
Appendix for the Report

Dosimetric Assessment of the Siemens C60 (FCC ID: PWX-C60) According to the FCC Requirements

SAR Distribution Plots

July 30, 2003
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1 SAR Distribution Plots, PCS 1900 Head without QuickPic Camera

Test Laboratory: IMST; File Name: [c60plm_1.da4](#)

DUT: Siemens; Type: C60; Serial: 004999002488244

Program: Measurement

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium: Head 1900 MHz ($\sigma = 1.39$ mho/m, $\epsilon_r = 38.9$, $\rho = 1000$ kg/m³)

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1669; ConvF(5.2, 5.2, 5.2); Calibrated: 21.03.2003
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 05.05.2003
- Phantom: SAM TP:1176; Type: SAM 4.0; Serial: 1176
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

cheek left/Area Scan (6x10x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 15.2 V/m

Power Drift = 0.06 dB

Maximum value of SAR = 0.304 mW/g

cheek left/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 0.454 W/kg

SAR(1 g) = 0.307 mW/g; SAR(10 g) = 0.189 mW/g

Reference Value = 15.2 V/m

Power Drift = 0.06 dB

Maximum value of SAR = 0.333 mW/g

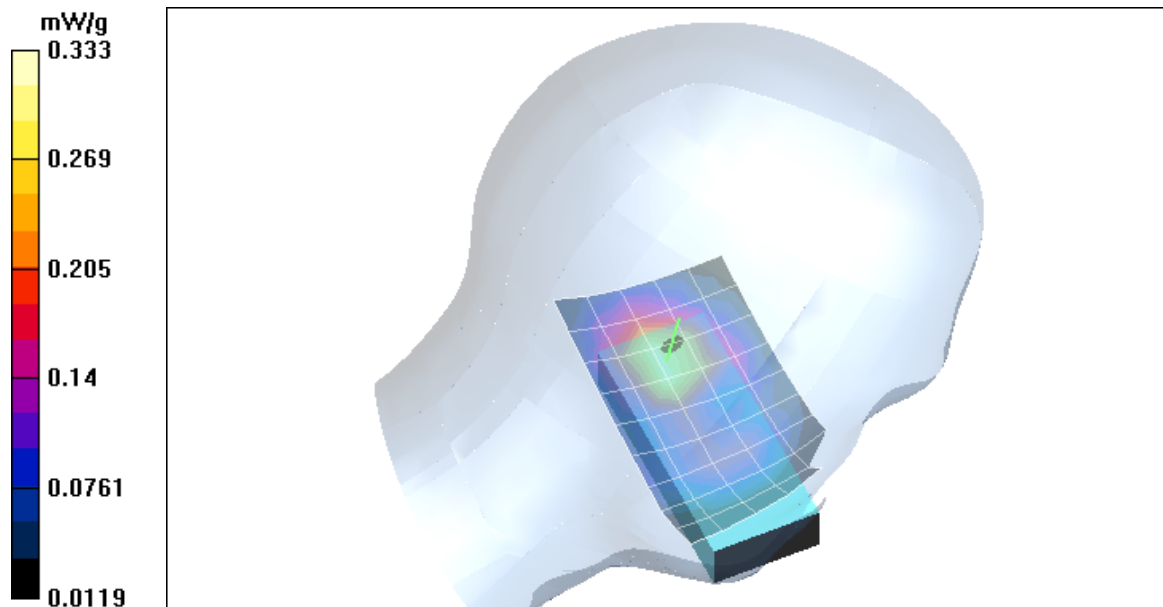


Fig. 1: SAR distribution for PCS 1900, channel 661, cheek position, left side of head. (28.07.2003; Liquid Temperature: 20.9° C; Ambient Temperature : 21.6° C).

Test Laboratory: IMST; File Name: [c60plm_2.da4](#)

DUT: Siemens; Type: C60; Serial: 004999002488244

Program: Measurement

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium: Head 1900 MHz ($\sigma = 1.39$ mho/m, $\epsilon_r = 38.9$, $\rho = 1000$ kg/m³)

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1669; ConvF(5.2, 5.2, 5.2); Calibrated: 21.03.2003

- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)

- Electronics: DAE3 Sn335; Calibrated: 05.05.2003

- Phantom: SAM TP:1176; Type: SAM 4.0; Serial: 1176

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

tilted left/Area Scan (6x10x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 15.2 V/m

Power Drift = 0.1 dB

Maximum value of SAR = 0.295 mW/g

tilted left/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 0.408 W/kg

SAR(1 g) = 0.282 mW/g; SAR(10 g) = 0.172 mW/g

Reference Value = 15.2 V/m

Power Drift = 0.1 dB

Maximum value of SAR = 0.308 mW/g

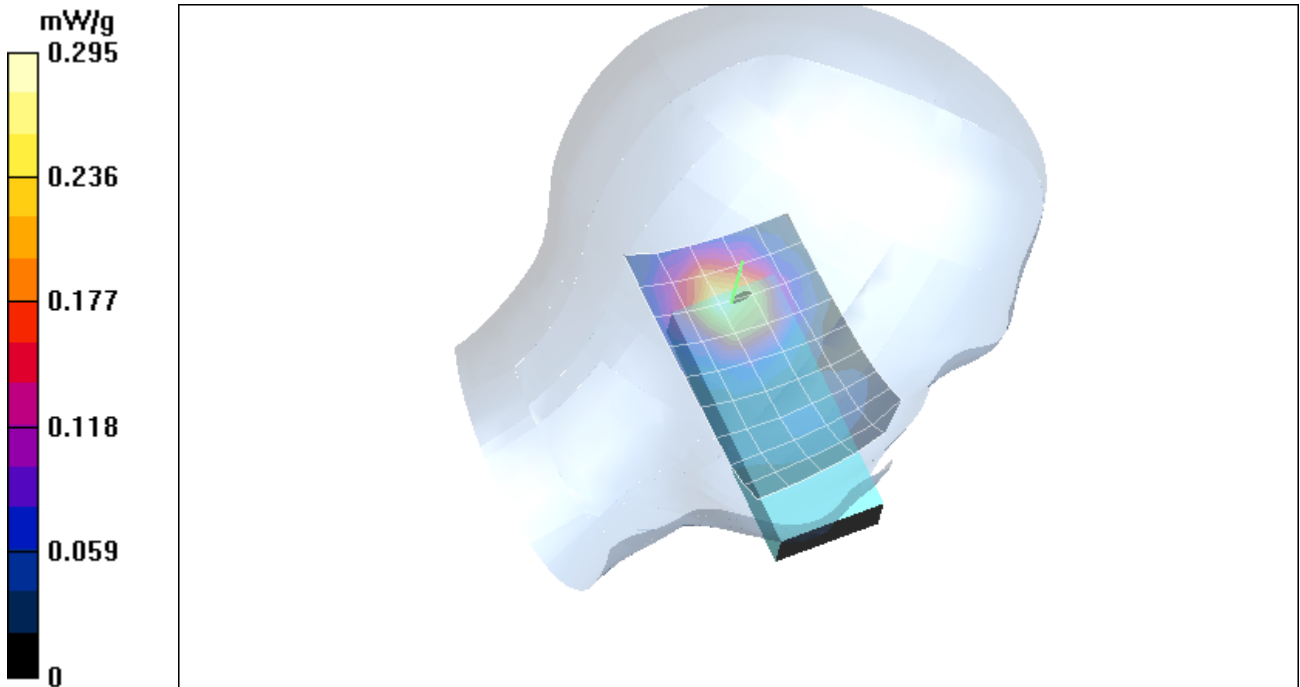


Fig. 2: SAR distribution for PCS 1900, channel 661, tilted position, left side of head. (28.07.2003; Liquid Temperature: 20.9° C; Ambient Temperature : 21.6°C).

Test Laboratory: IMST; File Name: [c60prm_1.da4](#)

DUT: Siemens; Type: C60; Serial: 004999002488244

Program: Measurement

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium: Head 1900 MHz ($\sigma = 1.39 \text{ mho/m}$, $\epsilon_r = 38.9$, $\rho = 1000 \text{ kg/m}^3$)

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1669; ConvF(5.2, 5.2, 5.2); Calibrated: 21.03.2003

- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)

- Electronics: DAE3 Sn335; Calibrated: 05.05.2003

- Phantom: SAM TP:1176; Type: SAM 4.0; Serial: 1176

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

cheek right/Area Scan (6x10x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 15.4 V/m

Power Drift = 0.04 dB

Maximum value of SAR = 0.435 mW/g

cheek right/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 0.708 W/kg

SAR(1 g) = 0.448 mW/g; SAR(10 g) = 0.26 mW/g

Reference Value = 15.4 V/m

Power Drift = 0.04 dB

Maximum value of SAR = 0.492 mW/g

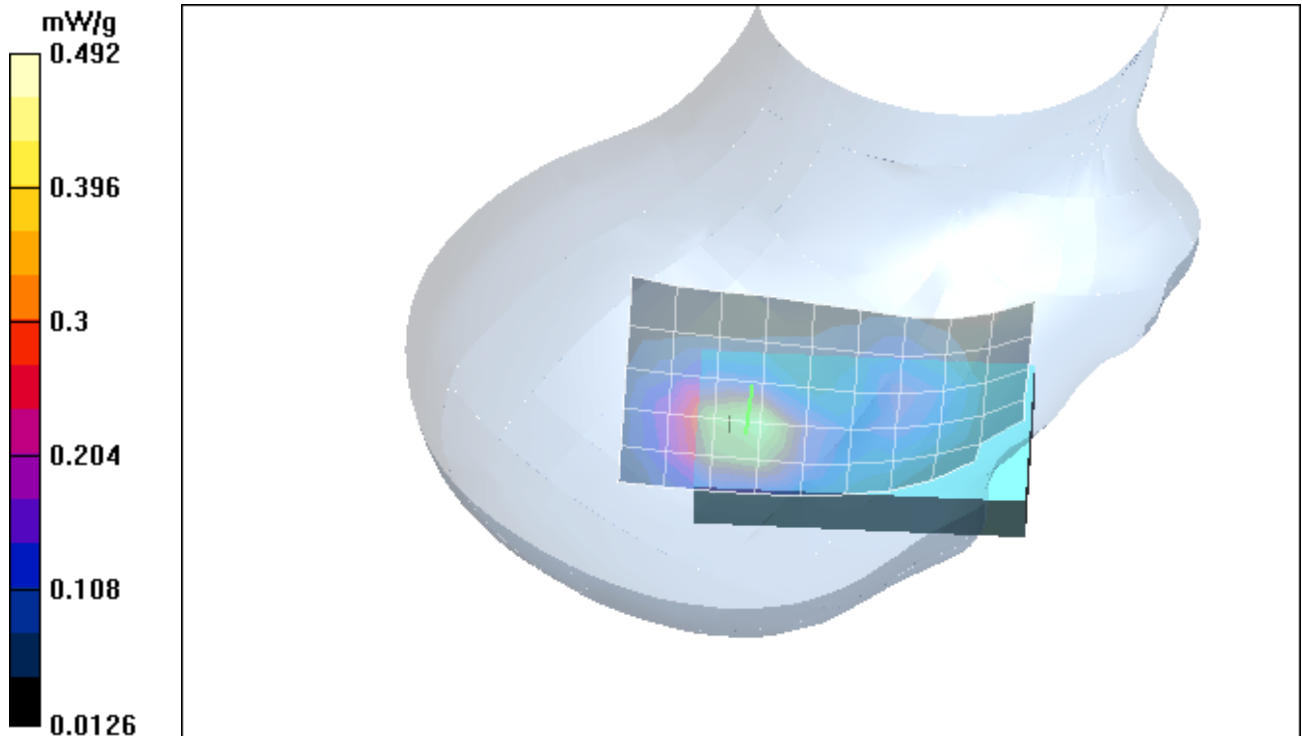


Fig. 3: SAR distribution for PCS 1900, channel 661, cheek position, right side of head. (28.07.2003; Liquid Temperature: 20.9° C; Ambient Temperature : 21.7 C).

Test Laboratory: IMST; File Name: [c60prm_2.da4](#)

DUT: Siemens; Type: C60; Serial: 004999002488244

Program: Measurement

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium: Head 1900 MHz ($\sigma = 1.39$ mho/m, $\epsilon_r = 38.9$, $\rho = 1000$ kg/m³)

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1669; ConvF(5.2, 5.2, 5.2); Calibrated: 21.03.2003

- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)

- Electronics: DAE3 Sn335; Calibrated: 05.05.2003

- Phantom: SAM TP:1176; Type: SAM 4.0; Serial: 1176

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

tilted right/Area Scan (6x10x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 14.5 V/m

Power Drift = 0.1 dB

Maximum value of SAR = 0.361 mW/g

tilted right/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 0.583 W/kg

SAR(1 g) = 0.358 mW/g; SAR(10 g) = 0.208 mW/g

Reference Value = 14.5 V/m

Power Drift = 0.1 dB

Maximum value of SAR = 0.388 mW/g

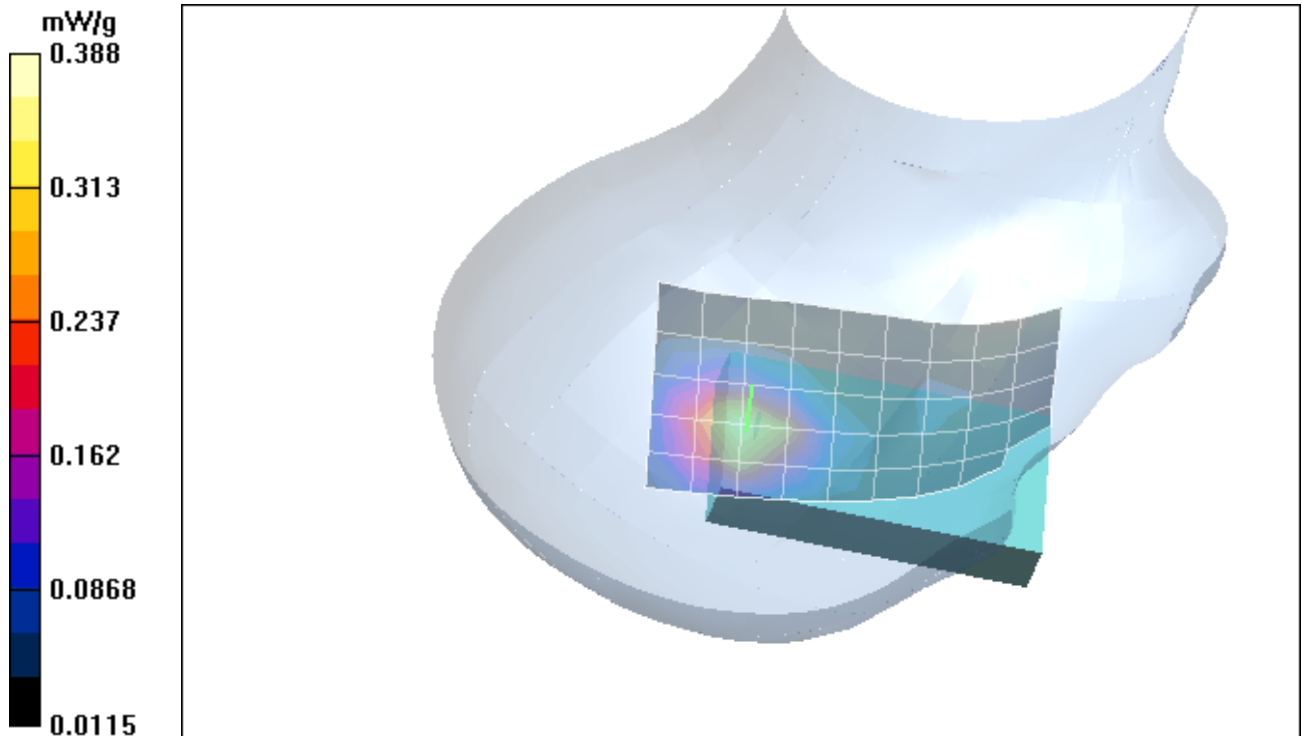


Fig. 4: SAR distribution for PCS 1900, channel 661, tilted position, right side of head. (28.07.2003; Liquid Temperature: 20.9° C; Ambient Temperature : 21.7 C).

2 SAR Distribution Plots, PCS 1900 Head with QuickPic Camera

Test Laboratory: IMST; File Name: [c6qplm_1.da4](#)

DUT: Siemens; Type: C60 QuickPic; Serial: 004999002488244

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium: Head 1900 MHz ($\sigma = 1.39$ mho/m, $\epsilon_r = 38.9$, $\rho = 1000$ kg/m³)

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1669; ConvF(5.2, 5.2, 5.2); Calibrated: 21.03.2003

- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)

- Electronics: DAE3 Sn335; Calibrated: 05.05.2003

- Phantom: SAM TP:1176; Type: SAM 4.0; Serial: 1176

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

cheek left/Area Scan (6x11x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 12.7 V/m

Power Drift = 0.2 dB

Maximum value of SAR = 0.237 mW/g

cheek left/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 0.352 W/kg

SAR(1 g) = 0.238 mW/g; SAR(10 g) = 0.147 mW/g

Reference Value = 12.7 V/m

Power Drift = 0.1 dB

Maximum value of SAR = 0.254 mW/g

cheek left/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 0.241 W/kg

SAR(1 g) = 0.166 mW/g; SAR(10 g) = 0.101 mW/g

Reference Value = 12.7 V/m

Power Drift = 0.1 dB

Maximum value of SAR = 0.185 mW/g

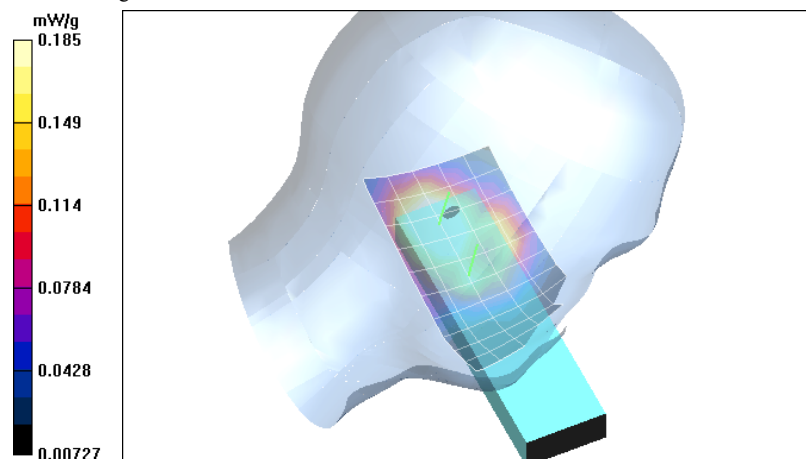


Fig. 5: SAR distribution for PCS 1900, channel 661, cheek position, left side of head. (28.07.2003; Liquid Temperature: 20.9° C; Ambient Temperature : 22.2° C).

Test Laboratory: IMST; File Name: [c6qplm_2.da4](#)

DUT: Siemens; Type: C60 QuickPic; Serial: 004999002488244

Program: Measurement

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium: Head 1900 MHz ($\sigma = 1.39$ mho/m, $\epsilon_r = 38.9$, $\rho = 1000$ kg/m³)

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1669; ConvF(5.2, 5.2, 5.2); Calibrated: 21.03.2003

- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)

- Electronics: DAE3 Sn335; Calibrated: 05.05.2003

- Phantom: SAM TP:1176; Type: SAM 4.0; Serial: 1176

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

tilted left/Area Scan (6x10x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 12.3 V/m

Power Drift = 0.03 dB

Maximum value of SAR = 0.23 mW/g

tilted left/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 0.376 W/kg

SAR(1 g) = 0.233 mW/g; SAR(10 g) = 0.138 mW/g

Reference Value = 12.3 V/m

Power Drift = 0.03 dB

Maximum value of SAR = 0.251 mW/g

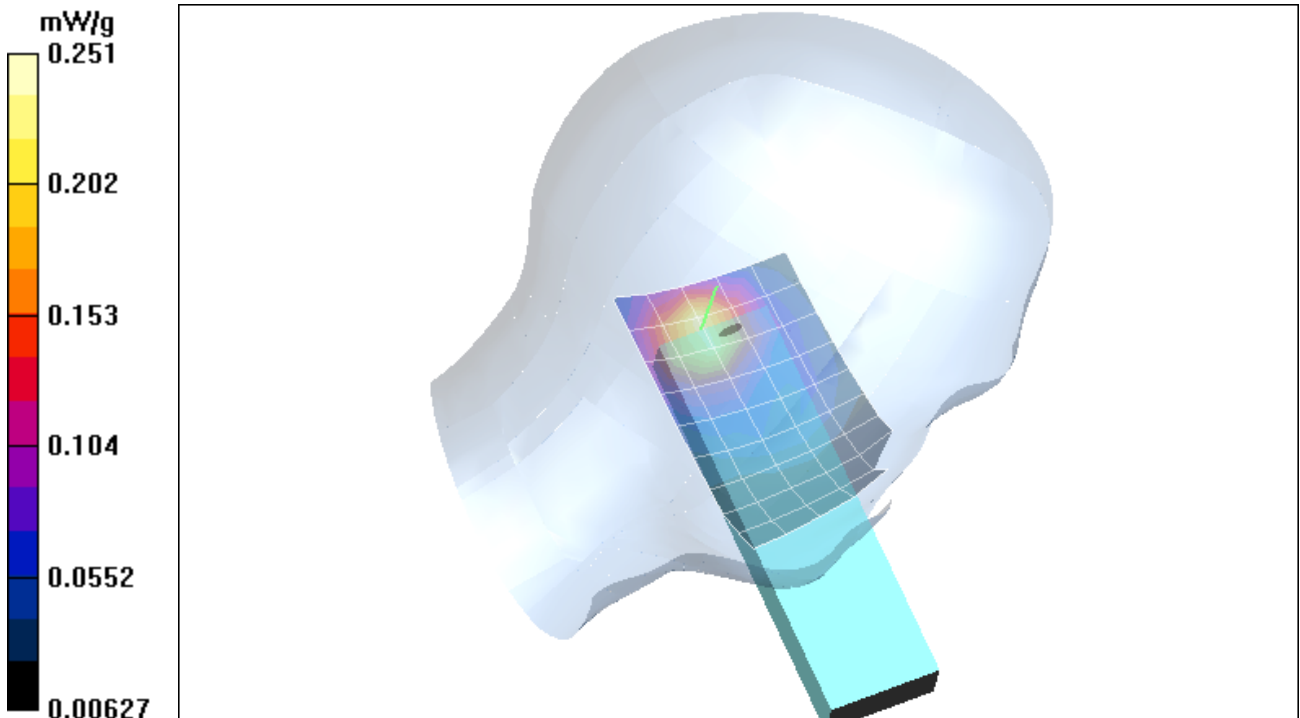


Fig. 6: SAR distribution for PCS 1900, channel 661, tilted position, left side of head. (28.07.2003; Liquid Temperature: 20.9° C; Ambient Temperature : 22.2 C).

Test Laboratory: IMST; File Name: [c6qprm_1.da4](#)

DUT: Siemens; Type: C60 QuickPic; Serial: 004999002488244

Program: Measurement

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium: Head 1900 MHz ($\sigma = 1.39 \text{ mho/m}$, $\epsilon_r = 38.9$, $\rho = 1000 \text{ kg/m}^3$)

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1669; ConvF(5.2, 5.2, 5.2); Calibrated: 21.03.2003

- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)

- Electronics: DAE3 Sn335; Calibrated: 05.05.2003

- Phantom: SAM TP:1176; Type: SAM 4.0; Serial: 1176

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

cheek right/Area Scan (6x11x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 11.4 V/m

Power Drift = 0.09 dB

Maximum value of SAR = 0.304 mW/g

cheek right/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 0.606 W/kg

SAR(1 g) = 0.339 mW/g; SAR(10 g) = 0.194 mW/g

Reference Value = 11.4 V/m

Power Drift = 0.09 dB

Maximum value of SAR = 0.355 mW/g

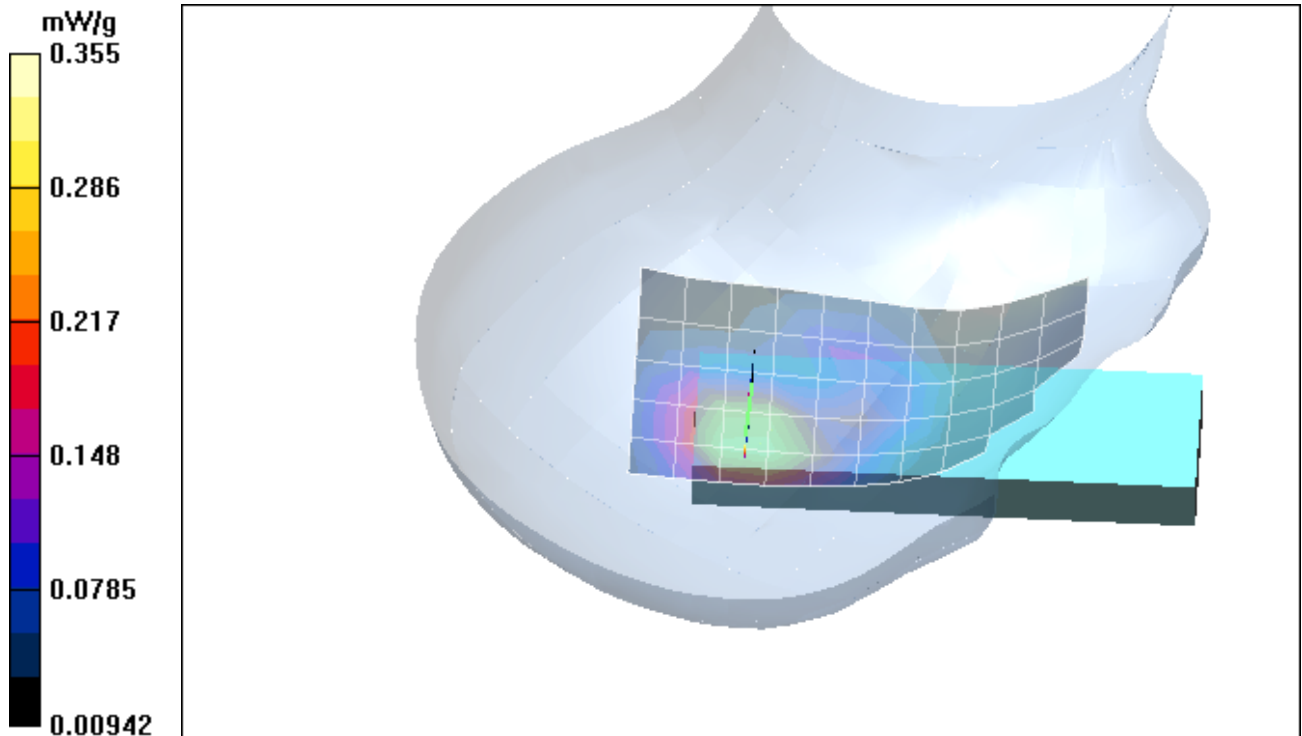


Fig. 7: SAR distribution for PCS 1900, channel 661, cheek position, right side of head. (28.07.2003; Liquid Temperature: 22.2° C; Ambient Temperature : 20.9 C).

Test Laboratory: IMST; File Name: [c6qprm_2.da4](#)

DUT: Siemens; Type: C60 QuickPic; Serial: 004999002488244

Program: Measurement

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium: Head 1900 MHz ($\sigma = 1.39$ mho/m, $\epsilon_r = 38.9$, $\rho = 1000$ kg/m³)

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1669; ConvF(5.2, 5.2, 5.2); Calibrated: 21.03.2003

- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)

- Electronics: DAE3 Sn335; Calibrated: 05.05.2003

- Phantom: SAM TP:1176; Type: SAM 4.0; Serial: 1176

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

tilted right/Area Scan (6x10x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 11.2 V/m

Power Drift = 0.06 dB

Maximum value of SAR = 0.33 mW/g

tilted right/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 0.513 W/kg

SAR(1 g) = 0.315 mW/g; SAR(10 g) = 0.181 mW/g

Reference Value = 11.2 V/m

Power Drift = 0.06 dB

Maximum value of SAR = 0.344 mW/g

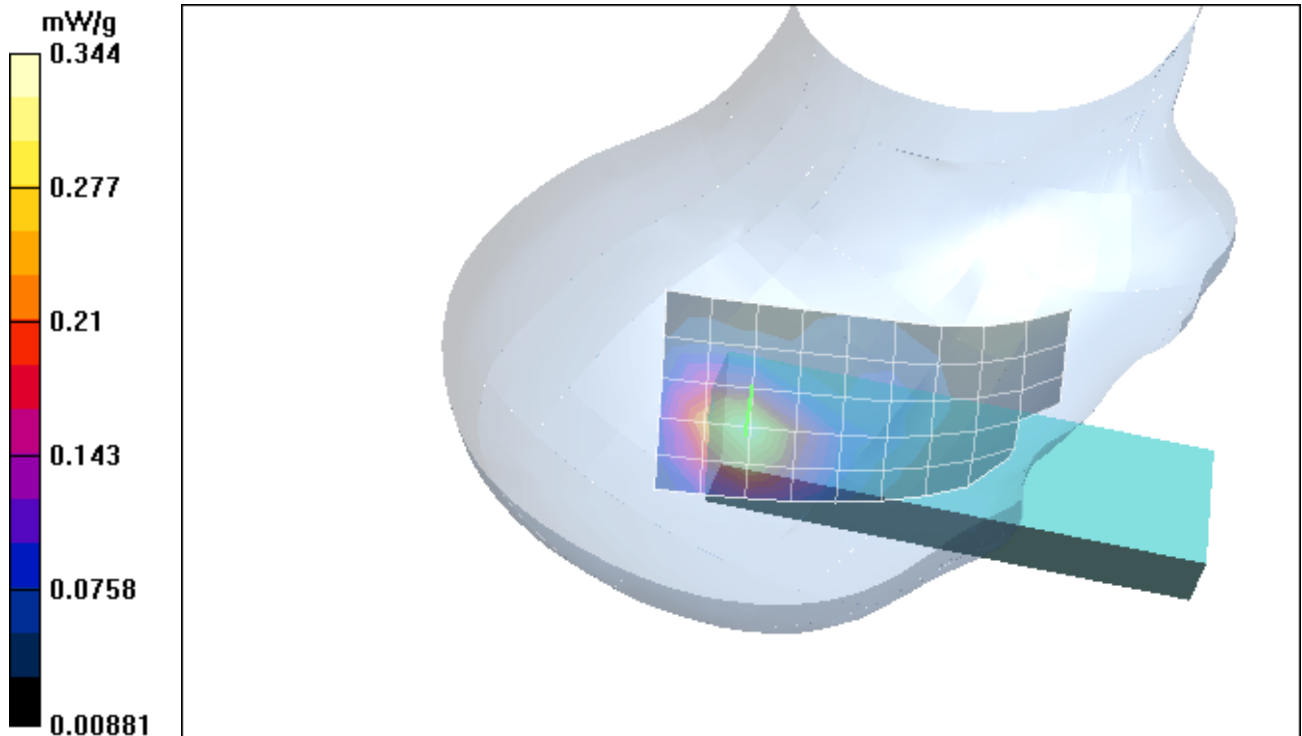


Fig. 8: SAR distribution for PCS 1900, channel 661, tilted position, right side of head. (28.07.2003; Liquid Temperature: 20.9° C; Ambient Temperature : 22.2 C).

3 SAR Distribution Plots, PCS 1900 Body with headset

Test Laboratory: IMST; File Name: [c60phm_3.da4](#)

DUT: Siemens; Type: C60 Body; Serial: 004999002488244

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium: Body1900 MHz ($\sigma = 1.48$ mho/m, $\epsilon_r = 51.6$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1669; ConvF(4.8, 4.8, 4.8); Calibrated: 21.03.2003

- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)

- Electronics: DAE3 Sn335; Calibrated: 05.05.2003

- Phantom: SAM TP:1176;

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Unnamed procedure/Area Scan (7x10x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 10.1 V/m

Power Drift = 0.08 dB

Maximum value of SAR = 0.282 mW/g

Unnamed procedure/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 0.441 W/kg

SAR(1 g) = 0.285 mW/g; SAR(10 g) = 0.18 mW/g

Reference Value = 10.1 V/m

Power Drift = 0.08 dB

Maximum value of SAR = 0.305 mW/g

Unnamed procedure/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 0.304 W/kg

SAR(1 g) = 0.199 mW/g; SAR(10 g) = 0.13 mW/g

Reference Value = 10.1 V/m

Power Drift = 0.08 dB

Maximum value of SAR = 0.211 mW/g

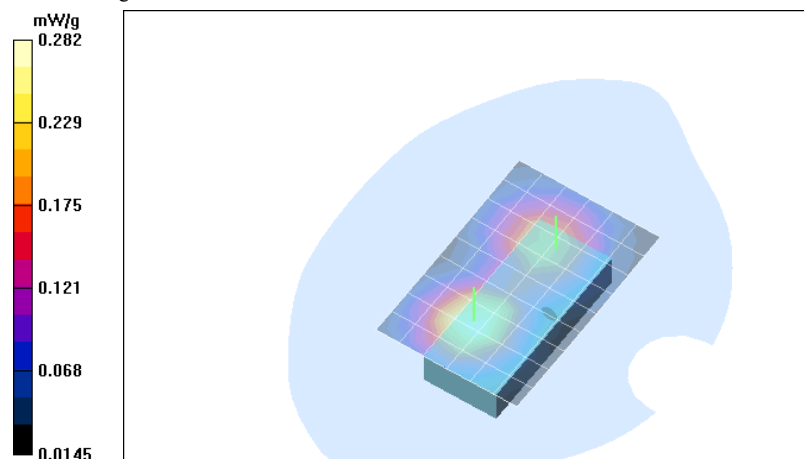


Fig. 9: SAR distribution for PCS 1900, channel 661, body worn configuration, display away from phantom, with headset (29.07.2003; Liquid Temperature: 20.3° C; Ambient Temperature : 21.2° C).

4 SAR Distribution Plots, PCS 1900 Body with datacable

Test Laboratory: IMST; File Name: [c60phm_2.da4](#)

DUT: Siemens; Type: C60 Body; Serial: 004999002488244

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium: Body1900 MHz ($\sigma = 1.48$ mho/m, $\epsilon_r = 51.6$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1669; ConvF(4.8, 4.8, 4.8); Calibrated: 21.03.2003

- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)

- Electronics: DAE3 Sn335; Calibrated: 05.05.2003

- Phantom: SAM TP:1176;

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Unnamed procedure/Area Scan (7x10x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 11.7 V/m

Power Drift = 0.1 dB

Maximum value of SAR = 0.211 mW/g

Unnamed procedure/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 0.3 W/kg

SAR(1 g) = 0.207 mW/g; SAR(10 g) = 0.134 mW/g

Reference Value = 11.7 V/m

Power Drift = 0.1 dB

Maximum value of SAR = 0.221 mW/g

Unnamed procedure/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 0.299 W/kg

SAR(1 g) = 0.199 mW/g; SAR(10 g) = 0.126 mW/g

Reference Value = 11.7 V/m

Power Drift = 0.1 dB

Maximum value of SAR = 0.212 mW/g

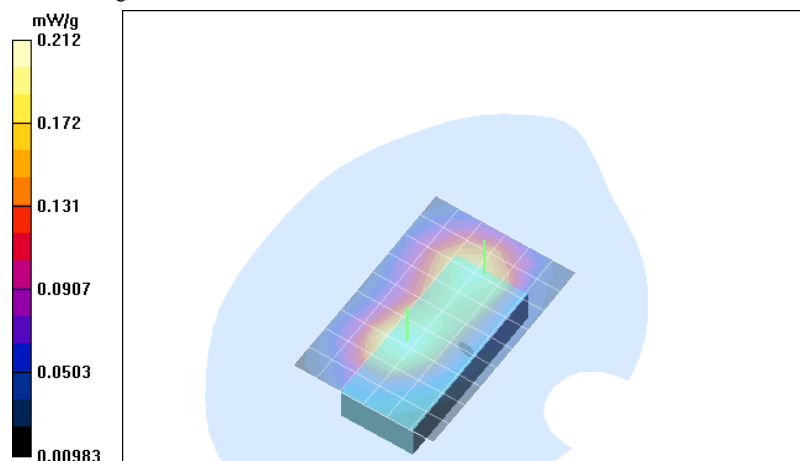


Fig. 10: SAR distribution for PCS 1900, channel 661, body worn configuration, display away from phantom, with datacable (29.07.2003; Liquid Temperature: 20.3° C; Ambient Temperature : 21.2° C).

5 SAR Distribution Plots, PCS 1900 Body, C60

Test Laboratory: IMST; File Name: [c60phm_1.da4](#)

DUT: Siemens; Type: C60 Body; Serial: 004999002488244

Program: Unnamed Program

Communication System: GSM 1900; Frequency: 1880 MHz; Duty Cycle: 1:8

Medium: Body1900 MHz ($\sigma = 1.48$ mho/m, $\epsilon_r = 51.6$, $\rho = 1000$ kg/m³)

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1669; ConvF(4.8, 4.8, 4.8); Calibrated: 21.03.2003

- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)

- Electronics: DAE3 Sn335; Calibrated: 05.05.2003

- Phantom: SAM TP:1176;

- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.6 Build 115

Unnamed procedure/Area Scan (7x10x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 9.84 V/m

Power Drift = 0.01 dB

Maximum value of SAR = 0.297 mW/g

Unnamed procedure/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 0.462 W/kg

SAR(1 g) = 0.308 mW/g; SAR(10 g) = 0.195 mW/g

Reference Value = 9.84 V/m

Power Drift = 0.01 dB

Maximum value of SAR = 0.328 mW/g

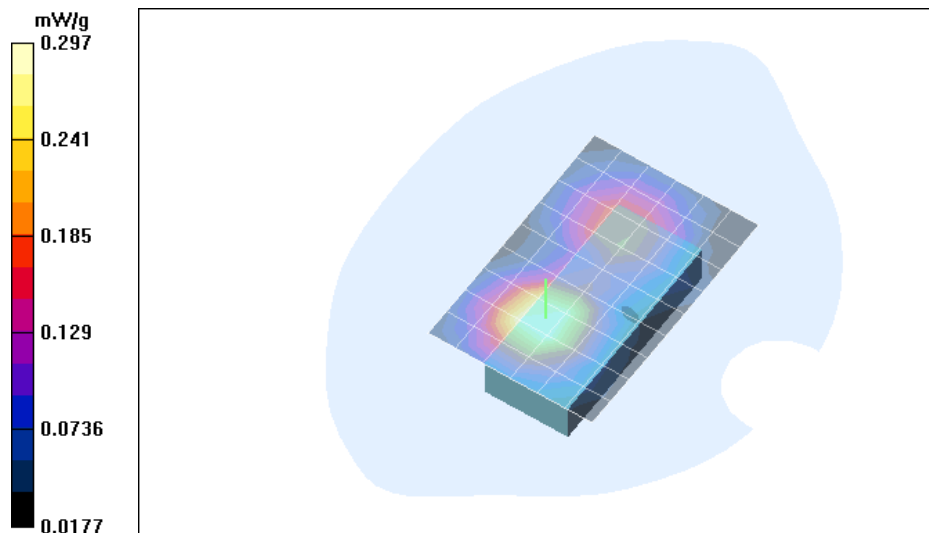


Fig. 11: SAR distribution for PCS 1900, channel 661, body worn configuration, display away from phantom, C60 (29.07.2003; Liquid Temperature: 20.3° C; Ambient Temperature : 21.1° C).

6 SAR z-axis scans (Validation)

The following pictures show the plots of SAR versus liquid depth for the worst case values.

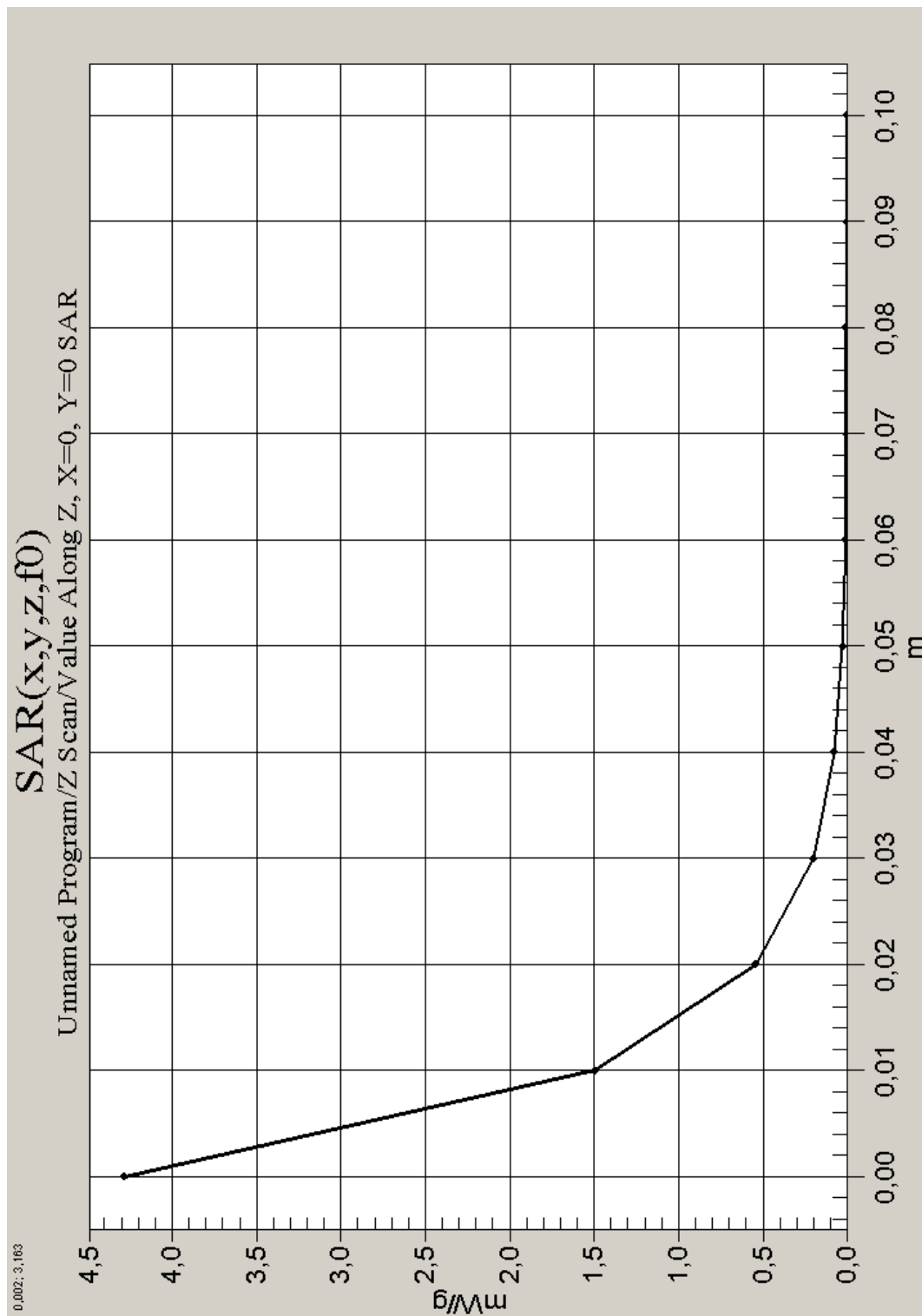


Fig. 12: SAR versus liquid depth, 1900 MHz, head (28.07.2003; Liquid Temperature: 20.9° C; Ambient Temperature : 21.6° C).

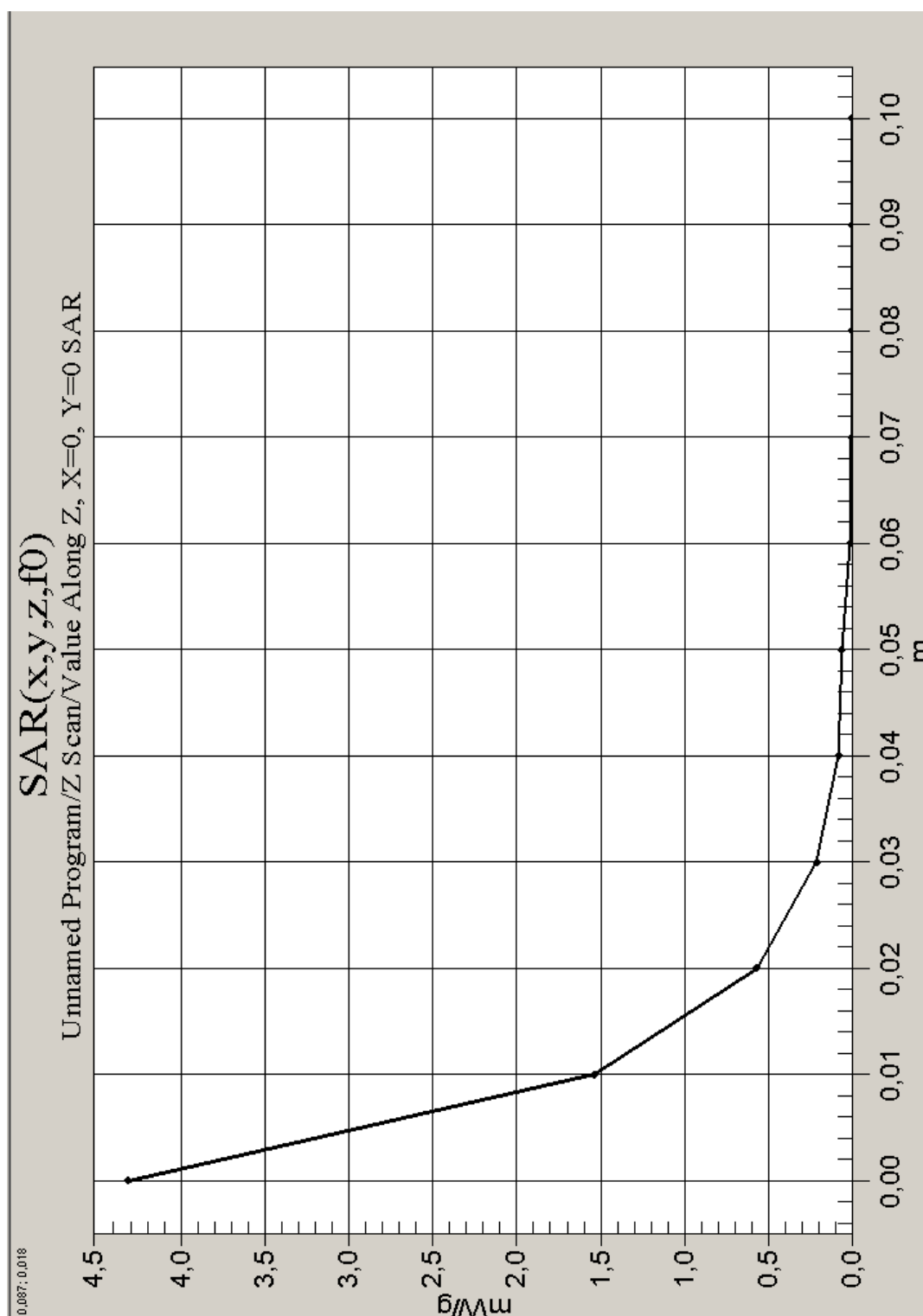


Fig. 13: SAR versus liquid depth, 1900 MHz, body (29.07.2003; Liquid Temperature: 20.3° C; Ambient Temperature : 21.1° C).

7 SAR z-axis scans (Measurements)

The following pictures show the plots of SAR versus liquid depth for the worst case values.

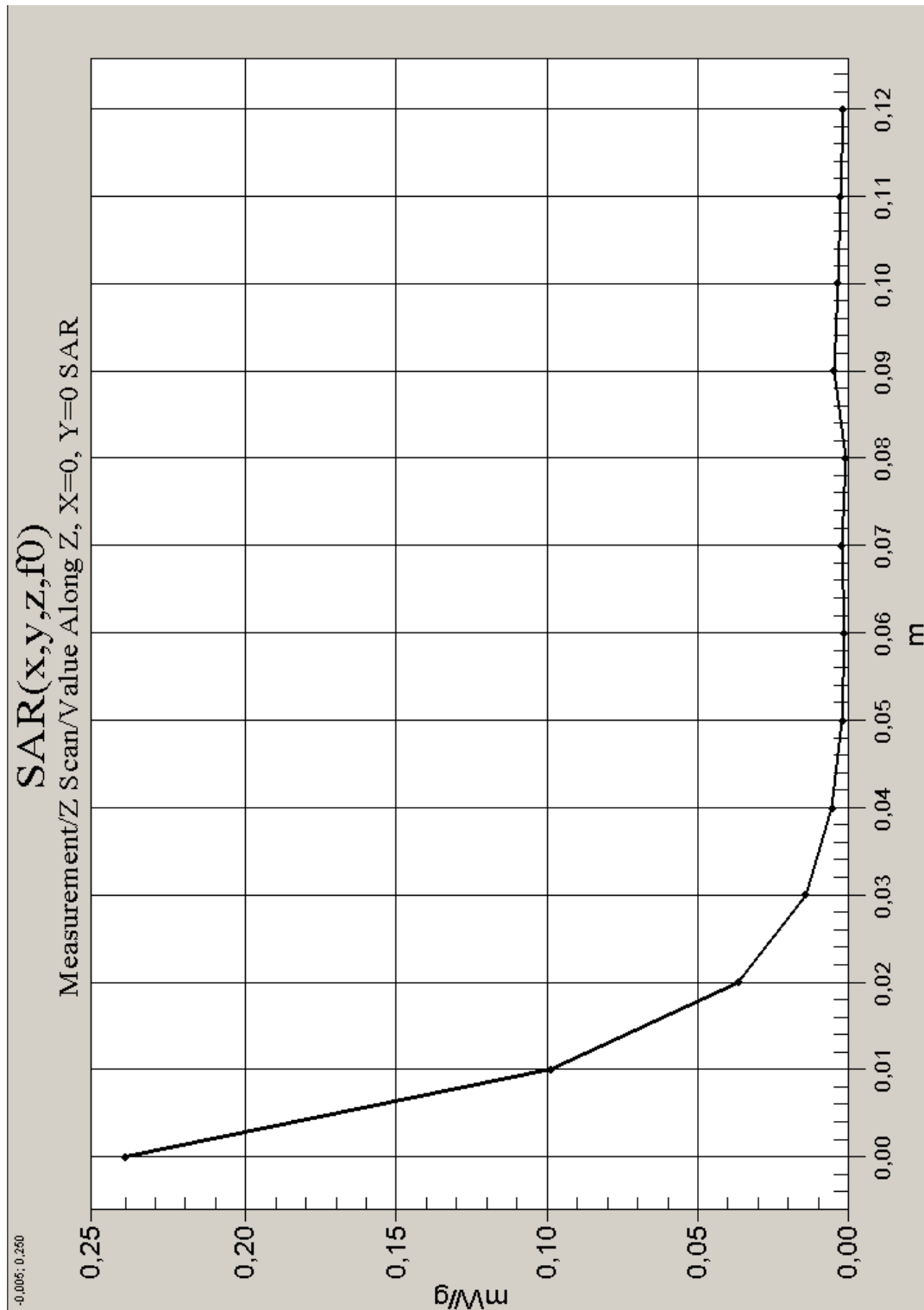


Fig. 14: SAR versus liquid depth, head: without QuickPic camera , PCS 1900, channel 661, cheek position, right side of head. (28.07.2003, Liquid Temperature: 20.9° C; Ambient Temperature : 21.7° C).

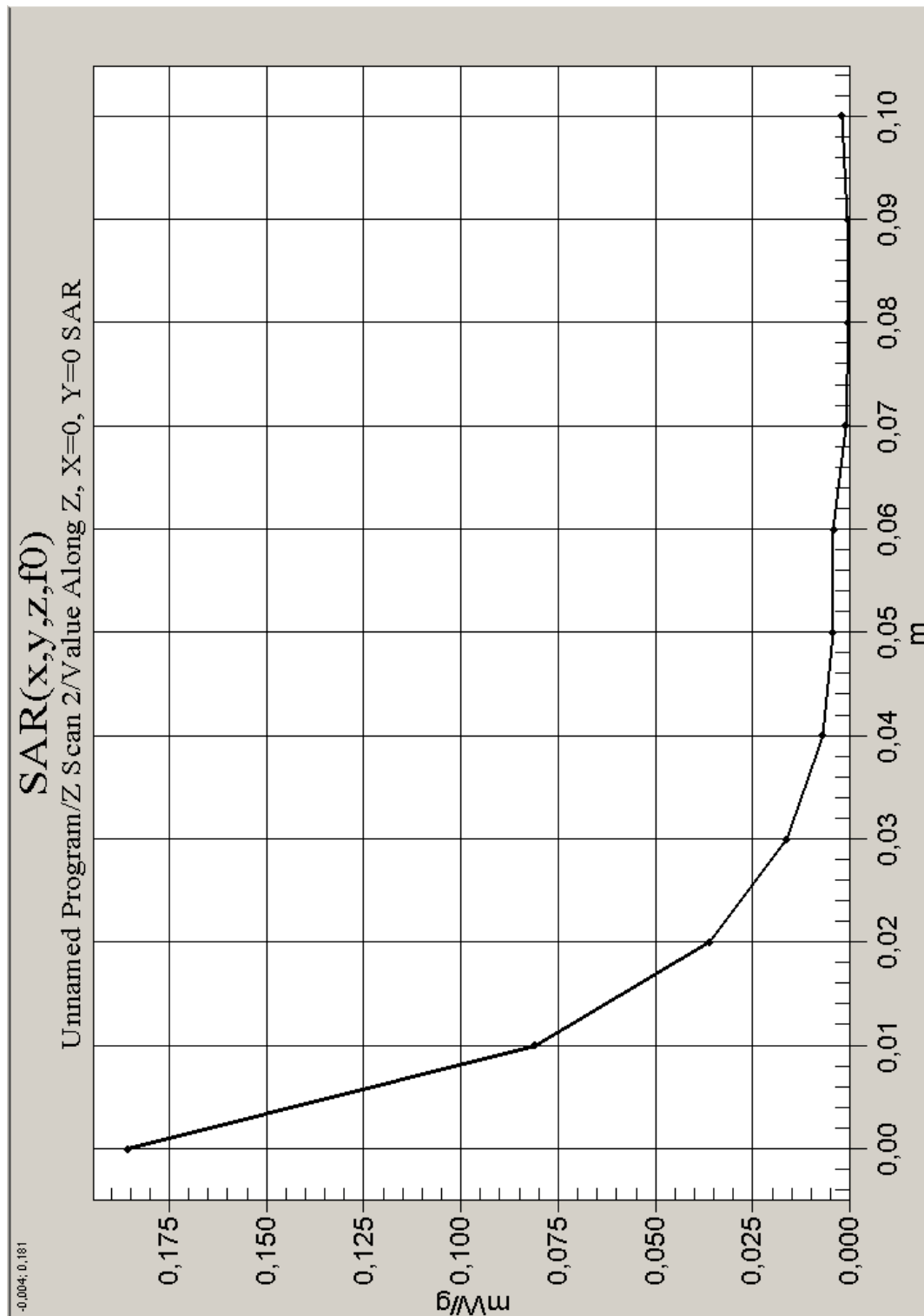


Fig. 15: SAR versus liquid depth: PCS 1900, channel 661, body worn configuration, display away from phantom (29.07.2003, Liquid Temperature: 20.3° C; Ambient Temperature : 21.1° C).