
Appendix for the Report

Dosimetric Assessment of the BenQ Siemens E71a (FCC ID: PWX-E71a)

According to the FCC Requirements

SAR Distribution Plots

July 24, 2006
IMST GmbH
Carl-Friedrich-Gauß-Str. 2
D-47475 Kamp-Lintfort

Customer
BenQ Mobile GmbH & Co OHG
Haidenauplatz 1
D-81667 München

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, GSM 850 HEAD.....	3
2	SAR DISTRIBUTION PLOTS, PCS 1900 HEAD	12
3	SAR DISTRIBUTION PLOTS, GSM 850 BODY WORN CONFIGURATION	17
4	SAR DISTRIBUTION PLOTS, PCS 1900 BODY WORN CONFIGURATION.....	21
5	SAR Z-AXIS SCANS (VALIDATION)	25
6	SAR Z-AXIS SCANS (MEASUREMENTS).....	27

1 SAR Distribution Plots, GSM 850 Head

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [618balm_1.da4](#)

DUT: BenQ Siemenes ; Type: E71A; Serial: 004401490150618

Program Name: Cheek Left

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(9.72, 9.72, 9.72); Calibrated: 23.09.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.03.2006
- Phantom: SAM Sugar 1059; Type: Speag; Serial: 1059
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

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

Maximum value of SAR (measured) = 0.976 mW/g

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

Reference Value = 26.5 V/m; Power Drift = -0.121 dB

Peak SAR (extrapolated) = 1.29 W/kg

SAR(1 g) = 0.913 mW/g; SAR(10 g) = 0.641 mW/g

Maximum value of SAR (measured) = 0.972 mW/g

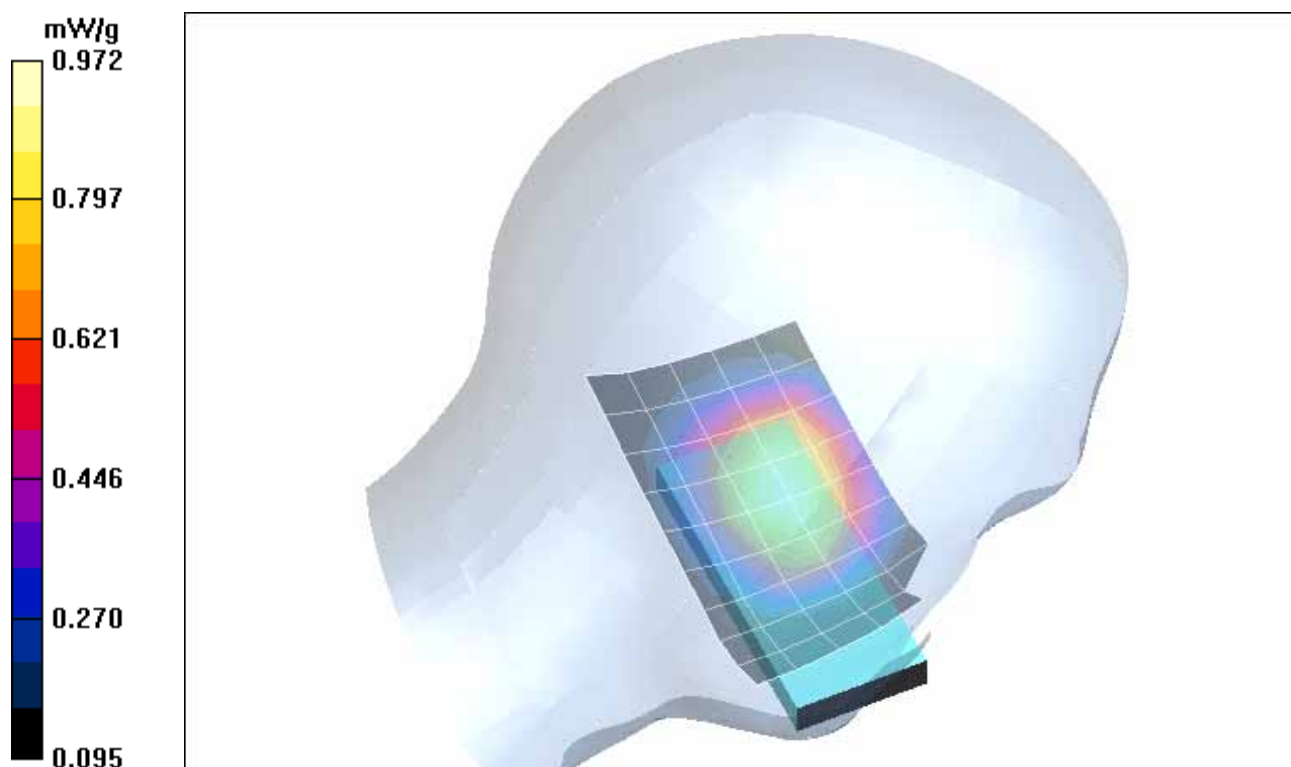


Fig. 1: SAR distribution for GSM 850, channel 190, cheek position, left side of head (July 18, 2006; Ambient Temperature: 22.1° C; Liquid Temperature: 21.4° C).

Test Laboratory: IMST GmbH, DASY Blue (I); **File Name:** [618balm 2.da4](#)

DUT: BenQ Siemenes ; **Type:** E71A; **Serial:** 004401490150618

Program Name: Tilted Left

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(9.72, 9.72, 9.72); Calibrated: 23.09.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.03.2006
- Phantom: SAM Sugar 1059; Type: Speag; Serial: 1059
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

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

Maximum value of SAR (measured) = 0.578 mW/g

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

Reference Value = 23.7 V/m; Power Drift = -0.029 dB

Peak SAR (extrapolated) = 0.924 W/kg

SAR(1 g) = 0.544 mW/g; SAR(10 g) = 0.382 mW/g

Maximum value of SAR (measured) = 0.590 mW/g

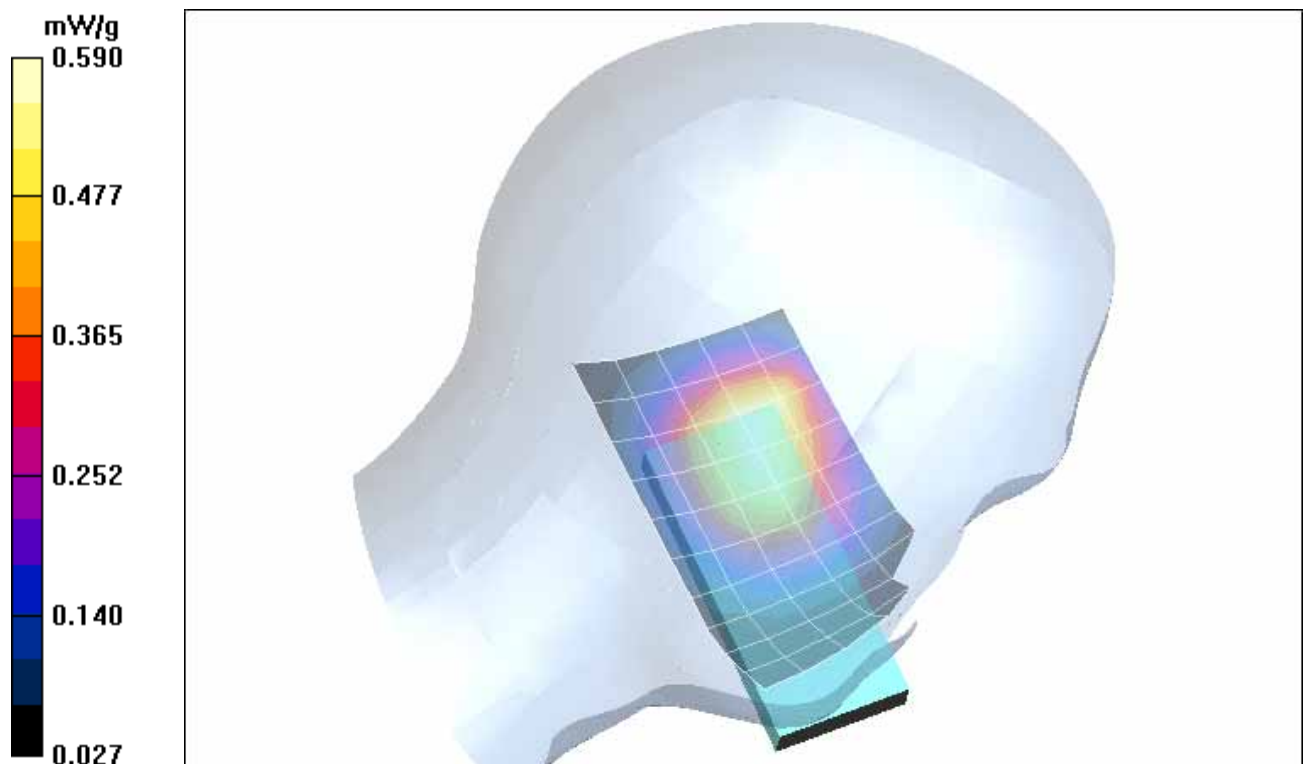


Fig. 2: SAR distribution for GSM 850, channel 190, tilted position, left side of head (July 18, 2006; Ambient Temperature: 22.1° C; Liquid Temperature : 21.4° C).

Test Laboratory: IMST GmbH, DASY Blue (I); **File Name:** [618barm_1.da4](#)

DUT: BenQ Siemenes ; **Type:** E71A; **Serial:** 004401490150618

Program Name: Cheek Right

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(9.72, 9.72, 9.72); Calibrated: 23.09.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.03.2006
- Phantom: SAM Sugar 1059; Type: Speag; Serial: 1059
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

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

Maximum value of SAR (measured) = 0.889 mW/g

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

Reference Value = 25.1 V/m; Power Drift = 0.080 dB

Peak SAR (extrapolated) = 1.20 W/kg

SAR(1 g) = 0.882 mW/g; SAR(10 g) = 0.626 mW/g

Maximum value of SAR (measured) = 0.936 mW/g

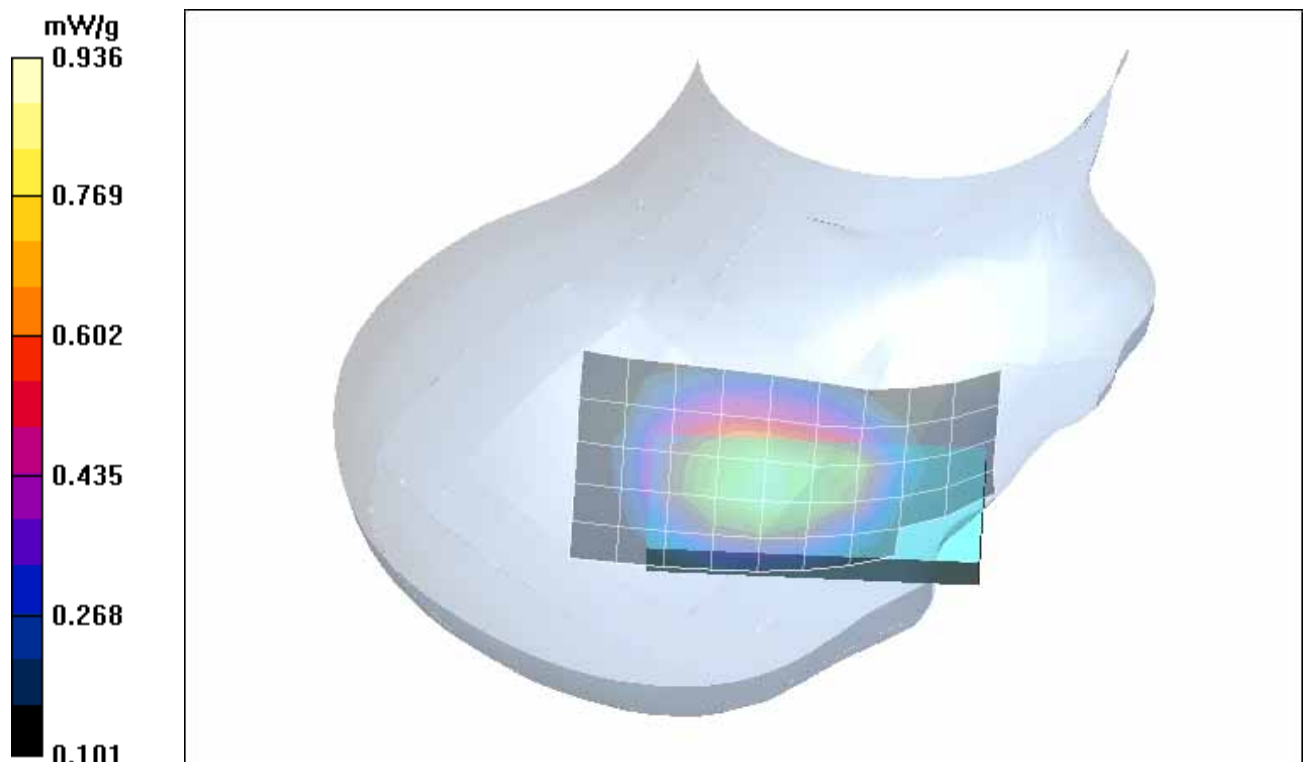


Fig. 3: SAR distribution for GSM 850, channel 190, cheek position, right side of head (July 18, 2006; Ambient Temperature: 22.1° C; Liquid Temperature : 21.4° C).

Test Laboratory: IMST GmbH, DASY Blue (I); **File Name:** [618barm 2.da4](#)

DUT: BenQ Siemenes ; **Type:** E71A; **Serial:** 004401490150618

Program Name: Tilted Right

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(9.72, 9.72, 9.72); Calibrated: 23.09.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.03.2006
- Phantom: SAM Sugar 1059; Type: Speag; Serial: 1059
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

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

Maximum value of SAR (measured) = 0.514 mW/g

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

Reference Value = 24.2 V/m; Power Drift = -0.164 dB

Peak SAR (extrapolated) = 0.669 W/kg

SAR(1 g) = 0.485 mW/g; SAR(10 g) = 0.350 mW/g

Maximum value of SAR (measured) = 0.524 mW/g

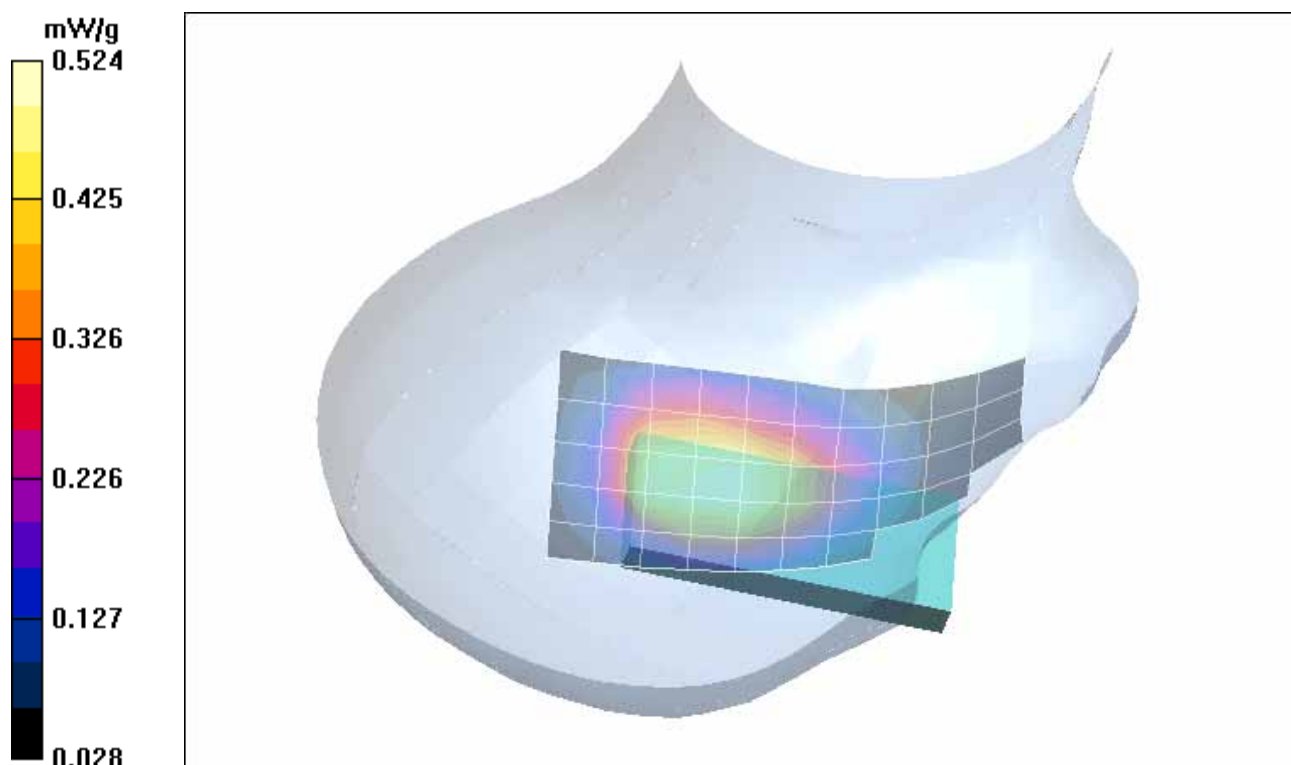


Fig. 4: SAR distribution for GSM 850, channel 190, tilted position, right side of head (July 18, 2006; Ambient Temperature: 22.1° C; Liquid Temperature : 21.4° C).

Test Laboratory: IMST GmbH, DASY Blue (I); **File Name:** [618ball_1.da4](#)

DUT: BenQ Siemenes ; **Type:** E71A; **Serial:** 004401490150618

Program Name: Cheek Left

Communication System: GSM 850; Frequency: 824.2 MHz; Duty Cycle: 1:8.3

Medium parameters used: $f = 824.2$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(9.72, 9.72, 9.72); Calibrated: 23.09.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.03.2006
- Phantom: SAM Sugar 1059; Type: Speag; Serial: 1059
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

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

Maximum value of SAR (measured) = 1.04 mW/g

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

Reference Value = 27.2 V/m; Power Drift = -0.058 dB

Peak SAR (extrapolated) = 1.38 W/kg

SAR(1 g) = 0.989 mW/g; SAR(10 g) = 0.694 mW/g

Maximum value of SAR (measured) = 1.05 mW/g

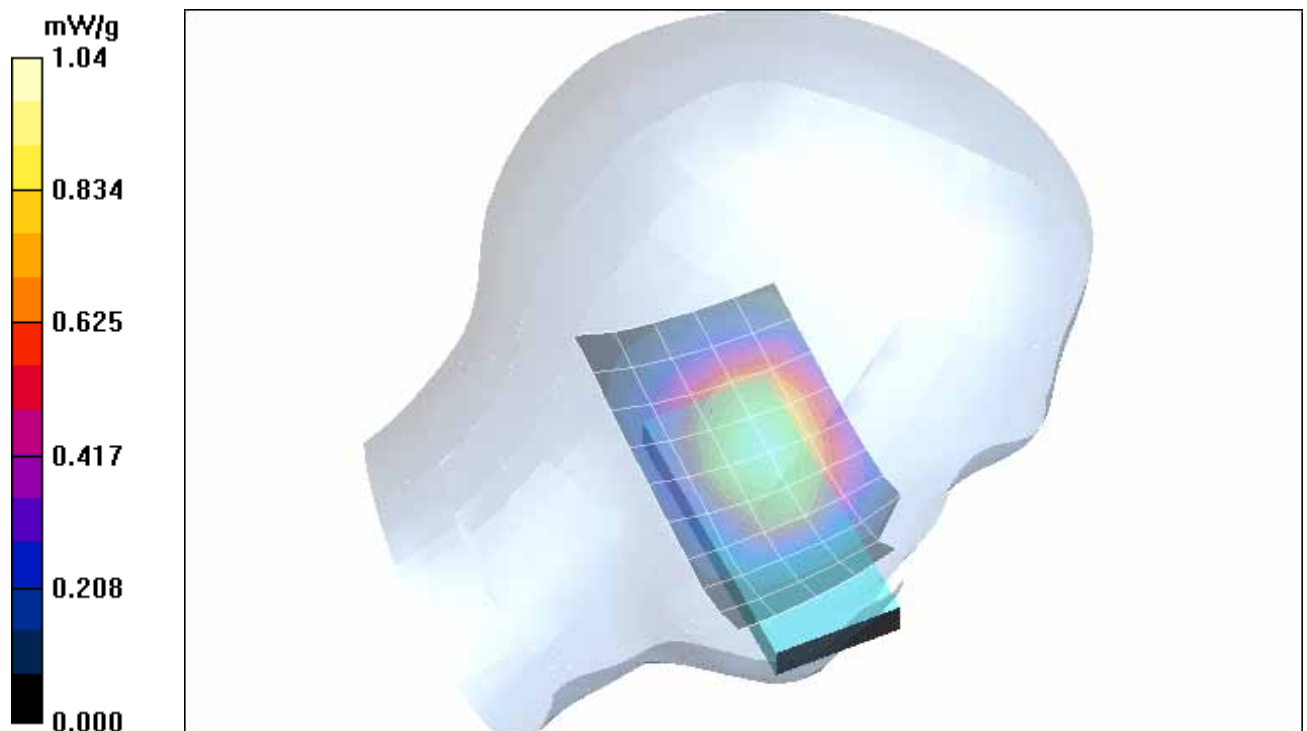


Fig. 5: SAR distribution for GSM 850, channel 128, cheek position, left side of head (July 18, 2006; Ambient Temperature: 22.1° C; Liquid Temperature: 21.4° C).

Test Laboratory: IMST GmbH, DASY Blue (I); **File Name:** [618balh_1.da4](#)

DUT: BenQ Siemenes ; **Type:** E71A; **Serial:** 004401490150618

Program Name: Cheek Left

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:8.3

Medium parameters used: $f = 848.8$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(9.72, 9.72, 9.72); Calibrated: 23.09.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.03.2006
- Phantom: SAM Sugar 1059; Type: Speag; Serial: 1059
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

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

Maximum value of SAR (measured) = 1.04 mW/g

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

Reference Value = 27.3 V/m; Power Drift = -0.049 dB

Peak SAR (extrapolated) = 1.37 W/kg

SAR(1 g) = 0.992 mW/g; SAR(10 g) = 0.696 mW/g

Maximum value of SAR (measured) = 1.06 mW/g

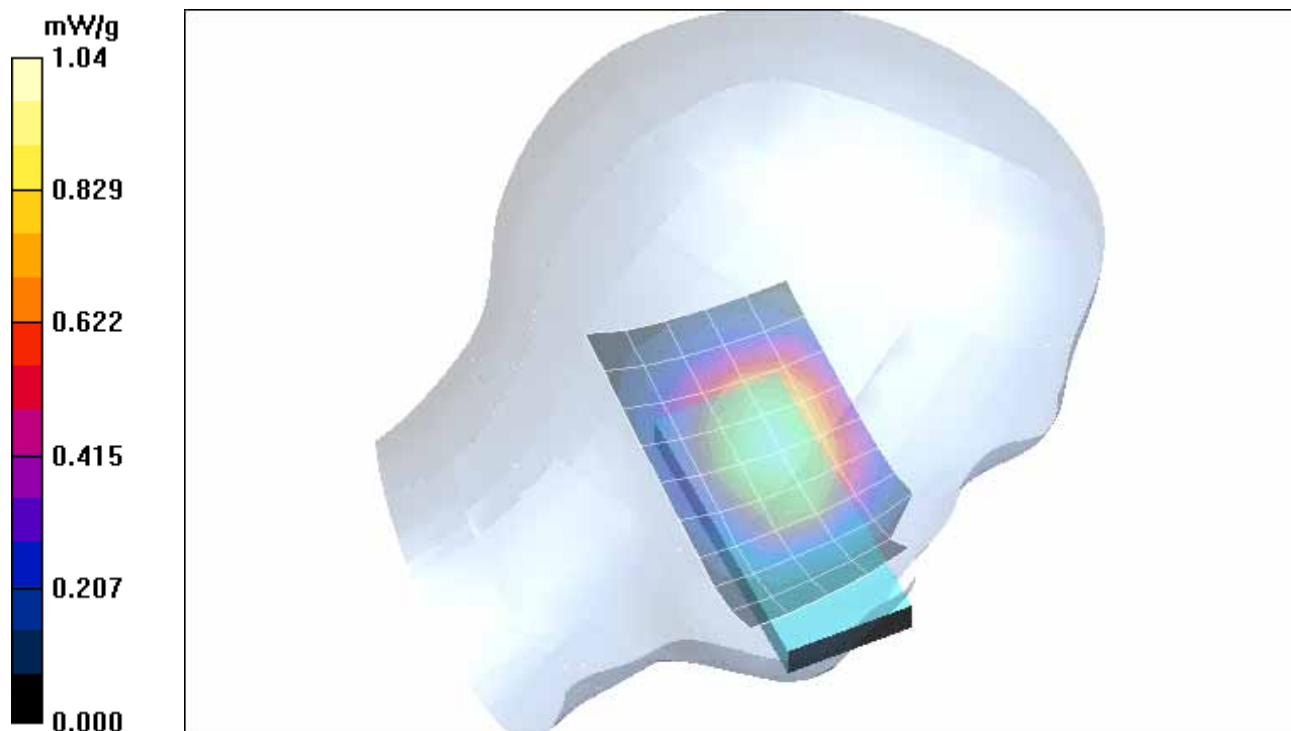


Fig. 6: SAR distribution for GSM 850, channel 251, cheek position, left side of head (July 18, 2006; Ambient Temperature: 22.1° C; Liquid Temperature: 21.4° C).

Test Laboratory: IMST GmbH, DASY Blue (I); **File Name:** [618barl_1.da4](#)

DUT: BenQ Siemenes ; **Type:** E71A; **Serial:** 004401490150618

Program Name: Cheek Right

Communication System: GSM 850; Frequency: 824.2 MHz; Duty Cycle: 1:8.3

Medium parameters used: $f = 824.2$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(9.72, 9.72, 9.72); Calibrated: 23.09.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.03.2006
- Phantom: SAM Sugar 1059; Type: Speag; Serial: 1059
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

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

Maximum value of SAR (measured) = 0.767 mW/g

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

Reference Value = 24.1 V/m; Power Drift = -0.002 dB

Peak SAR (extrapolated) = 0.949 W/kg

SAR(1 g) = 0.727 mW/g; SAR(10 g) = 0.528 mW/g

Maximum value of SAR (measured) = 0.768 mW/g

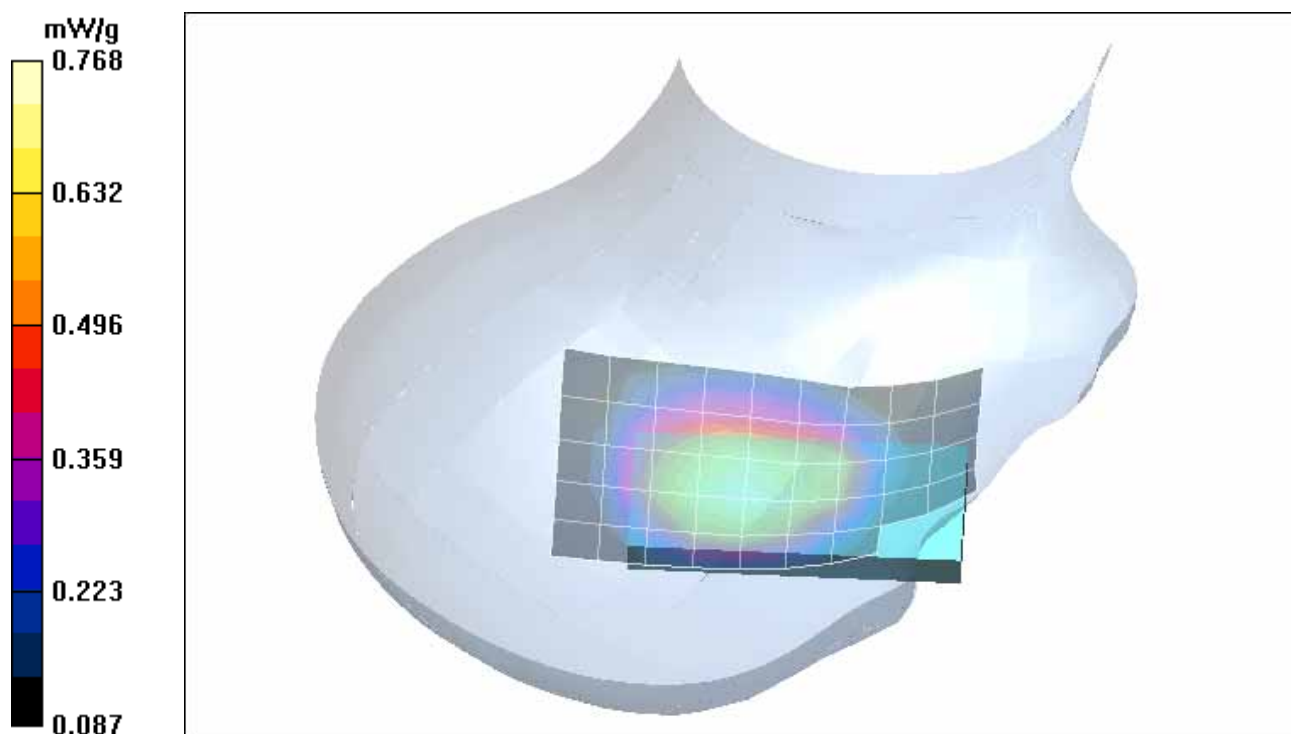


Fig. 7: SAR distribution for GSM 850, channel 128, cheek position, right side of head (July 18, 2006; Ambient Temperature: 22.1° C; Liquid Temperature : 21.4° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [618barh_1.da4](#)

DUT: BenQ Siemenes ; Type: E71A; Serial: 004401490150618

Program Name: Cheek Right

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:8.3

Medium parameters used: $f = 848.8$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(9.72, 9.72, 9.72); Calibrated: 23.09.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.03.2006
- Phantom: SAM Sugar 1059; Type: Speag; Serial: 1059
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

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

Maximum value of SAR (measured) = 0.958 mW/g

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

Reference Value = 26.6 V/m; Power Drift = -0.111 dB

Peak SAR (extrapolated) = 1.23 W/kg

SAR(1 g) = 0.930 mW/g; SAR(10 g) = 0.672 mW/g

Maximum value of SAR (measured) = 0.990 mW/g

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

Reference Value = 26.6 V/m; Power Drift = -0.111 dB

Peak SAR (extrapolated) = 1.20 W/kg

SAR(1 g) = 0.888 mW/g; SAR(10 g) = 0.614 mW/g

Maximum value of SAR (measured) = 0.970 mW/g

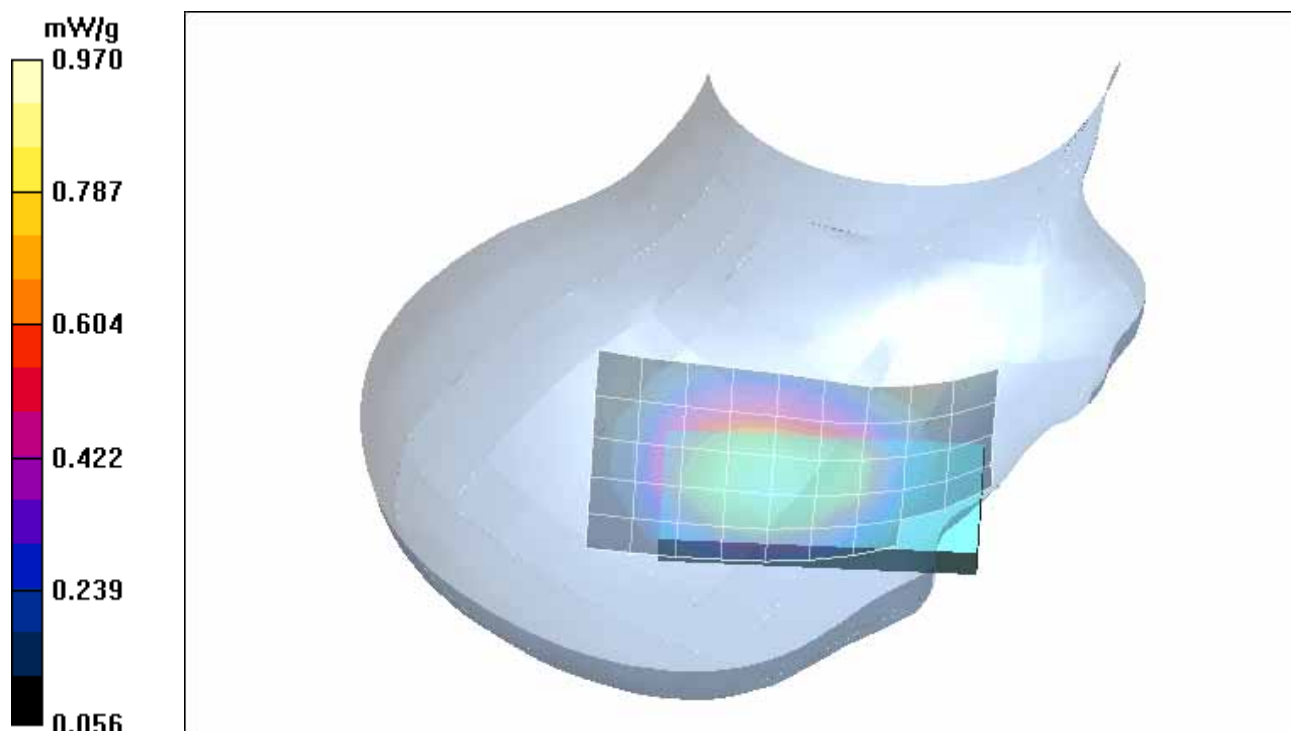


Fig. 8: SAR distribution for GSM 850, channel 251, cheek position, right side of head (July 18, 2006; Ambient Temperature: 22.1° C; Liquid Temperature : 21.4° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [618balh_1_bt.da4](#)

DUT: BenQ Siemenes ; Type: E71A; Serial: 004401490150618

Program Name: Cheek Left

Communication System: GSM 850; Frequency: 848.8 MHz; Duty Cycle: 1:8.3

Medium parameters used: $f = 848.8$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(9.72, 9.72, 9.72); Calibrated: 23.09.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.03.2006
- Phantom: SAM Sugar 1059; Type: Speag; Serial: 1059
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

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

Maximum value of SAR (measured) = 1.04 mW/g

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

Reference Value = 27.6 V/m; Power Drift = -0.186 dB

Peak SAR (extrapolated) = 1.39 W/kg

SAR(1 g) = 0.976 mW/g; SAR(10 g) = 0.684 mW/g

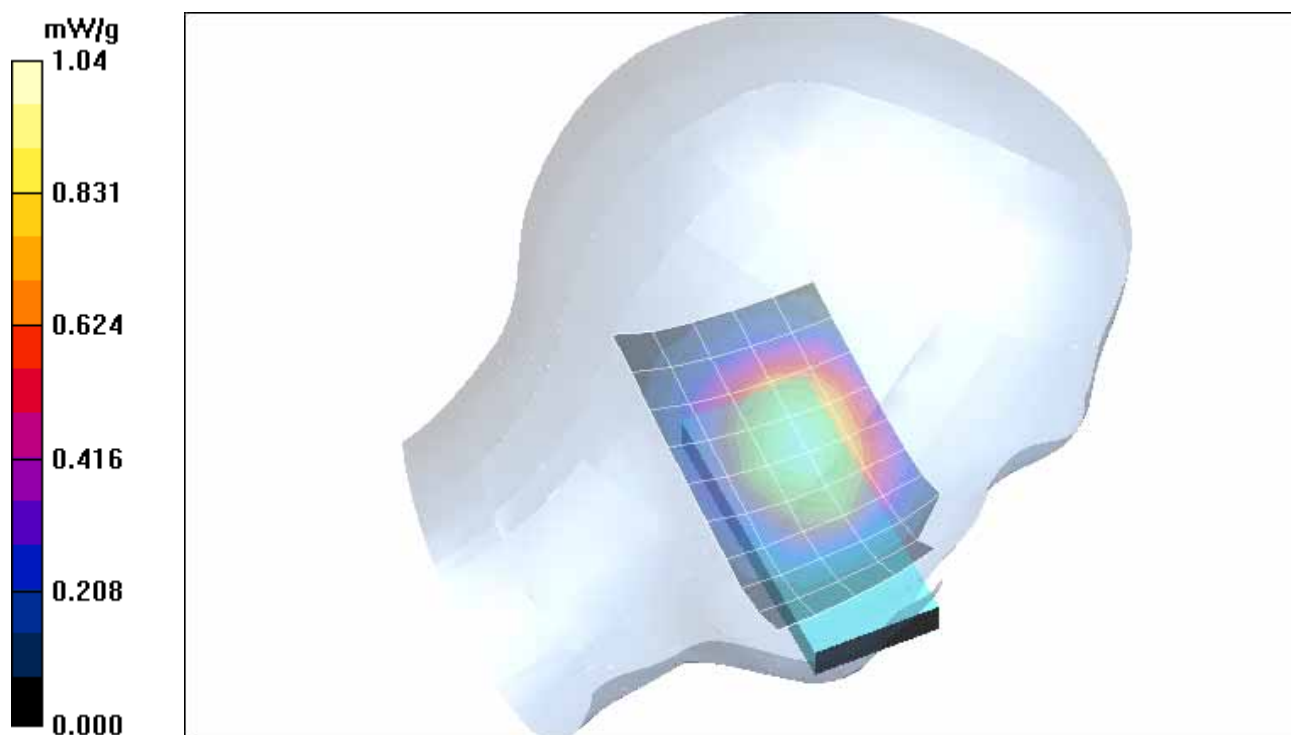


Fig. 9: SAR distribution for GSM 850, channel 251, cheek position, right side of head (July 18, 2006; Ambient Temperature: 22.1° C; Liquid Temperature : 21.4° C).

2 SAR Distribution Plots, PCS 1900 Head

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [618yplm_1.da4](#)

DUT: BenQ Siemenes ; Type: E71A; Serial: 004401490150618

Program Name: Cheek Left

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 39.7$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(4.99, 4.99, 4.99); Calibrated: 15.02.2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 11.07.2006
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

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

Maximum value of SAR (measured) = 0.366 mW/g

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

Reference Value = 14.7 V/m; Power Drift = 0.067 dB

Peak SAR (extrapolated) = 0.599 W/kg

SAR(1 g) = 0.365 mW/g; SAR(10 g) = 0.217 mW/g

Maximum value of SAR (measured) = 0.398 mW/g

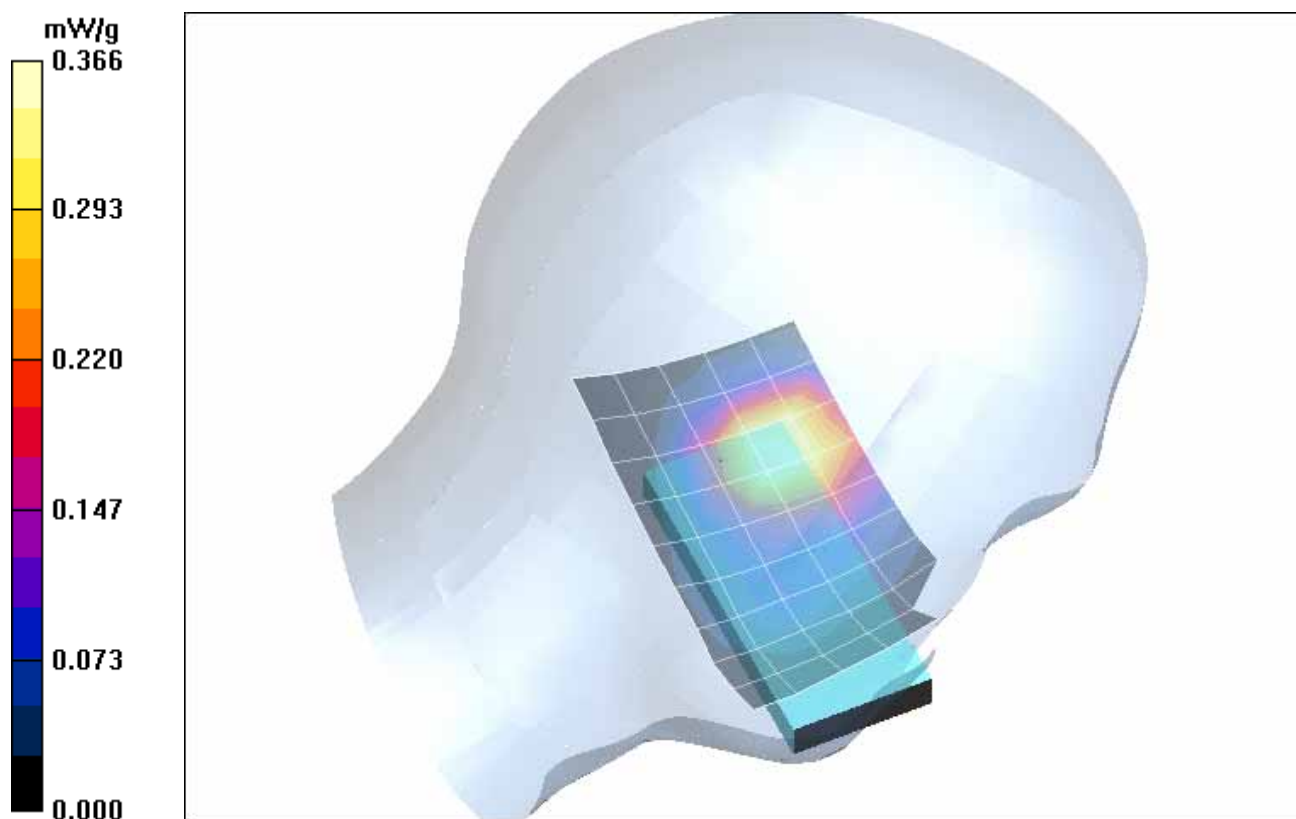


Fig. 10: SAR distribution for PCS 1900, channel 661, cheek position, left side of head (July 18, 2006; Ambient Temperature: 22.3° C; Liquid Temperature : 21.5° C).

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [618yplm_2.da4](#)

DUT: BenQ Siemenes ; Type: E71A; Serial: 004401490150618

Program Name: Tilted Left

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 39.7$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(4.99, 4.99, 4.99); Calibrated: 15.02.2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 11.07.2006
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

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

Maximum value of SAR (measured) = 0.314 mW/g

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

Reference Value = 15.2 V/m; Power Drift = 0.001 dB

Peak SAR (extrapolated) = 0.513 W/kg

SAR(1 g) = 0.315 mW/g; SAR(10 g) = 0.176 mW/g

Maximum value of SAR (measured) = 0.351 mW/g

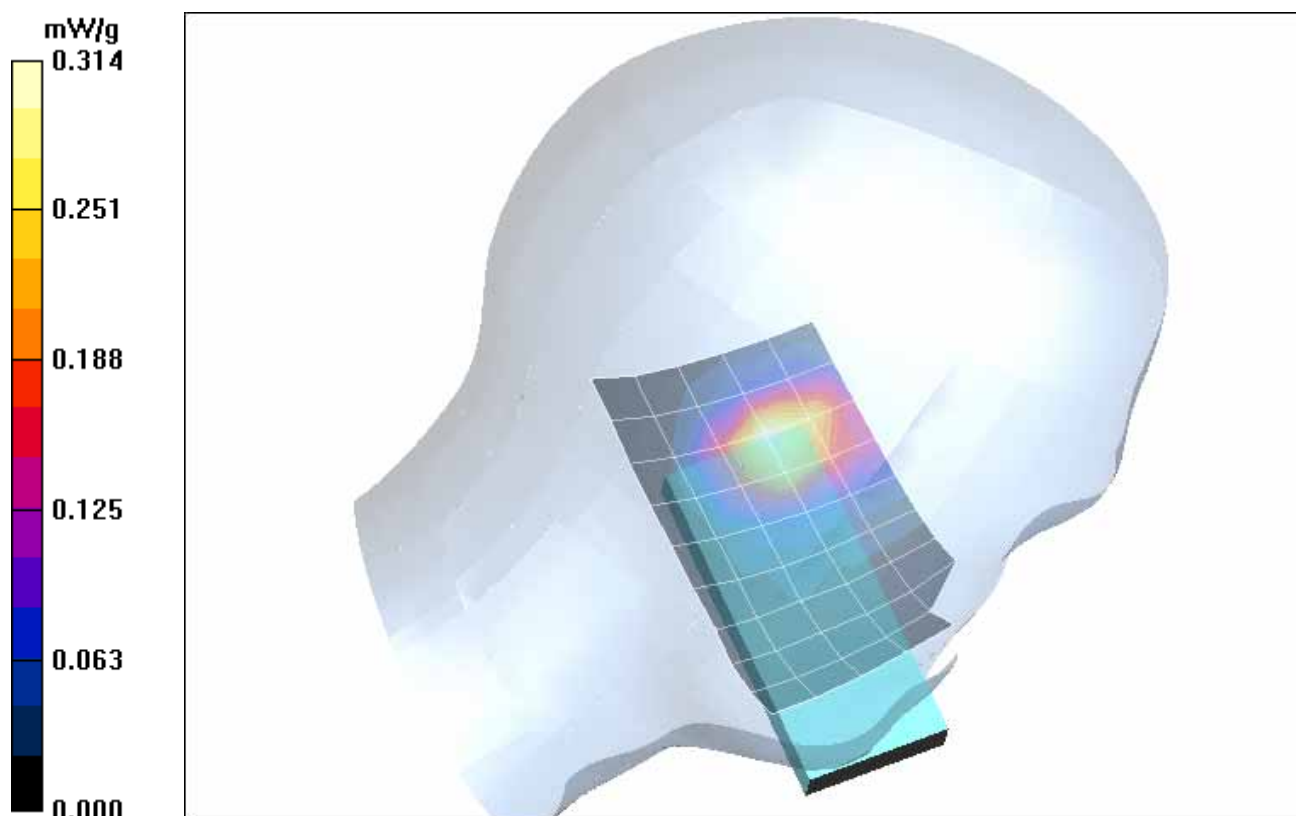


Fig. 11: SAR distribution for PCS 1900, channel 661, tilted position, left side of head (July 18, 2006; Ambient Temperature: 22.3° C; Liquid Temperature : 21.5° C).

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [618yprm_1.da4](#)

DUT: BenQ Siemenes ; Type: E71A; Serial: 004401490150618

Program Name: Cheek Right

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 39.7$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(4.99, 4.99, 4.99); Calibrated: 15.02.2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 11.07.2006
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

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

Maximum value of SAR (measured) = 0.270 mW/g

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

Reference Value = 14.4 V/m; Power Drift = 0.068 dB

Peak SAR (extrapolated) = 0.399 W/kg

SAR(1 g) = 0.267 mW/g; SAR(10 g) = 0.159 mW/g

Maximum value of SAR (measured) = 0.293 mW/g

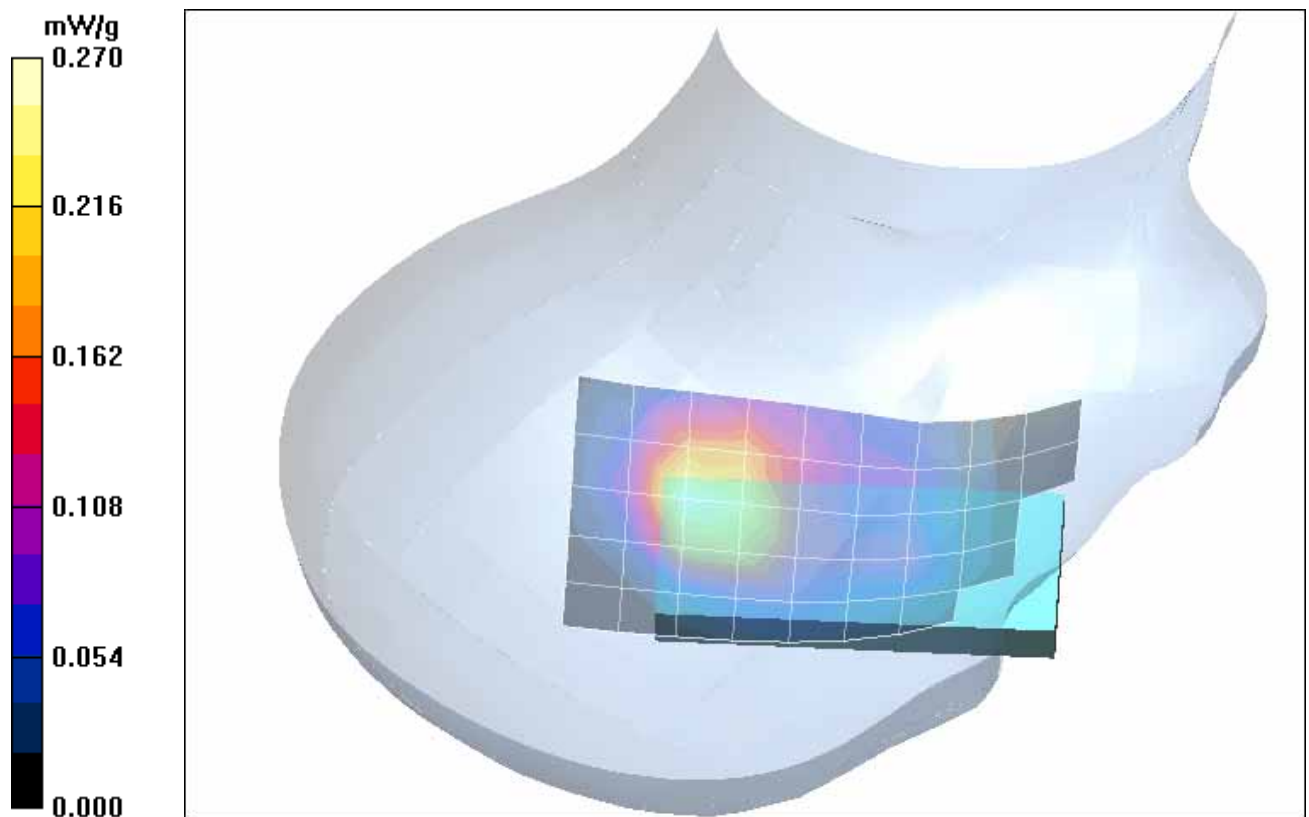


Fig. 12: SAR distribution for PCS 1900, channel 661, cheek position, right side of head (July 18, 2006; Ambient Temperature: 22.3° C; Liquid Temperature : 21.5° C).

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [618yprm_2.da4](#)

DUT: BenQ Siemenes ; Type: E71A; Serial: 004401490150618

Program Name: Tilted Right

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 39.7$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(4.99, 4.99, 4.99); Calibrated: 15.02.2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 11.07.2006
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Tilted Right/Area Scan (6x10x1): 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 = 14.9 V/m; Power Drift = -0.067 dB

Peak SAR (extrapolated) = 0.393 W/kg

SAR(1 g) = 0.252 mW/g; SAR(10 g) = 0.143 mW/g

Maximum value of SAR (measured) = 0.276 mW/g

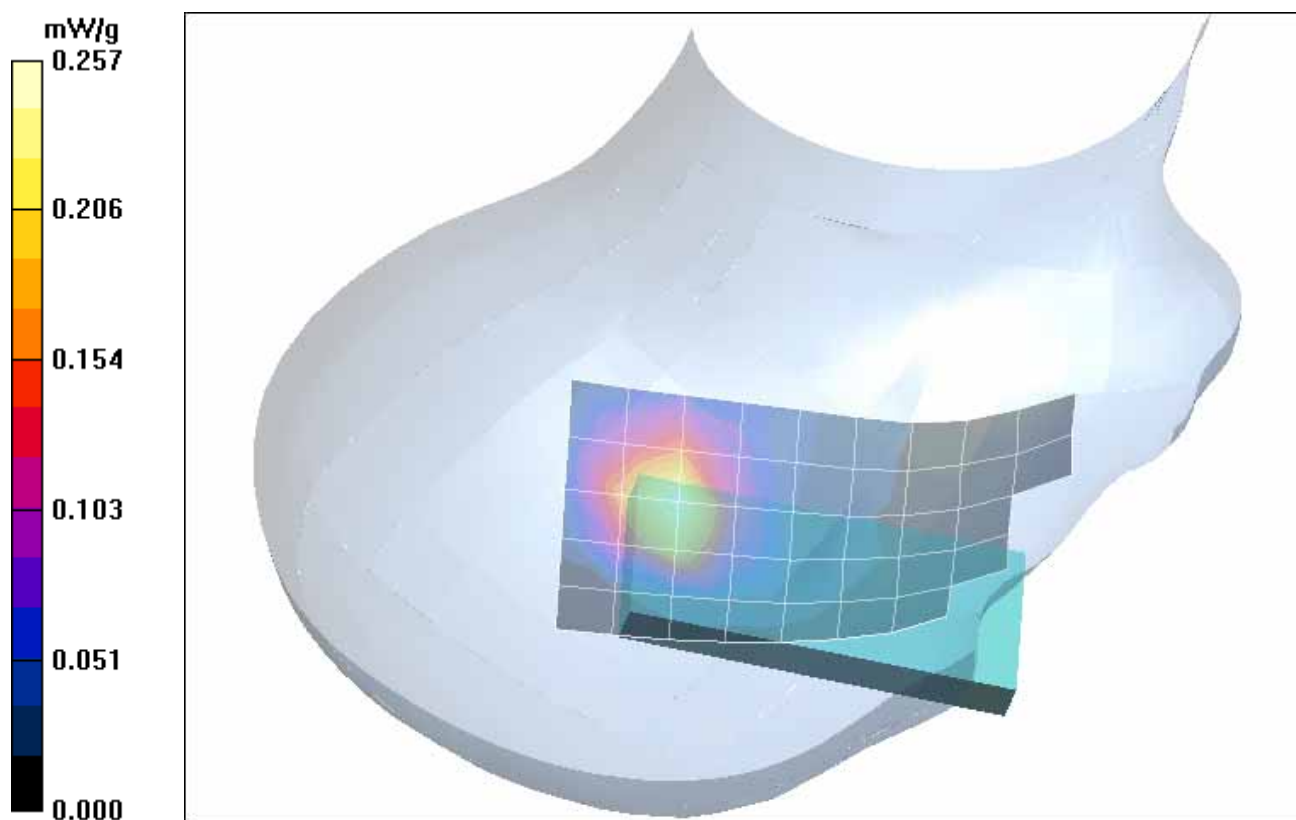


Fig. 13: SAR distribution for PCS 1900, channel 661, tilted position, right side of head (July 18, 2006; Ambient Temperature: 22.3 °C; Liquid Temperature : 21.5° C)

Test Laboratory: Imst GmbH, DASY Yellow (II); **File Name:** [618yplm_1_BT.da4](#)

DUT: BenQ Siemenes ; **Type:** E71A; **Serial:** 004401490150618

Program Name: Cheek Left

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.38$ mho/m; $\epsilon_r = 39.7$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(4.99, 4.99, 4.99); Calibrated: 15.02.2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 11.07.2006
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

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

Maximum value of SAR (measured) = 0.405 mW/g

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

Reference Value = 16.0 V/m; Power Drift = -0.025 dB

Peak SAR (extrapolated) = 0.658 W/kg

SAR(1 g) = 0.405 mW/g; SAR(10 g) = 0.233 mW/g

Maximum value of SAR (measured) = 0.447 mW/g

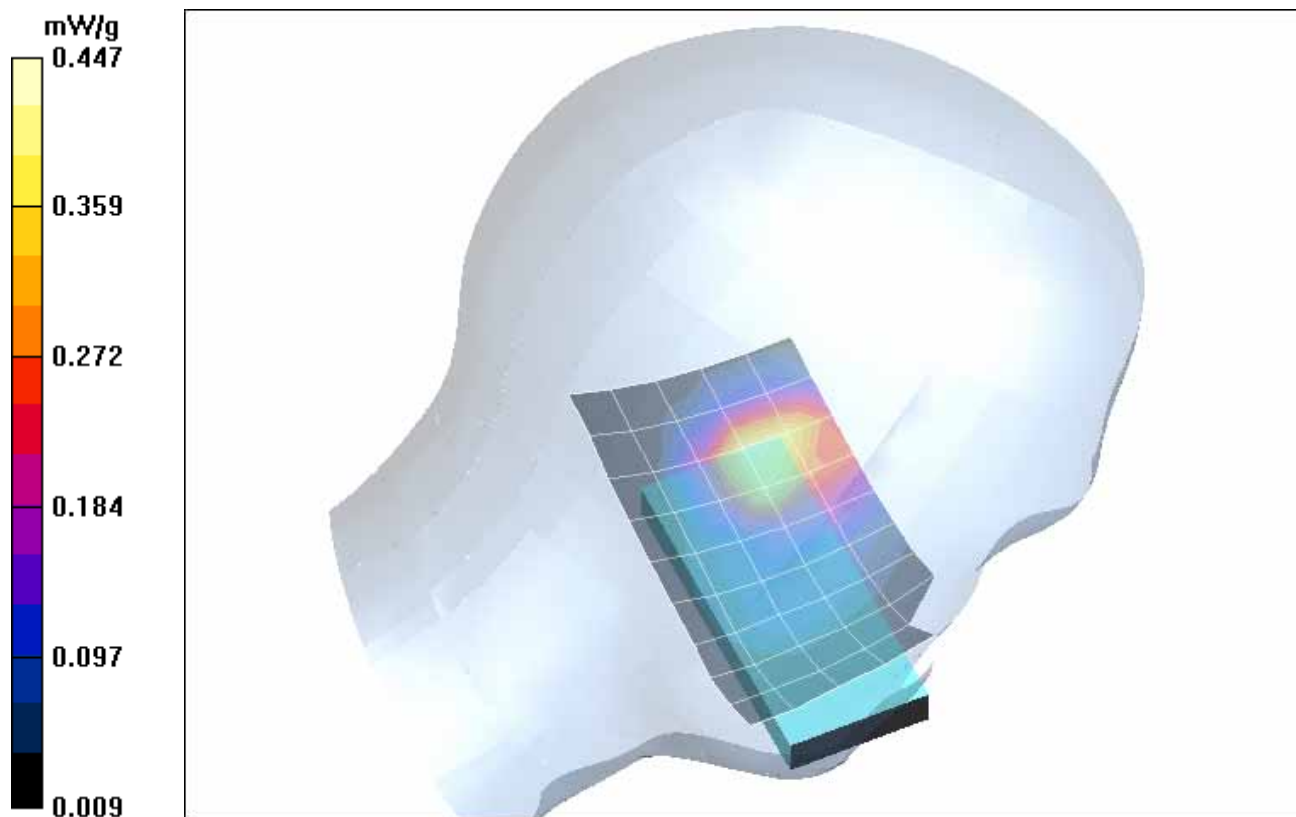


Fig. 14: SAR distribution for PCS 1900, channel 661, cheek position, left side of head (July 18, 2006; Ambient Temperature: 22.3°C; Liquid Temperature : 21.5° C)

3 SAR Distribution Plots, GSM 850 Body worn configuration

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [618yahm_5_ohne_20mm.da4](#)

DUT: BenQ Siemenes ; Type: E71A; Serial: 004401490150618

Program Name: Body Worn

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.99$ mho/m; $\epsilon_r = 55.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(6.33, 6.33, 6.33); Calibrated: 15.02.2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 11.07.2006
- Phantom: SAM Sugar 1341; Type: QD 000 P40 CB; Serial: TP-1341
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

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

Maximum value of SAR (measured) = 0.519 mW/g

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

Reference Value = 22.9 V/m; Power Drift = -0.077 dB

Peak SAR (extrapolated) = 0.695 W/kg

SAR(1 g) = 0.498 mW/g; SAR(10 g) = 0.352 mW/g

Maximum value of SAR (measured) = 0.528 mW/g

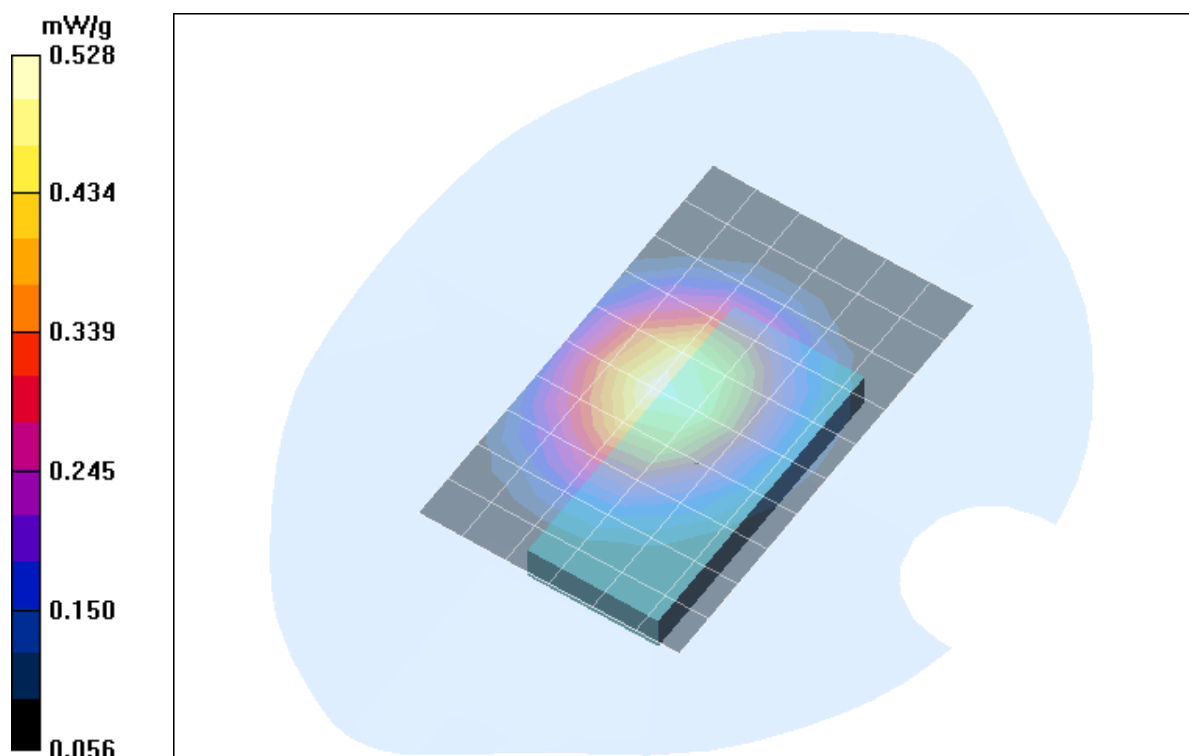


Fig. 15: SAR distribution for GSM 850, channel 190, body worn configuration, antenna towards the phantom, without accessory with 20 mm distance (July 19, 2006; Ambient Temperature: 22.0° C; Liquid Temperature: 21.3° C).

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [618yahm 6 headset 20mm.da4](#)

DUT: BenQ Siemenes ; Type: E71A; Serial: 004401490150618

Program Name: Body Worn

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.99$ mho/m; $\epsilon_r = 55.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(6.33, 6.33, 6.33); Calibrated: 15.02.2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 11.07.2006
- Phantom: SAM Sugar 1341; Type: QD 000 P40 CB; Serial: TP-1341
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

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

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

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

Reference Value = 22.4 V/m; Power Drift = 0.013 dB

Peak SAR (extrapolated) = 0.724 W/kg

SAR(1 g) = 0.484 mW/g; SAR(10 g) = 0.342 mW/g

Maximum value of SAR (measured) = 0.510 mW/g

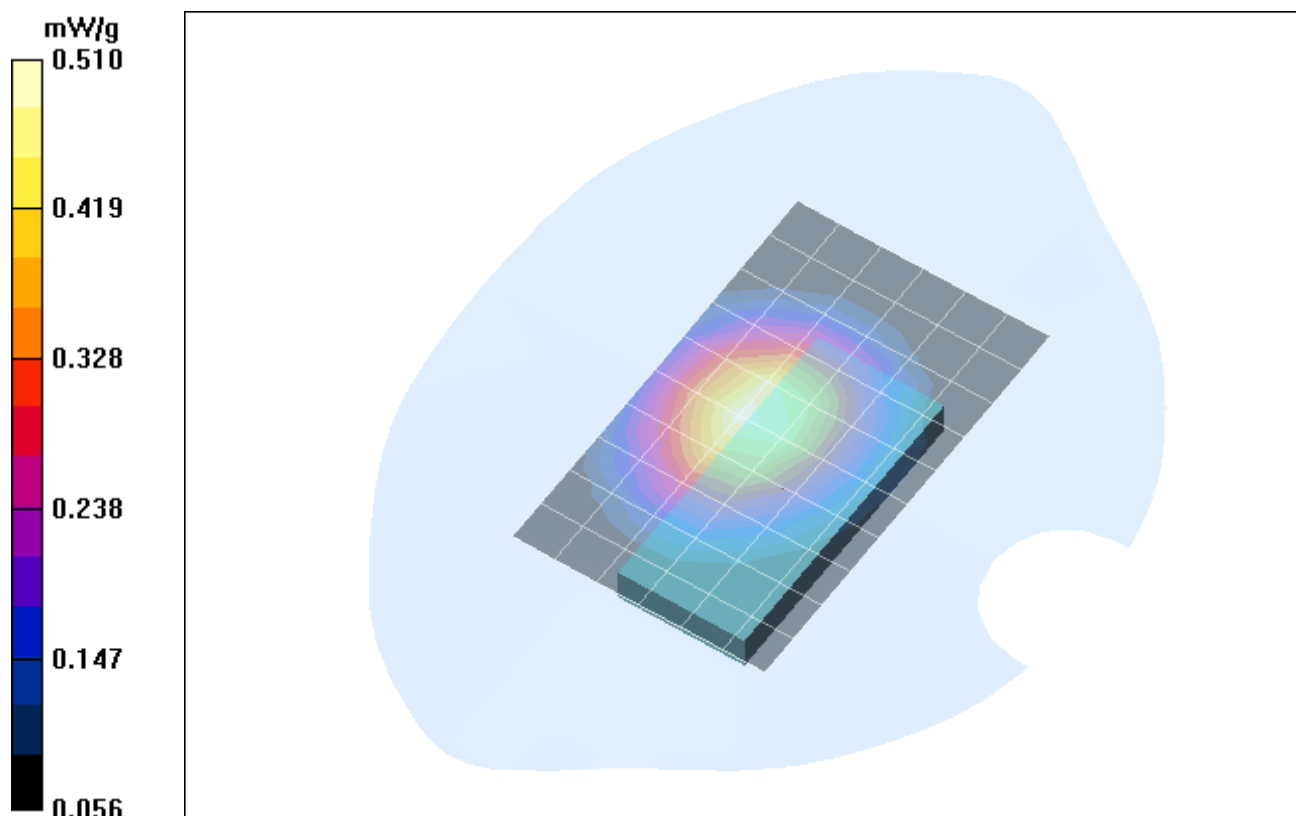


Fig. 16: SAR distribution for GSM 850, channel 190, body worn configuration, antenna towards the phantom, with headset, with 20 mm distance (July 19, 2006; Ambient Temperature: 22.0° C; Liquid Temperature: 21.3° C).

Test Laboratory: Imst GmbH, DASY Yellow (II); **File Name:** [618yahm 7 BT 20mm.da4](#)

DUT: BenQ Siemenes ; **Type:** E71A; **Serial:** 004401490150618

Program Name: Body Worn

Communication System: GSM 850; Frequency: 836.6 MHz; Duty Cycle: 1:8.3

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.99$ mho/m; $\epsilon_r = 55.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(6.33, 6.33, 6.33); Calibrated: 15.02.2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 11.07.2006
- Phantom: SAM Sugar 1341; Type: QD 000 P40 CB; Serial: TP-1341
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

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

Maximum value of SAR (measured) = 0.520 mW/g

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

Reference Value = 23.0 V/m; Power Drift = 0.016 dB

Peak SAR (extrapolated) = 0.668 W/kg

SAR(1 g) = 0.505 mW/g; SAR(10 g) = 0.358 mW/g

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

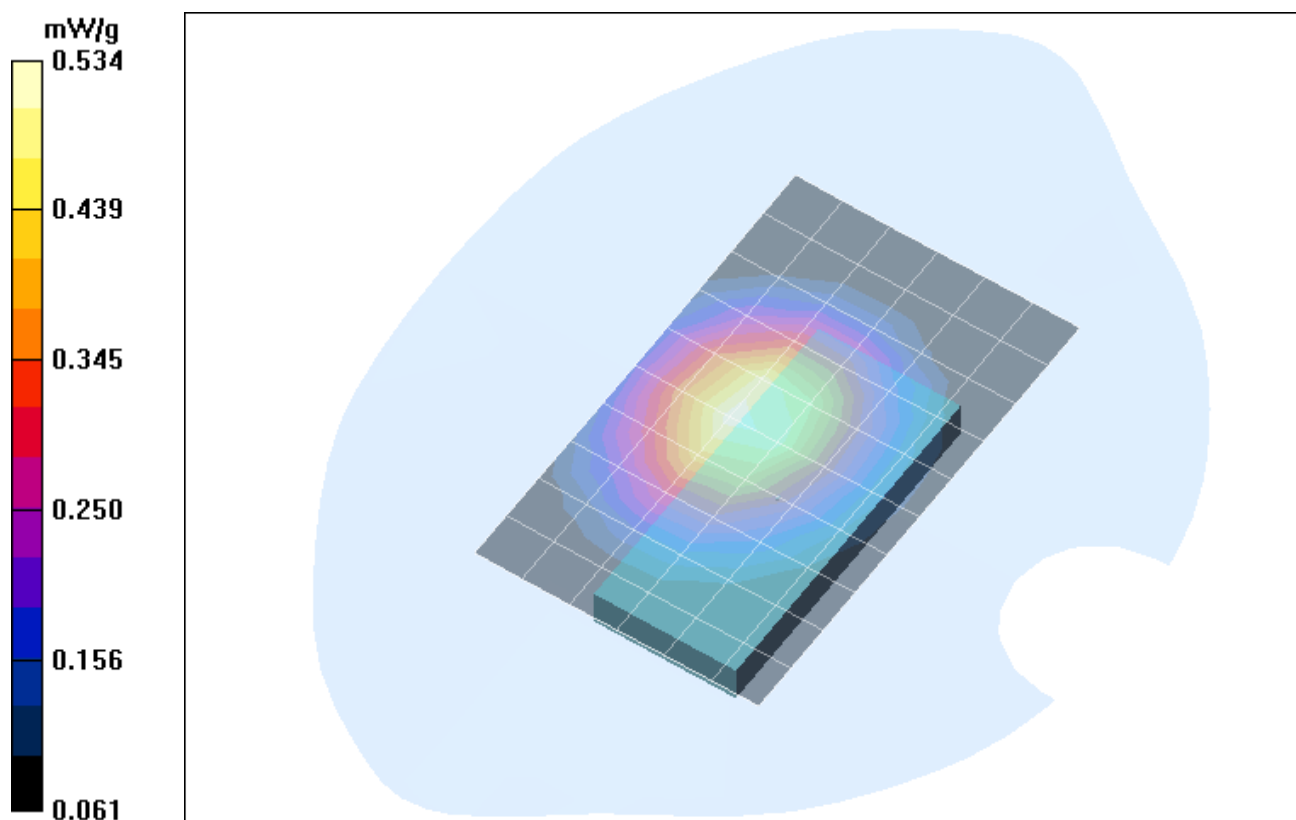


Fig. 17: SAR distribution for GSM 850, channel 190, body worn configuration, antenna towards the phantom, without accessory, Bluetooth activated, with 20 mm distance (July 19, 2006; Ambient Temperature: 22.0° C; Liquid Temperature: 21.3° C).

Test Laboratory: Imst GmbH, DASY Yellow (II); **File Name:** [618yahm 8 data 20mm.da4](#)

DUT: BenQ Siemenes ; **Type:** E71A; **Serial:** 004401490150618

Program Name: Body Worn

Communication System: GPRS 850; Frequency: 836.6 MHz; Duty Cycle: 1:4

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.99$ mho/m; $\epsilon_r = 55.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(6.33, 6.33, 6.33); Calibrated: 15.02.2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 11.07.2006
- Phantom: SAM Sugar 1341; Type: QD 000 P40 CB; Serial: TP-1341
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

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

Maximum value of SAR (measured) = 0.533 mW/g

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

Reference Value = 23.4 V/m; Power Drift = -0.193 dB

Peak SAR (extrapolated) = 0.702 W/kg

SAR(1 g) = 0.519 mW/g; SAR(10 g) = 0.365 mW/g

Maximum value of SAR (measured) = 0.551 mW/g

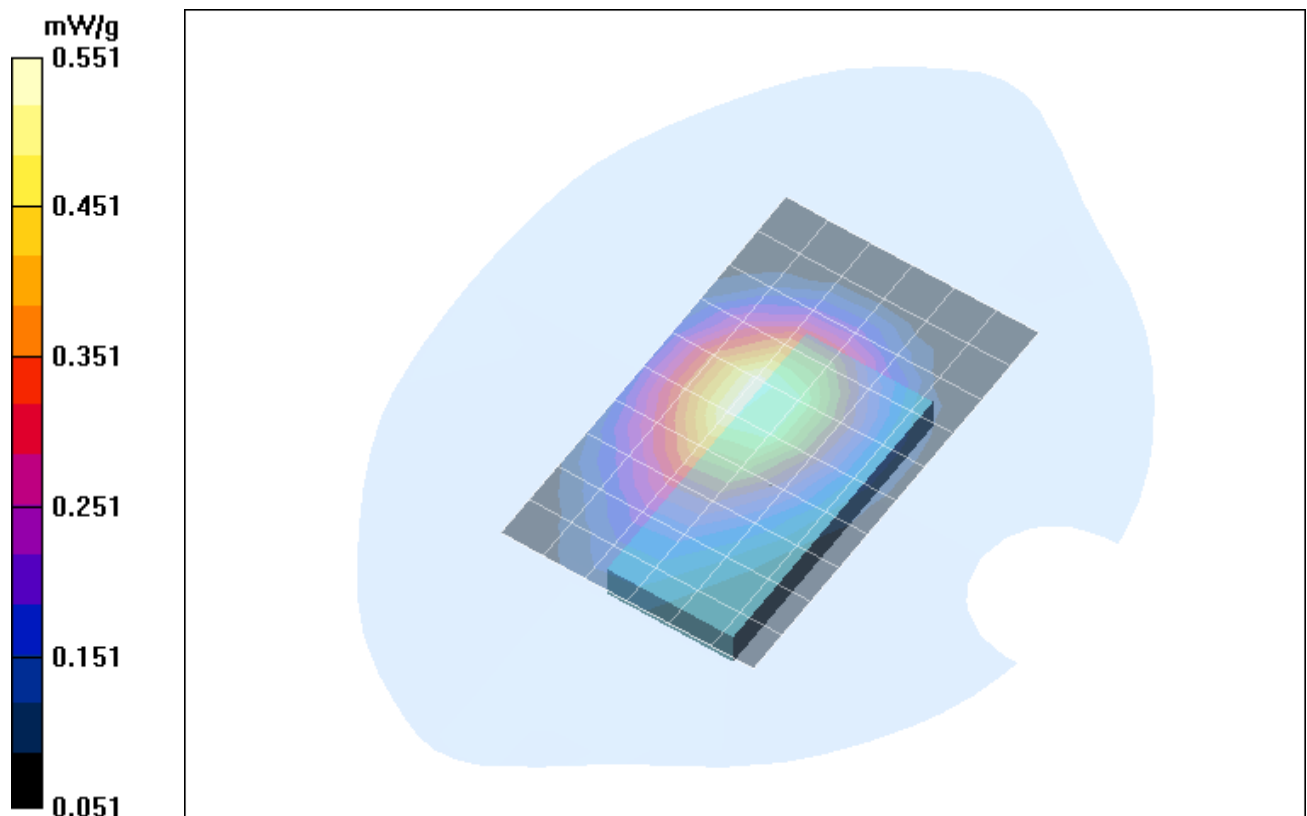


Fig. 18: SAR distribution for GPRS 850, channel 190, body worn configuration, antenna towards the phantom, with data cable, with 20 mm distance (July 19, 2006; Ambient Temperature: 22.0° C; Liquid Temperature: 21.3° C).

4 SAR Distribution Plots, PCS 1900 Body worn configuration

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [618bphm_5_ohne_20mm.da4](#)

DUT: BenQ Siemenes ; Type: E71A; Serial: 004401490150618

Program Name: Body Worn

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 52$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.84, 7.84, 7.84); Calibrated: 23.09.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.03.2006
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

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

Maximum value of SAR (measured) = 0.268 mW/g

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

Reference Value = 8.55 V/m; Power Drift = 0.045 dB

Peak SAR (extrapolated) = 0.430 W/kg

SAR(1 g) = 0.265 mW/g; SAR(10 g) = 0.157 mW/g

Maximum value of SAR (measured) = 0.291 mW/g

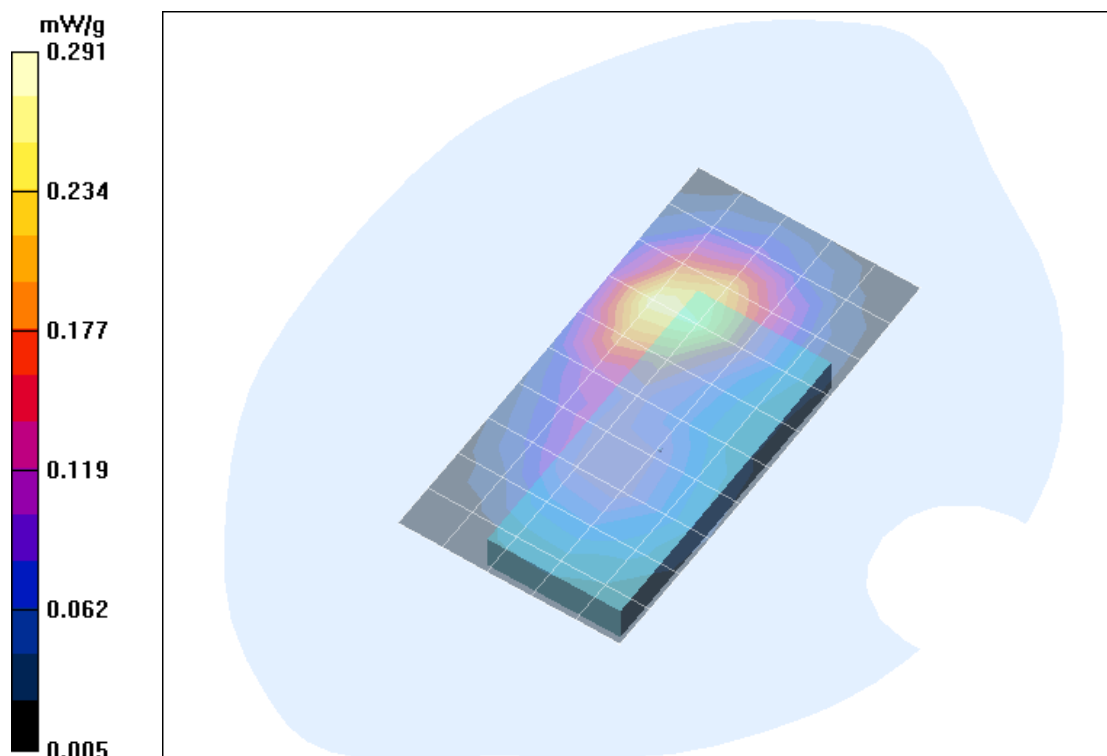


Fig. 19: SAR distribution for PCS 1900, channel 661, body worn configuration, antenna towards the phantom, without accessory, with 20 mm distance (July 21, 2006; Ambient Temperature: 22.1° C; Liquid Temperature: 21.4° C).

Test Laboratory: IMST GmbH, DASY Blue (I); **File Name:** [618bphm 6 headset 20mm.da4](#)

DUT: BenQ Siemenes ; **Type:** E71A; **Serial:** 004401490150618

Program Name: Body Worn

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 52$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.84, 7.84, 7.84); Calibrated: 23.09.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.03.2006
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

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

Maximum value of SAR (measured) = 0.268 mW/g

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

Reference Value = 8.16 V/m; Power Drift = -0.002 dB

Peak SAR (extrapolated) = 0.445 W/kg

SAR(1 g) = 0.272 mW/g; SAR(10 g) = 0.160 mW/g

Maximum value of SAR (measured) = 0.295 mW/g

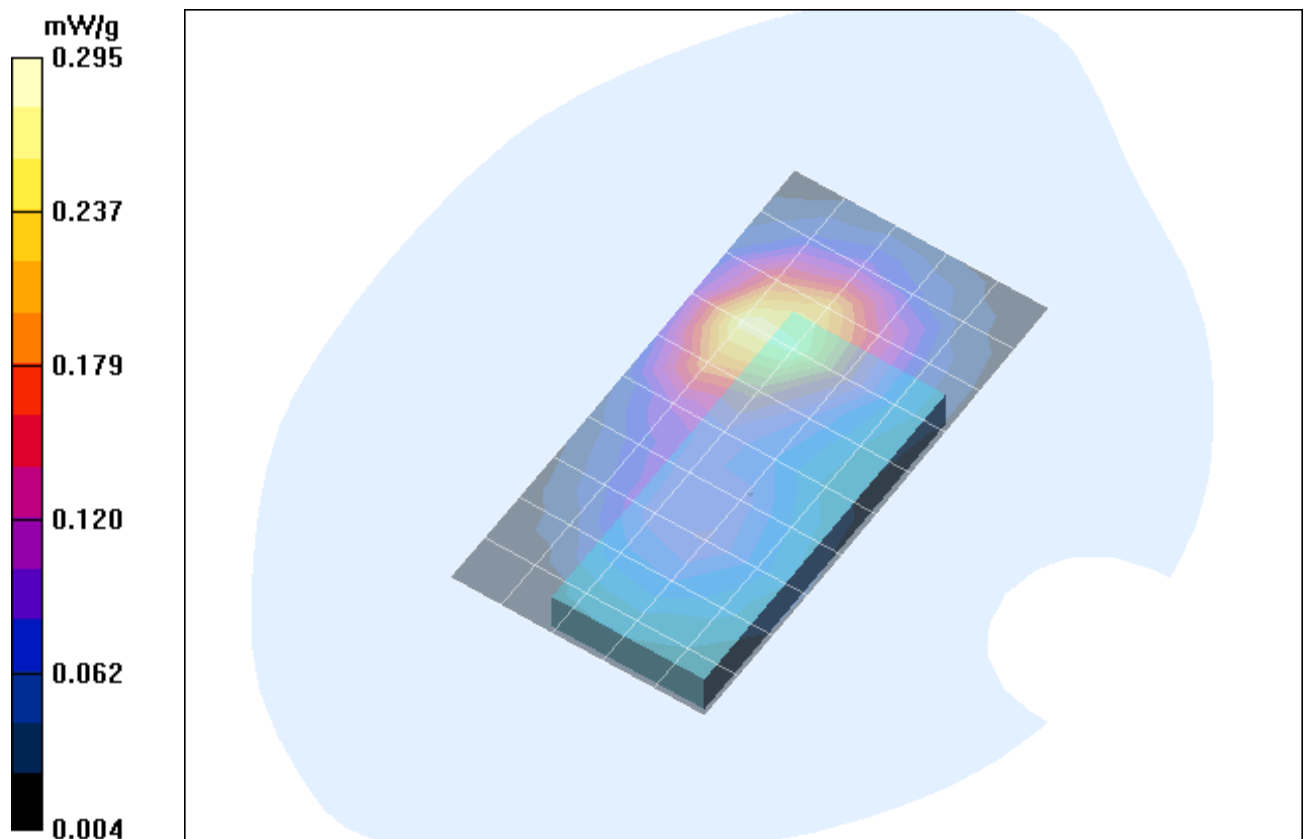


Fig. 20: SAR distribution for PCS 1900, channel 661, body worn configuration, antenna towards the phantom, with headset, with 20 mm distance (July 21, 2006; Ambient Temperature: 22.1° C; Liquid Temperature: 21.4° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [618bphm 7 BT 20mm.da4](#)

DUT: BenQ Siemenes ; Type: E71A; Serial: 004401490150618

Program Name: Body Worn

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 52$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.84, 7.84, 7.84); Calibrated: 23.09.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.03.2006
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

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

Maximum value of SAR (measured) = 0.247 mW/g

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

Reference Value = 8.83 V/m; Power Drift = 0.031 dB

Peak SAR (extrapolated) = 0.400 W/kg

SAR(1 g) = 0.247 mW/g; SAR(10 g) = 0.146 mW/g

Maximum value of SAR (measured) = 0.269 mW/g

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

Reference Value = 8.83 V/m; Power Drift = 0.031 dB

Peak SAR (extrapolated) = 0.218 W/kg

SAR(1 g) = 0.140 mW/g; SAR(10 g) = 0.087 mW/g

Maximum value of SAR (measured) = 0.151 mW/g

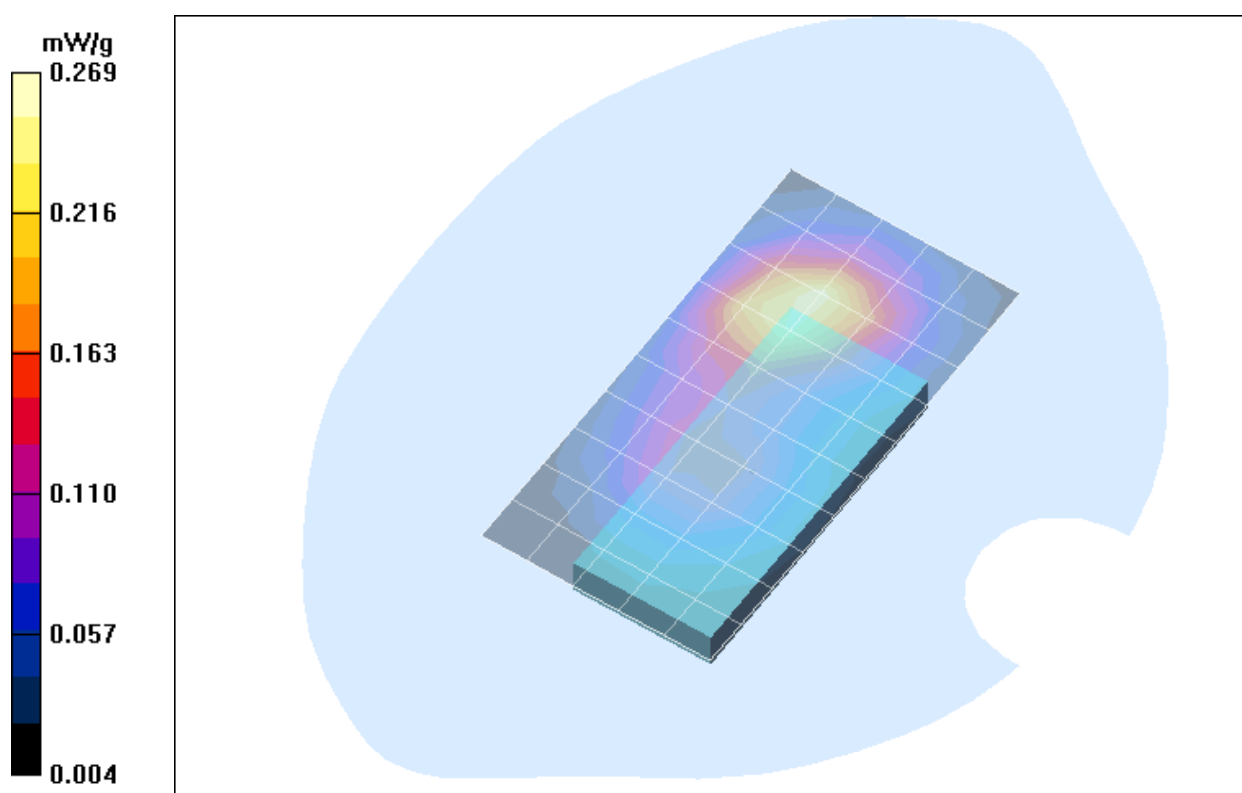


Fig. 21: SAR distribution for PCS 1900, channel 661, body worn configuration, antenna towards the phantom, without accessory, Bluetooth activated, with 20 mm distance (July 21, 2006; Ambient Temperature: 22.1° C; Liquid Temperature: 21.4° C).

Test Laboratory: IMST GmbH, DASY Blue (I); **File Name:** [618bphm 8 data 20mm.da4](#)

DUT: BenQ Siemenes ; **Type:** E71A; **Serial:** 004401490150618

Program Name: Body Worn

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.54$ mho/m; $\epsilon_r = 52$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.84, 7.84, 7.84); Calibrated: 23.09.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.03.2006
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

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

Maximum value of SAR (measured) = 0.467 mW/g

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

Reference Value = 11.5 V/m; Power Drift = 0.024 dB

Peak SAR (extrapolated) = 0.797 W/kg

SAR(1 g) = 0.491 mW/g; SAR(10 g) = 0.293 mW/g

Maximum value of SAR (measured) = 0.533 mW/g

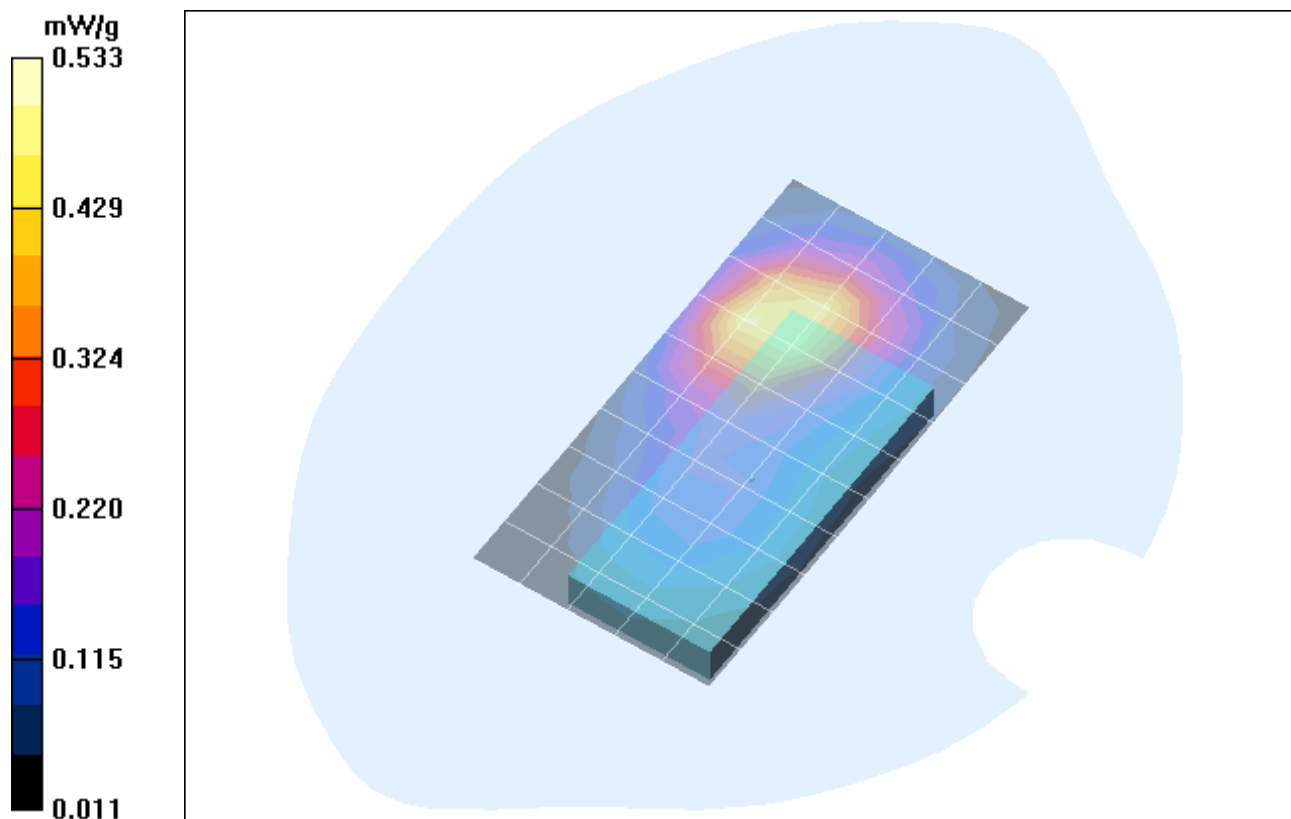


Fig. 22: SAR distribution for PCS 1900, channel 661, body worn configuration, antenna towards the phantom, with data cable, with 20 mm distance (July 21, 2006; Ambient Temperature: 22.1° C; Liquid Temperature: 21.4° C).

5 SAR z-axis scans (Validation)

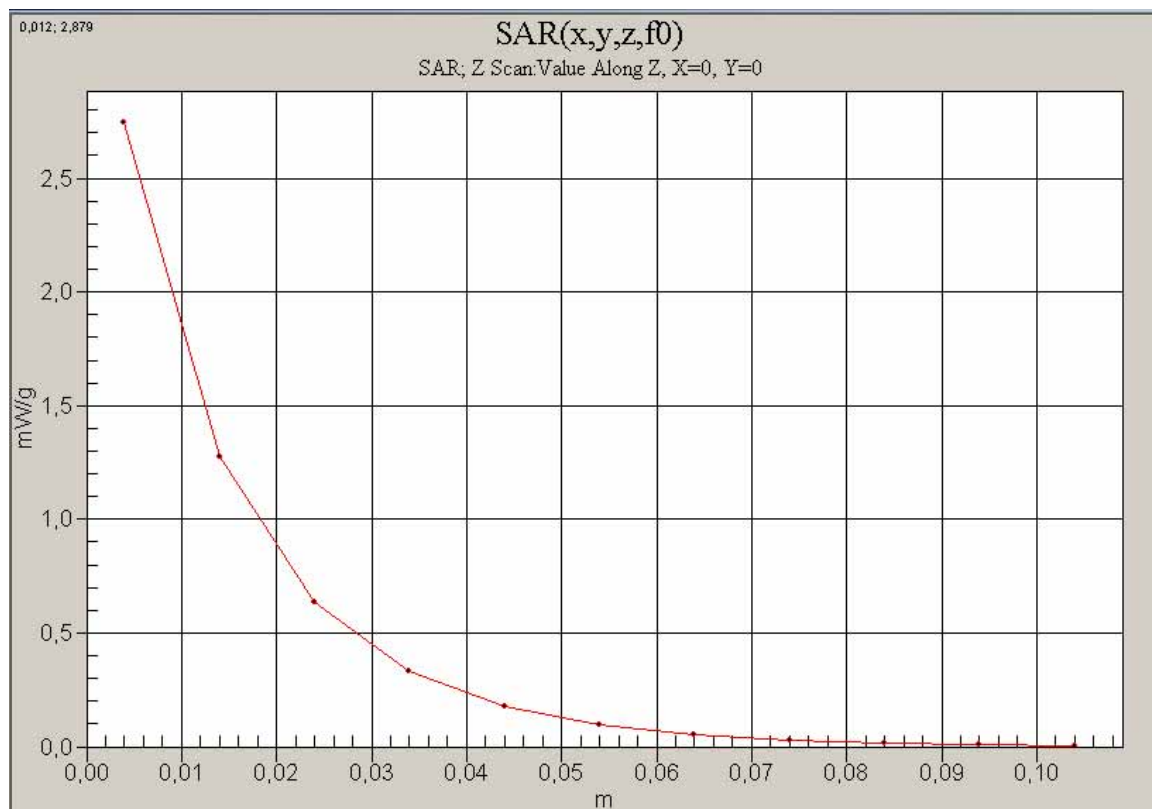


Fig. 23: SAR versus liquid depth, 835 MHz, head (July 18, 2006; Ambient Temperature: 22.2° C; Liquid Temperature : 21.5° C).

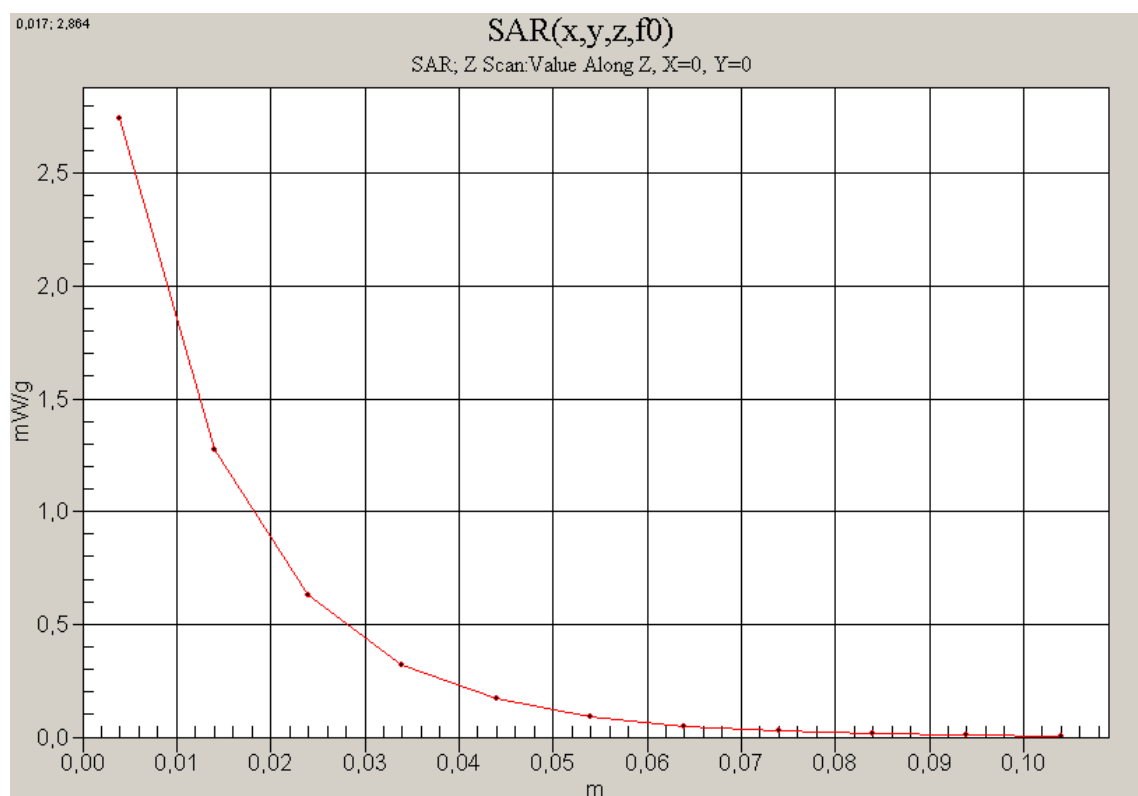


Fig. 24: SAR versus liquid depth, 835 MHz, body (July 19, 2006; Ambient Temperature: 22.2° C; Liquid Temperature : 21.3° C).

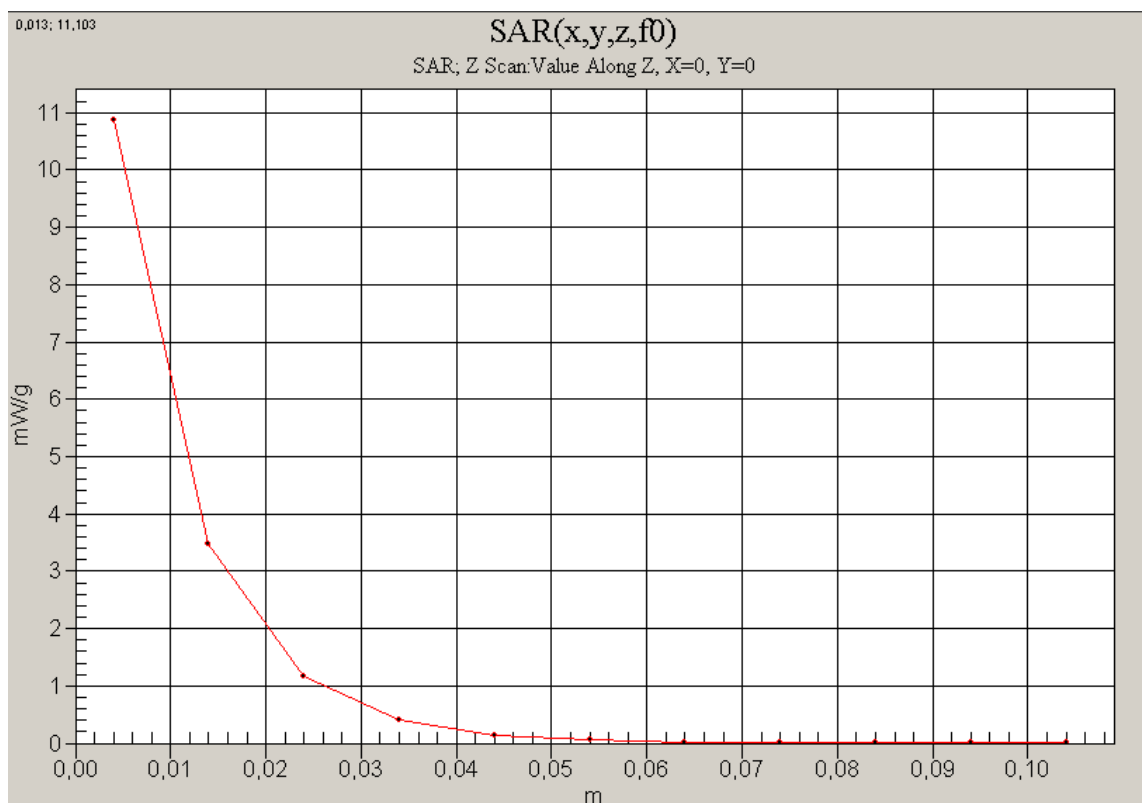


Fig. 25: SAR versus liquid depth, 1900 MHz, head (July 18, 2006; Ambient Temperature: 22.1° C; Liquid Temperature: 21.3° C).

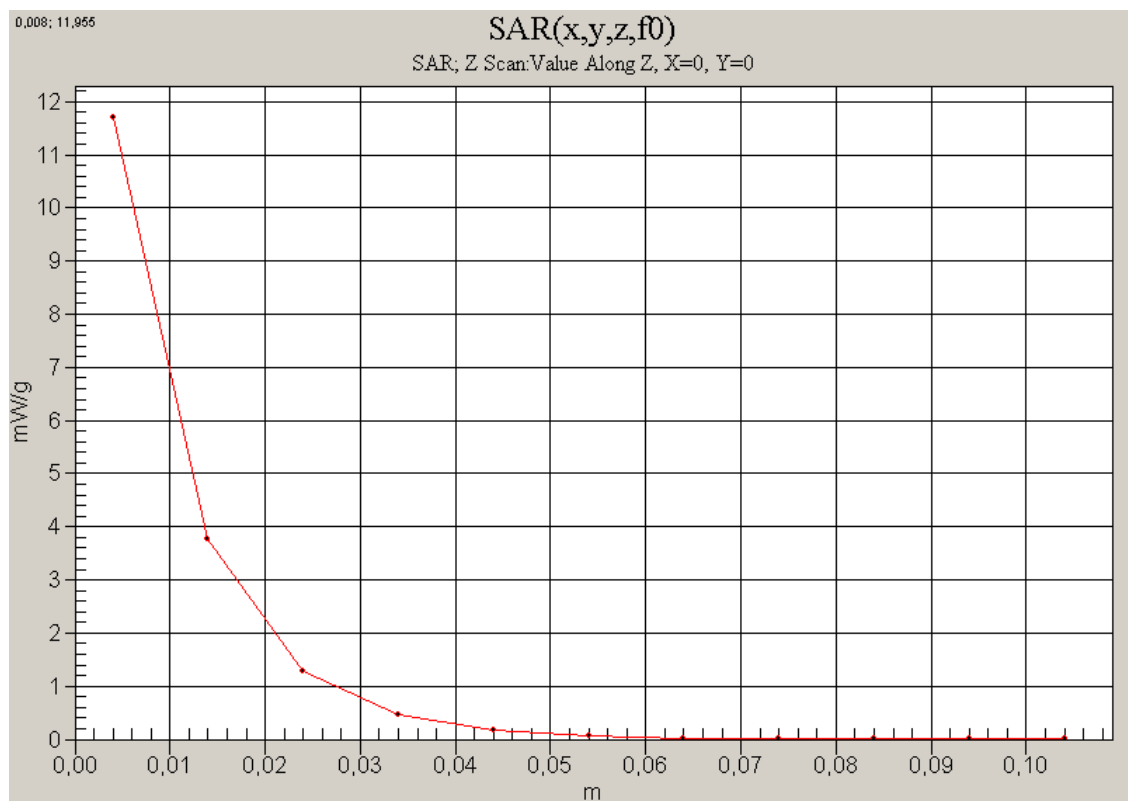


Fig. 26: SAR versus liquid depth, 1900 MHz, body (July 21, 2006; Ambient Temperature: 22.0° C; Liquid Temperature: 21.3° C).

6 SAR z-axis scans (Measurements)

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

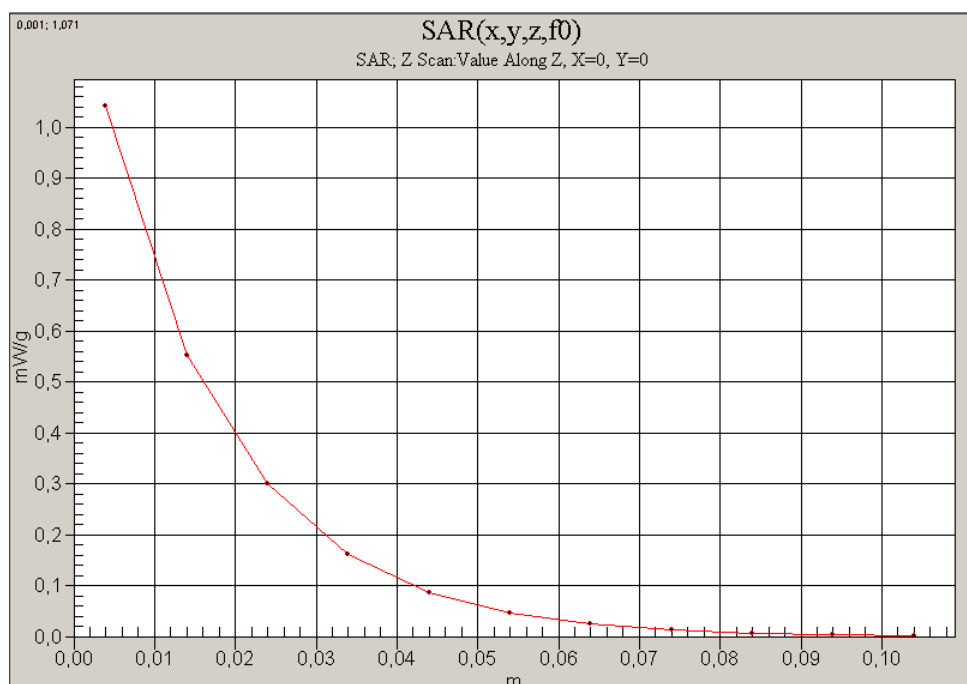


Fig. 27: SAR versus liquid depth, head: GSM 850, channel 251, cheek position, left side of head (July 18, 2006; Ambient Temperature: 22.1° C; Liquid Temperature: 21.4° C).

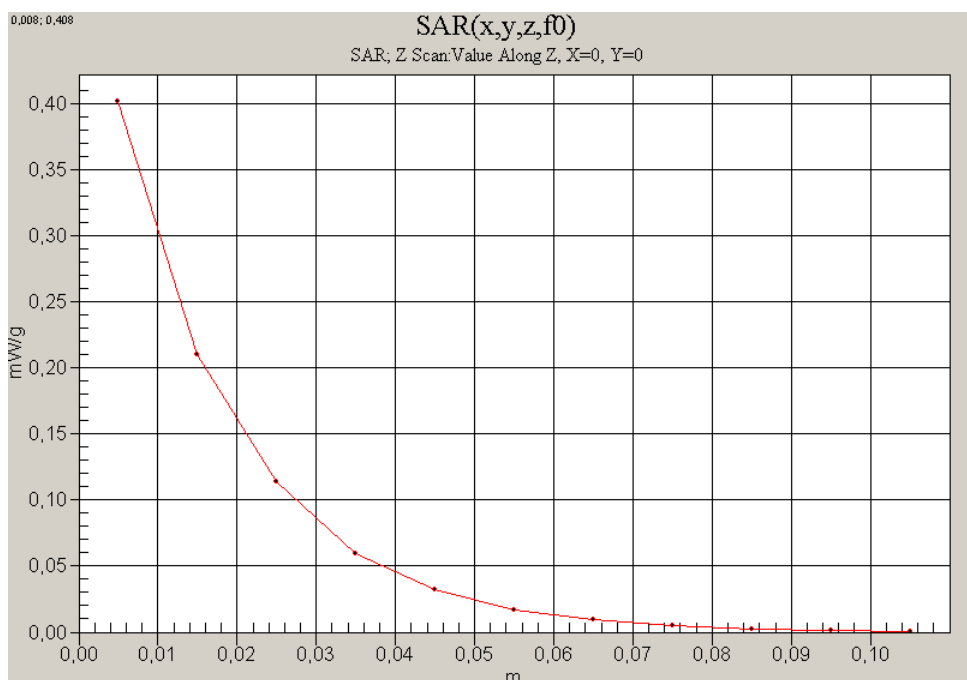


Fig. 28: SAR versus liquid depth, body: GPRS 850, channel 190, data cable, with 20 mm distance (July 19, 2006; Ambient Temperature: 22.0° C; Liquid Temperature: 21.3° C).

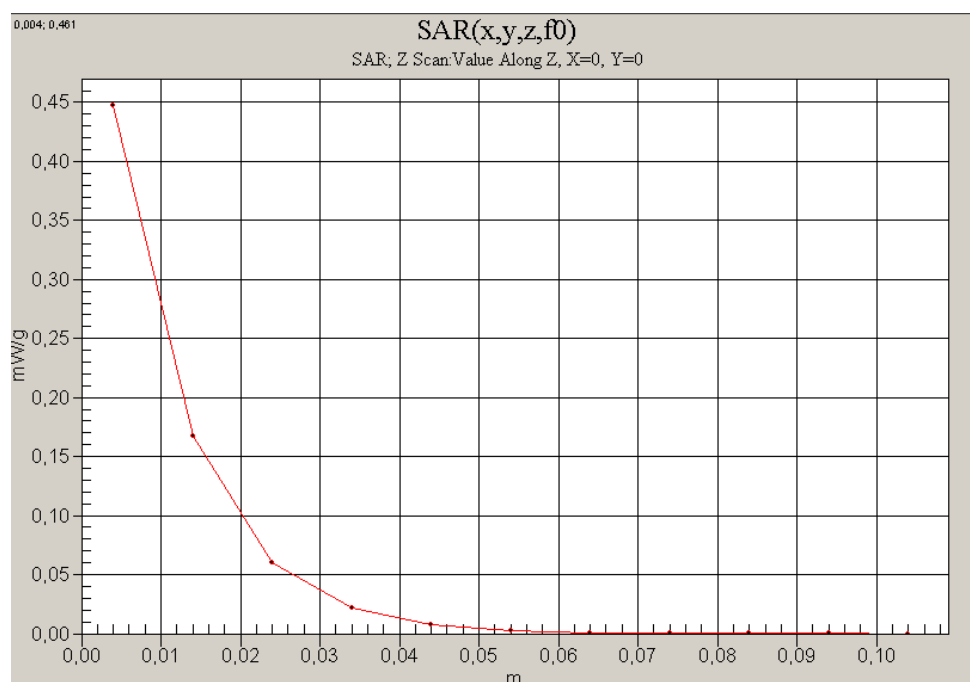


Fig. 29: SAR versus liquid depth, head: PCS 1900, channel 661, cheek position, left side of head, BT activated (July 18, 2006; Ambient Temperature: 22.3° C; Liquid Temperature : 21.5° C).

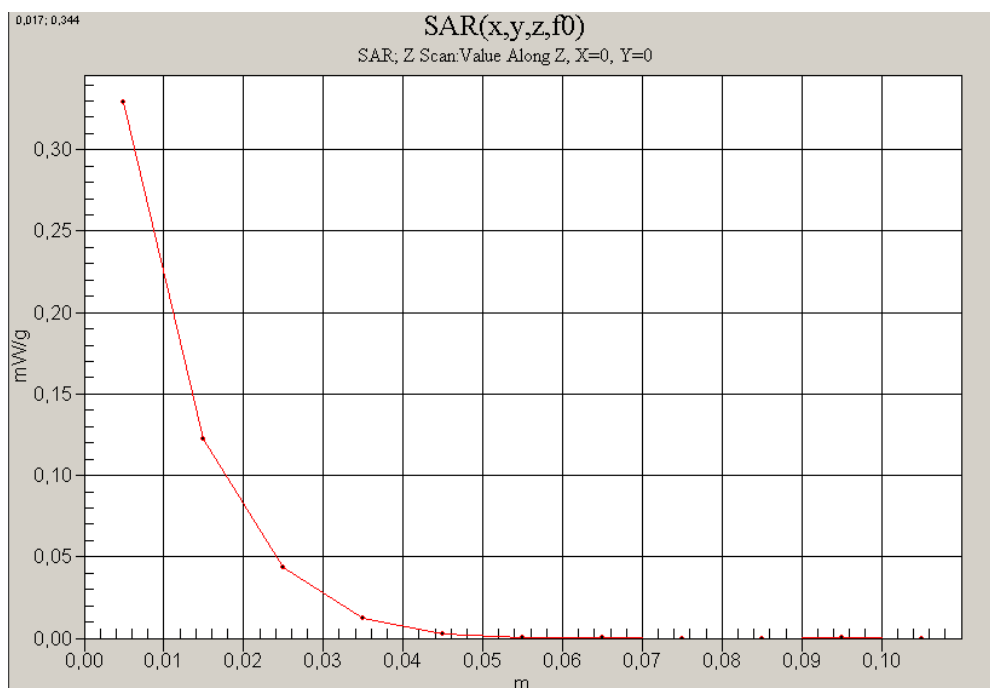


Fig. 30: SAR versus liquid depth, body: PCS 1900, channel 661, data cable, with 20 mm distance (July 21, 2006; Ambient Temperature: 22.1° C; Liquid Temperature: 21.4° C).