
Appendix for the Report

Dosimetric Assessment of the Portable Device Siemens C65 (FCC ID: PWXC65) According to the FCC Requirements

SAR Distribution Plots

January 05, 2005
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1 SAR Distribution Plots, PCS 1900 head, without flash

Test Laboratory: IMST GmbH; File Name: [972yplm_1.da4](#)

DUT: Siemens; Type: C65; Serial: 354875000005972

Program Name: Cheek Left

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

Medium parameters used: $\sigma = 1.41$; mho/m, $\epsilon_r = 39.8$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(8.19, 8.19, 8.19); Calibrated: 27.08.2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 23.07.2004
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.3 Build 22; Postprocessing SW: SEMCAD, V1.8 Build 127

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

Maximum value of SAR (measured) = 0.409 mW/g

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

Reference Value = 18 V/m; Power Drift = -0.050 dB

Peak SAR (extrapolated) = 0.655 W/kg

SAR(1 g) = 0.298 mW/g; SAR(10 g) = 0.184 mW/g

Maximum value of SAR (measured) = 0.446 mW/g

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

Reference Value = 18 V/m; Power Drift = -0.050 dB

Peak SAR (extrapolated) = 753437.7 W/kg

SAR(1 g) = 0.193 mW/g; SAR(10 g) = 0.083 mW/g

Maximum value of SAR (measured) = 0.256 mW/g

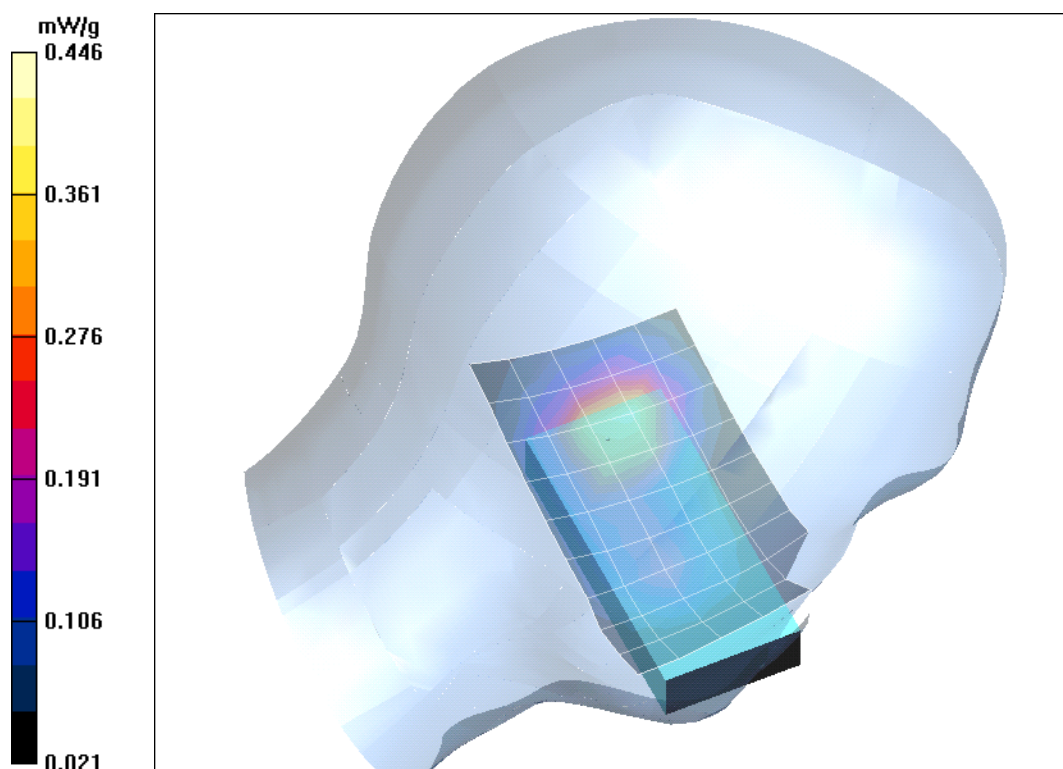


Fig. 1: SAR distribution for PCS 1900, channel 661, cheek position, left side of head (29.12.2004; Ambient Temperature: 21.7° C; Liquid Temperature: 21.2° C).

Test Laboratory: IMST GmbH; **File Name:** [972yplm_2.da4](#)

DUT: Siemens; **Type:** C65; **Serial:** 354875000005972

Program Name: Tilted Left

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

Medium parameters used: $\sigma = 1.41$; mho/m, $\epsilon_r = 39.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(8.19, 8.19, 8.19); Calibrated: 27.08.2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 23.07.2004
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.3 Build 22; Postprocessing SW: SEMCAD, V1.8 Build 127

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

Maximum value of SAR (measured) = 0.479 mW/g

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

Reference Value = 19.4 V/m; Power Drift = -0.006 dB

Peak SAR (extrapolated) = 0.781 W/kg

SAR(1 g) = 0.336 mW/g; SAR(10 g) = 0.195 mW/g

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

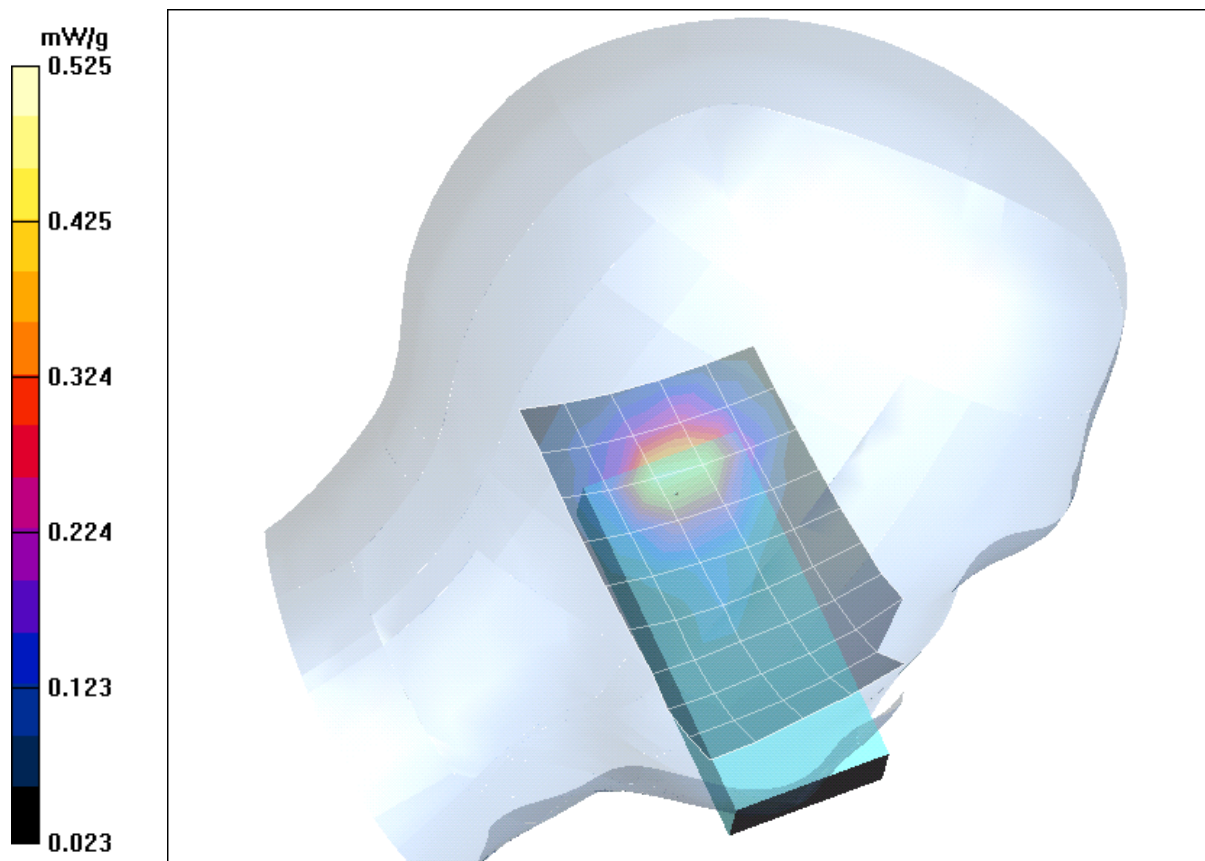


Fig. 2: SAR distribution for PCS 1900, channel 661, tilted position, left side of head (29.12.2004; Ambient Temperature: 21.8° C; Liquid Temperature : 21.1° C).

Test Laboratory: IMST GmbH; **File Name:** [972yprm_1.da4](#)

DUT: Siemens; **Type:** C65; **Serial:** 354875000005972

Program Name: Cheek Right

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

Medium parameters used: $\sigma = 1.41$; mho/m, $\epsilon_r = 39.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(8.19, 8.19, 8.19); Calibrated: 27.08.2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 23.07.2004
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.3 Build 22; Postprocessing SW: SEMCAD, V1.8 Build 127

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

Maximum value of SAR (measured) = 0.451 mW/g

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

Reference Value = 17.4 V/m; Power Drift = 0.001 dB

Peak SAR (extrapolated) = 0.741 W/kg

SAR(1 g) = 0.291 mW/g; SAR(10 g) = 0.179 mW/g

Maximum value of SAR (measured) = 0.469 mW/g

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

Reference Value = 17.4 V/m; Power Drift = 0.001 dB

Peak SAR (extrapolated) = 1.81 W/kg

SAR(1 g) = 0.199 mW/g; SAR(10 g) = 0.109 mW/g

Maximum value of SAR (measured) = 0.266 mW/g

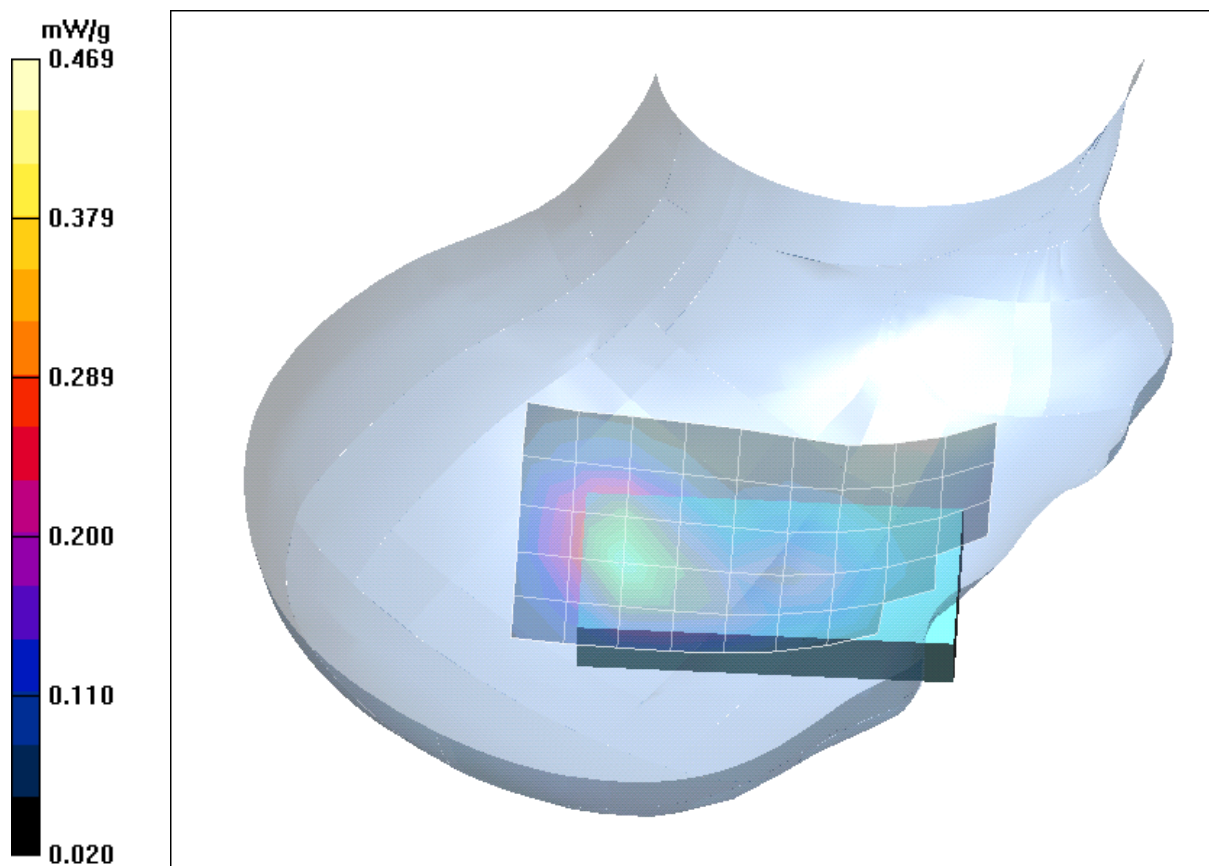


Fig. 3: SAR distribution for PCS 1900, channel 661, cheek position, right side of head (29.12.2004; Ambient Temperature: 21.8° C; Liquid Temperature : 21.1° C).

Test Laboratory: IMST GmbH; **File Name:** [972yprm_2.da4](#)

DUT: Siemens; **Type:** C65; **Serial:** 354875000005972

Program Name: Tilted Right

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

Medium parameters used: $\sigma = 1.41$; mho/m, $\epsilon_r = 39.8$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(8.19, 8.19, 8.19); Calibrated: 27.08.2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 23.07.2004
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.3 Build 22; Postprocessing SW: SEMCAD, V1.8 Build 127

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

Maximum value of SAR (measured) = 0.483 mW/g

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

Reference Value = 18.8 V/m; Power Drift = -0.009 dB

Peak SAR (extrapolated) = 0.804 W/kg

SAR(1 g) = 0.353 mW/g; SAR(10 g) = 0.211 mW/g

Maximum value of SAR (measured) = 0.547 mW/g

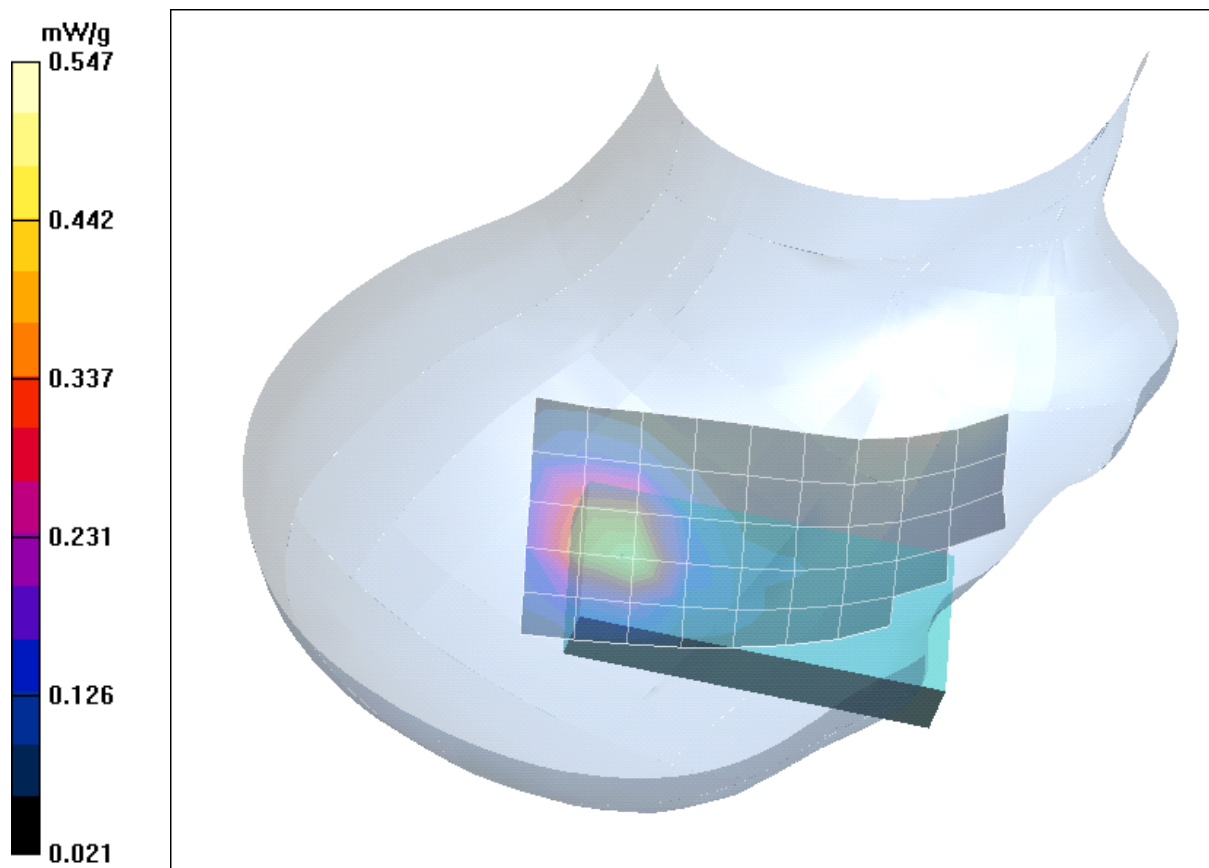


Fig. 4: SAR distribution for PCS 1900, channel 661, tilted position, right side of head (29.12.2004; Ambient Temperature: 21.7° C; Liquid Temperature : 21.1° C).

2 SAR Distribution Plots, PCS 1900 head, with flash

Test Laboratory: IMST GmbH; File Name: [972yplm_1_flash.da4](#)

DUT: Siemens; Type: C65; Serial: 354875000005972

Program Name: Cheek Left

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

Medium parameters used: $\sigma = 1.41$; mho/m, $\epsilon_r = 39.8$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(8.19, 8.19, 8.19); Calibrated: 27.08.2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 23.07.2004
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.3 Build 22; Postprocessing SW: SEMCAD, V1.8 Build 127

Cheek Left/Area Scan (6x12x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.349 mW/g

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

Reference Value = 16.8 V/m; Power Drift = -0.033 dB

Peak SAR (extrapolated) = 0.594 W/kg

SAR(1 g) = 0.264 mW/g; SAR(10 g) = 0.154 mW/g

Maximum value of SAR (measured) = 0.389 mW/g

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

Reference Value = 16.8 V/m; Power Drift = -0.033 dB

Peak SAR (extrapolated) = 75797.1 W/kg

SAR(1 g) = 0.166 mW/g; SAR(10 g) = 0.068 mW/g

Maximum value of SAR (measured) = 0.263 mW/g

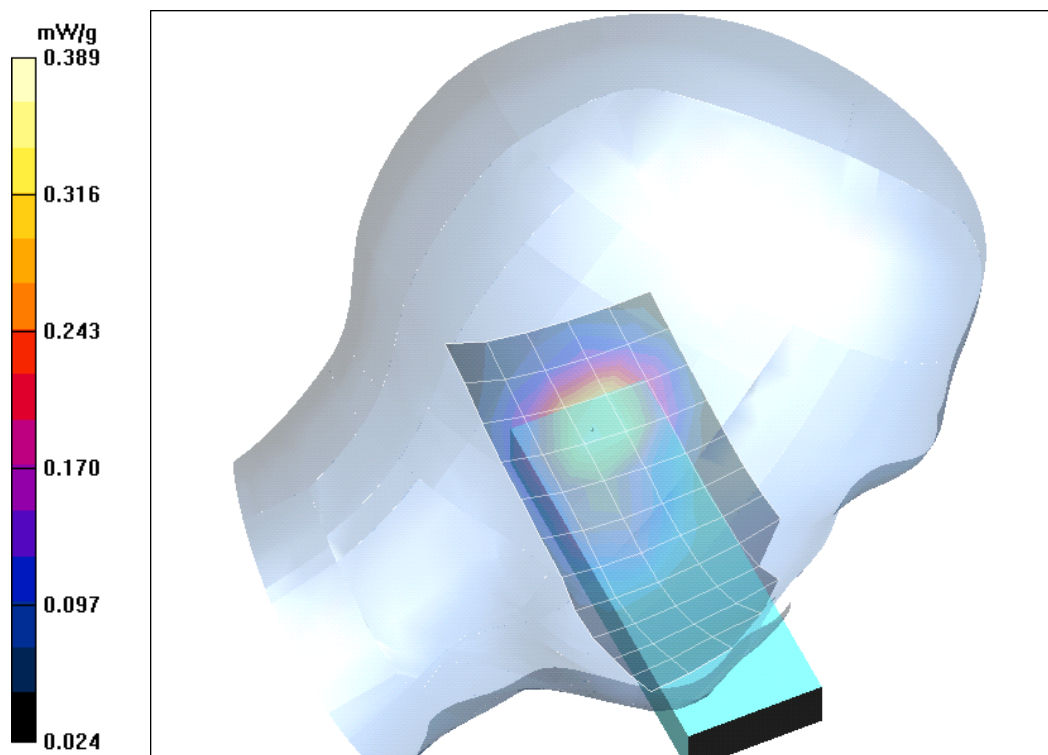


Fig. 5: SAR distribution for PCS 1900, channel 661, cheek position, left side of head (29.12.2004; Ambient Temperature: 21.6° C; Liquid Temperature : 21.2° C).

Test Laboratory: IMST GmbH; **File Name:** [972yplm_2_flash.da4](#)

DUT: Siemens; **Type:** C65; **Serial:** 354875000005972

Program Name: Tilted Left

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

Medium parameters used: $\sigma = 1.41$; mho/m, $\epsilon_r = 39.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(8.19, 8.19, 8.19); Calibrated: 27.08.2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 23.07.2004
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.3 Build 22; Postprocessing SW: SEMCAD, V1.8 Build 127

Tilted Left/Area Scan (6x12x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.432 mW/g

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

Reference Value = 17.7 V/m; Power Drift = -0.001 dB

Peak SAR (extrapolated) = 0.682 W/kg

SAR(1 g) = 0.287 mW/g; SAR(10 g) = 0.169 mW/g

Maximum value of SAR (measured) = 0.450 mW/g

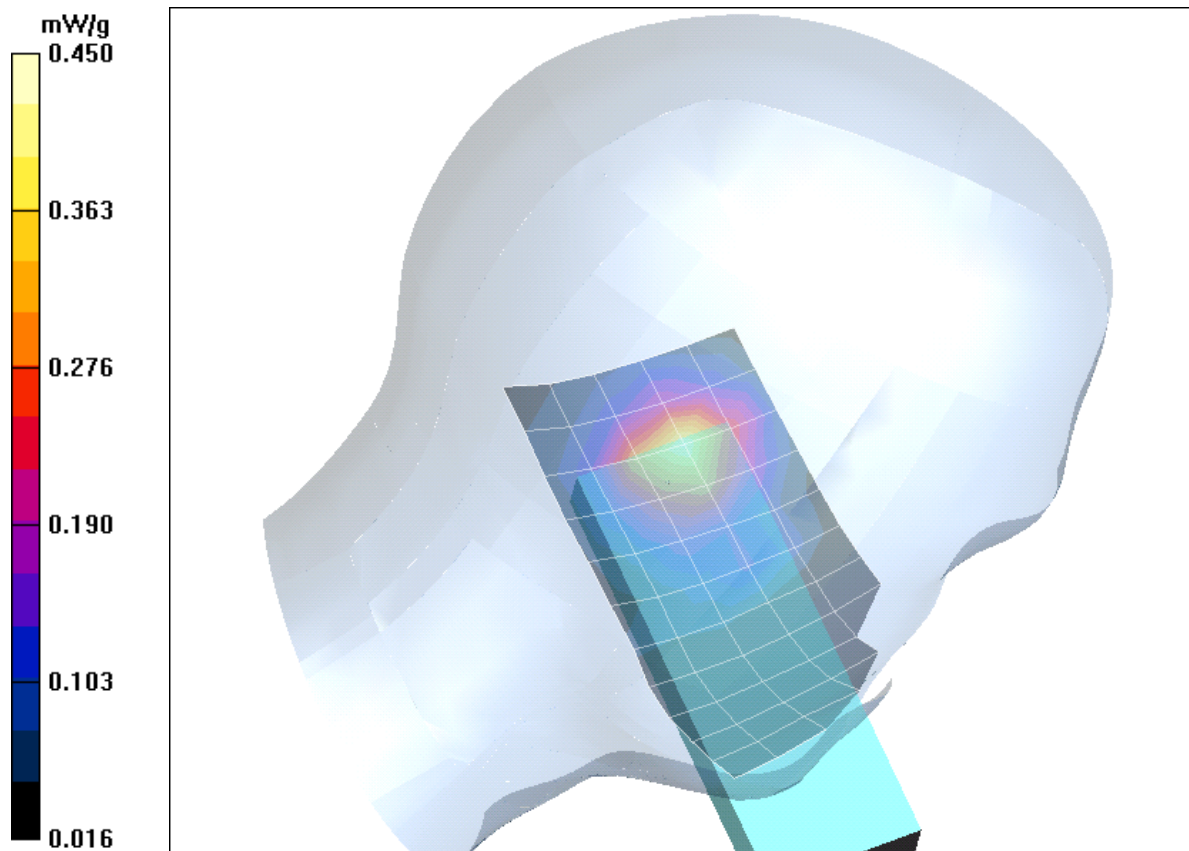


Fig. 6: SAR distribution for PCS 1900, channel 661, tilted position, left side of head (29.12.2004; Ambient Temperature: 21.7° C; Liquid Temperature : 21.1° C).

Test Laboratory: IMST GmbH; **File Name:** [972yprm 1 flash.da4](#)

DUT: Siemens; **Type:** C65; **Serial:** 354875000005972; **Program Name:** Cheek Right

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

Medium parameters used: $\sigma = 1.41$; mho/m, $\epsilon_r = 39.8$; $\rho = 1000$ kg/m³

Phantom section: Right Section; DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(8.19, 8.19, 8.19); Calibrated: 27.08.2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 23.07.2004
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.3 Build 22; Postprocessing SW: SEMCAD, V1.8 Build 127

Cheek Right/Area Scan (6x12x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 16.3 V/m; Power Drift = -0.023 dB

Peak SAR (extrapolated) = 0.611 W/kg

SAR(1 g) = 0.257 mW/g; SAR(10 g) = 0.157 mW/g

Maximum value of SAR (measured) = 0.402 mW/g

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

Reference Value = 16.3 V/m; Power Drift = -0.023 dB

Peak SAR (extrapolated) = 0.556 W/kg

SAR(1 g) = 0.255 mW/g; SAR(10 g) = 0.169 mW/g

Maximum value of SAR (measured) = 0.387 mW/g

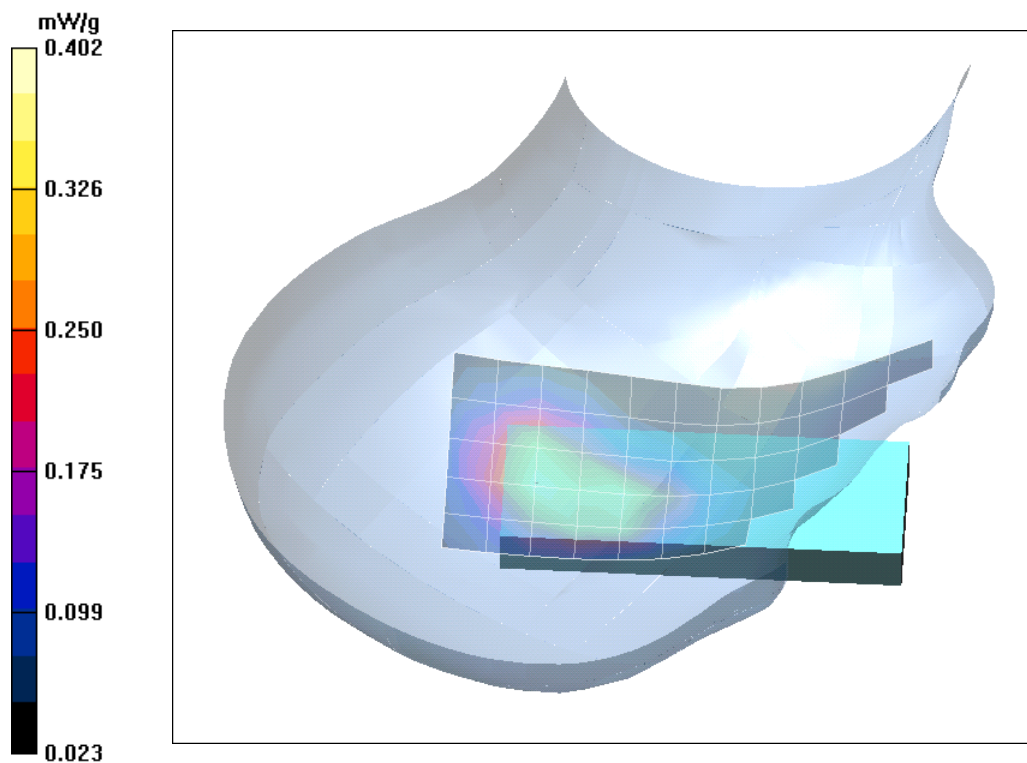


Fig. 7: SAR distribution for PCS 1900, channel 661, cheek position, right side of head (29.12.2004; Ambient Temperature: 21.6° C; Liquid Temperature : 21.2° C).

Test Laboratory: IMST GmbH; **File Name:** [972yprm 2 flash.da4](#)

DUT: Siemens; **Type:** C65; **Serial:** 354875000005972

Program Name: Tilted Right

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

Medium parameters used: $\sigma = 1.41$; mho/m, $\epsilon_r = 39.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(8.19, 8.19, 8.19); Calibrated: 27.08.2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 23.07.2004
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.3 Build 22; Postprocessing SW: SEMCAD, V1.8 Build 127

Tilted Right/Area Scan (6x12x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 17.1 V/m; Power Drift = -0.032 dB

Peak SAR (extrapolated) = 0.588 W/kg

SAR(1 g) = 0.270 mW/g; SAR(10 g) = 0.171 mW/g

Maximum value of SAR (measured) = 0.412 mW/g

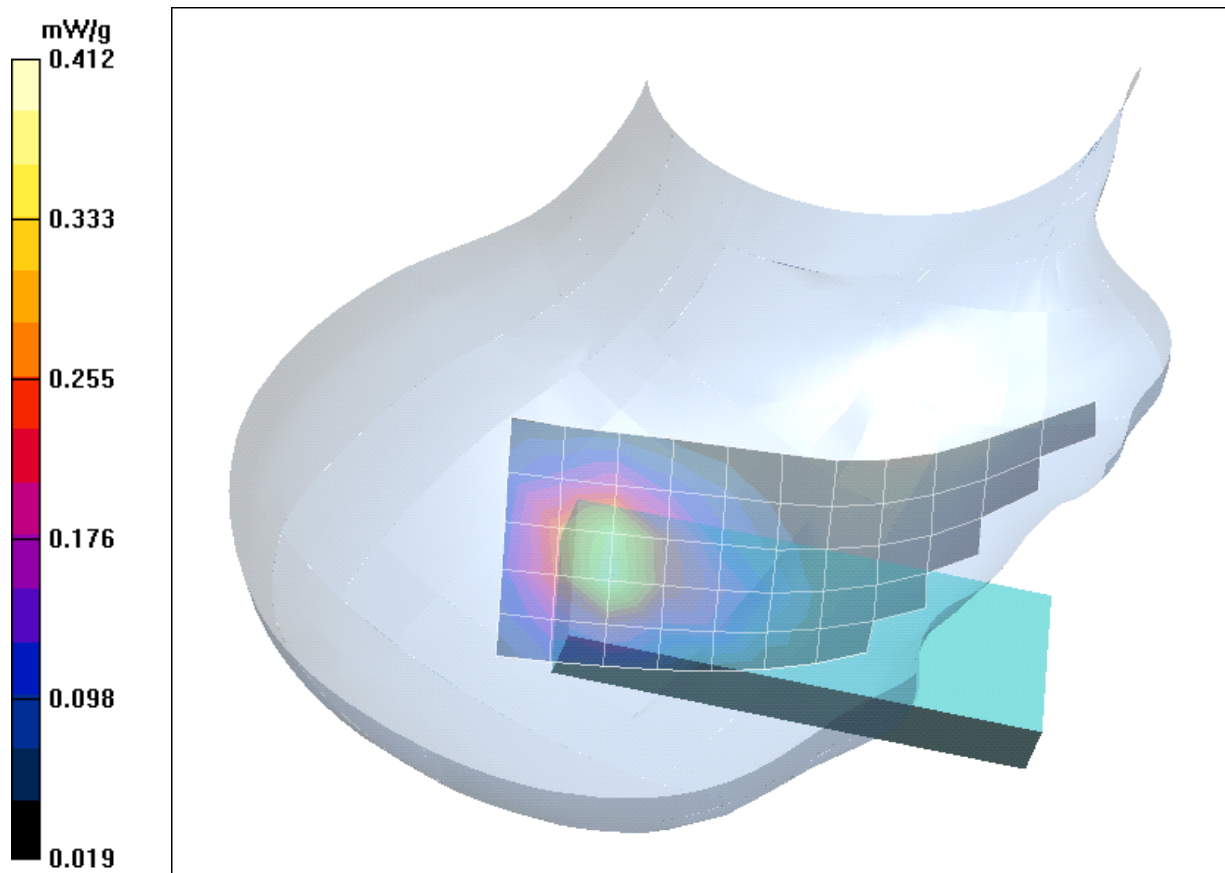


Fig. 8: SAR distribution for PCS 1900, channel 661, tilted position, right side of head (29.12.2004; Ambient Temperature: 21.6 °C; Liquid Temperature : 21.2° C)

3 SAR Distribution Plots, PCS 1900 Body worn (gap = 22 mm)

Test Laboratory: IMST GmbH; File Name: [972yphm_1.da4](#)

DUT: Siemens; Type: C65; Serial: 004400005166655

Program Name: Body Worn

Communication System: GPRS 1900; Frequency: 1880 MHz; Duty Cycle: 1:4

Medium parameters used: $\sigma = 1.5$; mho/m, $\epsilon_r = 54$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.54, 7.54, 7.54); Calibrated: 27.08.2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 23.07.2004
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.3 Build 22; Postprocessing SW: SEMCAD, V1.8 Build 127

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

Maximum value of SAR (measured) = 0.442 mW/g

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

Reference Value = 11 V/m; Power Drift = -0.084 dB

Peak SAR (extrapolated) = 0.758 W/kg

SAR(1 g) = 0.326 mW/g; SAR(10 g) = 0.191 mW/g

Maximum value of SAR (measured) = 0.499 mW/g

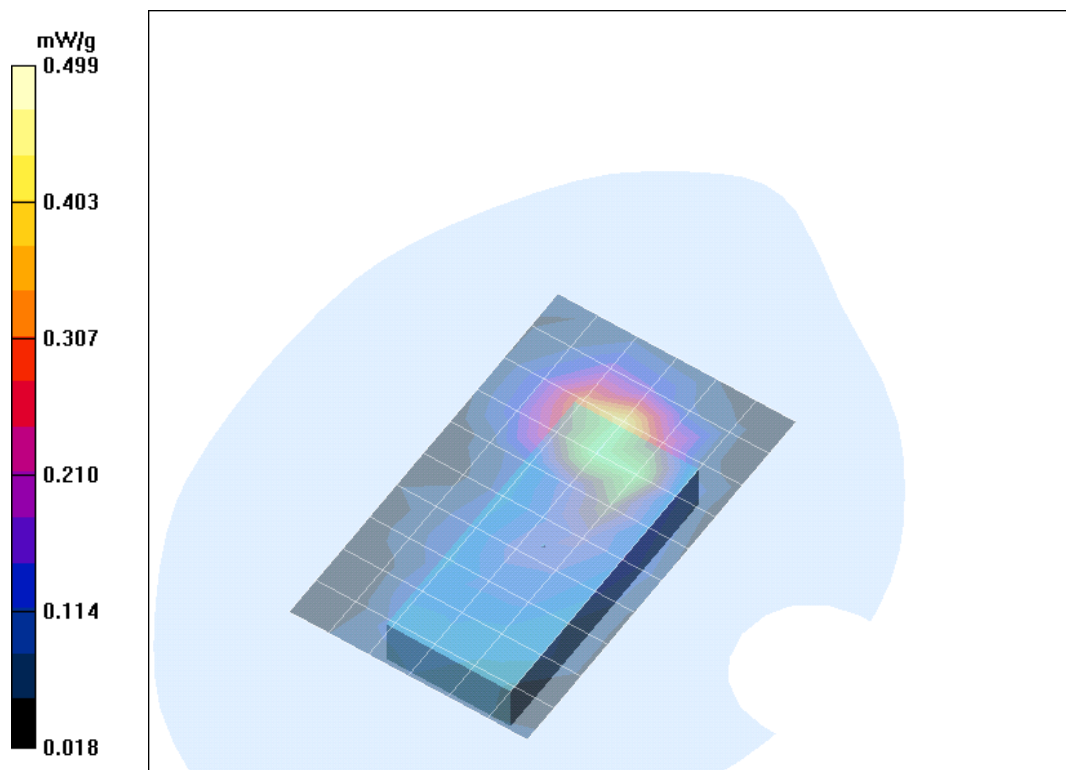


Fig. 9: SAR distribution for PCS 1900, channel 661, antenna towards the phantom, GPRS Class 10 with data cable, (04.01.2005; Ambient Temperature: 22.1° C; Liquid Temperature : 21.3° C).

Test Laboratory: IMST GmbH; File Name: [972yphm_3.da4](#)

DUT: Siemens; Type: C65; Serial: 004400005166655

Program Name: Body Worn

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

Medium parameters used: $\sigma = 1.5$; mho/m, $\epsilon_r = 54$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.54, 7.54, 7.54); Calibrated: 27.08.2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 23.07.2004
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.3 Build 22; Postprocessing SW: SEMCAD, V1.8 Build 127

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

Maximum value of SAR (measured) = 0.282 mW/g

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

Reference Value = 6.6 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 8.13 W/kg

SAR(1 g) = 0.192 mW/g; SAR(10 g) = 0.093 mW/g

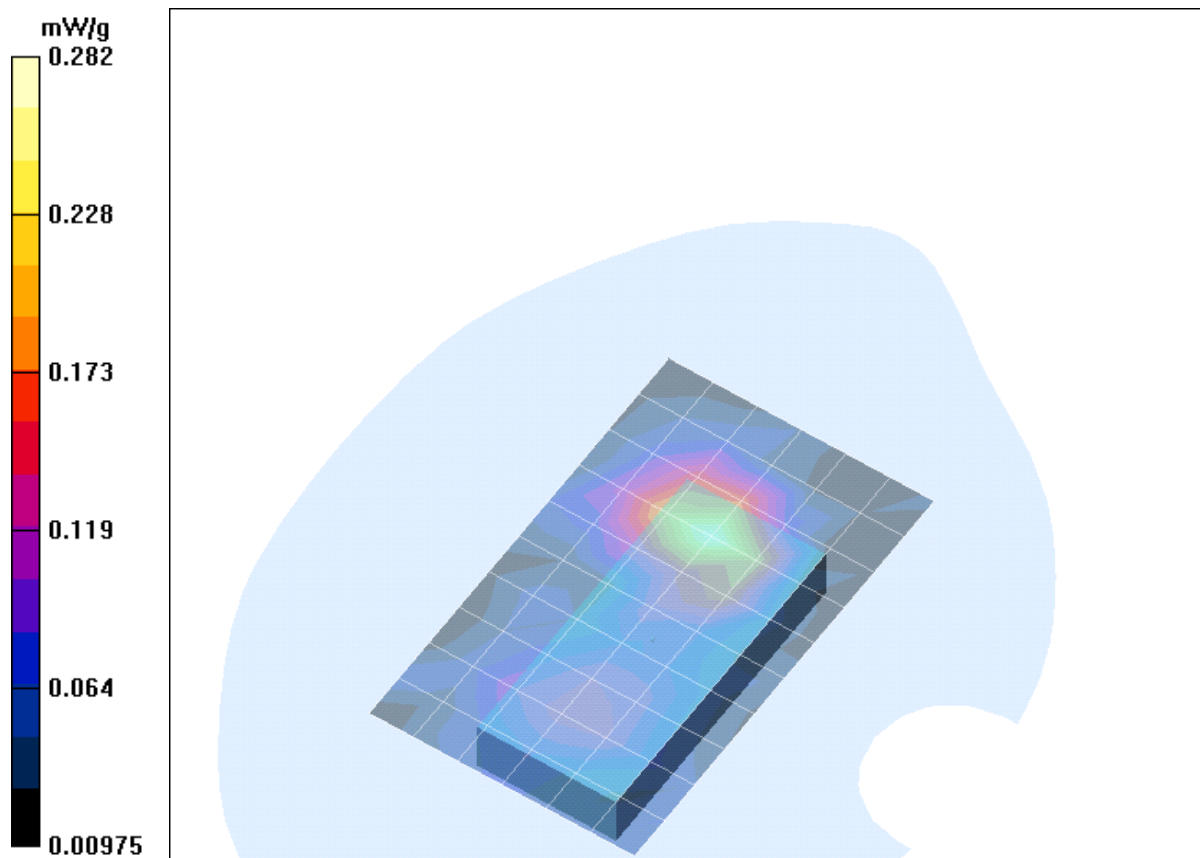


Fig. 10: SAR distribution for PCS 1900, channel 661, antenna towards the phantom, GSM with headset, (04.01.2005; Ambient Temperature: 22.1° C; Liquid Temperature : 21.3° C).

4 SAR Distribution Plots, PCS 1900 Body worn, PTT (gap = 25 mm)

Test Laboratory: IMST GmbH; File Name: [972yphm 2.da4](#)

DUT: Siemens; Type: C65; Serial: 004400005166655

Program Name: Body Worn

Communication System: GPRS 1900; Frequency: 1880 MHz; Duty Cycle: 1:4

Medium parameters used: $\sigma = 1.5$; mho/m, $\epsilon_r = 54$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.54, 7.54, 7.54); Calibrated: 27.08.2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 23.07.2004
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.3 Build 22; Postprocessing SW: SEMCAD, V1.8 Build 127

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

Maximum value of SAR (measured) = 0.139 mW/g

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

Reference Value = 6.07 V/m; Power Drift = 0.2 dB

Peak SAR (extrapolated) = 27162.0 W/kg

SAR(1 g) = 0.120 mW/g; SAR(10 g) = 0.068 mW/g

Maximum value of SAR (measured) = 0.165 mW/g

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

Reference Value = 6.07 V/m; Power Drift = 0.2 dB

Peak SAR (extrapolated) = 684177.5 W/kg

SAR(1 g) = 0.111 mW/g; SAR(10 g) = 0.053 mW/g

Maximum value of SAR (measured) = 0.163 mW/g

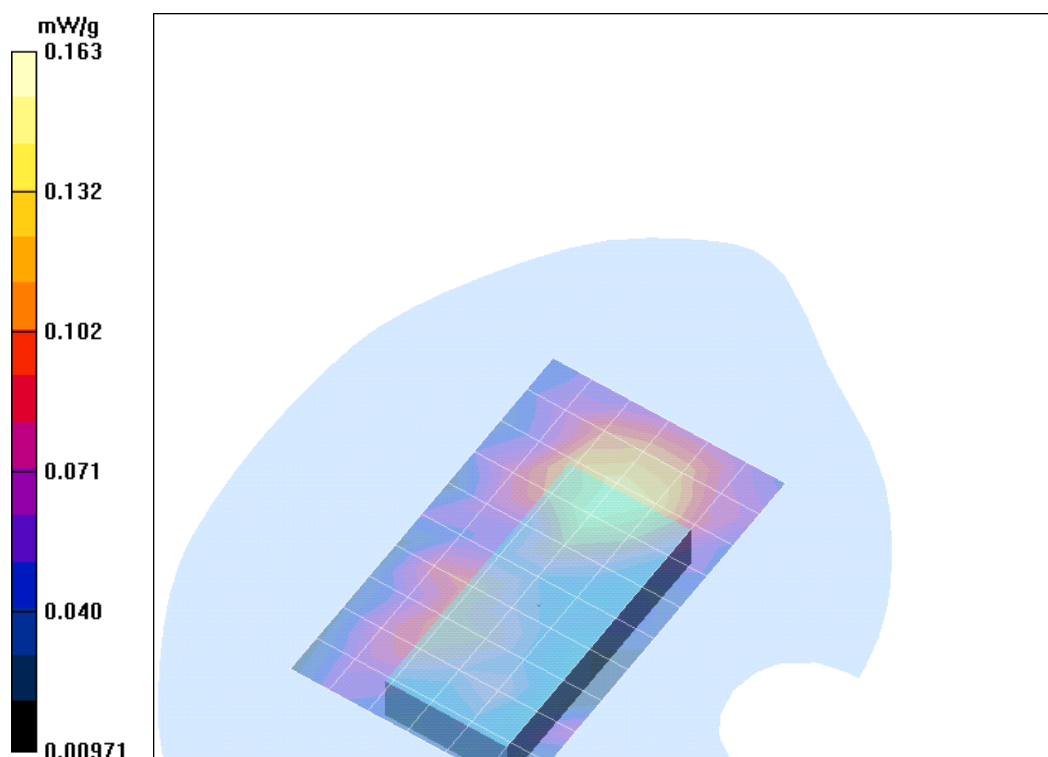


Fig. 11: SAR distribution for PCS 1900, channel 661, antenna towards the ground, GPRS Class 10 (04.01.2005; Ambient Temperature: 22.0° C; Liquid Temperature : 21.2° C).

5 SAR z-axis scans (Validation)

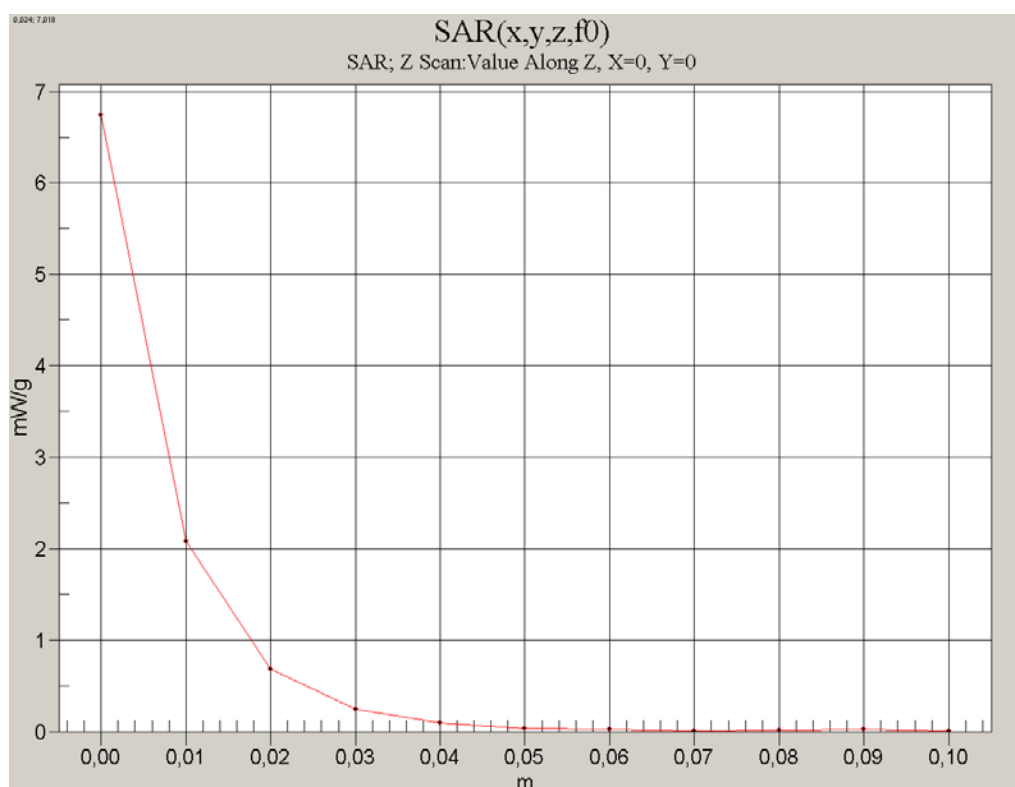


Fig. 12: SAR versus liquid depth, 1900 MHz, head (29.12.2004; Ambient Temperature: 21.7° C; Liquid Temperature : 21.2° C).

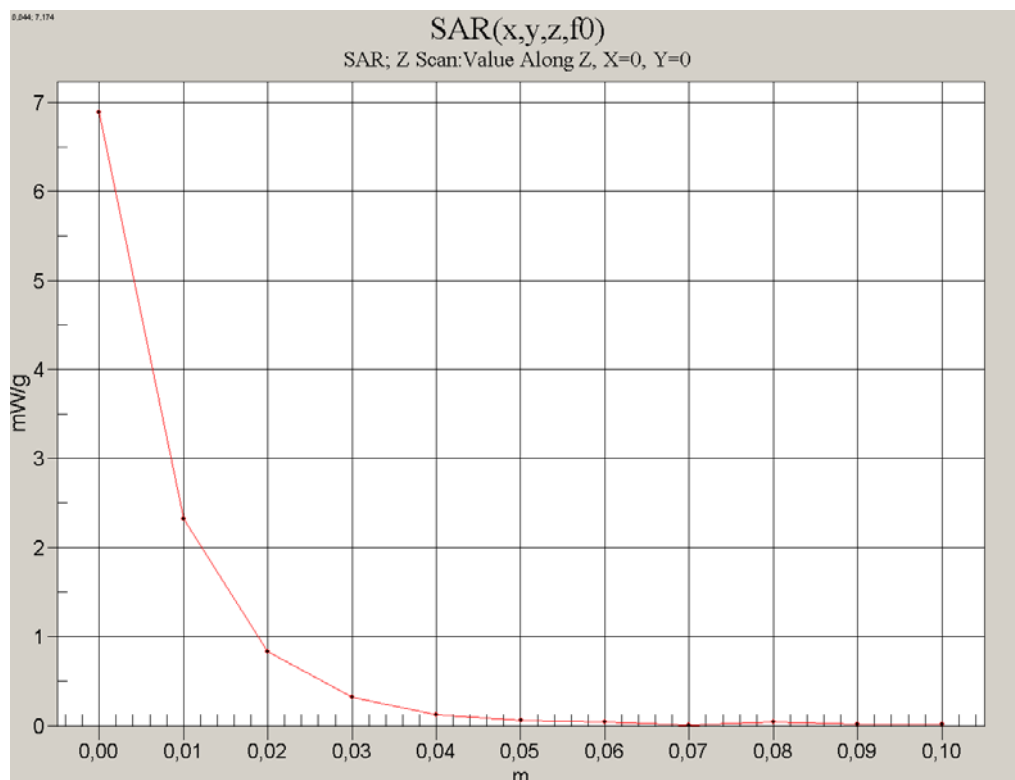


Fig. 13: SAR versus liquid depth, 1900 MHz, body (04.01.2005; Ambient Temperature: 22.0° C; Liquid Temperature : 21.0° C).

6 SAR z-axis scans (Measurements)

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

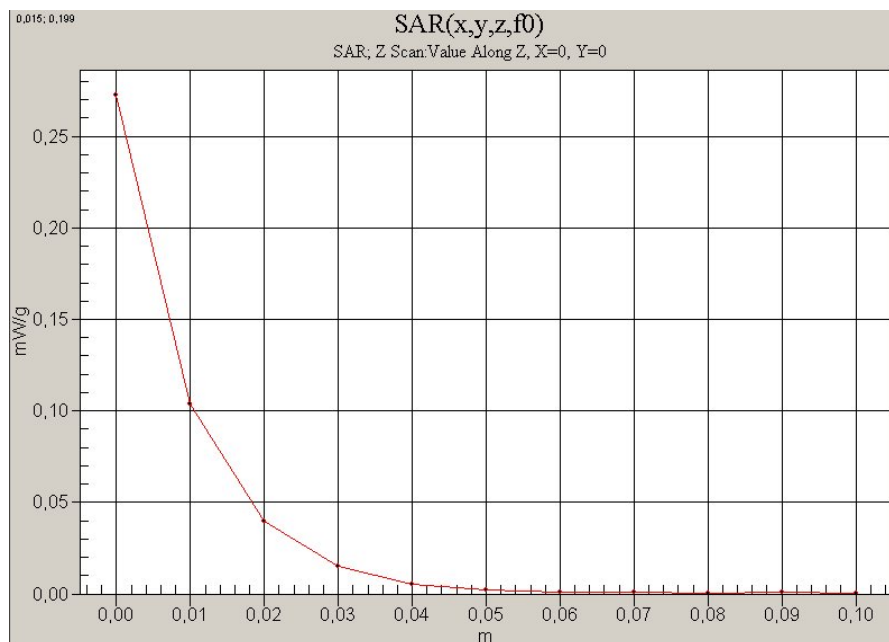


Fig. 14: SAR versus liquid depth, head: PCS 1900, channel 661, tilted position, right side of head without flash (29.12.2004, Ambient Temperature: 21.7° C; Liquid Temperature : 21.1° C).

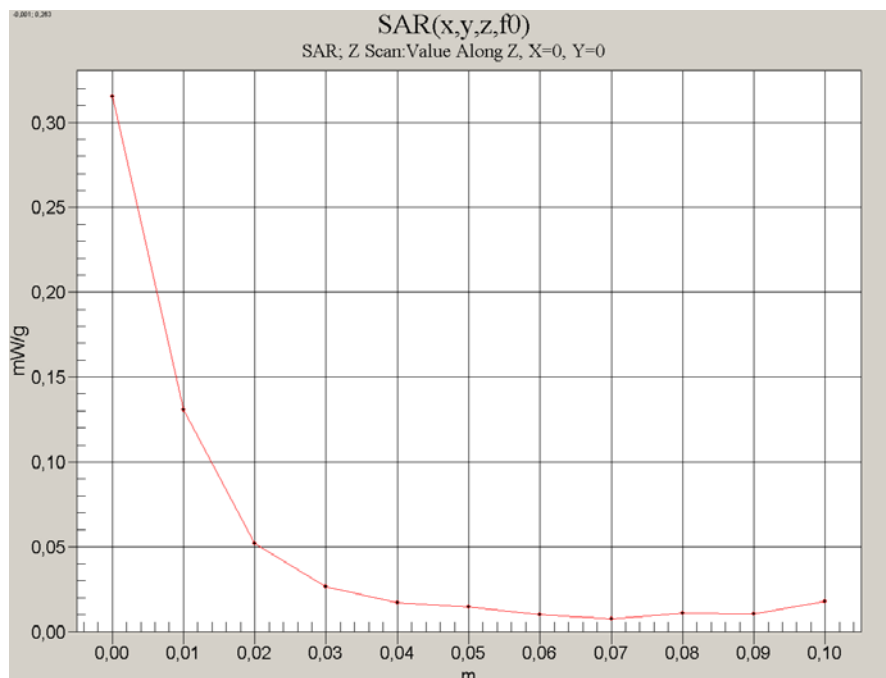


Fig. 15: SAR versus liquid depth, body worn: PCS 1900, channel 661, antenna towards the phantom, GPRS Class 10 with data cable, (04.01.2005; Ambient Temperature: 22.1° C; Liquid Temperature : 21.3° C).