



DAT-P-152/98-01



Appendix for the Report

Dosimetric Assessment of the Option Globetrotter Fusion+ Card (FCC ID: NCMOGLHW-E) tested in three host products

According to the FCC Requirements

SAR Distribution Plots

September 26, 2005

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The test results only relate to the items tested.

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1 SAR Distribution Plots, GPRS 850 (Class 10) Body

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name: [GTyhm_1_fcc.da4](#)

DUT: Option; Type: GlobeTrotter; Serial: 004400015852005

Program Name: Unnamed Program

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

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.94$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³

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 1341; Type: QD 000 P40 CB; Serial: TP-1341
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (measured) = 0.118 mW/g

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

Reference Value = 11.2 V/m; Power Drift = 0.052 dB

Peak SAR (extrapolated) = 0.190 W/kg

SAR(1 g) = 0.127 mW/g; SAR(10 g) = 0.085 mW/g

Maximum value of SAR (measured) = 0.138 mW/g

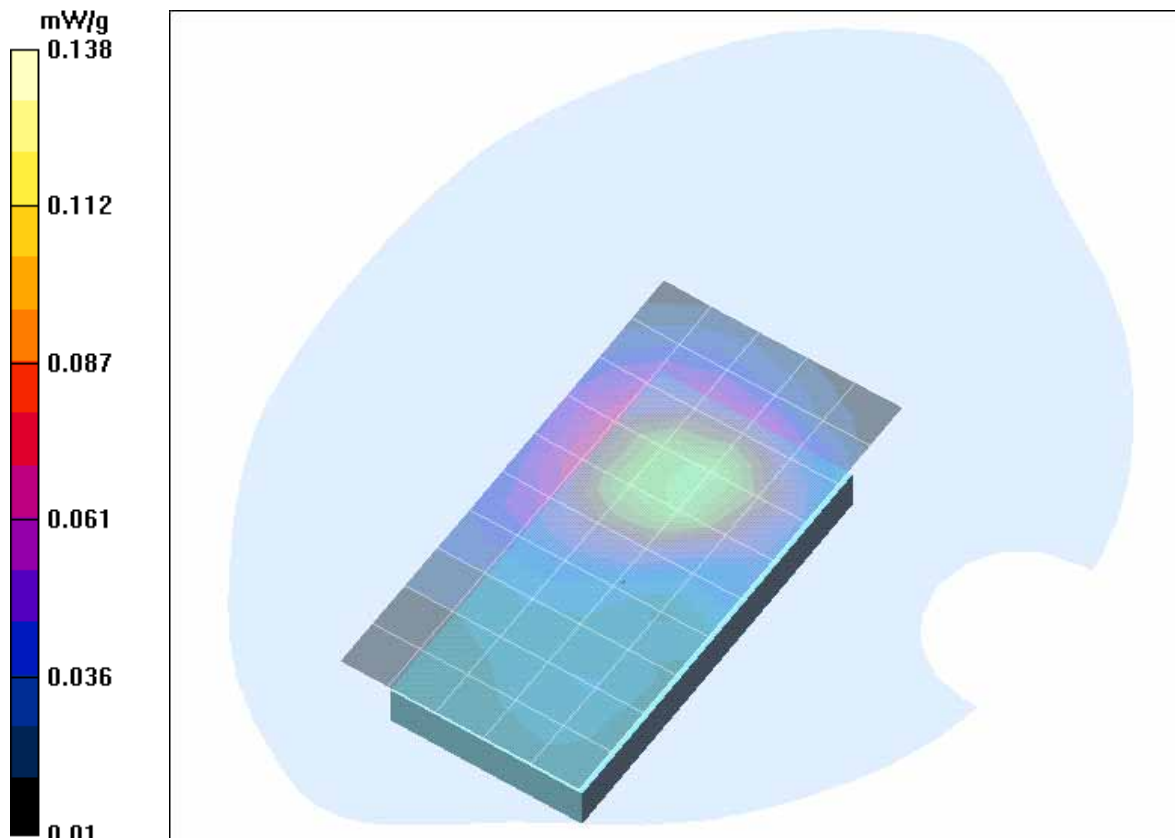


Fig. 1: SAR distribution for GPRS 850, channel 190, DELL Latitude C810, position 1. (19.09.2005; Ambient Temperature: 21.1° C; Liquid Temperature: 20.4° C).

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name: [GTyhm 2 fcc.da4](#)

DUT: Option; Type: GlobeTrotter; Serial: 004400015852005

Program Name: Unnamed Program

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

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.94$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³

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 1341; Type: QD 000 P40 CB; Serial: TP-1341

- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (measured) = 0.301 mW/g

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

Reference Value = 15.6 V/m; Power Drift = -0.032 dB

Peak SAR (extrapolated) = 0.419 W/kg

SAR(1 g) = 0.285 mW/g; SAR(10 g) = 0.202 mW/g

Maximum value of SAR (measured) = 0.304 mW/g

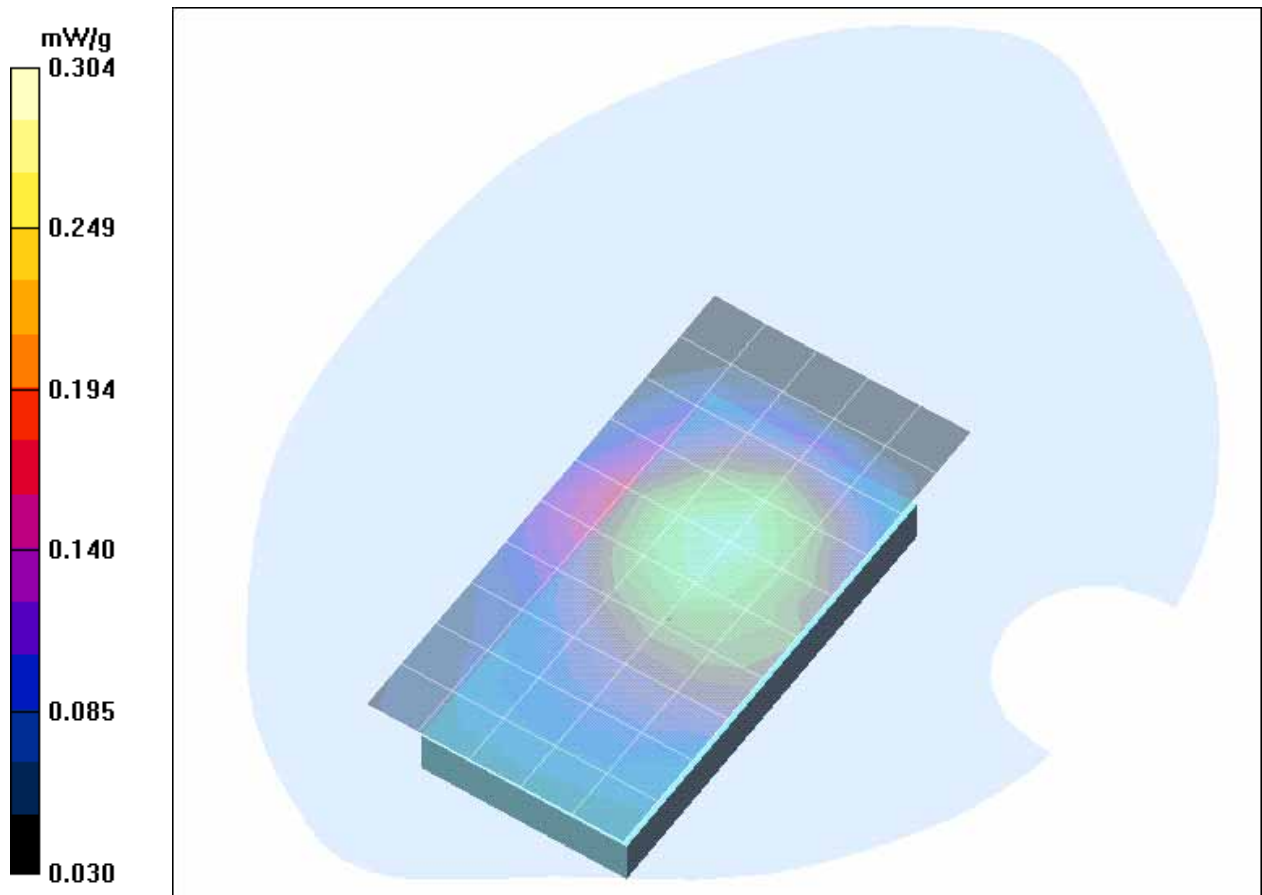


Fig. 2: SAR distribution for GPRS 850, channel 190, DELL Latitude C810, position 2. (19.09.2005; Ambient Temperature: 21.1° C; Liquid Temperature: 20.4° C).

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name: [GTyhm 5 fcc.da4](#)

DUT: Option; Type: GlobeTrotter; Serial: 004400015852005

Program Name: Unnamed Program

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

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.94$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³

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 1341; Type: QD 000 P40 CB; Serial: TP-1341

- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Unnamed procedure/Area Scan (7x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.039 mW/g

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

Reference Value = 6.40 V/m; Power Drift = 0.081 dB

Peak SAR (extrapolated) = 0.063 W/kg

SAR(1 g) = 0.040 mW/g; SAR(10 g) = 0.026 mW/g

Maximum value of SAR (measured) = 0.045 mW/g

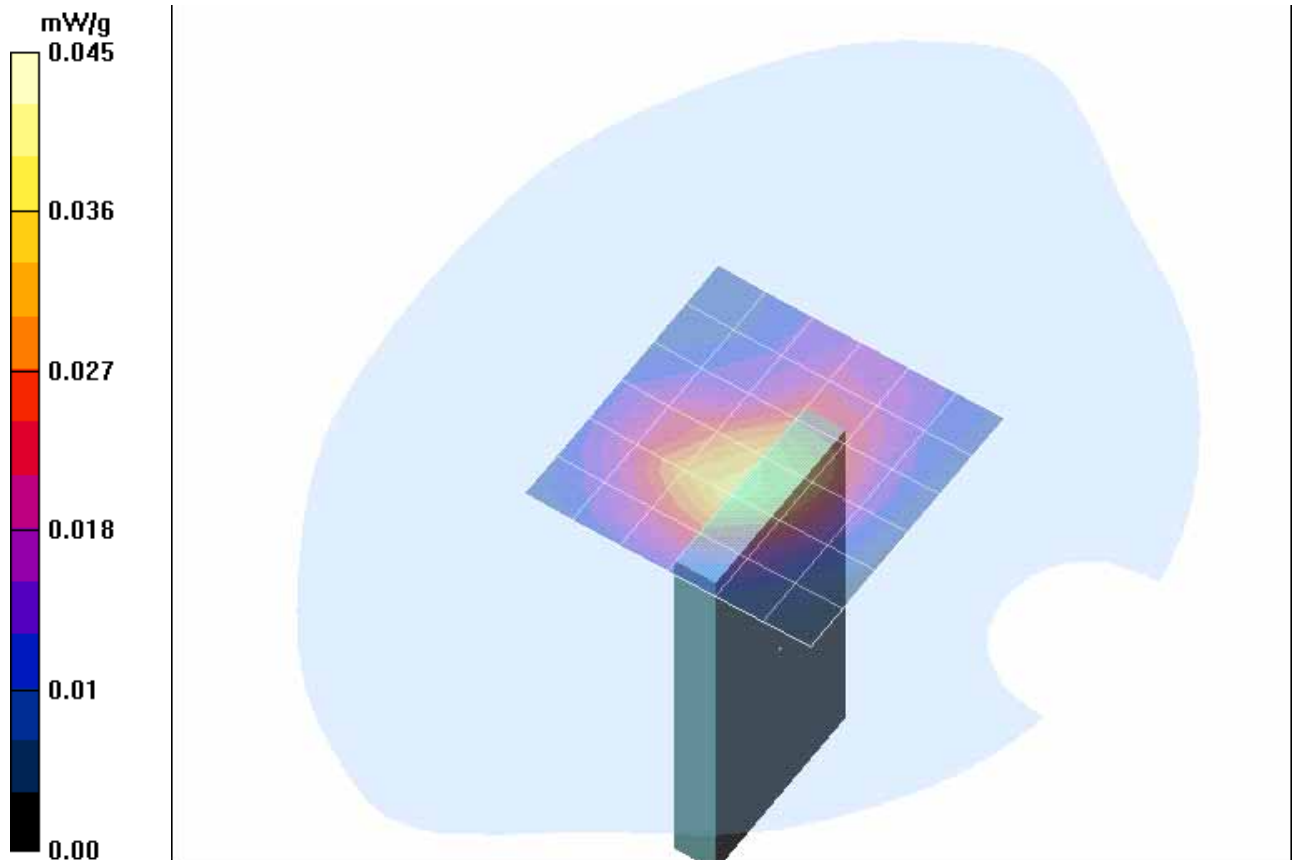


Fig. 3: SAR distribution for GPRS 850, channel 190, DELL Latitude C810, position 3. (19.09.2005; Ambient Temperature: 21.1° C; Liquid Temperature: 20.4° C).

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name: [GTyahm_1_fcc.da4](#)

DUT: Option; Type: GlobeTrotter; Serial: 004400015852005

Program Name: Unnamed Program

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

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.94$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³

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 1341; Type: QD 000 P40 CB; Serial: TP-1341
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (measured) = 0.781 mW/g

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

Reference Value = 24.4 V/m; Power Drift = 0.121 dB

Peak SAR (extrapolated) = 1.06 W/kg

SAR(1 g) = 0.775 mW/g; SAR(10 g) = 0.532 mW/g

Maximum value of SAR (measured) = 0.834 mW/g

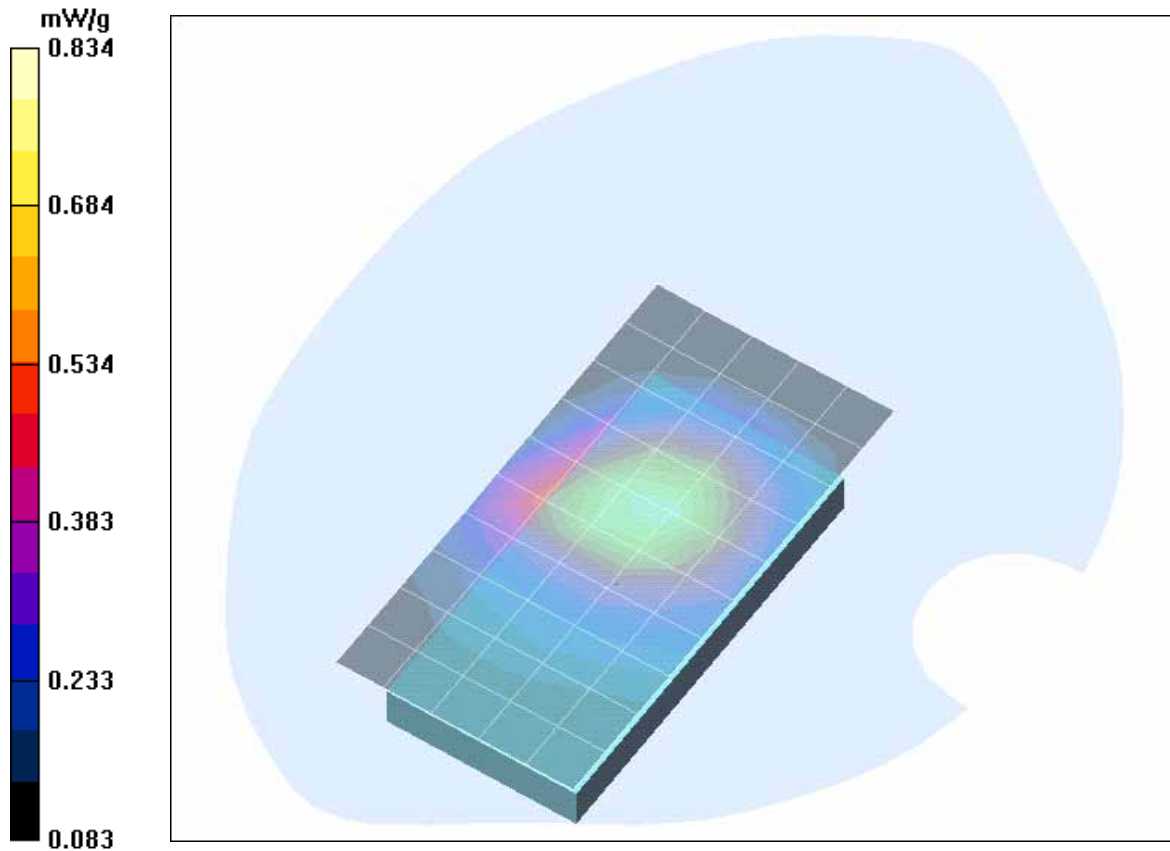


Fig. 4: SAR distribution for GPRS 850, channel 190, HP Omnibook XE2, position 1. (19.09.2005; Ambient Temperature: 21.2° C; Liquid Temperature: 20.5° C).

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name: [GTyahn 2 fcc wdh.da4](#)

DUT: Option; Type: GlobeTrotter; Serial: 004400015852005

Program Name: Unnamed Program

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

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.94$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³

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 1341; Type: QD 000 P40 CB; Serial: TP-1341
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

Maximum value of SAR (measured) = 0.443 mW/g

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

Reference Value = 15.0 V/m; Power Drift = -0.124 dB

Peak SAR (extrapolated) = 0.574 W/kg

SAR(1 g) = 0.428 mW/g; SAR(10 g) = 0.313 mW/g

Maximum value of SAR (measured) = 0.455 mW/g

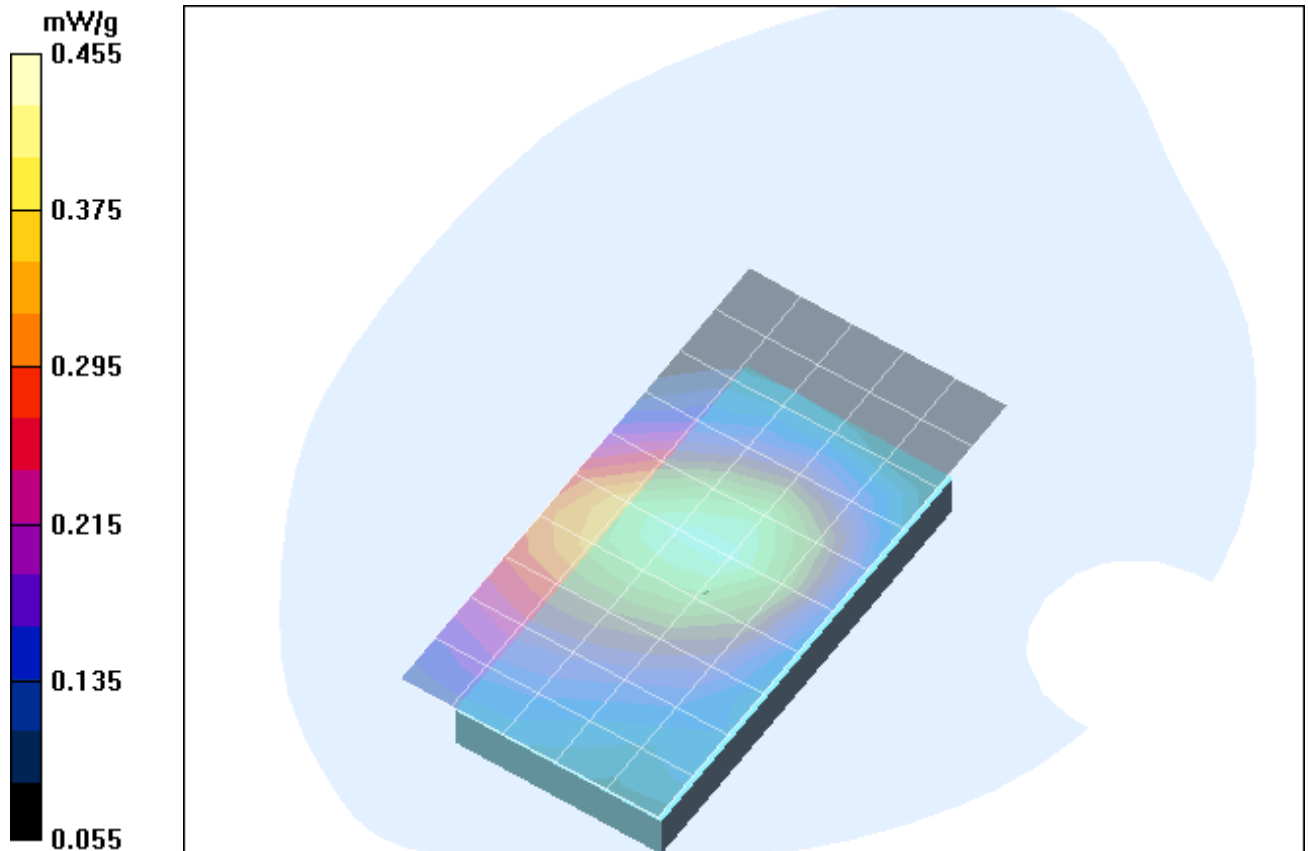


Fig. 5: SAR distribution for GPRS 850, channel 190, HP Omnibook XE2, position 2. (19.09.2005; Ambient Temperature: 21.2° C; Liquid Temperature: 20.5° C).

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name: [GTyhm 5 fcc.da4](#)

DUT: Option; Type: GlobeTrotter; Serial: 004400015852005

Program Name: Unnamed Program

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

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.94$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³

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 1341; Type: QD 000 P40 CB; Serial: TP-1341

- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Unnamed procedure/Area Scan (7x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.060 mW/g

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

Reference Value = 7.76 V/m; Power Drift = -0.173 dB

Peak SAR (extrapolated) = 0.096 W/kg

SAR(1 g) = 0.055 mW/g; SAR(10 g) = 0.038 mW/g

Maximum value of SAR (measured) = 0.059 mW/g

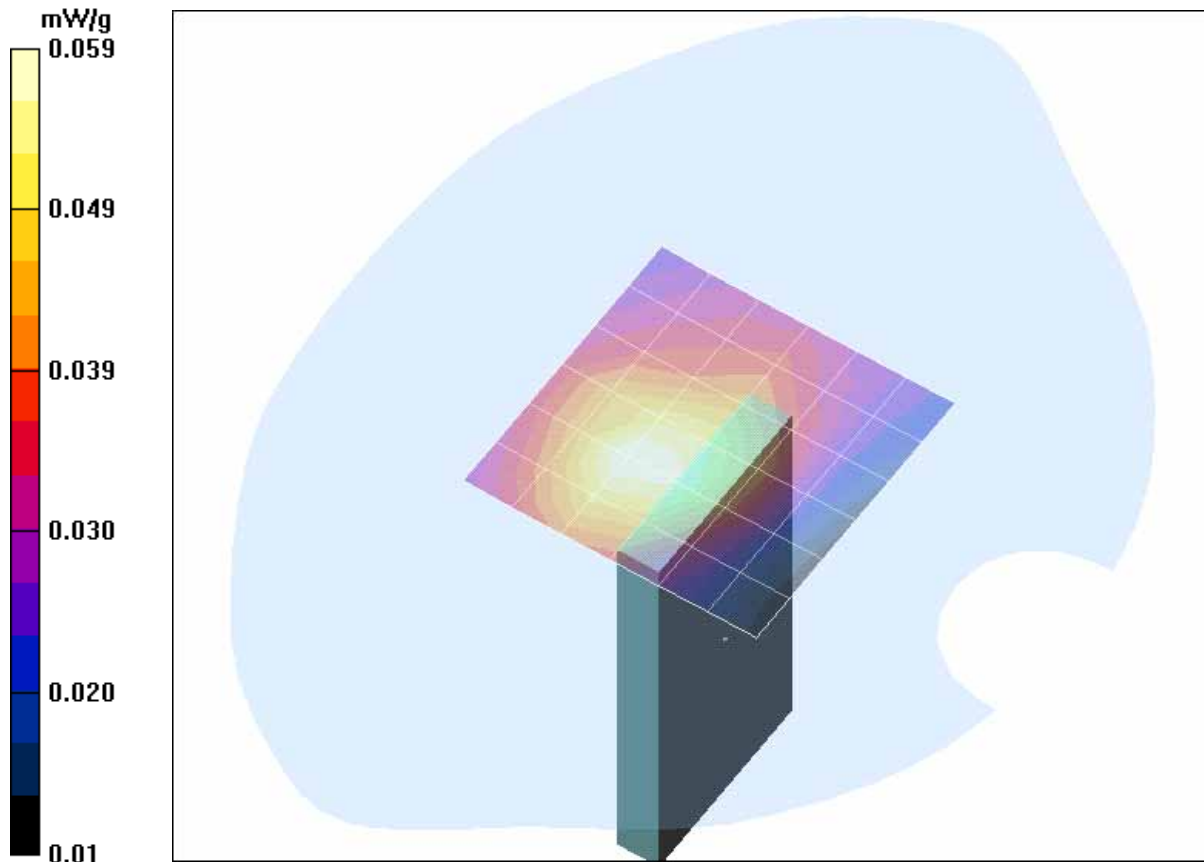


Fig. 6: SAR distribution for GPRS 850, channel 190, HP Omnibook XE2, position 3 (19.09.2005; Ambient Temperature: 21.2° C; Liquid Temperature: 20.5° C).

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name: [GTyahn 1 fcc.da4](#)

DUT: Option; Type: GlobeTrotter; Serial: 004400015852005

Program Name: Unnamed Program

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

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.94$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³

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 1341; Type: QD 000 P40 CB; Serial: TP-1341

- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

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

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

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

Reference Value = 20.3 V/m; Power Drift = 0.007 dB

Peak SAR (extrapolated) = 0.791 W/kg

SAR(1 g) = 0.503 mW/g; SAR(10 g) = 0.358 mW/g

Maximum value of SAR (measured) = 0.546 mW/g

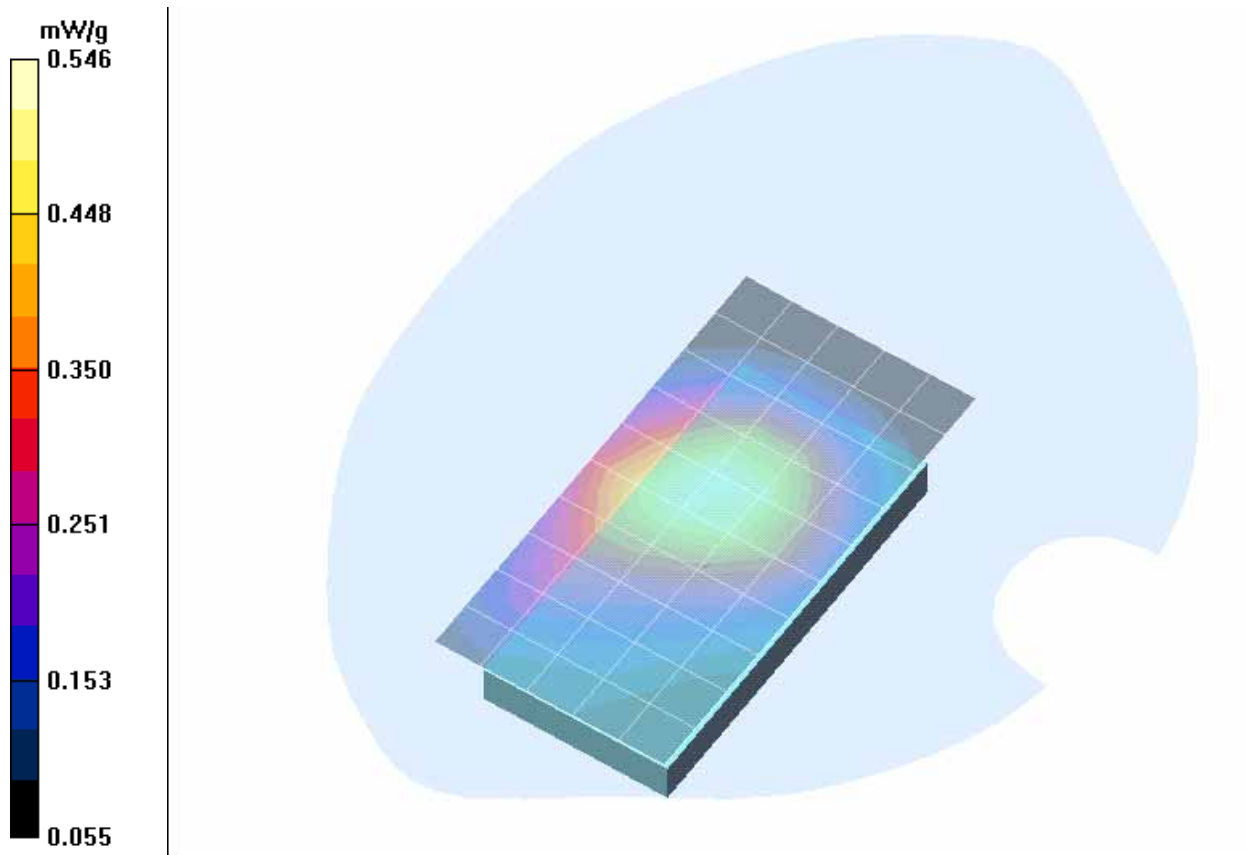


Fig. 7: SAR distribution for GPRS 850, channel 190, HP Omnibook XE3, position 1. (19.09.2005; Ambient Temperature: 21.8° C; Liquid Temperature: 20.7° C).

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name: [GTyahn 2 fcc.da4](#)

DUT: Option; Type: GlobeTrotter; Serial: 004400015852005

Program Name: Unnamed Program

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

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.94$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³

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 1341; Type: QD 000 P40 CB; Serial: TP-1341

- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Unnamed procedure/Area Scan (7x12x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.538 mW/g

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

Reference Value = 22.2 V/m; Power Drift = 0.001 dB

Peak SAR (extrapolated) = 0.711 W/kg

SAR(1 g) = 0.507 mW/g; SAR(10 g) = 0.351 mW/g

Maximum value of SAR (measured) = 0.537 mW/g

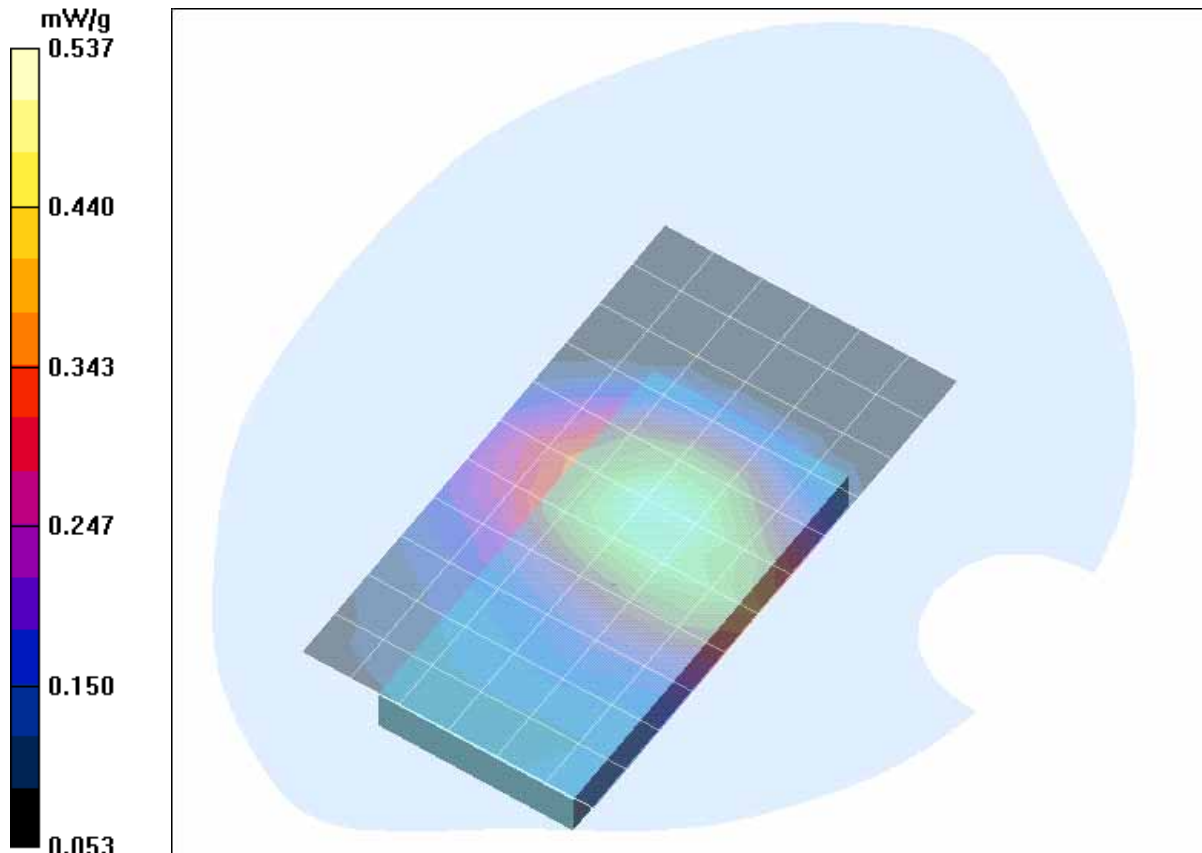


Fig. 8: SAR distribution for GPRS 850, channel 190, HP Omnibook XE3, position 2. (19.09.2005; Ambient Temperature: 21.8° C; Liquid Temperature: 20.7° C).

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name: [GTyahm 5.da4](#)

DUT: Option; Type: GlobeTrotter; Serial: 004400015852005

Program Name: Unnamed Program

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

Medium parameters used: $f = 836.6$ MHz; $\sigma = 0.94$ mho/m; $\epsilon_r = 55.2$; $\rho = 1000$ kg/m³

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 1341; Type: QD 000 P40 CB; Serial: TP-1341
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Unnamed procedure/Area Scan (7x9x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.076 mW/g

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

Reference Value = 7.12 V/m; Power Drift = 0.040 dB

Peak SAR (extrapolated) = 0.097 W/kg

SAR(1 g) = 0.076 mW/g; SAR(10 g) = 0.055 mW/g

Maximum value of SAR (measured) = 0.079 mW/g

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

Reference Value = 7.12 V/m; Power Drift = 0.040 dB

Peak SAR (extrapolated) = 0.074 W/kg

SAR(1 g) = 0.045 mW/g; SAR(10 g) = 0.030 mW/g

Maximum value of SAR (measured) = 0.052 mW/g

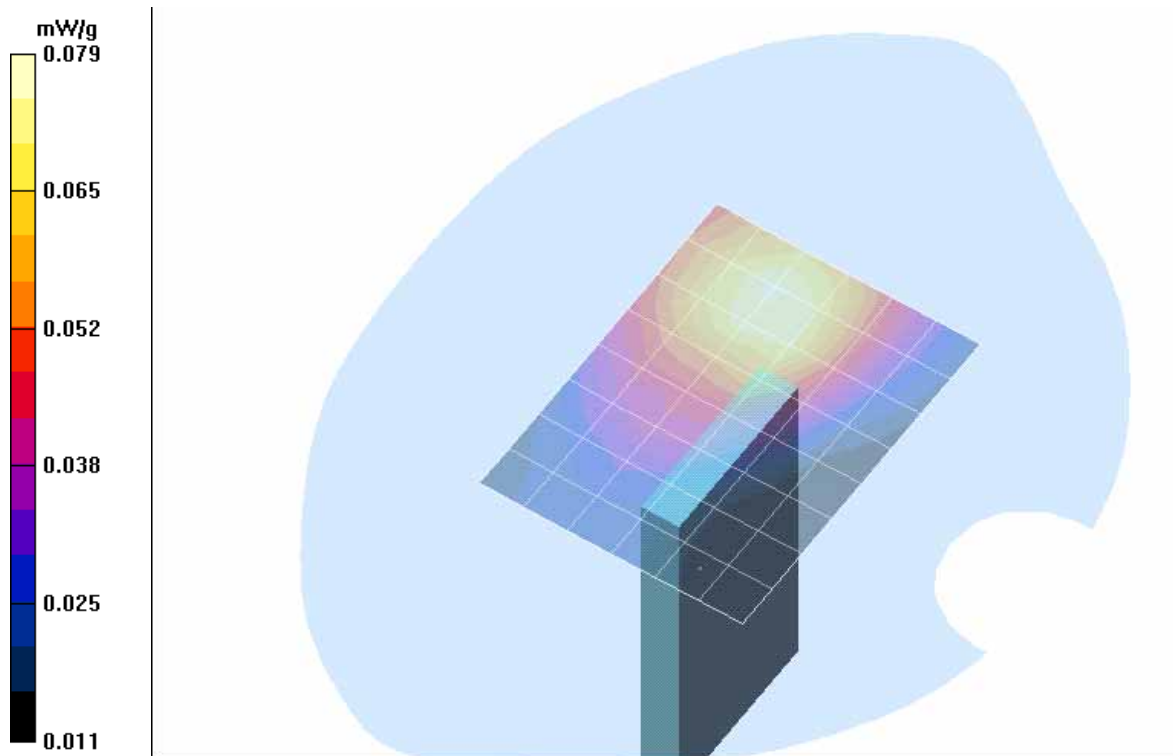


Fig. 9: SAR distribution for GPRS 850, channel 190, HP Omnibook XE3, position 3. (19.09.2005; Ambient Temperature: 21.9° C; Liquid Temperature: 20.7° C).

2 SAR Distribution Plots, GPRS 1900 (Class 10) Body

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [GTbphm_1_fcc.da4](#)

DUT: Option; Type: GlobeTrotter; Serial: 004400015852005

Program Name: Unnamed Program

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.56$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(4.69, 4.69, 4.69); 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

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

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

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

Reference Value = 17.3 V/m; Power Drift = -0.146 dB

Peak SAR (extrapolated) = 0.585 W/kg

SAR(1 g) = 0.407 mW/g; SAR(10 g) = 0.259 mW/g

Maximum value of SAR (measured) = 0.440 mW/g

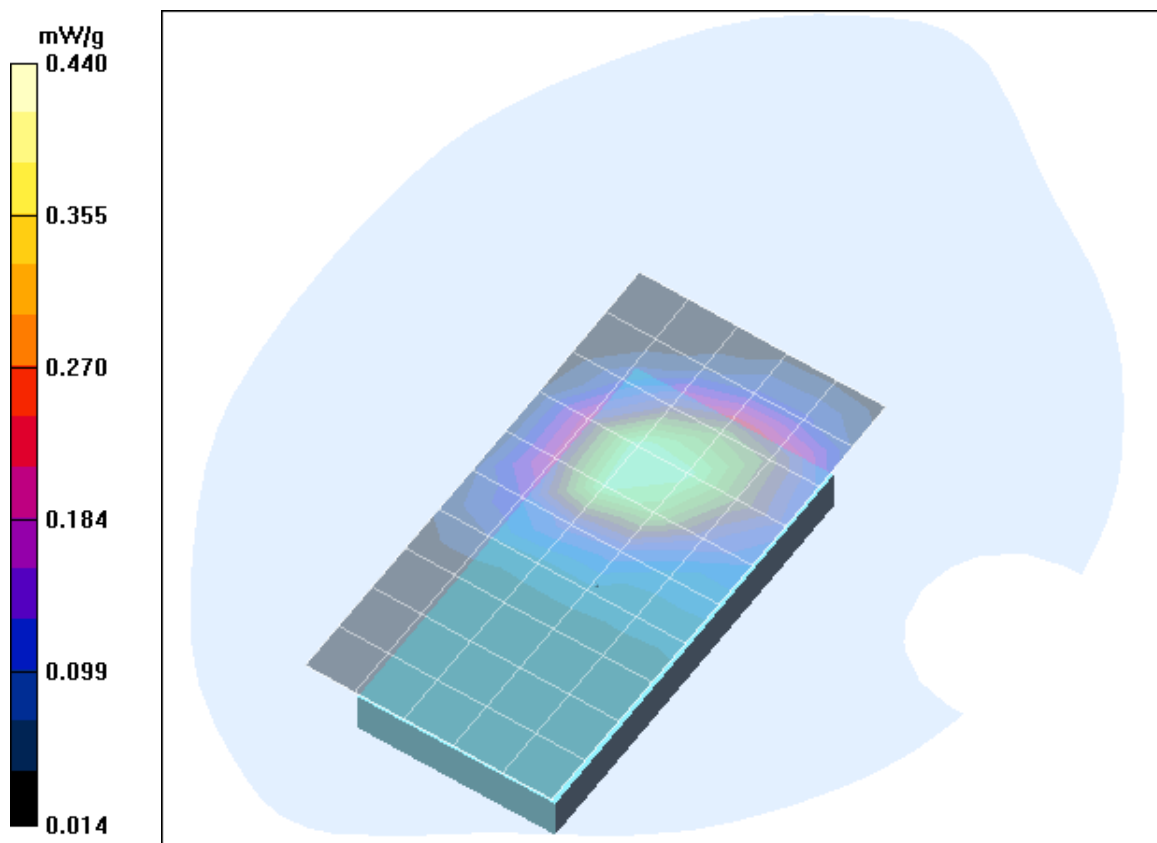


Fig. 10: SAR distribution for GPRS 1900, channel 661, DELL Latitude C810, position 1. (20.09.2005; Ambient Temperature: 21.8° C; Liquid Temperature: 20.9° C).

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

DUT: Option; Type: GlobeTrotter; Serial: 004400015852005

Program Name: Unnamed Program

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.56$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(4.69, 4.69, 4.69); 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

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

Maximum value of SAR (measured) = 0.613 mW/g

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

Reference Value = 21.9 V/m; Power Drift = 0.015 dB

Peak SAR (extrapolated) = 1.13 W/kg

SAR(1 g) = 0.604 mW/g; SAR(10 g) = 0.364 mW/g

Maximum value of SAR (measured) = 0.641 mW/g

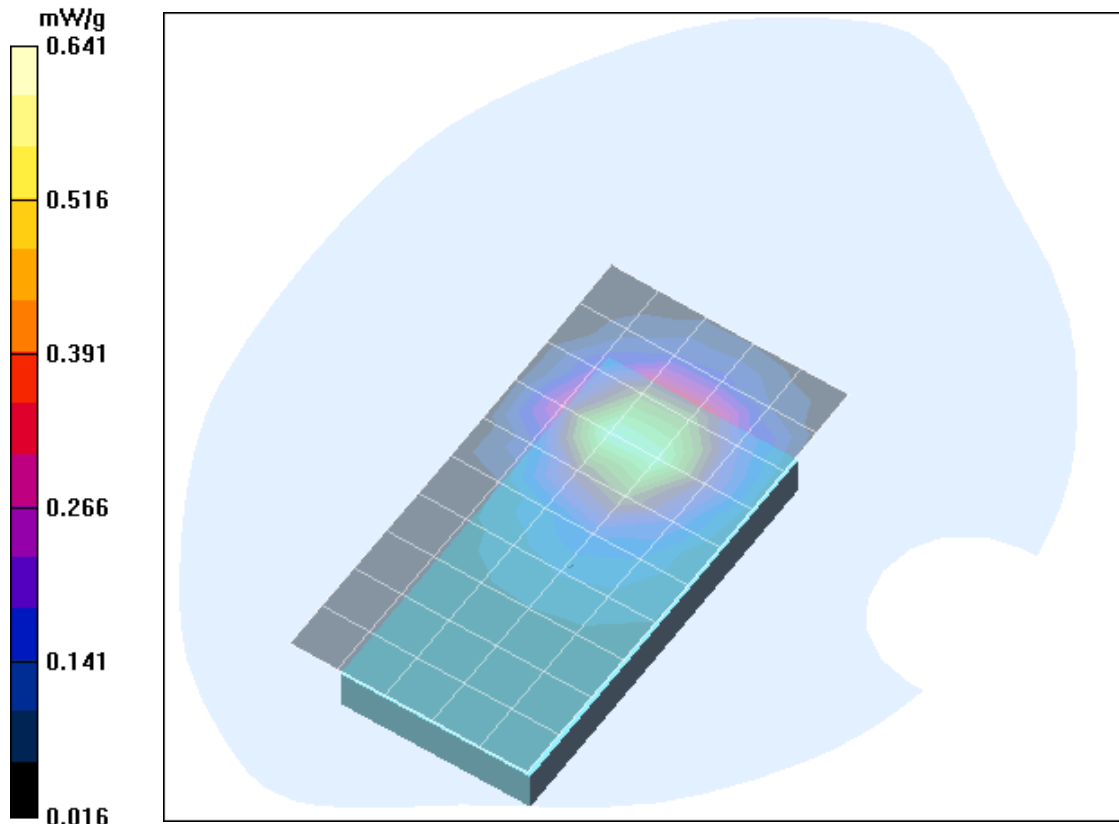


Fig. 11: SAR distribution for GPRS 1900, channel 661, DELL Latitude C810, position 2. (20.09.2005; Ambient Temperature: 21.7° C; Liquid Temperature: 20.9° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [GTbphm 5 fcc.da4](#)

DUT: Option; Type: GlobeTrotter; Serial: 004400015852005

Program Name: Unnamed Program

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.56$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(4.69, 4.69, 4.69); 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

Unnamed procedure/Area Scan (7x7x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 15.1 V/m; Power Drift = 0.051 dB

Peak SAR (extrapolated) = 0.593 W/kg

SAR(1 g) = 0.378 mW/g; SAR(10 g) = 0.234 mW/g

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

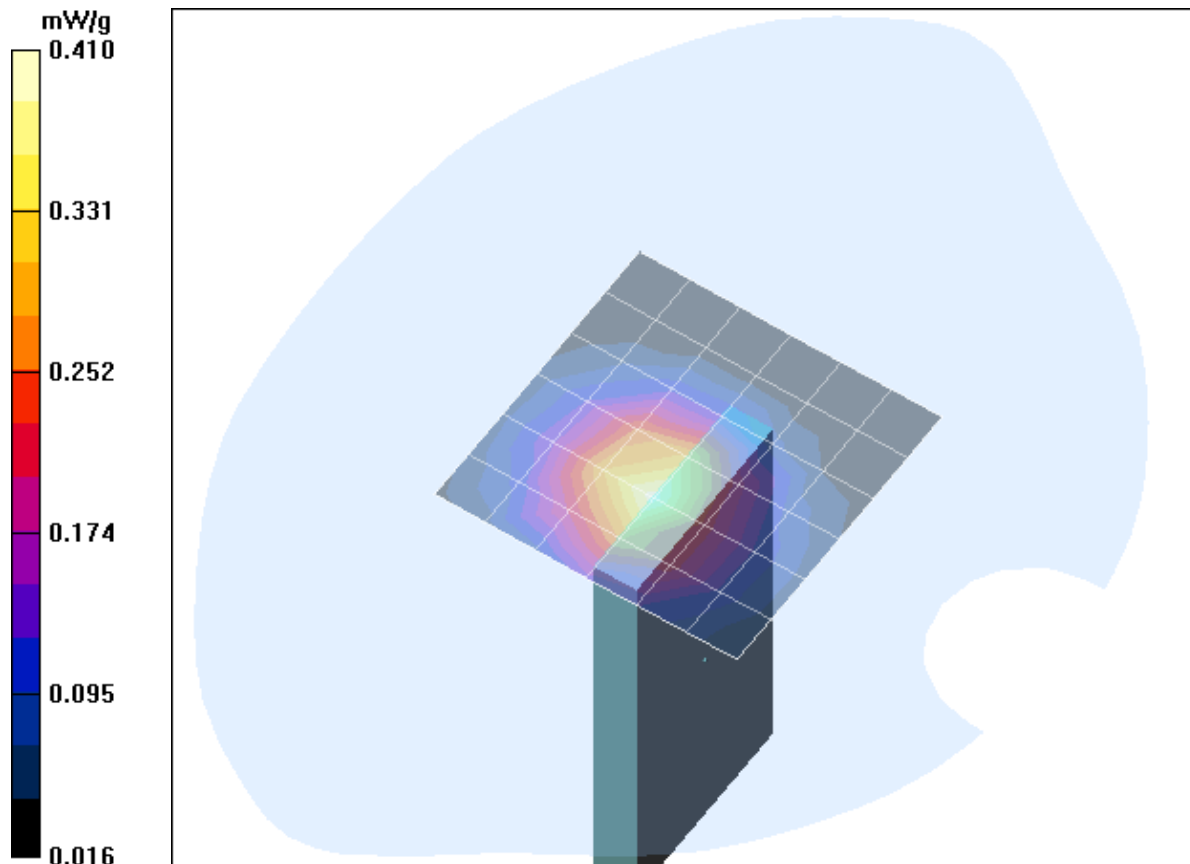


Fig. 12: SAR distribution for GPRS 1900, channel 661, DELL Latitude C810, position 3. (20.09.2005; Ambient Temperature: 21.8° C; Liquid Temperature: 20.9° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [GTbphm 1 fcc.da4](#)

DUT: Option; Type: GlobeTrotter; Serial: 004400015852005

Program Name: Unnamed Program

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.56$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(4.69, 4.69, 4.69); 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

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

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

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

Reference Value = 12.7 V/m; Power Drift = -0.046 dB

Peak SAR (extrapolated) = 0.412 W/kg

SAR(1 g) = 0.272 mW/g; SAR(10 g) = 0.171 mW/g

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

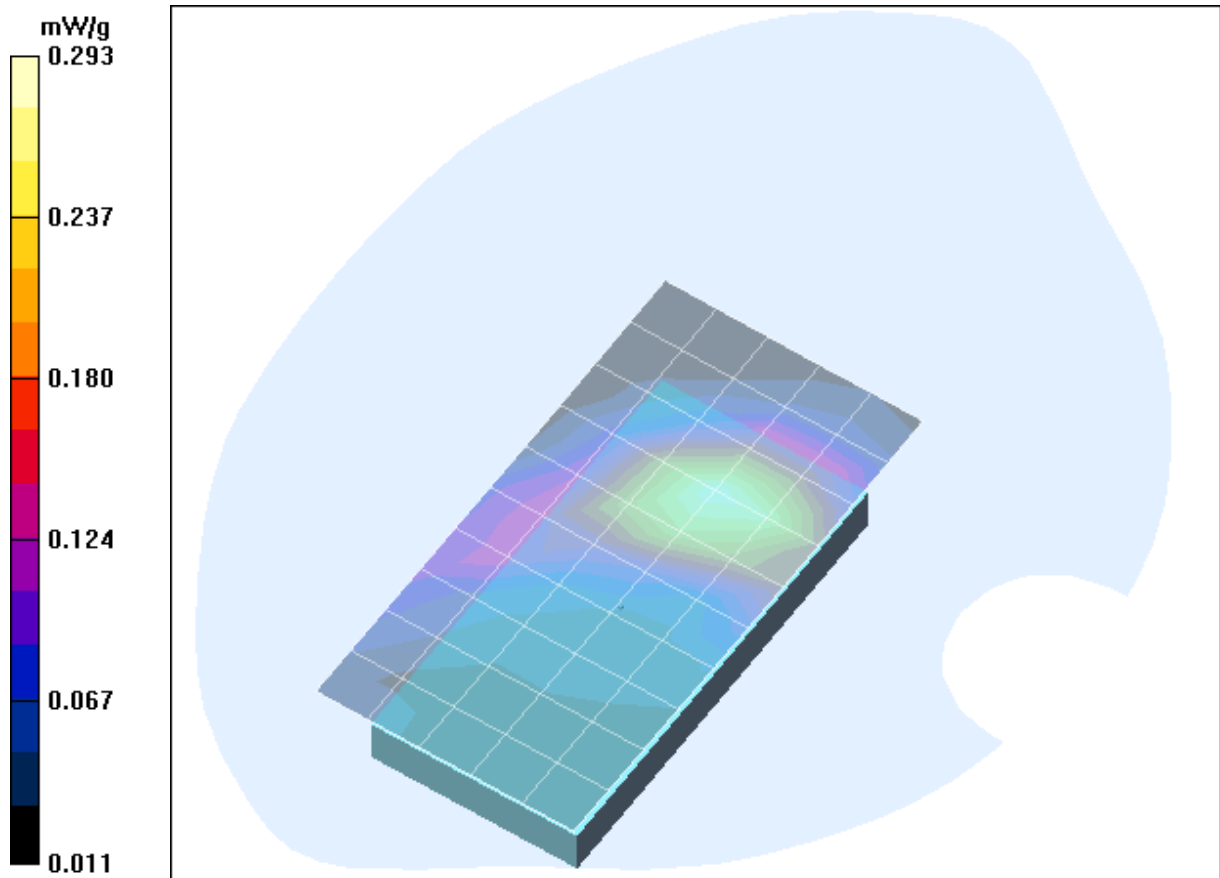


Fig. 13: SAR distribution for GPRS 1900, channel 661, HP Omnibook XE2, position 1. (20.09.2005; Ambient Temperature: 21.6° C; Liquid Temperature: 20.8° C).

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

DUT: Option; Type: GlobeTrotter; Serial: 004400015852005

Program Name: Unnamed Program

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.56$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(4.69, 4.69, 4.69); 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

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

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

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

Reference Value = 19.8 V/m; Power Drift = -0.011 dB

Peak SAR (extrapolated) = 0.791 W/kg

SAR(1 g) = 0.500 mW/g; SAR(10 g) = 0.311 mW/g

Maximum value of SAR (measured) = 0.539 mW/g

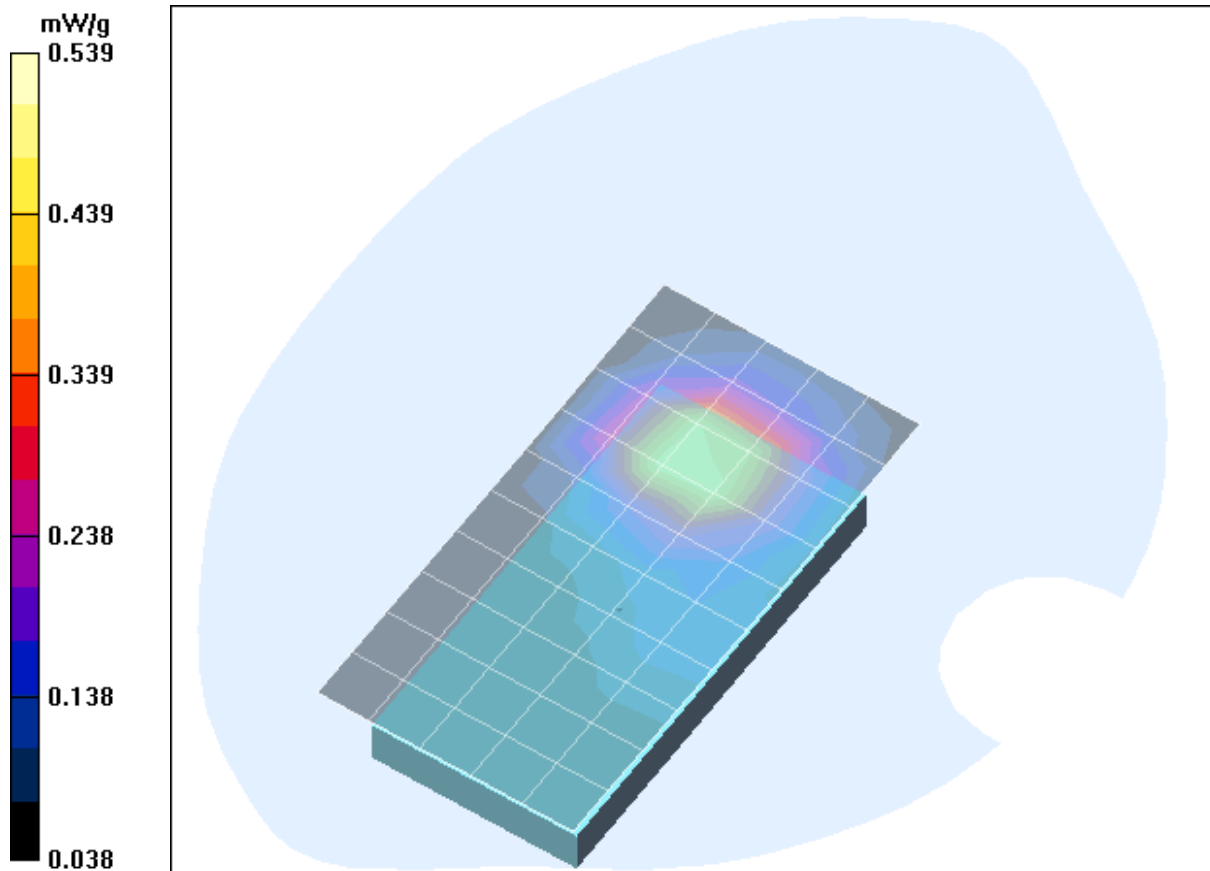


Fig. 14: SAR distribution for GPRS 1900, channel 661, HP Omnibook XE2, position 2. (20.09.2005; Ambient Temperature: 21.5° C; Liquid Temperature: 20.8° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [GTbphm 5 fcc.da4](#)

DUT: Option; Type: GlobeTrotter; Serial: 004400015852005

Program Name: Unnamed Program

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.56$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(4.69, 4.69, 4.69); 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

Unnamed procedure/Area Scan (7x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.294 mW/g

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

Reference Value = 14.8 V/m; Power Drift = 0.141 dB

Peak SAR (extrapolated) = 0.478 W/kg

SAR(1 g) = 0.308 mW/g; SAR(10 g) = 0.189 mW/g

Maximum value of SAR (measured) = 0.332 mW/g

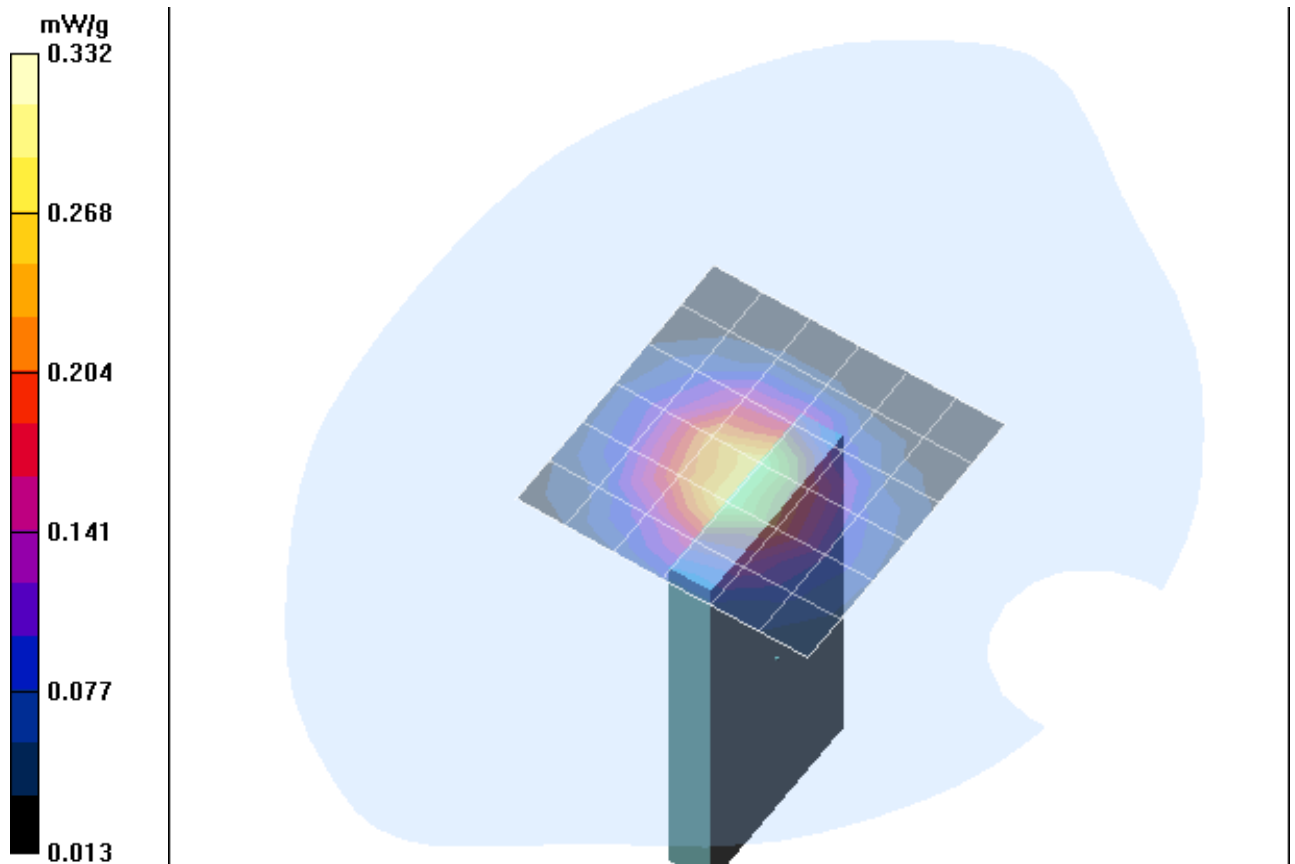


Fig. 15: SAR distribution for GPRS 1900, channel 661, HP Omnibook XE2, position 3 (20.09.2005; Ambient Temperature: 21.5° C; Liquid Temperature: 20.8° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [GTbphm 1 fcc.da4](#)

DUT: Option; Type: GlobeTrotter; Serial: 004400015852005

Program Name: Unnamed Program

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.56$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(4.69, 4.69, 4.69); 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

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

Maximum value of SAR (measured) = 0.260 mW/g

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

Reference Value = 13.5 V/m; Power Drift = -0.144 dB

Peak SAR (extrapolated) = 0.431 W/kg

SAR(1 g) = 0.263 mW/g; SAR(10 g) = 0.166 mW/g

Maximum value of SAR (measured) = 0.285 mW/g

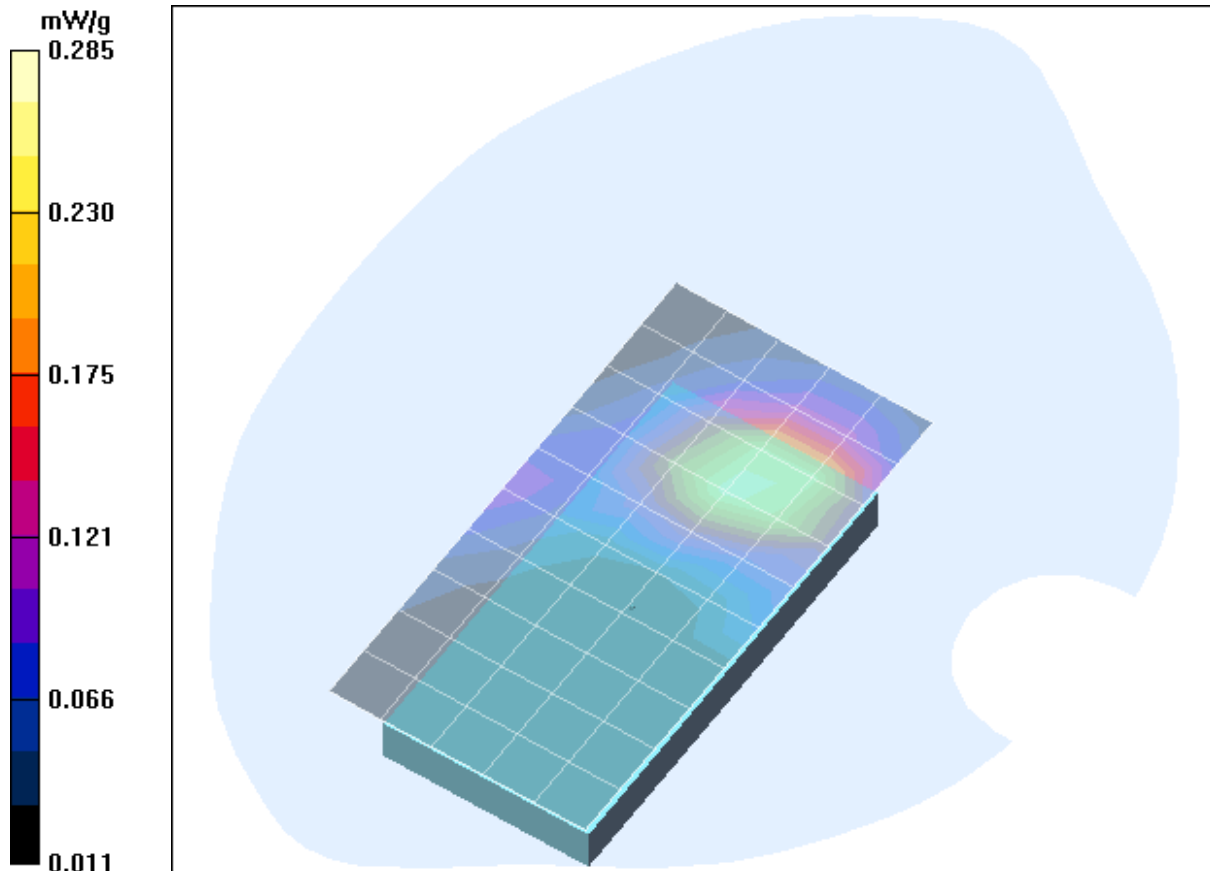


Fig. 16: SAR distribution for GPRS 1900, channel 661, HP Omnibook XE3, position 1. (20.09.2005; Ambient Temperature: 21.9° C; Liquid Temperature: 21.0° C).

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

DUT: Option; Type: GlobeTrotter; Serial: 004400015852005

Program Name: Unnamed Program

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.56$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(4.69, 4.69, 4.69); 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

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

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

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

Reference Value = 20.5 V/m; Power Drift = 0.015 dB

Peak SAR (extrapolated) = 0.871 W/kg

SAR(1 g) = 0.547 mW/g; SAR(10 g) = 0.339 mW/g

Maximum value of SAR (measured) = 0.589 mW/g

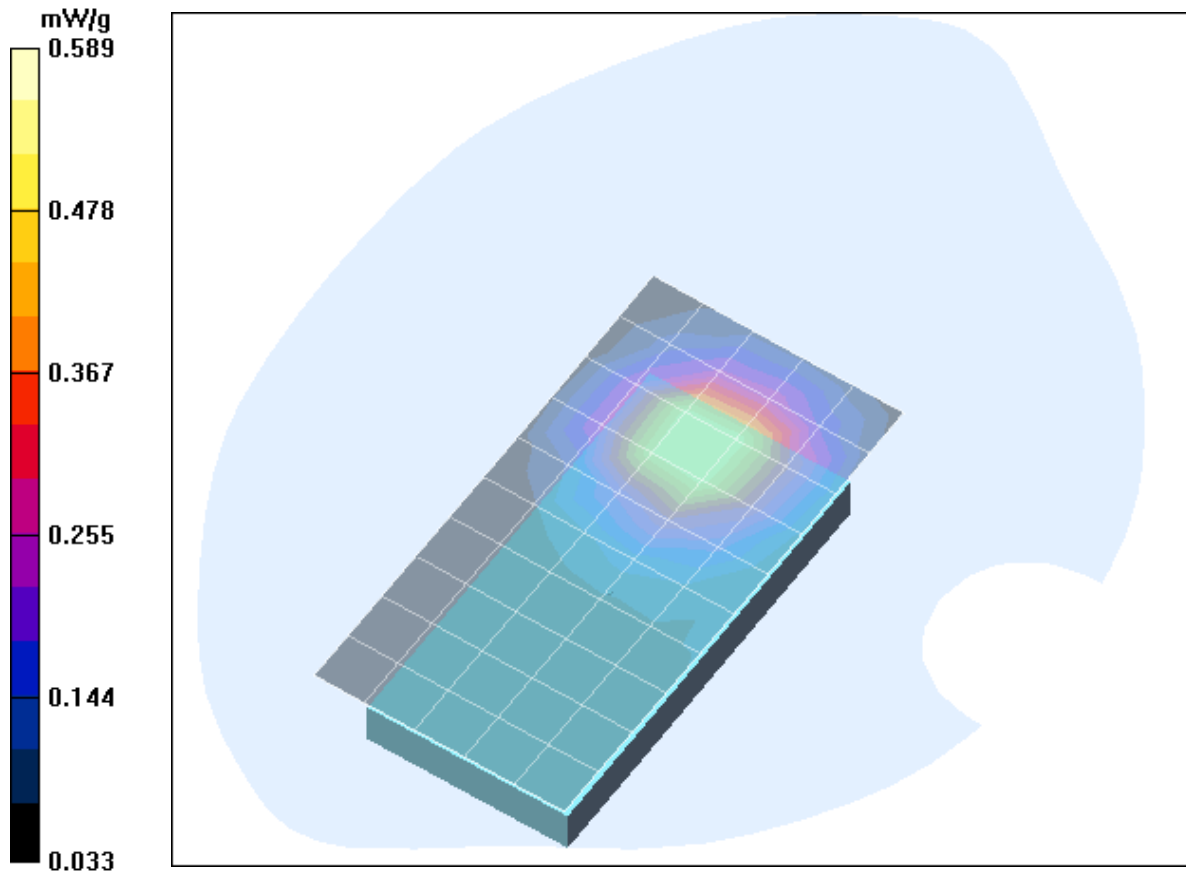


Fig. 17: SAR distribution for GPRS 1900, channel 661, HP Omnibook XE3, position 2. (20.09.2005; Ambient Temperature: 21.9° C; Liquid Temperature: 21.0° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [GTbphm 5 fcc.da4](#)

DUT: Option; Type: GlobeTrotter; Serial: 004400015852005

Program Name: Unnamed Program

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

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.56$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(4.69, 4.69, 4.69); 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

Unnamed procedure/Area Scan (7x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.307 mW/g

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

Reference Value = 14.7 V/m; Power Drift = 0.058 dB

Peak SAR (extrapolated) = 0.477 W/kg

SAR(1 g) = 0.314 mW/g; SAR(10 g) = 0.194 mW/g

Maximum value of SAR (measured) = 0.343 mW/g

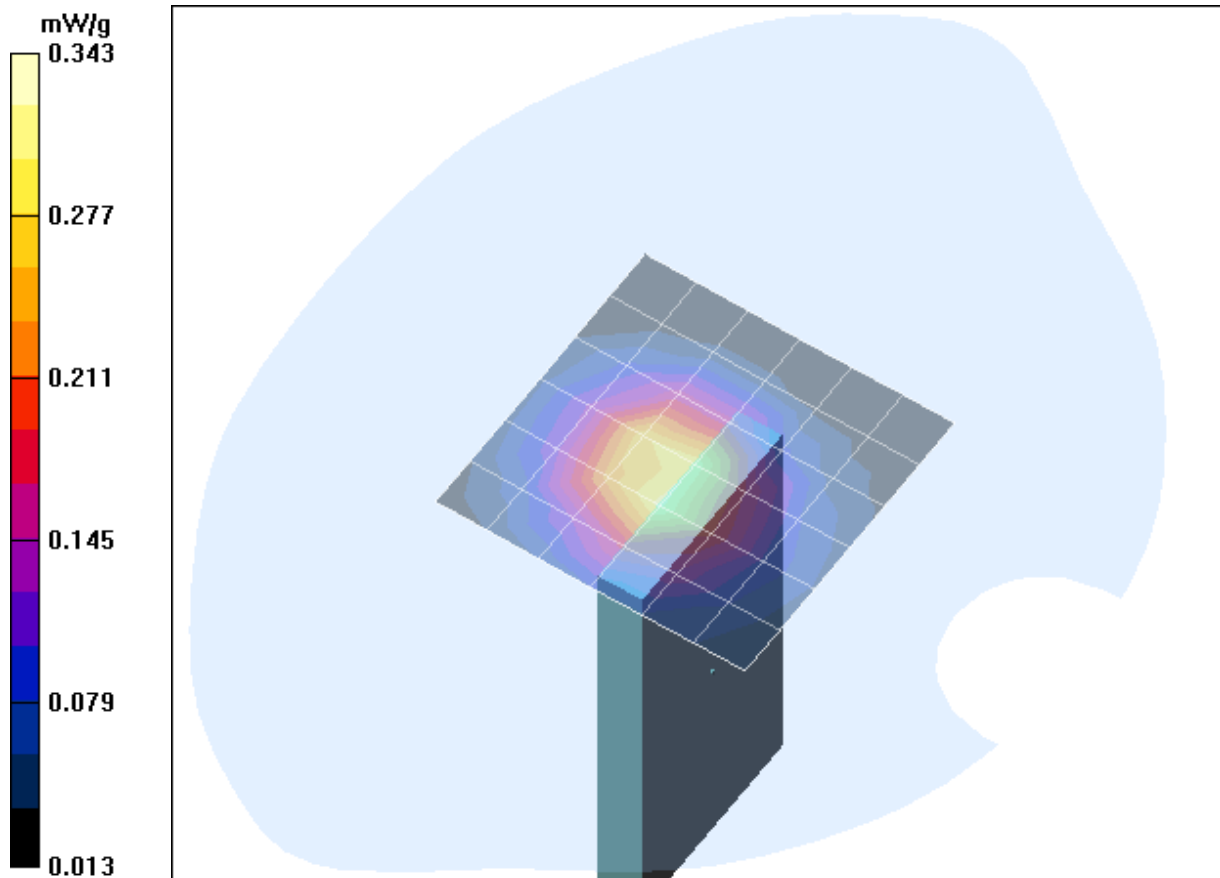


Fig. 18: SAR distribution for GPRS 1900, channel 661, HP Omnibook XE3, position 5. (20.09.2005; Ambient Temperature: 21.9° C; Liquid Temperature: 21.0° C).

3 SAR z-axis scans (Validation)

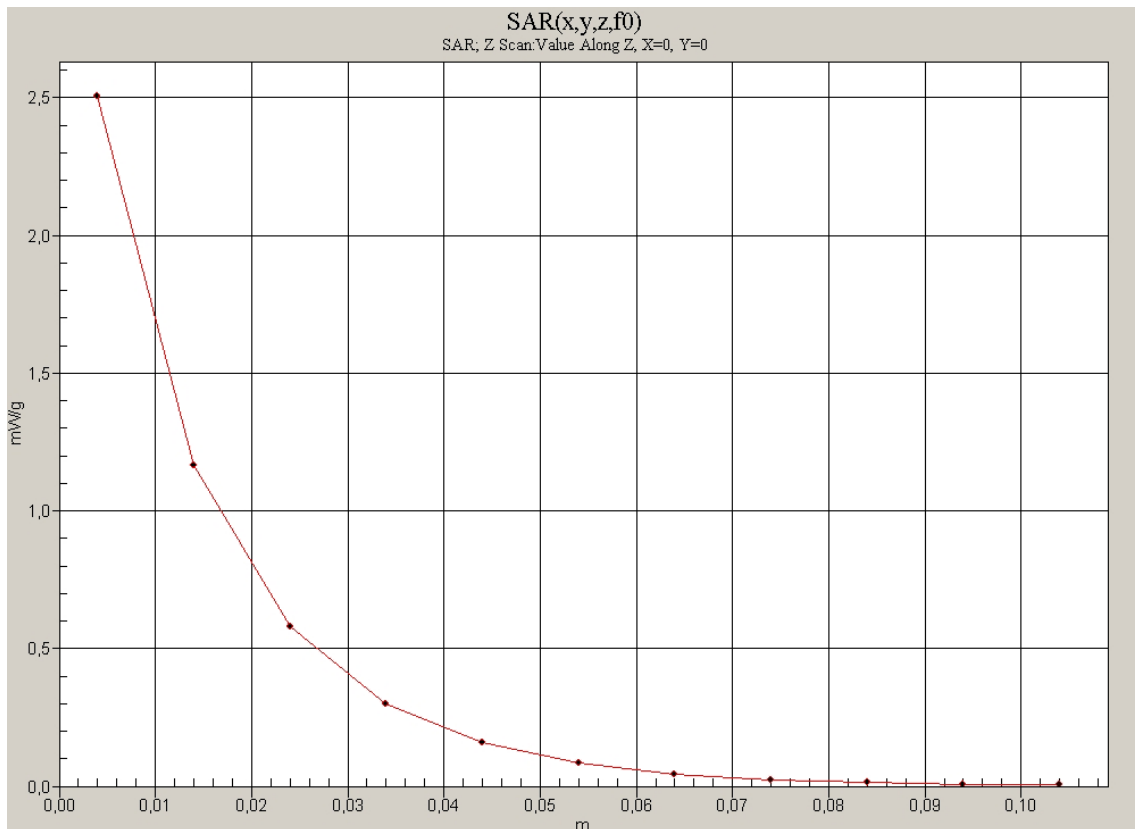


Fig. 19: SAR versus liquid depth, 835 MHz, body (19.09.2005; Ambient Temperature: 21.1° C; Liquid Temperature : 20.4° C).

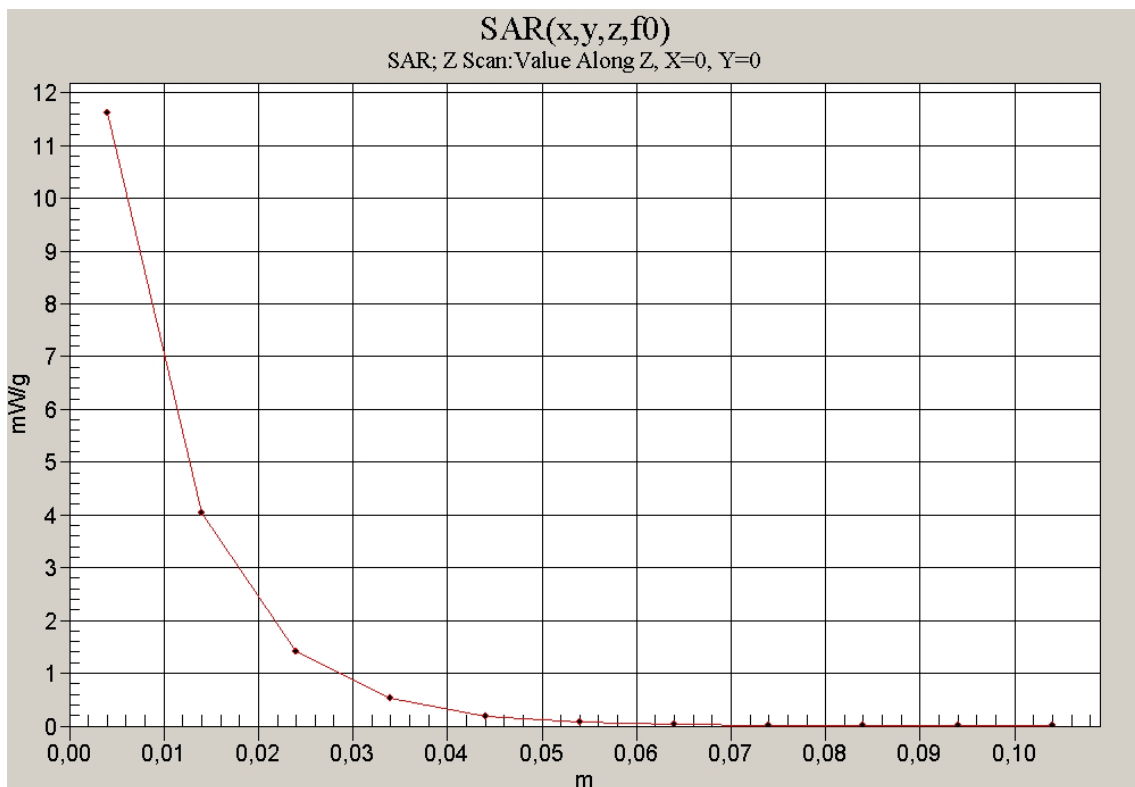


Fig. 20: SAR versus liquid depth, 1900 MHz, body (20.09.2005; Ambient Temperature: 21.6° C; Liquid Temperature : 20.8° C).

4 SAR z-axis scans (Measurements)

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

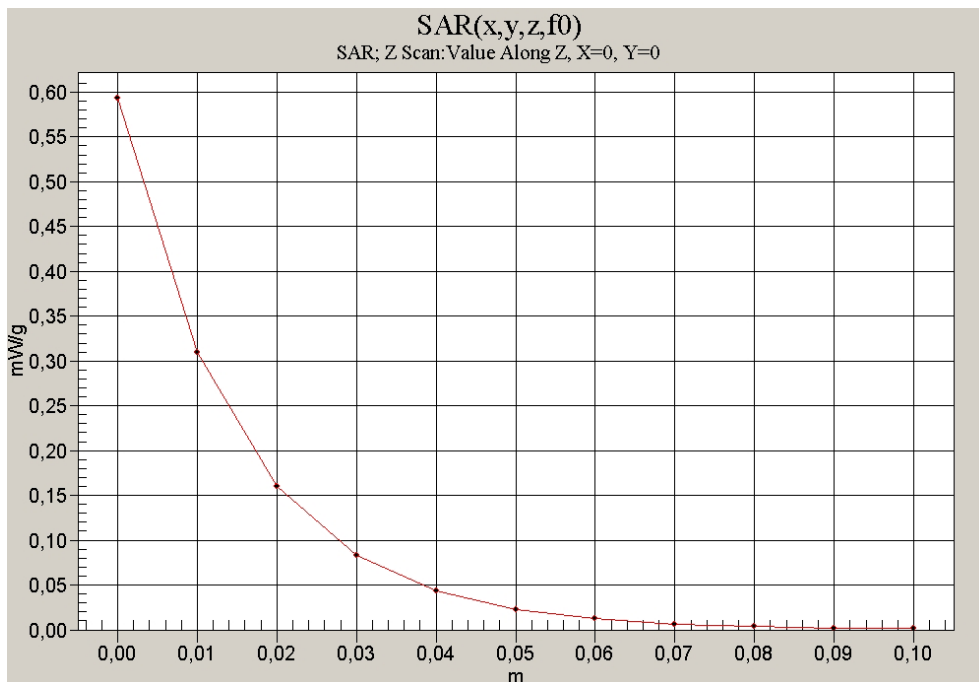


Fig. 21: SAR versus liquid depth, body: GPRS 850 (Class 10), channel 190, GT Fusion+ with a HP Omnibook XE2, position 1 (19.09.2005, Ambient Temperature: 21.2° C; Liquid Temperature : 20.5° C).

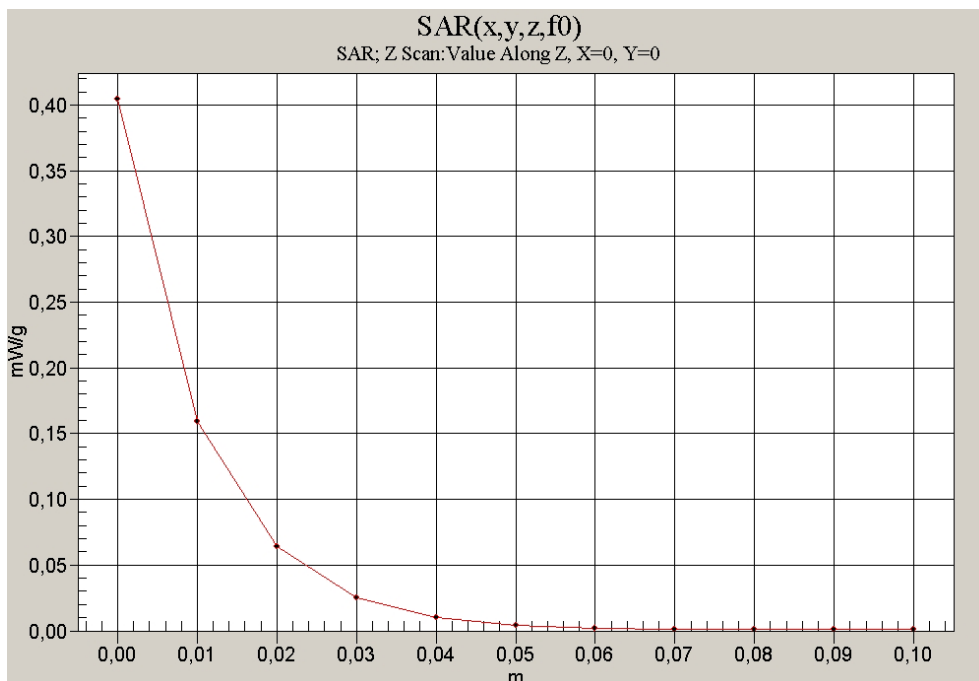


Fig. 22: SAR versus liquid depth, body: GPRS 1900 (Class 10), channel 661, GT Fusion+ with a DELL Latitude C810, position 2 (20.09.2005, Ambient Temperature: 21.7° C; Liquid Temperature : 20.9° C).