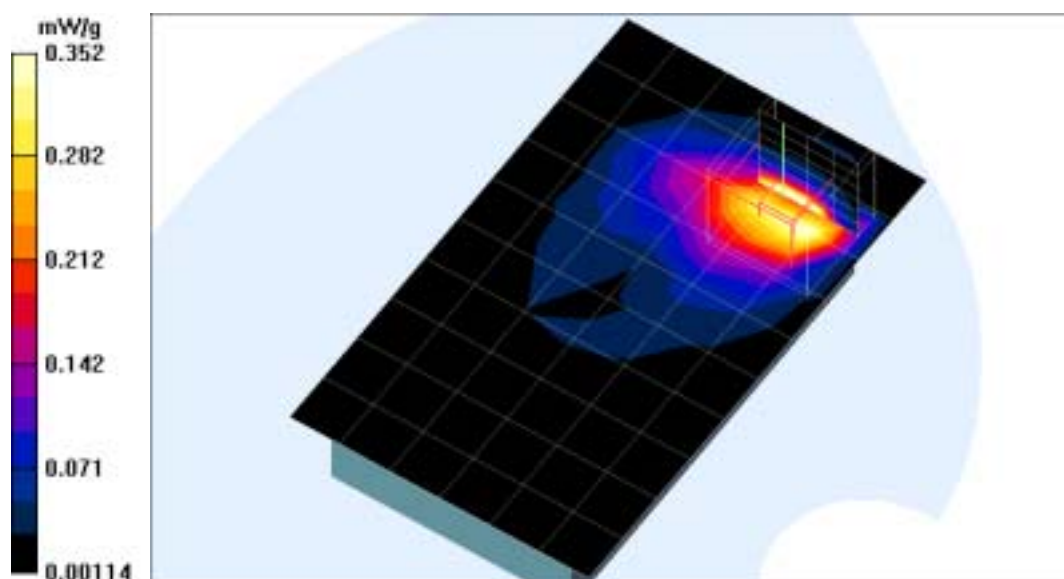
High Rate=11M bit/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 1.2 V/m; Power Drift = -0.2 dB

Maximum value of SAR (measured) = 0.564 mW/g

Peak SAR (extrapolated) = 1.37 W/kg

SAR(1 g) = 0.502 mW/g; SAR(10 g) = 0.192 mW/g



Test Laboratory: Compliance Certification Services Inc.

Touch mode-Co location with BT

DUT: PH20B Series; Type: PH20B; Serial: N/A

Communication System: IEEE802.11b; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2437 \text{ MHz}$; $\sigma = 1.98 \text{ mho/m}$; $\epsilon_r = 51$; $\rho = 1000 \text{ kg/m}^3$

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.1, 4.1, 4.1); Calibrated: 9/23/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

mid Rate=11M bit Co-location/Area Scan (8x11x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 0.987 V/m; Power Drift = 0.1 dB

Maximum value of SAR (measured) = 0.334 mW/g

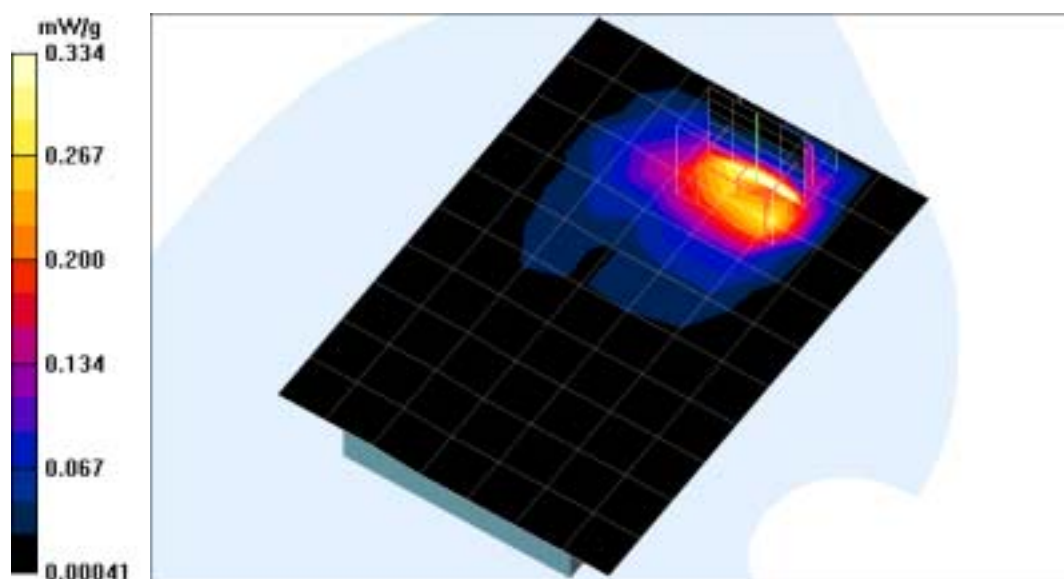
mid Rate=11M bit Co-location/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 0.987 V/m; Power Drift = 0.1 dB

Maximum value of SAR (measured) = 0.611 mW/g

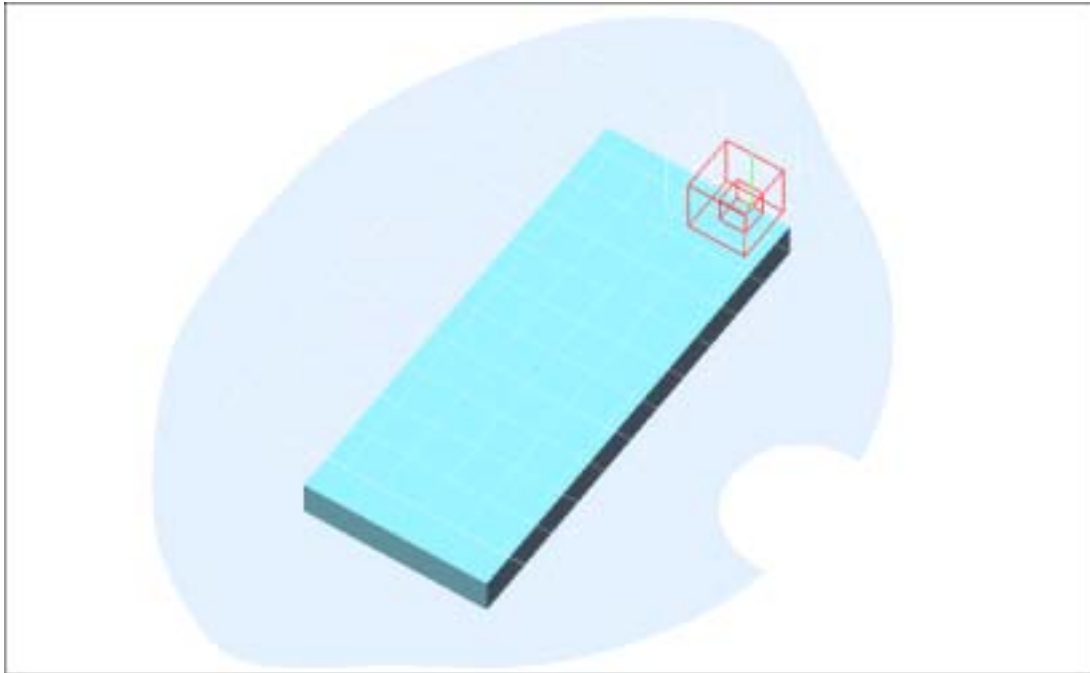
Peak SAR (extrapolated) = 1.42 W/kg

SAR(1 g) = **0.514 mW/g**; SAR(10 g) = 0.196 mW/g



Test Laboratory: Compliance Certification Services Inc.

Test Configuration-2(Open cover)



Test Laboratory: Compliance Certification Services Inc.

Touch mode-slide cover

DUT: Pocket PC Phone; Type: PH20B; Serial: N/A

Communication System: IEEE802.11b; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used: $\sigma = 1.98$; mho/m, $\epsilon_r = 51$; $\rho = 1 \text{ kg/m}^3$

Medium parameters used: $f = 2437 \text{ MHz}$; $\sigma = 1.98 \text{ mho/m}$; $\epsilon_r = 51$; $\rho = 1000 \text{ kg/m}^3$

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.1, 4.1, 4.1); Calibrated: 9/23/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

mid Rate=11M bit/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 1.93 V/m; Power Drift = -0.1 dB

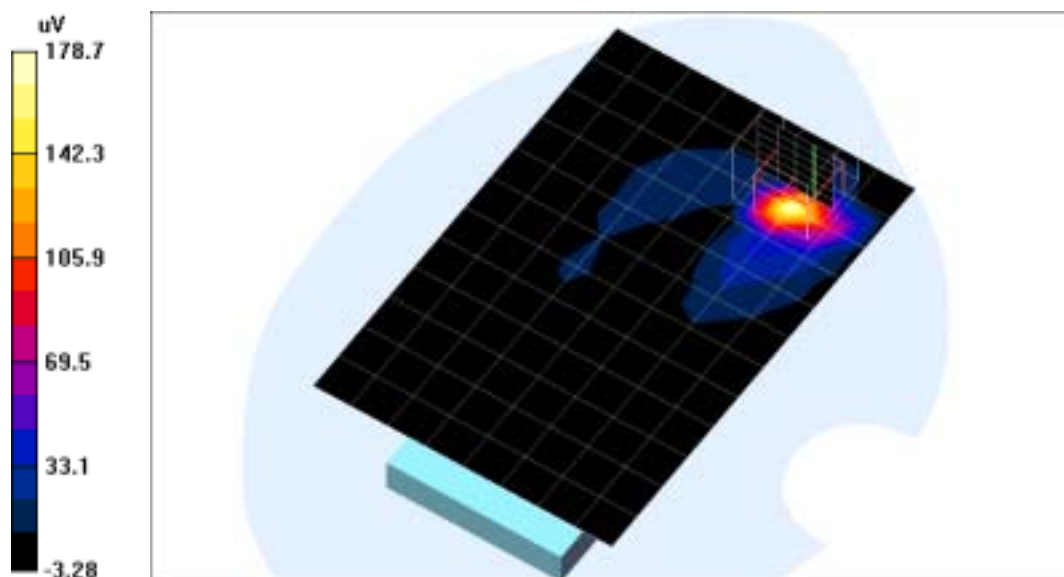
mid Rate=11M bit/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 1.93 V/m; Power Drift = -0.1 dB

Maximum value of SAR (measured) = 0.335 mW/g

Peak SAR (extrapolated) = 0.758 W/kg

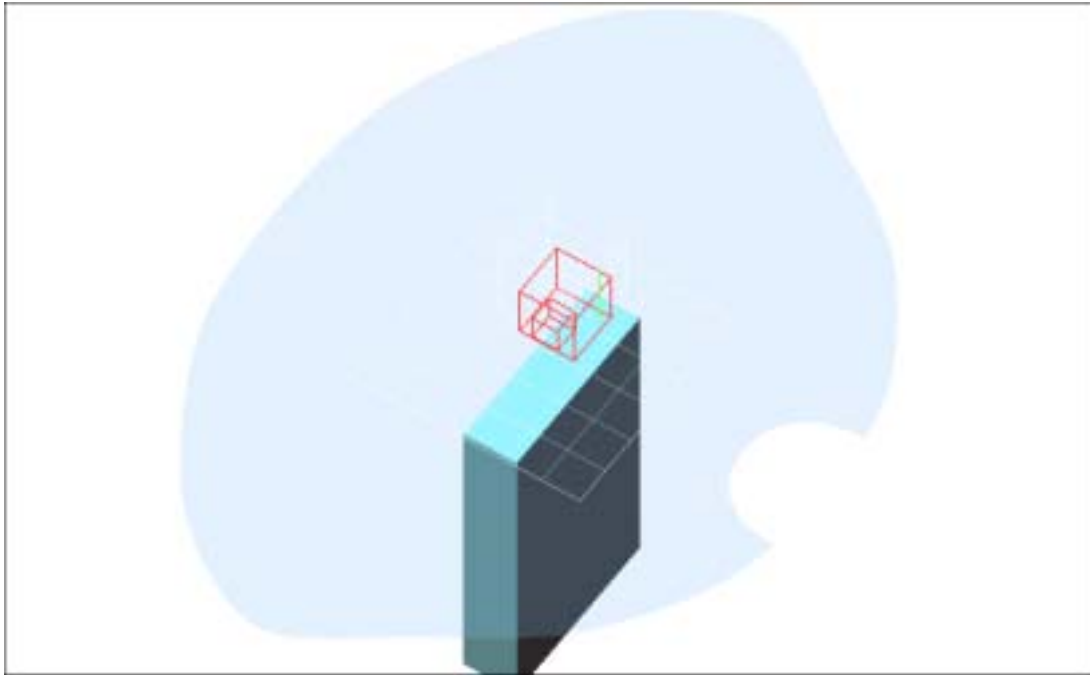
SAR(1 g) = 0.295 mW/g; SAR(10 g) = 0.119 mW/g



Date/Time: 06/15/04 22:23:55

Test Laboratory: Compliance Certification Services Inc.

Test Configuration-3(Close cover)



Test Laboratory: Compliance Certification Services Inc.

15mm mode

DUT: PH20 Series; Type: PH20B; Serial: N/A

Communication System: IEEE 802.11b; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.98$ mho/m; $\epsilon_r = 51$; $\rho = 1000$ kg/m³

Air Temperature: 24.3 deg C; Liquid Temperature: 23.2 deg C

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ES3DV2 - SN3023; ConvF(4.1, 4.1, 4.1); Calibrated: 9/23/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn427; Calibrated: 3/15/2004
- Phantom: SAM 34; Type: SAM V4.0; Serial: TP-1150
- Measurement SW: DASY4, V4.2 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 112

mid Rate=11M bit/Area Scan (7x7x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 2.1 V/m; Power Drift = 0.2 dB

Maximum value of SAR (measured) = 0.00818 mW/g

mid Rate=11M bit/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 2.1 V/m; Power Drift = 0.2 dB

Maximum value of SAR (measured) = 0.017 mW/g

Peak SAR (extrapolated) = 0.780 mW/kg

SAR(1 g) = **0.086 mW/g**; SAR(10 g) = 0.038 mW/g

