
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
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The test results only relate to the items tested.
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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

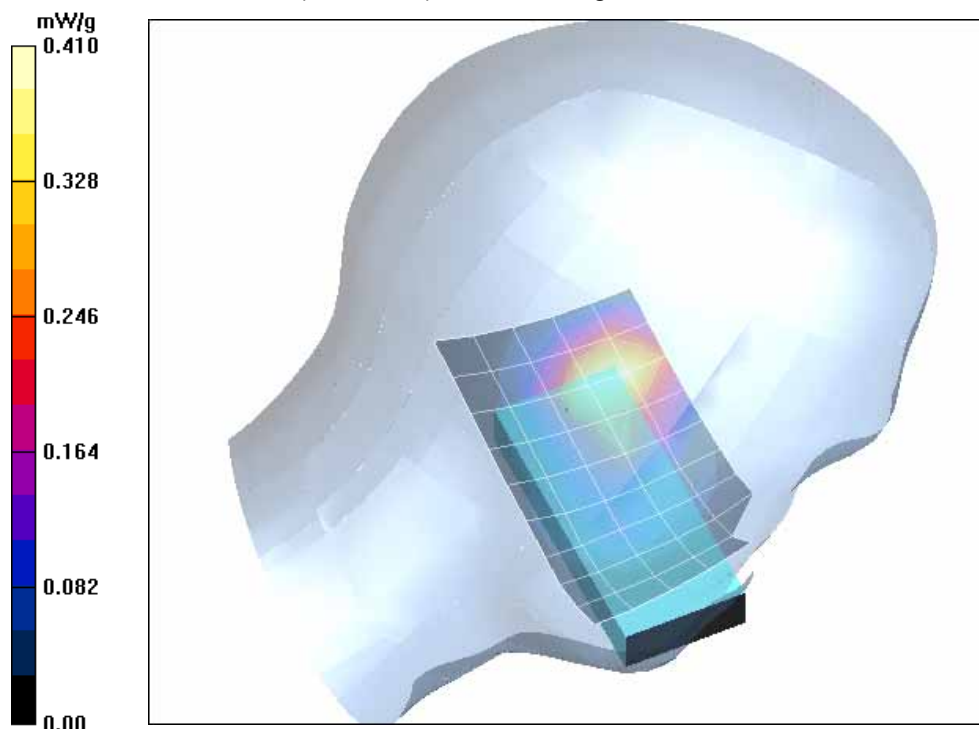


Fig. 1: SAR distribution for PCS 1900, channel 661, cheek position, left side of head (September 26, 2005; Ambient Temperature: 21.4° C; Liquid Temperature : 20.9° C).

Test Laboratory: IMST GmbH, DASY Blue (I); **File Name:** [855bp1m 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

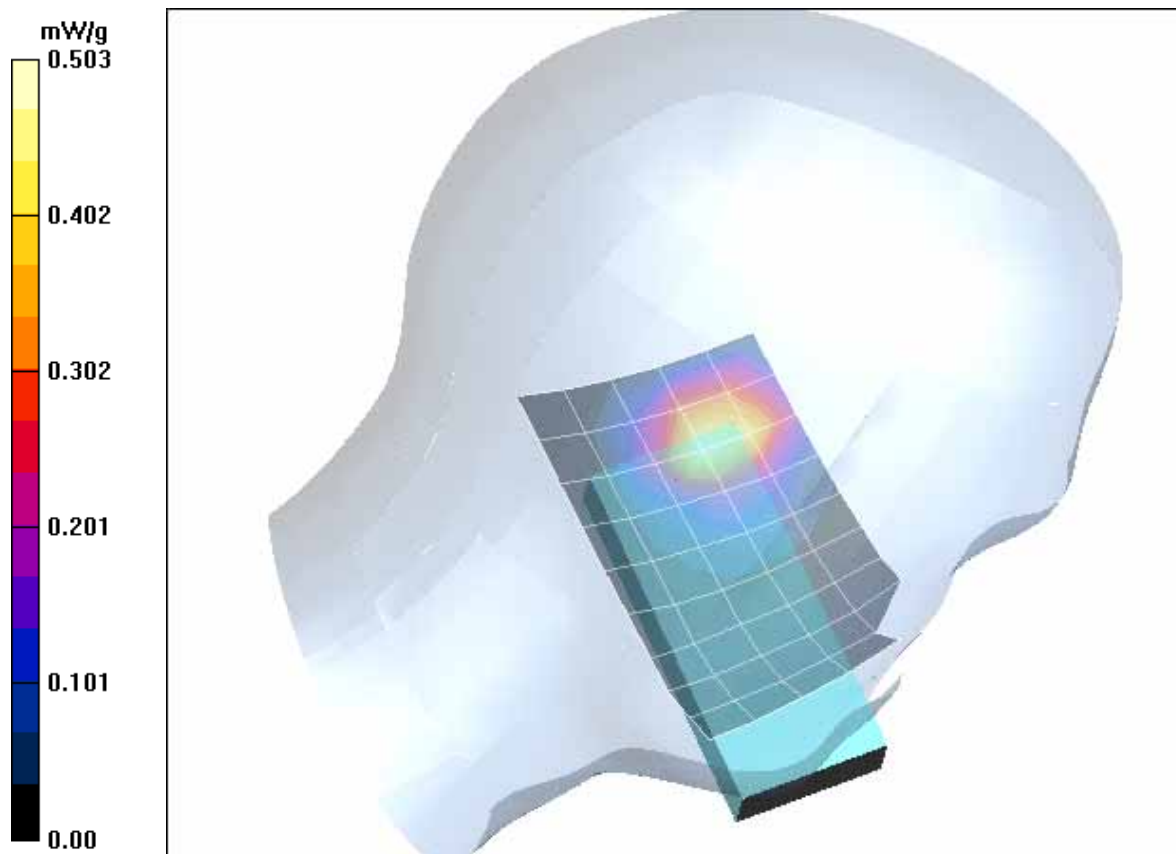


Fig. 2: SAR distribution for PCS 1900, channel 661, tilted position, left side of head (September 26, 2005; Ambient Temperature: 21.3° C; Liquid Temperature : 20.9° C).

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

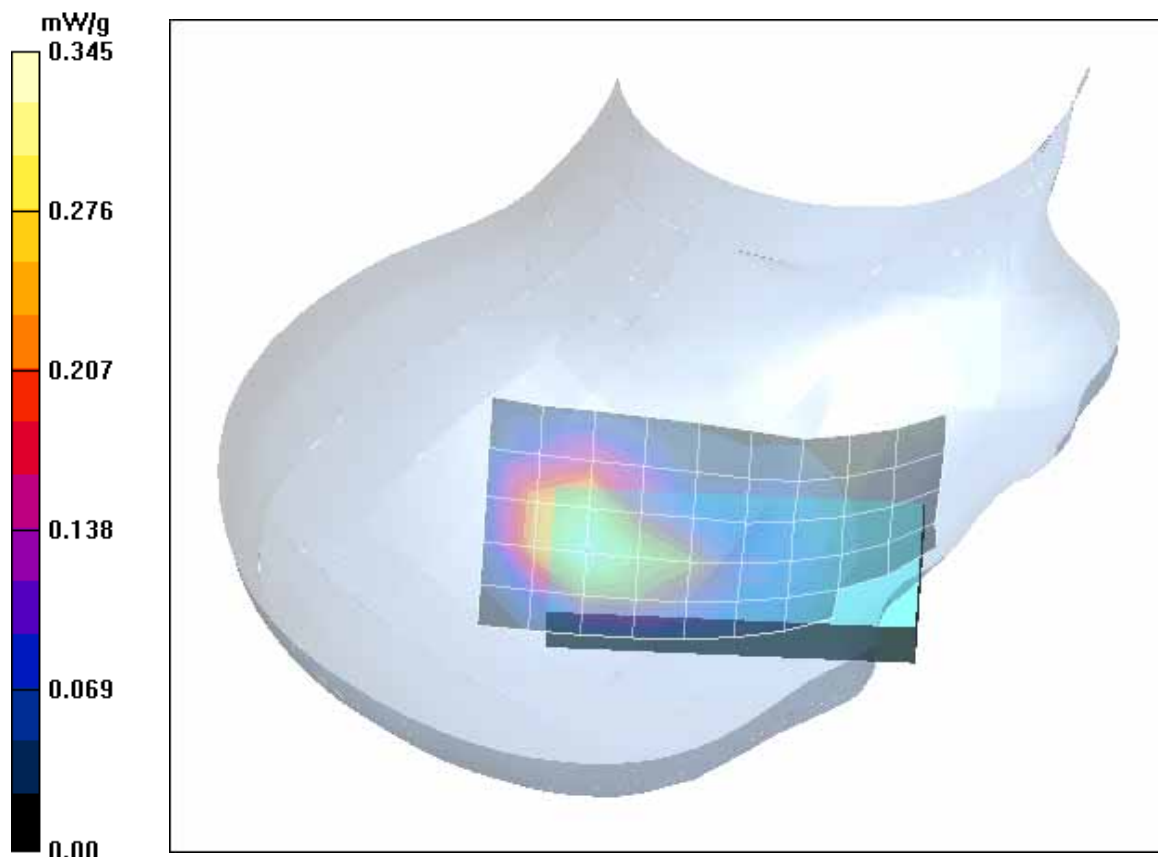


Fig. 3: SAR distribution for PCS 1900, channel 661, cheek position, right side of head (September 26, 2005; Ambient Temperature: 21.3° C; Liquid Temperature : 20.9° C).

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

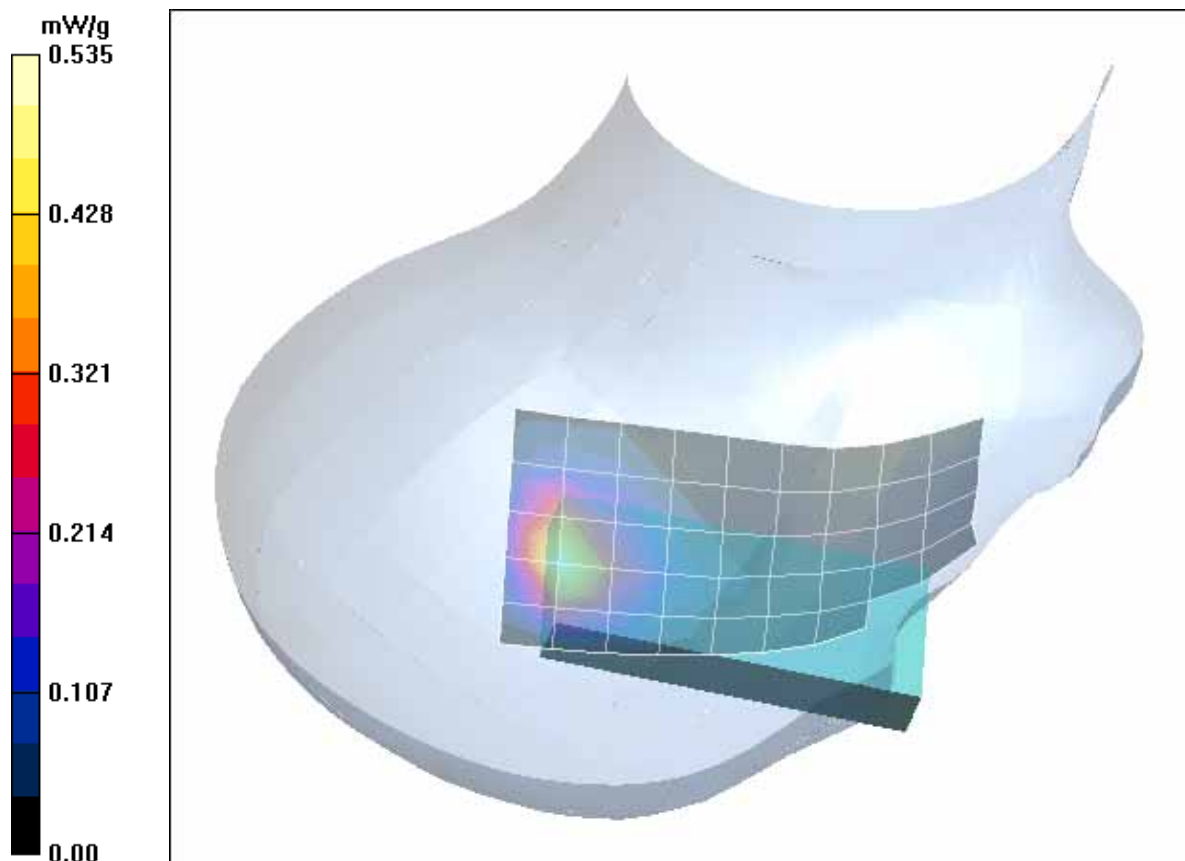


Fig. 4: SAR distribution for PCS 1900, channel 661, tilted position, right side of head (September 26, 2005; Ambient Temperature: 21.3 °C; Liquid Temperature : 20.8° C)

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

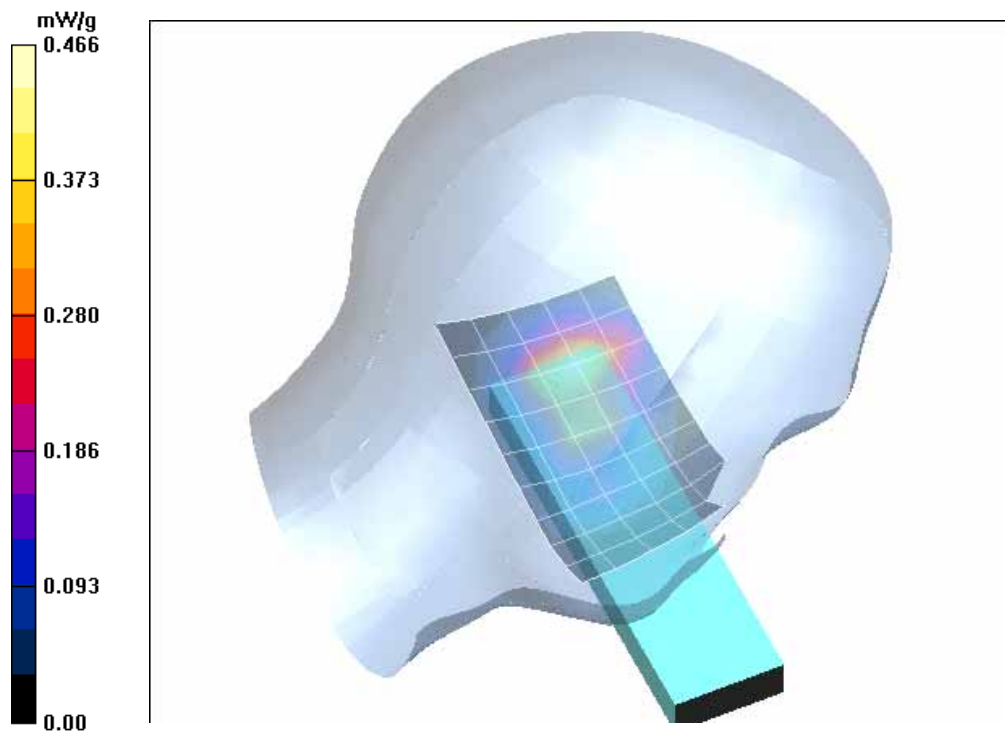


Fig. 5: SAR distribution for PCS 1900, channel 661, cheek position with camera, left side of head (September 26, 2005; Ambient Temperature: 21.3° C; Liquid Temperature : 20.8° C).

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

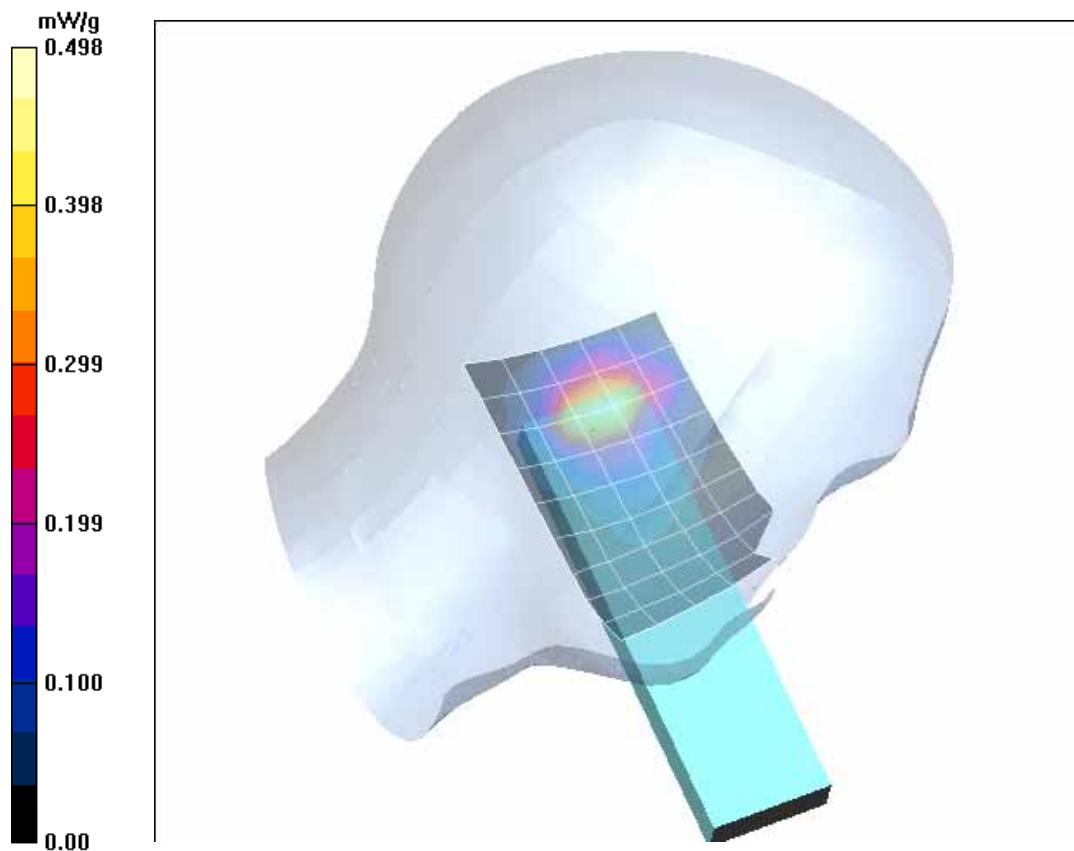


Fig. 6: SAR distribution for PCS 1900, channel 661, tilted position with camera, left side of head (September 26, 2005; Ambient Temperature: 21.3° C; Liquid Temperature : 20.8° C).

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

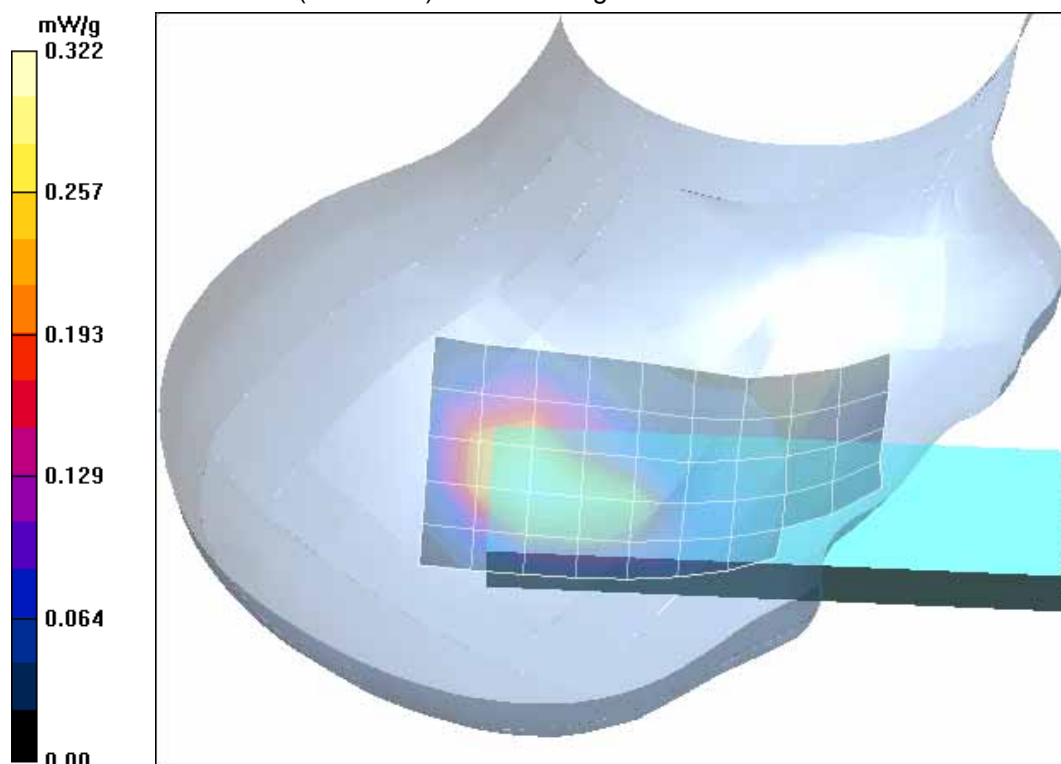


Fig. 7: SAR distribution for PCS 1900, channel 661, cheek position with camera, right side of head (September 26, 2005; Ambient Temperature: 21.4° C; Liquid Temperature : 20.9° C).

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

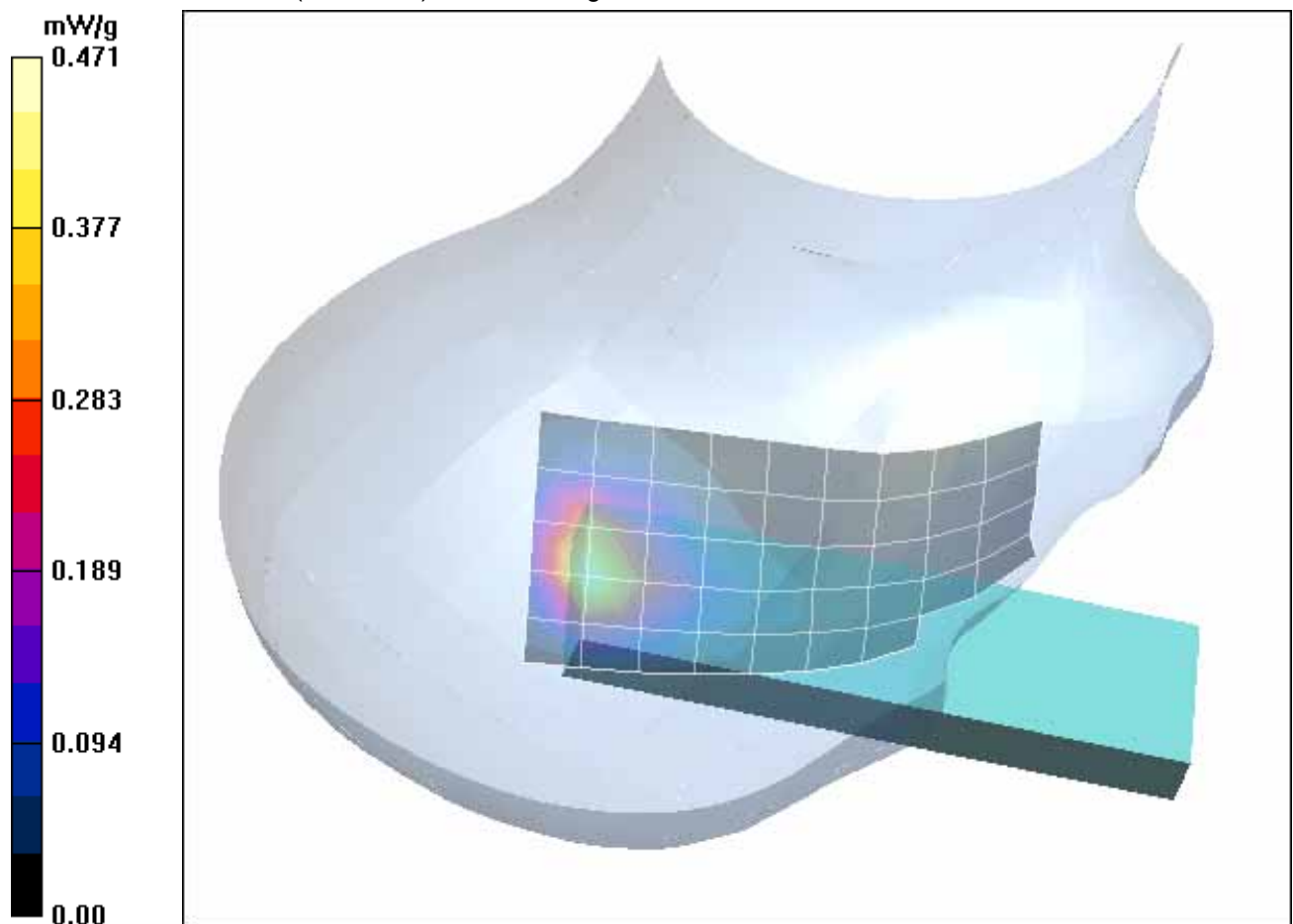


Fig. 8: SAR distribution for PCS 1900, channel 661, tilted position with camera, right side of head (September 26, 2005; Ambient Temperature: 21.4 °C; Liquid Temperature : 20.9° C)

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

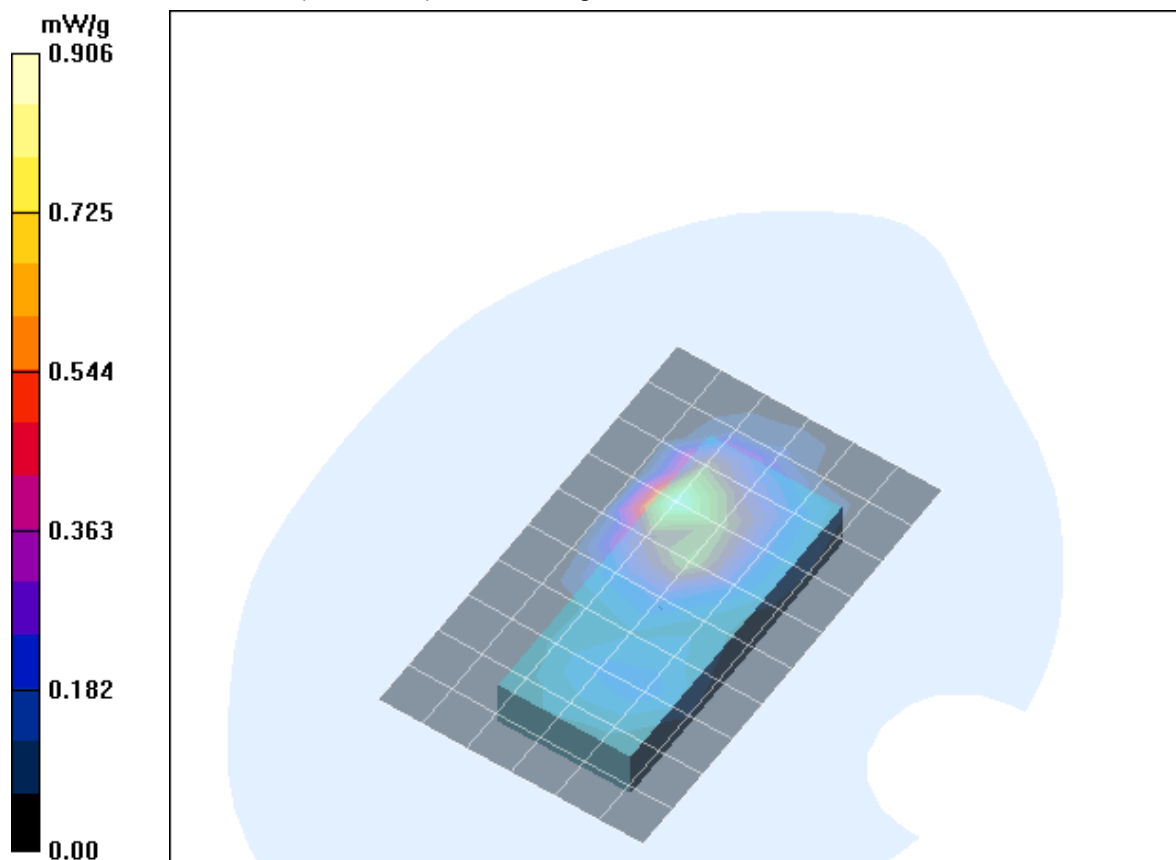


Fig. 9: SAR distribution for PCS 1900, channel 810, body worn configuration, antenna towards the phantom, without accessory, 0mm distance (September 23, 2005; Ambient Temperature: 21.9° C; Liquid Temperature: 21.1° C).

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

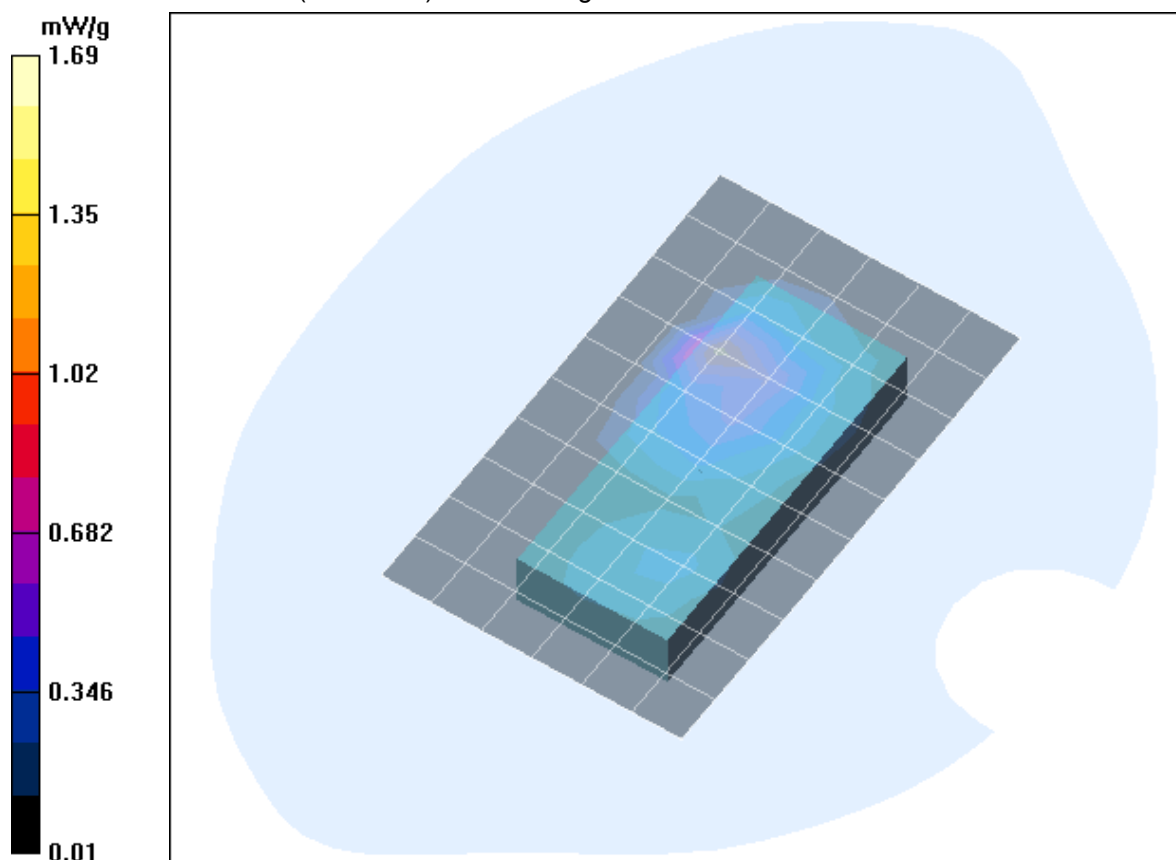


Fig. 10: SAR distribution for PCS 1900, channel 810, body worn configuration, antenna towards the phantom, with headset, 0mm distance (September 23, 2005; Ambient Temperature: 21.9° C; Liquid Temperature: 21.1° C).

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

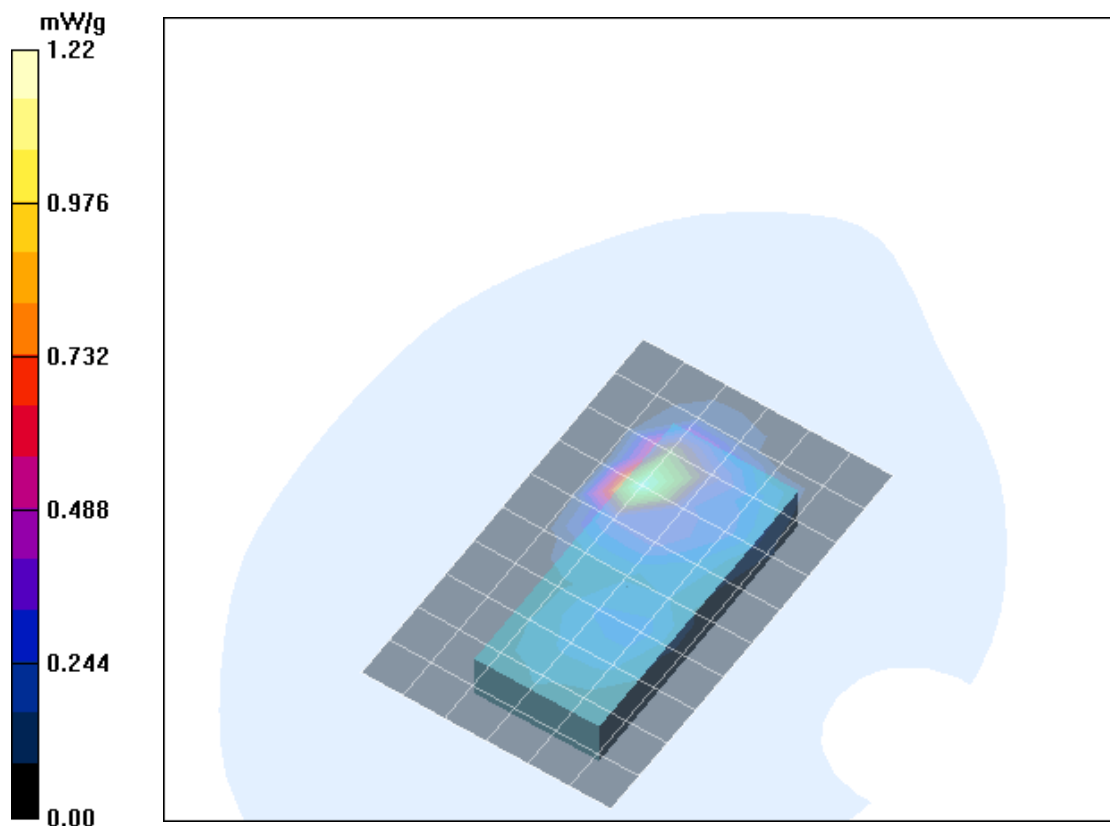


Fig. 11: SAR distribution for GPRS 1900 (Class 8), channel 512, body worn configuration, antenna towards the phantom, with data cable, 0mm distance (September 23, 2005; Ambient Temperature: 21.8° C; Liquid Temperature: 21.0° C).

6 SAR z-axis scans (Validation)

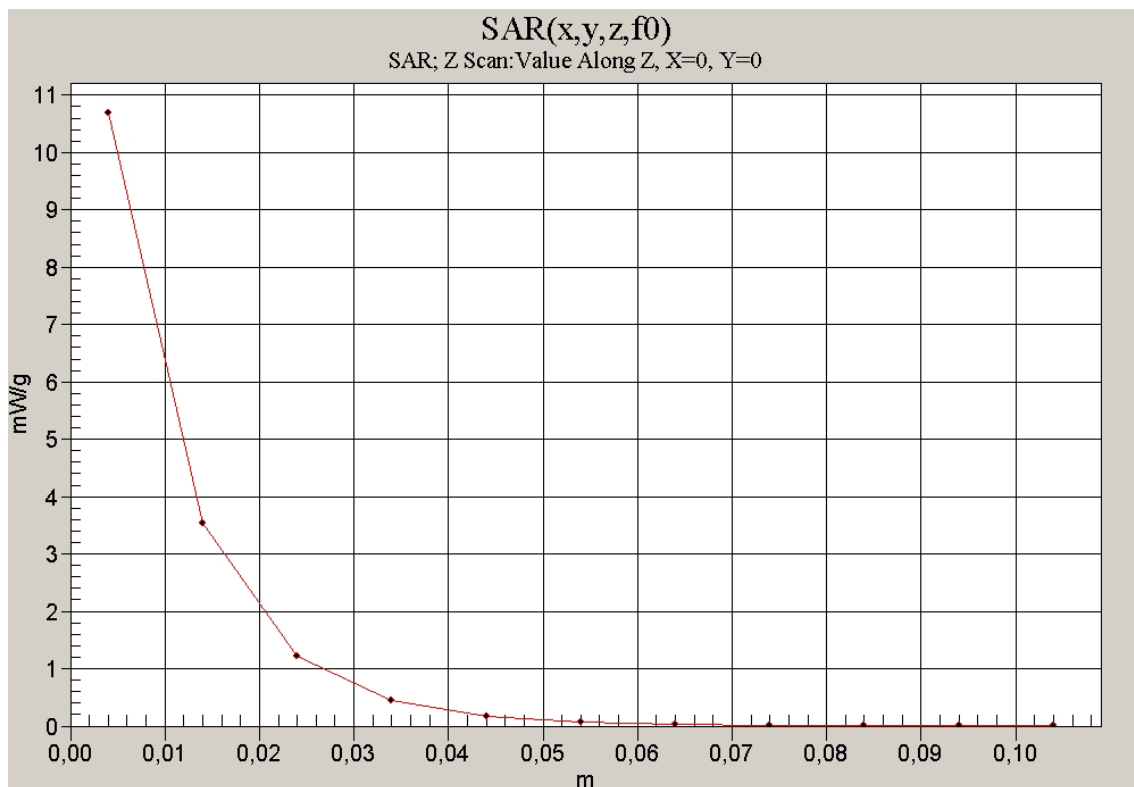


Fig. 12: SAR versus liquid depth, 1900 MHz, head (September 26, 2005; Ambient Temperature: 21.4° C; Liquid Temperature : 20.9° C).

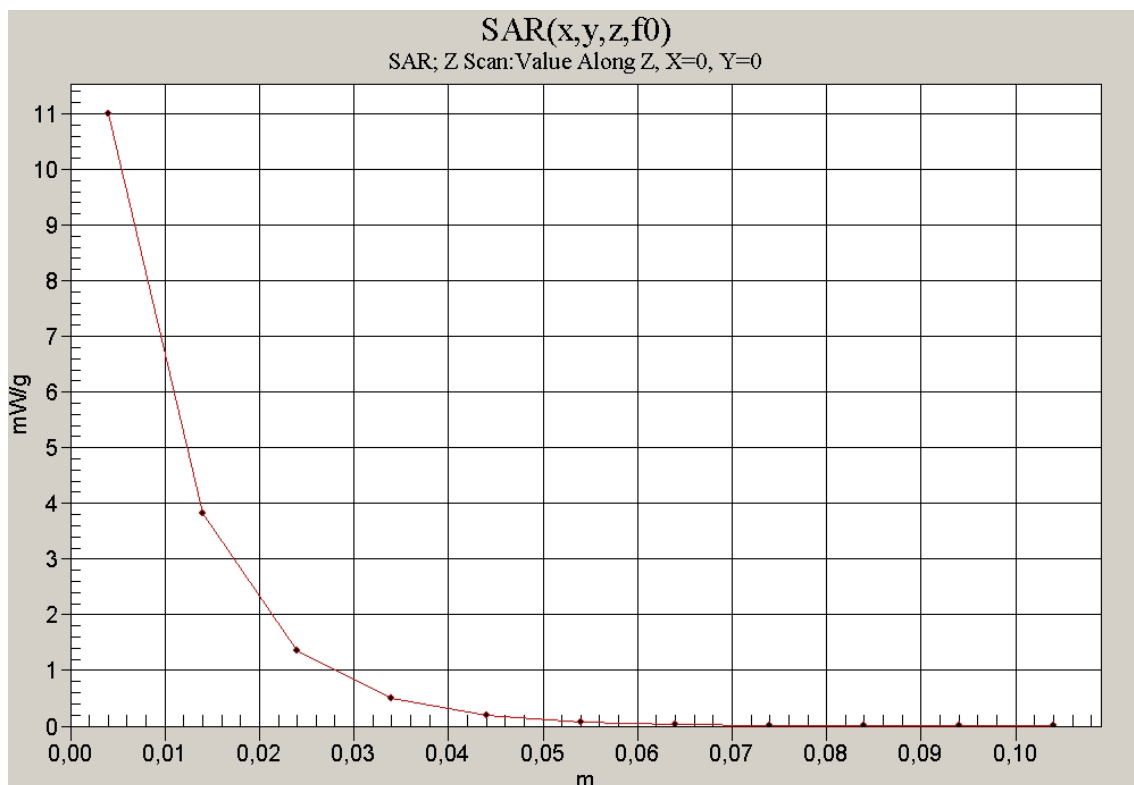


Fig. 13: SAR versus liquid depth, 1900 MHz, body (September 23, 2005; Ambient Temperature: 21.9° C; Liquid Temperature : 21.0° C).

7 SAR z-axis scans (Measurements)

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

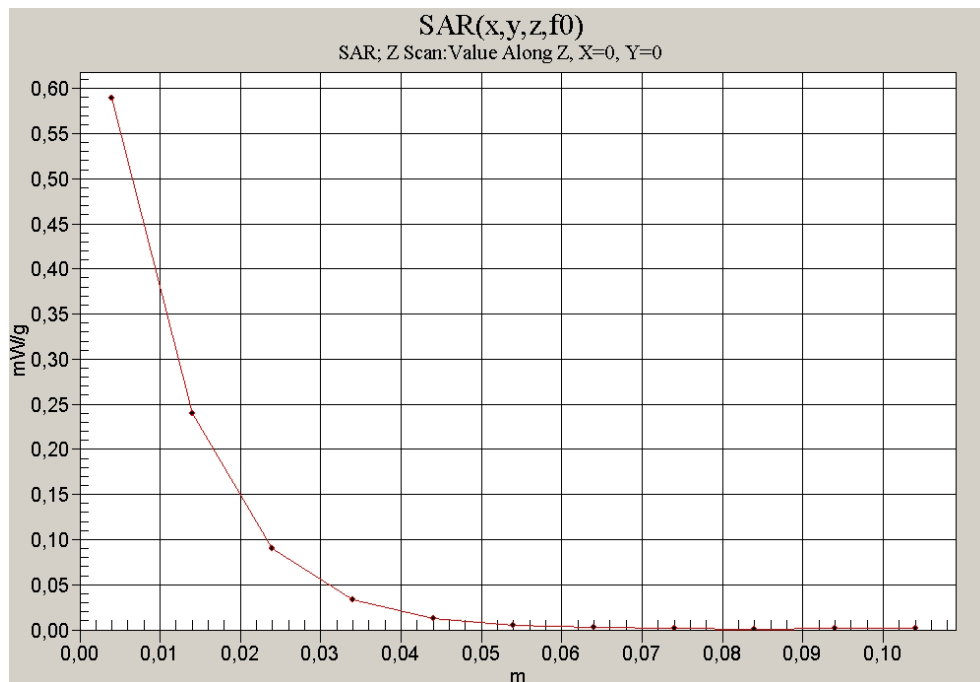


Fig. 14: SAR versus liquid depth, head: PCS 1900, channel 661, tilted position, left side of head (September 26, 2005; Ambient Temperature: 21.3° C; Liquid Temperature : 20.9° C).

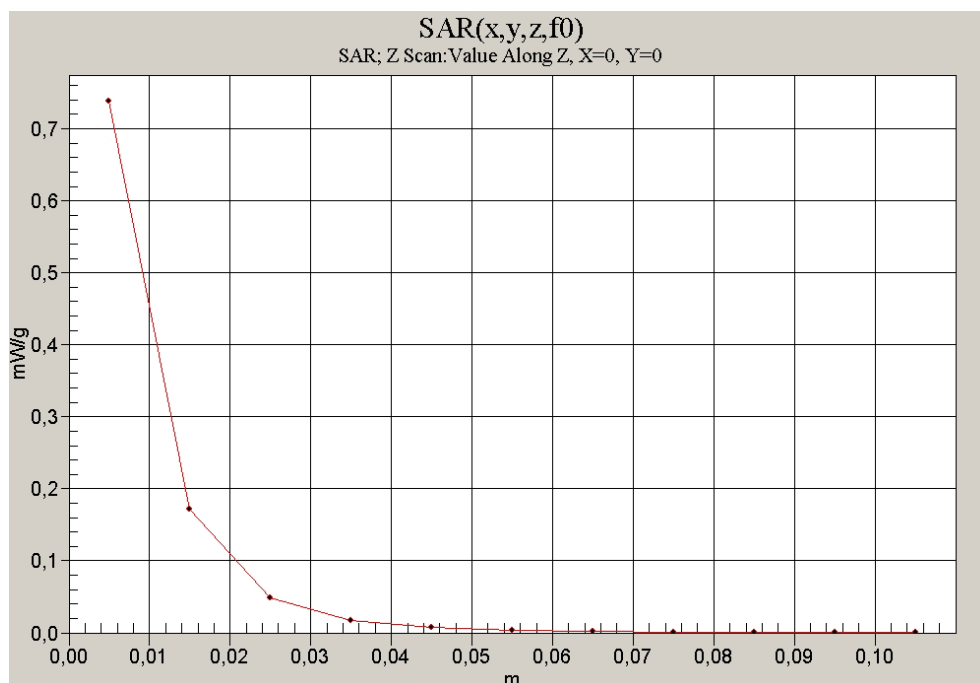


Fig. 15: SAR versus liquid depth, body: GPRS 1900 (Class 8), channel 512, with data cable, 0mm distance (September 23, 2005; Ambient Temperature: 21.8 C; Liquid Temperature: 21.0°C).