
Appendix for the Report

Dosimetric Assessment of the Siemens AX72 (FCC ID: PWX-AX72)

According to the FCC Requirements

SAR Distribution Plots

September 29, 2005
IMST GmbH
Carl-Friedrich-Gauß-Str. 2
D-47475 Kamp-Lintfort

Customer
Siemens Communication Inc.
16475 West Bernado Drive, Suite 400
San Diego CA 92127

The test results only relate to the items tested.
This report shall not be reproduced except in full without the written
approval of the testing laboratory.

Table of Contents

1	SAR DISTRIBUTION PLOTS, PCS 1900 HEAD WITHOUT CAMERA	3
2	SAR DISTRIBUTION PLOTS, PCS 1900 HEAD WITH CAMERA	7
3	SAR DISTRIBUTION PLOTS, PCS 1900 BODY WITHOUT ACCESSORY	11
4	SAR DISTRIBUTION PLOTS, PCS 1900 BODY WITH HEADSET	12
5	SAR DISTRIBUTION PLOTS, GPRS 1900 BODY WITH DATA CABLE.....	13
6	SAR Z-AXIS SCANS (VALIDATION)	14
7	SAR Z-AXIS SCANS (MEASUREMENTS).....	15

1 SAR Distribution Plots, PCS 1900 Head without camera

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [855bplm_1.da4](#)

DUT: Siemens; Type: AX72; Serial: 004400013392855

Program Name: Cheek Left

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(5.11, 5.11, 5.11); Calibrated: 13.01.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 07.07.2005
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

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

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

Reference Value = 15.7 V/m; Power Drift = -0.118 dB

Peak SAR (extrapolated) = 0.657 W/kg

SAR(1 g) = 0.416 mW/g; SAR(10 g) = 0.241 mW/g

Maximum value of SAR (measured) = 0.464 mW/g

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

Reference Value = 15.7 V/m; Power Drift = -0.118 dB

Peak SAR (extrapolated) = 0.408 W/kg

SAR(1 g) = 0.275 mW/g; SAR(10 g) = 0.180 mW/g

Maximum value of SAR (measured) = 0.313 mW/g

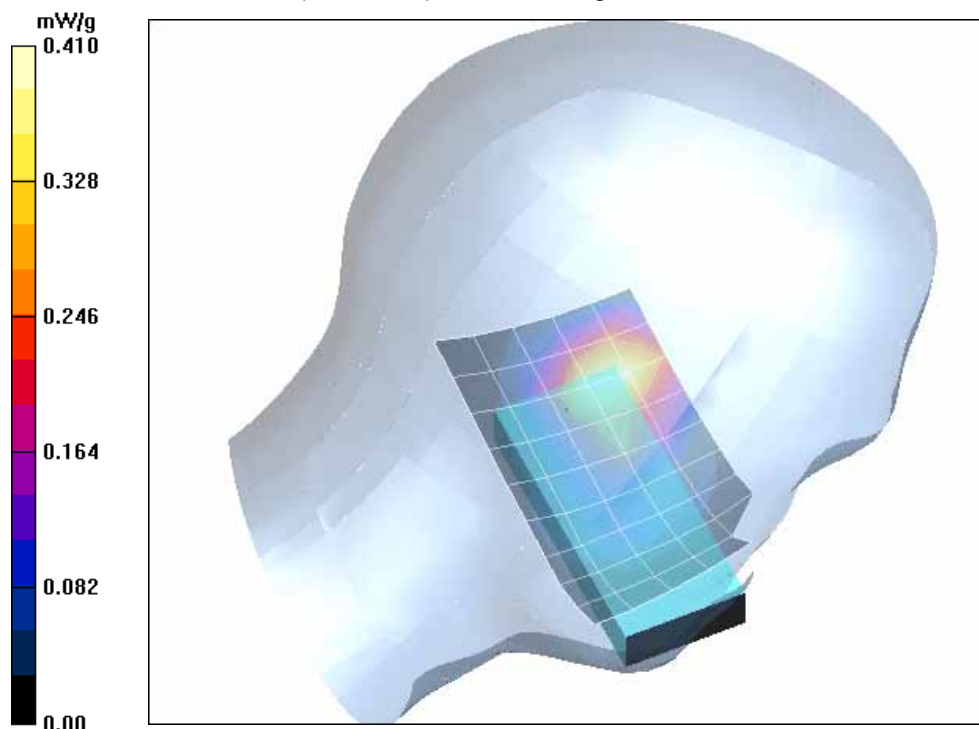


Fig. 1: SAR distribution for PCS 1900, channel 661, cheek position, left side of head (September 26, 2005; Ambient Temperature: 21.4° C; Liquid Temperature : 20.9° C).

Test Laboratory: IMST GmbH, DASY Blue (I); **File Name:** [855bplm 2.da4](#)

DUT: Siemens; **Type:** AX72; **Serial:** 004400013392855

Program Name: Tilted Left

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(5.11, 5.11, 5.11); Calibrated: 13.01.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 07.07.2005
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (measured) = 0.503 mW/g

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

Reference Value = 17.5 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.851 W/kg

SAR(1 g) = 0.530 mW/g; SAR(10 g) = 0.297 mW/g

Maximum value of SAR (measured) = 0.592 mW/g

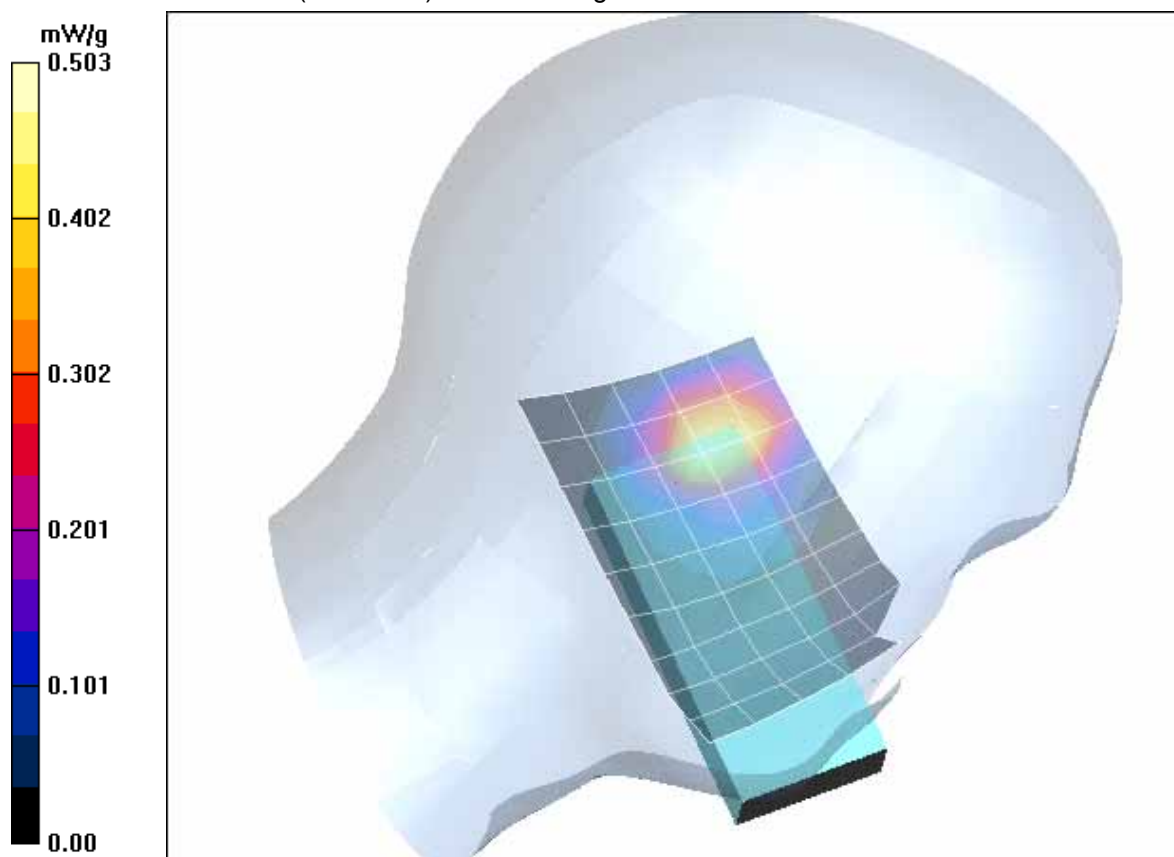


Fig. 2: SAR distribution for PCS 1900, channel 661, tilted position, left side of head (September 26, 2005; Ambient Temperature: 21.3° C; Liquid Temperature : 20.9° C).

Test Laboratory: IMST GmbH, DASY Blue (I); **File Name:** [855bprm_1.da4](#)

DUT: Siemens; **Type:** AX72; **Serial:** 004400013392855

Program Name: Cheek Right

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(5.11, 5.11, 5.11); Calibrated: 13.01.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 07.07.2005
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Cheek Right/Area Scan (6x10x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 0.345 mW/g

Cheek Right/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 16.1 V/m; Power Drift = -0.181 dB

Peak SAR (extrapolated) = 0.528 W/kg

SAR(1 g) = 0.346 mW/g; SAR(10 g) = 0.208 mW/g

Maximum value of SAR (measured) = 0.386 mW/g

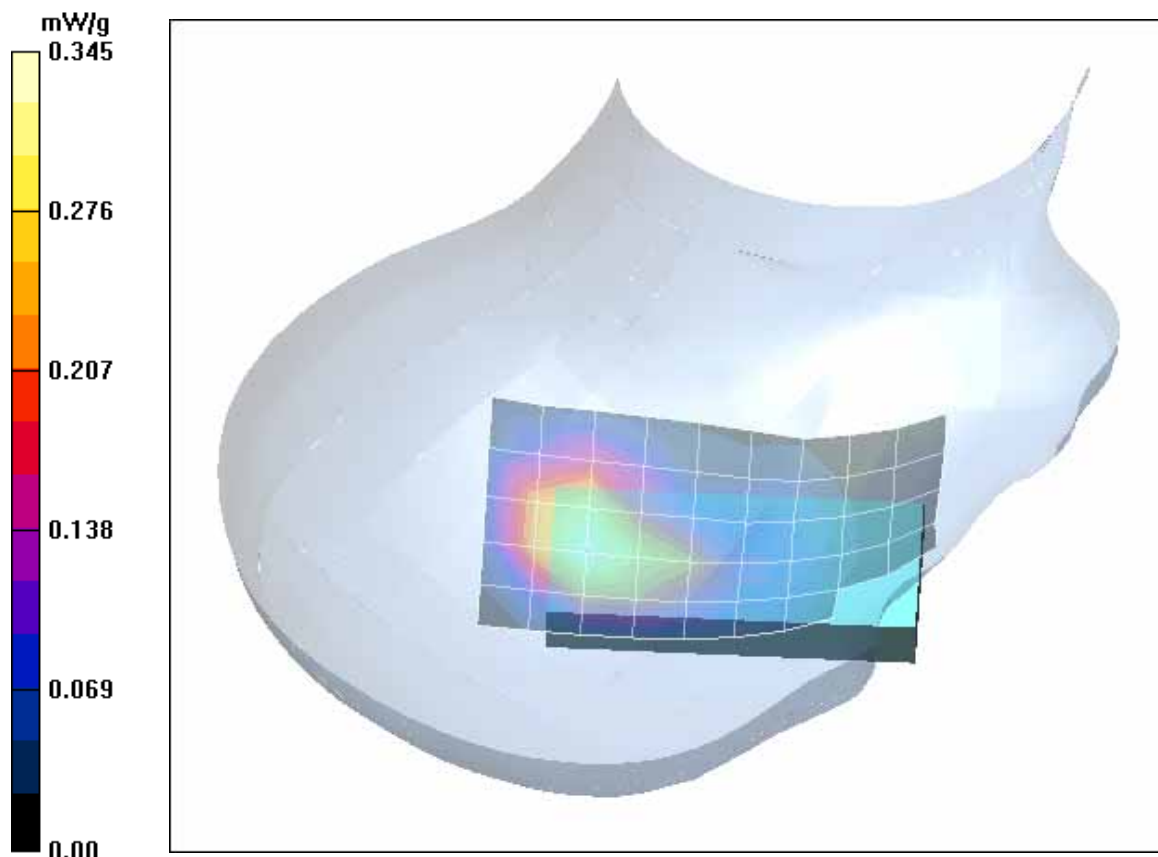


Fig. 3: SAR distribution for PCS 1900, channel 661, cheek position, right side of head (September 26, 2005; Ambient Temperature: 21.3° C; Liquid Temperature : 20.9° C).

Test Laboratory: IMST GmbH, DASY Blue (I); **File Name:** [855bprm 2.da4](#)

DUT: Siemens; **Type:** AX72; **Serial:** 004400013392855

Program Name: Tilted Right

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(5.11, 5.11, 5.11); Calibrated: 13.01.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 07.07.2005
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (measured) = 0.535 mW/g

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

Reference Value = 16.5 V/m; Power Drift = 0.043 dB

Peak SAR (extrapolated) = 0.740 W/kg

SAR(1 g) = 0.482 mW/g; SAR(10 g) = 0.271 mW/g

Maximum value of SAR (measured) = 0.534 mW/g

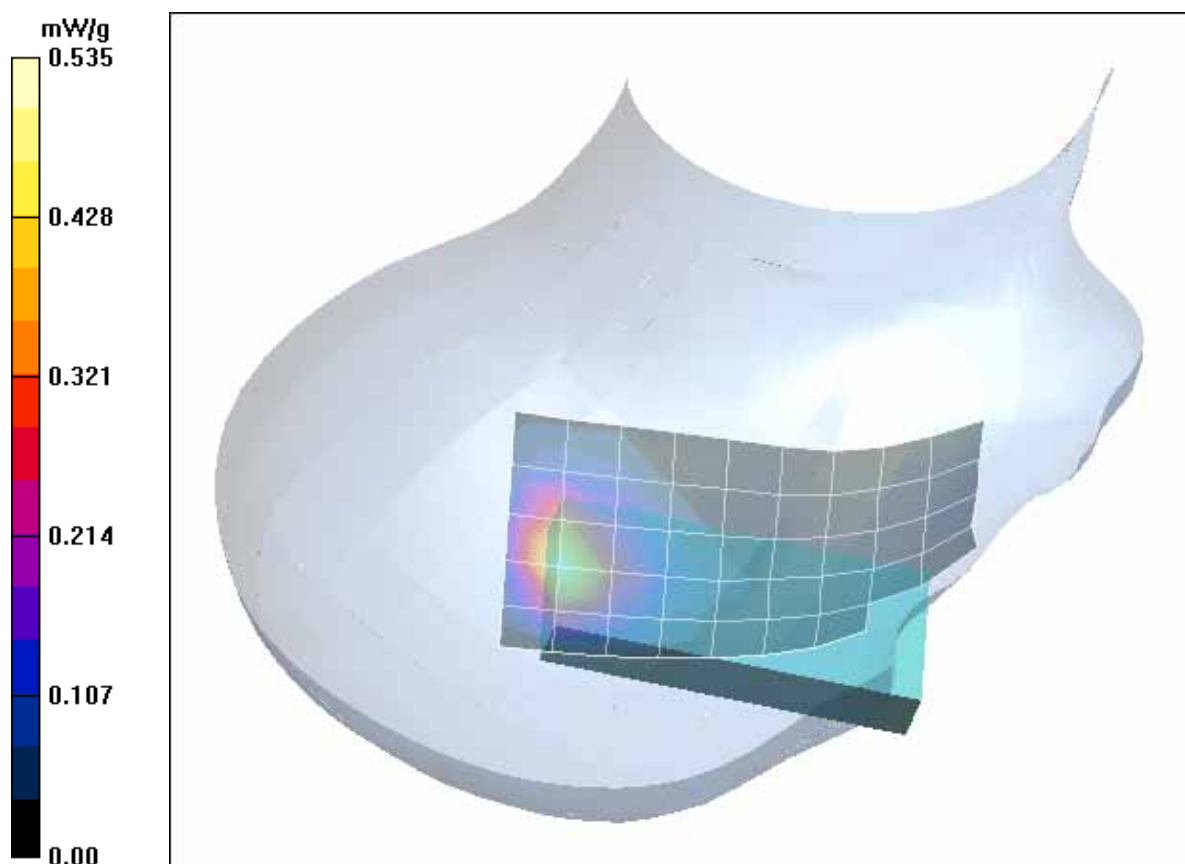


Fig. 4: SAR distribution for PCS 1900, channel 661, tilted position, right side of head (September 26, 2005; Ambient Temperature: 21.3 °C; Liquid Temperature : 20.8° C)

2 SAR Distribution Plots, PCS 1900 Head with camera

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [855bplm_1_cam.da4](#)

DUT: Siemens; Type: AX72; Serial: 004400013392855

Program Name: Cheek Left

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(5.11, 5.11, 5.11); Calibrated: 13.01.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 07.07.2005
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (measured) = 0.466 mW/g

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

Reference Value = 18.8 V/m; Power Drift = -0.041 dB

Peak SAR (extrapolated) = 0.656 W/kg

SAR(1 g) = 0.419 mW/g; SAR(10 g) = 0.247 mW/g

Maximum value of SAR (measured) = 0.453 mW/g

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

Reference Value = 18.8 V/m; Power Drift = -0.041 dB

Peak SAR (extrapolated) = 0.470 W/kg

SAR(1 g) = 0.327 mW/g; SAR(10 g) = 0.206 mW/g

Maximum value of SAR (measured) = 0.357 mW/g

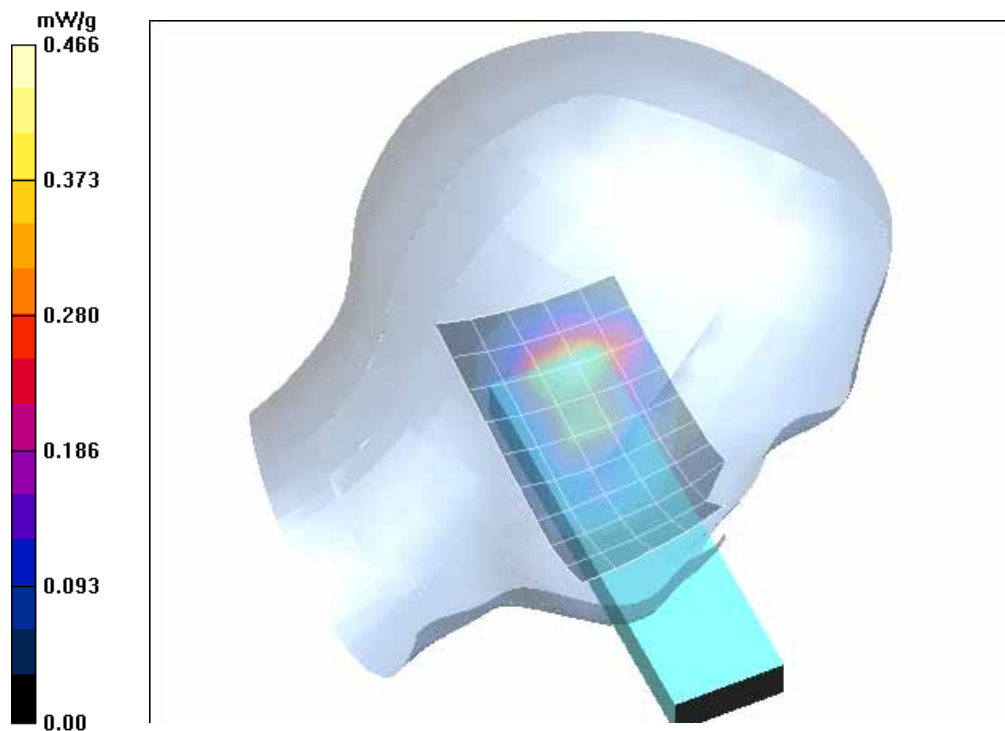


Fig. 5: SAR distribution for PCS 1900, channel 661, cheek position with camera, left side of head (September 26, 2005; Ambient Temperature: 21.3° C; Liquid Temperature : 20.8° C).

Test Laboratory: IMST GmbH, DASY Blue (I); **File Name:** [855bplm 2 cam.da4](#)

DUT: Siemens; **Type:** AX72; **Serial:** 004400013392855

Program Name: Tilted Left

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(5.11, 5.11, 5.11); Calibrated: 13.01.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 07.07.2005
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (measured) = 0.498 mW/g

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

Reference Value = 20.3 V/m; Power Drift = 0.017 dB

Peak SAR (extrapolated) = 0.773 W/kg

SAR(1 g) = 0.497 mW/g; SAR(10 g) = 0.280 mW/g

Maximum value of SAR (measured) = 0.543 mW/g

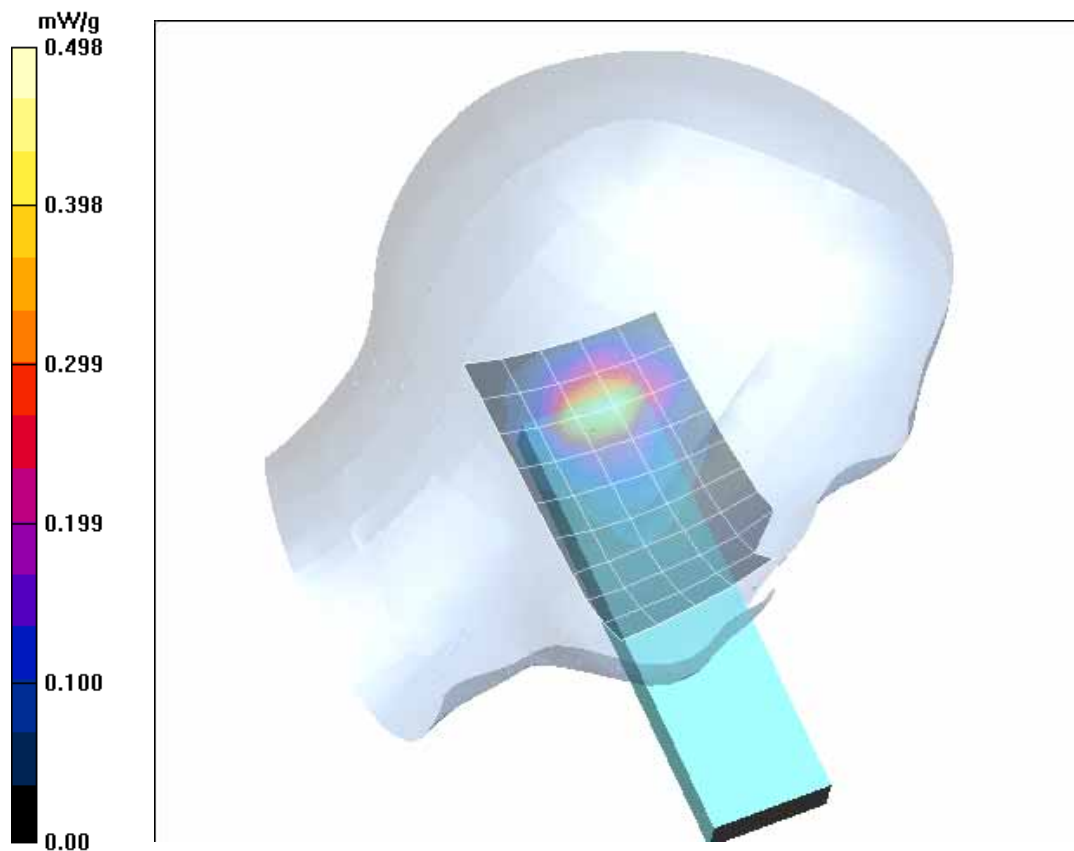


Fig. 6: SAR distribution for PCS 1900, channel 661, tilted position with camera, left side of head (September 26, 2005; Ambient Temperature: 21.3° C; Liquid Temperature : 20.8° C).

Test Laboratory: IMST GmbH, DASY Blue (I); **File Name:** [855bprm 1 cam.da4](#)

DUT: Siemens; **Type:** AX72; **Serial:** 004400013392855

Program Name: Cheek Right

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(5.11, 5.11, 5.11); Calibrated: 13.01.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 07.07.2005
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

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

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

Reference Value = 15.3 V/m; Power Drift = -0.022 dB

Peak SAR (extrapolated) = 0.480 W/kg

SAR(1 g) = 0.320 mW/g; SAR(10 g) = 0.195 mW/g

Maximum value of SAR (measured) = 0.353 mW/g

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

Reference Value = 15.3 V/m; Power Drift = -0.022 dB

Peak SAR (extrapolated) = 0.428 W/kg

SAR(1 g) = 0.302 mW/g; SAR(10 g) = 0.181 mW/g

Maximum value of SAR (measured) = 0.336 mW/g

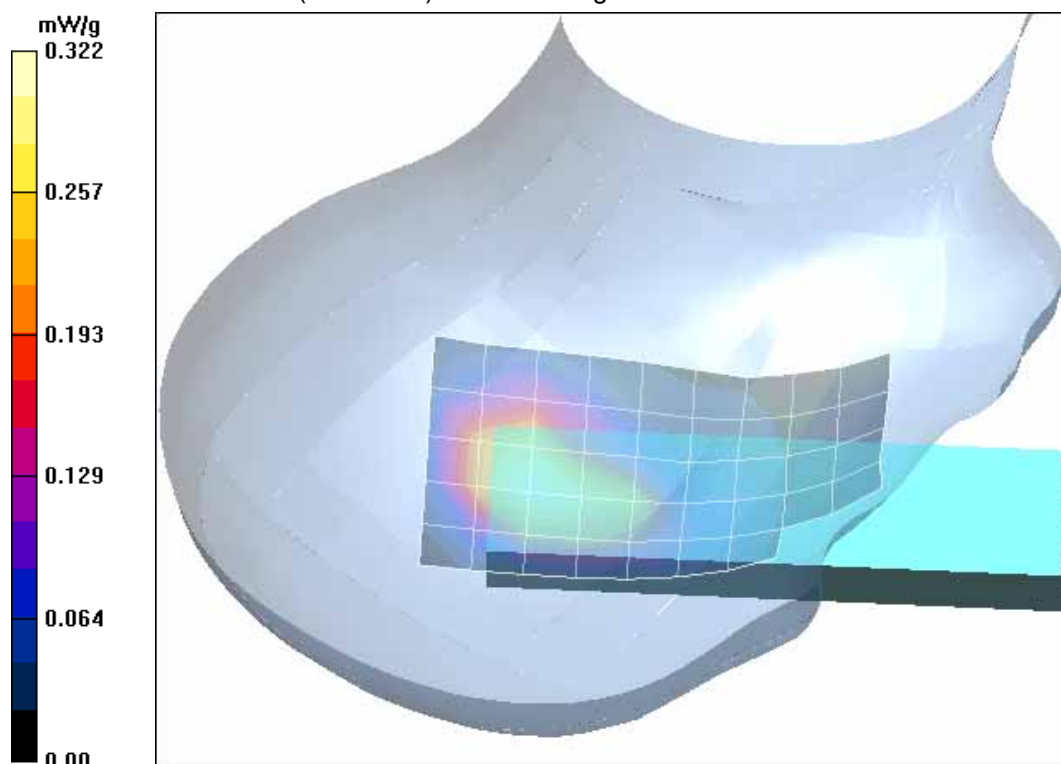


Fig. 7: SAR distribution for PCS 1900, channel 661, cheek position with camera, right side of head (September 26, 2005; Ambient Temperature: 21.4° C; Liquid Temperature : 20.9° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [855bprm 2 cam.da4](#)

DUT: Siemens; Type: AX72; Serial: 004400013392855

Program Name: Tilted Right

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 41.6$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(5.11, 5.11, 5.11); Calibrated: 13.01.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 07.07.2005
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (measured) = 0.471 mW/g

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

Reference Value = 15.9 V/m; Power Drift = 0.028 dB

Peak SAR (extrapolated) = 0.646 W/kg

SAR(1 g) = 0.425 mW/g; SAR(10 g) = 0.241 mW/g

Maximum value of SAR (measured) = 0.470 mW/g

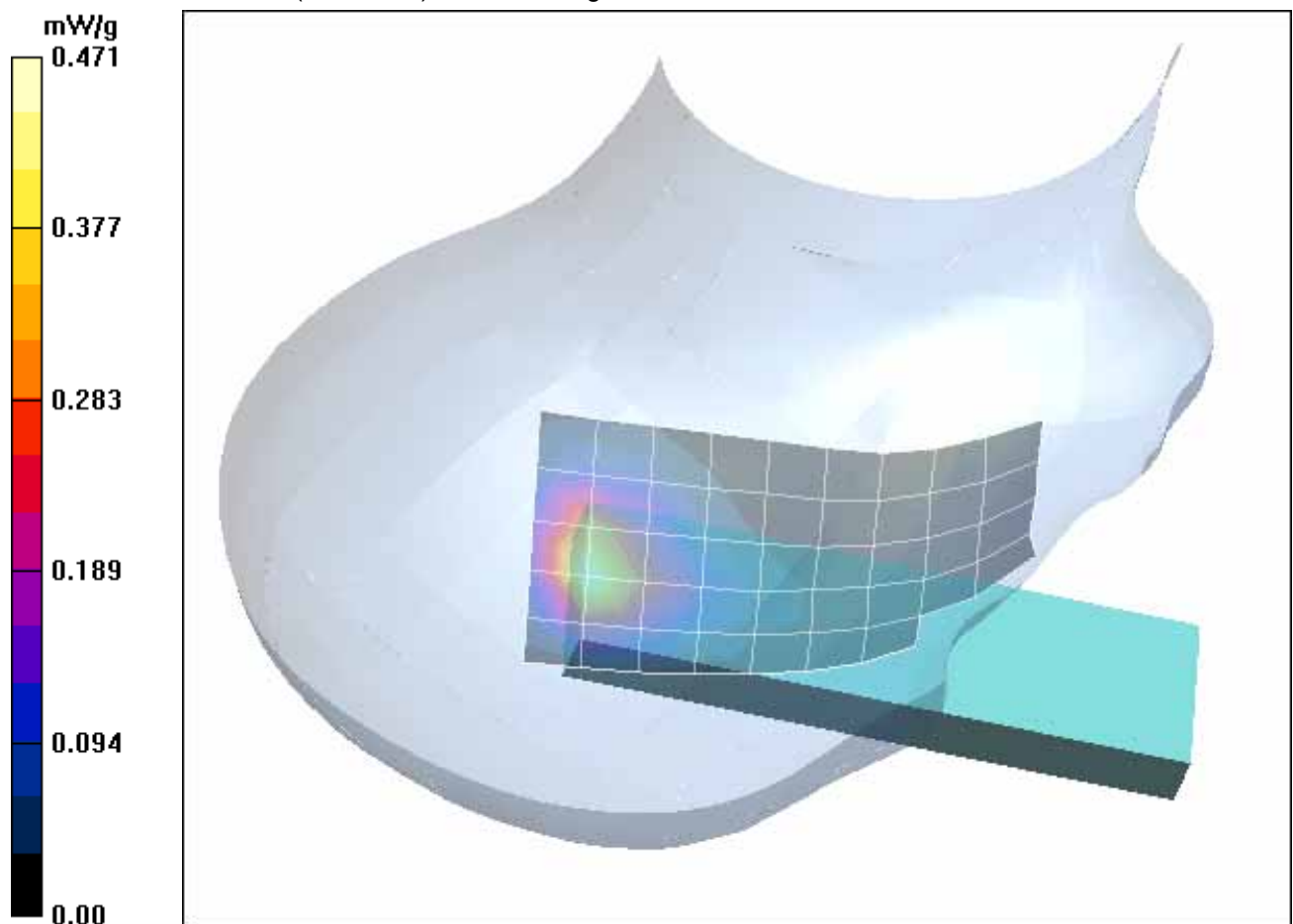


Fig. 8: SAR distribution for PCS 1900, channel 661, tilted position with camera, right side of head (September 26, 2005; Ambient Temperature: 21.4 °C; Liquid Temperature : 20.9° C)

3 SAR Distribution Plots, PCS 1900 Body without accessory

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [855bphh_1_0mm_ohne.da4](#)

DUT: Siemens; Type: AX72; Serial: 004400013392855

Program Name: Body Worn

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

Medium parameters used: $f = 1909.8$ MHz; $\sigma = 1.5$ mho/m; $\epsilon_r = 51.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(4.52, 4.52, 4.52); Calibrated: 13.01.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 07.07.2005
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (measured) = 0.906 mW/g

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

Reference Value = 14.4 V/m; Power Drift = -0.00 dB

Peak SAR (extrapolated) = 3.31 W/kg

SAR(1 g) = 1.32 mW/g; SAR(10 g) = 0.525 mW/g

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

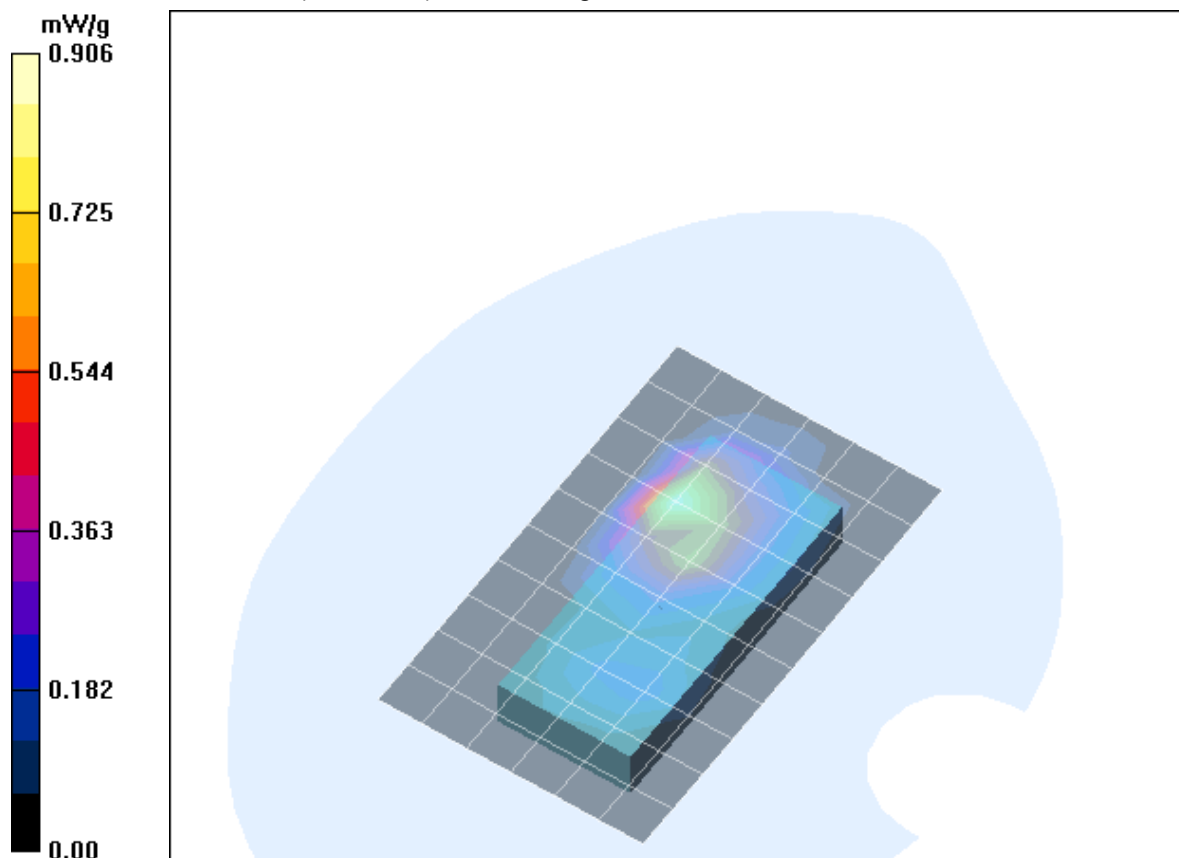


Fig. 9: SAR distribution for PCS 1900, channel 810, body worn configuration, antenna towards the phantom, without accessory, 0mm distance (September 23, 2005; Ambient Temperature: 21.9° C; Liquid Temperature: 21.1° C).

4 SAR Distribution Plots, PCS 1900 Body with headset

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [855bphh_2_0mm_headset.da4](#)

DUT: Siemens; Type: AX72; Serial: 004400013392855

Program Name: Body Worn

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

Medium parameters used: $f = 1909.8$ MHz; $\sigma = 1.5$ mho/m; $\epsilon_r = 51.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(4.52, 4.52, 4.52); Calibrated: 13.01.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 07.07.2005
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (measured) = 0.964 mW/g

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

Reference Value = 17.4 V/m; Power Drift = -0.062 dB

Peak SAR (extrapolated) = 3.42 W/kg

SAR(1 g) = 1.37 mW/g; SAR(10 g) = 0.548 mW/g

Maximum value of SAR (measured) = 1.69 mW/g

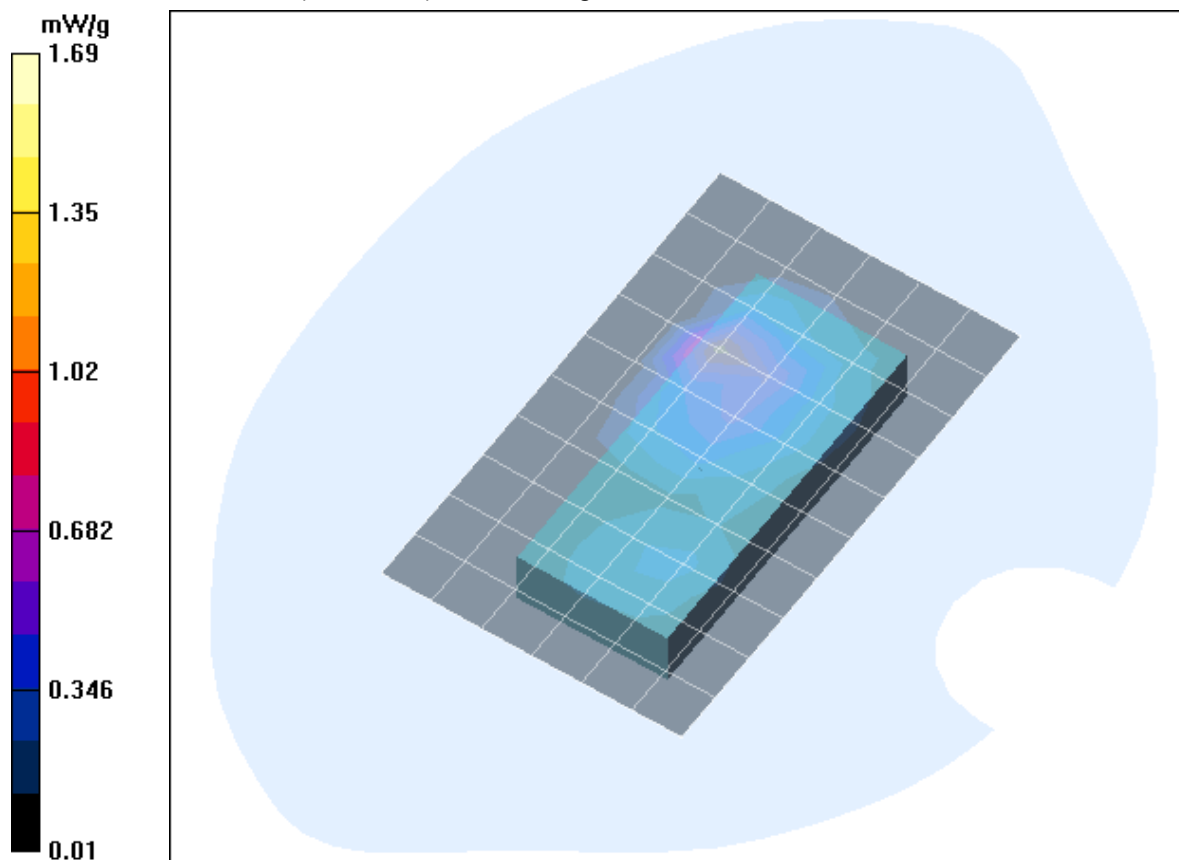


Fig. 10: SAR distribution for PCS 1900, channel 810, body worn configuration, antenna towards the phantom, with headset, 0mm distance (September 23, 2005; Ambient Temperature: 21.9° C; Liquid Temperature: 21.1° C).

5 SAR Distribution Plots, GPRS 1900 Body with data cable

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [855bphl_3_0mm_data.da4](#)

DUT: Siemens; Type: AX72; Serial: 004400013392855

Program Name: Body Worn

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

Medium parameters used: $f = 1850.2$ MHz; $\sigma = 1.5$ mho/m; $\epsilon_r = 51.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(4.52, 4.52, 4.52); Calibrated: 13.01.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 07.07.2005
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (measured) = 1.22 mW/g

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

Reference Value = 11.1 V/m; Power Drift = -0.066 dB

Peak SAR (extrapolated) = 3.60 W/kg

SAR(1 g) = 1.4 mW/g; SAR(10 g) = 0.567 mW/g

Maximum value of SAR (measured) = 1.68 mW/g

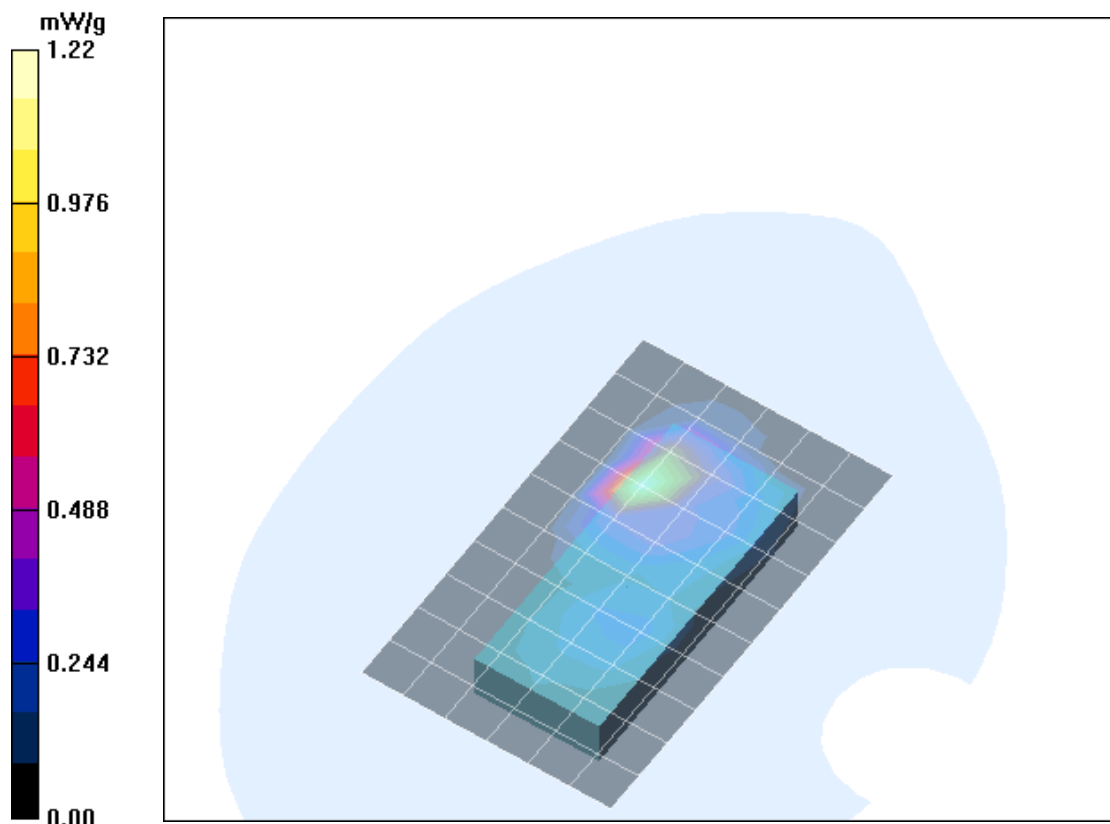


Fig. 11: SAR distribution for GPRS 1900 (Class 8), channel 512, body worn configuration, antenna towards the phantom, with data cable, 0mm distance (September 23, 2005; Ambient Temperature: 21.8° C; Liquid Temperature: 21.0° C).

6 SAR z-axis scans (Validation)

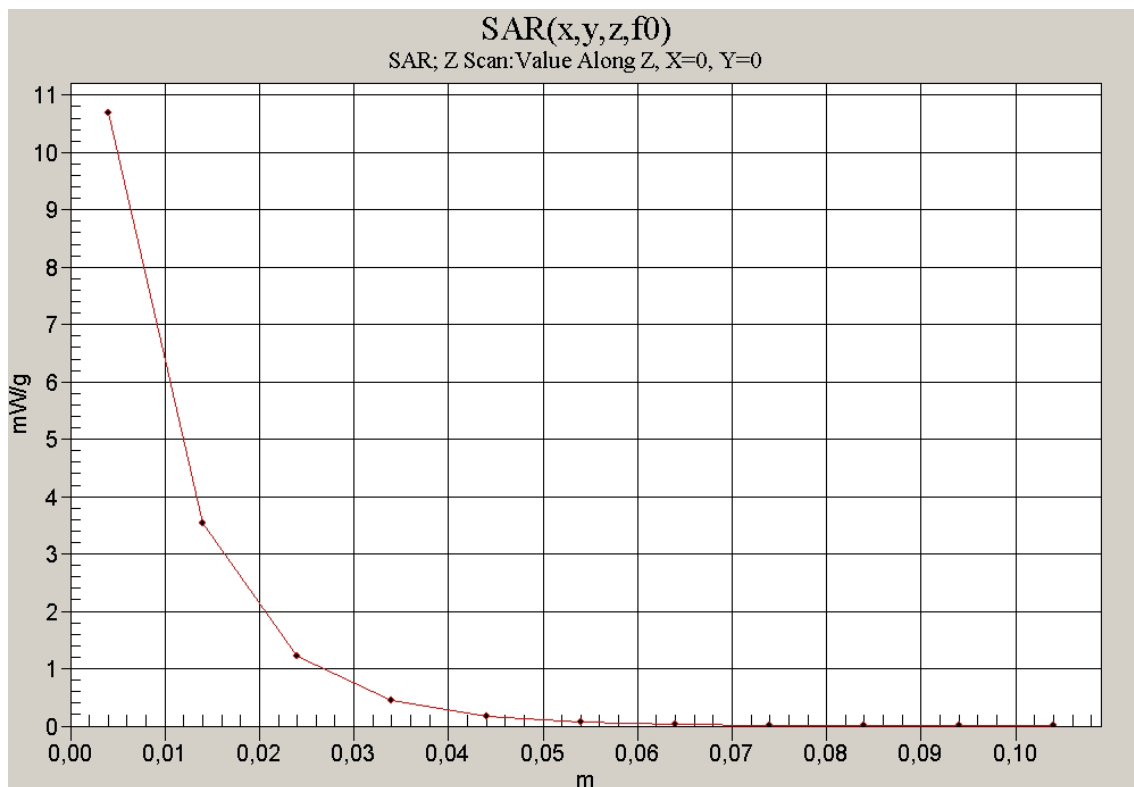


Fig. 12: SAR versus liquid depth, 1900 MHz, head (September 26, 2005; Ambient Temperature: 21.4° C; Liquid Temperature : 20.9° C).

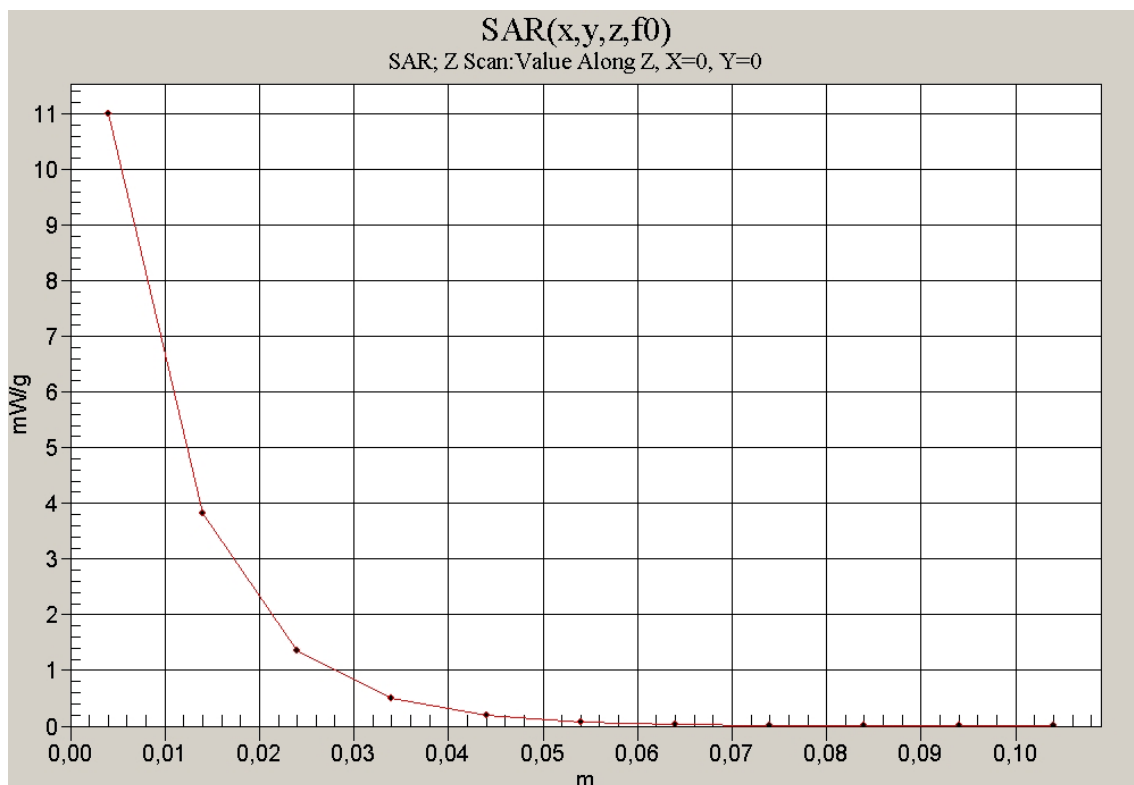


Fig. 13: SAR versus liquid depth, 1900 MHz, body (September 23, 2005; Ambient Temperature: 21.9° C; Liquid Temperature : 21.0° C).

7 SAR z-axis scans (Measurements)

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

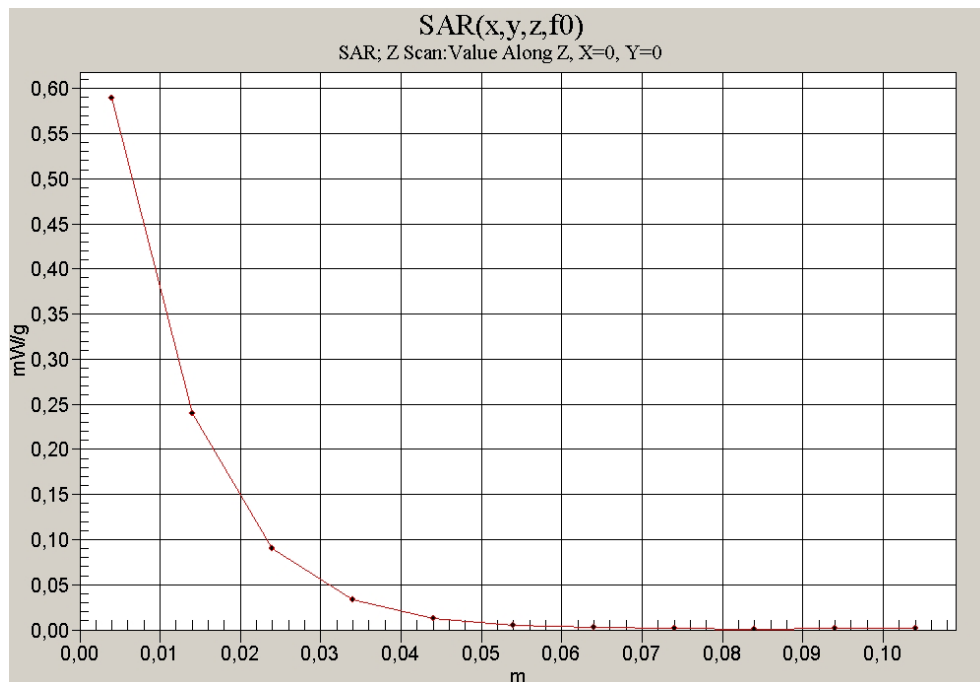


Fig. 14: SAR versus liquid depth, head: PCS 1900, channel 661, tilted position, left side of head (September 26, 2005; Ambient Temperature: 21.3° C; Liquid Temperature : 20.9° C).

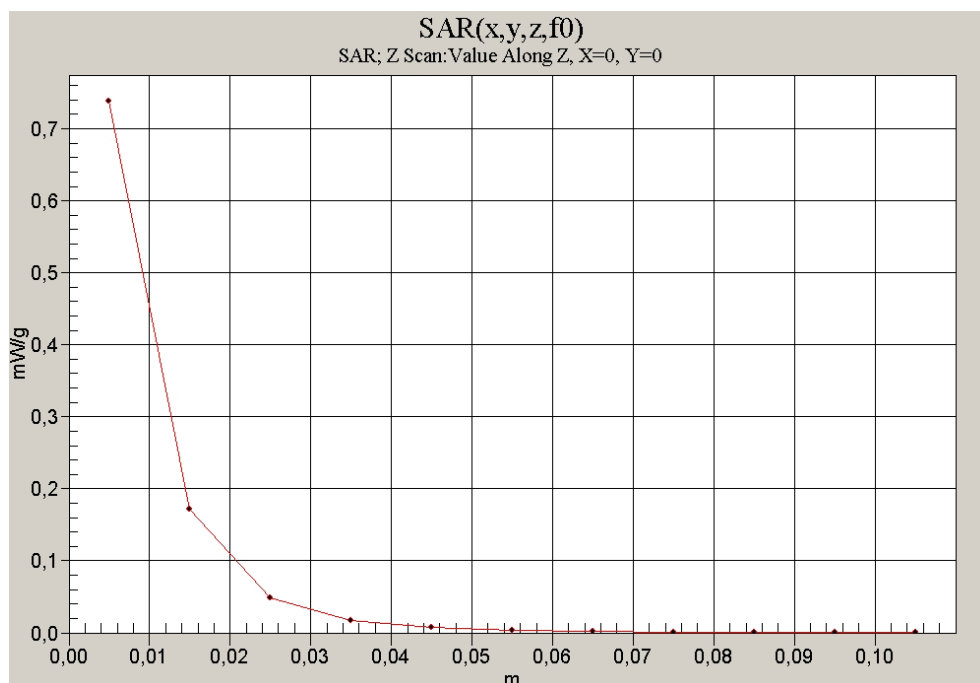


Fig. 15: SAR versus liquid depth, body: GPRS 1900 (Class 8), channel 512, with data cable, 0mm distance (September 23, 2005; Ambient Temperature: 21.8 C; Liquid Temperature: 21.0°C).