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## **Appendix for the Report**

### **Dosimetric Assessment of the Portable Device buddi from buddi Ltd (FCC ID: ZDLB83)**

### **According to the FCC Requirements SAR Distribution Plots**

April 06, 2011  
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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.

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## 1 SAR Distribution Plots, GSM 850 Body

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [Buddi\\_640\\_bahm\\_1.da4](#)

DUT: Buddi; Serial: 352451040744640

Program Name: GSM 850

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

Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.98$  mho/m;  $\epsilon_r = 54.7$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(6.32, 6.32, 6.32); Calibrated: 21.02.2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 22.02.2011
- Phantom: SAM Sugar 1059; Type: Speag; Serial: 1059
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body Worn/Area Scan (8x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.482 mW/g

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

Reference Value = 20.1 V/m; Power Drift = -0.181 dB

Peak SAR (extrapolated) = 2.12 W/kg

**SAR(1 g) = 0.612 mW/g; SAR(10 g) = 0.279 mW/g**

Maximum value of SAR (measured) = 0.659 mW/g

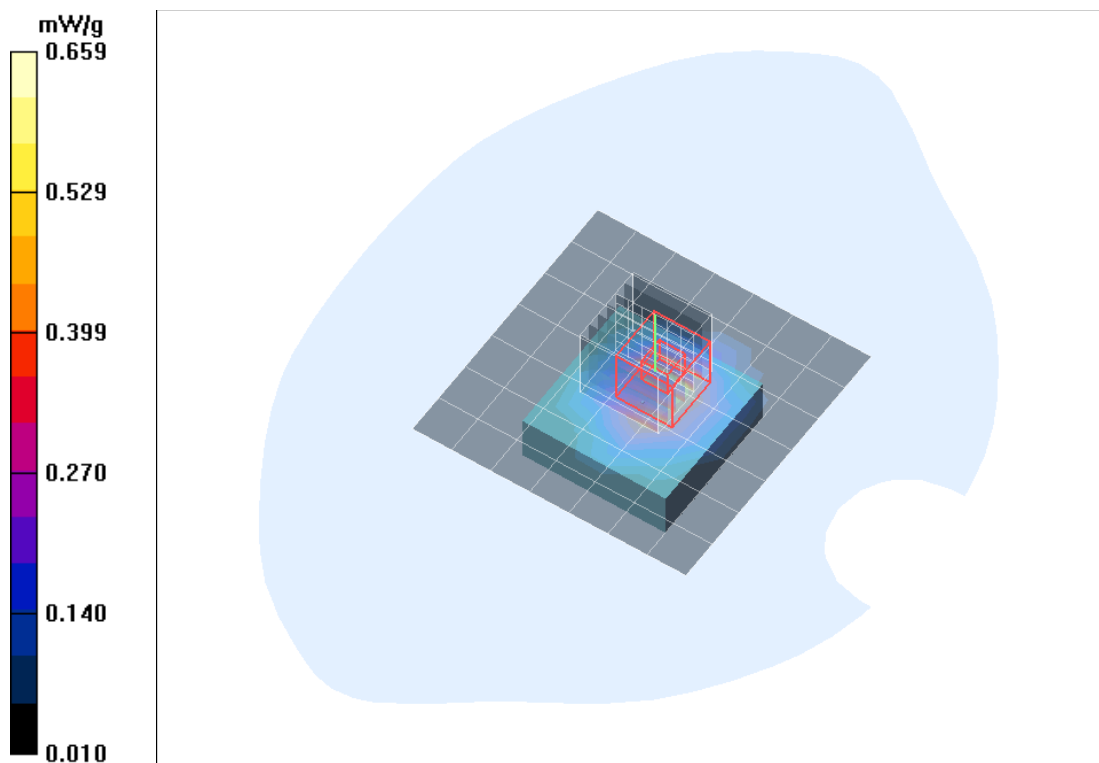


Fig. 1: SAR distribution for GSM 850 channel 190, Position 1 (March 29, 2011; Ambient Temperature: 20.8°C; Liquid Temperature: 20.3°C).

**Test Laboratory:** IMST GmbH, DASY Blue (I); **File Name:** [Buddi 640 bahm 2.da4](#)

**DUT:** Buddi; **Serial:** 352451040744640

**Program Name:** GSM 850

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

Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.98$  mho/m;  $\epsilon_r = 54.7$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(6.32, 6.32, 6.32); Calibrated: 21.02.2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 22.02.2011
- Phantom: SAM Sugar 1059; Type: Speag; Serial: 1059
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body Worn/Area Scan (8x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.009 mW/g

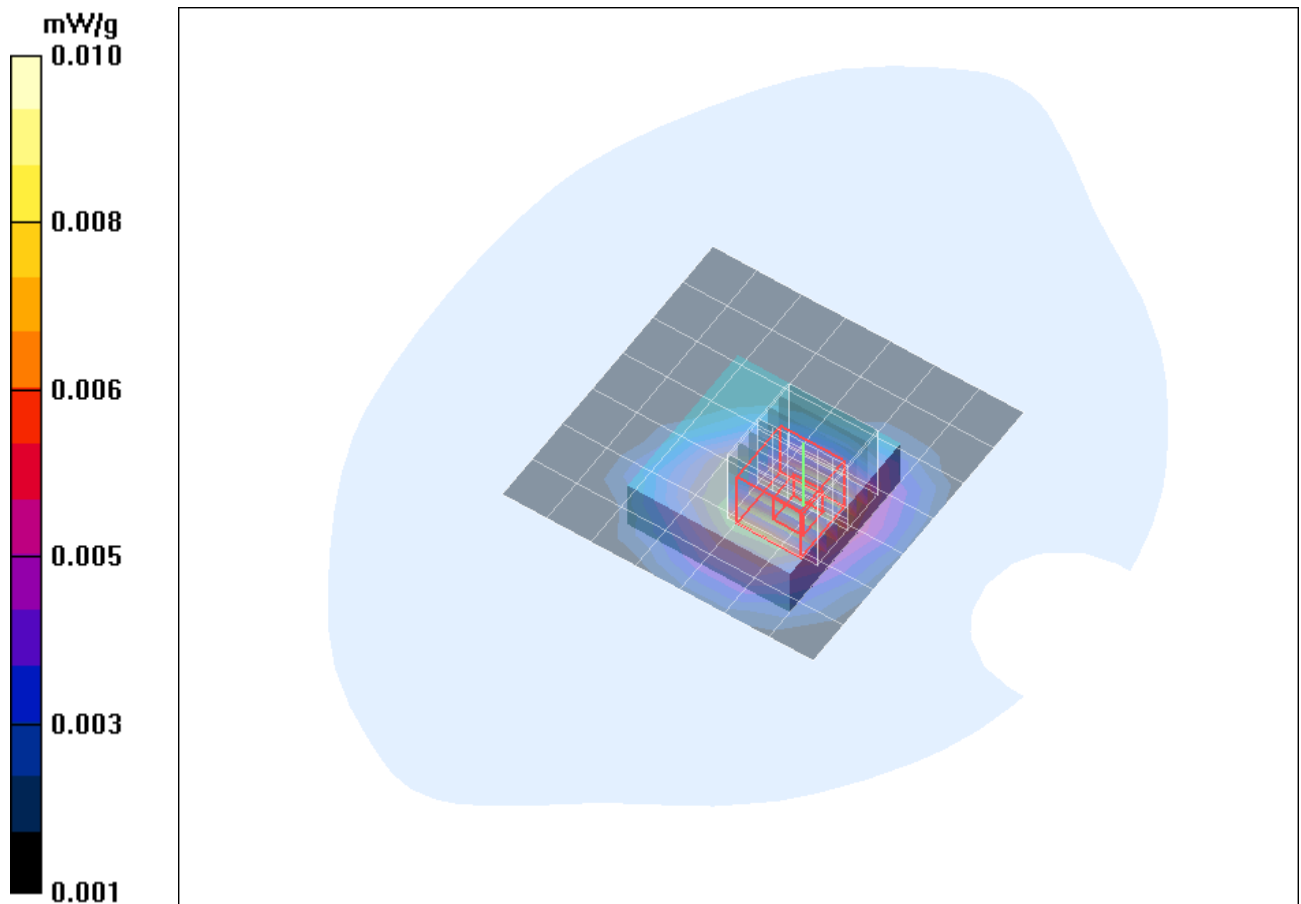
**Body Worn/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.52 V/m; Power Drift = -0.118 dB

Peak SAR (extrapolated) = 0.014 W/kg

**SAR(1 g) = 0.00856 mW/g; SAR(10 g) = 0.00547 mW/g**

Maximum value of SAR (measured) = 0.010 mW/g



**Fig. 2:** SAR distribution for GSM 850, channel 190, Position 2 (March 29, 2011; Ambient Temperature: 20.8°C; Liquid Temperature: 20.3°C).

## 2 SAR Distribution Plots, PCS 1900 Body

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [Buddi\\_640\\_bphm\\_1.da4](#)

DUT: Buddi; Serial: 352451040744640

Program Name: PCS 1900

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

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.52$  mho/m;  $\epsilon_r = 53.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.89, 7.89, 7.89); Calibrated: 16.09.2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 17.09.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body Worn/Area Scan (8x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.16 mW/g

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

Reference Value = 28.2 V/m; Power Drift = -0.109 dB

Peak SAR (extrapolated) = 3.16 W/kg

**SAR(1 g) = 1.3 mW/g; SAR(10 g) = 0.580 mW/g**

Maximum value of SAR (measured) = 1.47 mW/g

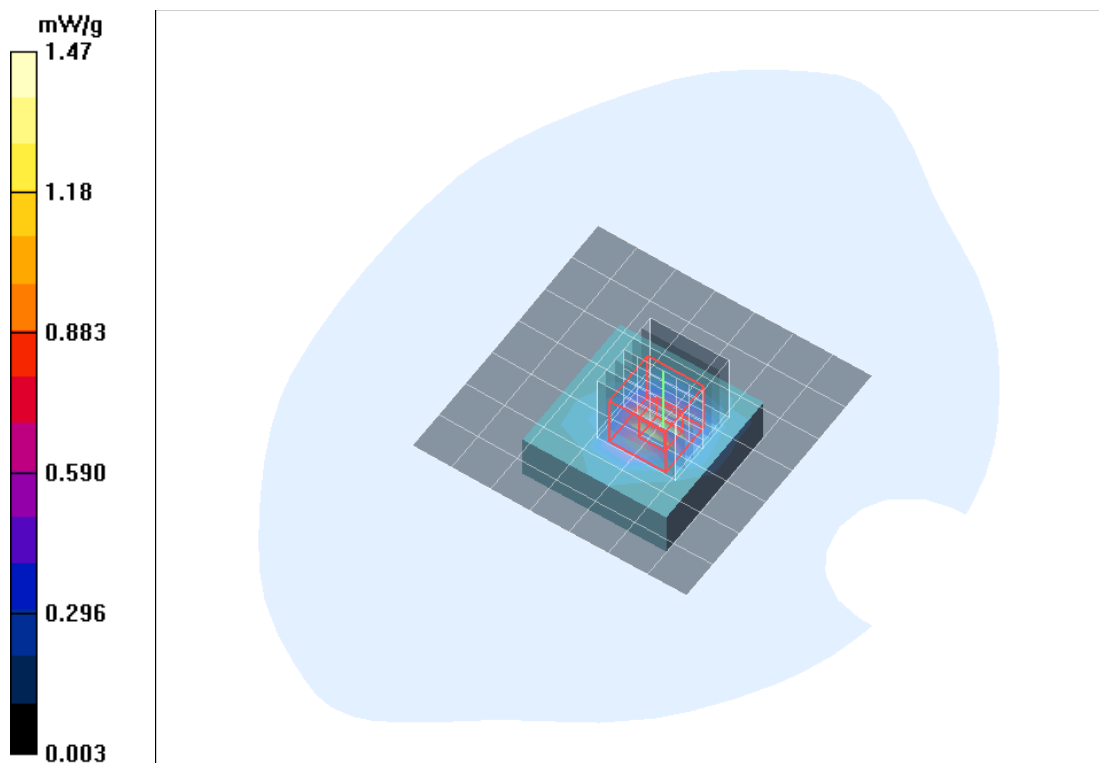


Fig. 3: SAR distribution for PCS 1900, channel 661, Position 1 (March 28, 2011; Ambient Temperature: 21.1°C; Liquid Temperature: 20.6°C).

**Test Laboratory:** IMST GmbH, DASY Blue (I); **File Name:** [Buddi\\_640\\_bphm\\_2.da4](#)

**DUT:** Buddi; **Serial:** 352451040744640

**Program Name:** PCS 1900

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

Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.52$  mho/m;  $\epsilon_r = 53.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.89, 7.89, 7.89); Calibrated: 16.09.2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 17.09.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body Worn/Area Scan (8x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.043 mW/g

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

Reference Value = 5.57 V/m; Power Drift = 0.181 dB

Peak SAR (extrapolated) = 0.073 W/kg

**SAR(1 g) = 0.047 mW/g; SAR(10 g) = 0.028 mW/g**

Maximum value of SAR (measured) = 0.051 mW/g

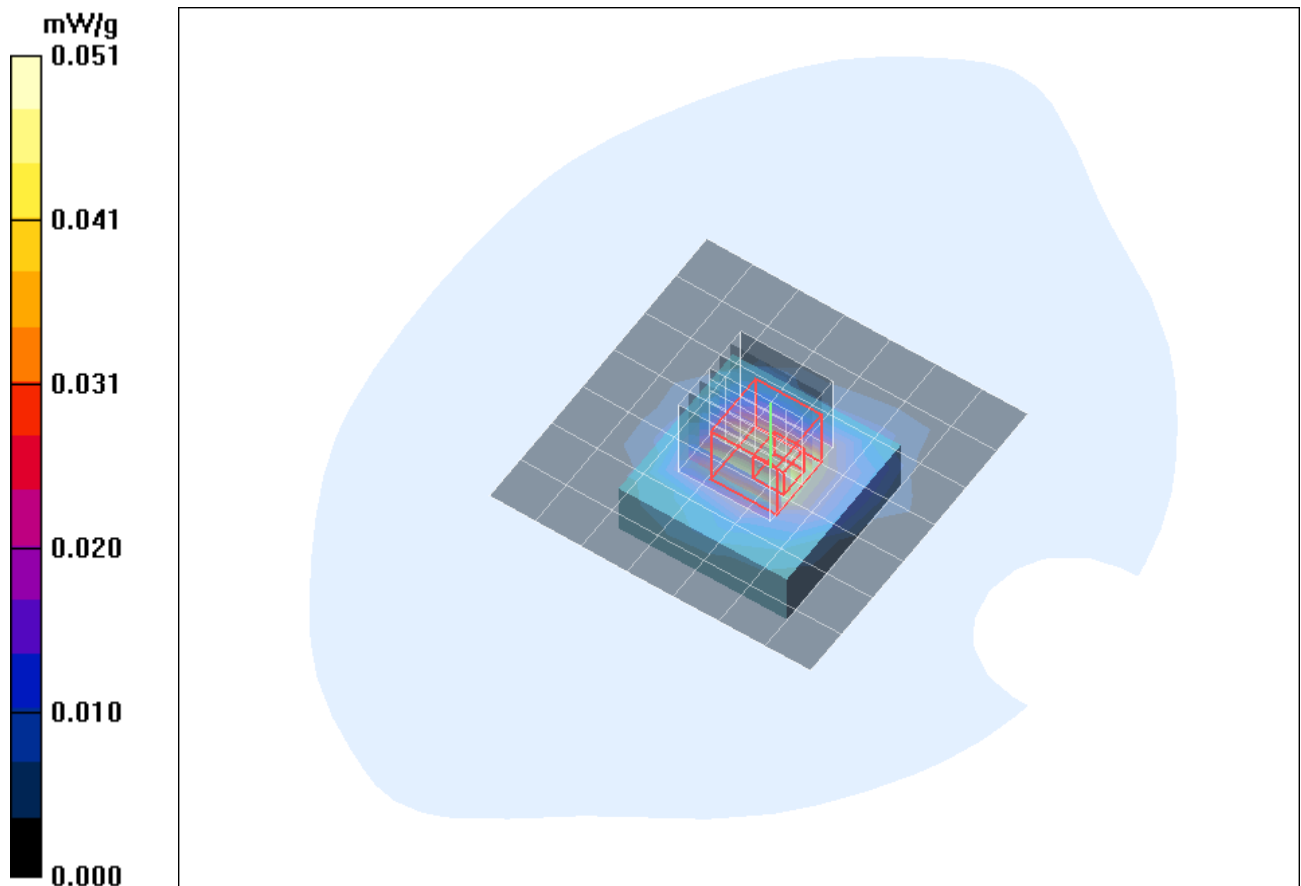


Fig. 4: SAR distribution for PCS 1900, channel 661, Position 2 (March 28, 2011; Ambient Temperature: 21.1°C; Liquid Temperature: 20.6°C).

**Test Laboratory:** IMST GmbH, DASY Blue (I); **File Name:** [Buddi 640 bphl 1.da4](#)

**DUT:** Buddi; **Serial:** 352451040744640

**Program Name:** PCS 1900

Communication System: GSM 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:8.3

Medium parameters used:  $f = 1850.2$  MHz;  $\sigma = 1.48$  mho/m;  $\epsilon_r = 53.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.89, 7.89, 7.89); Calibrated: 16.09.2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 17.09.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body Worn/Area Scan (8x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.02 mW/g

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

Reference Value = 27.1 V/m; Power Drift = -0.099 dB

Peak SAR (extrapolated) = 2.89 W/kg

**SAR(1 g) = 1.16 mW/g; SAR(10 g) = 0.524 mW/g**

Maximum value of SAR (measured) = 1.31 mW/g

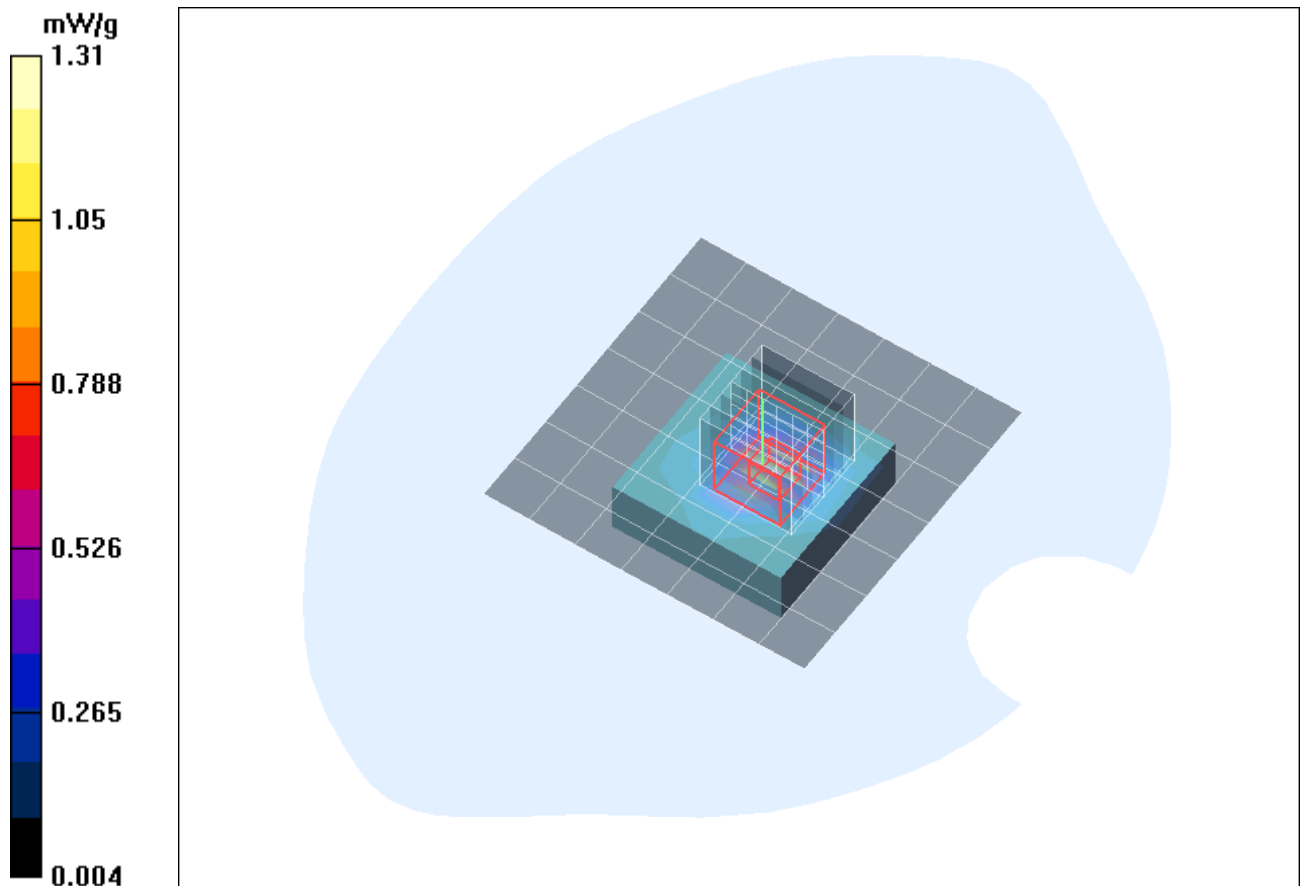


Fig. 5: SAR distribution for PCS 1900, channel 512, Position 1 (March 28, 2011; Ambient Temperature: 21.1°C; Liquid Temperature: 20.6°C).

**Test Laboratory:** IMST GmbH, DASY Blue (I); **File Name:** [Buddi 640 bphh 1.da4](#)

**DUT:** Buddi; **Serial:** 352451040744640

**Program Name:** PCS 1900

Communication System: GSM 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:8.3

Medium parameters used:  $f = 1909.8$  MHz;  $\sigma = 1.57$  mho/m;  $\epsilon_r = 52.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.89, 7.89, 7.89); Calibrated: 16.09.2010
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 17.09.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body Worn/Area Scan (8x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.29 mW/g

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

Reference Value = 29.0 V/m; Power Drift = -0.113 dB

Peak SAR (extrapolated) = 3.42 W/kg

**SAR(1 g) = 1.41 mW/g; SAR(10 g) = 0.633 mW/g**

Maximum value of SAR (measured) = 1.60 mW/g

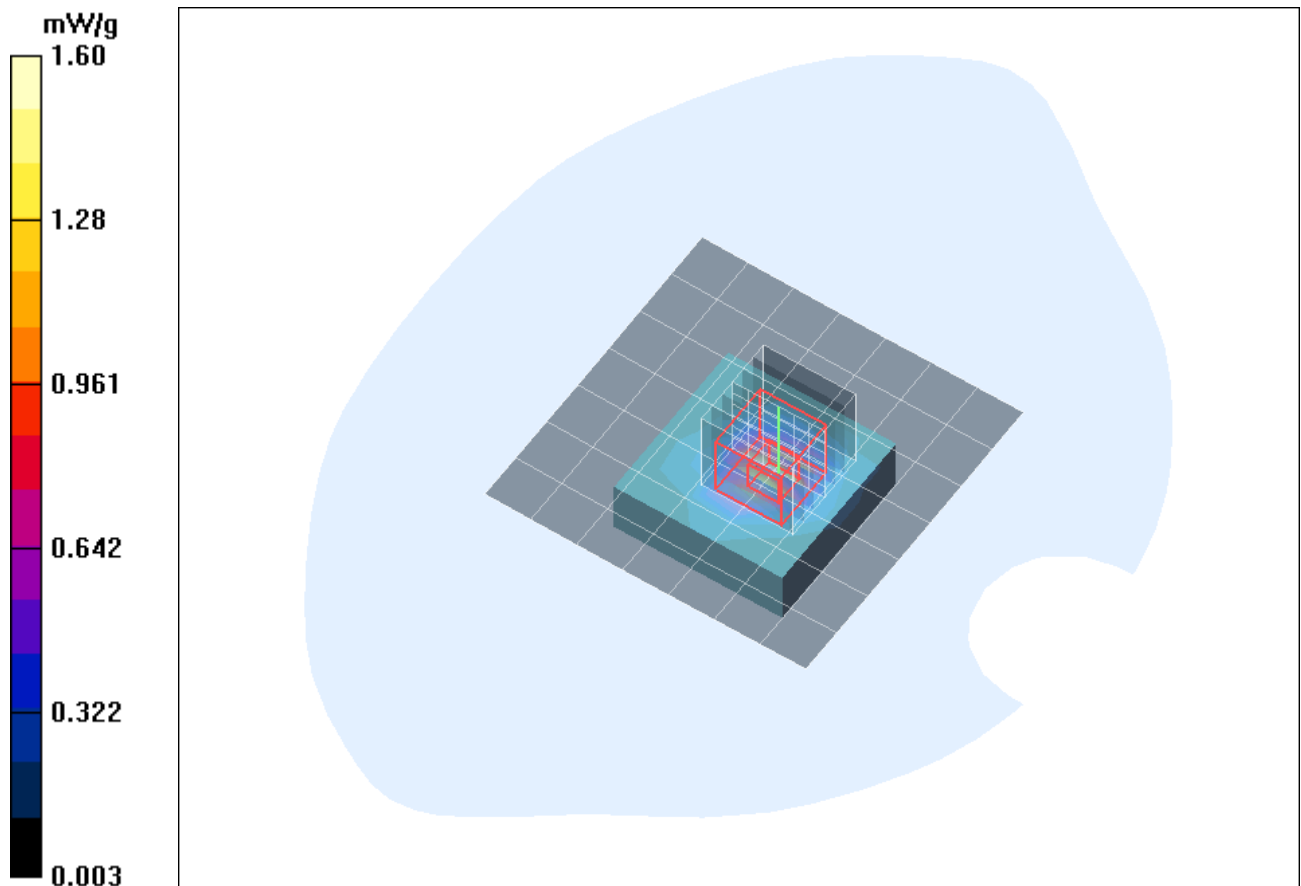


Fig. 6: SAR distribution for PCS 1900, channel 810, Position 1 (March 28, 2011; Ambient Temperature: 21.1°C; Liquid Temperature: 20.6°C).



### 3 SAR Z-axis Scans (Validation)

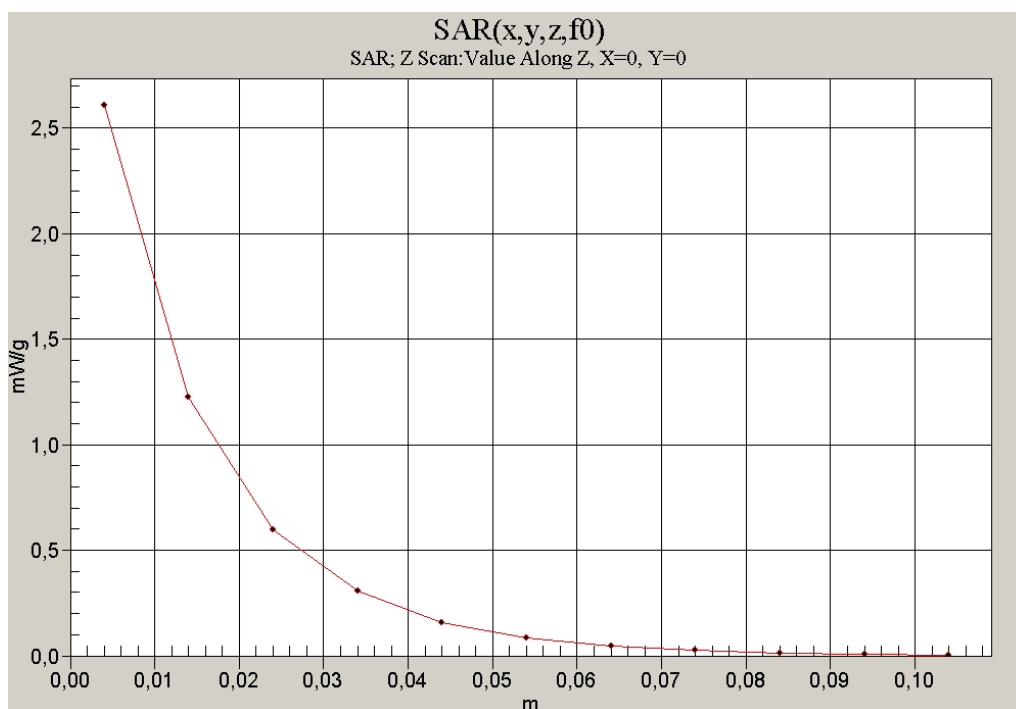


Fig. 7: SAR versus liquid depth, 835 MHz, body (March 29, 2011; Ambient Temperature: 20.8°C; Liquid Temperature: 20.3°C).

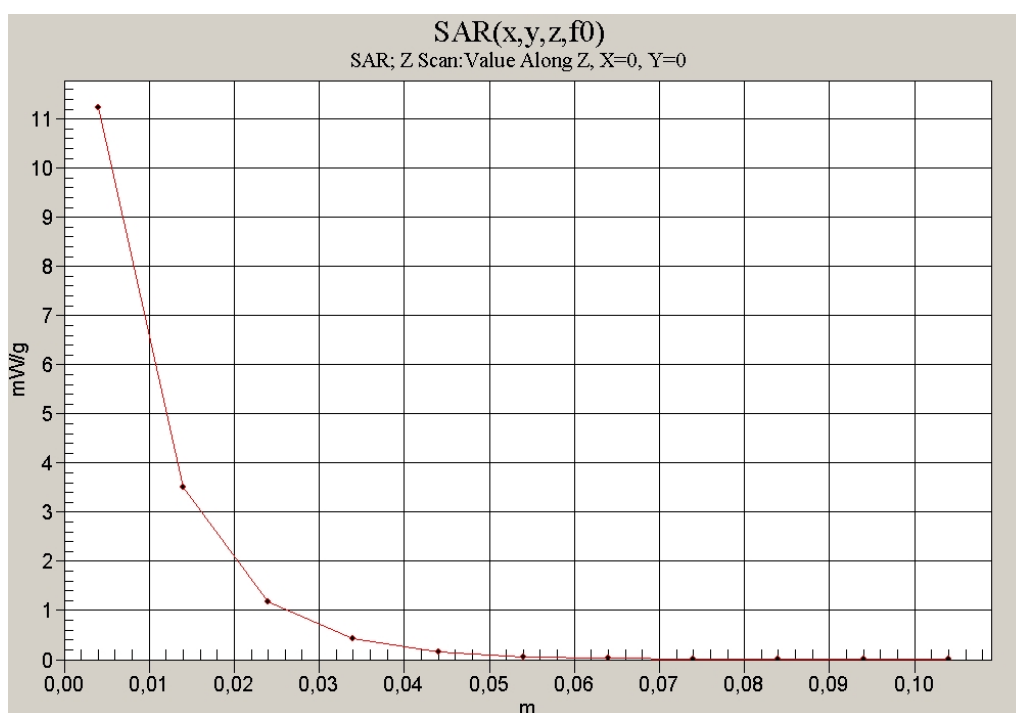


Fig. 8: SAR versus liquid depth, 1900 MHz, body (March 28, 2011; Ambient Temperature: 20.7°C; Liquid Temperature: 20.3°C).

#### 4 SAR Z-axis Scans (Measurements)

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

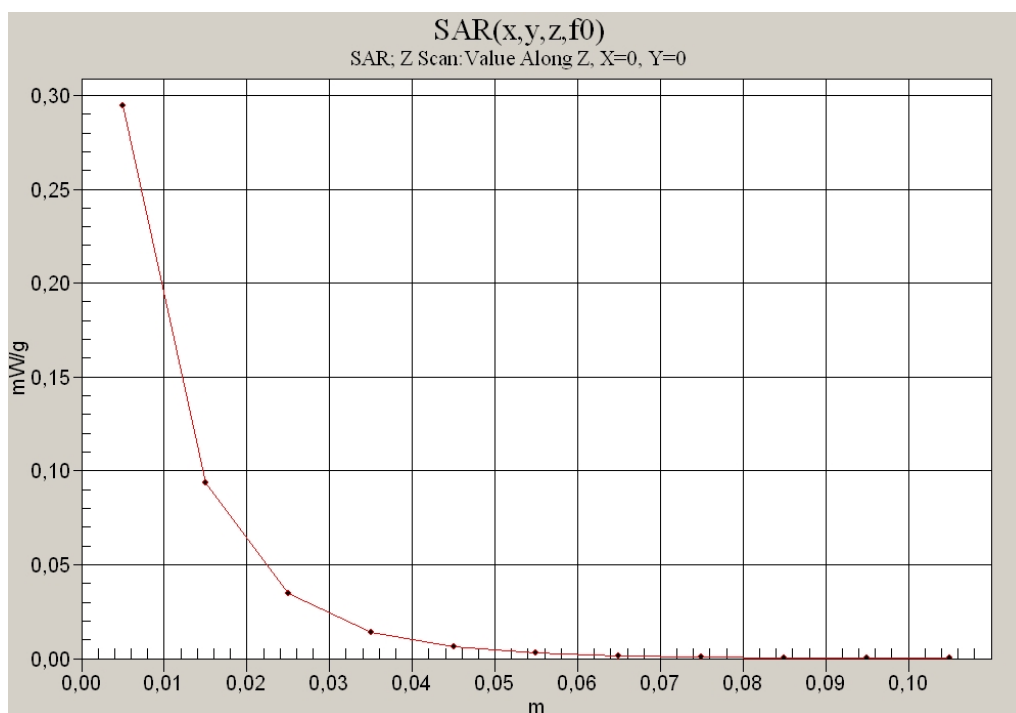


Fig. 9: SAR versus liquid depth, body: GSM 850, channel 190, Position 1 (March 29, 2011; Ambient Temperature: 20.8°C; Liquid Temperature: 20.3°C).

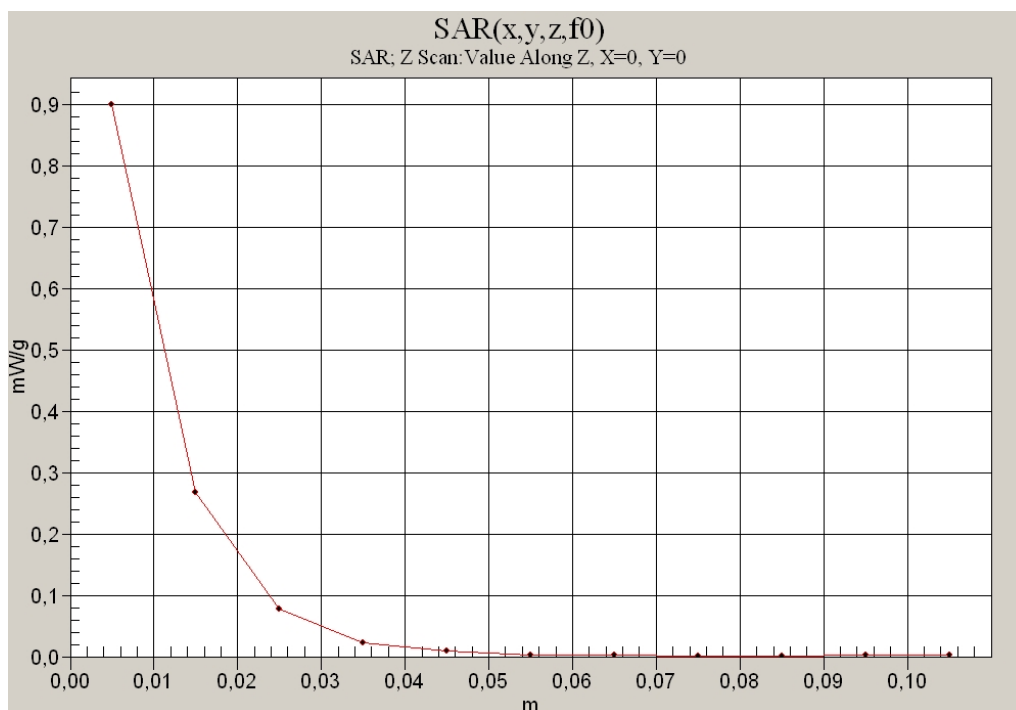


Fig. 10: SAR versus liquid depth, body: PCS 1900, channel 810, Position 1 (March 28, 2011; Ambient Temperature: 21.1°C; Liquid Temperature: 20.6°C).