

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/m³

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: $dx=15$ mm, $dy=15$ mm

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

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

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

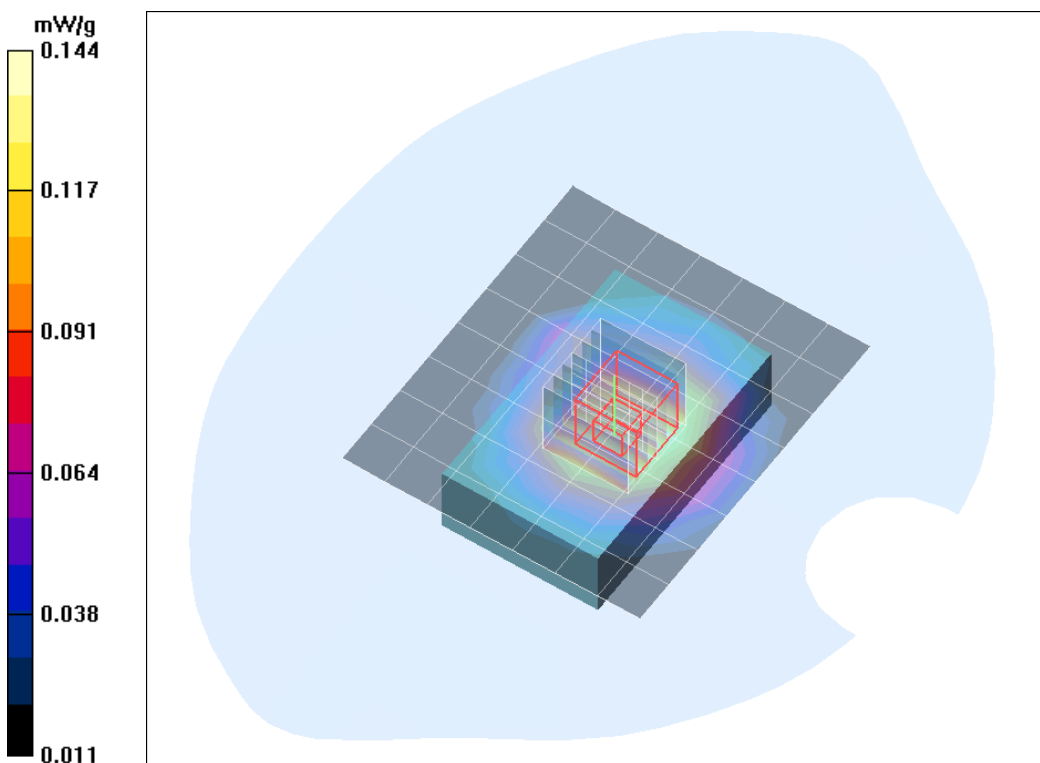


Fig. 1: SAR distribution for GPRS 850 (4TX), channel 190, configuration 1, back side, 0 mm distance (May 11, 2016)

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/m³
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: $dx=15$ mm, $dy=15$ mm

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

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

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

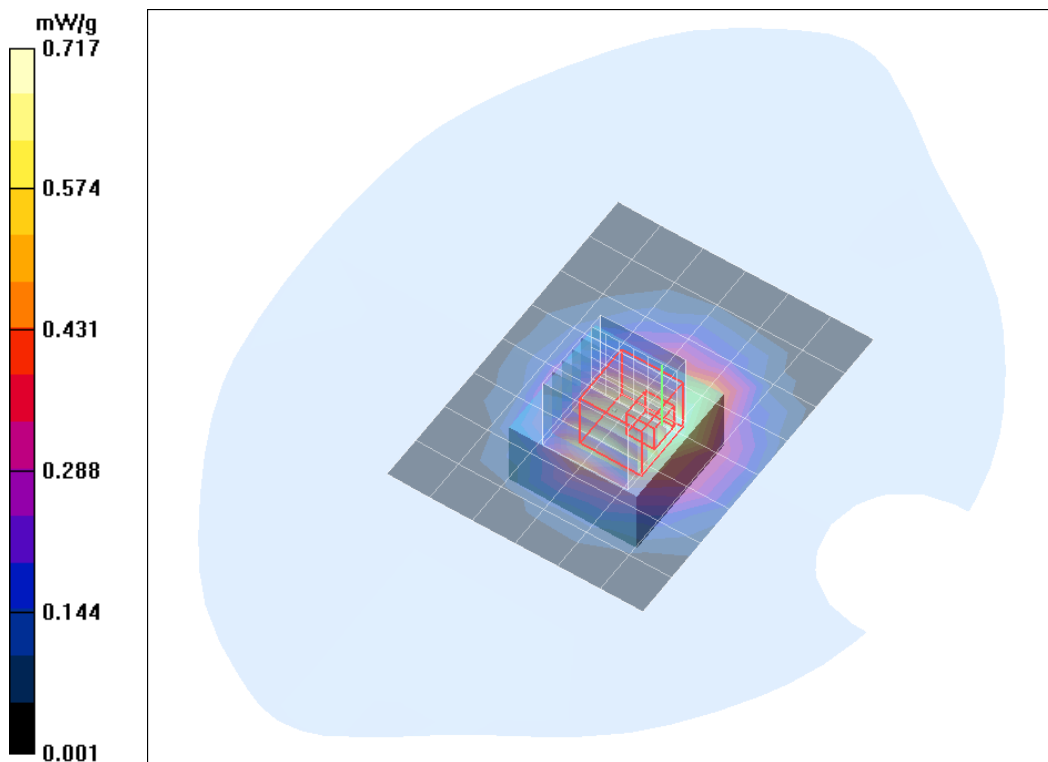


Fig. 2: SAR distribution for GPRS 850 (4TX), channel 190, configuration 2, back side, 0 mm distance
(May 11, 2016)

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/m³
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

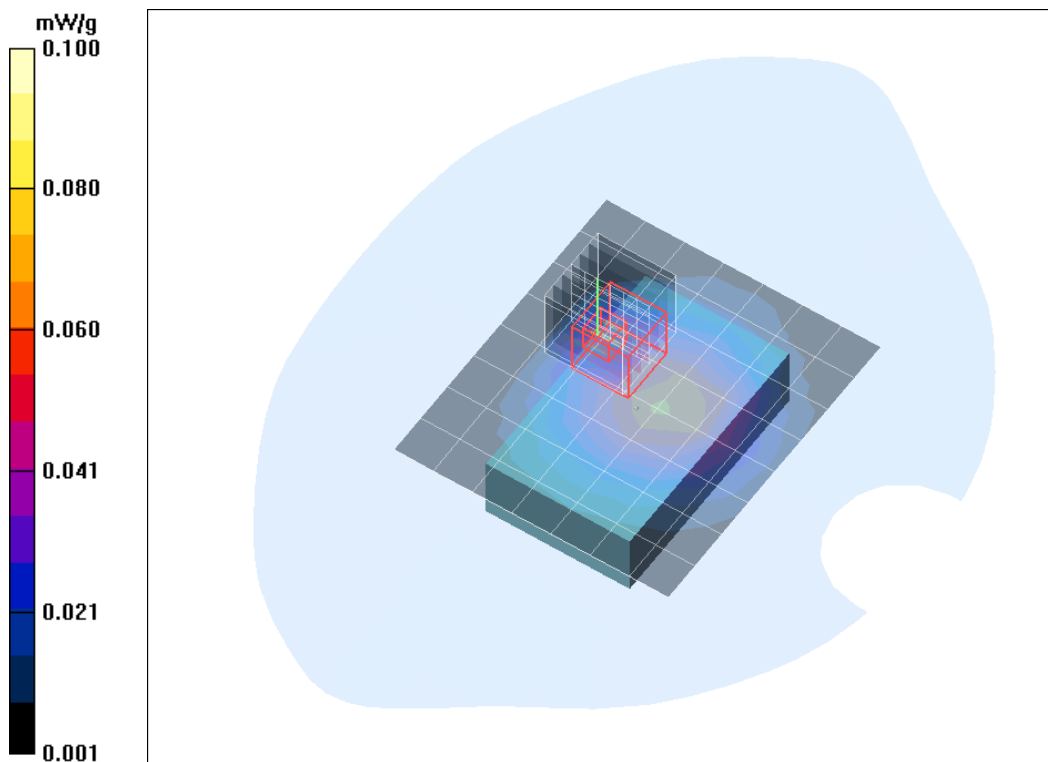


Fig. 3: SAR distribution for GPRS 850 (4TX), channel 190, configuration 3, back side, 0 mm distance
(May 11, 2016)

Test Laboratory: IMST GmbH, DASY Yellow (II); File Name:
[SmartTag_416_y_gprs850_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/m³
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

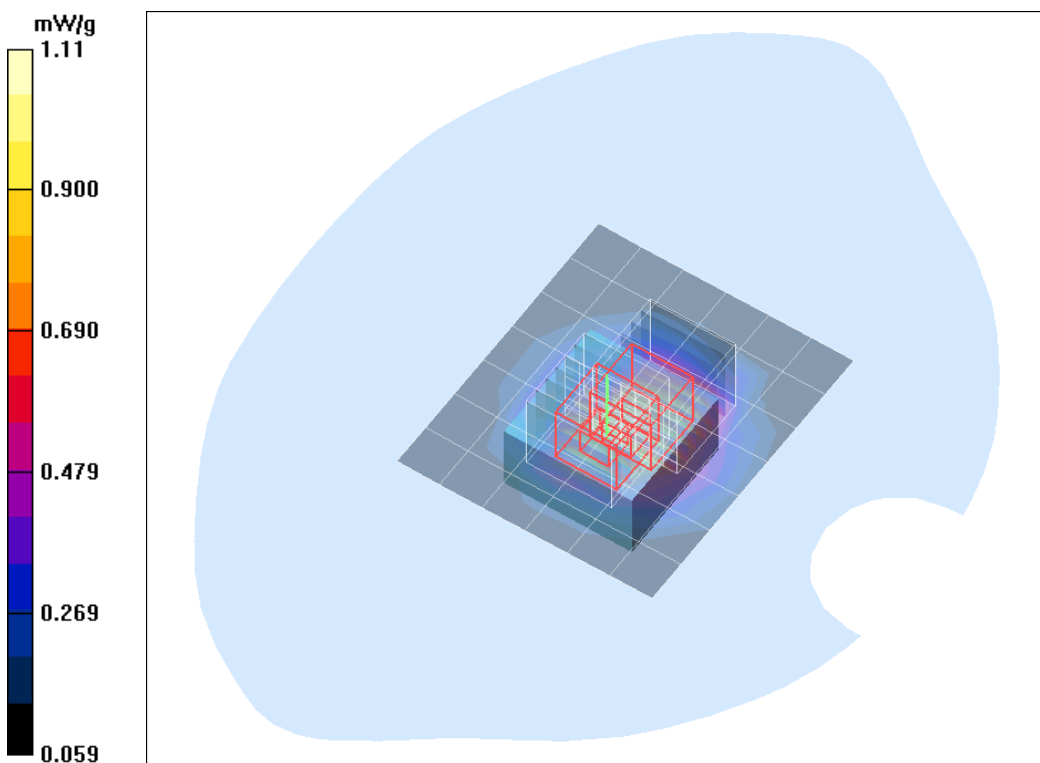


Fig. 4: SAR distribution for GPRS 850 (4TX), channel 128, configuration 2, back side, 0 mm distance
(May 11, 2016)

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/m³
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: $dx=15$ mm, $dy=15$ mm

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

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

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

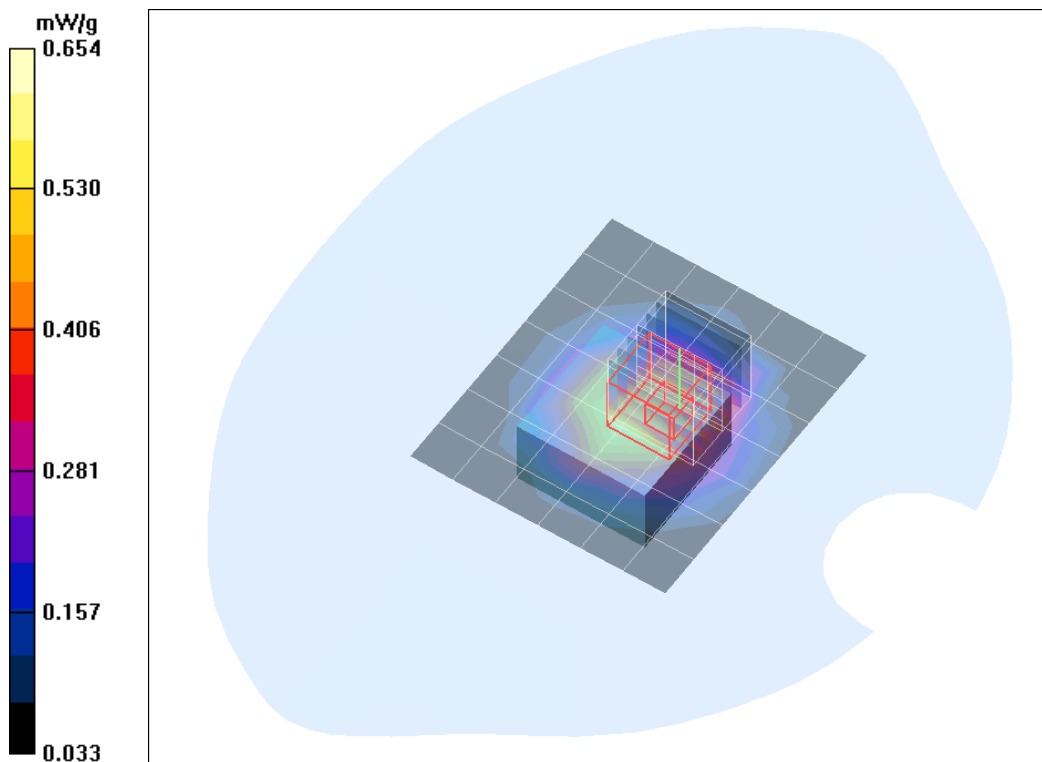


Fig. 5: SAR distribution for GPRS 850 (4TX), channel 251, configuration 2, back side, 0 mm distance
(May 11, 2016)

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/m³
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: $dx=15$ mm, $dy=15$ mm

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

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

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

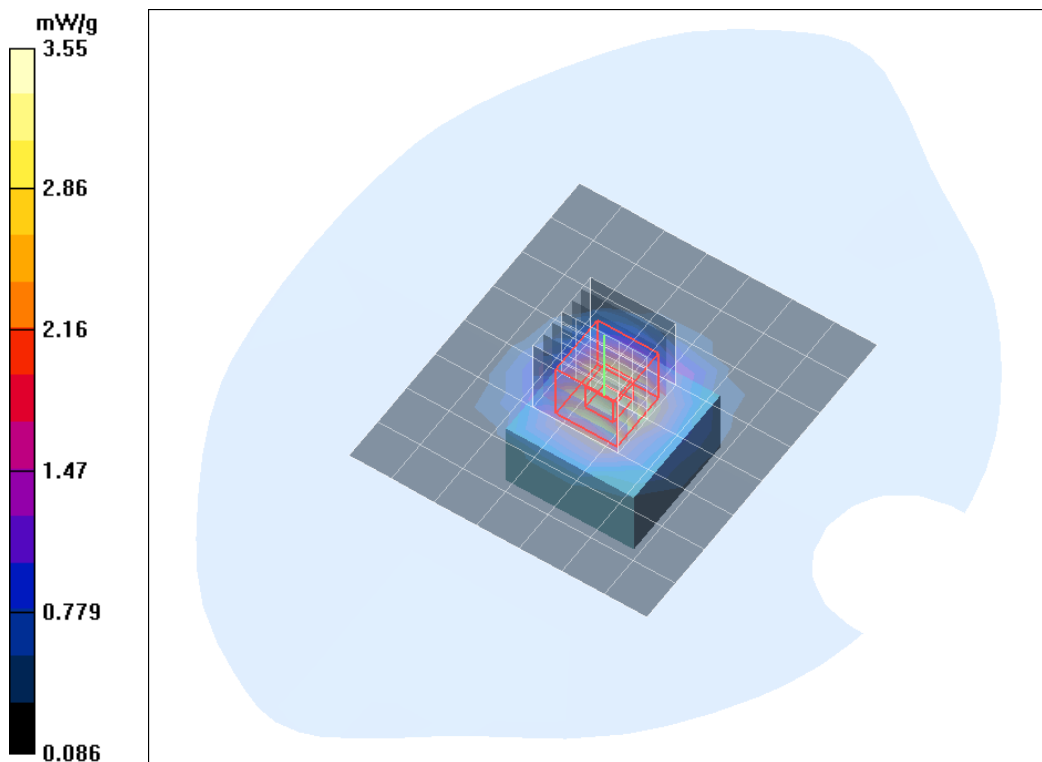


Fig. 6: SAR distribution for GPRS 1900 (4TX), channel 661, configuration 1, back side, 0 mm distance
(May 24, 2016)

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/m³
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: $dx=15$ mm, $dy=15$ mm

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

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

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

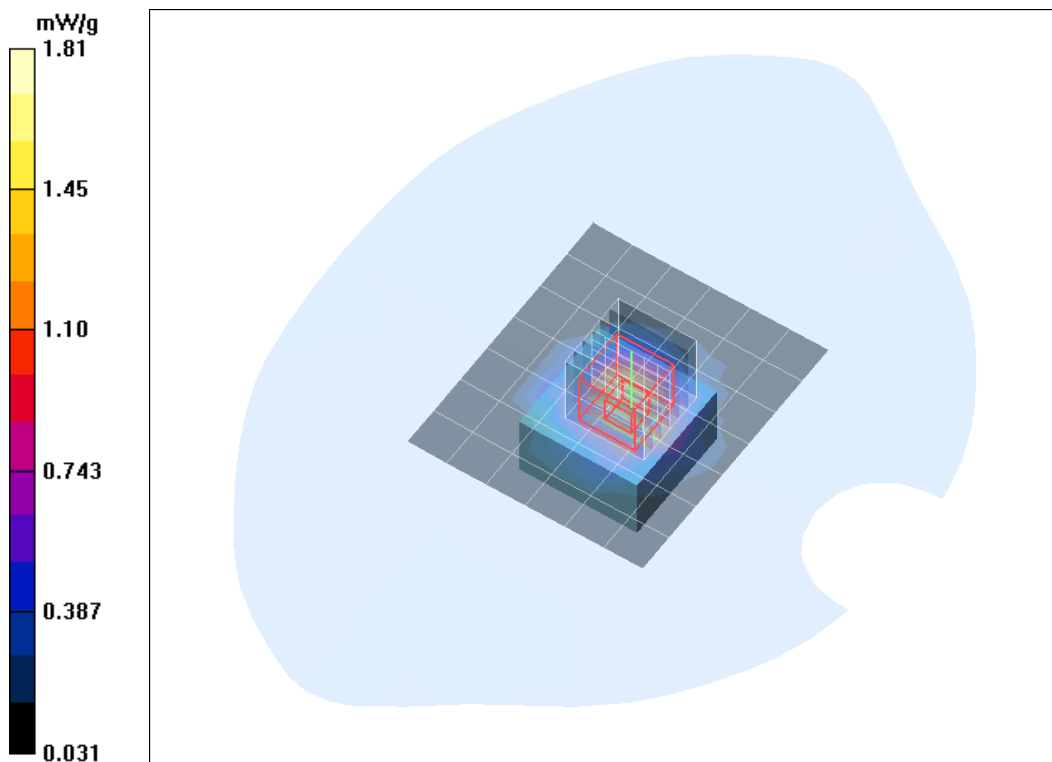


Fig. 7: SAR distribution for GPRS 1900 (4TX), channel 661, configuration 2, back side, 0 mm distance
(May 24, 2016)

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/m³
 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: $dx=15$ mm, $dy=15$ mm

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

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

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

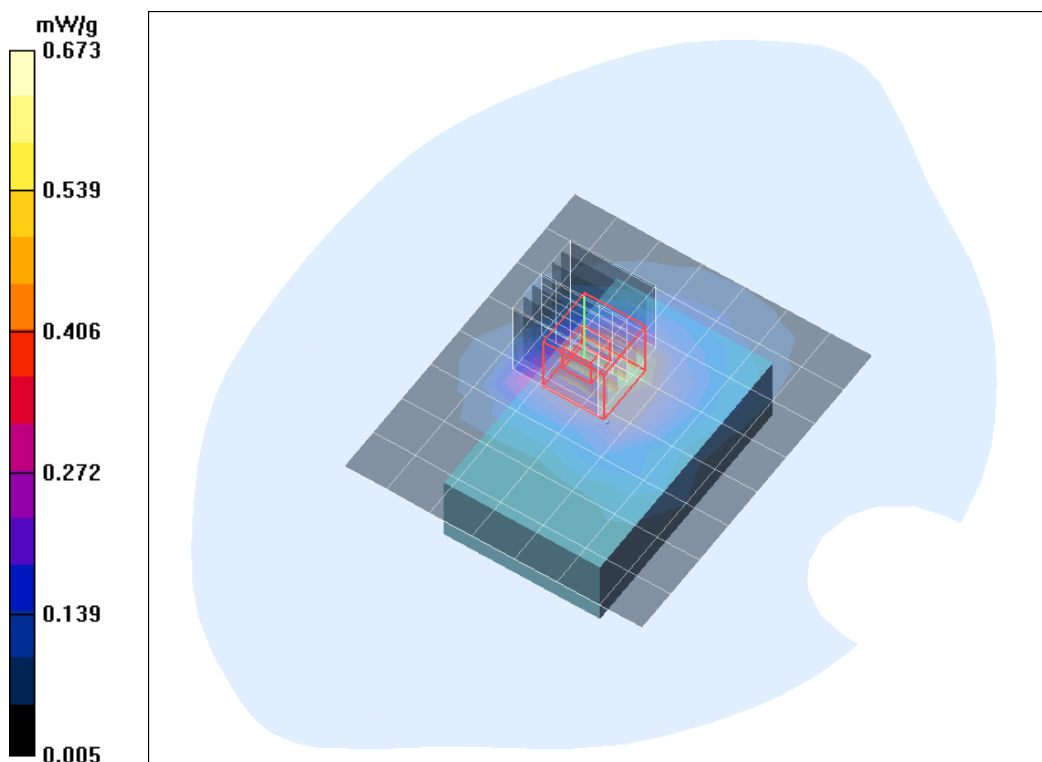


Fig. 8: SAR distribution for GPRS 1900 (4TX), channel 661, configuration 3, back side, 0 mm distance
 (May 24, 2016)

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/m³
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

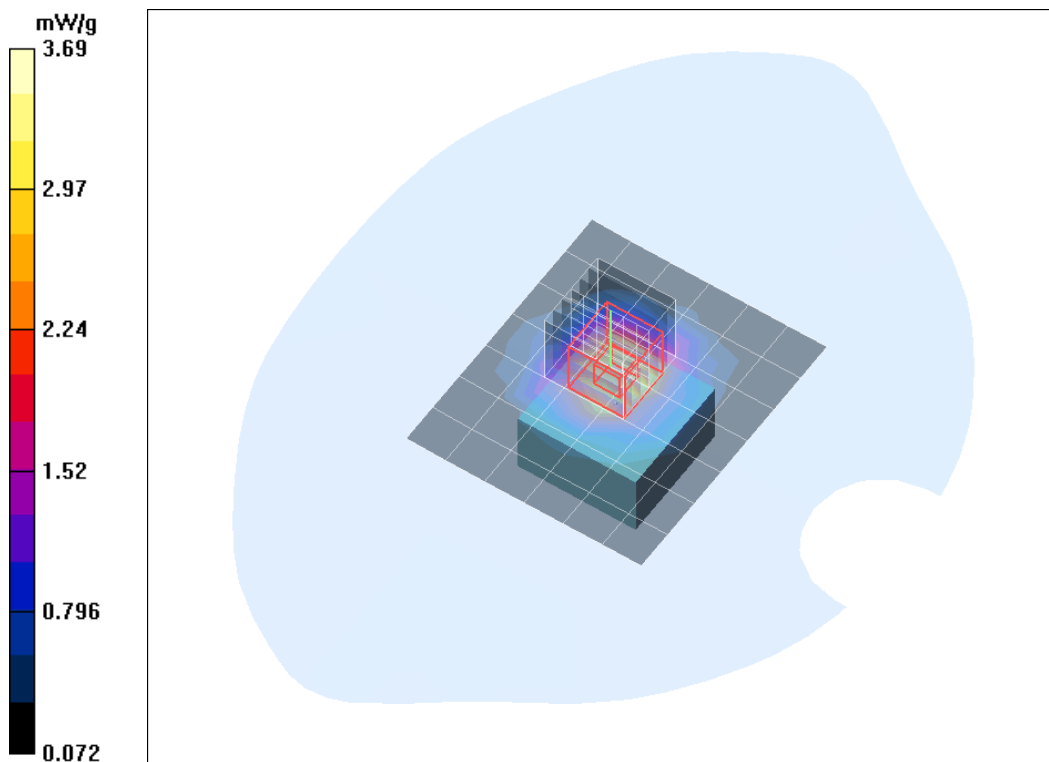


Fig. 9: SAR distribution for GPRS 1900 (4TX), channel 512, configuration 1, back side, 0 mm distance
(May 24, 2016)

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/m³
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: $dx=15$ mm, $dy=15$ mm

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

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

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

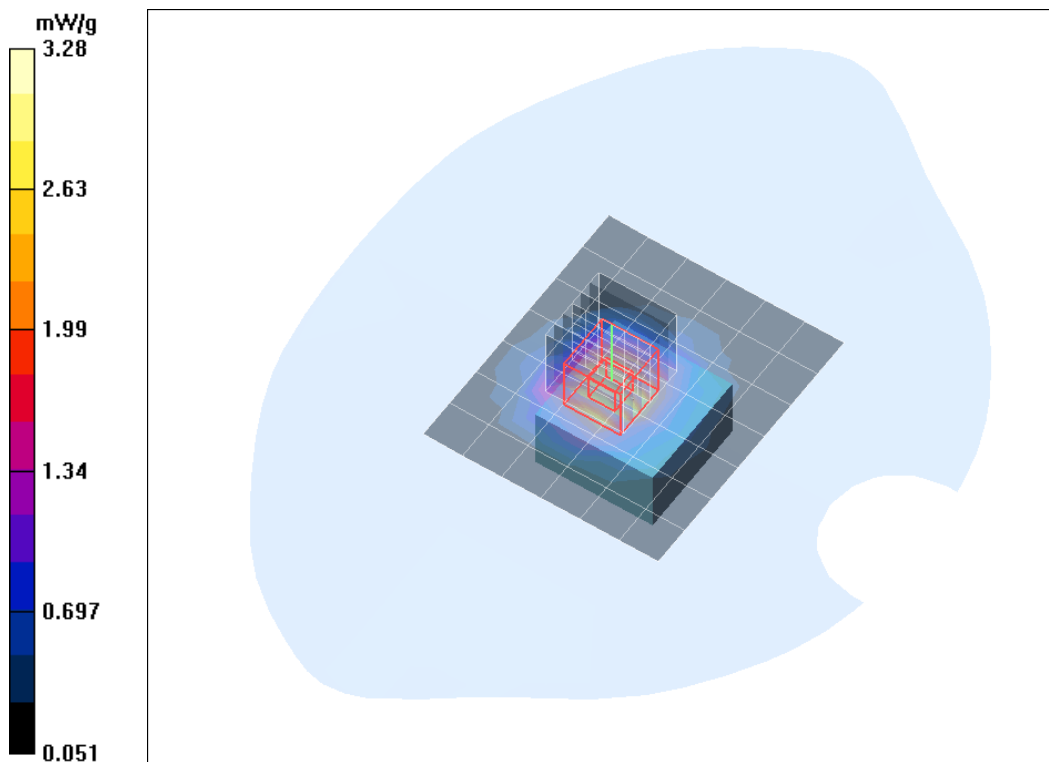


Fig. 10: SAR distribution for GPRS 1900 (4TX), channel 810, configuration 1, back side, 0 mm distance
(May 24, 2016)

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/m³
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

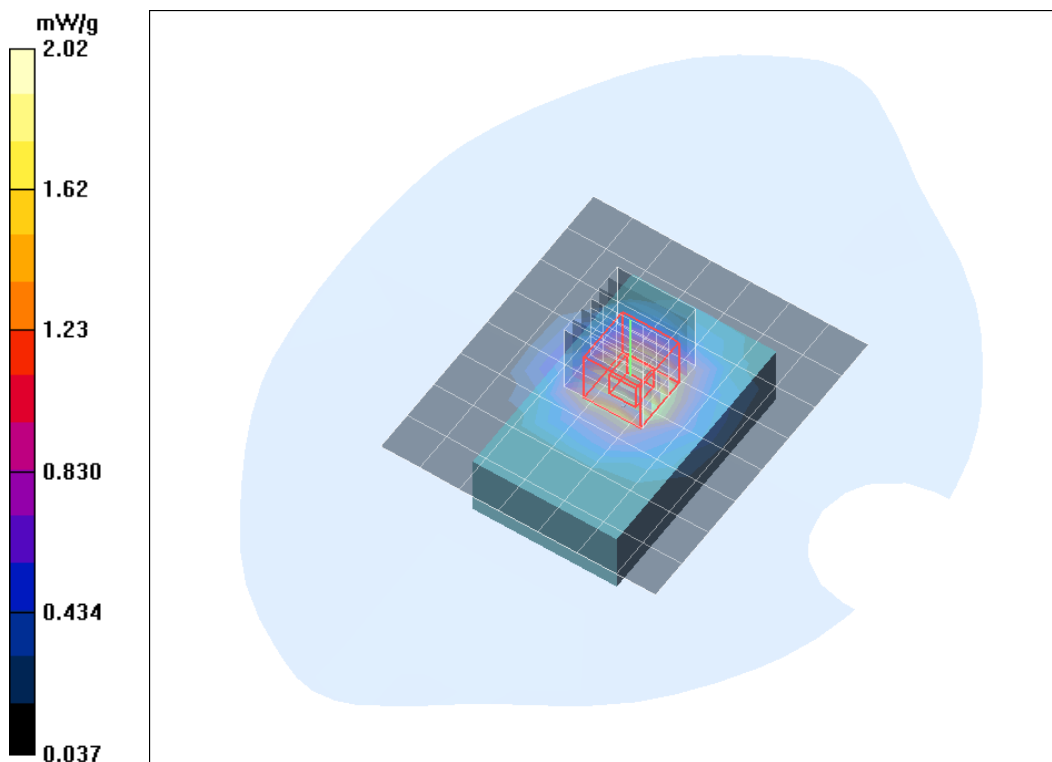


Fig. 11: SAR distribution for WCDMA2, channel 9400, configuration 1, back side, 0 mm distance (May 25, 2016)

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: $f = 1880 \text{ MHz}$; $\sigma = 1.55 \text{ mho/m}$; $\epsilon_r = 51.3$; $\rho = 1000 \text{ kg/m}^3$
 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: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

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

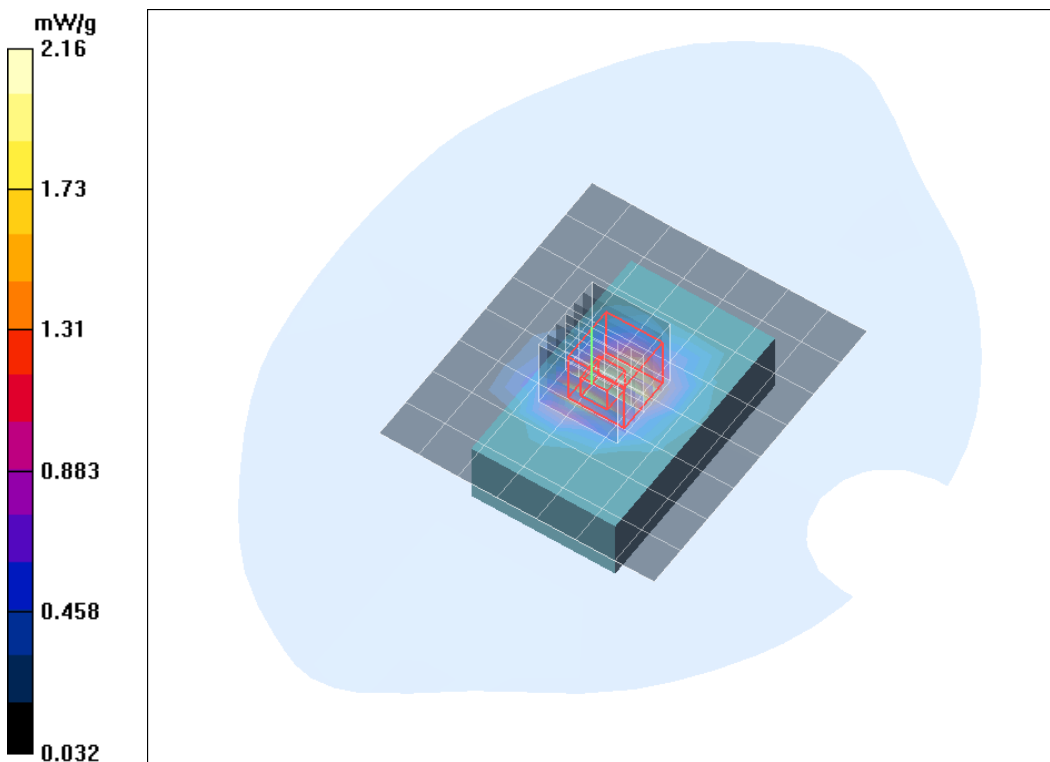


Fig. 12: SAR distribution for WCDMA2, channel 9400, configuration 2, back side, 0 mm distance (May 25, 2016)

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/m³
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

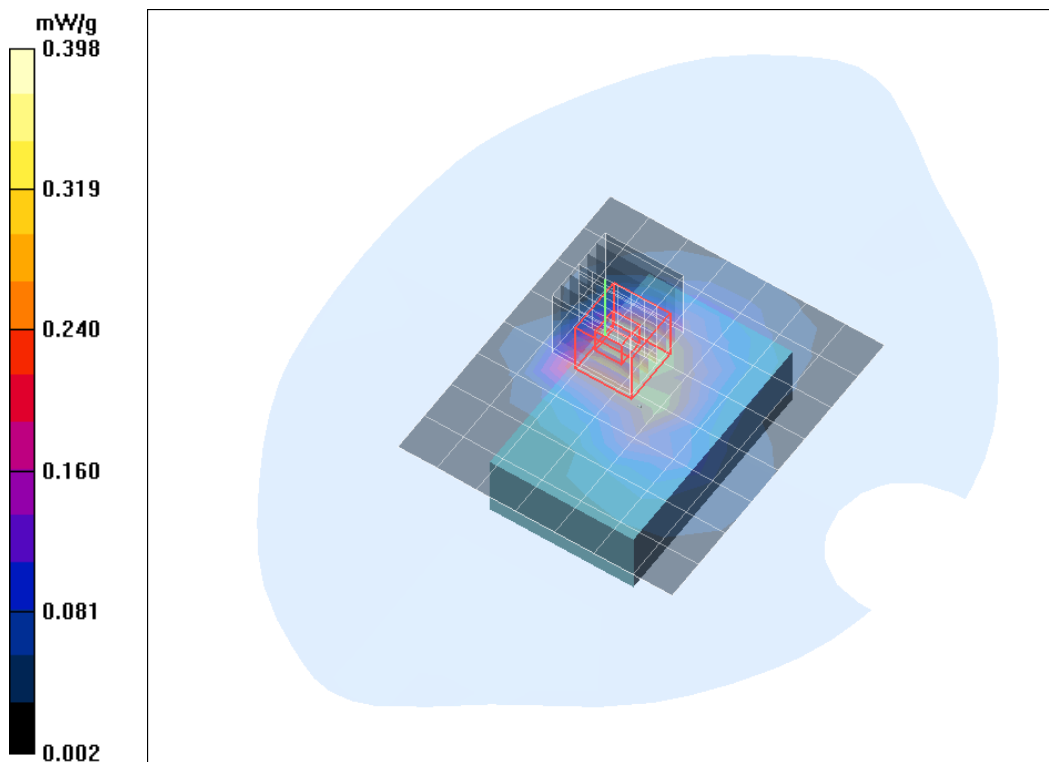


Fig. 13: SAR distribution for WCDMA2, channel 9400, configuration 3, back side, 0 mm distance (May 25, 2016)

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/m³
 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: $dx=15$ mm, $dy=15$ mm

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

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

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

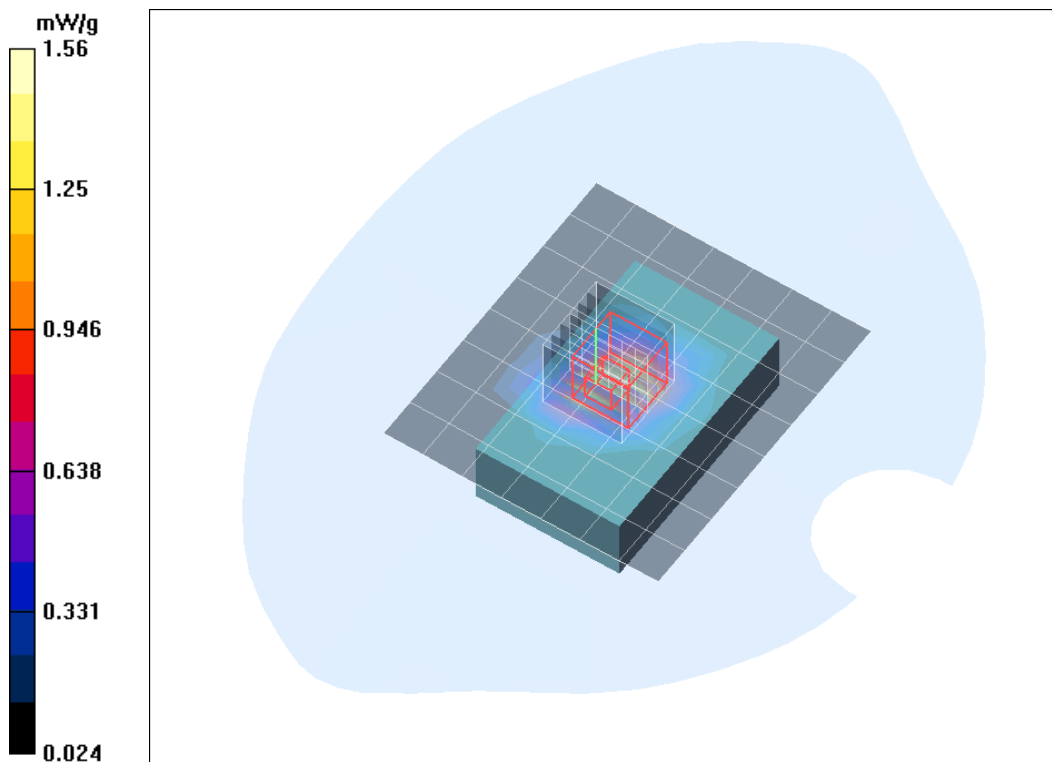


Fig. 14: SAR distribution for WCDMA2, channel 9262, configuration 2, back side, 0 mm distance (May 25, 2016)

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/m³
 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

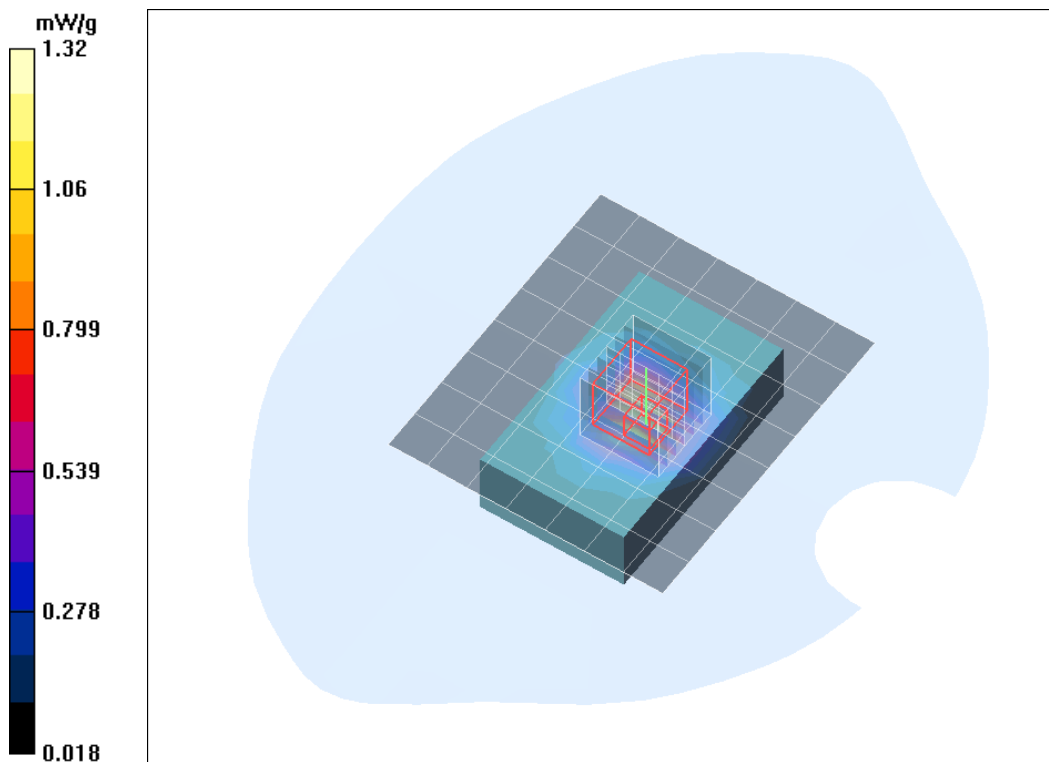


Fig. 15: SAR distribution for WCDMA2, channel 9538, configuration 2, back side, 0 mm distance (May 25, 2016)

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/m³
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

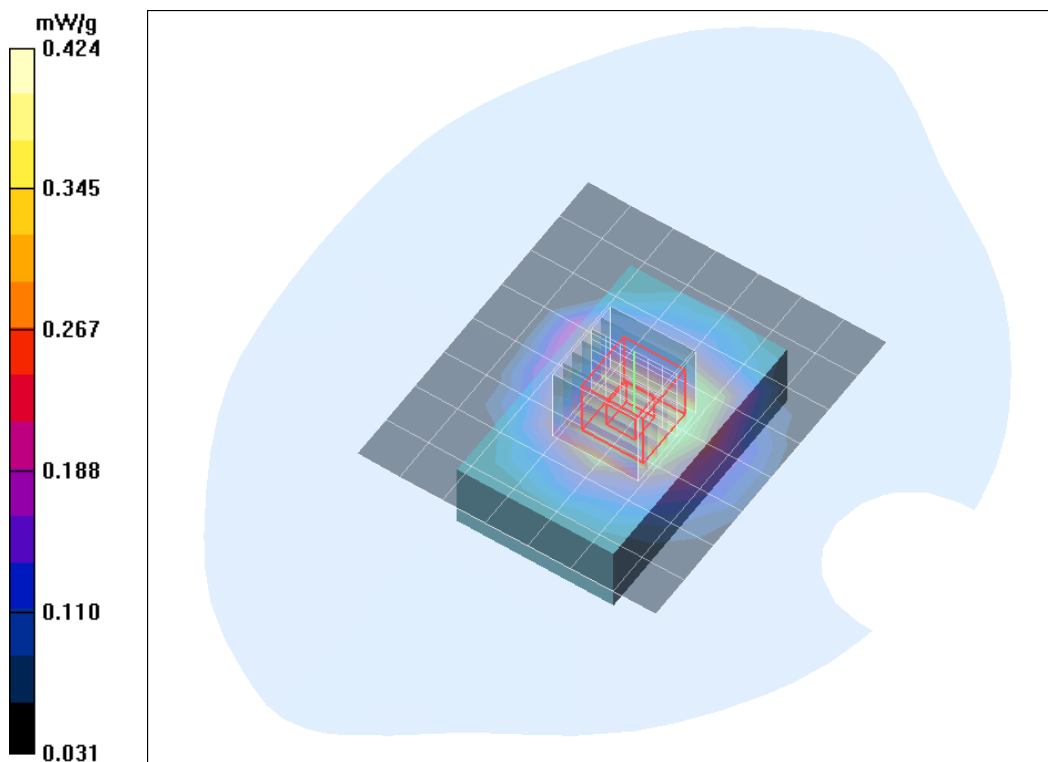


Fig. 16: SAR distribution for WCDMA5, channel 4183, configuration 1, back side, 0 mm distance (May 12, 2016)

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/m³
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

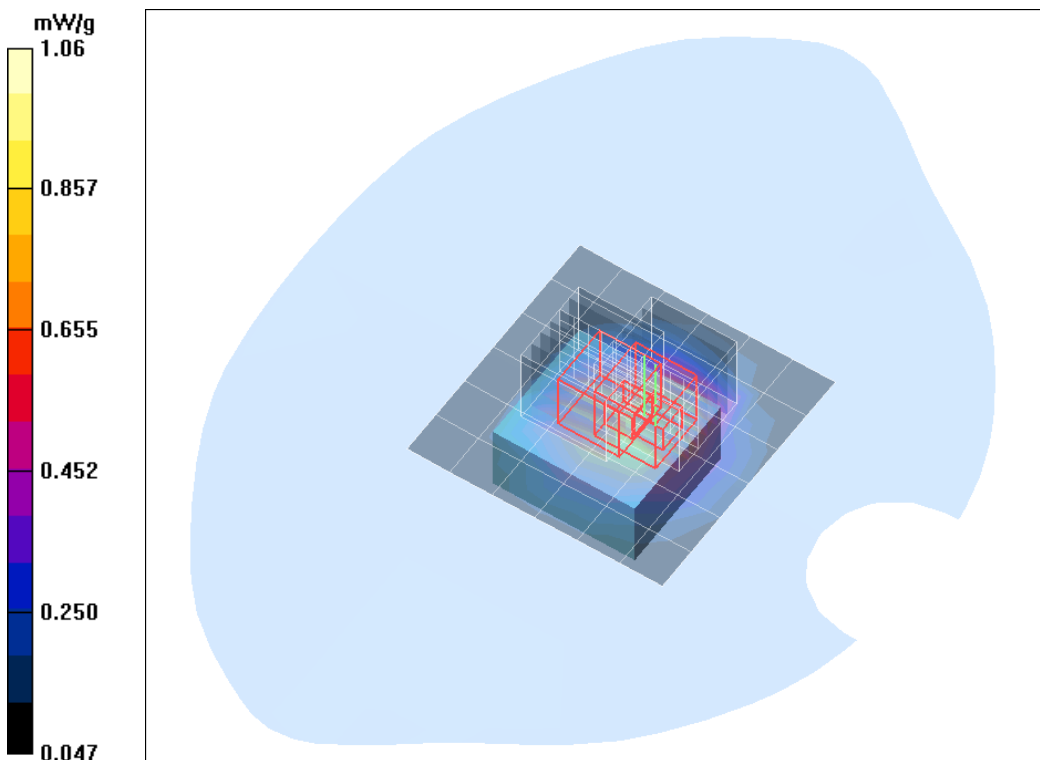


Fig. 17: SAR distribution for WCDMA5, channel 4183, configuration 2, back side, 0 mm distance (May 12, 2016)

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: $f = 836.5 \text{ MHz}$; $\sigma = 0.99 \text{ mho/m}$; $\epsilon_r = 53.3$; $\rho = 1000 \text{ kg/m}^3$
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: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

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

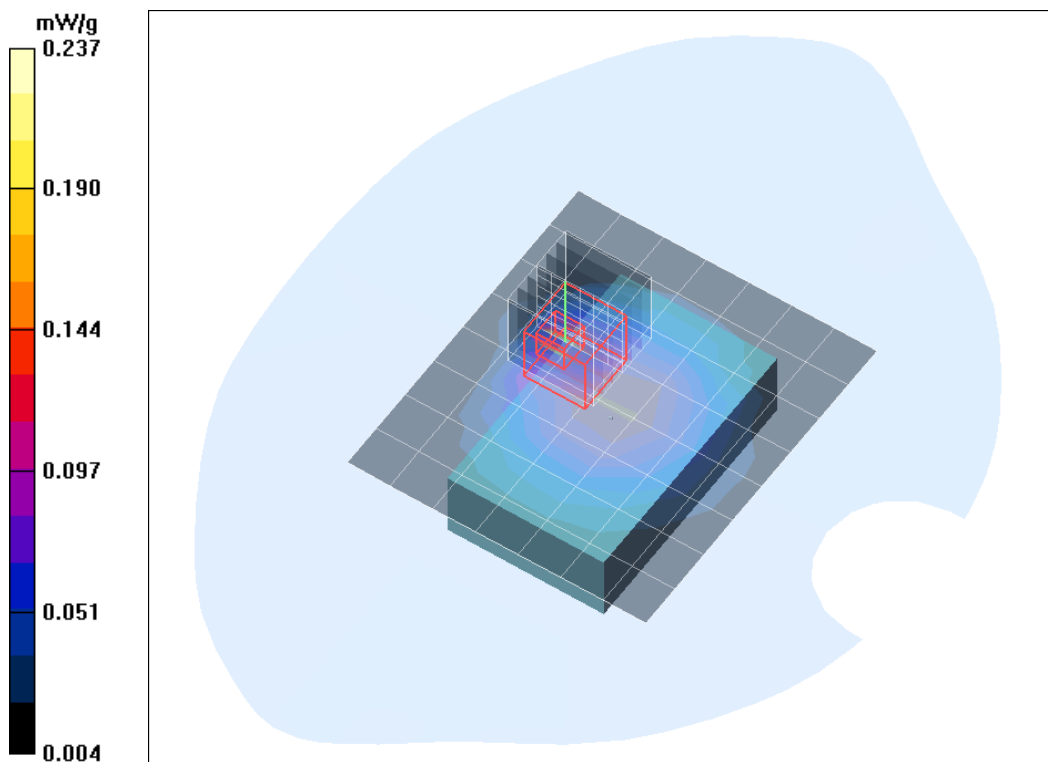


Fig. 18: SAR distribution for WCDMA5, channel 4183, configuration 3, back side, 0 mm distance (May 12, 2016)

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/m³
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

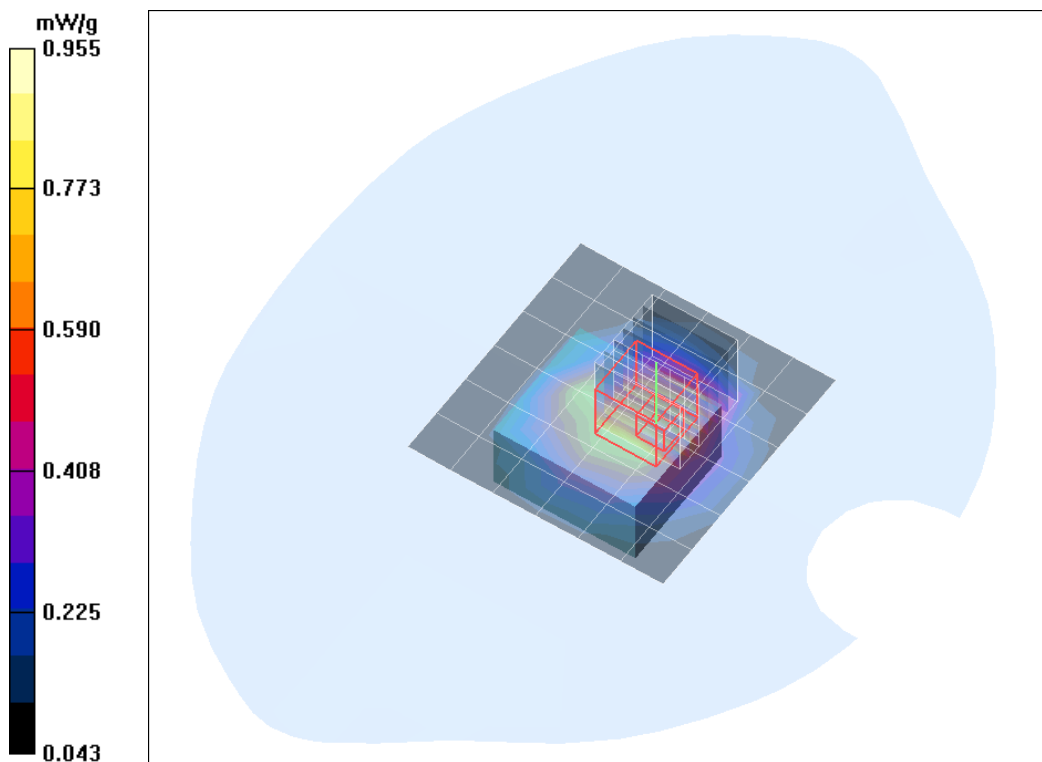


Fig. 19: SAR distribution for WCDMA5, channel 4132, configuration 2, back side, 0 mm distance (May 12, 2016)

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: $f = 846.6 \text{ MHz}$; $\sigma = 1 \text{ mho/m}$; $\epsilon_r = 53.2$; $\rho = 1000 \text{ kg/m}^3$
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: $dx=15\text{mm}$, $dy=15\text{mm}$

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

Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

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

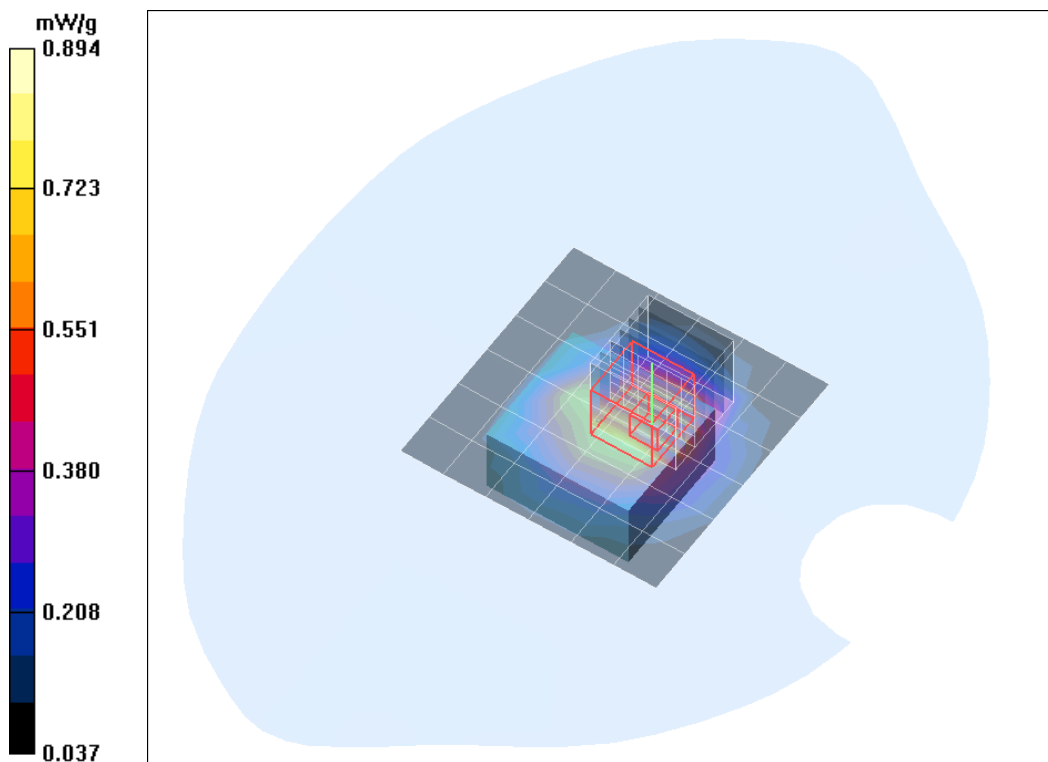


Fig. 20: SAR distribution for WCDMA5, channel 4233, configuration 2, back side, 0 mm distance (May 12, 2016)