

# **SAR Distribution Plots**

## **Appendix for the Test Report**

### **Dosimetric Assessment of the Portable Device Smart Tag from buddi Limited**

(FCC ID ZDLST2)

August 08, 2016

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The test results only relate to the items tested.

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# 1 SAR Distribution Plots

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name: [SmartTag\\_416\\_y\\_gprs850\\_fm\\_back.da4](#)

DUT: Buddi; Type: Smart Tag; Serial: 353162072671416  
Program Name: GPRS850 (Class 12)

Communication System: GPRS 850; Frequency: 836.6 MHz; Duty Cycle: 1:2  
Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.99$  mho/m;  $\epsilon_r = 53.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(6.4, 6.4, 6.4); Calibrated: 2/23/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 2/16/2016
- Phantom: SAM Sugar 1341; Type: QD 000 P40 CB; Serial: TP-1341
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body/Area Scan (8x9x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.152 mW/g

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

Reference Value = 11.8 V/m; Power Drift = -0.107 dB

Peak SAR (extrapolated) = 0.173 W/kg

**SAR(1 g) = 0.135 mW/g; SAR(10 g) = 0.097 mW/g**

Maximum value of SAR (measured) = 0.144 mW/g

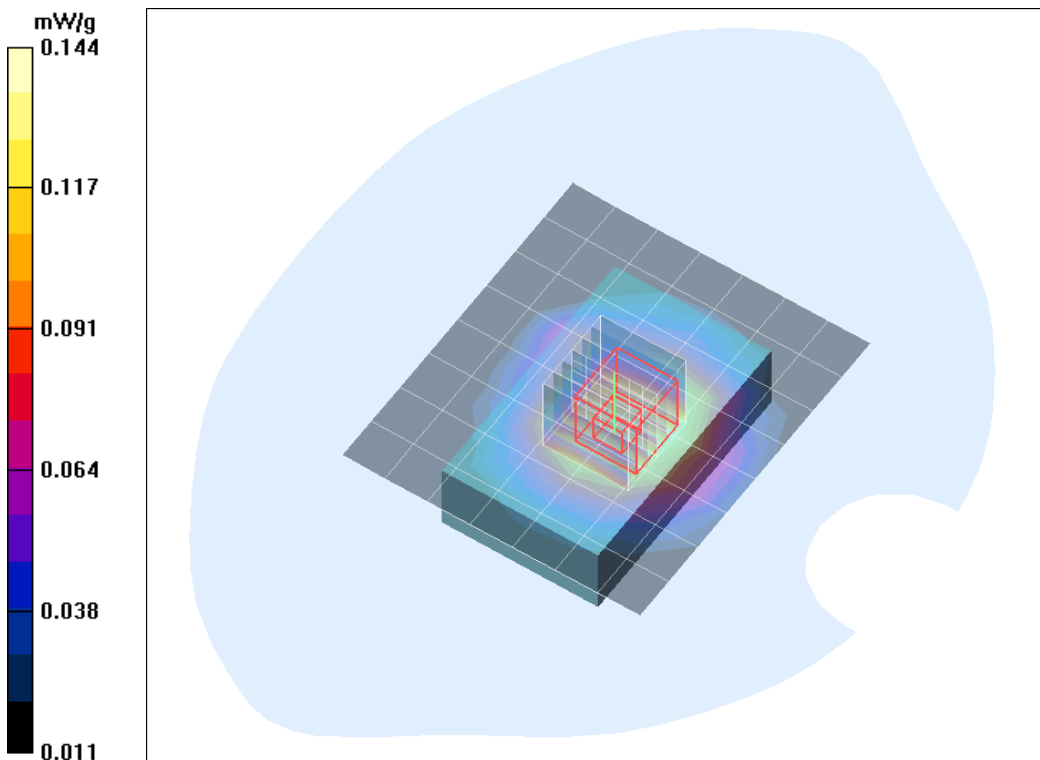


Fig. 1: SAR distribution for GPRS 850 (4TX), channel 190, configuration 1, back side, 0 mm distance (May 11, 2016)

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name:  
[SmartTag\\_416\\_y\\_gprs850\\_fm\\_back\\_bat.da4](#)

DUT: Buddi; Type: Smart Tag; Serial: 353162072671416  
Program Name: GPRS850 (Class 12)

Communication System: GPRS 850; Frequency: 836.6 MHz; Duty Cycle: 1:2  
Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.99$  mho/m;  $\epsilon_r = 53.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(6.4, 6.4, 6.4); Calibrated: 2/23/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 2/16/2016
- Phantom: SAM Sugar 1341; Type: QD 000 P40 CB; Serial: TP-1341
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

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

Maximum value of SAR (measured) = 0.717 mW/g

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

Reference Value = 26.9 V/m; Power Drift = -0.040 dB

Peak SAR (extrapolated) = 0.995 W/kg

**SAR(1 g) = 0.674 mW/g; SAR(10 g) = 0.460 mW/g**

Maximum value of SAR (measured) = 0.718 mW/g

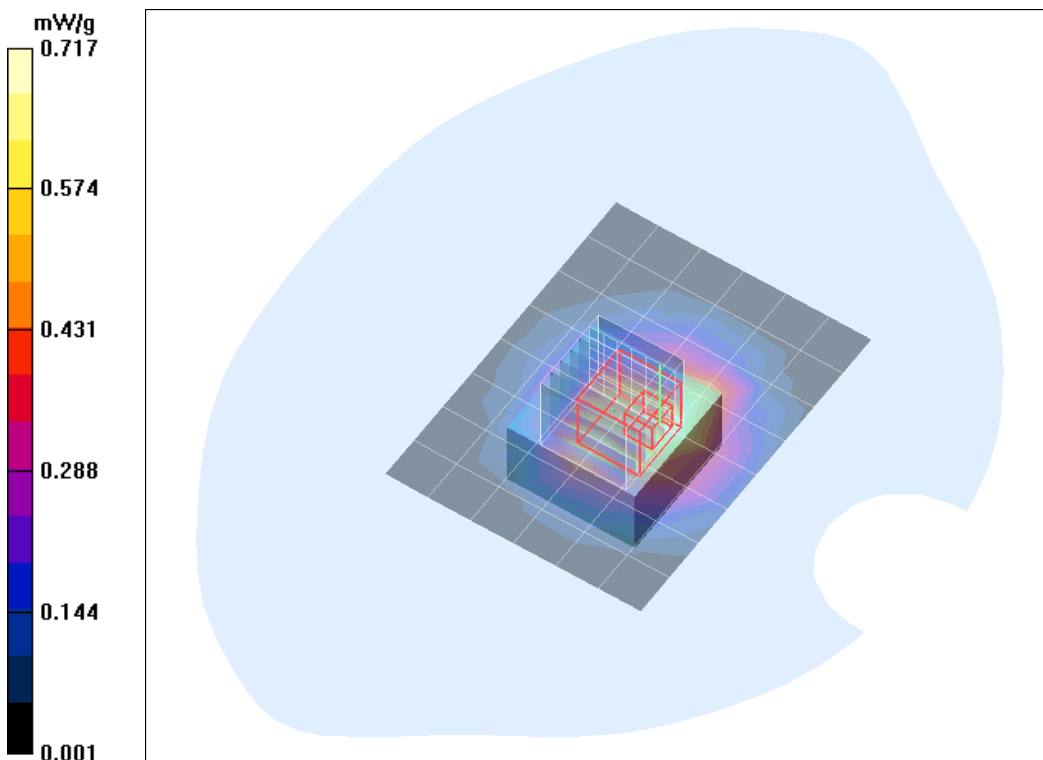


Fig. 2: SAR distribution for GPRS 850 (4TX), channel 190, configuration 2, back side, 0 mm distance  
(May 11, 2016)

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name:  
[SmartTag\\_416\\_y\\_gprs850\\_fm\\_back\\_OBC.da4](#)

DUT: Buddi; Type: Smart Tag; Serial: 353162072671416  
Program Name: GPRS850 (Class 12)

Communication System: GPRS 850; Frequency: 836.6 MHz; Duty Cycle: 1:2  
Medium parameters used:  $f = 836.6$  MHz;  $\sigma = 0.99$  mho/m;  $\epsilon_r = 53.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(6.4, 6.4, 6.4); Calibrated: 2/23/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 2/16/2016
- Phantom: SAM Sugar 1341; Type: QD 000 P40 CB; Serial: TP-1341
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body/Area Scan (8x9x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.116 mW/g

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

Reference Value = 8.05 V/m; Power Drift = -0.171 dB

Peak SAR (extrapolated) = 0.496 W/kg

**SAR(1 g) = 0.090 mW/g; SAR(10 g) = 0.037 mW/g**

Maximum value of SAR (measured) = 0.100 mW/g

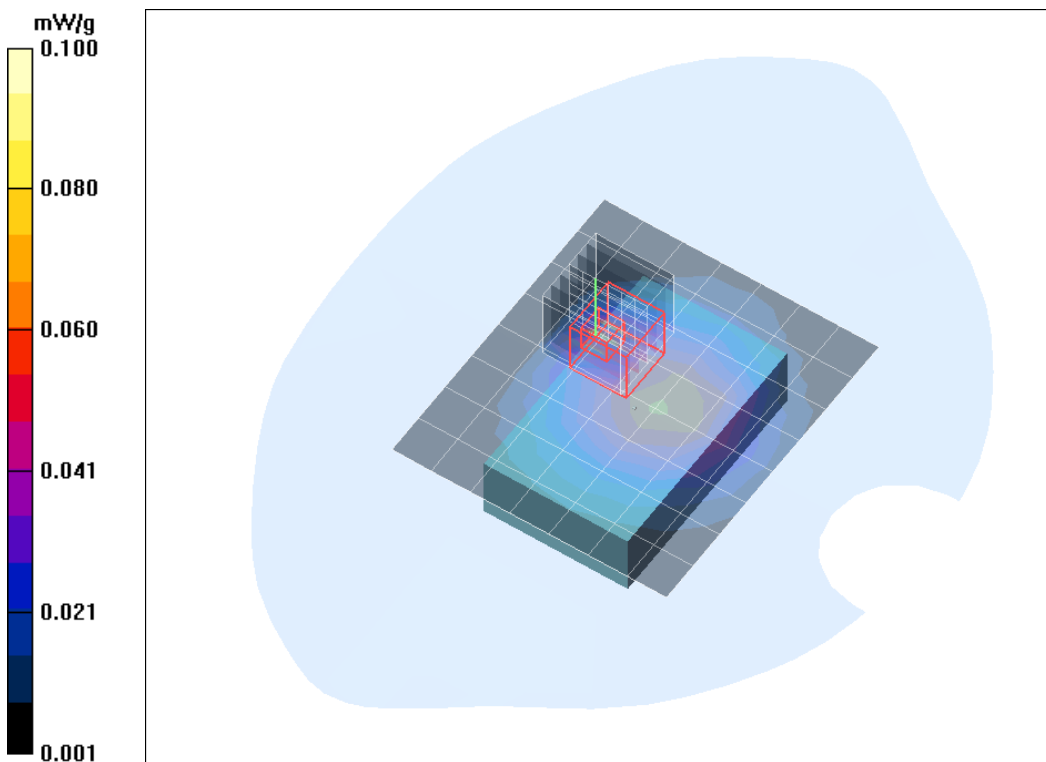


Fig. 3: SAR distribution for GPRS 850 (4TX), channel 190, configuration 3, back side, 0 mm distance  
(May 11, 2016)

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name:  
[SmartTag\\_416\\_y\\_qprs850\\_fl\\_back\\_bat.da4](#)

DUT: Buddi; Type: Smart Tag; Serial: 353162072671416  
Program Name: GPRS850 (Class 12)

Communication System: GPRS 850; Frequency: 824.2 MHz; Duty Cycle: 1:2  
Medium parameters used:  $f = 824.2$  MHz;  $\sigma = 0.98$  mho/m;  $\epsilon_r = 53.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(6.4, 6.4, 6.4); Calibrated: 2/23/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 2/16/2016
- Phantom: SAM Sugar 1341; Type: QD 000 P40 CB; Serial: TP-1341
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body/Area Scan (7x8x1):** Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 30.6 V/m; Power Drift = 0.199 dB

Peak SAR (extrapolated) = 1.57 W/kg

**SAR(1 g) = 0.999 mW/g; SAR(10 g) = 0.655 mW/g**

Maximum value of SAR (measured) = 1.08 mW/g

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

Reference Value = 30.6 V/m; Power Drift = 0.199 dB

Peak SAR (extrapolated) = 1.38 W/kg

**SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.711 mW/g**

Maximum value of SAR (measured) = 1.11 mW/g

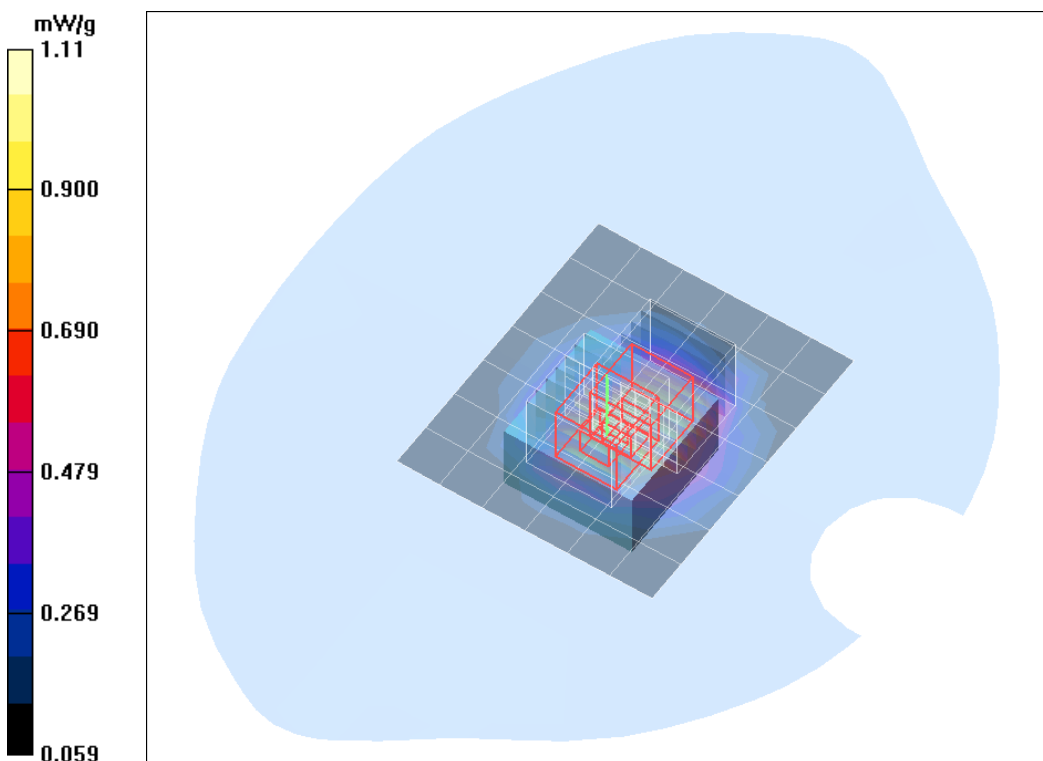


Fig. 4: SAR distribution for GPRS 850 (4TX), channel 128, configuration 2, back side, 0 mm distance  
(May 11, 2016)

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name:  
[SmartTag\\_416\\_y\\_gprs850\\_fh\\_back\\_bat.da4](#)

DUT: Buddi; Type: Smart Tag; Serial: 353162072671416  
Program Name: GPRS850 (Class 12)

Communication System: GPRS 850; Frequency: 848.8 MHz; Duty Cycle: 1:2  
Medium parameters used:  $f = 848.8$  MHz;  $\sigma = 1$  mho/m;  $\epsilon_r = 53.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(6.4, 6.4, 6.4); Calibrated: 2/23/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 2/16/2016
- Phantom: SAM Sugar 1341; Type: QD 000 P40 CB; Serial: TP-1341
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body/Area Scan (7x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.617 mW/g

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

Reference Value = 24.8 V/m; Power Drift = -0.105 dB

Peak SAR (extrapolated) = 0.893 W/kg

**SAR(1 g) = 0.607 mW/g; SAR(10 g) = 0.419 mW/g**

Maximum value of SAR (measured) = 0.654 mW/g

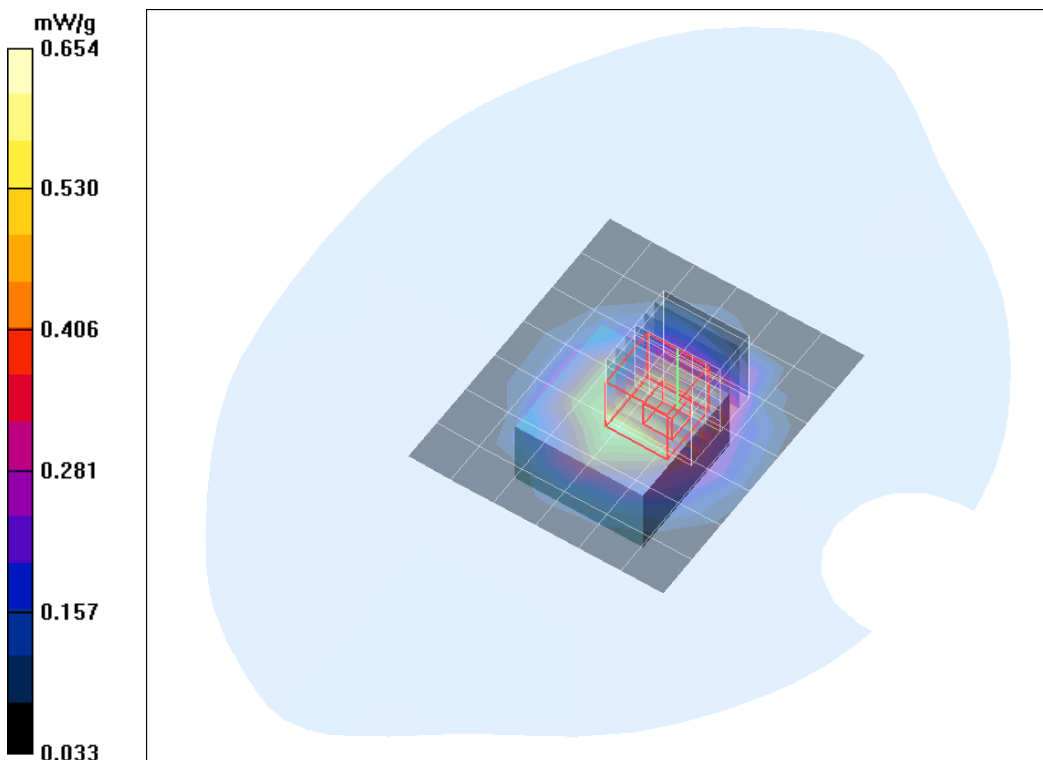


Fig. 5: SAR distribution for GPRS 850 (4TX), channel 251, configuration 2, back side, 0 mm distance (May 11, 2016)

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name:  
[SmartTag\\_416\\_y\\_gprs1900\\_4TX\\_fm\\_back.da4](#)

DUT: Buddi; Type: Smart Tag; Serial: 353162072671416  
Program Name: GPRS1900 (Class 12)

Communication System: GPRS 1900; Frequency: 1880 MHz; Duty Cycle: 1:2  
Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.55$  mho/m;  $\epsilon_r = 51.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(4.63, 4.63, 4.63); Calibrated: 2/23/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 2/16/2016
- Phantom: SAM 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body/Area Scan (8x9x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 3.30 mW/g

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

Reference Value = 52.8 V/m; Power Drift = -0.137 dB

Peak SAR (extrapolated) = 4.06 W/kg

**SAR(1 g) = 3.27 mW/g; SAR(10 g) = 2.03 mW/g**

Maximum value of SAR (measured) = 3.55 mW/g

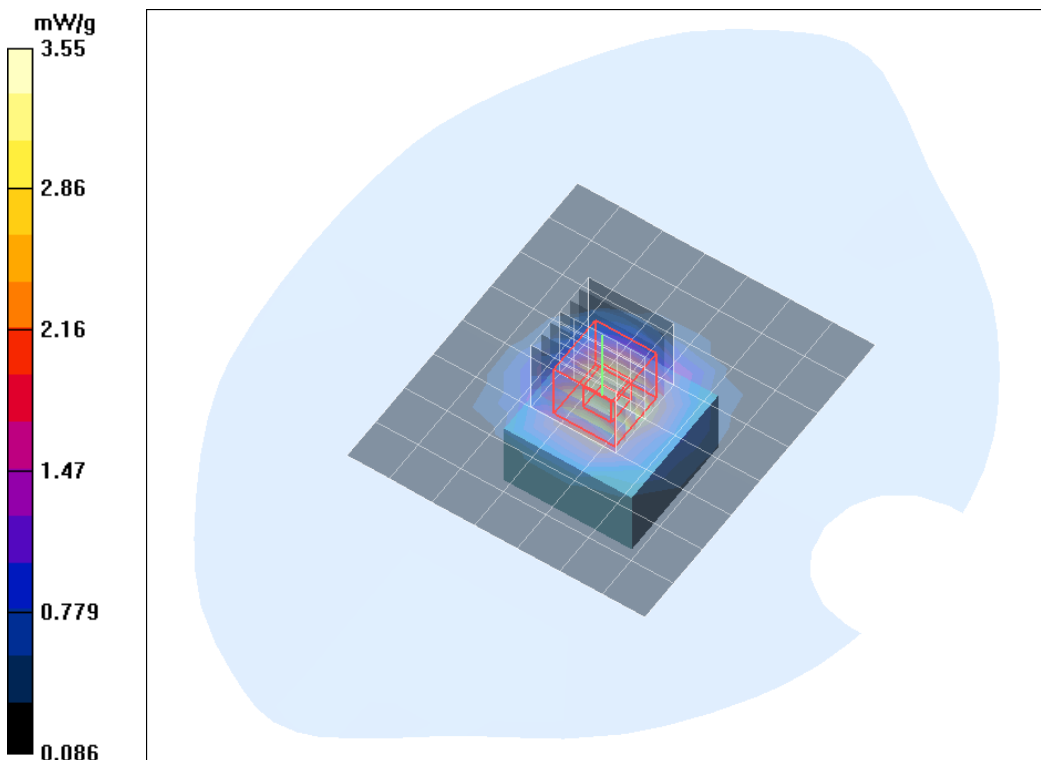


Fig. 6: SAR distribution for GPRS 1900 (4TX), channel 661, configuration 1, back side, 0 mm distance (May 24, 2016)

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name:  
[SmartTag\\_416\\_y\\_gprs1900\\_4TX\\_fm\\_back\\_bat.da4](#)

DUT: Buddi; Type: Smart Tag; Serial: 353162072671416  
Program Name: GPRS1900 (Class 12)

Communication System: GPRS 1900; Frequency: 1880 MHz; Duty Cycle: 1:2  
Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.55$  mho/m;  $\epsilon_r = 51.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(4.63, 4.63, 4.63); Calibrated: 2/23/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 2/16/2016
- Phantom: SAM 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body/Area Scan (7x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.51 mW/g

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

Reference Value = 35.8 V/m; Power Drift = -0.180 dB

Peak SAR (extrapolated) = 2.19 W/kg

**SAR(1 g) = 1.65 mW/g; SAR(10 g) = 1.04 mW/g**

Maximum value of SAR (measured) = 1.81 mW/g

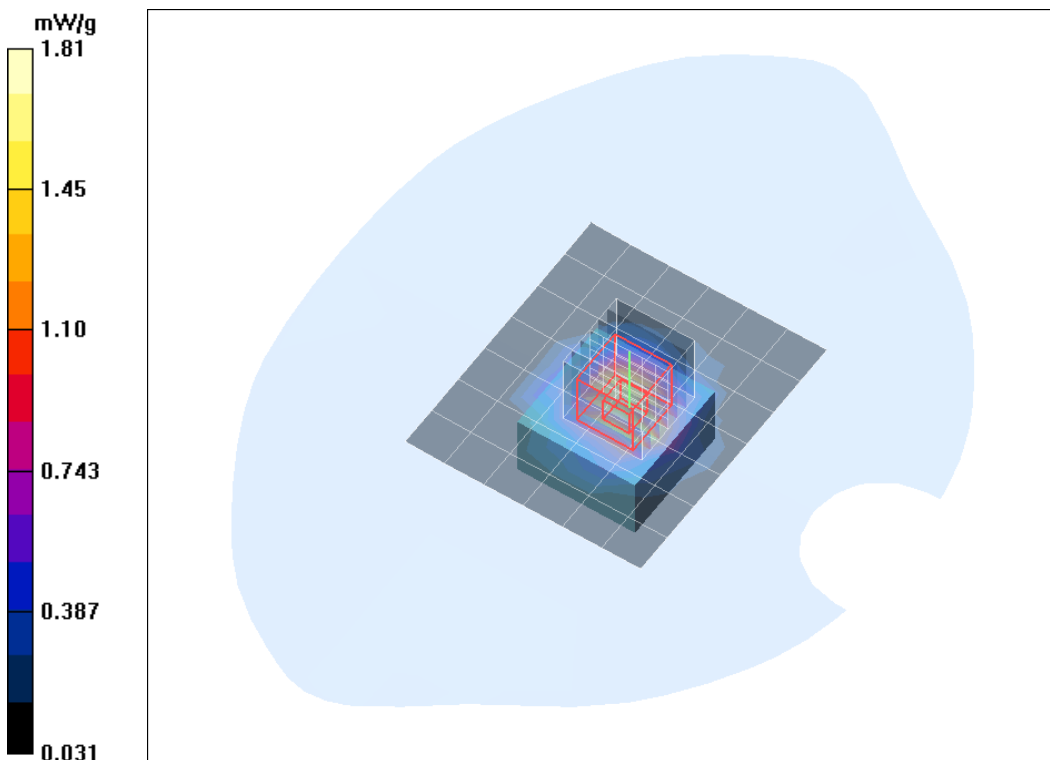


Fig. 7: SAR distribution for GPRS 1900 (4TX), channel 661, configuration 2, back side, 0 mm distance (May 24, 2016)



Test Laboratory: IMST GmbH, DASY Yellow (II); File Name:  
[SmartTag\\_416\\_y\\_gprs1900\\_4TX\\_fm\\_back\\_OBC.da4](#)

DUT: Buddi; Type: Smart Tag; Serial: 353162072671416  
Program Name: GPRS1900 (Class 12)

Communication System: GPRS 1900; Frequency: 1880 MHz; Duty Cycle: 1:2  
Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.55$  mho/m;  $\epsilon_r = 51.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(4.63, 4.63, 4.63); Calibrated: 2/23/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 2/16/2016
- Phantom: SAM 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body/Area Scan (8x9x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.571 mW/g

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

Reference Value = 16.6 V/m; Power Drift = -0.176 dB

Peak SAR (extrapolated) = 1.53 W/kg

**SAR(1 g) = 0.598 mW/g; SAR(10 g) = 0.324 mW/g**

Maximum value of SAR (measured) = 0.673 mW/g

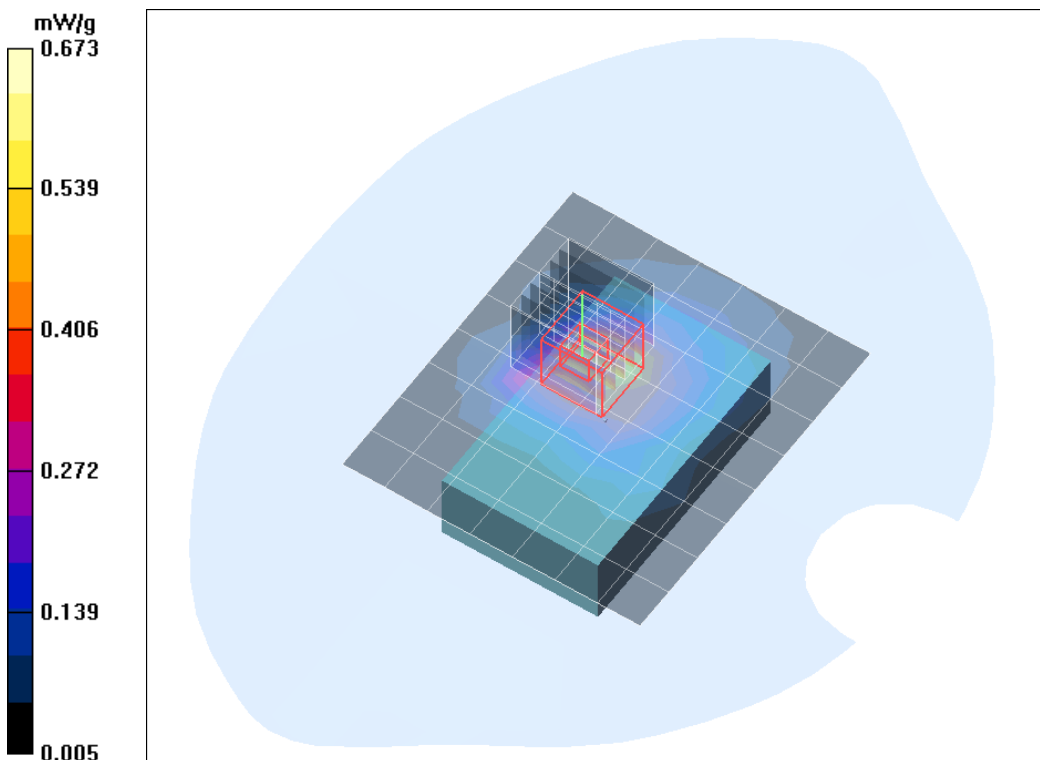


Fig. 8: SAR distribution for GPRS 1900 (4TX), channel 661, configuration 3, back side, 0 mm distance  
(May 24, 2016)

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name:  
[SmartTag\\_416\\_y\\_gprs1900\\_4TX\\_fl\\_back.da4](#)

DUT: Buddi; Type: Smart Tag; Serial: 353162072671416  
Program Name: GPRS1900 (Class 12)

Communication System: GPRS 1900; Frequency: 1850.2 MHz; Duty Cycle: 1:2  
Medium parameters used:  $f = 1850.2$  MHz;  $\sigma = 1.52$  mho/m;  $\epsilon_r = 51.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(4.63, 4.63, 4.63); Calibrated: 2/23/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 2/16/2016
- Phantom: SAM 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body/Area Scan (7x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 3.47 mW/g

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

Reference Value = 51.0 V/m; Power Drift = -0.018 dB

Peak SAR (extrapolated) = 4.19 W/kg

**SAR(1 g) = 3.42 mW/g; SAR(10 g) = 2.14 mW/g**

Maximum value of SAR (measured) = 3.69 mW/g

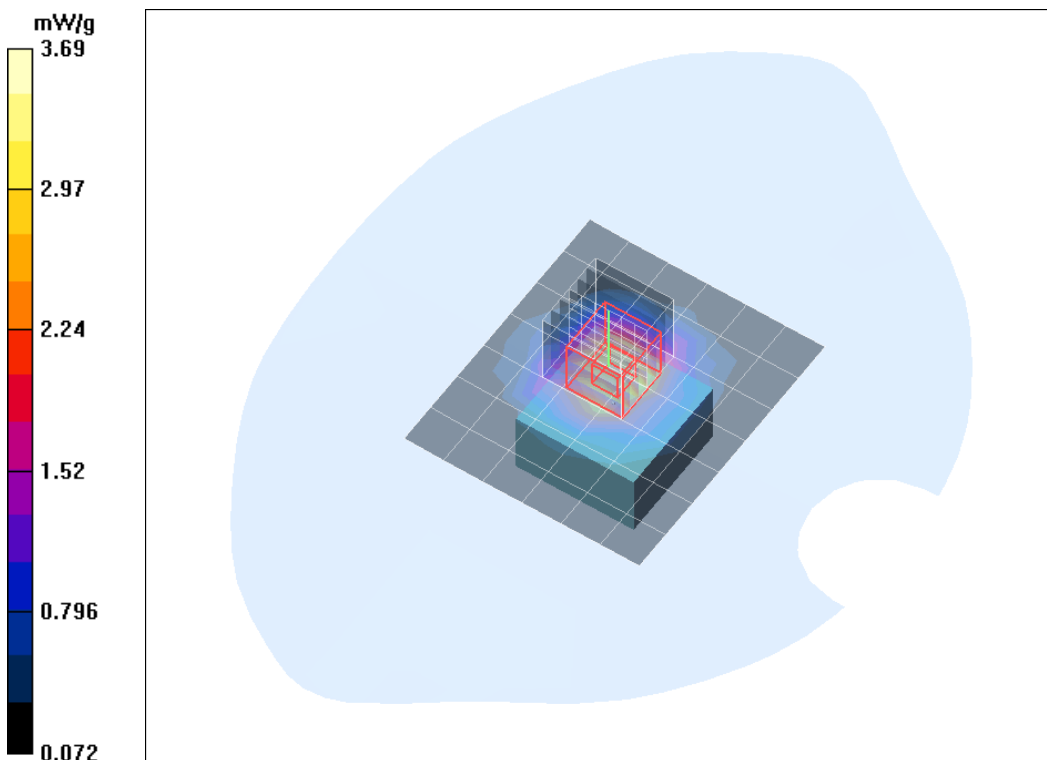


Fig. 9: SAR distribution for GPRS 1900 (4TX), channel 512, configuration 1, back side, 0 mm distance  
(May 24, 2016)

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name:  
[SmartTag\\_416\\_y\\_gprs1900\\_4TX\\_fh\\_back.da4](#)

DUT: Buddi; Type: Smart Tag; Serial: 353162072671416  
Program Name: GPRS1900 (Class 12)

Communication System: GPRS 1900; Frequency: 1909.8 MHz; Duty Cycle: 1:2  
Medium parameters used:  $f = 1909.8$  MHz;  $\sigma = 1.58$  mho/m;  $\epsilon_r = 51.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(4.63, 4.63, 4.63); Calibrated: 2/23/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 2/16/2016
- Phantom: SAM 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body/Area Scan (7x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.94 mW/g

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

Reference Value = 46.3 V/m; Power Drift = -0.087 dB

Peak SAR (extrapolated) = 3.83 W/kg

**SAR(1 g) = 3 mW/g; SAR(10 g) = 1.84 mW/g**

Maximum value of SAR (measured) = 3.28 mW/g

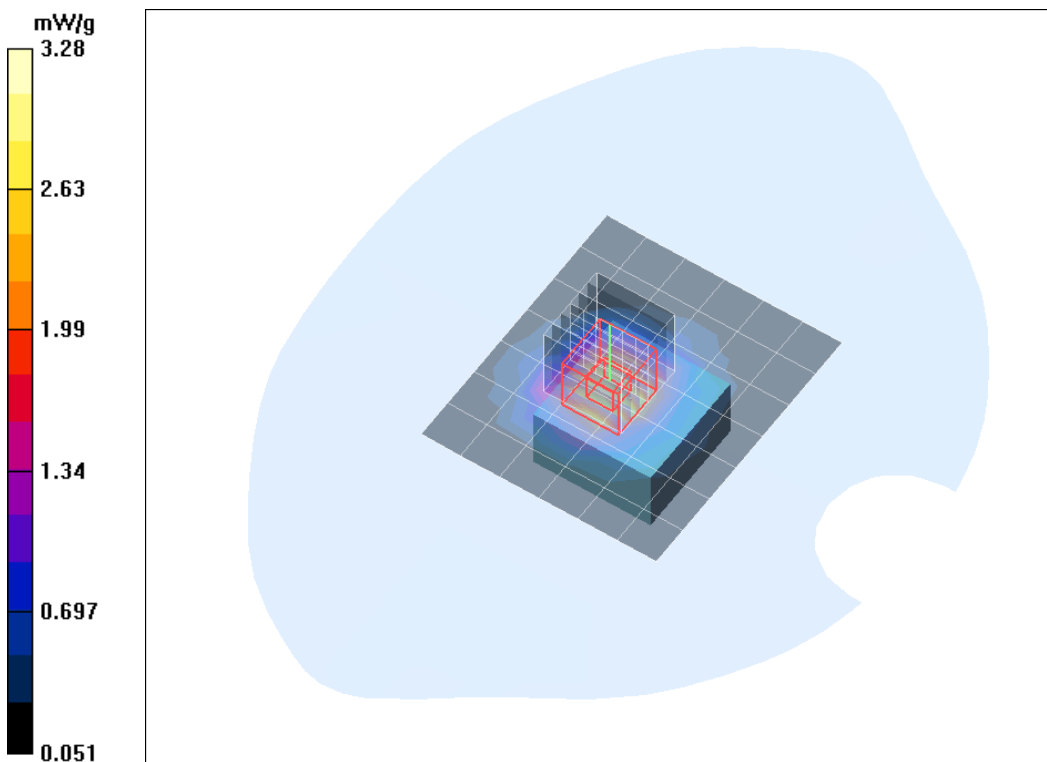


Fig. 10: SAR distribution for GPRS 1900 (4TX), channel 810, configuration 1, back side, 0 mm distance  
(May 24, 2016)

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name: [SmartTag\\_4099\\_y\\_wcdma2\\_fm\\_back.da4](#)

DUT: Buddi; Type: Smart Tag; Serial: 353162072574099  
Program Name: WCDMA 2 (RMC)

Communication System: WCDMA FDD Band II; Frequency: 1880 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.55$  mho/m;  $\epsilon_r = 51.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(4.63, 4.63, 4.63); Calibrated: 2/23/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 2/16/2016
- Phantom: SAM 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body/Area Scan (8x9x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.97 mW/g

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

Reference Value = 44.1 V/m; Power Drift = -0.105 dB

Peak SAR (extrapolated) = 2.35 W/kg

**SAR(1 g) = 1.86 mW/g; SAR(10 g) = 1.15 mW/g**

Maximum value of SAR (measured) = 2.02 mW/g

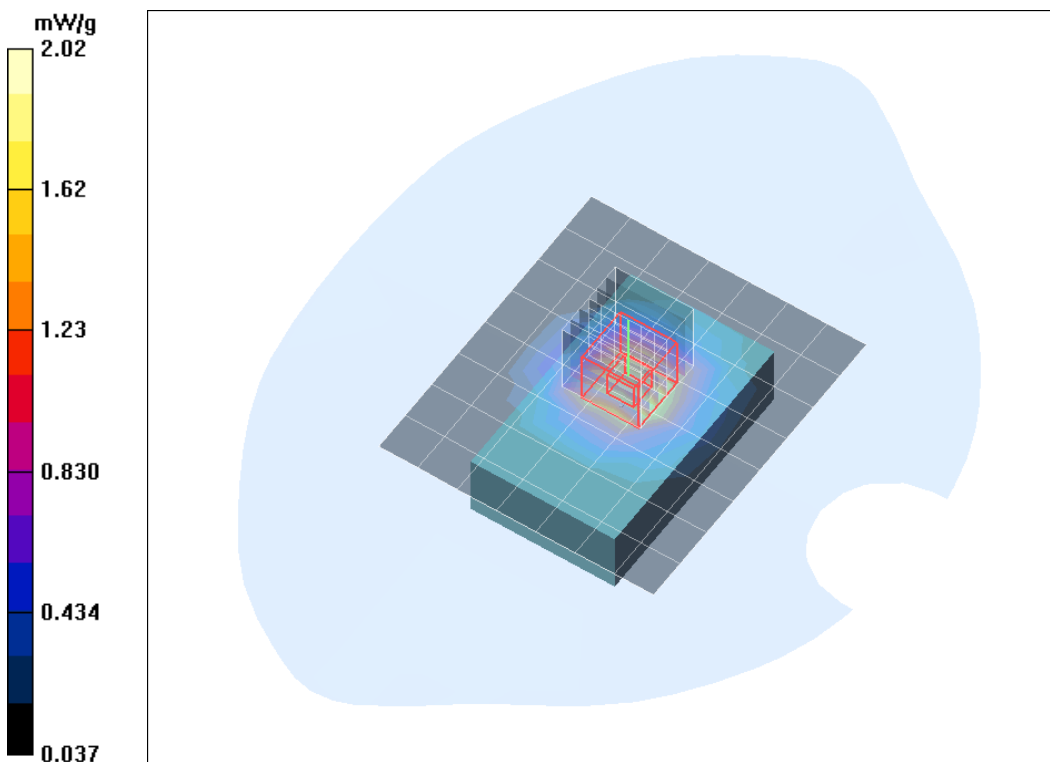


Fig. 11: SAR distribution for WCDMA2, channel 9400, configuration 1, back side, 0 mm distance (May 25, 2016)

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name:  
[SmartTag\\_4099\\_y\\_wcdma2\\_fm\\_back\\_bat.da4](#)

DUT: Buddi; Type: Smart Tag; Serial: 353162072574099  
Program Name: WCDMA 2 (RMC)

Communication System: WCDMA FDD Band II; Frequency: 1880 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.55$  mho/m;  $\epsilon_r = 51.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(4.63, 4.63, 4.63); Calibrated: 2/23/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 2/16/2016
- Phantom: SAM 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body/Area Scan (8x9x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.98 mW/g

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

Reference Value = 39.2 V/m; Power Drift = -0.071 dB

Peak SAR (extrapolated) = 3.49 W/kg

**SAR(1 g) = 1.9 mW/g; SAR(10 g) = 1.11 mW/g**

Maximum value of SAR (measured) = 2.16 mW/g

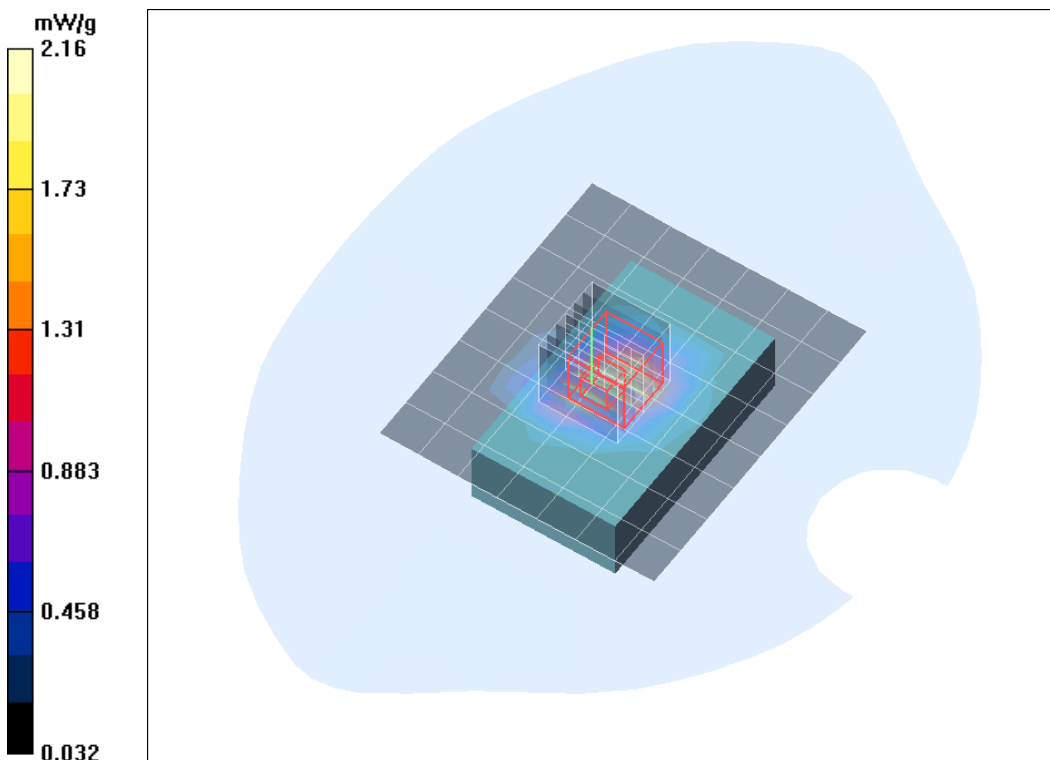


Fig. 12: SAR distribution for WCDMA2, channel 9400, configuration 2, back side, 0 mm distance (May 25, 2016)

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name:  
[SmartTag\\_4099\\_y\\_wcdma2\\_fm\\_back\\_OBC.da4](#)

DUT: Buddi; Type: Smart Tag; Serial: 353162072574099  
Program Name: WCDMA 2 (RMC)

Communication System: WCDMA FDD Band II; Frequency: 1880 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 1880$  MHz;  $\sigma = 1.55$  mho/m;  $\epsilon_r = 51.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(4.63, 4.63, 4.63); Calibrated: 2/23/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 2/16/2016
- Phantom: SAM 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body/Area Scan (8x9x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.461 mW/g

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

Reference Value = 13.8 V/m; Power Drift = -0.174 dB

Peak SAR (extrapolated) = 0.950 W/kg

**SAR(1 g) = 0.369 mW/g; SAR(10 g) = 0.204 mW/g**

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

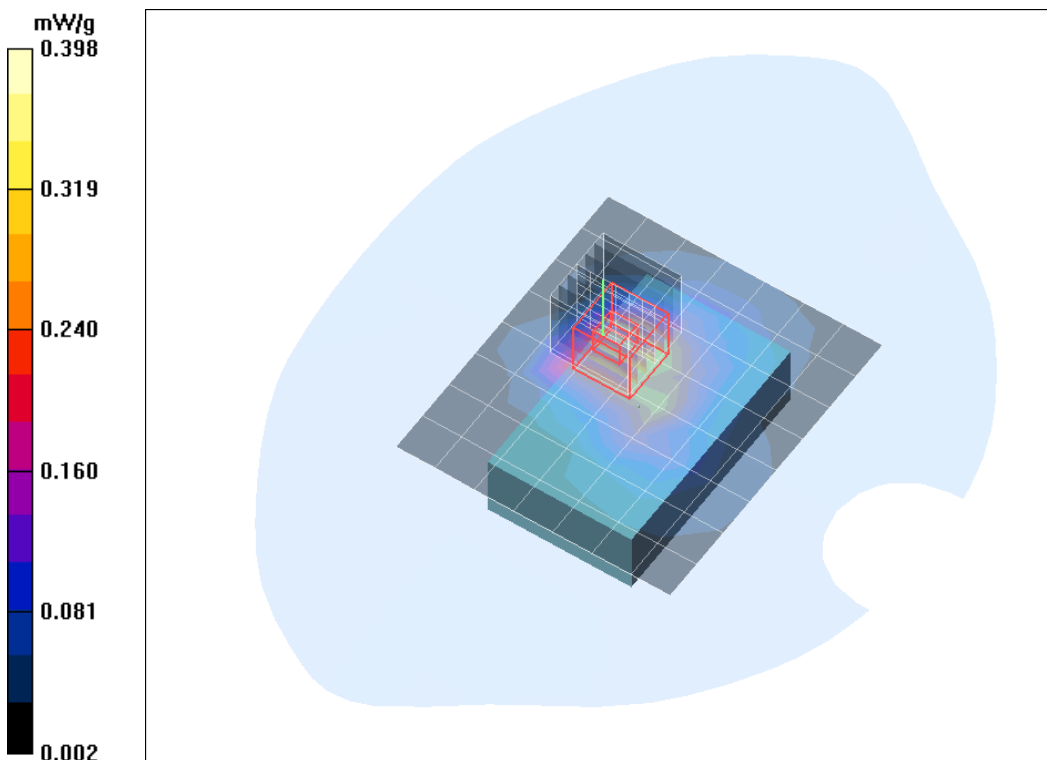


Fig. 13: SAR distribution for WCDMA2, channel 9400, configuration 3, back side, 0 mm distance (May 25, 2016)

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name:  
[SmartTag\\_4099\\_y\\_wcdma2\\_fl\\_back\\_bat.da4](#)

DUT: Buddi; Type: Smart Tag; Serial: 353162072574099  
Program Name: WCDMA 2 (RMC)

Communication System: WCDMA FDD Band II; Frequency: 1852.4 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 1852.4$  MHz;  $\sigma = 1.52$  mho/m;  $\epsilon_r = 51.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(4.63, 4.63, 4.63); Calibrated: 2/23/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 2/16/2016
- Phantom: SAM 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body/Area Scan (8x9x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.37 mW/g

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

Reference Value = 33.2 V/m; Power Drift = -0.009 dB

Peak SAR (extrapolated) = 2.51 W/kg

**SAR(1 g) = 1.37 mW/g; SAR(10 g) = 0.802 mW/g**

Maximum value of SAR (measured) = 1.56 mW/g

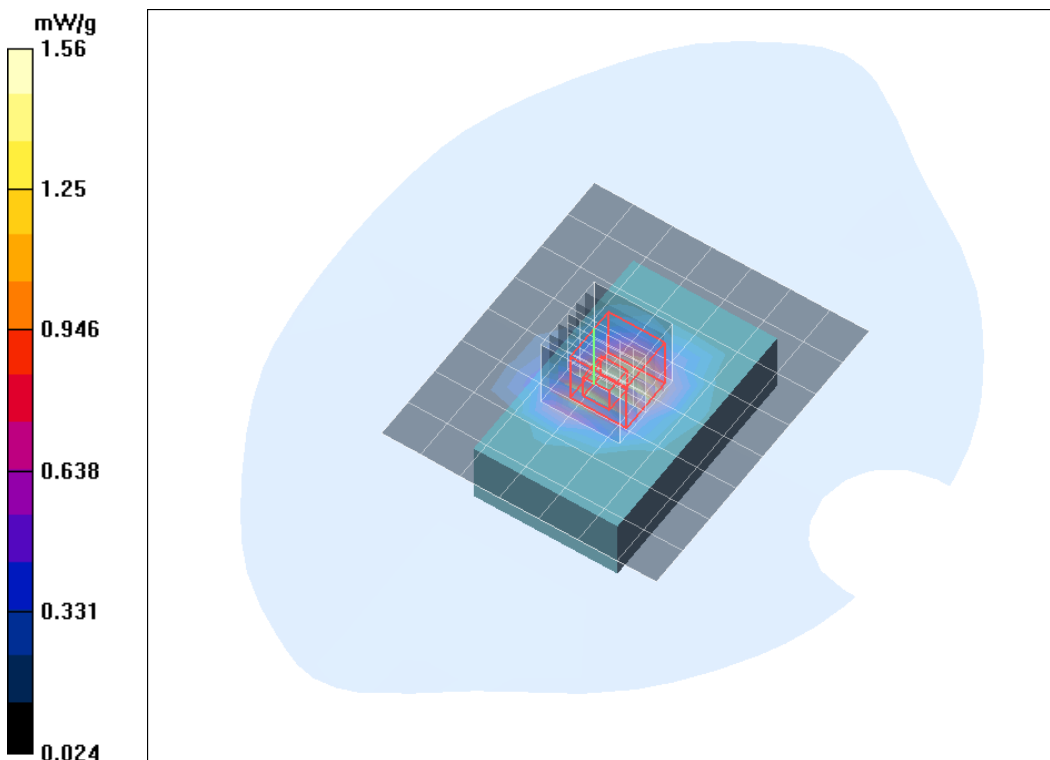


Fig. 14: SAR distribution for WCDMA2, channel 9262, configuration 2, back side, 0 mm distance (May 25, 2016)

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name:  
[SmartTag\\_4099\\_y\\_wcdma2\\_fh\\_back\\_bat.da4](#)

DUT: Buddi; Type: Smart Tag; Serial: 353162072574099  
Program Name: WCDMA 2 (RMC)

Communication System: WCDMA FDD Band II; Frequency: 1907.6 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 1907.6$  MHz;  $\sigma = 1.58$  mho/m;  $\epsilon_r = 51.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(4.63, 4.63, 4.63); Calibrated: 2/23/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 2/16/2016
- Phantom: SAM 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body/Area Scan (8x9x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.23 mW/g

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

Reference Value = 32.7 V/m; Power Drift = -0.163 dB

Peak SAR (extrapolated) = 2.21 W/kg

**SAR(1 g) = 1.15 mW/g; SAR(10 g) = 0.648 mW/g**

Maximum value of SAR (measured) = 1.32 mW/g

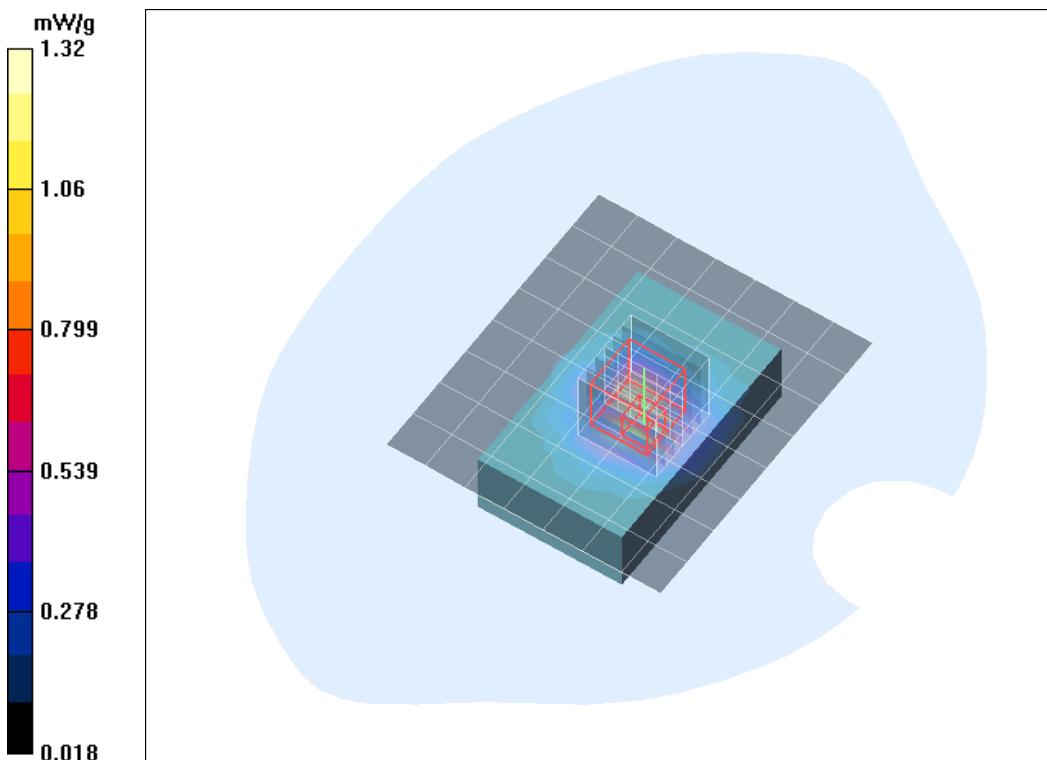


Fig. 15: SAR distribution for WCDMA2, channel 9538, configuration 2, back side, 0 mm distance (May 25, 2016)



Test Laboratory: IMST GmbH, DASY Yellow (II); File Name: [SmartTag\\_416\\_y\\_u5\\_fm\\_back.da4](#)

DUT: Buddi; Type: Smart Tag; Serial: 353162072574099  
Program Name: WCDMA 5

Communication System: WCDMA (FDD) Band V; Frequency: 836.5 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 836.5$  MHz;  $\sigma = 0.99$  mho/m;  $\epsilon_r = 53.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(6.4, 6.4, 6.4); Calibrated: 2/23/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 2/16/2016
- Phantom: SAM Sugar 1341; Type: QD 000 P40 CB; Serial: TP-1341
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body/Area Scan (8x9x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.441 mW/g

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

Reference Value = 22.4 V/m; Power Drift = -0.076 dB

Peak SAR (extrapolated) = 0.511 W/kg

**SAR(1 g) = 0.395 mW/g; SAR(10 g) = 0.278 mW/g**

Maximum value of SAR (measured) = 0.424 mW/g

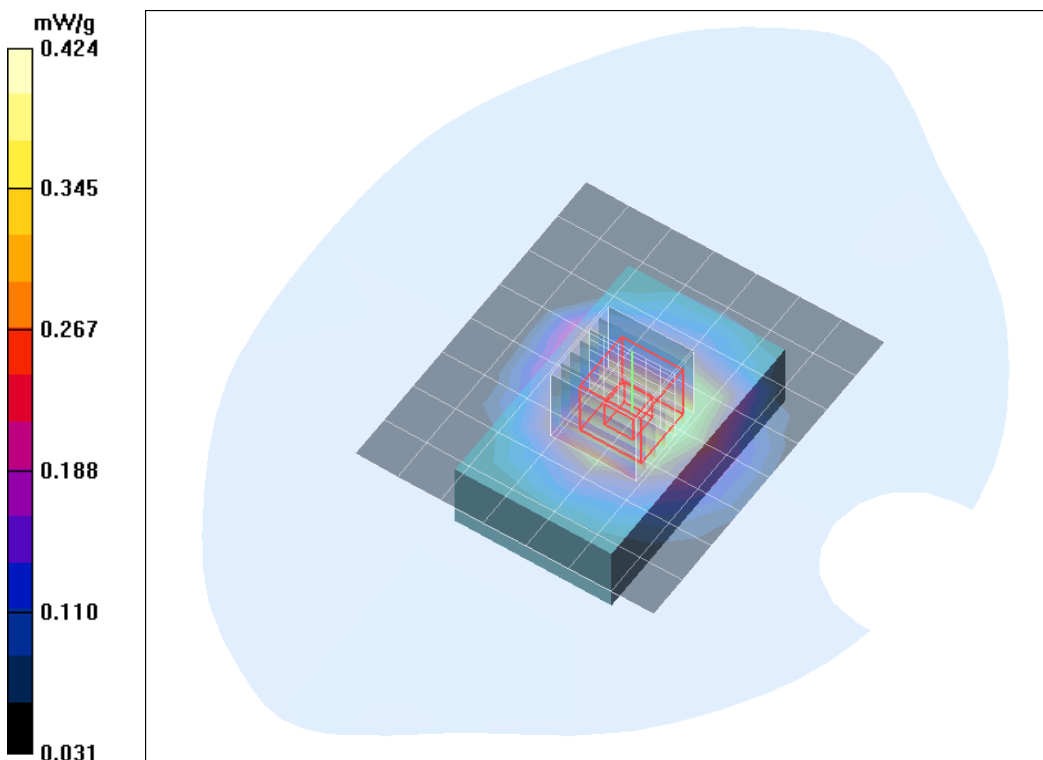


Fig. 16: SAR distribution for WCDMA5, channel 4183, configuration 1, back side, 0 mm distance (May 12, 2016)

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name: [SmartTag\\_416\\_y\\_u5\\_fm\\_back\\_bat.da4](#)

DUT: Buddi; Type: Smart Tag; Serial: 353162072574099  
Program Name: WCDMA 5

Communication System: WCDMA (FDD) Band V; Frequency: 836.5 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 836.5$  MHz;  $\sigma = 0.99$  mho/m;  $\epsilon_r = 53.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(6.4, 6.4, 6.4); Calibrated: 2/23/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 2/16/2016
- Phantom: SAM Sugar 1341; Type: QD 000 P40 CB; Serial: TP-1341
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

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

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

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

Reference Value = 30.2 V/m; Power Drift = 0.109 dB

Peak SAR (extrapolated) = 1.55 W/kg

**SAR(1 g) = 0.975 mW/g; SAR(10 g) = 0.634 mW/g**

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

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

Reference Value = 30.2 V/m; Power Drift = 0.109 dB

Peak SAR (extrapolated) = 1.31 W/kg

**SAR(1 g) = 0.872 mW/g; SAR(10 g) = 0.570 mW/g**

Maximum value of SAR (measured) = 0.995 mW/g

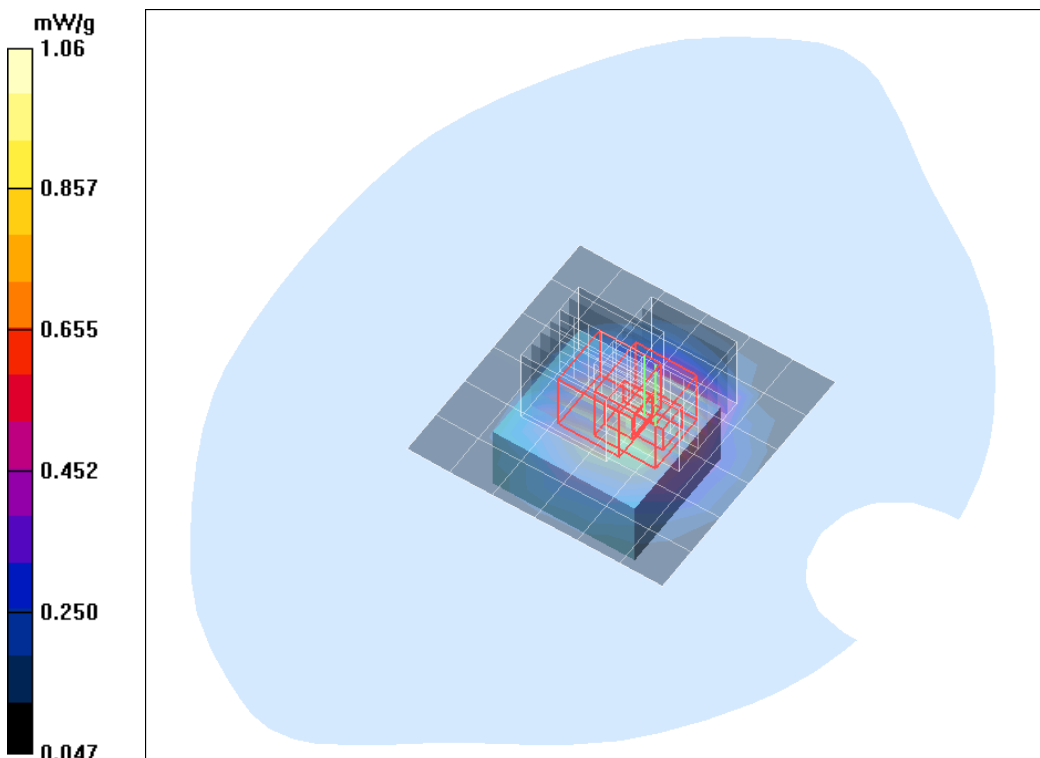


Fig. 17: SAR distribution for WCDMA5, channel 4183, configuration 2, back side, 0 mm distance (May 12, 2016)

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name: [SmartTag\\_416\\_y\\_u5\\_fm\\_back\\_OBC.da4](#)

DUT: Buddi; Type: Smart Tag; Serial: 353162072671416  
Program Name: WCDMA 5

Communication System: WCDMA (FDD) Band V; Frequency: 836.5 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 836.5$  MHz;  $\sigma = 0.99$  mho/m;  $\epsilon_r = 53.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(6.4, 6.4, 6.4); Calibrated: 2/23/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 2/16/2016
- Phantom: SAM Sugar 1341; Type: QD 000 P40 CB; Serial: TP-1341
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

**Body/Area Scan (8x9x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.171 mW/g

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

Reference Value = 11.4 V/m; Power Drift = 0.020 dB

Peak SAR (extrapolated) = 1.22 W/kg

**SAR(1 g) = 0.212 mW/g; SAR(10 g) = 0.088 mW/g**

Maximum value of SAR (measured) = 0.237 mW/g

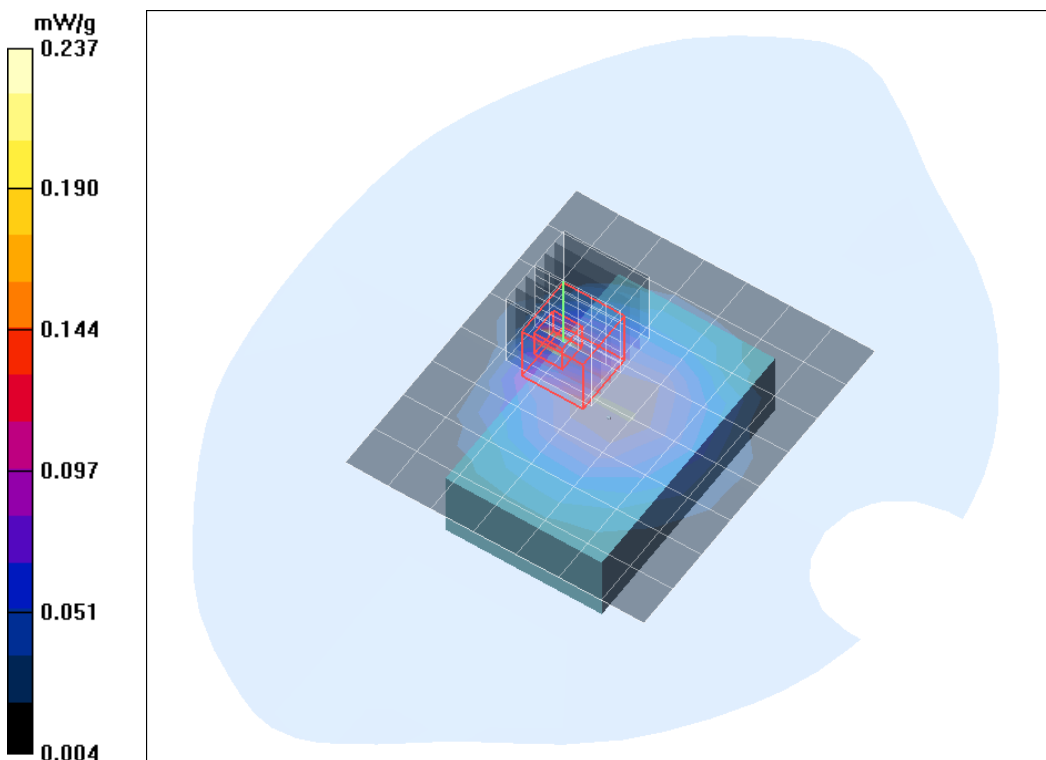


Fig. 18: SAR distribution for WCDMA5, channel 4183, configuration 3, back side, 0 mm distance (May 12, 2016)

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name: [SmartTag\\_416\\_y\\_u5\\_fl\\_back\\_bat.da4](#)

DUT: Buddi; Type: Smart Tag; Serial: 353162072574099  
Program Name: WCDMA 5

Communication System: WCDMA (FDD) Band V; Frequency: 826.4 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 826.4$  MHz;  $\sigma = 0.98$  mho/m;  $\epsilon_r = 53.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(6.4, 6.4, 6.4); Calibrated: 2/23/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 2/16/2016
- Phantom: SAM Sugar 1341; Type: QD 000 P40 CB; Serial: TP-1341
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

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

Maximum value of SAR (measured) = 0.900 mW/g

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

Reference Value = 29.4 V/m; Power Drift = -0.064 dB

Peak SAR (extrapolated) = 1.41 W/kg

**SAR(1 g) = 0.880 mW/g; SAR(10 g) = 0.573 mW/g**

Maximum value of SAR (measured) = 0.955 mW/g

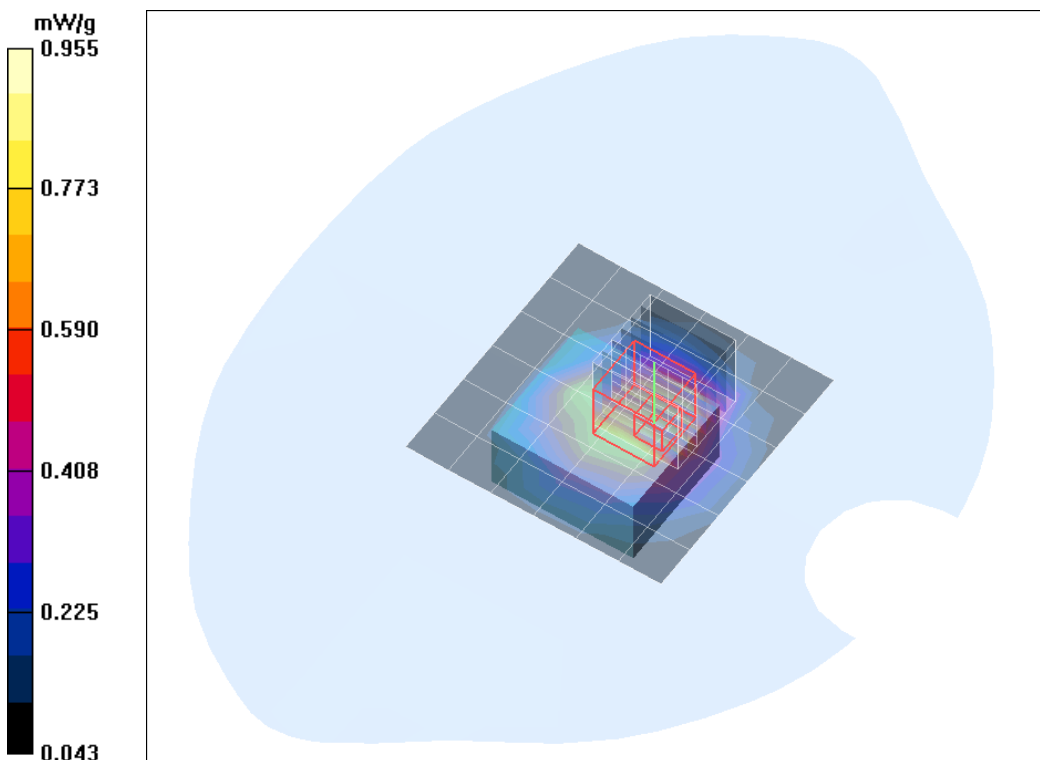


Fig. 19: SAR distribution for WCDMA5, channel 4132, configuration 2, back side, 0 mm distance (May 12, 2016)

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name: [SmartTag\\_416\\_y\\_u5\\_fh\\_back\\_bat.da4](#)

DUT: Buddi; Type: Smart Tag; Serial: 353162072574099  
Program Name: WCDMA 5

Communication System: WCDMA (FDD) Band V; Frequency: 846.6 MHz; Duty Cycle: 1:1  
Medium parameters used:  $f = 846.6$  MHz;  $\sigma = 1$  mho/m;  $\epsilon_r = 53.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1579; ConvF(6.4, 6.4, 6.4); Calibrated: 2/23/2016
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 2/16/2016
- Phantom: SAM Sugar 1341; Type: QD 000 P40 CB; Serial: TP-1341
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

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

Maximum value of SAR (measured) = 0.848 mW/g

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

Reference Value = 28.3 V/m; Power Drift = -0.141 dB

Peak SAR (extrapolated) = 1.34 W/kg

**SAR(1 g) = 0.827 mW/g; SAR(10 g) = 0.533 mW/g**

Maximum value of SAR (measured) = 0.894 mW/g

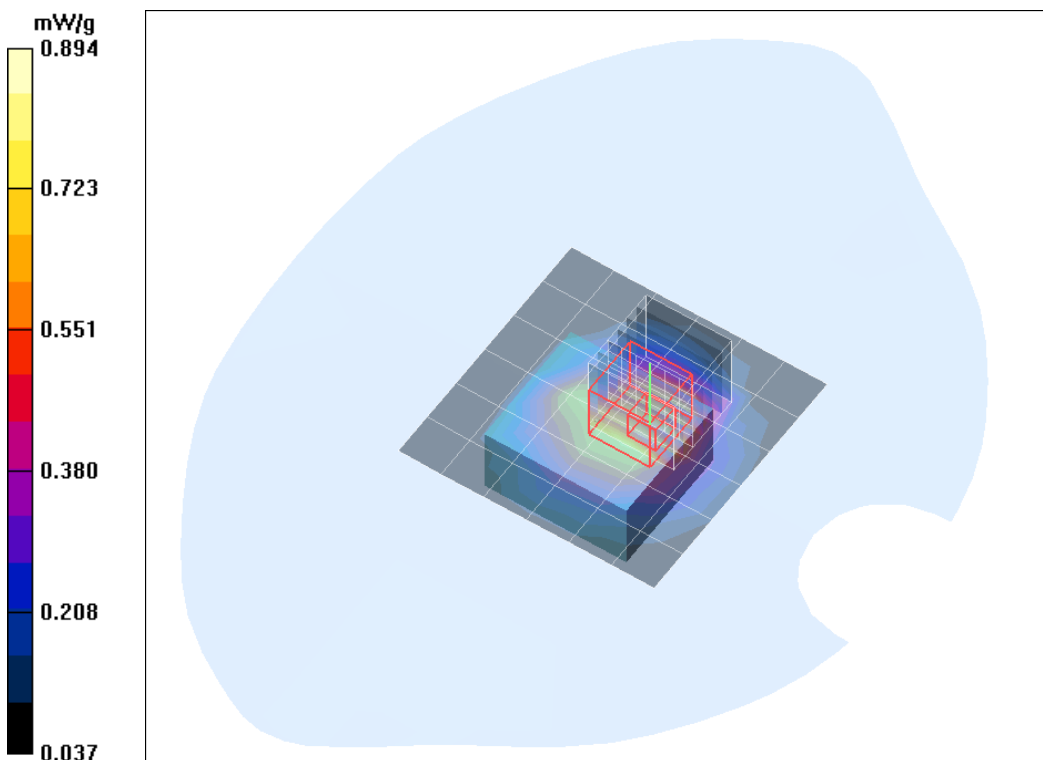


Fig. 20: SAR distribution for WCDMA5, channel 4233, configuration 2, back side, 0 mm distance (May 12, 2016)