Deutscher Akkreditierungs Rat

DAT-P-152/98-01

Appendix for the Report

Dosimetric Assessment of the Alcatel OT-C652a (FCC ID: RAD014)

According to the FCC Requirements

SAR Distribution Plots

July 12, 2005

IMST GmbH
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Customer
TCL & Alcatel mobile phones
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F 92707 Colombes Cedex

Table of Contents

1 SAR Distribution Plots, GSM 850 Head

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name: 447yalm_1.da4

DUT: Alcatel ; Type: OT-C652A; Serial: 001016000220447
Program Name: Cheek Left

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.6 MHz; σ = 0.87 mho/m; ε_r = 39.8; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3536; ConvF(9.88, 9.88, 9.88); Calibrated: 27.08.2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn906; Calibrated: 16.12.2004
- Phantom: SAM Sugar 1341; Type: QD 000 P40 CB; Serial: TP-1341
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Cheek Left/Area Scan (6x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.939 mW/g
Cheek Left/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.3 V/m; Power Drift = -0.178 dB
Peak SAR (extrapolated) = 1.27 W/kg
SAR(1 g) = 0.948 mW/g; SAR(10 g) = 0.651 mW/g
Maximum value of SAR (measured) = 0.970 mW/g

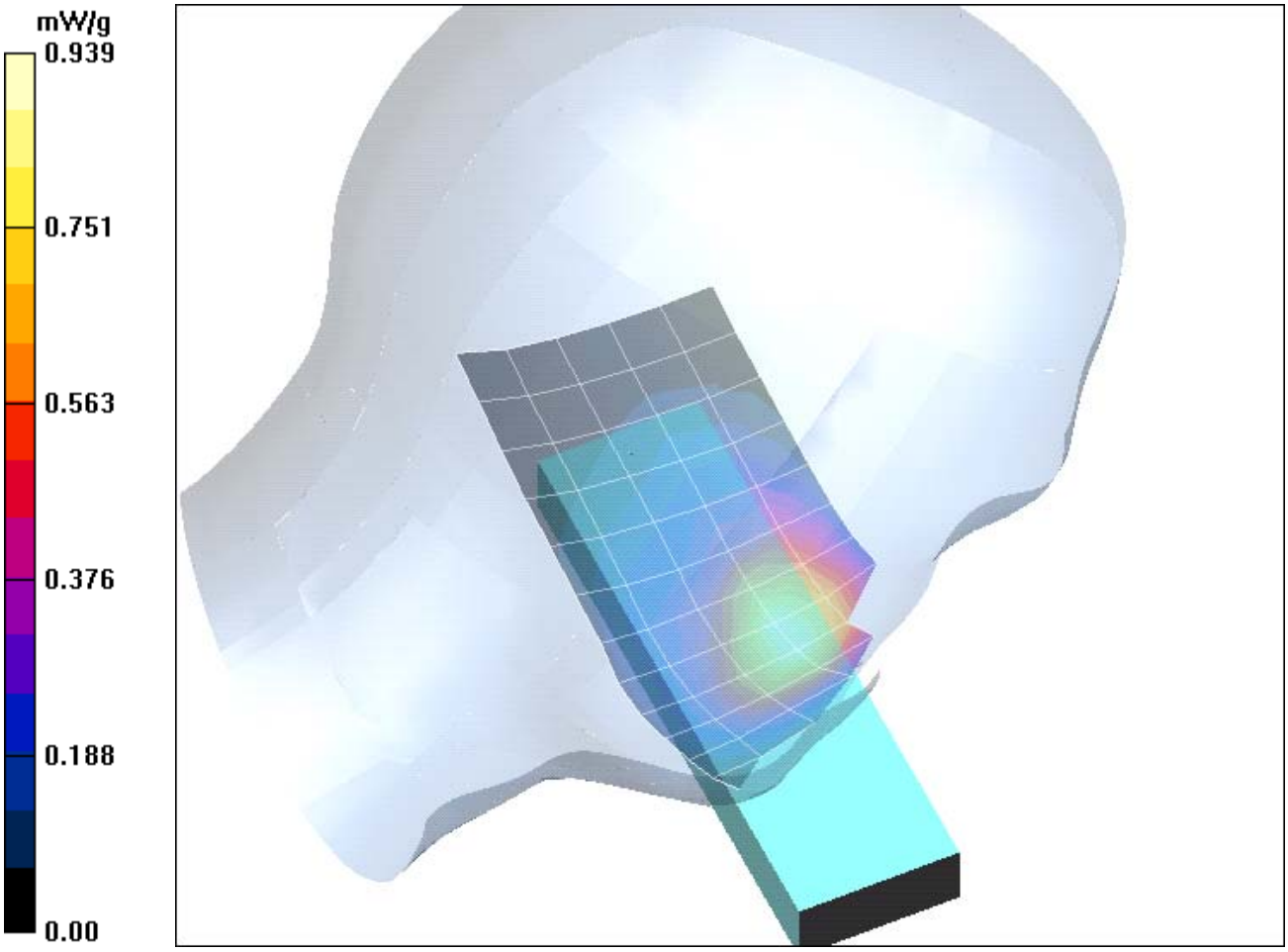

Fig. 1: SAR distribution for GSM 850, channel 190, cheek position, left side of head (July 08, 2005; Ambient Temperature: 22° C; Liquid Temperature: 21.8° C).

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name: 447yalm_2.da4

DUT: Alcatel ; Type: OT-C652A; Serial: 001016000220447
Program Name: Tilted Left

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.6 MHz; σ = 0.87 mho/m; ε_r = 39.8; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3536; ConvF(9.88, 9.88, 9.88); Calibrated: 27.08.2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn906; Calibrated: 16.12.2004
- Phantom: SAM Sugar 1341; Type: QD 000 P40 CB; Serial: TP-1341
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Tilted Left/Area Scan (6x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.253 mW/g
Tilted Left/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm;Reference Value = 12.6 V/m; Power Drift = -0.058 dB
Peak SAR (extrapolated) = 0.329 W/kg
SAR(1 g) = 0.244 mW/g; SAR(10 g) = 0.184 mW/g
Maximum value of SAR (measured) = 0.257 mW/g
Tilted Left/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm;Reference Value = 12.6 V/m; Power Drift = -0.058 dB
Peak SAR (extrapolated) = 0.341 W/kg
SAR(1 g) = 0.195 mW/g; SAR(10 g) = 0.127 mW/g
Maximum value of SAR (measured) = 0.223 mW/g

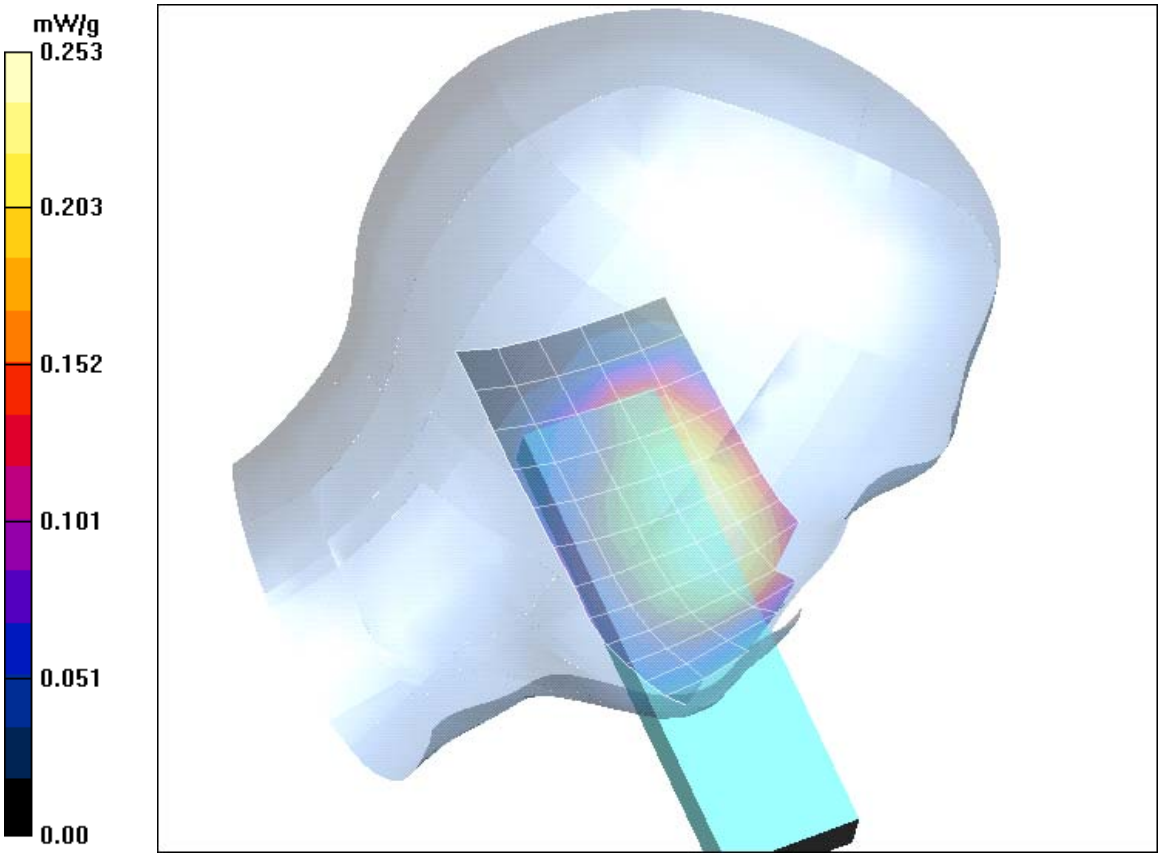

Fig. 2: SAR distribution for GSM 850, channel 190, tilted position, left side of head (July 08, 2005; Ambient Temperature: 22° C; Liquid Temperature : 21.8° C).

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name: 447yarm_1.da4

DUT: Alcatel ; Type: OT-C652A; Serial: 001016000220447
Program Name: Cheek Right

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.6 MHz; σ = 0.87 mho/m; ε_r = 39.8; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3536; ConvF(9.88, 9.88, 9.88); Calibrated: 27.08.2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn906; Calibrated: 16.12.2004
- Phantom: SAM Sugar 1341; Type: QD 000 P40 CB; Serial: TP-1341
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Cheek Right/Area Scan (6x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.973 mW/g
Cheek Right/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.1 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 1.48 W/kg
SAR(1 g) = 1 mW/g; SAR(10 g) = 0.665 mW/g
Maximum value of SAR (measured) = 1.08 mW/g

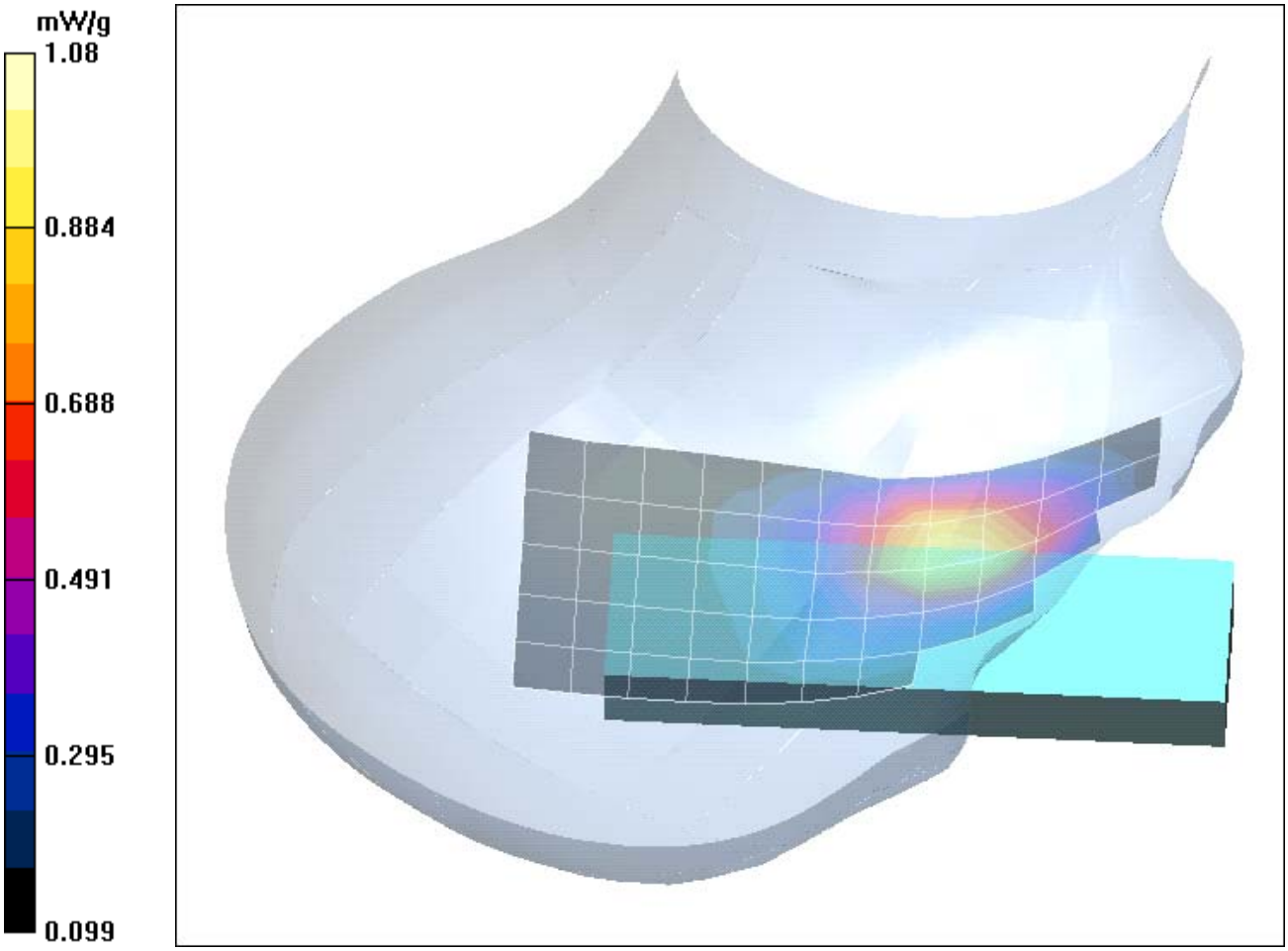

Fig. 3: SAR distribution for GSM 850, channel 190, cheek position, right side of head (July 08, 2005; Ambient Temperature: 22° C; Liquid Temperature : 21.8° C).

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name: 447yarm_2.da4

DUT: Alcatel ; Type: OT-C652A; Serial: 001016000220447
Program Name: Tilted Right

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.6 MHz; σ = 0.87 mho/m; ε_r = 39.8; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3536; ConvF(9.88, 9.88, 9.88); Calibrated: 27.08.2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn906; Calibrated: 16.12.2004
- Phantom: SAM Sugar 1341; Type: QD 000 P40 CB; Serial: TP-1341
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Tilted Right/Area Scan (6x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.257 mW/g
Tilted Right/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.6 V/m; Power Drift = 0.050 dB
Peak SAR (extrapolated) = 0.316 W/kg
SAR(1 g) = 0.251 mW/g; SAR(10 g) = 0.193 mW/g
Maximum value of SAR (measured) = 0.262 mW/g
Tilted Right/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.6 V/m; Power Drift = 0.050 dB
Peak SAR (extrapolated) = 0.238 W/kg
SAR(1 g) = 0.170 mW/g; SAR(10 g) = 0.111 mW/g
Maximum value of SAR (measured) = 0.194 mW/g

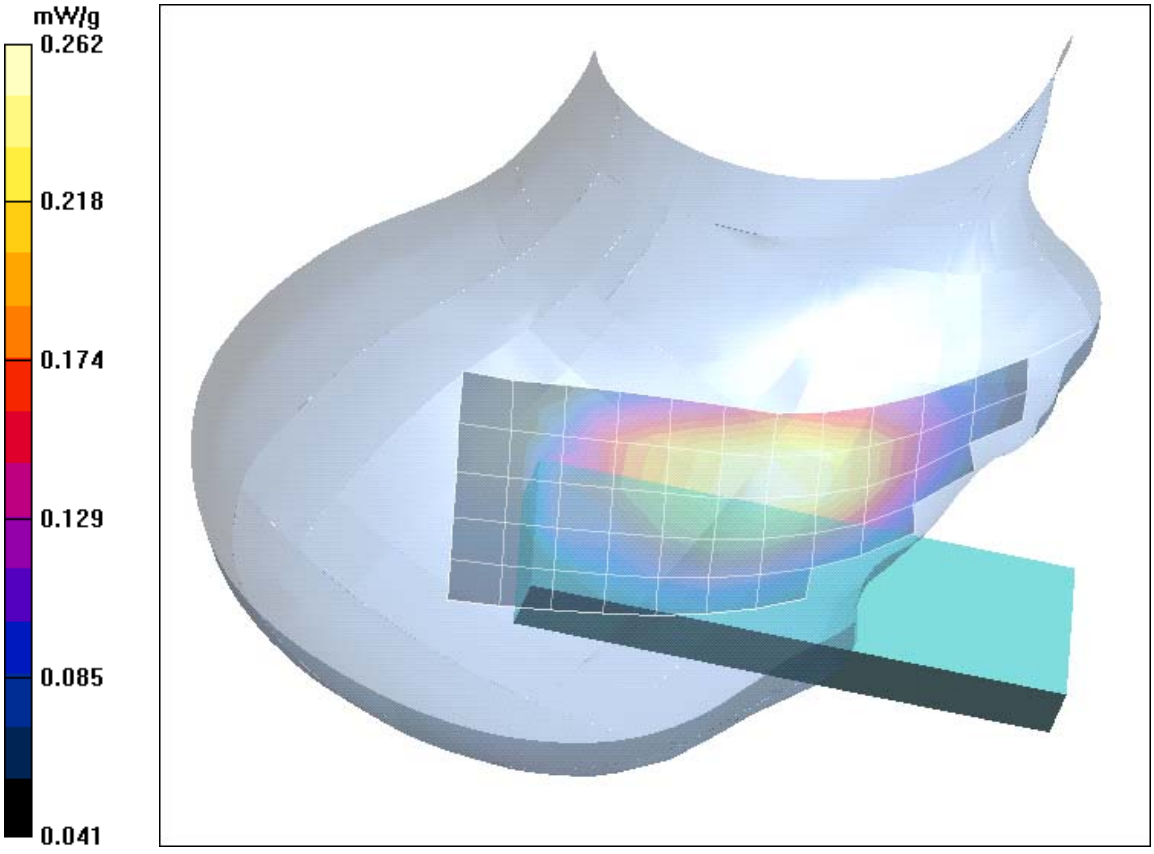

Fig. 4: SAR distribution for GSM 850, channel 190, tilted position, right side of head (July 08, 2005; Ambient Temperature: 22° C; Liquid Temperature : 21.8° C).

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name: 447yall_1.da4

DUT: Alcatel ; Type: OT-C652A; Serial: 001016000220447
Program Name: Cheek Left

Communication System: GSM 850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 824.2 MHz; σ = 0.87 mho/m; ε_r = 39.8; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3536; ConvF(9.88, 9.88, 9.88); Calibrated: 27.08.2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn906; Calibrated: 16.12.2004
- Phantom: SAM Sugar 1341; Type: QD 000 P40 CB; Serial: TP-1341
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Cheek Left/Area Scan (6x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.917 mW/g
Cheek Left/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.4 V/m; Power Drift = 0.094 dB
Peak SAR (extrapolated) = 1.31 W/kg
SAR(1 g) = 0.963 mW/g; SAR(10 g) = 0.662 mW/g
Maximum value of SAR (measured) = 0.985 mW/g

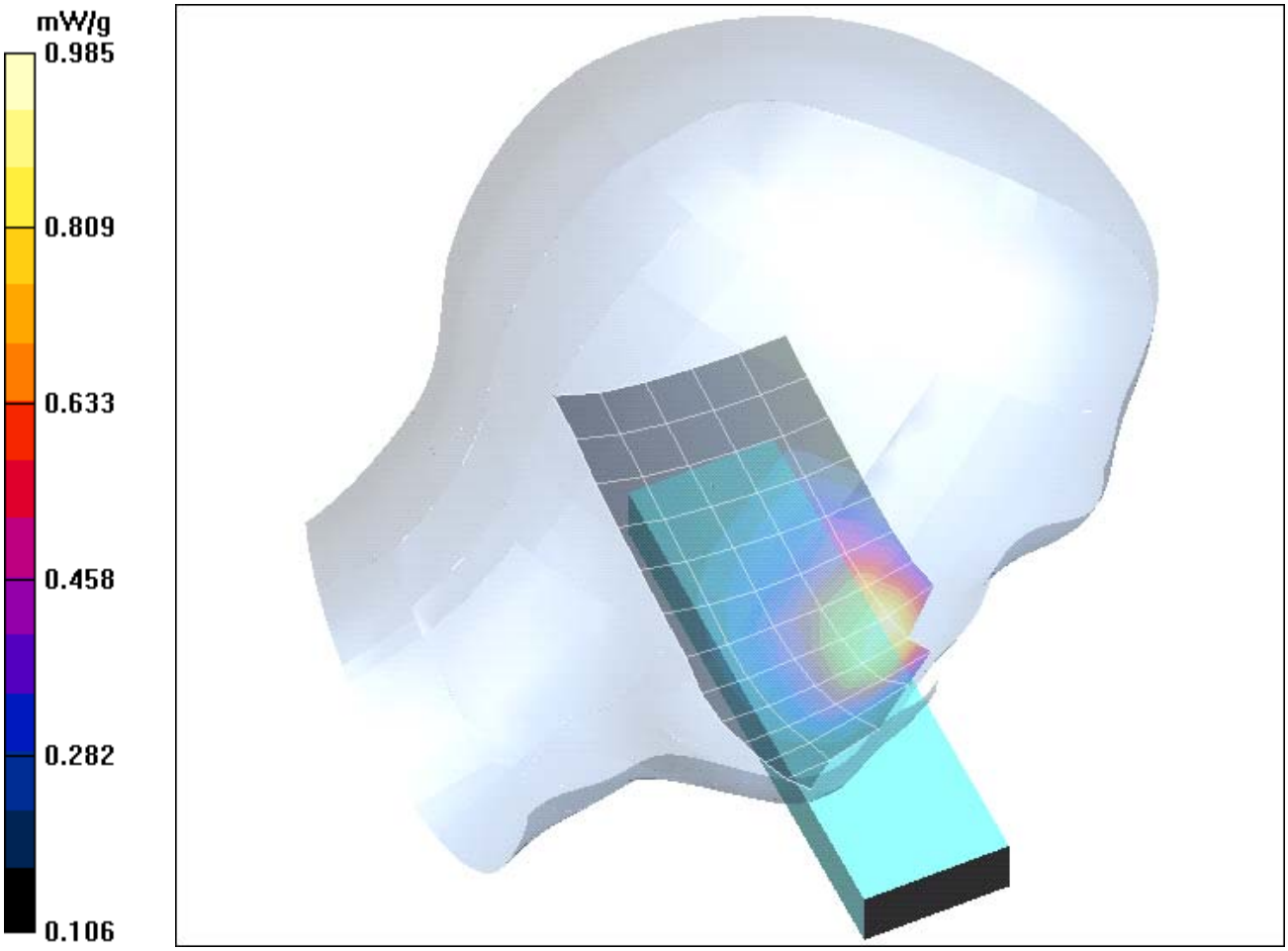

Fig. 5: SAR distribution for GSM 850, channel 128, cheek position, left side of head (July 08, 2005; Ambient Temperature: 22° C; Liquid Temperature : 21.8° C).

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name: 447yalh_1.da4

DUT: Alcatel ; Type: OT-C652A; Serial: 001016000220447
Program Name: Cheek Left

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 848.8 MHz; σ = 0.87 mho/m; ε_r = 39.8; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3536; ConvF(9.88, 9.88, 9.88); Calibrated: 27.08.2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn906; Calibrated: 16.12.2004
- Phantom: SAM Sugar 1341; Type: QD 000 P40 CB; Serial: TP-1341
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Cheek Left/Area Scan (6x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.720 mW/g
Cheek Left/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.03 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.00 W/kg
SAR(1 g) = 0.745 mW/g; SAR(10 g) = 0.513 mW/g
Maximum value of SAR (measured) = 0.780 mW/g

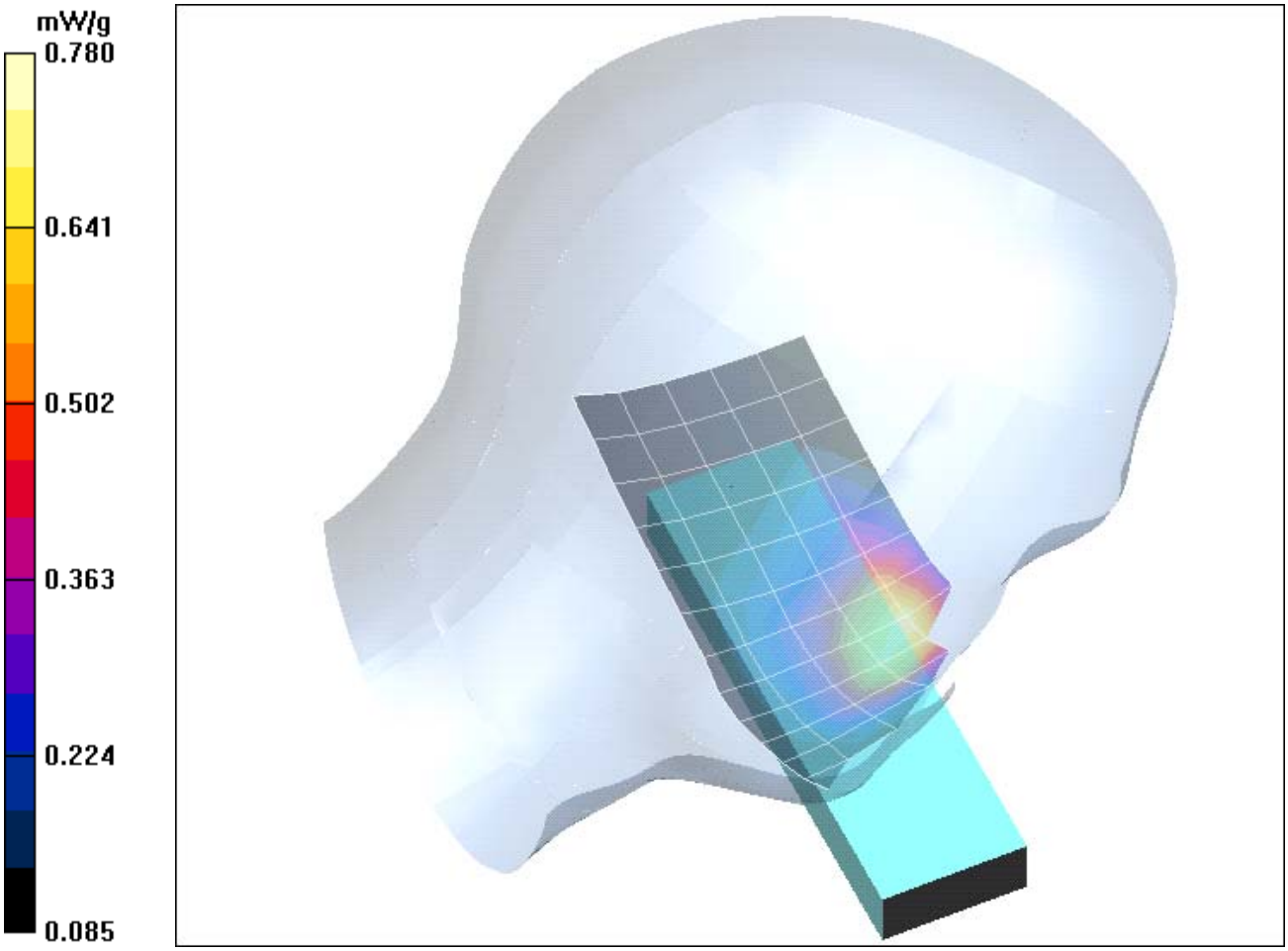

Fig. 6: SAR distribution for GSM 850, channel 251, cheek position, left side of head (July 08, 2005; Ambient Temperature: 22° C; Liquid Temperature : 21.8° C).

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name: 447yarl_1_wdh2.da4

DUT: Alcatel ; Type: OT-C652A; Serial: 001016000220447
Program Name: Cheek Right

Communication System: GSM 850; Frequency: 824.2 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 824.2 MHz; σ = 0.87 mho/m; ε_r = 39.8; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3536; ConvF(9.88, 9.88, 9.88); Calibrated: 27.08.2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn906; Calibrated: 16.12.2004
- Phantom: SAM Sugar 1341; Type: QD 000 P40 CB; Serial: TP-1341
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Cheek Right/Area Scan (6x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.14 mW/g
Cheek Right/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.1 V/m; Power Drift = -0.108 dB
Peak SAR (extrapolated) = 1.65 W/kg
SAR(1 g) = 1.14 mW/g; SAR(10 g) = 0.760 mW/g
Maximum value of SAR (measured) = 1.22 mW/g

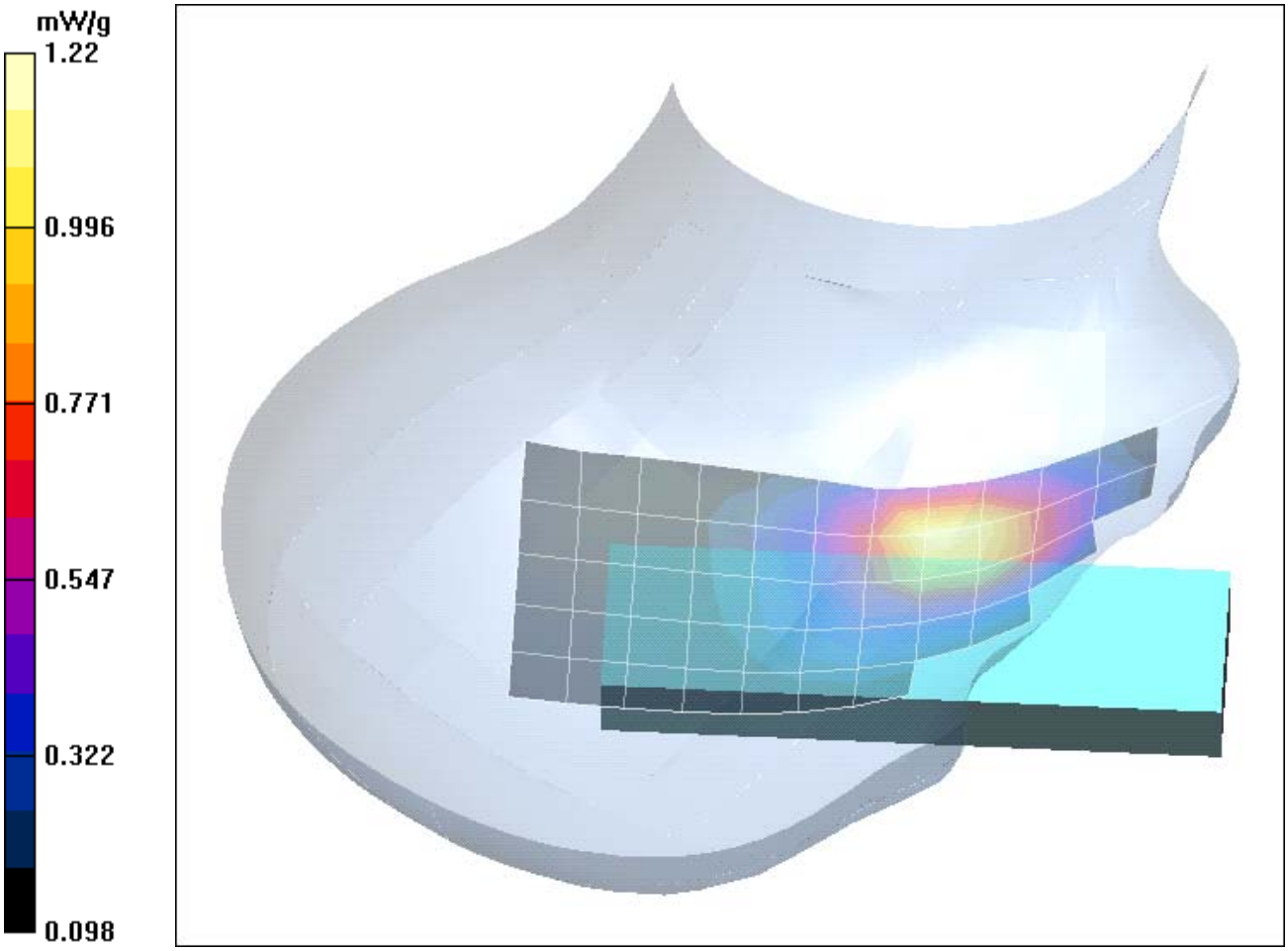

Fig. 7: SAR distribution for GSM 850, channel 128, cheek position, right side of head (July 08, 2005; Ambient Temperature: 22° C; Liquid Temperature : 21.8° C).

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name: 447yarh_1_wdh2.da4

DUT: Alcatel ; Type: OT-C652A; Serial: 001016000220447
Program Name: Cheek Right

Communication System: GSM 850; Frequency: 848.8 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 848.8 MHz; σ = 0.87 mho/m; ε_r = 39.8; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3536; ConvF(9.88, 9.88, 9.88); Calibrated: 27.08.2004
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn906; Calibrated: 16.12.2004
- Phantom: SAM Sugar 1341; Type: QD 000 P40 CB; Serial: TP-1341
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Cheek Right/Area Scan (6x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.858 mW/g
Cheek Right/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.76 V/m; Power Drift = 0.055 dB
Peak SAR (extrapolated) = 1.32 W/kg
SAR(1 g) = 0.883 mW/g; SAR(10 g) = 0.590 mW/g
Maximum value of SAR (measured) = 0.951 mW/g

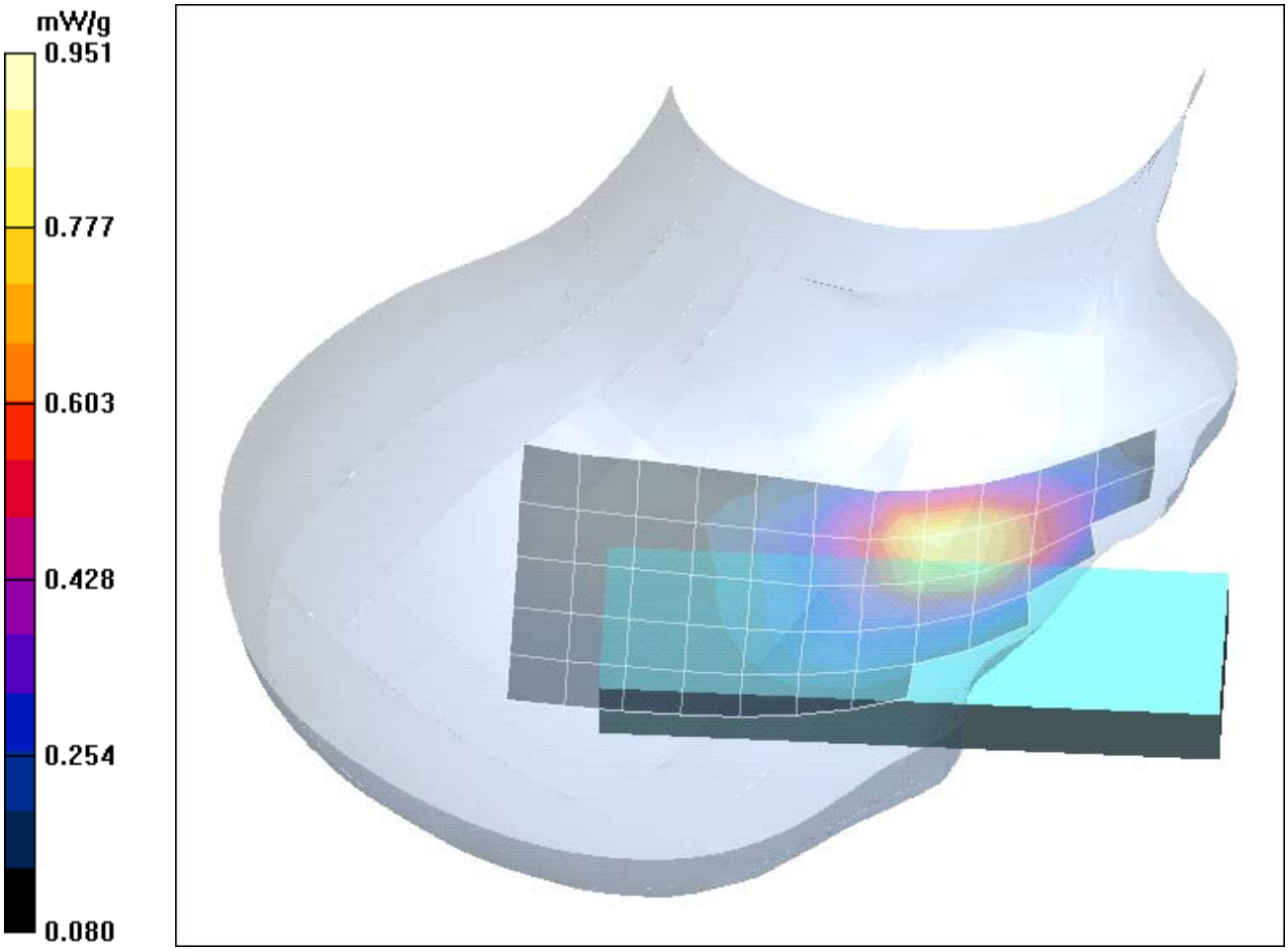

Fig. 8: SAR distribution for GSM 850, channel 251, cheek position, right side of head (July 08, 2005; Ambient Temperature: 22° C; Liquid Temperature : 21.8° C).

2 SAR Distribution Plots, PCS 1900 Head

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: 447bplm_1.da4

DUT: Alcatel ; Type: OT-C652A; Serial: 001016000220447
Program Name: Cheek Left

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; σ = 1.44 mho/m; ε_r = 39.2; ρ = 1000 kg/m^3
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: DAE3 Sn335; Calibrated: 17.03.2005
- 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 (6x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.357 mW/g
Cheek Left/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.37 V/m; Power Drift = -0.153 dB
Peak SAR (extrapolated) = 0.527 W/kg
SAR(1 g) = 0.341 mW/g; SAR(10 g) = 0.204 mW/g
Maximum value of SAR (measured) = 0.373 mW/g
Cheek Left/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.37 V/m; Power Drift = -0.153 dB
Peak SAR (extrapolated) = 0.489 W/kg
SAR(1 g) = 0.306 mW/g; SAR(10 g) = 0.182 mW/g
Maximum value of SAR (measured) = 0.340 mW/g

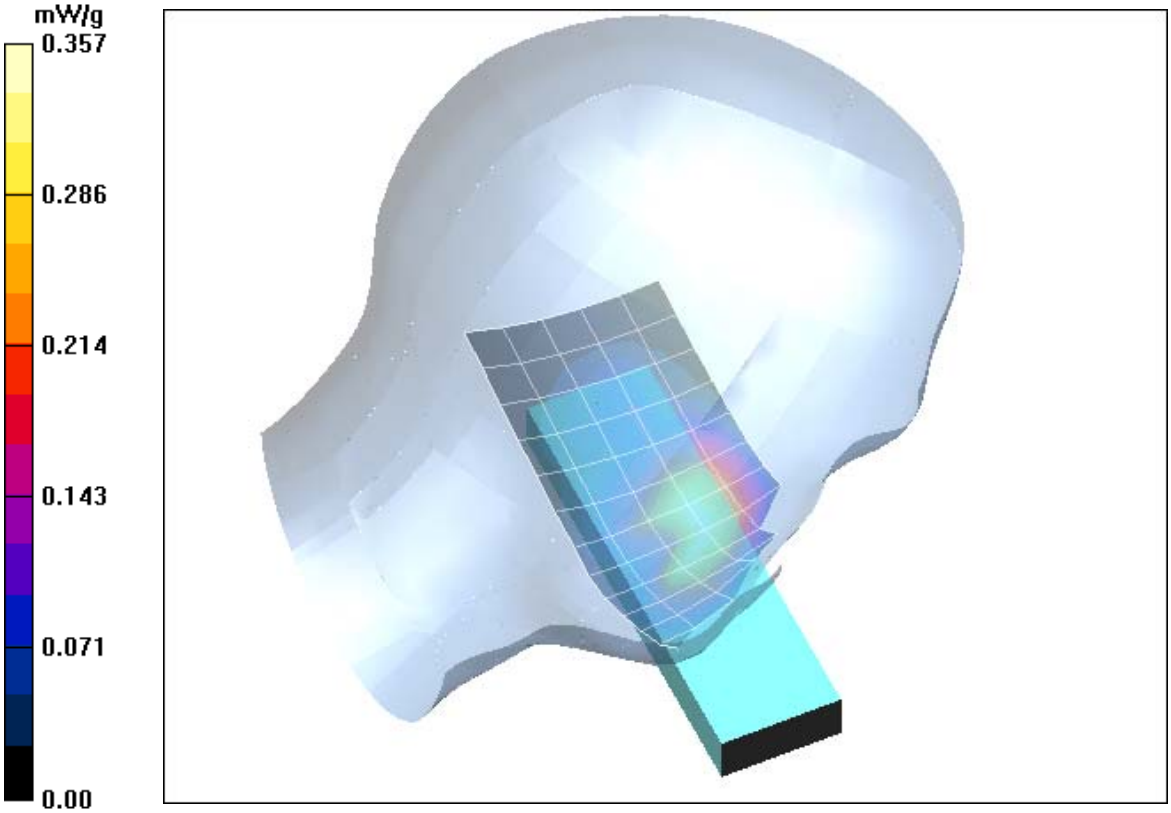

Fig. 9: SAR distribution for PCS 1900, channel 661, cheek position, left side of head (July 11, 2005; Ambient Temperature: 22.1° C; Liquid Temperature : 21.5° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: 447bplm_2.da4

DUT: Alcatel ; Type: OT-C652A; Serial: 001016000220447
Program Name: Tilted Left

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; σ = 1.44 mho/m; ε_r = 39.2; ρ = 1000 kg/m^3
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: DAE3 Sn335; Calibrated: 17.03.2005
- 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 (6x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.103 mW/g
Tilted Left/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.64 V/m; Power Drift = -0.079 dB
Peak SAR (extrapolated) = 0.154 W/kg
SAR(1 g) = 0.104 mW/g; SAR(10 g) = 0.067 mW/g
Maximum value of SAR (measured) = 0.113 mW/g

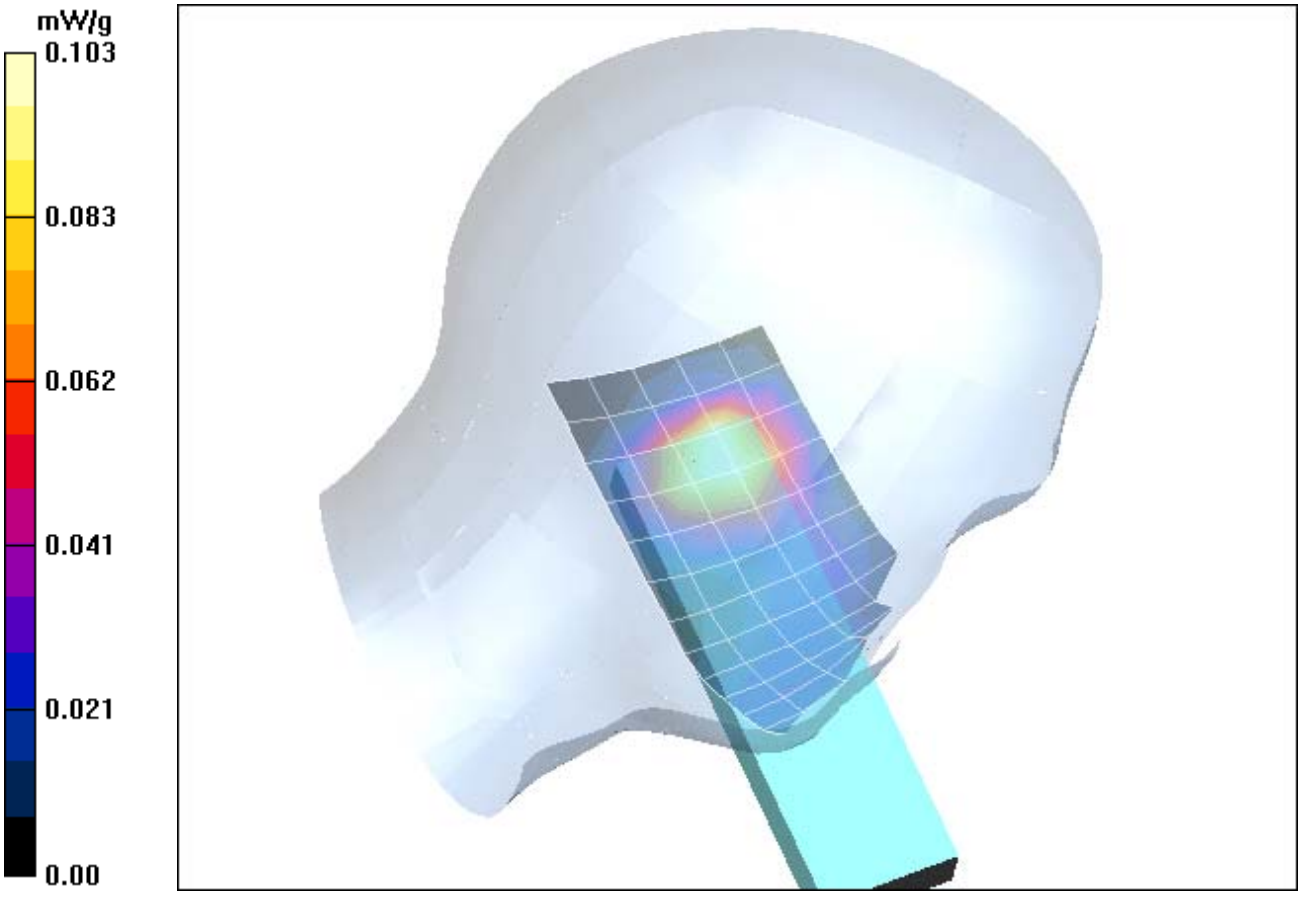

Fig. 10: SAR distribution for PCS 1900, channel 661, tilted position, left side of head (July 11, 2005; Ambient Temperature: 22.1° C; Liquid Temperature : 21.5° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: 447bprm_1.da4

DUT: Alcatel ; Type: OT-C652A; Serial: 001016000220447
Program Name: Cheek Right

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; σ = 1.44 mho/m; ε_r = 39.2; ρ = 1000 kg/m^3
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: DAE3 Sn335; Calibrated: 17.03.2005
- 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 (6x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.360 mW/g
Cheek Right/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.67 V/m; Power Drift = -0.137 dB
Peak SAR (extrapolated) = 0.562 W/kg
SAR(1 g) = 0.350 mW/g; SAR(10 g) = 0.196 mW/g
Maximum value of SAR (measured) = 0.389 mW/g

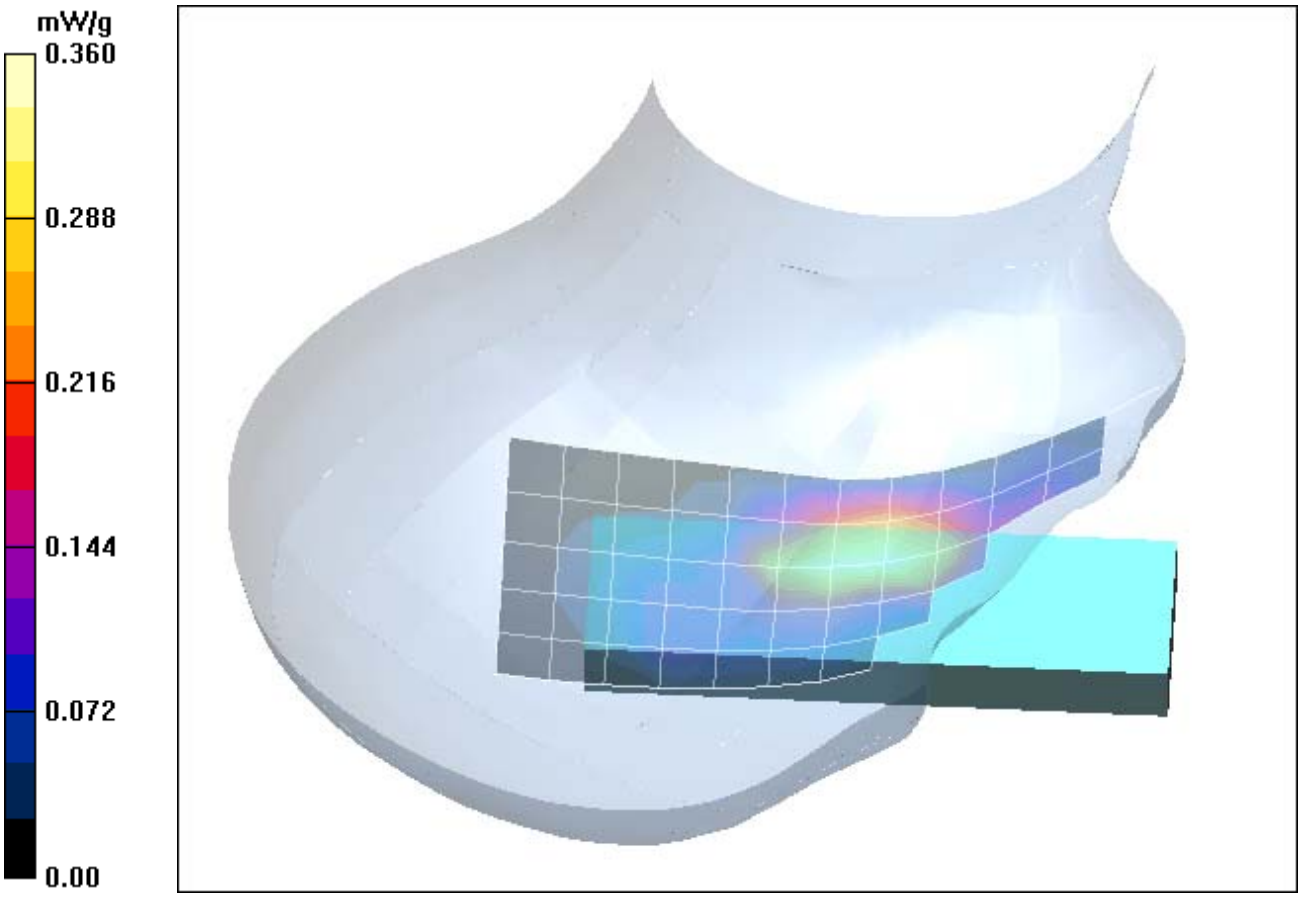

Fig. 11: SAR distribution for PCS 1900, channel 661, cheek position, right side of head (July 11, 2005; Ambient Temperature: 22.1° C; Liquid Temperature : 21.5° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: 447bprm_2.da4

DUT: Alcatel ; Type: OT-C652A; Serial: 001016000220447
Program Name: Tilted Right

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; σ = 1.44 mho/m; ε_r = 39.2; ρ = 1000 kg/m^3
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: DAE3 Sn335; Calibrated: 17.03.2005
- 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 (6x14x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.143 mW/g
Tilted Right/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.80 V/m; Power Drift = -0.085 dB
Peak SAR (extrapolated) = 0.216 W/kg
SAR(1 g) = 0.133 mW/g; SAR(10 g) = 0.078 mW/g
Maximum value of SAR (measured) = 0.145 mW/g

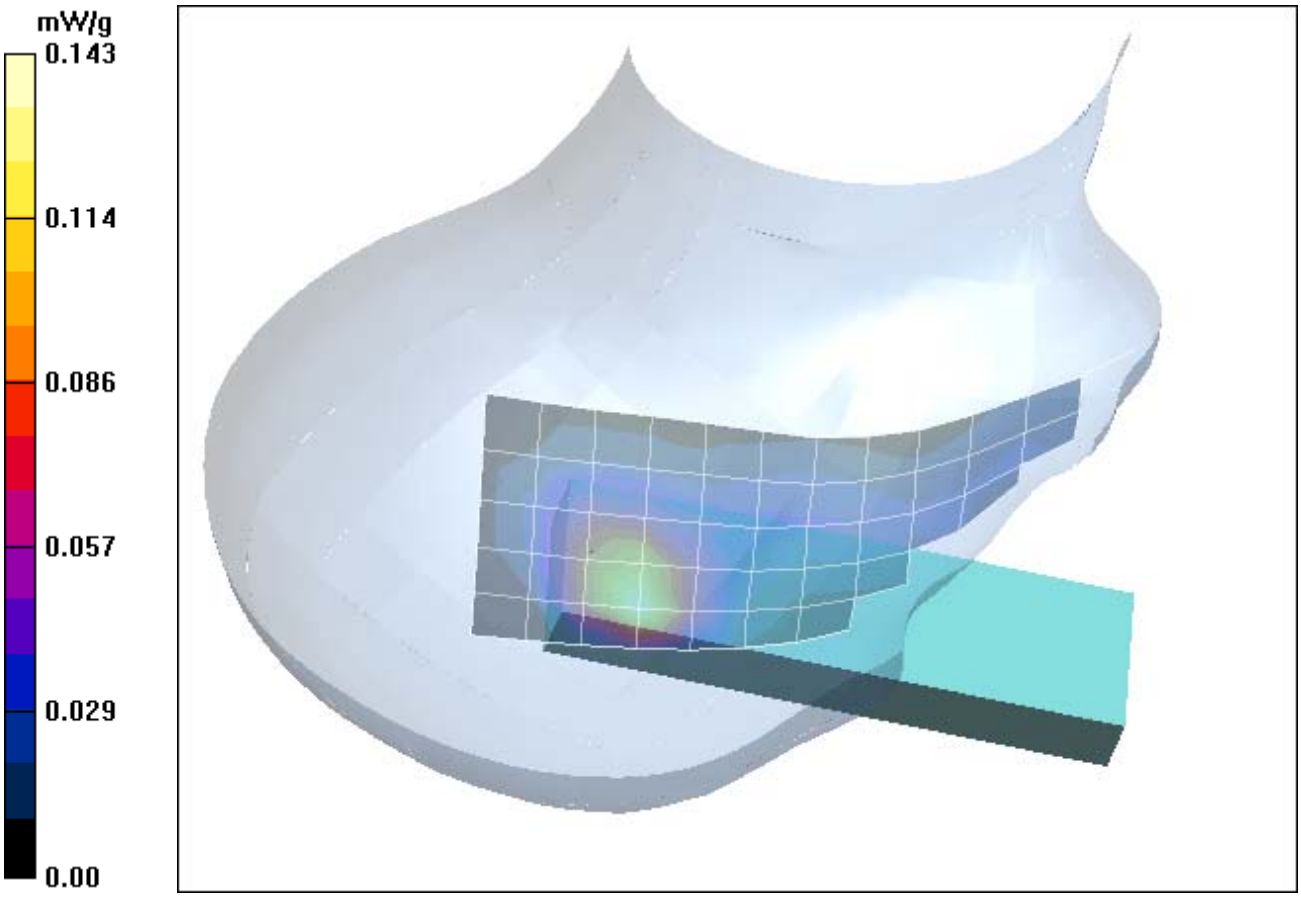

Fig. 12: SAR distribution for PCS 1900, channel 661, tilted position, right side of head (July 11, 2005; Ambient Temperature: 22.1 °C; Liquid Temperature : 21.5° C)

3 SAR Distribution Plots, GSM 850 Body with headset in GSM mode

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: 447bahm_3.da4

DUT: Alcatel ; Type: OT-C652A; Serial: 001016000220447
Program Name: Body Worn

Communication System: GSM 850; Frequency: 836.6 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 836.6 MHz; σ = 0.98 mho/m; ε_r = 54.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6R - SN1669; ConvF(6.39, 6.39, 6.39); Calibrated: 13.01.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 17.03.2005
- Phantom: SAM Sugar 1059; Type: Speag; Serial: 1059
- 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) = 0.244 mW/g
Body Worn/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.3 V/m; Power Drift = -0.022 dB
Peak SAR (extrapolated) = 0.316 W/kg
SAR(1 g) = 0.235 mW/g; SAR(10 g) = 0.166 mW/g
Maximum value of SAR (measured) = 0.250 mW/g

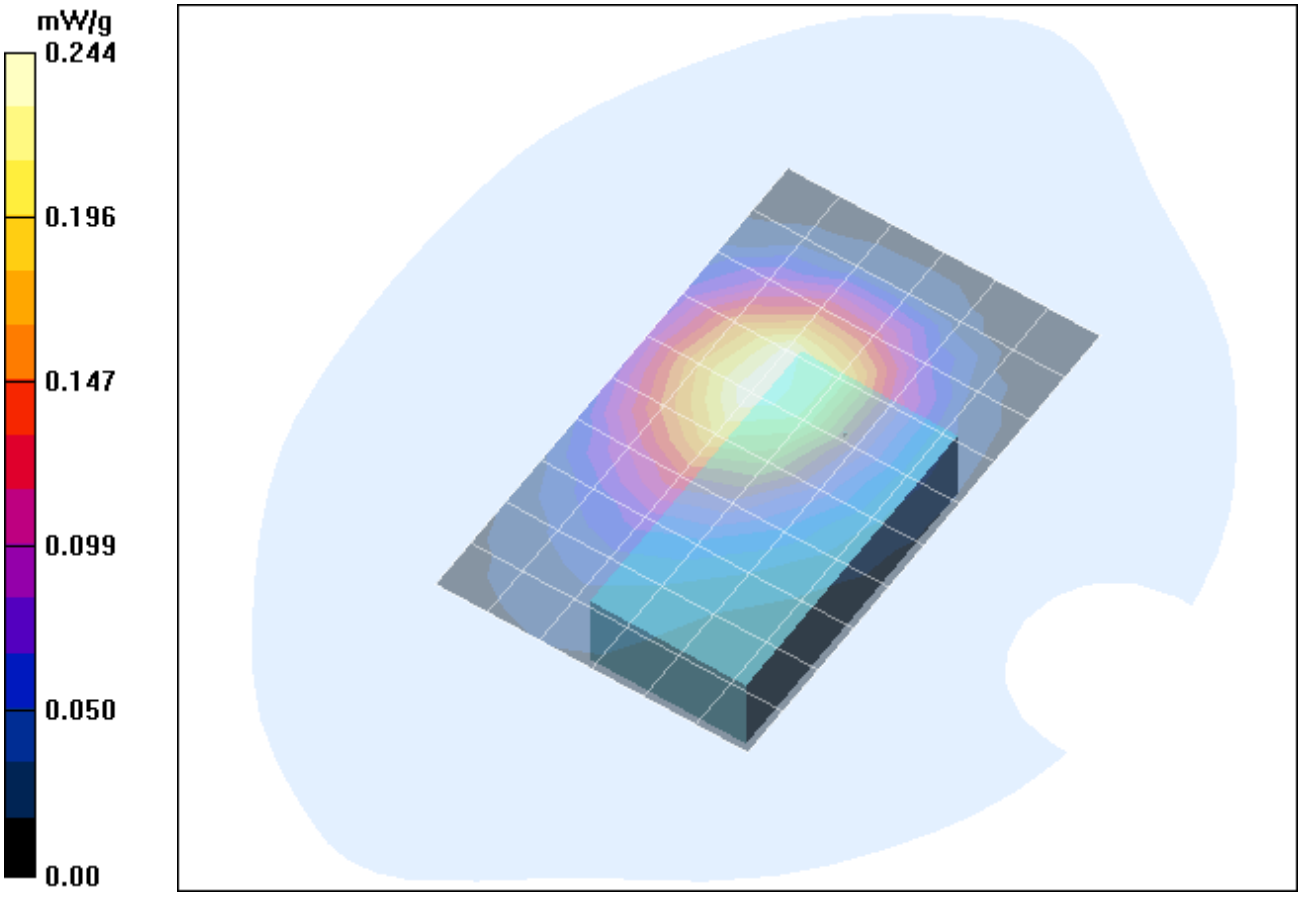

Fig. 13: SAR distribution for GSM 850, channel 190, body worn configuration, antenna towards the phantom, with headset and with 20 mm distance (July 08, 2005; Ambient Temperature: 22.1° C; Liquid Temperature: 21.3° C).

4 SAR Distribution Plots, GSM 850 Body in GPRS mode

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: 447bahm_1.da4

DUT: Alcatel ; Type: OT-C652A; Serial: 001016000220447
Program Name: Body Worn

Communication System: GPRS 850; Frequency: 836.6 MHz;Duty Cycle: 1:4
Medium parameters used: f = 836.6 MHz; σ = 0.98 mho/m; ε_r = 54.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6R - SN1669; ConvF(6.39, 6.39, 6.39); Calibrated: 13.01.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 17.03.2005
- Phantom: SAM Sugar 1059; Type: Speag; Serial: 1059
- 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) = 0.755 mW/g
Body Worn/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 24.7 V/m; Power Drift = -0.017 dB
Peak SAR (extrapolated) = 0.968 W/kg
SAR(1 g) = 0.725 mW/g; SAR(10 g) = 0.518 mW/g
Maximum value of SAR (measured) = 0.768 mW/g

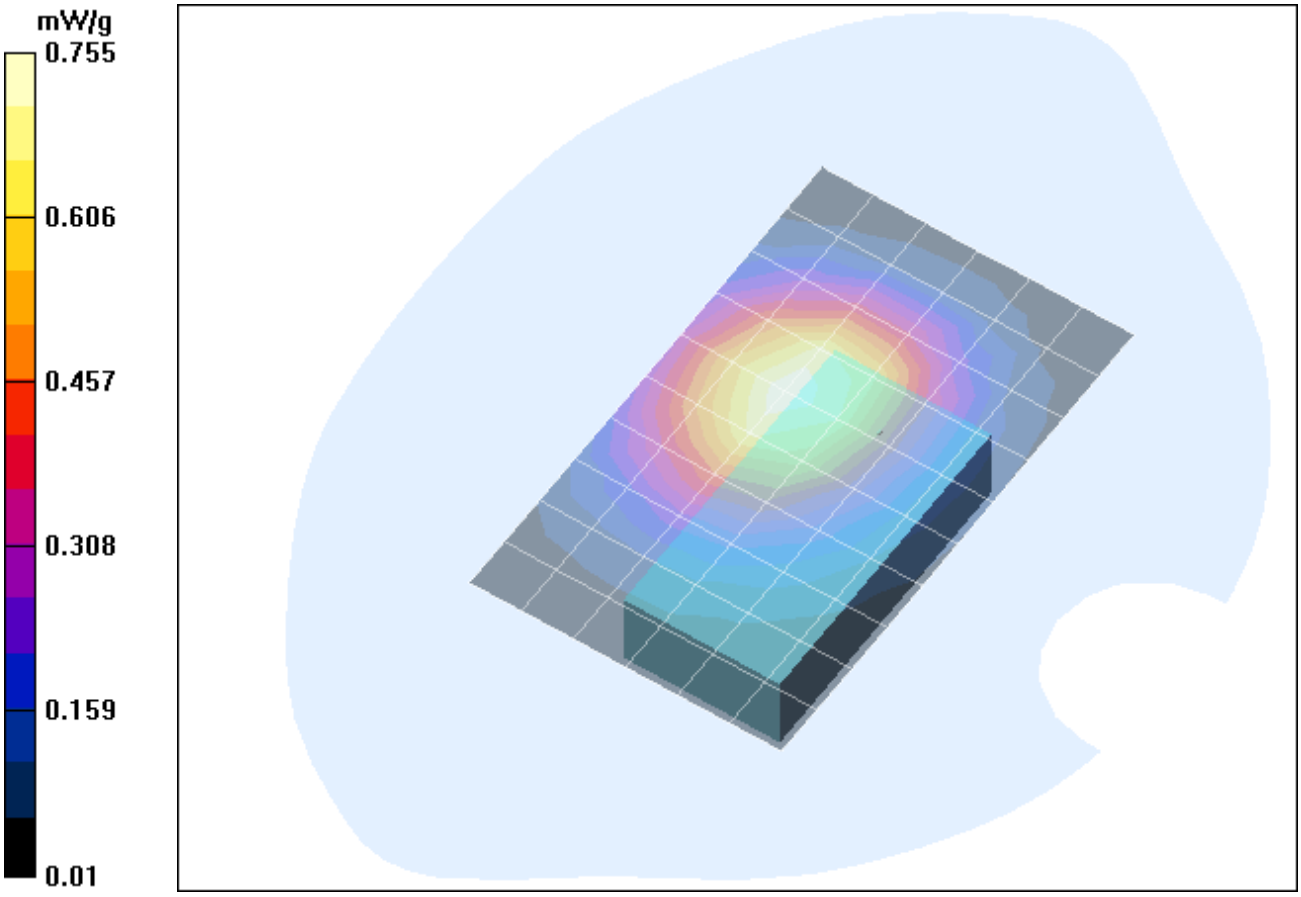

Fig. 14: SAR distribution for GPRS 850, channel 190, body worn configuration, antenna towards the phantom and with 20 mm distance (July 08, 2005; Ambient Temperature: 22.0° C; Liquid Temperature: 21.3° C).

5 SAR Distribution Plots, PCS 1900 Body with headset in GSM mode

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name: 447yphm_3.da4

DUT: Alcatel ; Type: OT-C652A; Serial: 001016000220447
Program Name: Body Worn

Communication System: GSM 1900; Frequency: 1880 MHz;Duty Cycle: 1:8.3
Medium parameters used: f = 1880 MHz; σ = 1.55 mho/m; ε_r = 52.1; ρ = 1000 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 Sn906; Calibrated: 16.12.2004
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- 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) = 0.170 mW/g
Body Worn/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.6 V/m; Power Drift = -0.068 dB
Peak SAR (extrapolated) = 0.249 W/kg
SAR(1 g) = 0.156 mW/g; SAR(10 g) = 0.095 mW/g
Maximum value of SAR (measured) = 0.180 mW/g
Body Worn/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.6 V/m; Power Drift = -0.068 dB
Peak SAR (extrapolated) = 0.415 W/kg
SAR(1 g) = 0.132 mW/g; SAR(10 g) = 0.062 mW/g
Maximum value of SAR (measured) = 0.166 mW/g

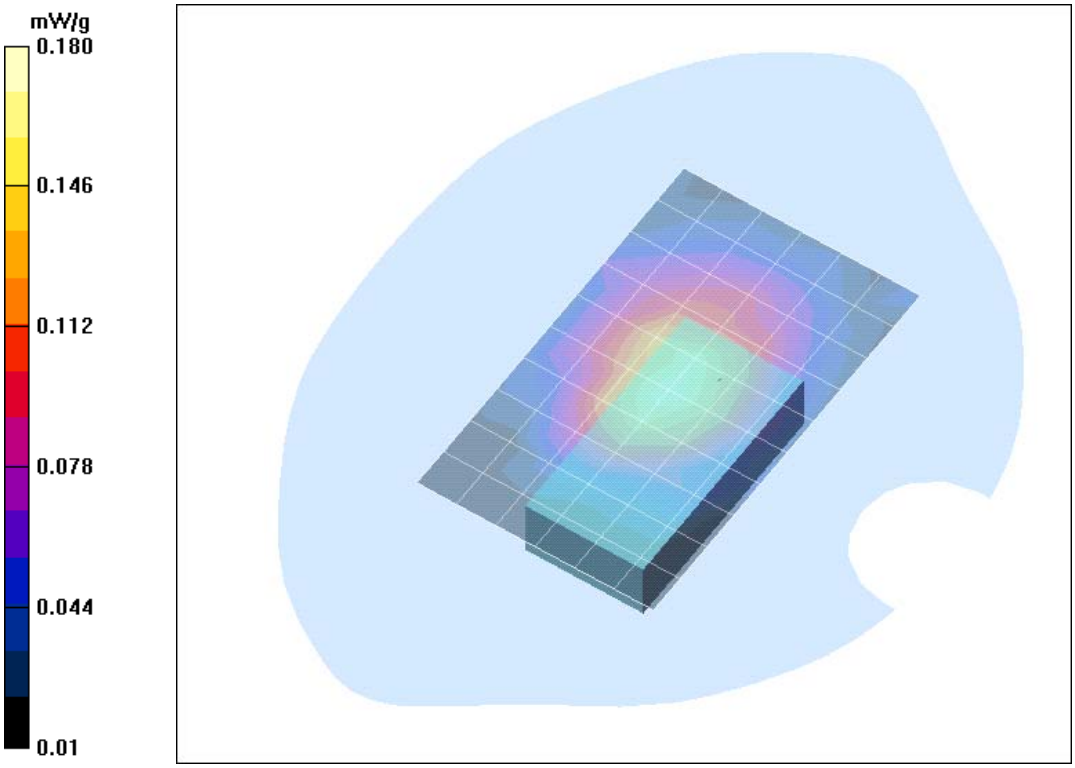

Fig. 15: SAR distribution for PCS 1900, channel 661, body worn configuration, antenna towards the phantom, with headset and with 20 mm distance (July 07, 2005; Ambient Temperature: 22.0° C; Liquid Temperature: 21.9° C).

6 SAR Distribution Plots, PCS 1900 Body in GPRS mode

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name: 447yphm_1.da4

DUT: Alcatel ; Type: OT-C652A; Serial: 001016000220447
Program Name: Body Worn

Communication System: GPRS 1900; Frequency: 1880 MHz;Duty Cycle: 1:4
Medium parameters used: f = 1880 MHz; σ = 1.55 mho/m; ε_r = 52.1; ρ = 1000 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 Sn906; Calibrated: 16.12.2004
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- 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) = 0.307 mW/g
Body Worn/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm;Reference Value = 14.3 V/m; Power Drift = -0.2 dB
Peak SAR (extrapolated) = 0.417 W/kg
SAR(1 g) = 0.274 mW/g; SAR(10 g) = 0.184 mW/g
Maximum value of SAR (measured) = 0.302 mW/g
Body Worn/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm;Reference Value = 14.3 V/m; Power Drift = -0.2 dB
Peak SAR (extrapolated) = 0.369 W/kg
SAR(1 g) = 0.240 mW/g; SAR(10 g) = 0.129 mW/g
Maximum value of SAR (measured) = 0.277 mW/g

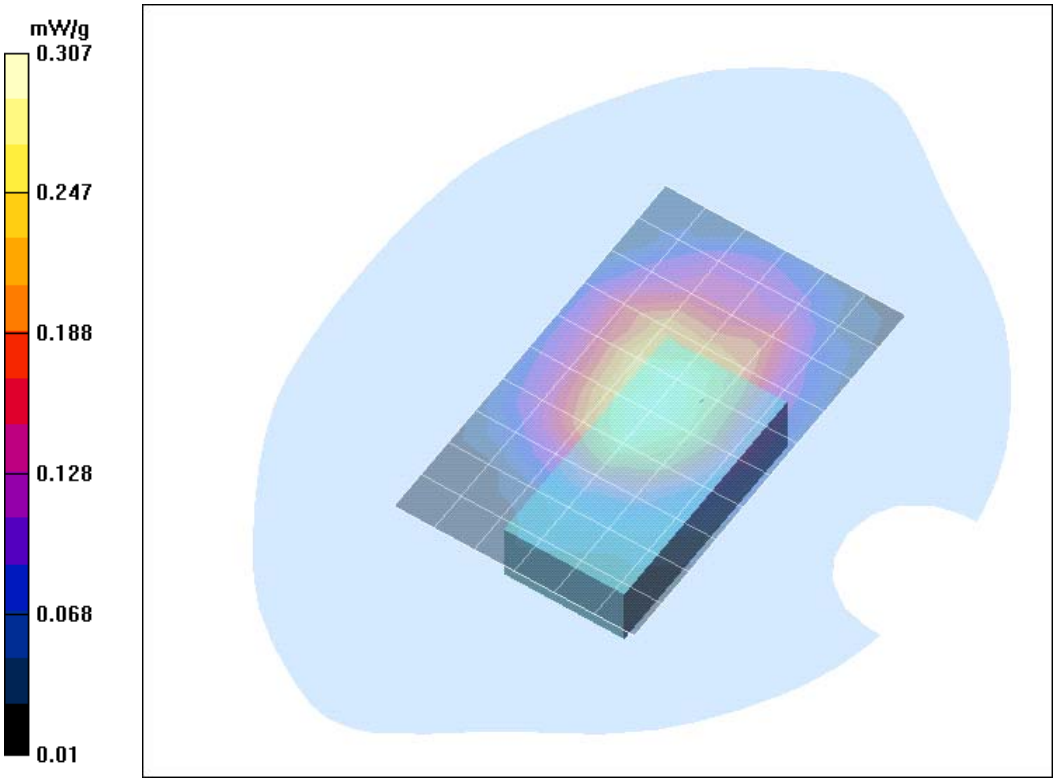

Fig. 16: SAR distribution for GPRS 1900, channel 661, body worn configuration, antenna towards the phantom, with data and with 20 mm distance (July 07, 2005; Ambient Temperature: 22.0° C; Liquid Temperature: 21.8° C).

7 SAR z-axis scans (Validation)

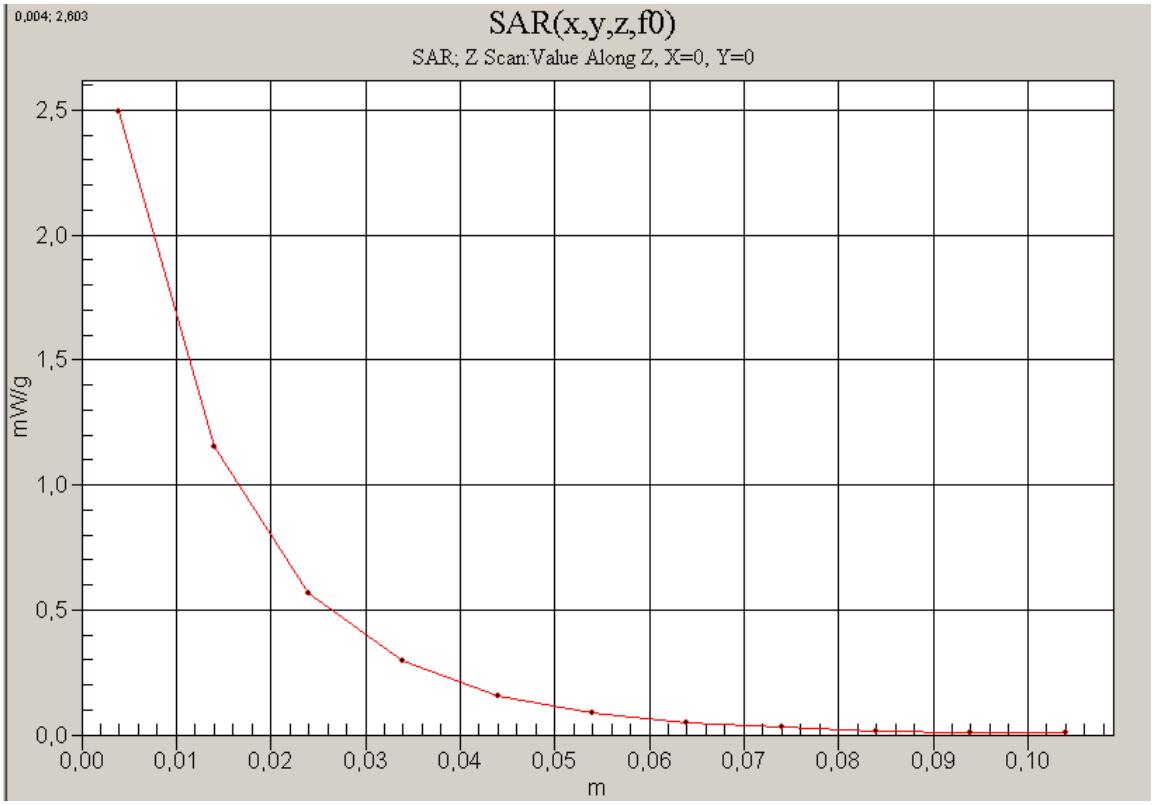

Fig. 17: SAR versus liquid depth, 835 MHz, head (July 08, 2005; Ambient Temperature: 22.0° C; Liquid Temperature : 21.0° C).

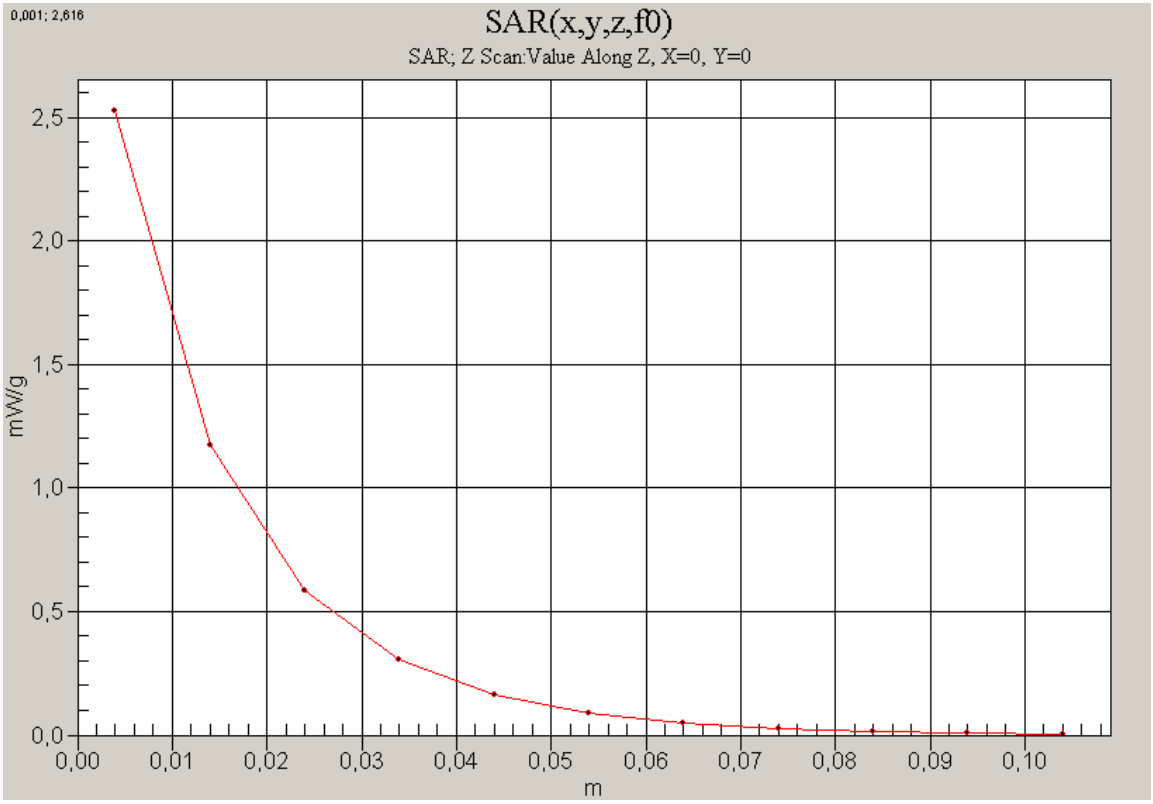

Fig. 18: SAR versus liquid depth, 835 MHz, body (July 08, 2005; Ambient Temperature: 22.0° C; Liquid Temperature : 21.6° C).

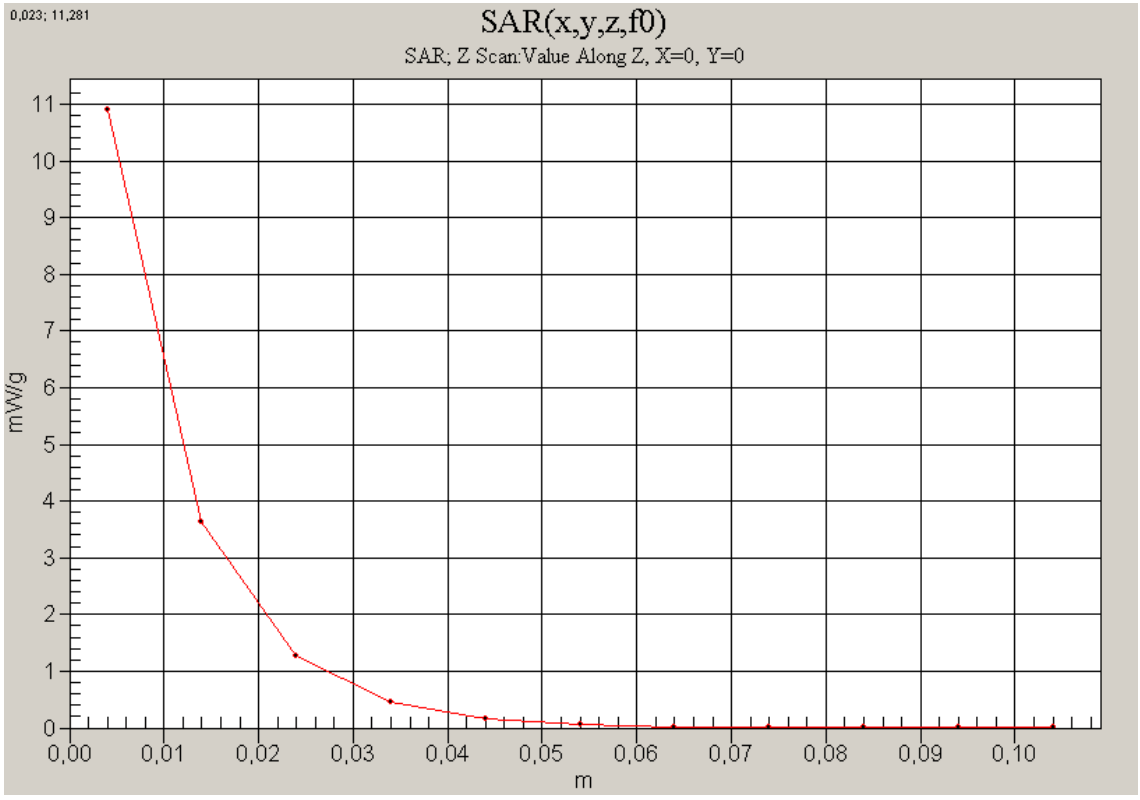

Fig. 19: SAR versus liquid depth, 1900 MHz, head (July 11, 2005; Ambient Temperature: 22.0° C; Liquid Temperature : 21.5° C).

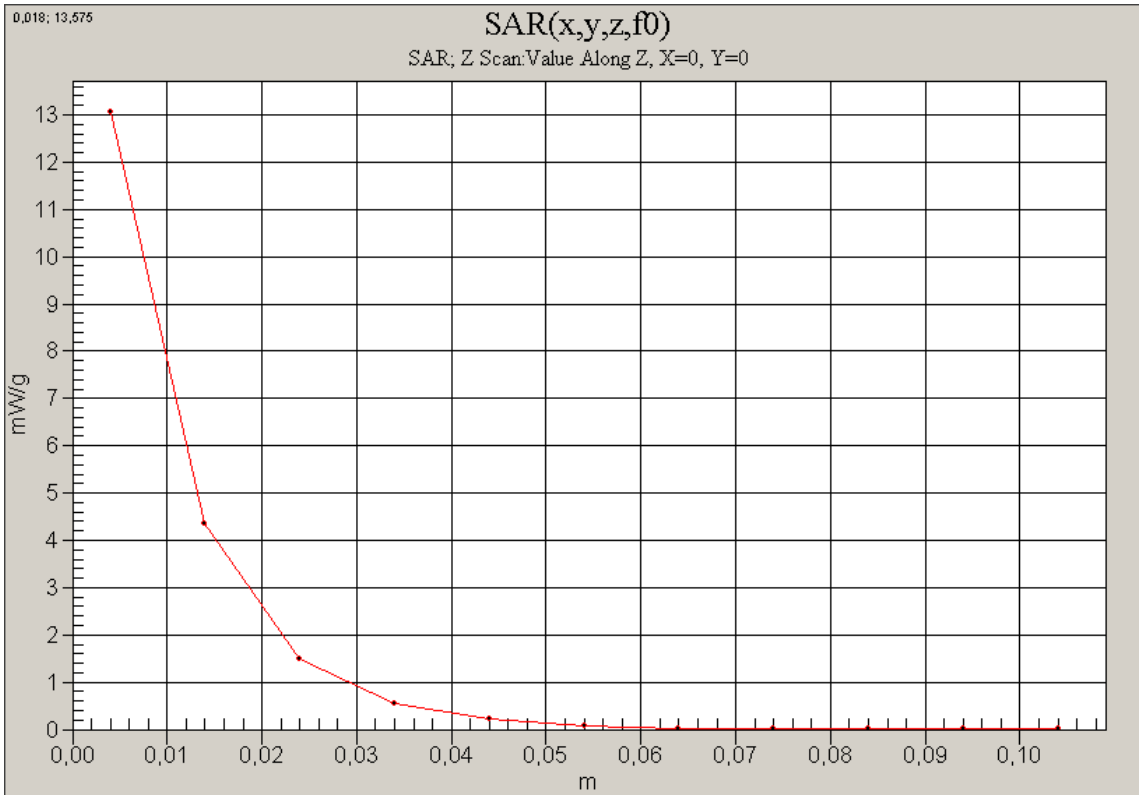

Fig. 20: SAR versus liquid depth, 1900 MHz, body (July 07, 2005; Ambient Temperature: 22.0° C; Liquid Temperature : 21.0° C).

8 SAR z-axis scans (Measurements)

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

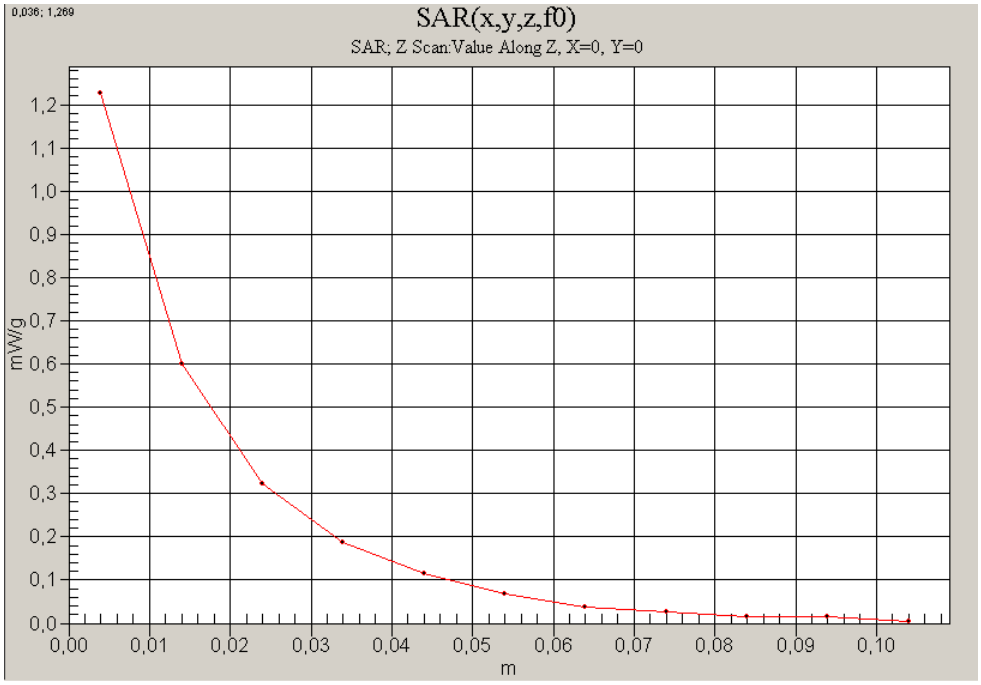

Fig. 21: SAR versus liquid depth, head: GSM 850, channel 190, cheek position, right side of head (July 08, 2005; Ambient Temperature: 22° C; Liquid Temperature : 21.8° C).

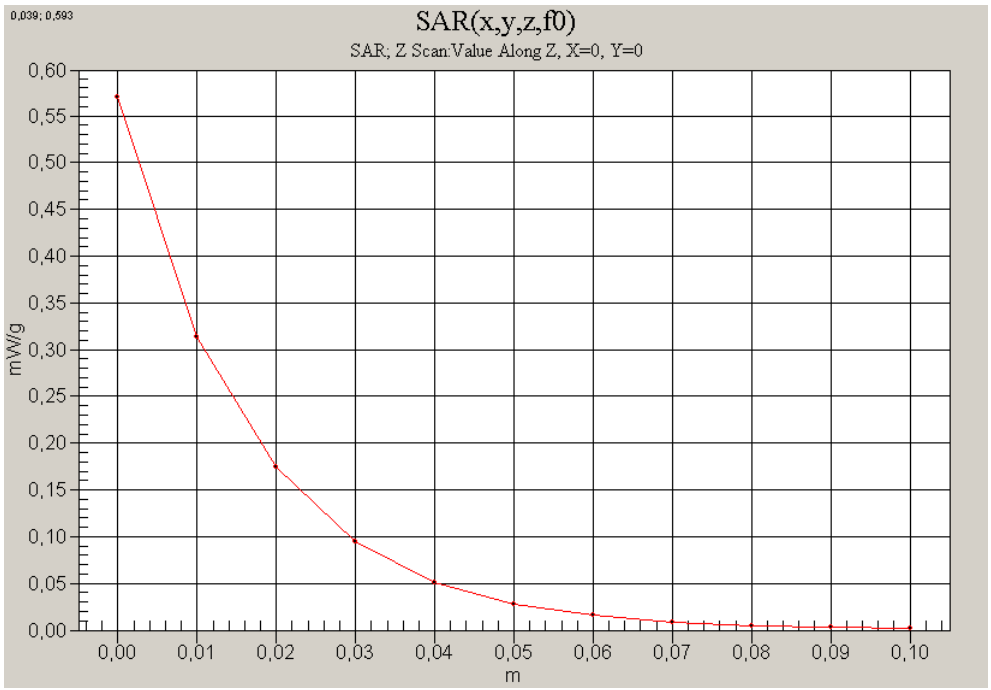

Fig. 22: SAR versus liquid depth, body: GSM 850, channel 190, GPRS mode, antenna up (July 08, 2005;Ambient Temperature: 22° C; Liquid Temperature : 21.3° C).

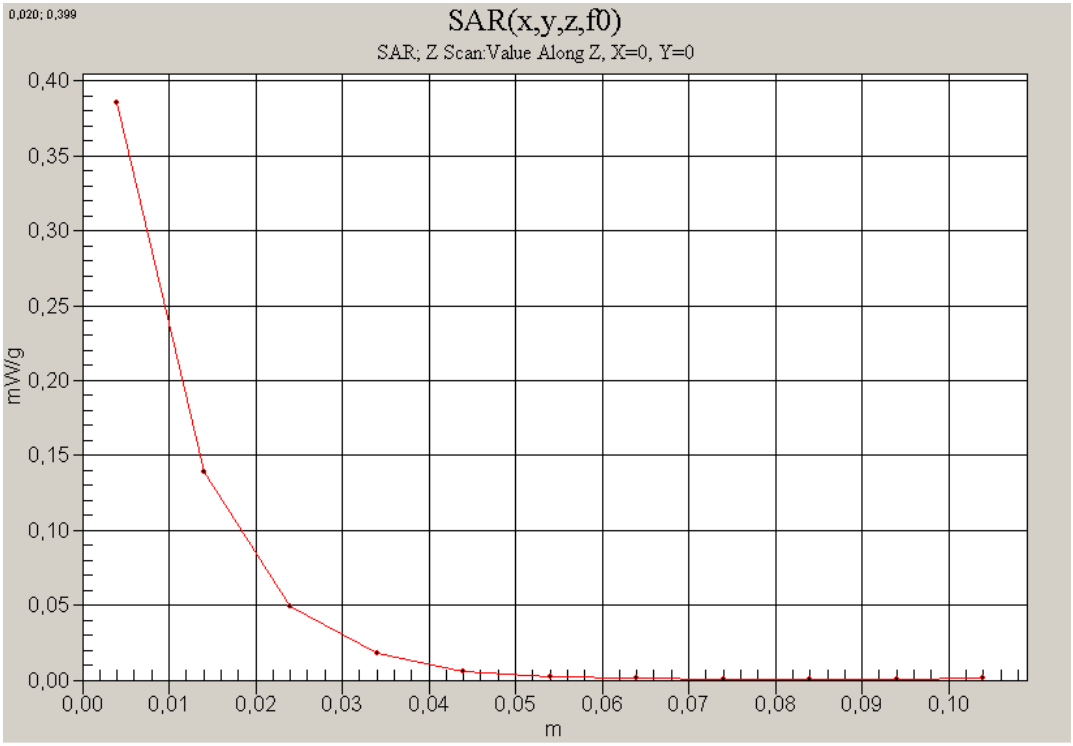

Fig. 23: SAR versus liquid depth, head: PCS 1900, channel 661, cheek position, right side of head (July 11, 2005; Ambient Temperature: 22.1° C; Liquid Temperature : 21.5° C).

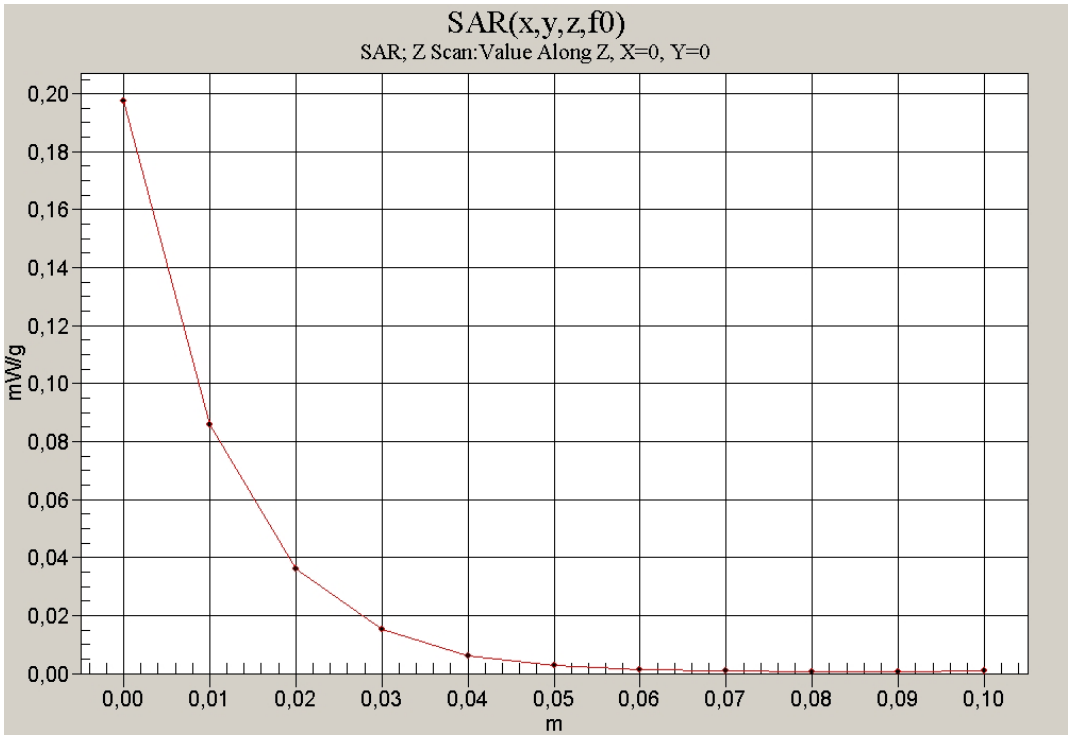

Fig. 24: SAR versus liquid depth, body: PCS 1900, channel 661, GPRS mode, antenna up (July 07, 2005; Ambient Temperature: 22° C; Liquid Temperature : 21.8° C).