
Appendix for the Report

Dosimetric Assessment of the Ascom WH1-EACA/PF (FCC ID: BXZWH1)

According to the FCC and IC Requirements

SAR Distribution Plots

September 21, 2010
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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, IEEE 802.11 b Head

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [EACA_ywlm_1_CH6_b_cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 b

Communication System: WLAN 2450; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.86$ mho/m; $\epsilon_r = 39.2$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.59, 7.59, 7.59); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

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

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

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

Reference Value = 12.0 V/m; Power Drift = 0.012 dB

Peak SAR (extrapolated) = 0.560 W/kg

SAR(1 g) = 0.292 mW/g; SAR(10 g) = 0.155 mW/g

Maximum value of SAR (measured) = 0.322 mW/g

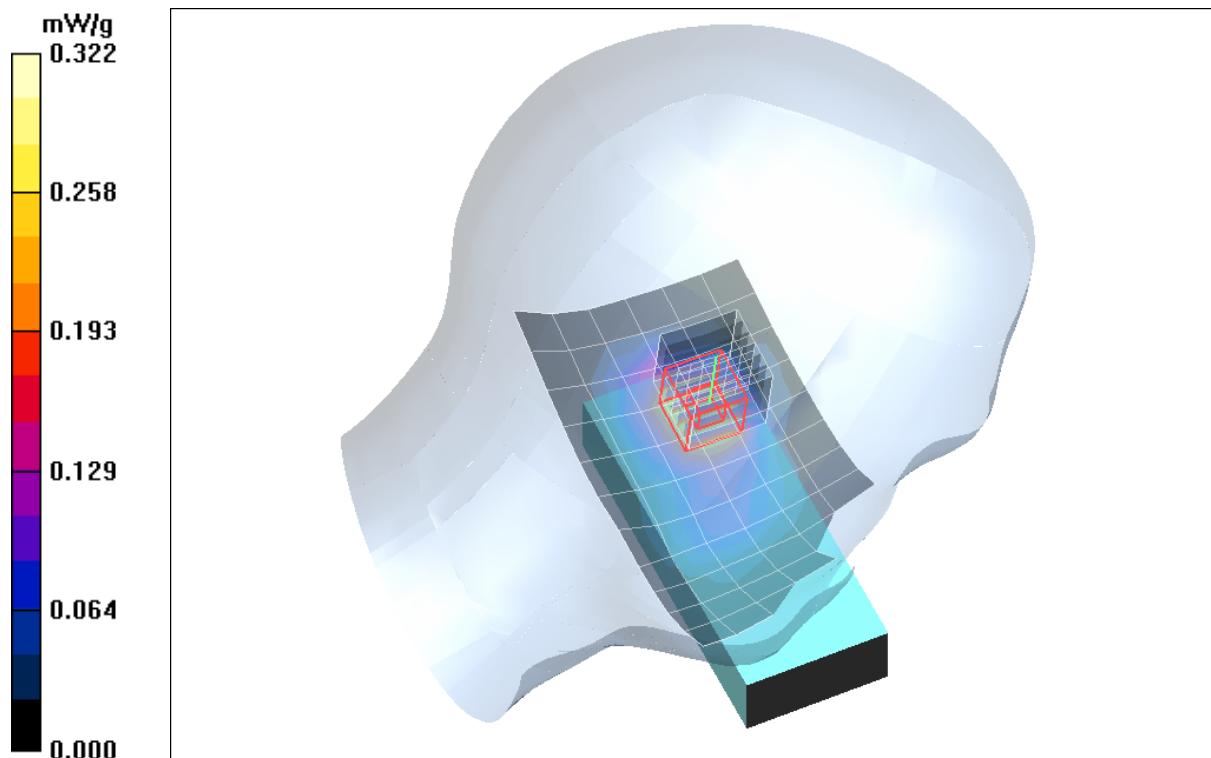


Fig. 1: SAR distribution for IEEE 802.11 b, channel 6, cheek position, left side of head (August 26, 2010; Ambient Temperature: 22.1° C; Liquid Temperature: 21.8° C).

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [EACA_ywlm 2 CH6 b cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 b

Communication System: WLAN 2450; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.86$ mho/m; $\epsilon_r = 39.2$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.59, 7.59, 7.59); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

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

Maximum value of SAR (measured) = 0.239 mW/g

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

Reference Value = 11.4 V/m; Power Drift = 0.040 dB

Peak SAR (extrapolated) = 0.452 W/kg

SAR(1 g) = 0.236 mW/g; SAR(10 g) = 0.123 mW/g

Maximum value of SAR (measured) = 0.257 mW/g

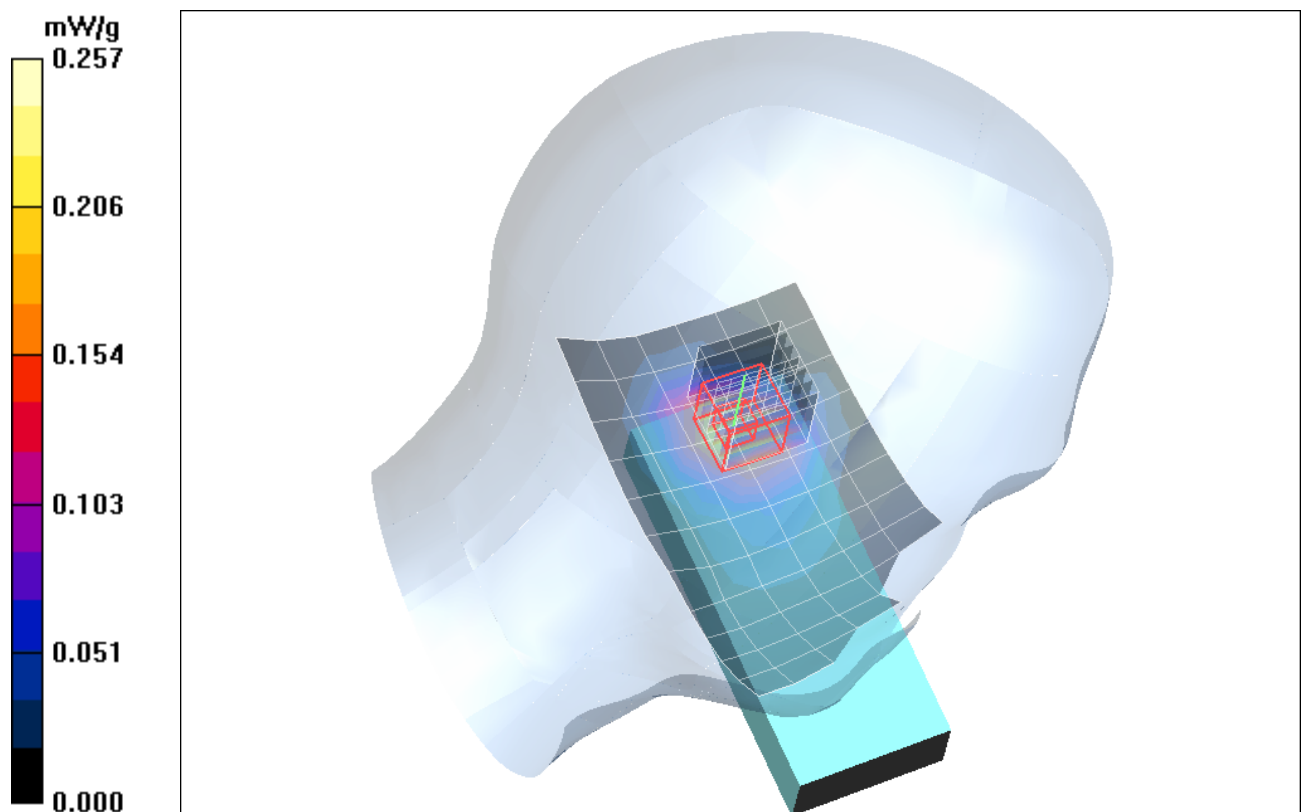


Fig. 2: SAR distribution for IEEE 802.11 b, channel 6, tilted position, left side of head (August 26, 2010; Ambient Temperature: 22.1° C; Liquid Temperature: 21.8° C).

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [EACA_ywrm_1_CH6_b_cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 b

Communication System: WLAN 2450; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.86$ mho/m; $\epsilon_r = 39.2$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.59, 7.59, 7.59); Calibrated: 18.09.2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn335; Calibrated: 10.02.2010

- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Cheek Right/Area Scan (7x12x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 0.235 mW/g

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

Reference Value = 11.1 V/m; Power Drift = 0.037 dB

Peak SAR (extrapolated) = 0.405 W/kg

SAR(1 g) = 0.219 mW/g; SAR(10 g) = 0.124 mW/g

Maximum value of SAR (measured) = 0.234 mW/g

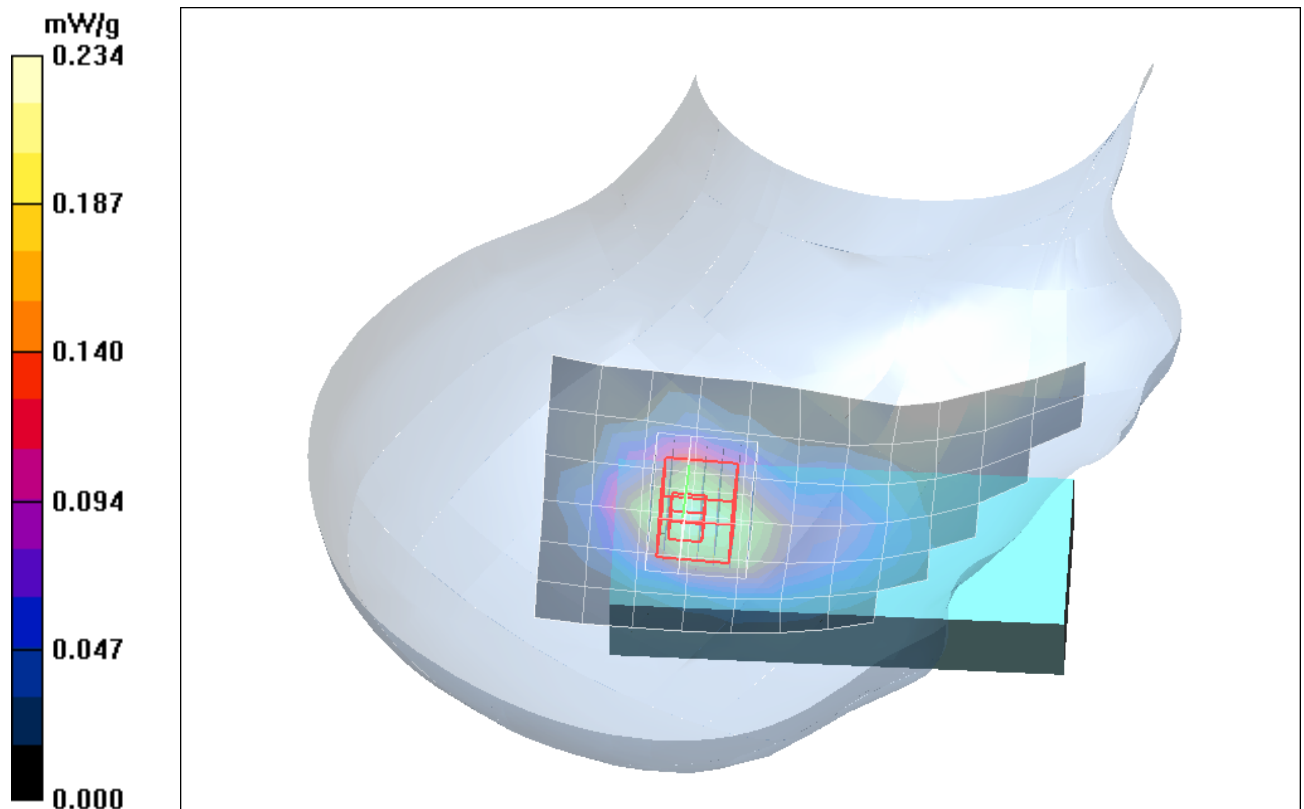


Fig. 3: SAR distribution for IEEE 802.11 b, channel 6, cheek position, right side of head (August 26, 2010; Ambient Temperature: 22.1° C; Liquid Temperature: 21.8° C).

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [EACA_ywrm 2 CH6 b cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 b

Communication System: WLAN 2450; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.86$ mho/m; $\epsilon_r = 39.2$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.59, 7.59, 7.59); Calibrated: 18.09.2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn335; Calibrated: 10.02.2010

- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

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

Maximum value of SAR (measured) = 0.203 mW/g

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

Reference Value = 11.2 V/m; Power Drift = 0.022 dB

Peak SAR (extrapolated) = 0.402 W/kg

SAR(1 g) = 0.212 mW/g; SAR(10 g) = 0.112 mW/g

Maximum value of SAR (measured) = 0.231 mW/g

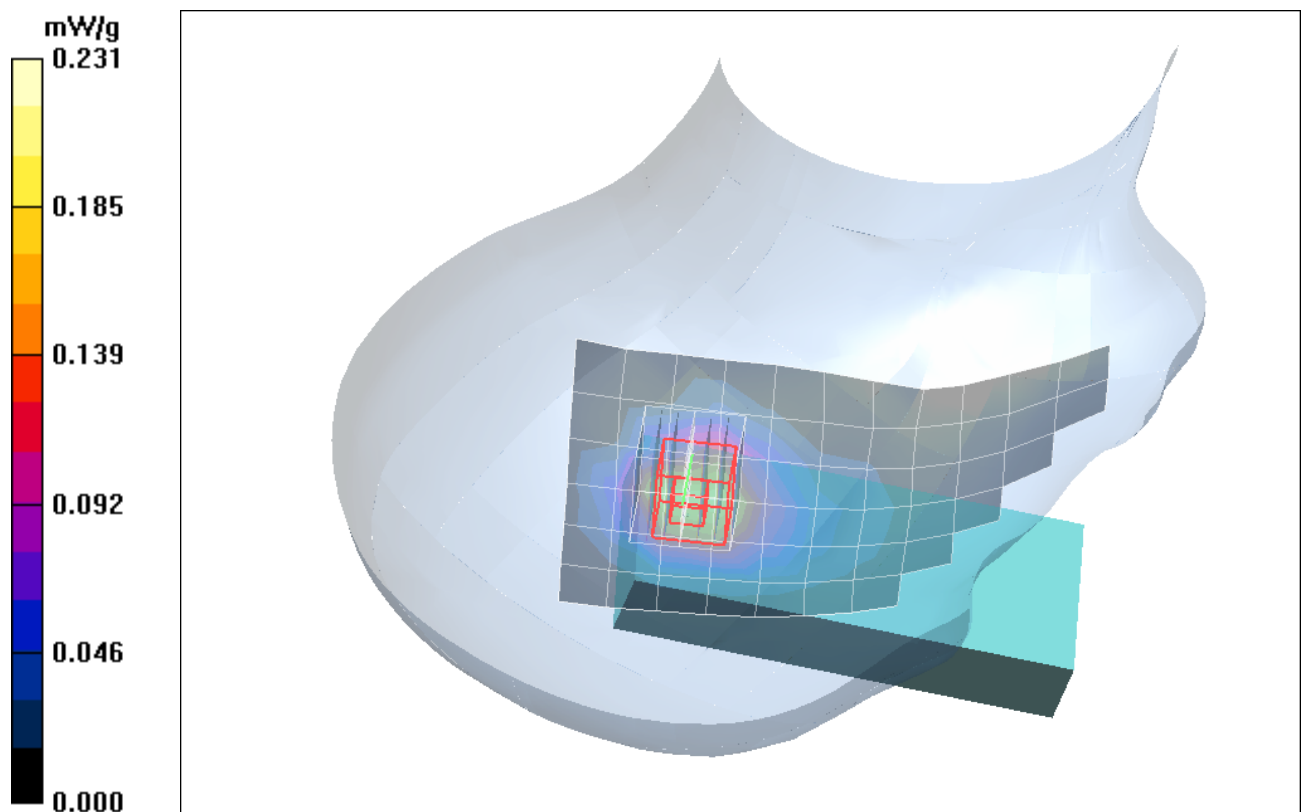


Fig. 4: SAR distribution for IEEE 802.11 b, channel 6, tilted position, right side of head (August 26, 2010; Ambient Temperature: 22.1° C; Liquid Temperature: 21.8° C).

2 SAR Distribution Plots, IEEE 802.11 b Body

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [EACA_yphm_1_b_hs_up.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 b

Communication System: WLAN 2450; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.97$ mho/m; $\epsilon_r = 52.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.57, 7.57, 7.57); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Body Worn/Area Scan (7x13x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

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

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

Reference Value = 5.95 V/m; Power Drift = 0.115 dB

Peak SAR (extrapolated) = 0.663 W/kg

SAR(1 g) = 0.341 mW/g; SAR(10 g) = 0.185 mW/g

Maximum value of SAR (measured) = 0.373 mW/g

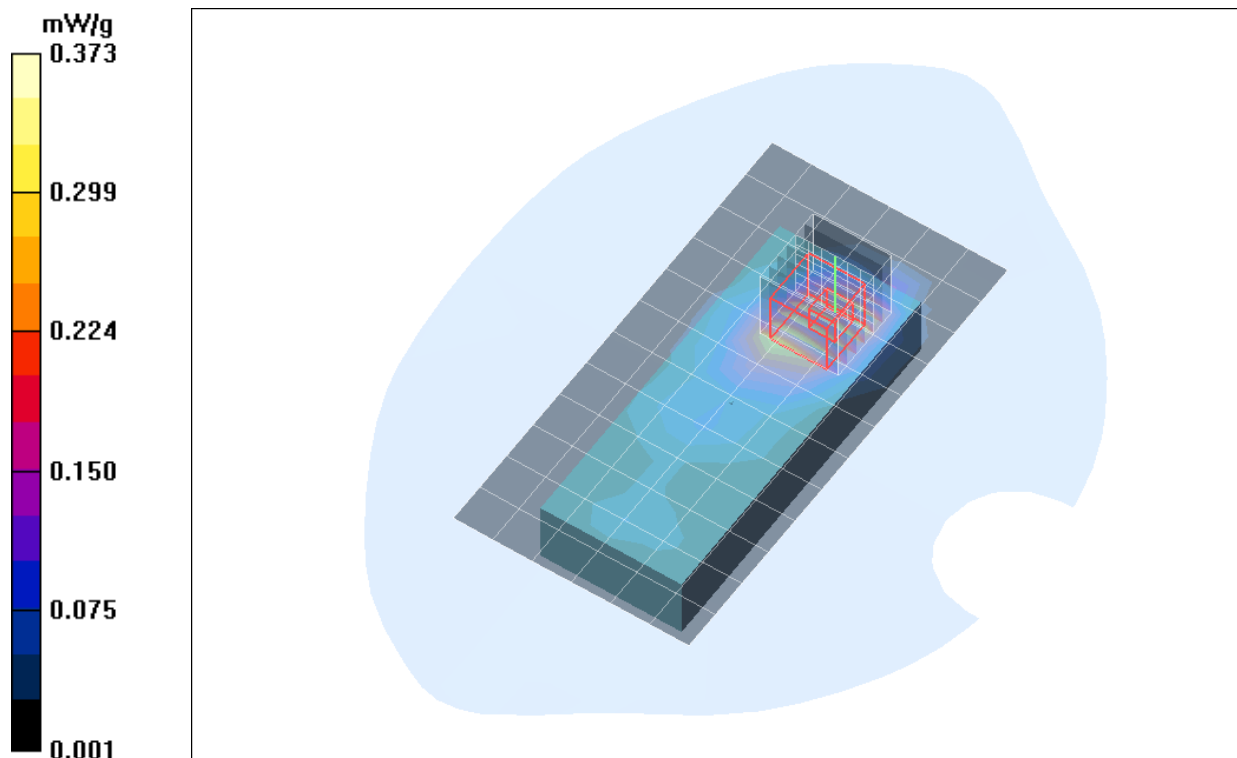


Fig. 5: SAR distribution for IEEE 802.11 b, channel 6, body worn configuration, display towards the phantom, 0 mm distance (August 30, 2010; Ambient Temperature: 21.5° C; Liquid Temperature: 21.2° C).

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [EACA_yphm 2 b hs_down.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 b

Communication System: WLAN 2450; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.97$ mho/m; $\epsilon_r = 52.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.57, 7.57, 7.57); Calibrated: 18.09.2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn335; Calibrated: 10.02.2010

- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Body Worn/Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.220 mW/g

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

Reference Value = 5.88 V/m; Power Drift = -0.191 dB

Peak SAR (extrapolated) = 0.391 W/kg

SAR(1 g) = 0.208 mW/g; SAR(10 g) = 0.103 mW/g

Maximum value of SAR (measured) = 0.238 mW/g

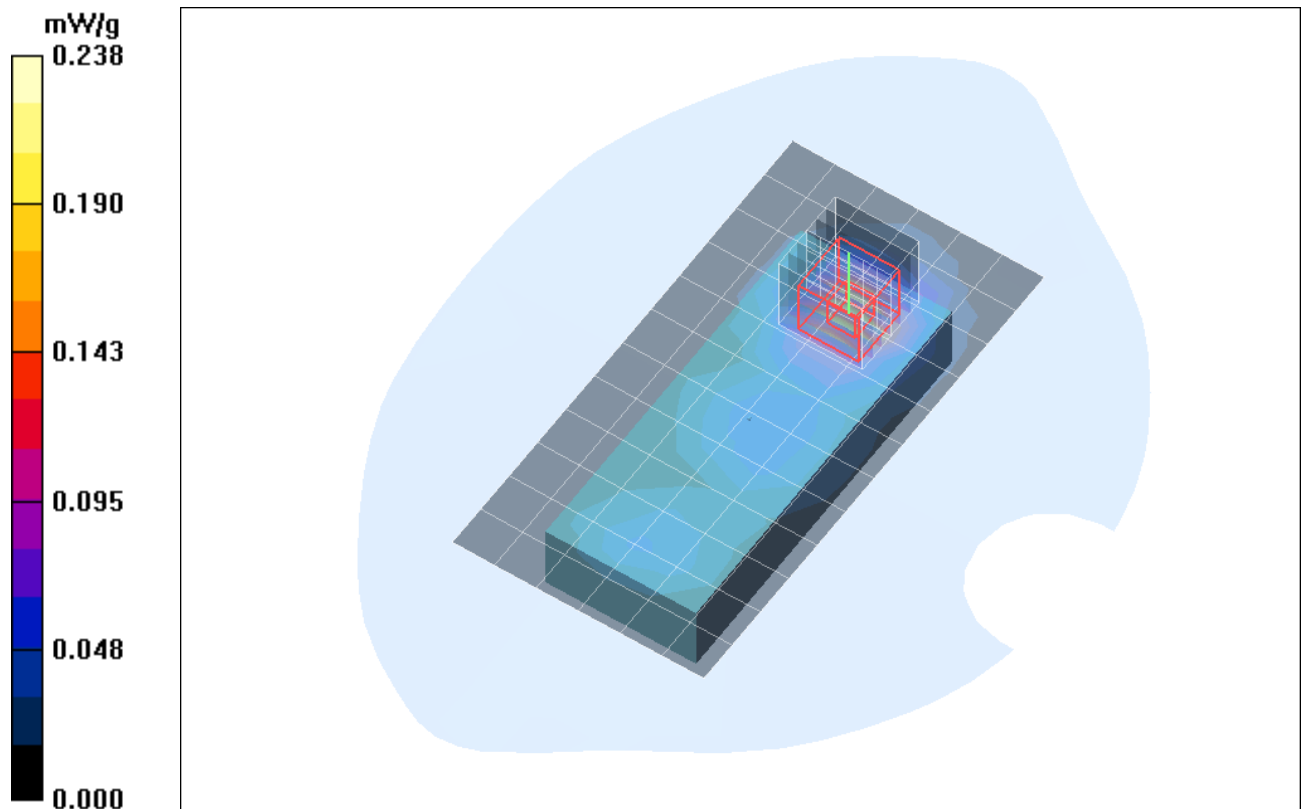


Fig. 6: SAR distribution for IEEE 802.11 b, channel 6, body worn configuration, display towards the ground, 0 mm distance (August 30, 2010; Ambient Temperature: 21.5° C; Liquid Temperature: 21.2° C).

3 SAR Distribution Plots, IEEE 802.11 n Head (2.45 GHz Range)

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [EACA_ywlm_1_CH6_n_cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: WLAN 2450; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.86$ mho/m; $\epsilon_r = 39.2$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.59, 7.59, 7.59); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

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

Maximum value of SAR (measured) = 0.099 mW/g

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

Reference Value = 7.26 V/m; Power Drift = 0.186 dB

Peak SAR (extrapolated) = 0.205 W/kg

SAR(1 g) = 0.109 mW/g; SAR(10 g) = 0.058 mW/g

Maximum value of SAR (measured) = 0.119 mW/g

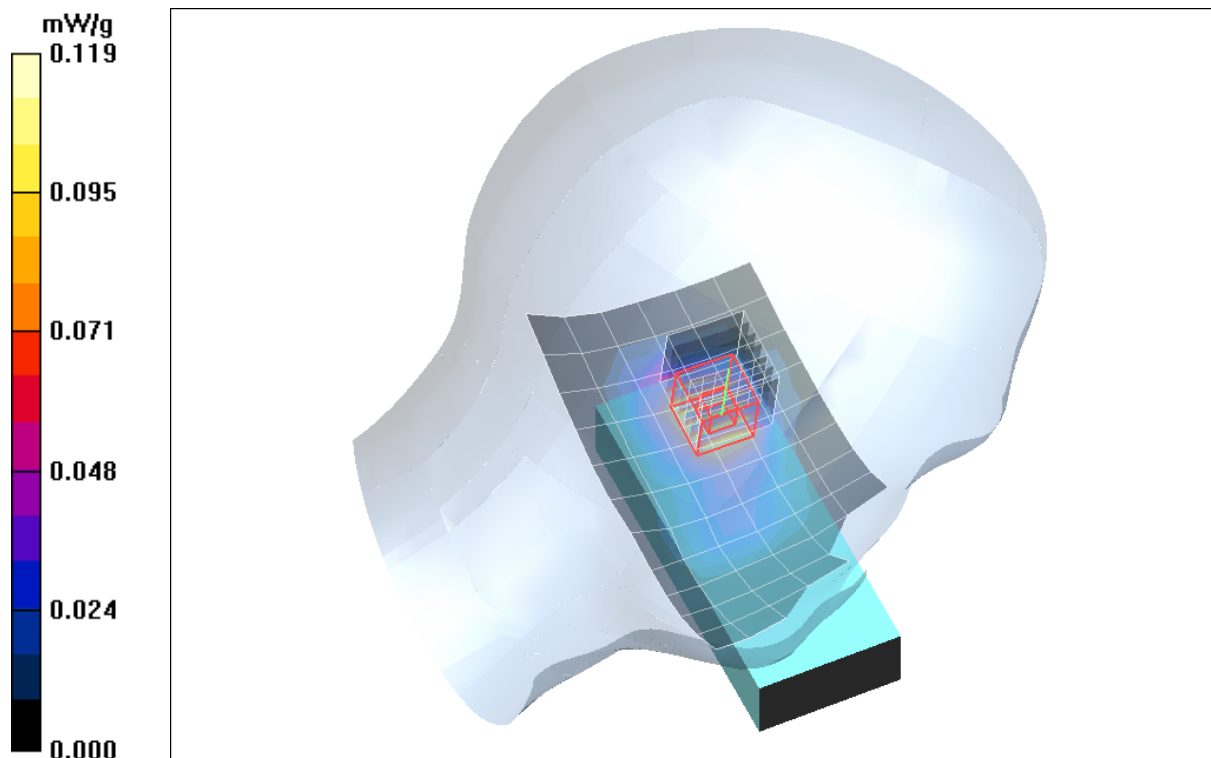


Fig. 7: SAR distribution for IEEE 802.11 n, channel 6, cheek position, left side of head (August 26, 2010; Ambient Temperature: 21.5° C; Liquid Temperature: 21.1° C).

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [EACA_ywrm_1_CH6_n_cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: WLAN 2450; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.86$ mho/m; $\epsilon_r = 39.2$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.59, 7.59, 7.59); Calibrated: 18.09.2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn335; Calibrated: 10.02.2010

- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340

- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

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

Maximum value of SAR (measured) = 0.087 mW/g

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

Reference Value = 6.80 V/m; Power Drift = 0.145 dB

Peak SAR (extrapolated) = 0.155 W/kg

SAR(1 g) = 0.083 mW/g; SAR(10 g) = 0.044 mW/g

Maximum value of SAR (measured) = 0.090 mW/g

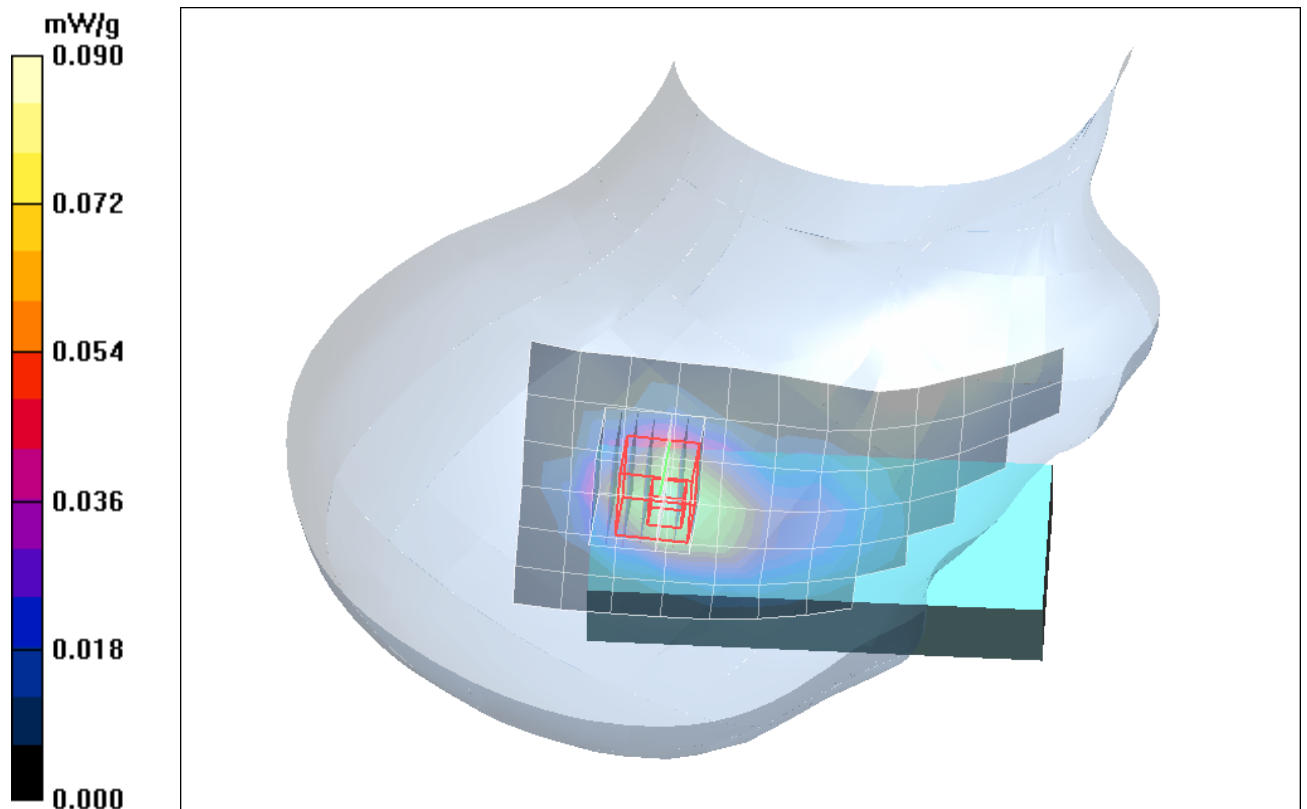


Fig. 8: SAR distribution for IEEE 802.11 n, channel 6, cheek position, right side of head (August 26, 2010; Ambient Temperature: 21.5° C; Liquid Temperature: 21.1° C).

4 SAR Distribution Plots, IEEE 802.11 n Body (2.45 GHz Range)

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [EACA_yphm_3_n_hs_up.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: WLAN 2450; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 2437$ MHz; $\sigma = 1.97$ mho/m; $\epsilon_r = 52.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.57, 7.57, 7.57); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Body Worn/Area Scan (7x13x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 0.136 mW/g

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

Reference Value = 3.51 V/m; Power Drift = -0.066 dB

Peak SAR (extrapolated) = 0.255 W/kg

SAR(1 g) = 0.133 mW/g; SAR(10 g) = 0.071 mW/g

Maximum value of SAR (measured) = 0.146 mW/g

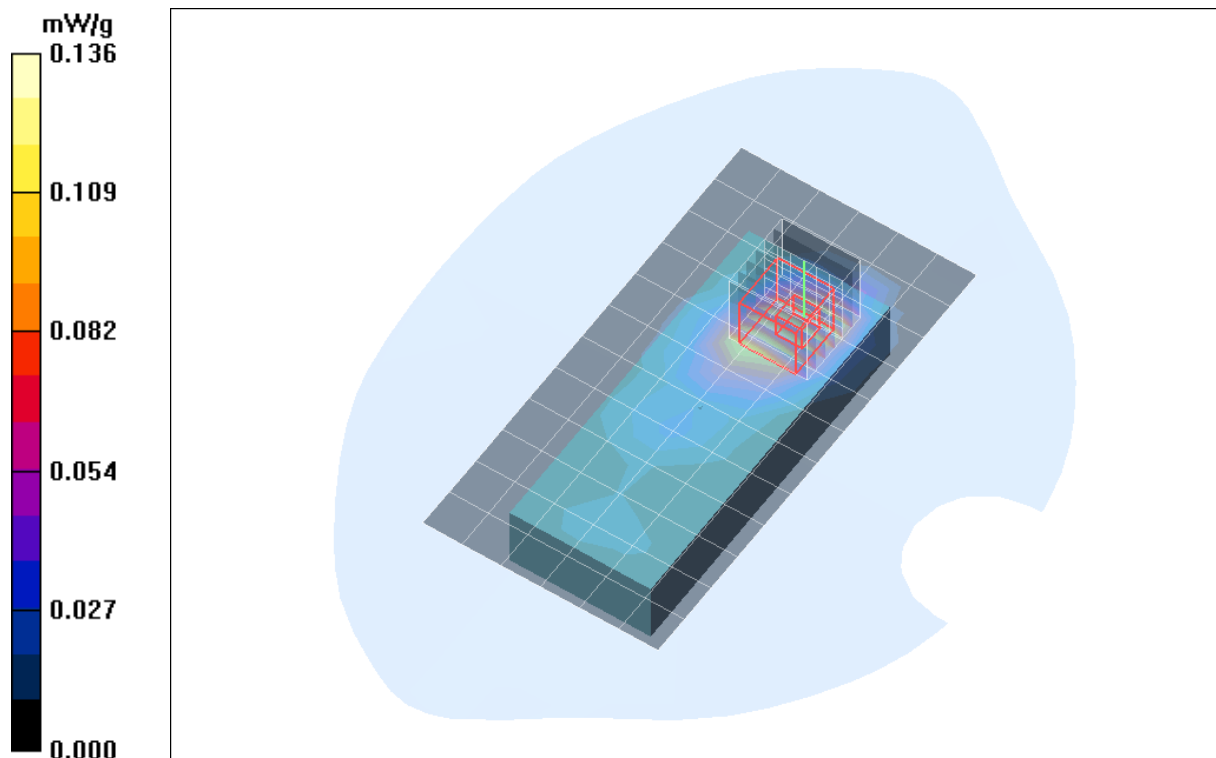


Fig. 9: SAR distribution for IEEE 802.11 n, channel 6, body worn configuration, display towards the phantom, 0 mm distance (August 30, 2010; Ambient Temperature: 21.5° C; Liquid Temperature: 21.2° C).

5 SAR Distribution Plots, IEEE 802.11 a Head (5200 MHz Range)

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA_bwl_m_1_CH52_a_cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 a

Communication System: 5 GHz ; Frequency: 5260 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5260$ MHz; $\sigma = 4.66$ mho/m; $\epsilon_r = 35.1$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.96, 4.96, 4.96); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Cheek Left/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.637 mW/g

Cheek Left/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 11.0 V/m; Power Drift = -0.137 dB

Peak SAR (extrapolated) = 1.55 W/kg

SAR(1 g) = 0.496 mW/g; SAR(10 g) = 0.152 mW/g

Maximum value of SAR (measured) = 0.581 mW/g

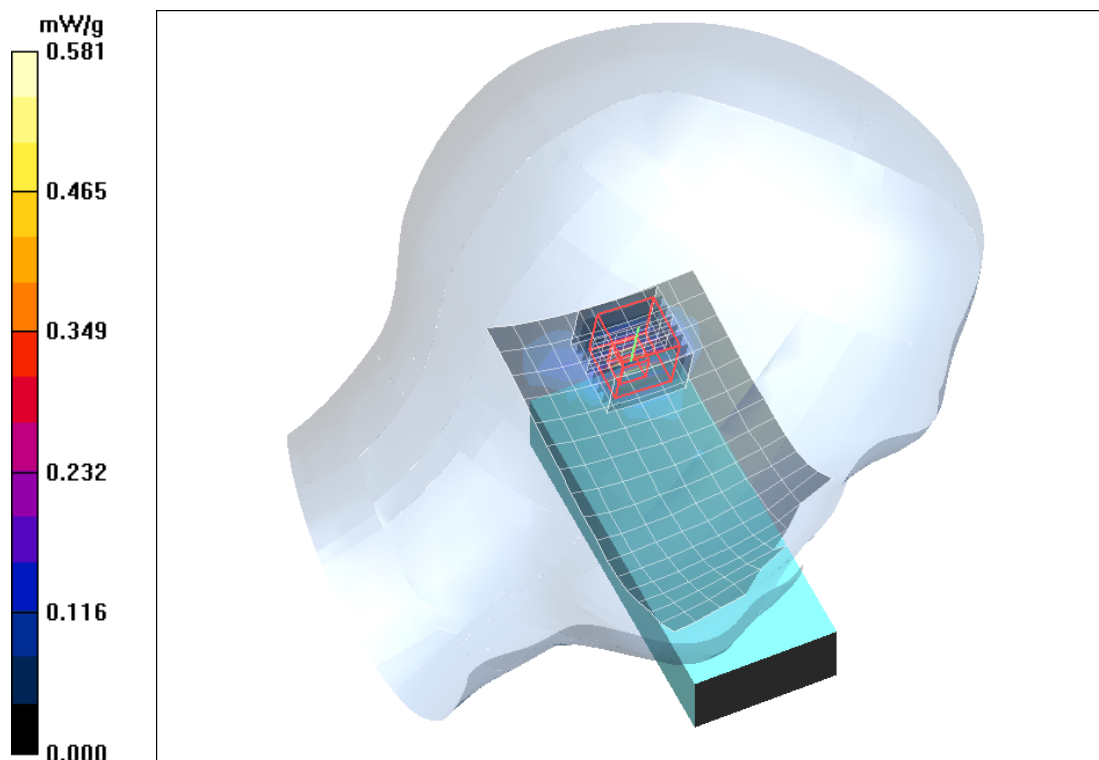


Fig. 10: SAR distribution for IEEE 802.11 a, channel 52, cheek position, left side of head (August 24, 2010; Ambient Temperature: 21.9° C; Liquid Temperature: 21.5° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwlm 2 CH52 a cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 a

Communication System: 5 GHz ; Frequency: 5260 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5260$ MHz; $\sigma = 4.66$ mho/m; $\epsilon_r = 35.1$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.96, 4.96, 4.96); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Tilted Left/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

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

Tilted Left/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 10.1 V/m; Power Drift = -0.038 dB

Peak SAR (extrapolated) = 1.77 W/kg

SAR(1 g) = 0.524 mW/g; SAR(10 g) = 0.155 mW/g

Maximum value of SAR (measured) = 0.602 mW/g

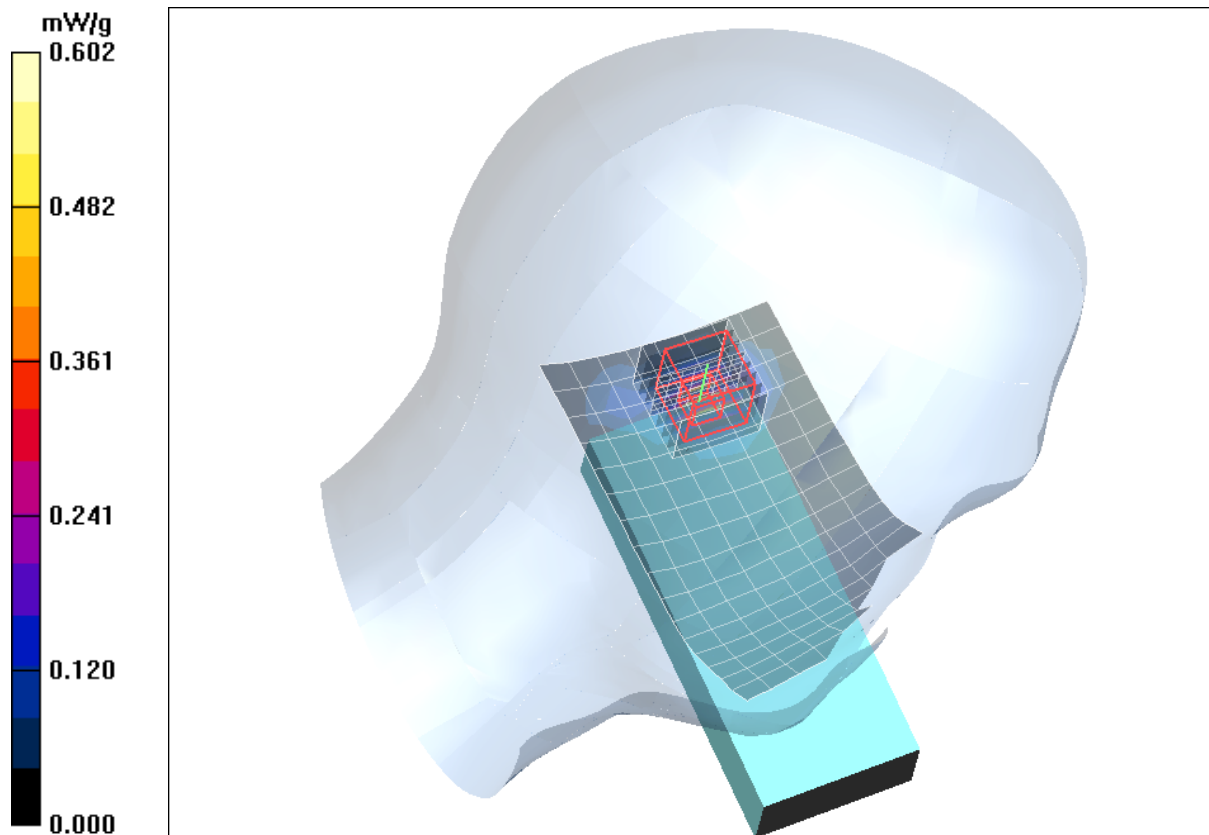


Fig. 11: SAR distribution for IEEE 802.11 a, channel 52, tilted position, left side of head (August 24, 2010; Ambient Temperature: 21.9° C; Liquid Temperature: 21.5° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwrn 1 CH52 a cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 a

Communication System: 5 GHz ; Frequency: 5260 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5260$ MHz; $\sigma = 4.66$ mho/m; $\epsilon_r = 35.1$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.96, 4.96, 4.96); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Cheek Right/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

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

Cheek Right/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 10.8 V/m; Power Drift = 0.149 dB

Peak SAR (extrapolated) = 1.47 W/kg

SAR(1 g) = 0.477 mW/g; SAR(10 g) = 0.159 mW/g

Maximum value of SAR (measured) = 0.543 mW/g

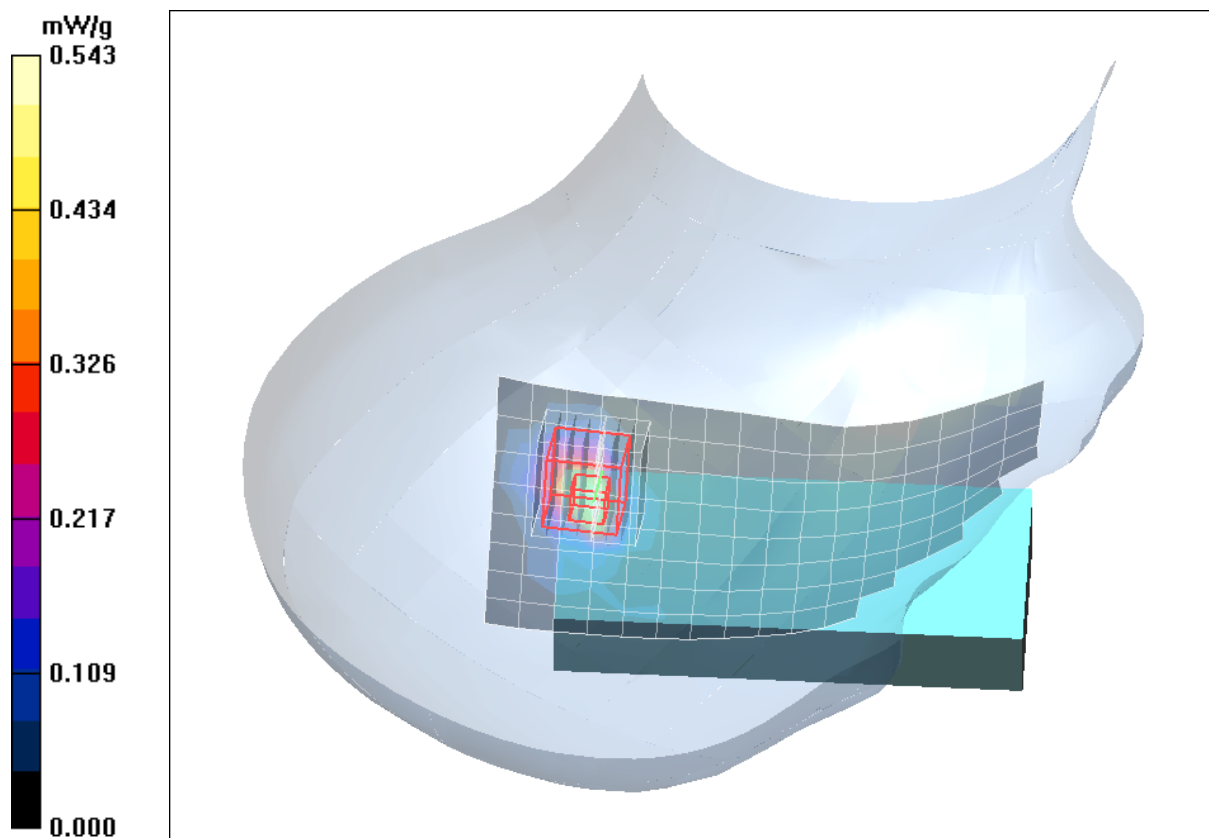


Fig. 12: SAR distribution for IEEE 802.11 a, channel 52, cheek position, right side of head (August 24, 2010; Ambient Temperature: 21.9° C; Liquid Temperature: 21.5° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwrn 2 CH52 a cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 a

Communication System: 5 GHz ; Frequency: 5260 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5260$ MHz; $\sigma = 4.66$ mho/m; $\epsilon_r = 35.1$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.96, 4.96, 4.96); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Tilted Right/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.585 mW/g

Tilted Right/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 11.5 V/m; Power Drift = -0.095 dB

Peak SAR (extrapolated) = 1.64 W/kg

SAR(1 g) = 0.530 mW/g; SAR(10 g) = 0.178 mW/g

Maximum value of SAR (measured) = 0.626 mW/g

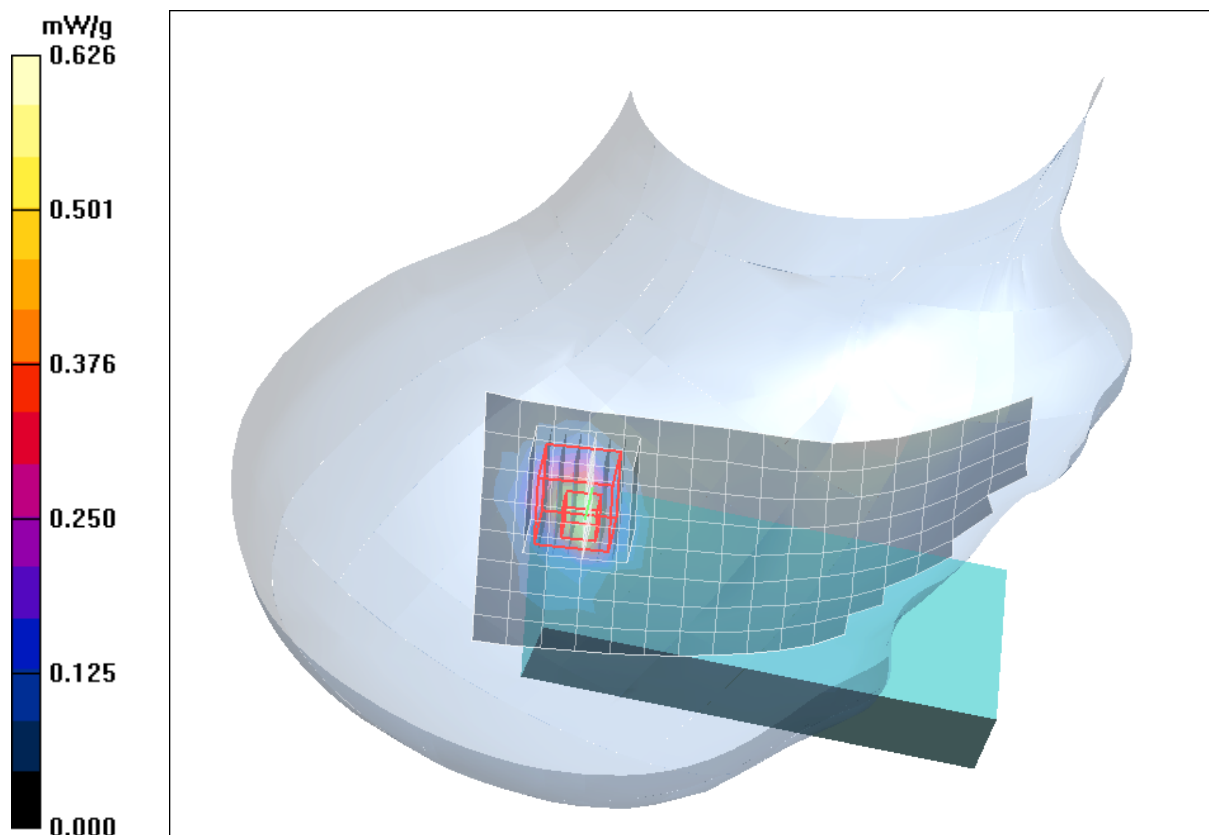


Fig. 13: SAR distribution for IEEE 802.11 a, channel 52, tilted position, right side of head (August 24, 2010; Ambient Temperature: 21.9° C; Liquid Temperature: 21.5° C).

6 SAR Distribution Plots, IEEE 802.11 a Body (5200 MHz Range)

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA_bwhm_1_CH52_a_hs_up.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 a

Communication System: 5 GHz ; Frequency: 5260 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5260$ MHz; $\sigma = 5.19$ mho/m; $\epsilon_r = 48.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.37, 4.37, 4.37); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- 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 (10x18x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 0.435 mW/g

Body Worn/Zoom Scan (8x8x8)/Cube 0: Measurement grid: $dx=4.3$ mm, $dy=4.3$ mm, $dz=3$ mm

Reference Value = 9.41 V/m; Power Drift = -0.070 dB

Peak SAR (extrapolated) = 1.18 W/kg

SAR(1 g) = 0.323 mW/g; SAR(10 g) = 0.077 mW/g

Maximum value of SAR (measured) = 0.432 mW/g

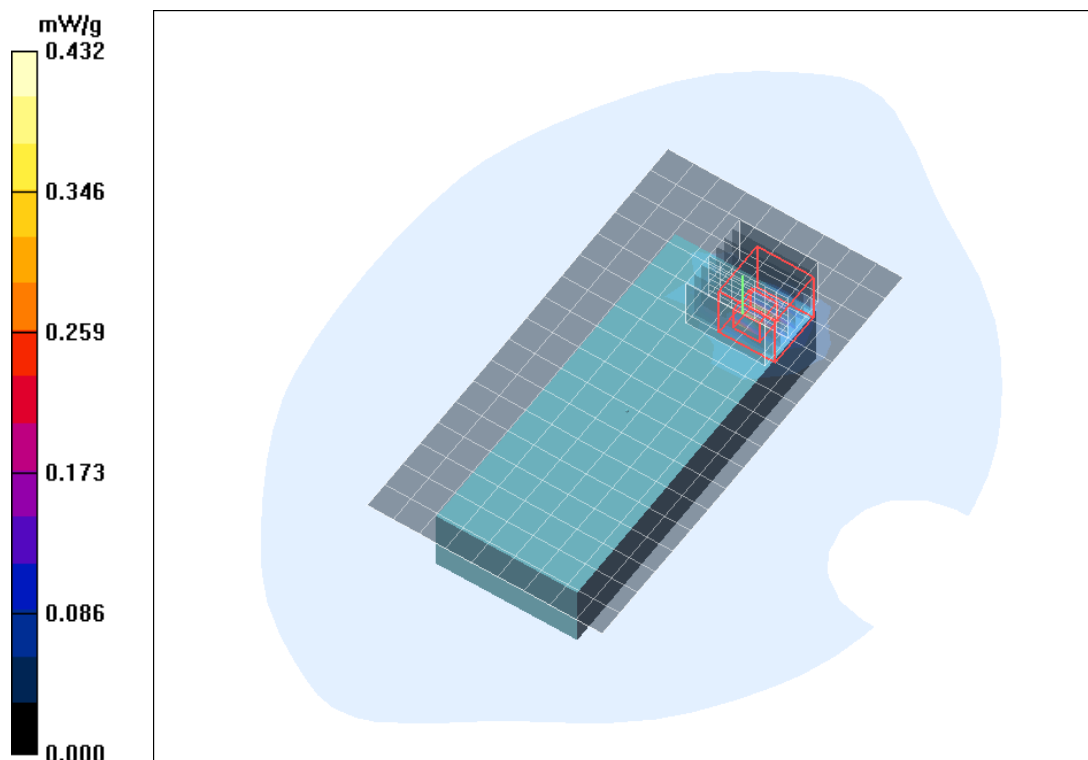


Fig. 14: SAR distribution for IEEE 802.11 a, channel 52, body worn configuration, display towards the phantom, 0 mm distance (September 07, 2010; Ambient Temperature: 21.2° C; Liquid Temperature: 20.8° C).

7 SAR Distribution Plots, IEEE 802.11 a Head (5500 MHz Range)

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA_bwl_m_1_CH104_a_cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 a

Communication System: 5 GHz ; Frequency: 5520 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5520$ MHz; $\sigma = 5.04$ mho/m; $\epsilon_r = 34.8$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.93, 4.93, 4.93); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Cheek Left/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.999 mW/g

Cheek Left/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 13.6 V/m; Power Drift = -0.153 dB

Peak SAR (extrapolated) = 3.26 W/kg

SAR(1 g) = 0.951 mW/g; SAR(10 g) = 0.300 mW/g

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

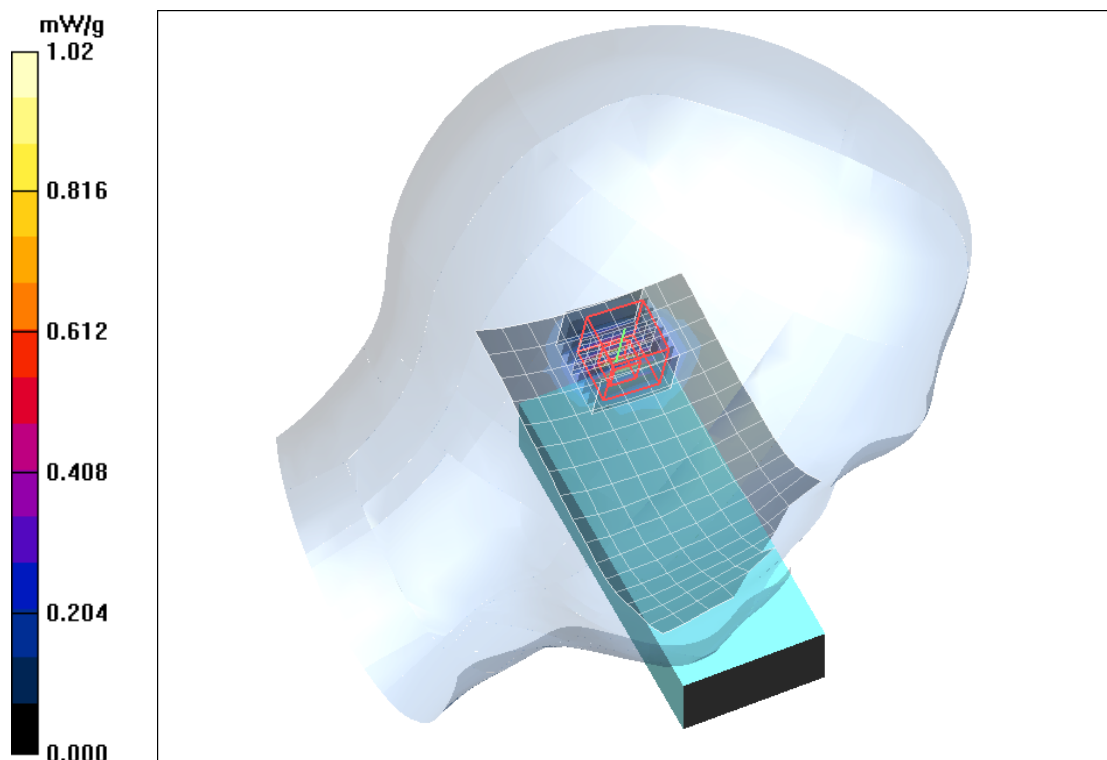


Fig. 15: SAR distribution for IEEE 802.11 a, channel 104, cheek position, left side of head (August 23, 2010; Ambient Temperature: 22.0° C; Liquid Temperature: 21.6° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwl_m 1 CH116 a cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 a

Communication System: 5 GHz ; Frequency: 5580 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5580$ MHz; $\sigma = 5.14$ mho/m; $\epsilon_r = 34.4$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.93, 4.93, 4.93); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Cheek Left/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.921 mW/g

Cheek Left/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 13.5 V/m; Power Drift = 0.151 dB

Peak SAR (extrapolated) = 3.13 W/kg

SAR(1 g) = 0.954 mW/g; SAR(10 g) = 0.298 mW/g

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

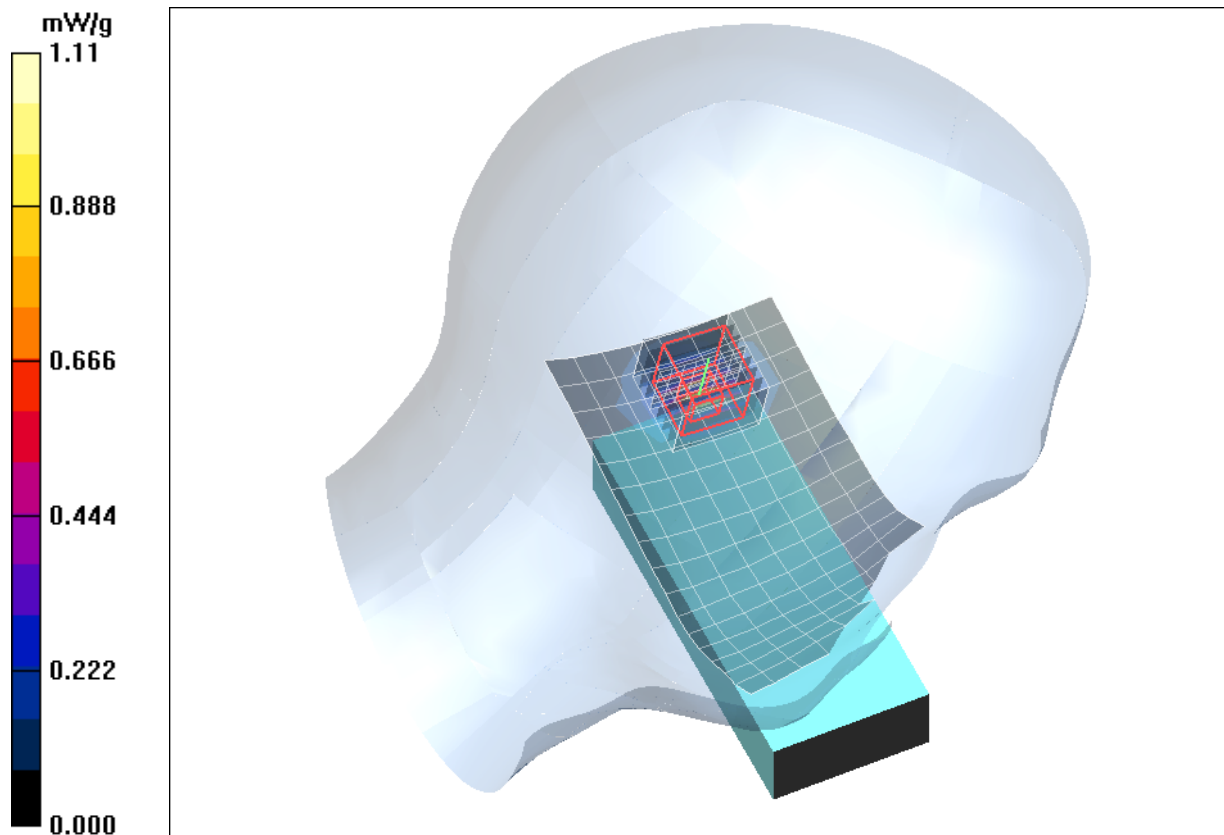


Fig. 16: SAR distribution for IEEE 802.11 a, channel 116, cheek position, left side of head (August 23, 2010; Ambient Temperature: 22.0° C; Liquid Temperature: 21.6° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwlm 1 CH124 a cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 a

Communication System: 5 GHz ; Frequency: 5620 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 5620$ MHz; $\sigma = 5.23$ mho/m; $\epsilon_r = 34.4$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.93, 4.93, 4.93); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Cheek Left/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

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

Cheek Left/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 13.9 V/m; Power Drift = -0.180 dB

Peak SAR (extrapolated) = 3.13 W/kg

SAR(1 g) = 0.957 mW/g; SAR(10 g) = 0.302 mW/g

Maximum value of SAR (measured) = 1.10 mW/g

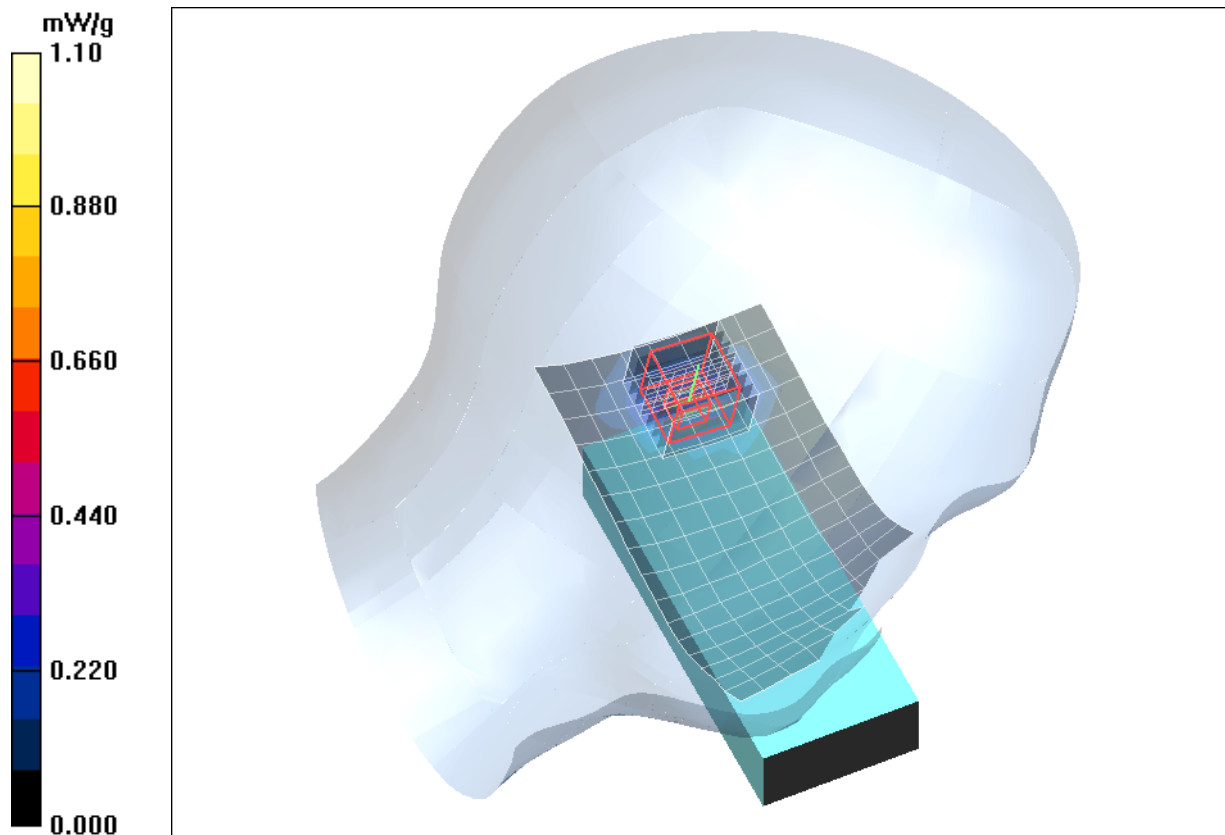


Fig. 17: SAR distribution for IEEE 802.11 a, channel 124, cheek position, left side of head (August 23, 2010; Ambient Temperature: 22.0° C; Liquid Temperature: 21.6° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwlm 1 CH136 a cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 a

Communication System: 5 GHz ; Frequency: 5680 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 5680$ MHz; $\sigma = 5.19$ mho/m; $\epsilon_r = 34.3$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.93, 4.93, 4.93); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Cheek Left/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 1.15 mW/g

Cheek Left/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 13.9 V/m; Power Drift = -0.124 dB

Peak SAR (extrapolated) = 4.39 W/kg

SAR(1 g) = 0.946 mW/g; SAR(10 g) = 0.276 mW/g

Maximum value of SAR (measured) = 0.996 mW/g

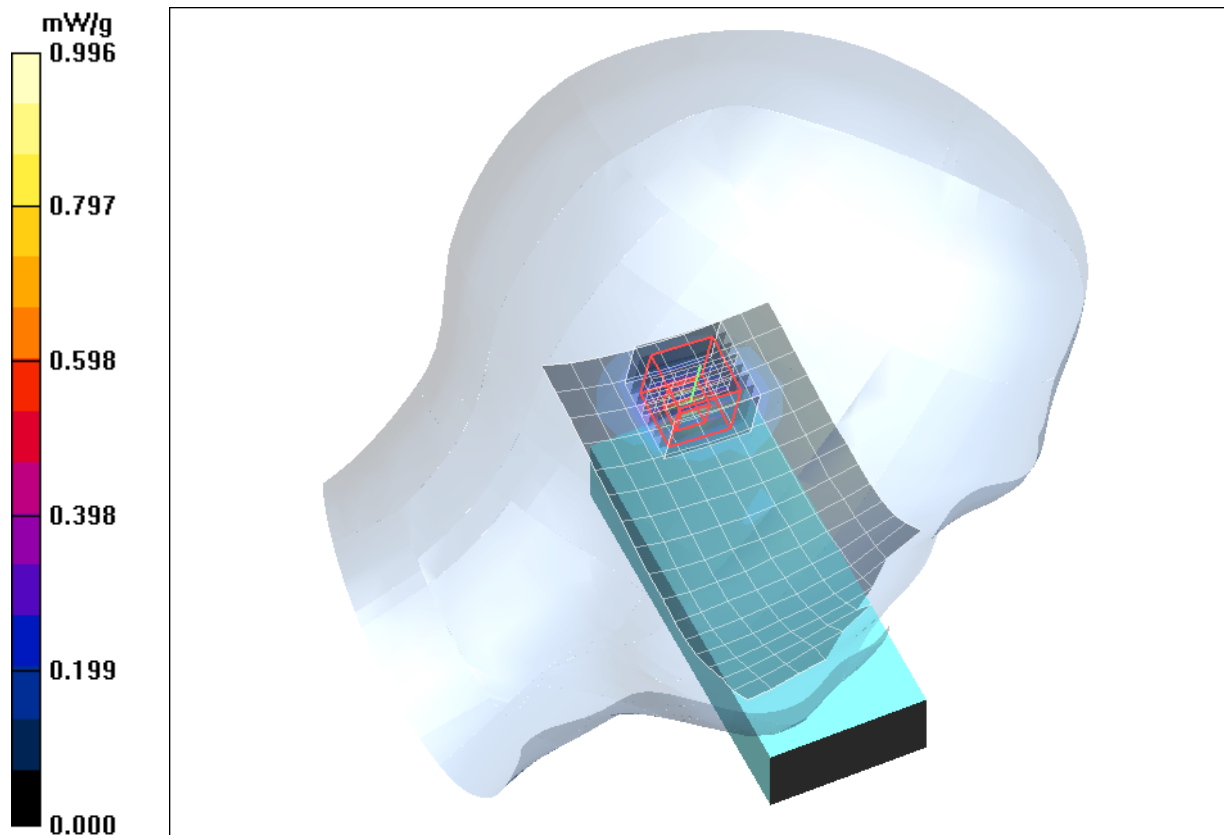


Fig. 18: SAR distribution for IEEE 802.11 a, channel 136, cheek position, left side of head (August 23, 2010; Ambient Temperature: 22.0° C; Liquid Temperature: 21.6° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwlm 2 CH124 a cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 a

Communication System: 5 GHz ; Frequency: 5620 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5620$ MHz; $\sigma = 5.23$ mho/m; $\epsilon_r = 34.4$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.93, 4.93, 4.93); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Tilted Left/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 1.43 mW/g

Tilted Left/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 15.8 V/m; Power Drift = -0.032 dB

Peak SAR (extrapolated) = 4.86 W/kg

SAR(1 g) = 1.3 mW/g; SAR(10 g) = 0.408 mW/g

Maximum value of SAR (measured) = 1.38 mW/g

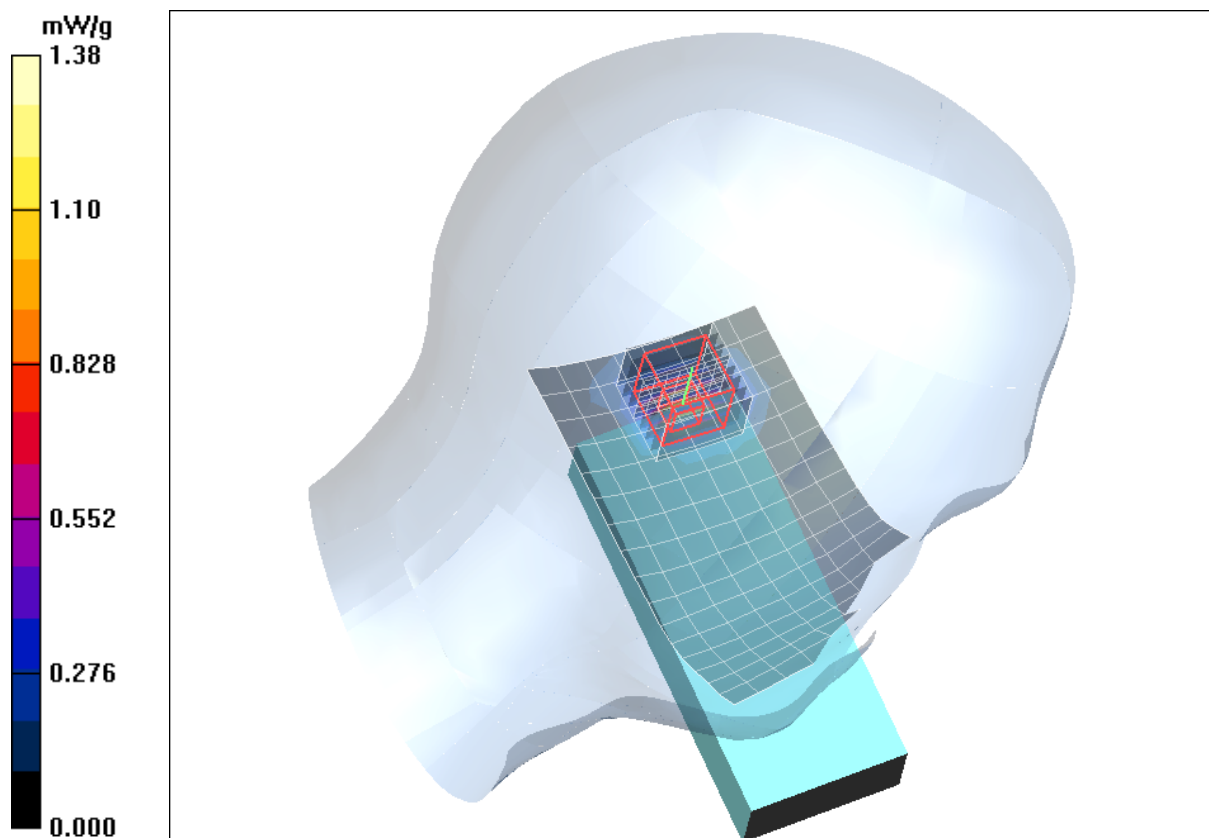


Fig. 19: SAR distribution for IEEE 802.11 a, channel 124, tilted position, left side of head (August 23, 2010; Ambient Temperature: 22.0° C; Liquid Temperature: 21.6° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwrn 1 CH104 a cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 a

Communication System: 5 GHz ; Frequency: 5520 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5520$ MHz; $\sigma = 5.04$ mho/m; $\epsilon_r = 34.8$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.93, 4.93, 4.93); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Cheek Right/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 1.19 mW/g

Cheek Right/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 14.6 V/m; Power Drift = -0.127 dB

Peak SAR (extrapolated) = 2.84 W/kg

SAR(1 g) = 0.890 mW/g; SAR(10 g) = 0.295 mW/g

Maximum value of SAR (measured) = 0.985 mW/g

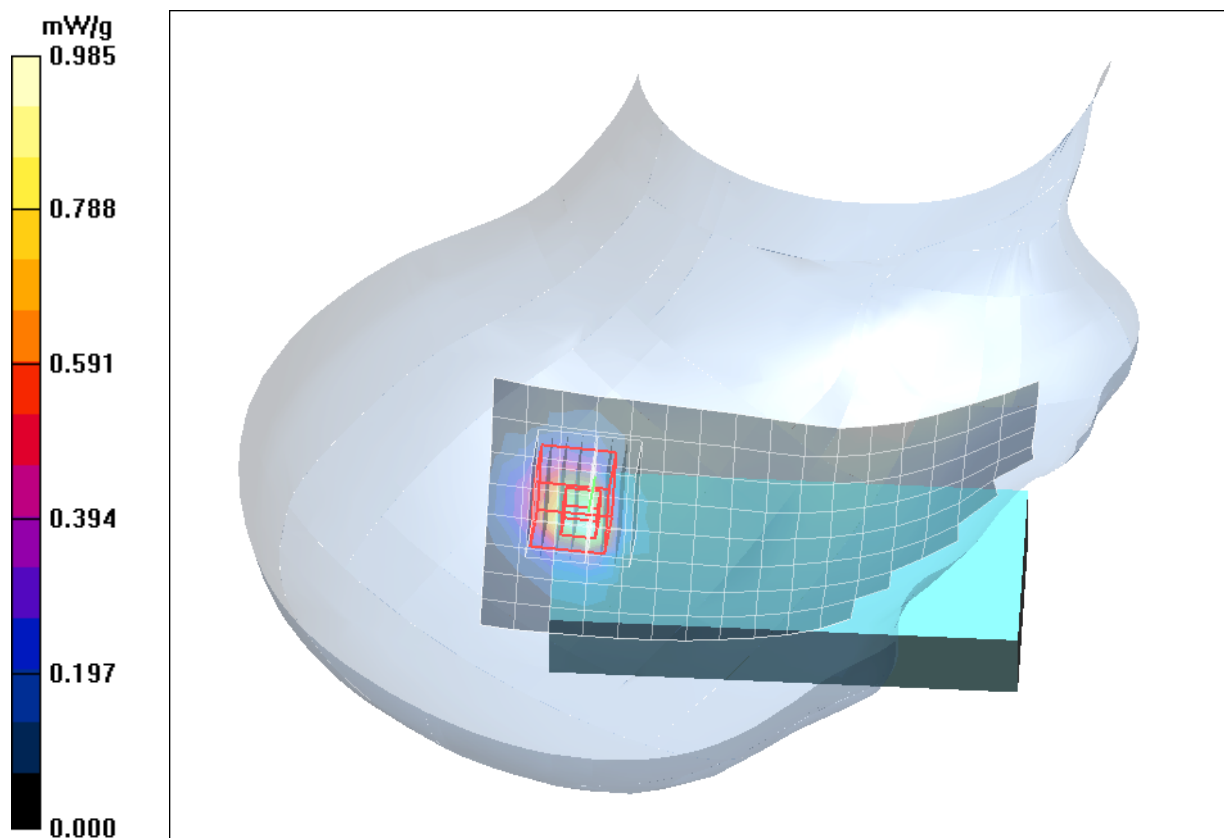


Fig. 20: SAR distribution for IEEE 802.11 a, channel 104, cheek position, right side of head (August 23, 2010; Ambient Temperature: 22.0° C; Liquid Temperature: 21.6° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwrn 1 CH116 a cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 a

Communication System: 5 GHz ; Frequency: 5580 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5580$ MHz; $\sigma = 5.14$ mho/m; $\epsilon_r = 34.4$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.93, 4.93, 4.93); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Cheek Right/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 1.17 mW/g

Cheek Right/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 15.1 V/m; Power Drift = 0.098 dB

Peak SAR (extrapolated) = 3.25 W/kg

SAR(1 g) = 0.998 mW/g; SAR(10 g) = 0.322 mW/g

Maximum value of SAR (measured) = 1.10 mW/g

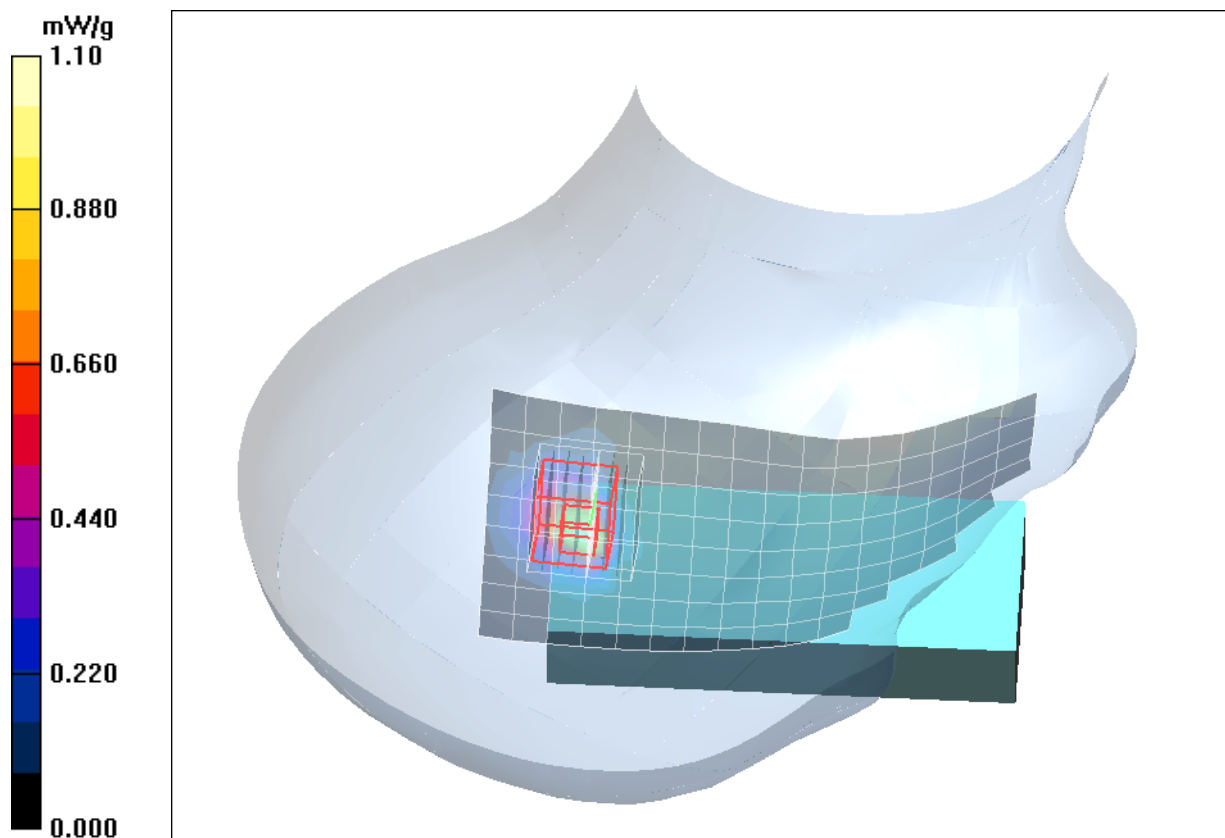


Fig. 21: SAR distribution for IEEE 802.11 a, channel 116, cheek position, right side of head (August 23, 2010; Ambient Temperature: 22.0° C; Liquid Temperature: 21.6° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwrn 1 CH124 a cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 a

Communication System: 5 GHz ; Frequency: 5620 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5620$ MHz; $\sigma = 5.23$ mho/m; $\epsilon_r = 34.4$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.93, 4.93, 4.93); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Cheek Right/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 1.18 mW/g

Cheek Right/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 14.9 V/m; Power Drift = 0.052 dB

Peak SAR (extrapolated) = 3.35 W/kg

SAR(1 g) = 1.01 mW/g; SAR(10 g) = 0.326 mW/g

Maximum value of SAR (measured) = 1.19 mW/g

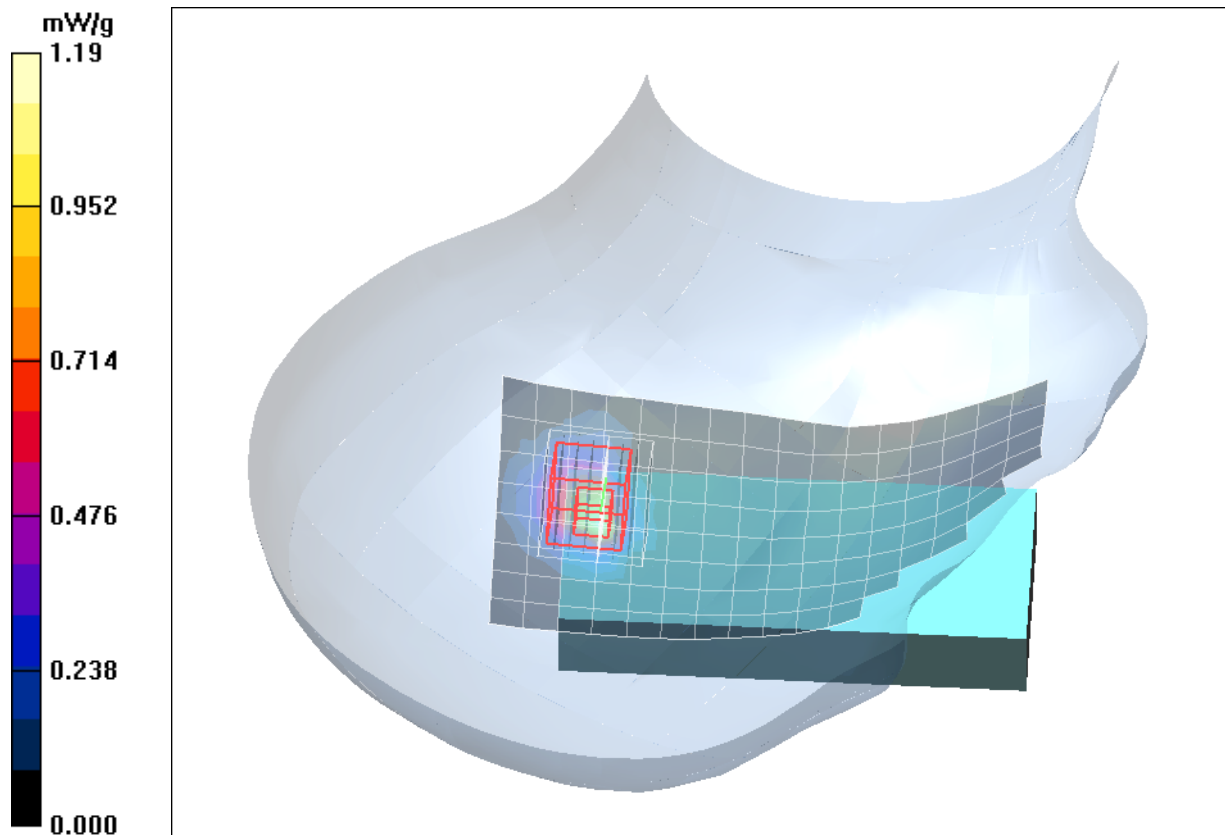


Fig. 22: SAR distribution for IEEE 802.11 a, channel 124, cheek position, right side of head (August 23, 2010; Ambient Temperature: 22.0° C; Liquid Temperature: 21.6° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwrn 1 CH136 a cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 a

Communication System: 5 GHz ; Frequency: 5680 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 5680$ MHz; $\sigma = 5.19$ mho/m; $\epsilon_r = 34.3$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.93, 4.93, 4.93); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Cheek Right/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

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

Cheek Right/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 14.5 V/m; Power Drift = -0.135 dB

Peak SAR (extrapolated) = 2.93 W/kg

SAR(1 g) = 0.890 mW/g; SAR(10 g) = 0.283 mW/g

Maximum value of SAR (measured) = 0.999 mW/g

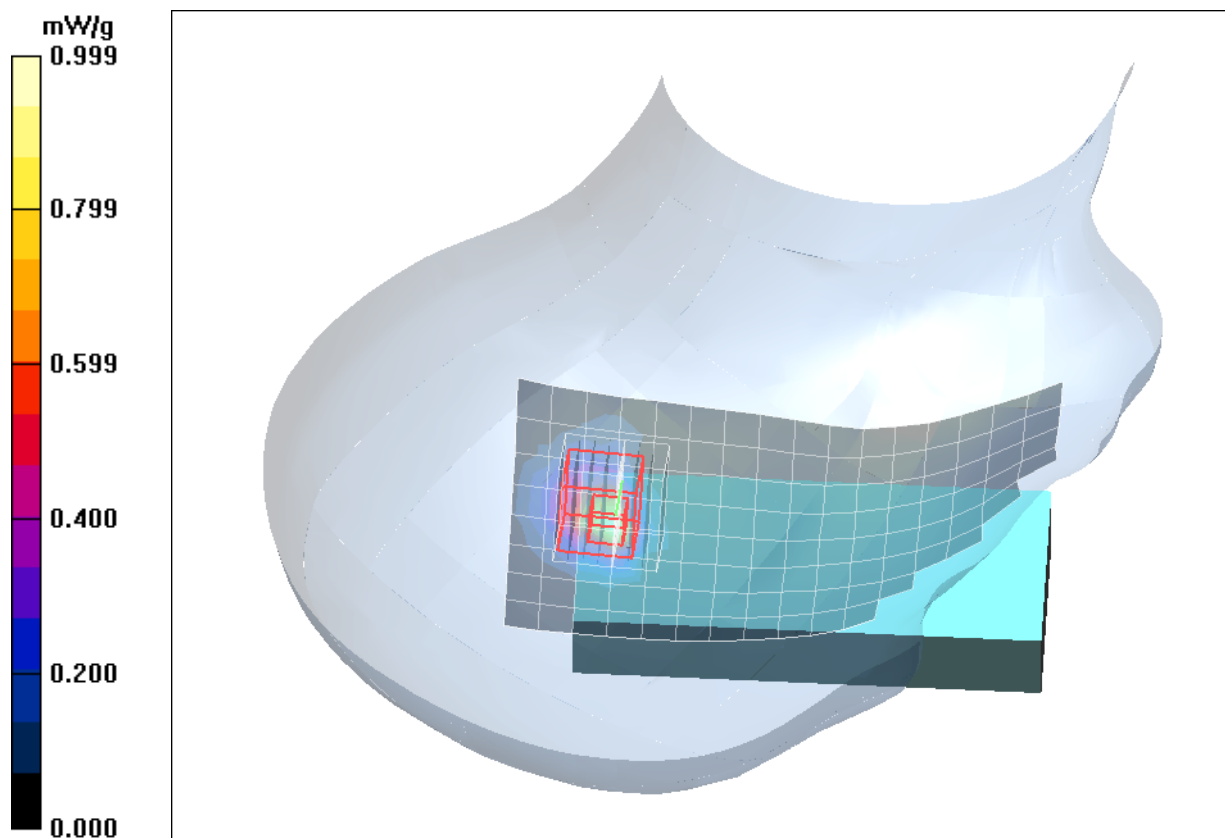


Fig. 23: SAR distribution for IEEE 802.11 a, channel 136, cheek position, right side of head (August 23, 2010; Ambient Temperature: 22.0° C; Liquid Temperature: 21.6° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwrn 2 CH124 a cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 a

Communication System: 5 GHz ; Frequency: 5620 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5620$ MHz; $\sigma = 5.23$ mho/m; $\epsilon_r = 34.4$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.93, 4.93, 4.93); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Tilted Right/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 1.40 mW/g

Tilted Right/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 17.2 V/m; Power Drift = -0.166 dB

Peak SAR (extrapolated) = 5.22 W/kg

SAR(1 g) = 1.38 mW/g; SAR(10 g) = 0.451 mW/g

Maximum value of SAR (measured) = 1.42 mW/g

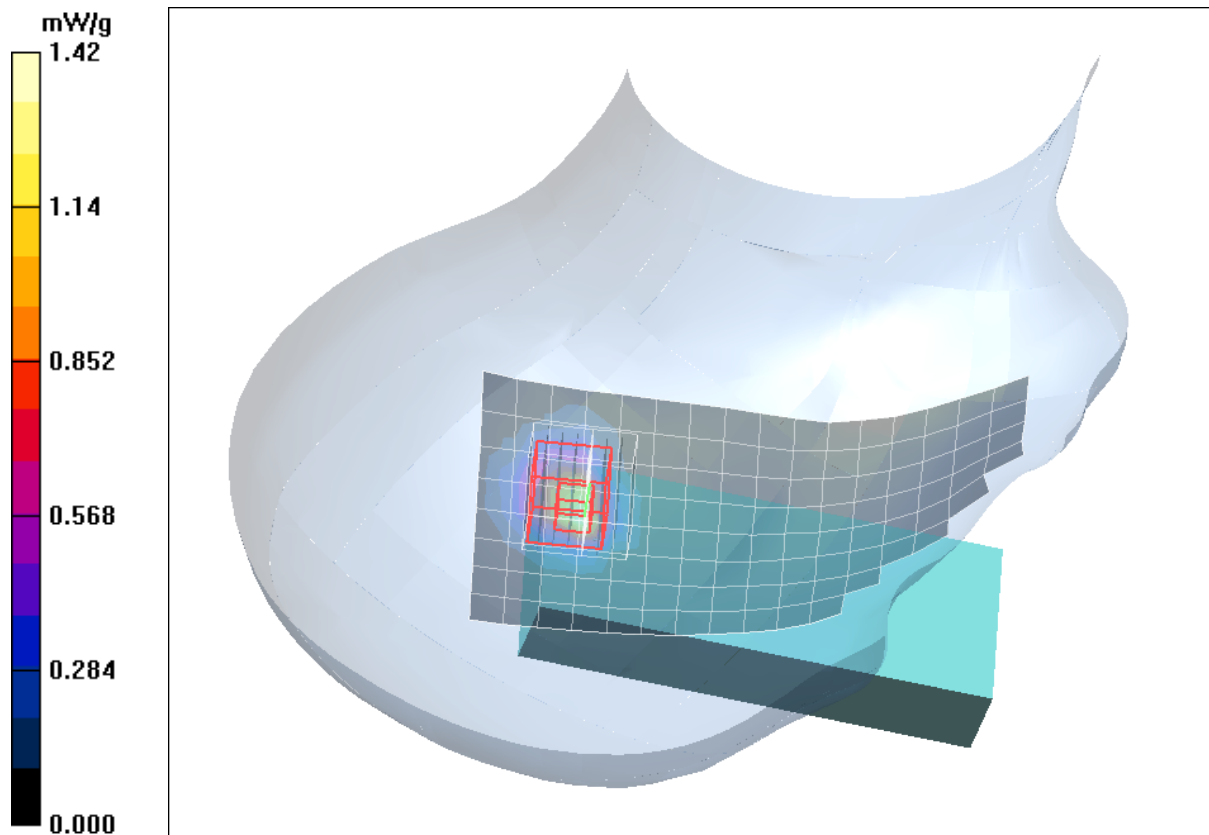


Fig. 24: SAR distribution for IEEE 802.11 a, channel 124, tilted position, right side of head (August 23, 2010; Ambient Temperature: 22.0° C; Liquid Temperature: 21.6° C).

8 SAR Distribution Plots, IEEE 802.11 a Body (5500 MHz Range)

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA_bwhm_1_CH104_a_hs_up.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 a

Communication System: 5 GHz ; Frequency: 5520 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5520$ MHz; $\sigma = 5.79$ mho/m; $\epsilon_r = 48.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.22, 4.22, 4.22); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- 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 (10x18x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.933 mW/g

Body Worn/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 12.7 V/m; Power Drift = -0.103 dB

Peak SAR (extrapolated) = 2.38 W/kg

SAR(1 g) = 0.697 mW/g; SAR(10 g) = 0.193 mW/g

Maximum value of SAR (measured) = 0.861 mW/g

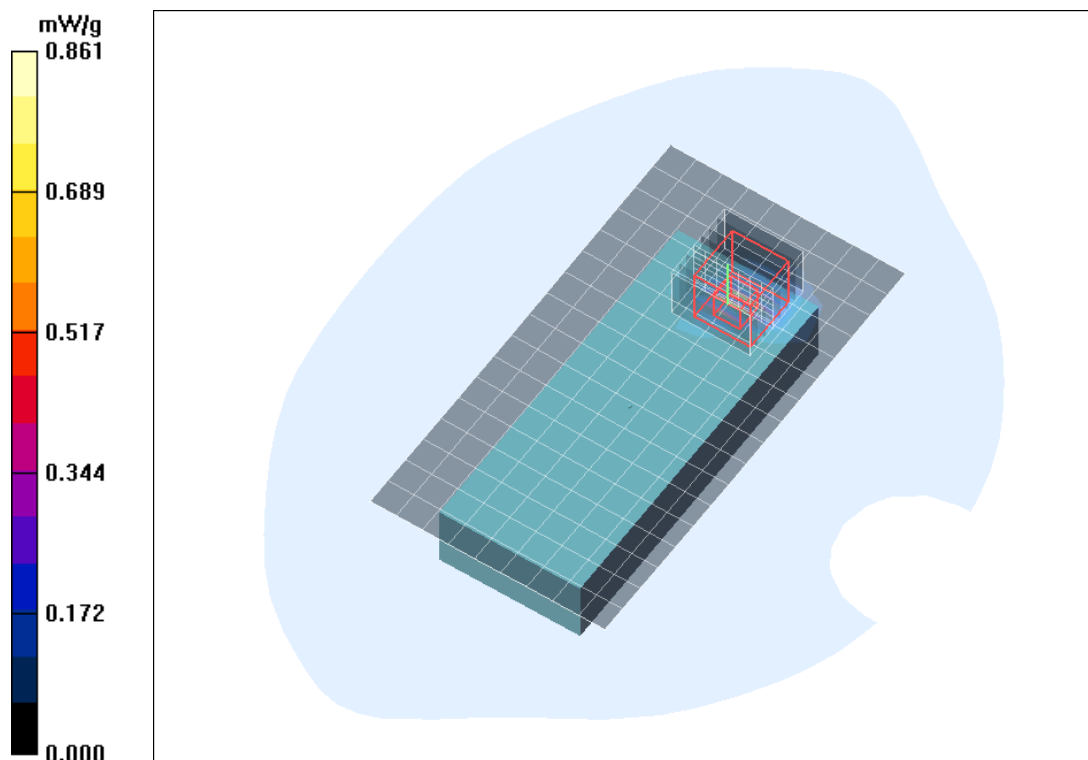


Fig. 25: SAR distribution for IEEE 802.11 a, channel 104, body worn configuration, display towards the phantom, 0 mm distance (September 06, 2010; Ambient Temperature: 21.1° C; Liquid Temperature: 20.7° C).

9 SAR Distribution Plots, IEEE 802.11 a Head (5800 MHz Range)

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA_bwl_m_1_CH153_a_cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 a

Communication System: 5 GHz ; Frequency: 5765 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5765$ MHz; $\sigma = 5.37$ mho/m; $\epsilon_r = 34.2$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.63, 4.63, 4.63); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Cheek Left/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 1.10 mW/g

Cheek Left/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 13.3 V/m; Power Drift = -0.111 dB

Peak SAR (extrapolated) = 2.66 W/kg

SAR(1 g) = 0.797 mW/g; SAR(10 g) = 0.255 mW/g

Maximum value of SAR (measured) = 0.892 mW/g

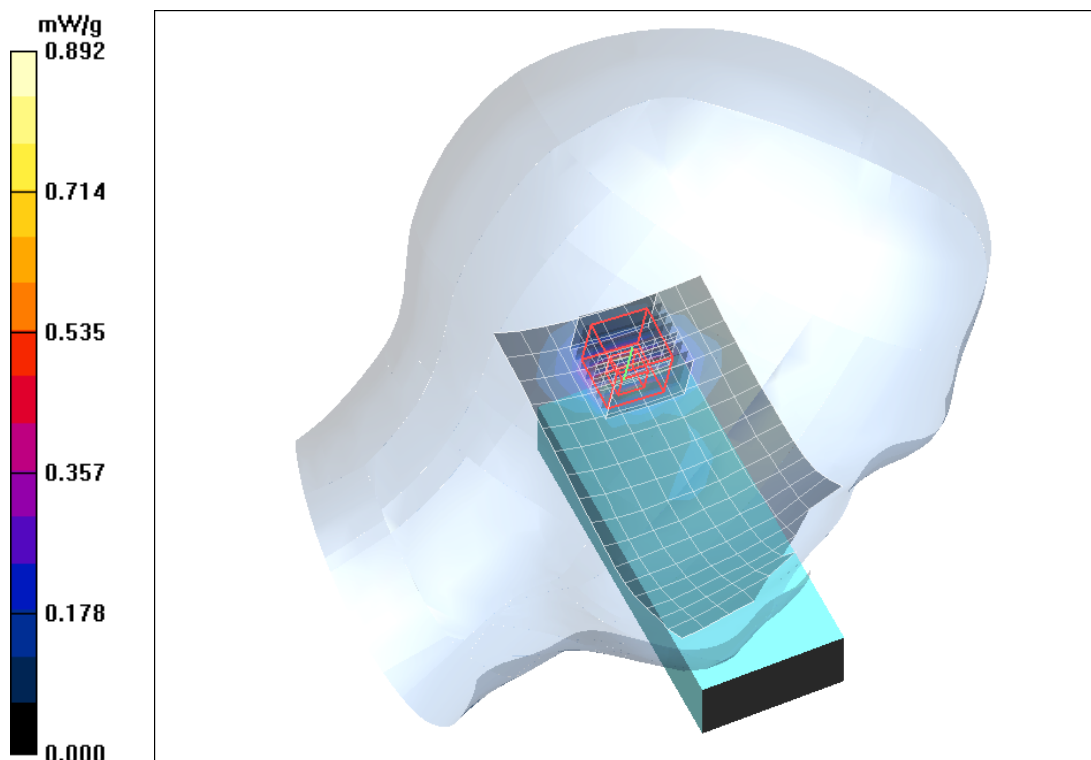


Fig. 26: SAR distribution for IEEE 802.11 a, channel 153, cheek position, left side of head (August 19, 2010; Ambient Temperature: 22.2° C; Liquid Temperature: 21.7° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwl_m 2 CH153 a cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 a

Communication System: 5 GHz ; Frequency: 5765 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5765$ MHz; $\sigma = 5.37$ mho/m; $\epsilon_r = 34.2$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.63, 4.63, 4.63); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Tilted Left/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

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

Tilted Left/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 13.8 V/m; Power Drift = -0.048 dB

Peak SAR (extrapolated) = 2.99 W/kg

SAR(1 g) = 0.895 mW/g; SAR(10 g) = 0.284 mW/g

Maximum value of SAR (measured) = 0.991 mW/g

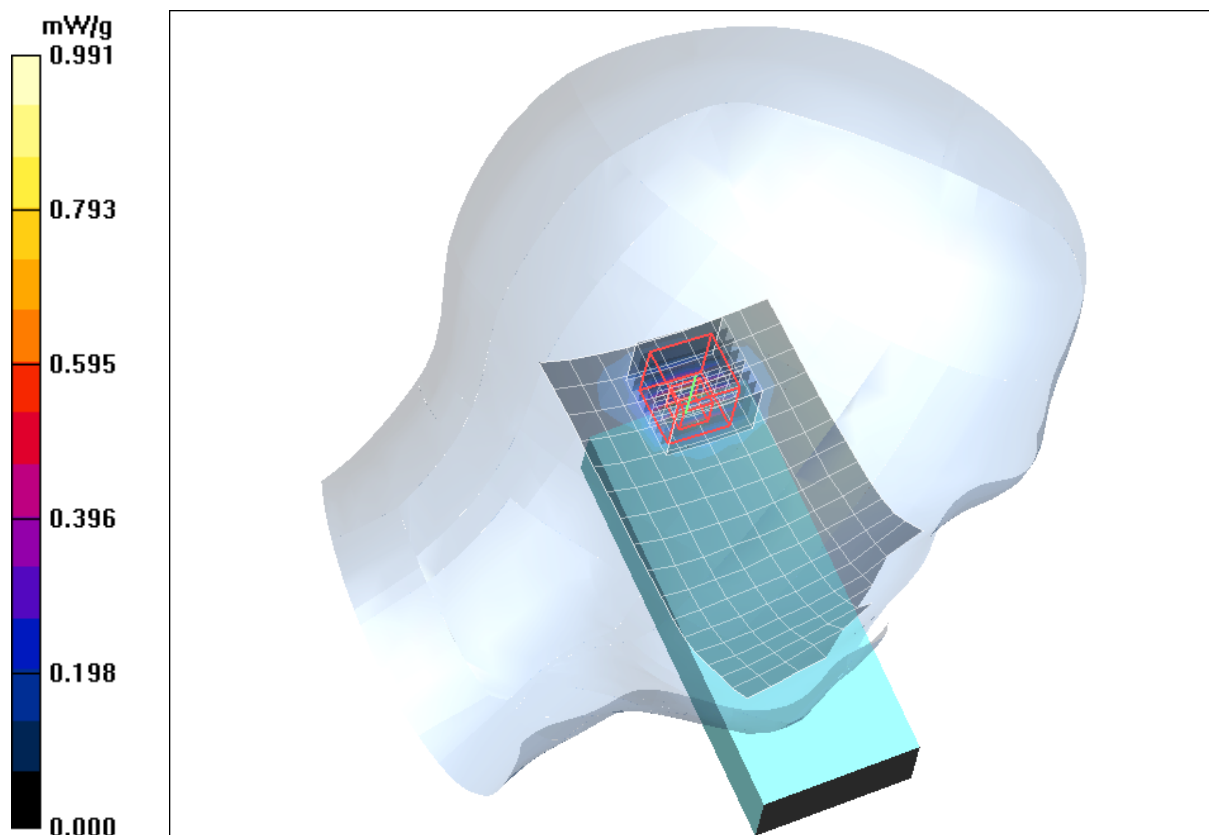


Fig. 27: SAR distribution for IEEE 802.11 a, channel 153 tilted position, left side of head (August 19, 2010; Ambient Temperature: 22.2° C; Liquid Temperature: 21.7° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwrn 1 CH153 a cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 a

Communication System: 5 GHz ; Frequency: 5765 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5765$ MHz; $\sigma = 5.37$ mho/m; $\epsilon_r = 34.2$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.63, 4.63, 4.63); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Cheek Right/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.840 mW/g

Cheek Right/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 12.8 V/m; Power Drift = 0.173 dB

Peak SAR (extrapolated) = 2.68 W/kg

SAR(1 g) = 0.803 mW/g; SAR(10 g) = 0.254 mW/g

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

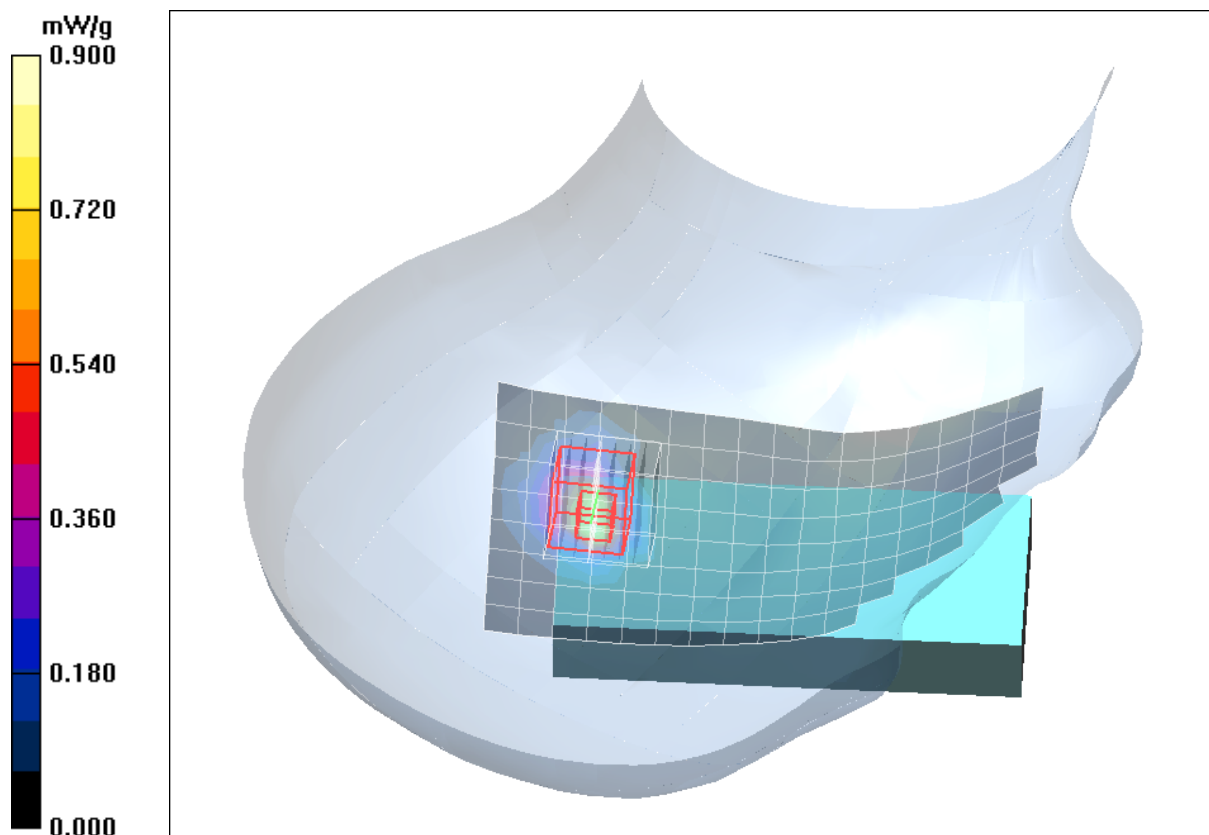


Fig. 28: SAR distribution for IEEE 802.11 a, channel 153, cheek position, right side of head (August 19, 2010; Ambient Temperature: 22.2° C; Liquid Temperature: 21.7° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwrn 2 CH153 a cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 a

Communication System: 5 GHz ; Frequency: 5765 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5765$ MHz; $\sigma = 5.37$ mho/m; $\epsilon_r = 34.2$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.63, 4.63, 4.63); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Tilted Right/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

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

Tilted Right/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 15.1 V/m; Power Drift = 0.114 dB

Peak SAR (extrapolated) = 3.23 W/kg

SAR(1 g) = 0.963 mW/g; SAR(10 g) = 0.306 mW/g

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

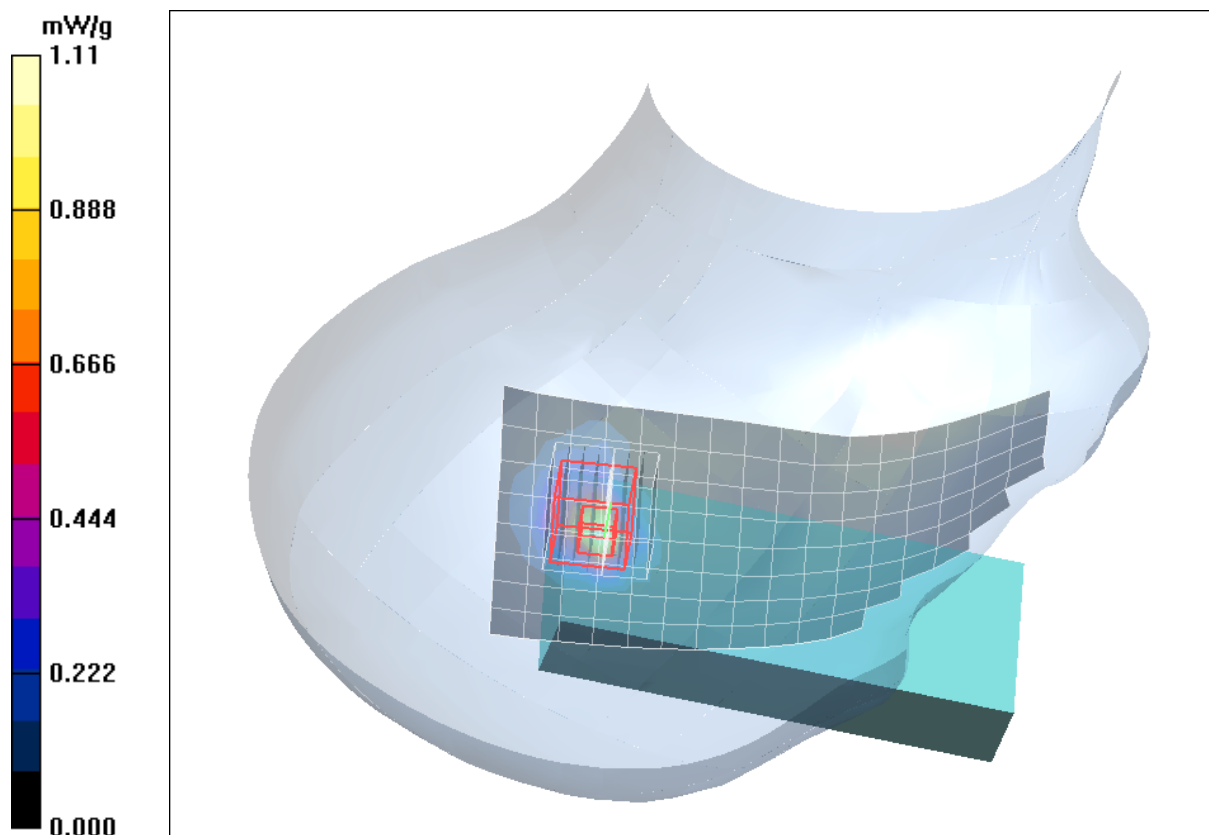


Fig. 29: SAR distribution for IEEE 802.11 a, channel 153, tilted position, right side of head (August 19, 2010; Ambient Temperature: 22.2° C; Liquid Temperature: 21.7° C).

10 SAR Distribution Plots, IEEE 802.11 a Body (5800 MHz Range)

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA_bwhm_1_CH153_a_hs_up.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 a

Communication System: 5 GHz ; Frequency: 5765 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5765$ MHz; $\sigma = 6.14$ mho/m; $\epsilon_r = 47.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.2, 4.2, 4.2); Calibrated: 18.09.2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn335; Calibrated: 10.02.2010

- 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 (10x18x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 0.982 mW/g

Body Worn/Zoom Scan (8x8x8)/Cube 0: Measurement grid: $dx=4.3$ mm, $dy=4.3$ mm, $dz=3$ mm

Reference Value = 13.0 V/m; Power Drift = -0.117 dB

Peak SAR (extrapolated) = 6.49 W/kg

SAR(1 g) = 0.820 mW/g; SAR(10 g) = 0.205 mW/g

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

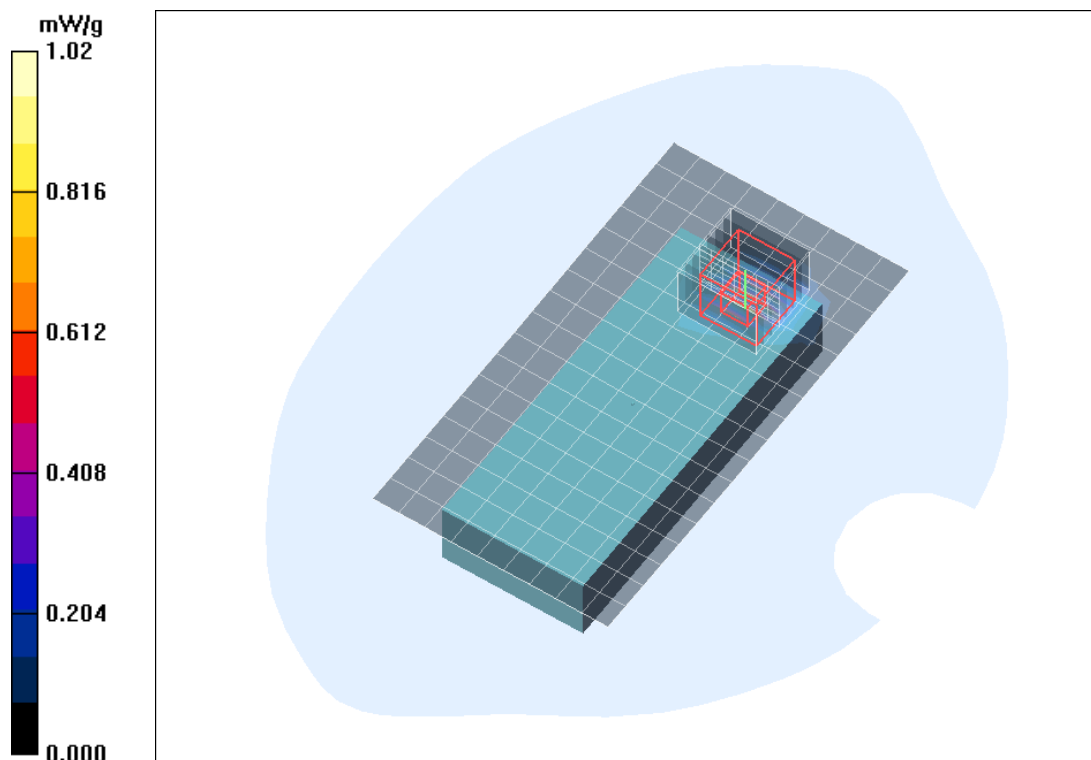


Fig. 30: SAR distribution for IEEE 802.11 a, channel 153, body worn configuration, display towards the phantom, 0 mm distance (September 03, 2010; Ambient Temperature: 21.0° C; Liquid Temperature: 20.7° C).

11 SAR Distribution Plots, IEEE 802.11 n Head (5200 MHz Range)

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA_bwl_m_1_CH60_n_cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5300 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5300$ MHz; $\sigma = 4.77$ mho/m; $\epsilon_r = 35$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.96, 4.96, 4.96); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Cheek Left/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.581 mW/g

Cheek Left/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 11.1 V/m; Power Drift = 0.078 dB

Peak SAR (extrapolated) = 1.78 W/kg

SAR(1 g) = 0.564 mW/g; SAR(10 g) = 0.173 mW/g

Maximum value of SAR (measured) = 0.662 mW/g

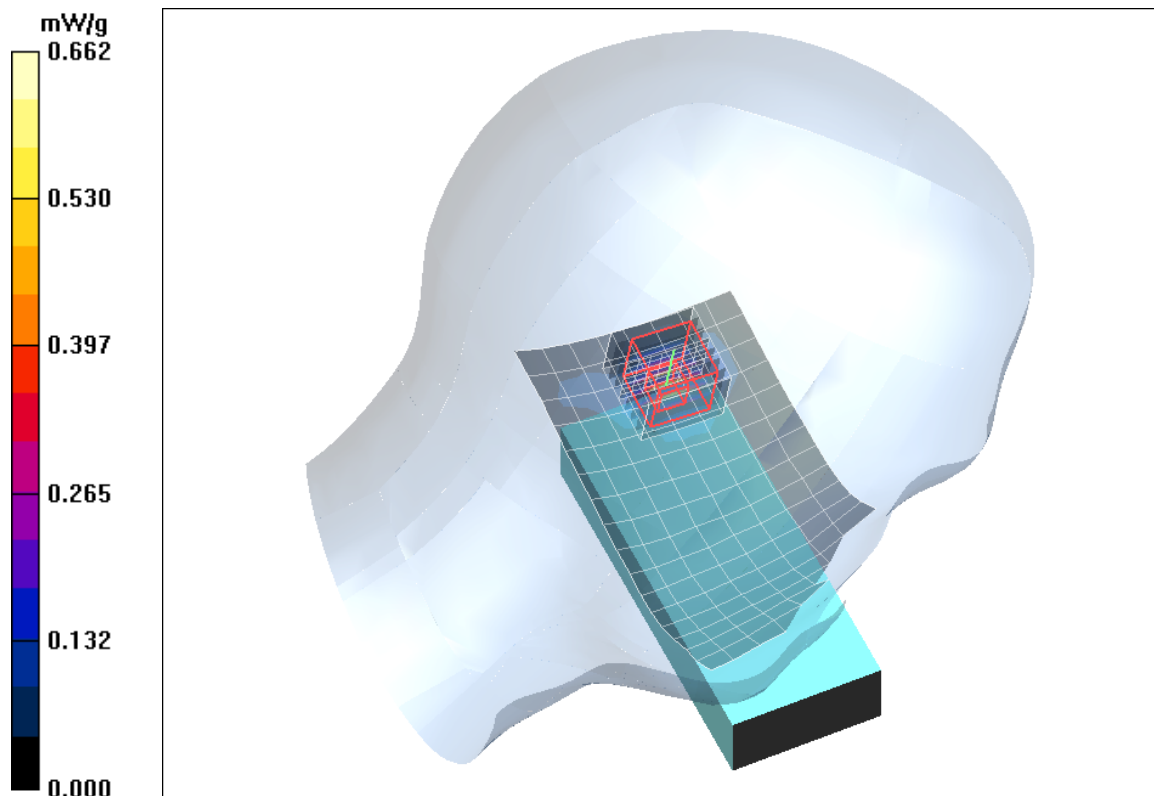


Fig. 31: SAR distribution for IEEE 802.11 n, channel 60, cheek position, left side of head (August 24, 2010; Ambient Temperature: 21.9° C; Liquid Temperature: 21.5° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwlm 2 CH60 n cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5300 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5300$ MHz; $\sigma = 4.77$ mho/m; $\epsilon_r = 35$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.96, 4.96, 4.96); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Tilted Left/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.557 mW/g

Tilted Left/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 10.9 V/m; Power Drift = 0.105 dB

Peak SAR (extrapolated) = 1.84 W/kg

SAR(1 g) = 0.585 mW/g; SAR(10 g) = 0.183 mW/g

Maximum value of SAR (measured) = 0.681 mW/g

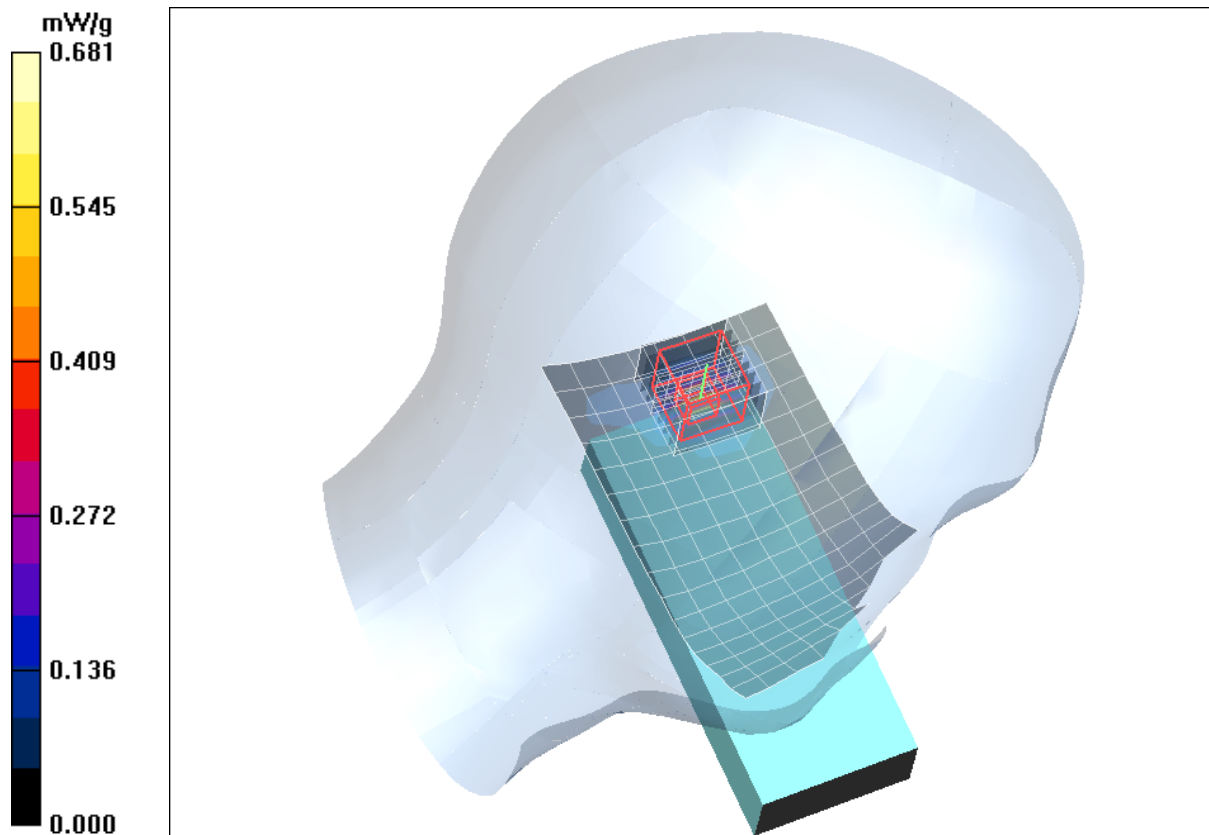


Fig. 32: SAR distribution for IEEE 802.11 n, channel 60, tilted position, left side of head (August 24, 2010; Ambient Temperature: 21.9° C; Liquid Temperature: 21.5° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwrn 1 CH60 n cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5300 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5300$ MHz; $\sigma = 4.77$ mho/m; $\epsilon_r = 35$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.96, 4.96, 4.96); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Cheek Right/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.626 mW/g

Cheek Right/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 11.8 V/m; Power Drift = 0.100 dB

Peak SAR (extrapolated) = 4.49 W/kg

SAR(1 g) = 0.626 mW/g; SAR(10 g) = 0.208 mW/g

Maximum value of SAR (measured) = 0.680 mW/g

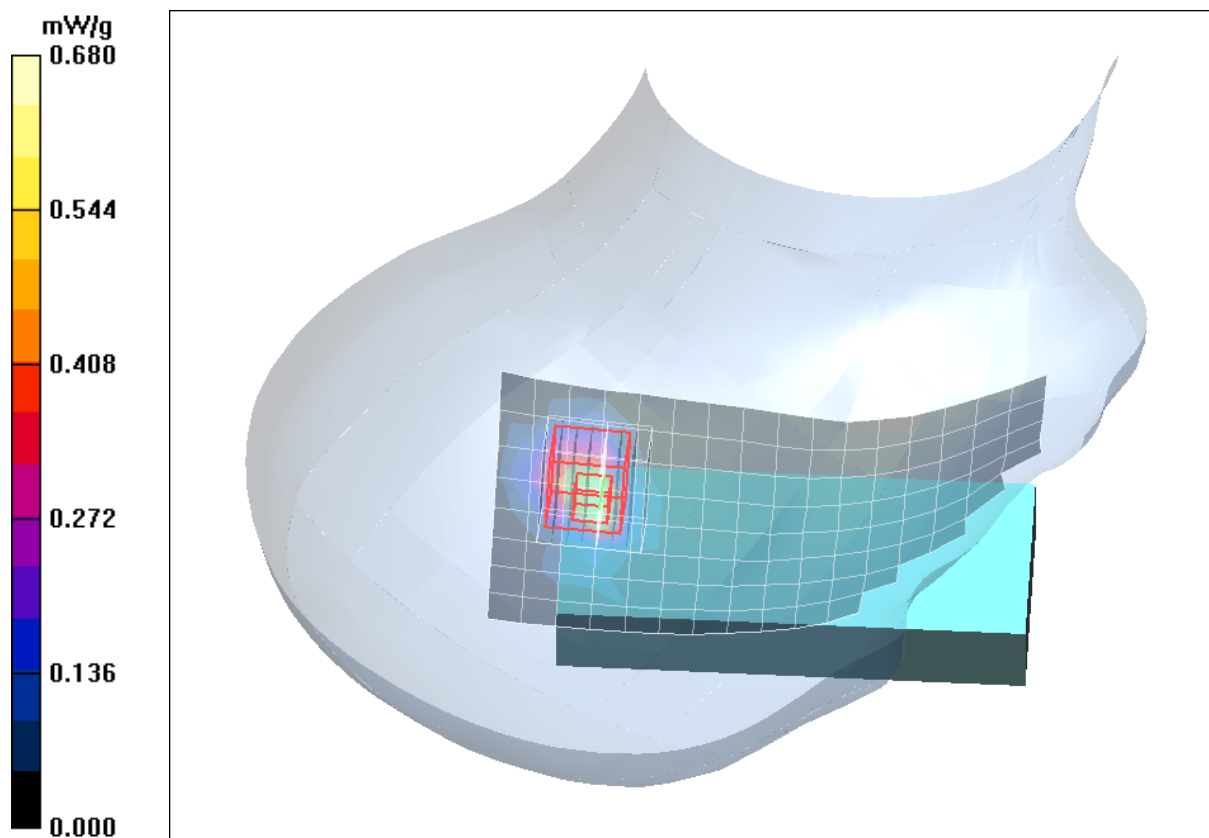


Fig. 33: SAR distribution for IEEE 802.11 n, channel 60, cheek position, right side of head (August 24, 2010; Ambient Temperature: 21.9° C; Liquid Temperature: 21.5° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwrn 2 CH60 n cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5300 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5300$ MHz; $\sigma = 4.77$ mho/m; $\epsilon_r = 35$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.96, 4.96, 4.96); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Tilted Right/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.822 mW/g

Tilted Right/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 12.5 V/m; Power Drift = -0.127 dB

Peak SAR (extrapolated) = 3.84 W/kg

SAR(1 g) = 0.719 mW/g; SAR(10 g) = 0.233 mW/g

Maximum value of SAR (measured) = 0.764 mW/g

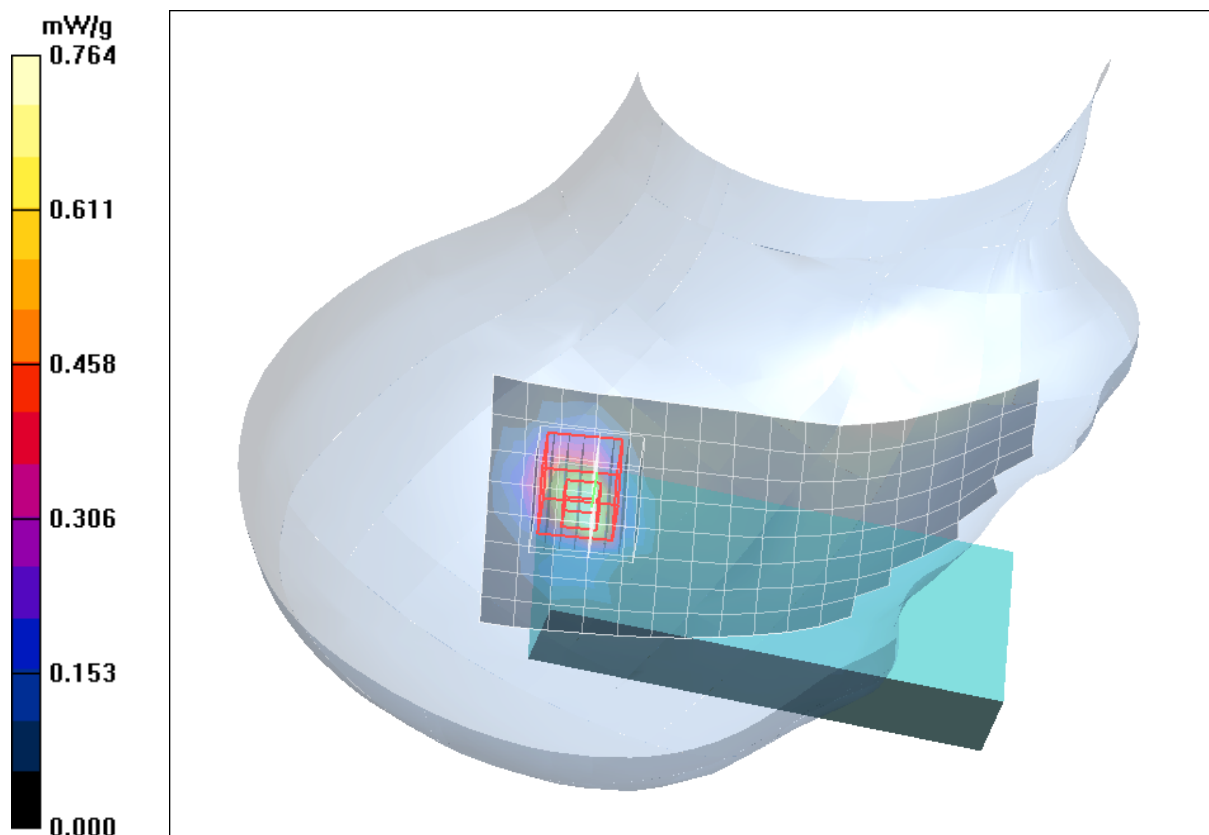


Fig. 34: SAR distribution for IEEE 802.11 n, channel 60, tilted position, right side of head (August 24, 2010; Ambient Temperature: 21.9° C; Liquid Temperature: 21.5° C).

12 SAR Distribution Plots, IEEE 802.11 n Body (5200 MHz Range)

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA_bwhm_1_CH60_n_hs_up.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5300 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5300$ MHz; $\sigma = 5.29$ mho/m; $\epsilon_r = 48.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.37, 4.37, 4.37); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- 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 (10x18x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 0.557 mW/g

Body Worn/Zoom Scan (8x8x8)/Cube 0: Measurement grid: $dx=4.3$ mm, $dy=4.3$ mm, $dz=3$ mm

Reference Value = 10.1 V/m; Power Drift = 0.106 dB

Peak SAR (extrapolated) = 1.47 W/kg

SAR(1 g) = 0.432 mW/g; SAR(10 g) = 0.113 mW/g

Maximum value of SAR (measured) = 0.556 mW/g

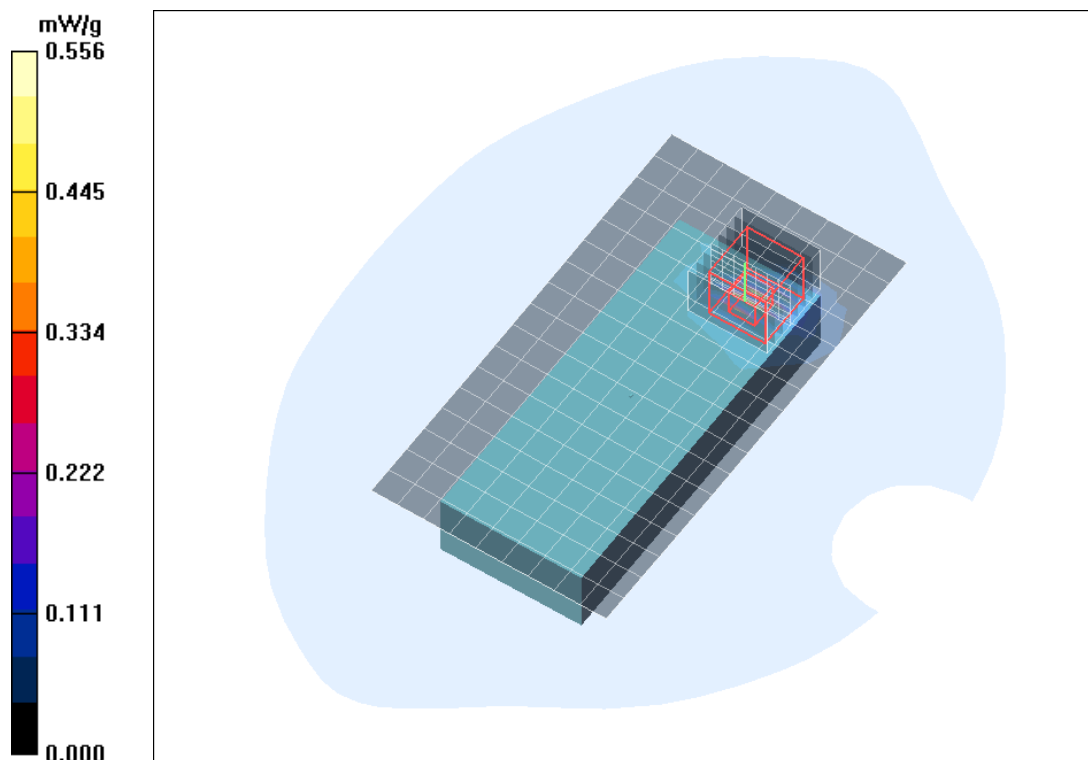


Fig. 35: SAR distribution for IEEE 802.11 n, channel 60, body worn configuration, display towards the phantom, 0 mm distance (September 07, 2010; Ambient Temperature: 21.2° C; Liquid Temperature: 20.8° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwhm 2 CH60 n hs down.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5300 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5300$ MHz; $\sigma = 5.29$ mho/m; $\epsilon_r = 48.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.37, 4.37, 4.37); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- 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 (10x18x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.077 mW/g

Body Worn/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 3.78 V/m; Power Drift = 0.109 dB

Peak SAR (extrapolated) = 0.724 W/kg

SAR(1 g) = 0.074 mW/g; SAR(10 g) = 0.014 mW/g

Maximum value of SAR (measured) = 0.069 mW/g

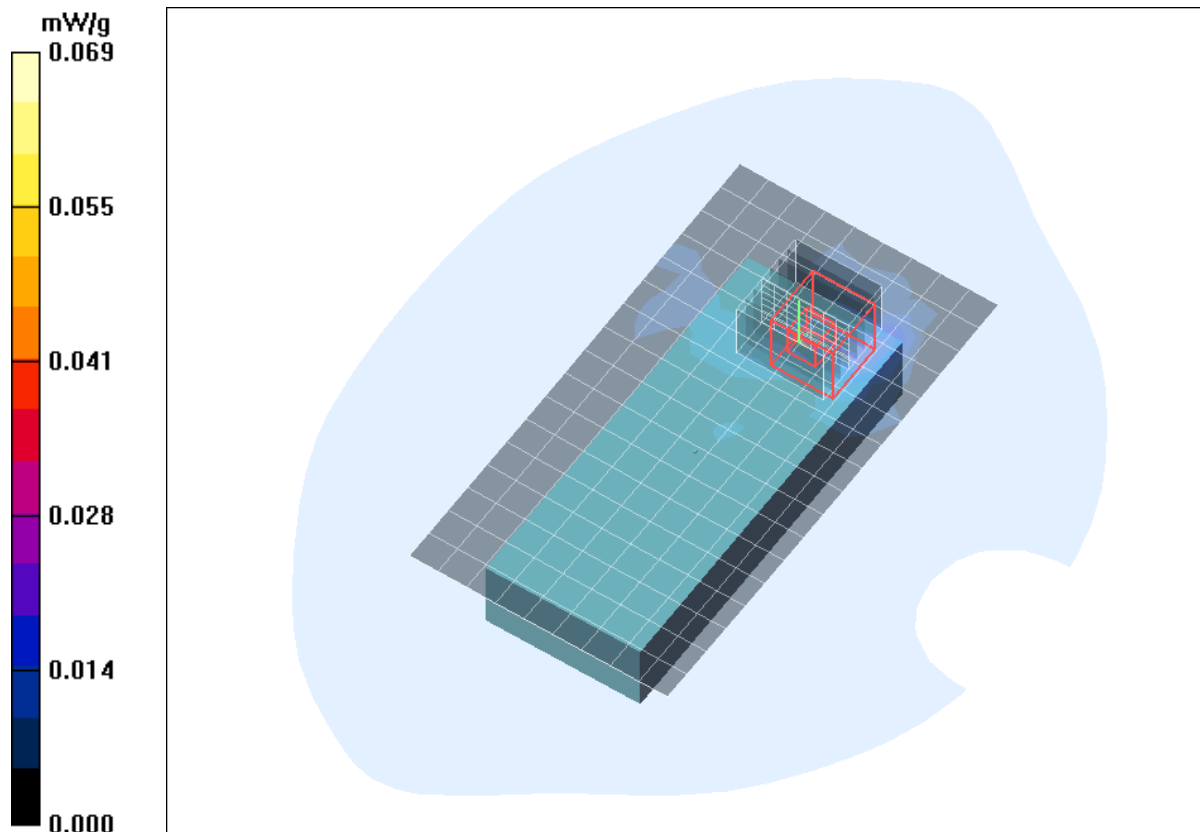


Fig. 36: SAR distribution for IEEE 802.11 n, channel 60, body worn configuration, display towards the ground, 0 mm distance (September 07, 2010; Ambient Temperature: 21.2° C; Liquid Temperature: 20.8° C).

13 SAR Distribution Plots, IEEE 802.11 n Head (5500 MHz Range)

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA_bwl_m_1_CH104_n_cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5520 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5520$ MHz; $\sigma = 5.04$ mho/m; $\epsilon_r = 34.8$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.93, 4.93, 4.93); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Cheek Left/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.872 mW/g

Cheek Left/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 13.3 V/m; Power Drift = 0.025 dB

Peak SAR (extrapolated) = 4.40 W/kg

SAR(1 g) = 0.874 mW/g; SAR(10 g) = 0.271 mW/g

Maximum value of SAR (measured) = 0.953 mW/g

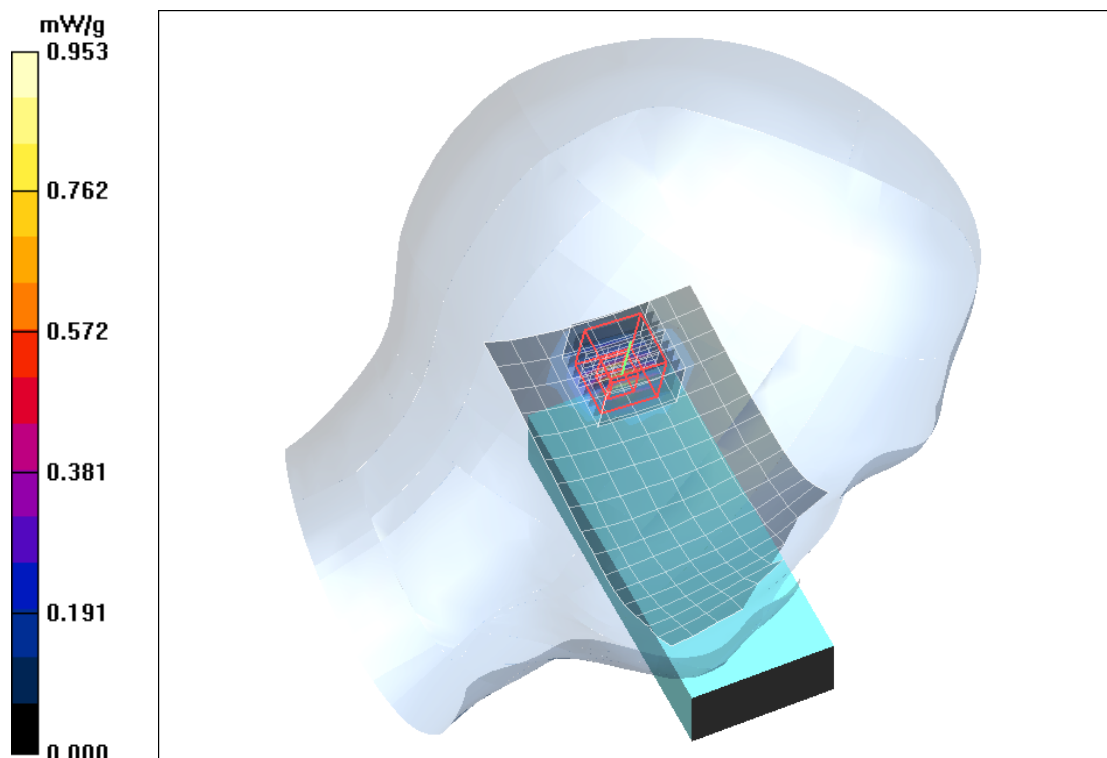


Fig. 37: SAR distribution for IEEE 802.11 n, channel 104, cheek position, left side of head (August 23, 2010; Ambient Temperature: 22.0° C; Liquid Temperature: 21.6° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwlm 1 CH116 n cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5580 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5580$ MHz; $\sigma = 5.14$ mho/m; $\epsilon_r = 34.4$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.93, 4.93, 4.93); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Cheek Left/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.959 mW/g

Cheek Left/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 13.9 V/m; Power Drift = 0.058 dB

Peak SAR (extrapolated) = 3.21 W/kg

SAR(1 g) = 0.989 mW/g; SAR(10 g) = 0.309 mW/g

Maximum value of SAR (measured) = 1.15 mW/g

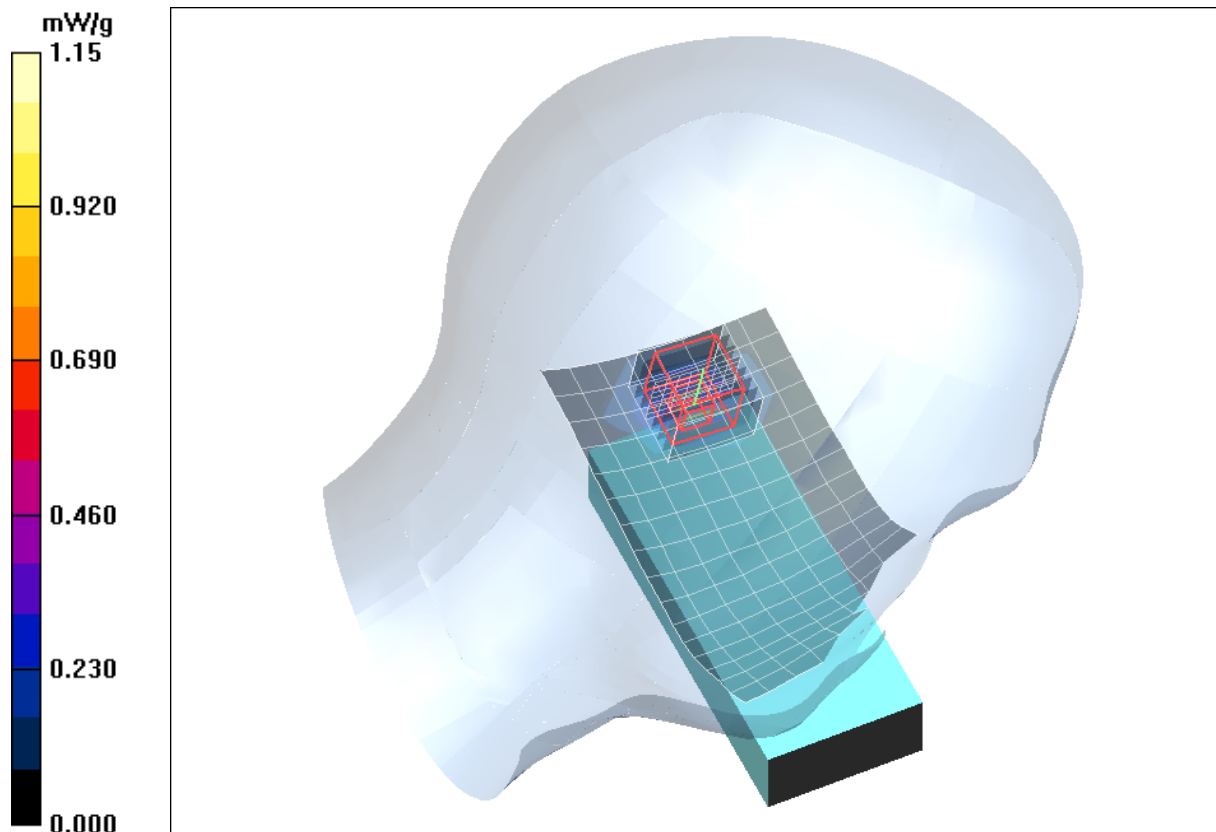


Fig. 38: SAR distribution for IEEE 802.11 n, channel 116, cheek position, left side of head (August 23, 2010; Ambient Temperature: 22.0° C; Liquid Temperature: 21.6° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwlm 1 CH124 n cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5620 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5620$ MHz; $\sigma = 5.23$ mho/m; $\epsilon_r = 34.4$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.93, 4.93, 4.93); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Cheek Left/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 1.20 mW/g

Cheek Left/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 14.5 V/m; Power Drift = -0.169 dB

Peak SAR (extrapolated) = 4.22 W/kg

SAR(1 g) = 1.13 mW/g; SAR(10 g) = 0.342 mW/g

Maximum value of SAR (measured) = 1.24 mW/g

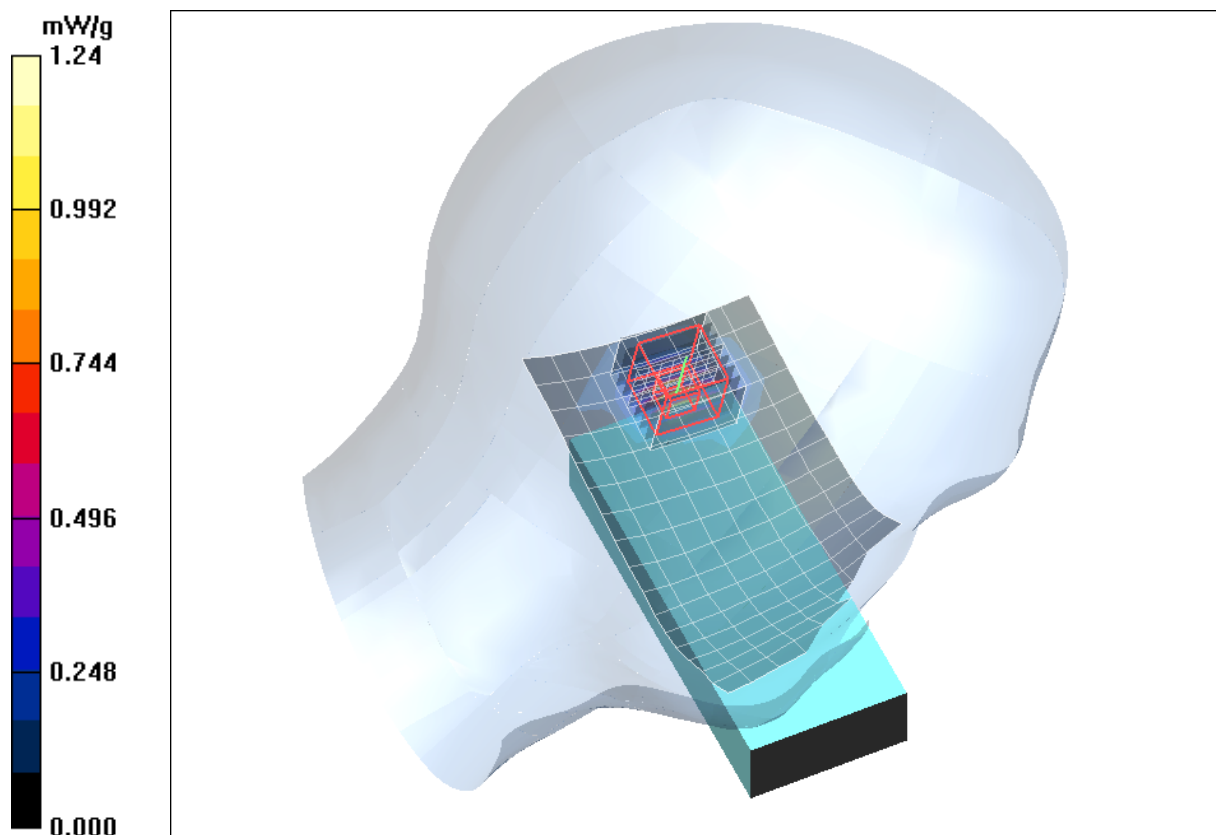


Fig. 39: SAR distribution for IEEE 802.11 n, channel 124, cheek position, left side of head (August 23, 2010; Ambient Temperature: 22.0° C; Liquid Temperature: 21.6° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwlm 1 CH136 n cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5680 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5680$ MHz; $\sigma = 5.19$ mho/m; $\epsilon_r = 34.3$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.93, 4.93, 4.93); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Cheek Left/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

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

Cheek Left/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 13.4 V/m; Power Drift = 0.100 dB

Peak SAR (extrapolated) = 3.47 W/kg

SAR(1 g) = 0.936 mW/g; SAR(10 g) = 0.264 mW/g

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

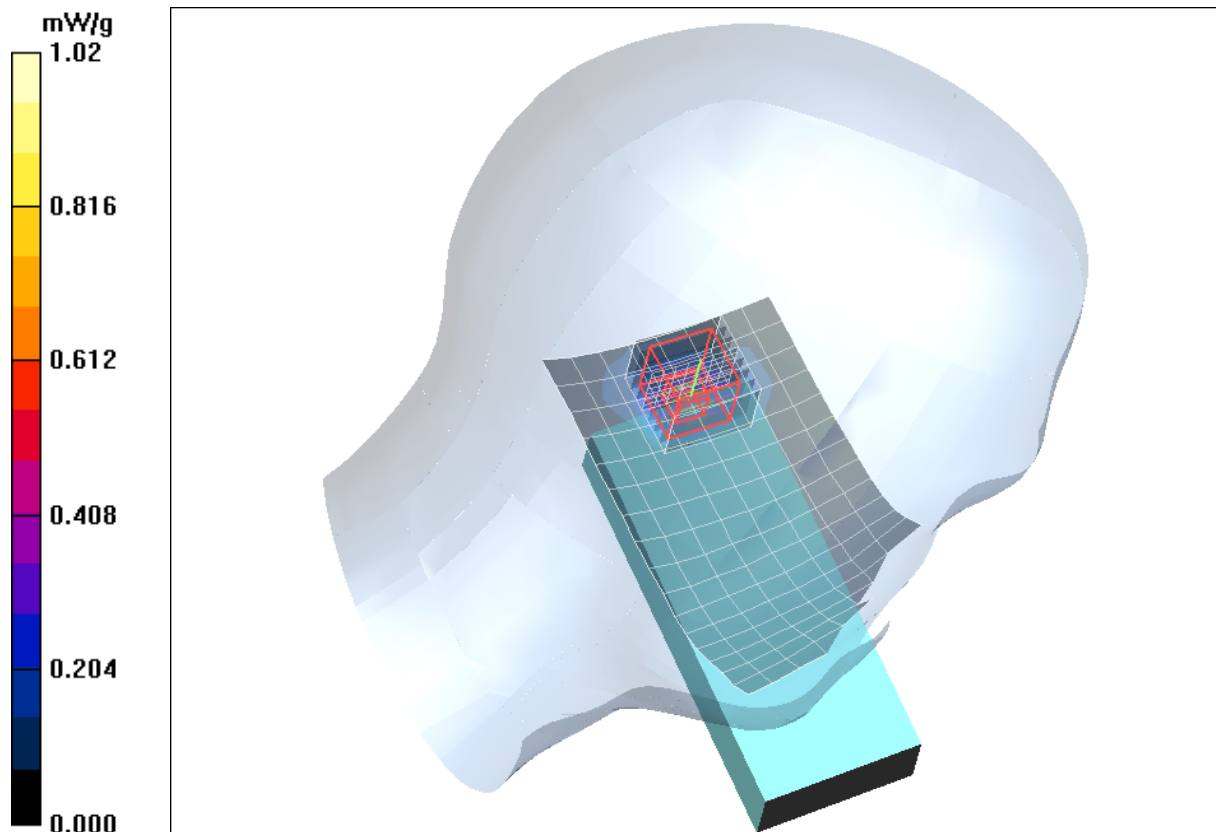


Fig. 40: SAR distribution for IEEE 802.11 n, channel 136, cheek position, left side of head (August 23, 2010; Ambient Temperature: 22.0° C; Liquid Temperature: 21.6° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwlm 2 CH124 n cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5620 MHz;Duty Cycle: 1:1

Medium parameters used: $f = 5620$ MHz; $\sigma = 5.23$ mho/m; $\epsilon_r = 34.4$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.93, 4.93, 4.93); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Tilted Left/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

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

Tilted Left/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 14.7 V/m; Power Drift = -0.112 dB

Peak SAR (extrapolated) = 4.65 W/kg

SAR(1 g) = 1.23 mW/g; SAR(10 g) = 0.380 mW/g

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

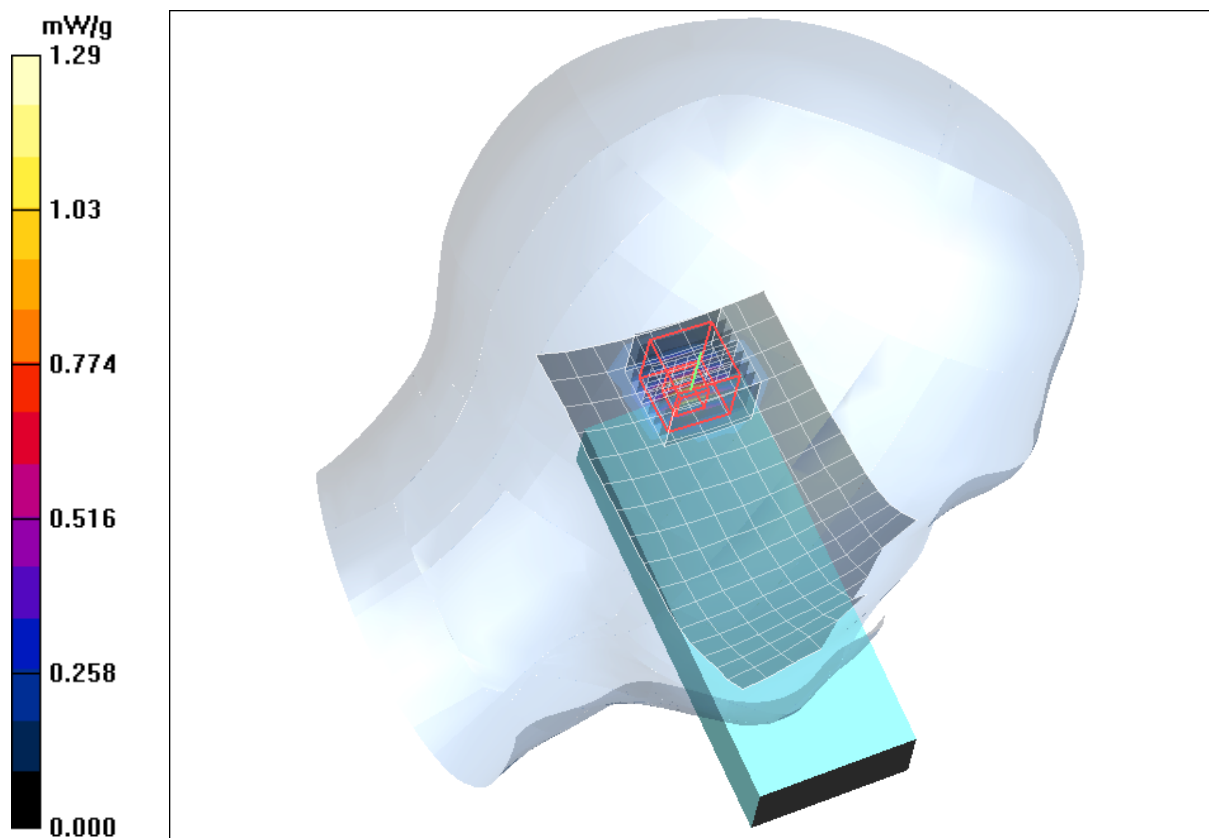


Fig. 41: SAR distribution for IEEE 802.11 n, channel 124, tilted position, left side of head (August 23, 2010; Ambient Temperature: 22.0° C; Liquid Temperature: 21.6° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwrn 1 CH104 n cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5520 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5520$ MHz; $\sigma = 5.04$ mho/m; $\epsilon_r = 34.8$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.93, 4.93, 4.93); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Cheek Right/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 1.03 mW/g

Cheek Right/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 14.5 V/m; Power Drift = -0.115 dB

Peak SAR (extrapolated) = 2.81 W/kg

SAR(1 g) = 0.894 mW/g; SAR(10 g) = 0.258 mW/g

Maximum value of SAR (measured) = 0.967 mW/g

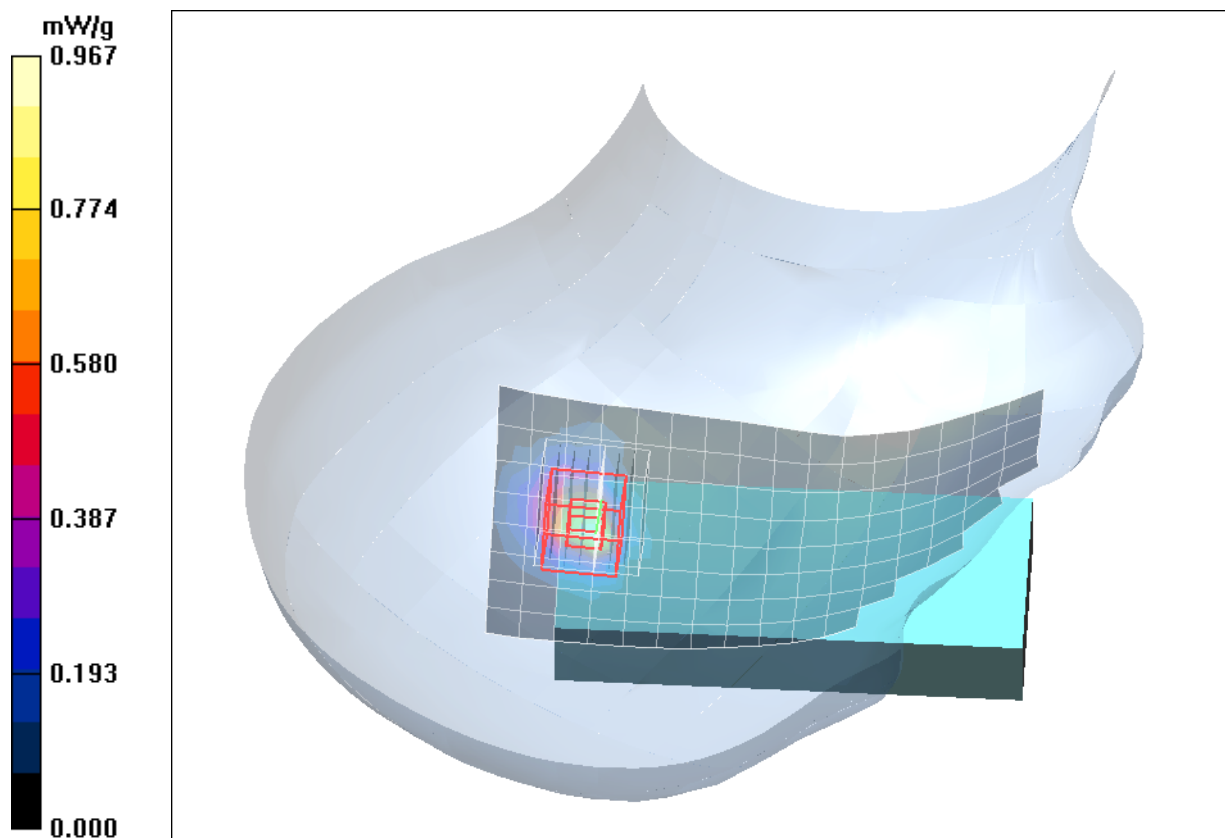


Fig. 42: SAR distribution for IEEE 802.11 n, channel 104, cheek position, right side of head (August 23, 2010; Ambient Temperature: 22.0° C; Liquid Temperature: 21.6° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwrn 1 CH116 n cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5580 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5580$ MHz; $\sigma = 5.14$ mho/m; $\epsilon_r = 34.4$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.93, 4.93, 4.93); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Cheek Right/Area Scan (9x17x1): Measurement grid: $dx=10$ mm, $dy=10$ mm

Maximum value of SAR (measured) = 1.30 mW/g

Cheek Right/Zoom Scan (8x8x8)/Cube 0: Measurement grid: $dx=4.3$ mm, $dy=4.3$ mm, $dz=3$ mm

Reference Value = 15.6 V/m; Power Drift = -0.033 dB

Peak SAR (extrapolated) = 3.41 W/kg

SAR(1 g) = 1.05 mW/g; SAR(10 g) = 0.342 mW/g

Maximum value of SAR (measured) = 1.19 mW/g

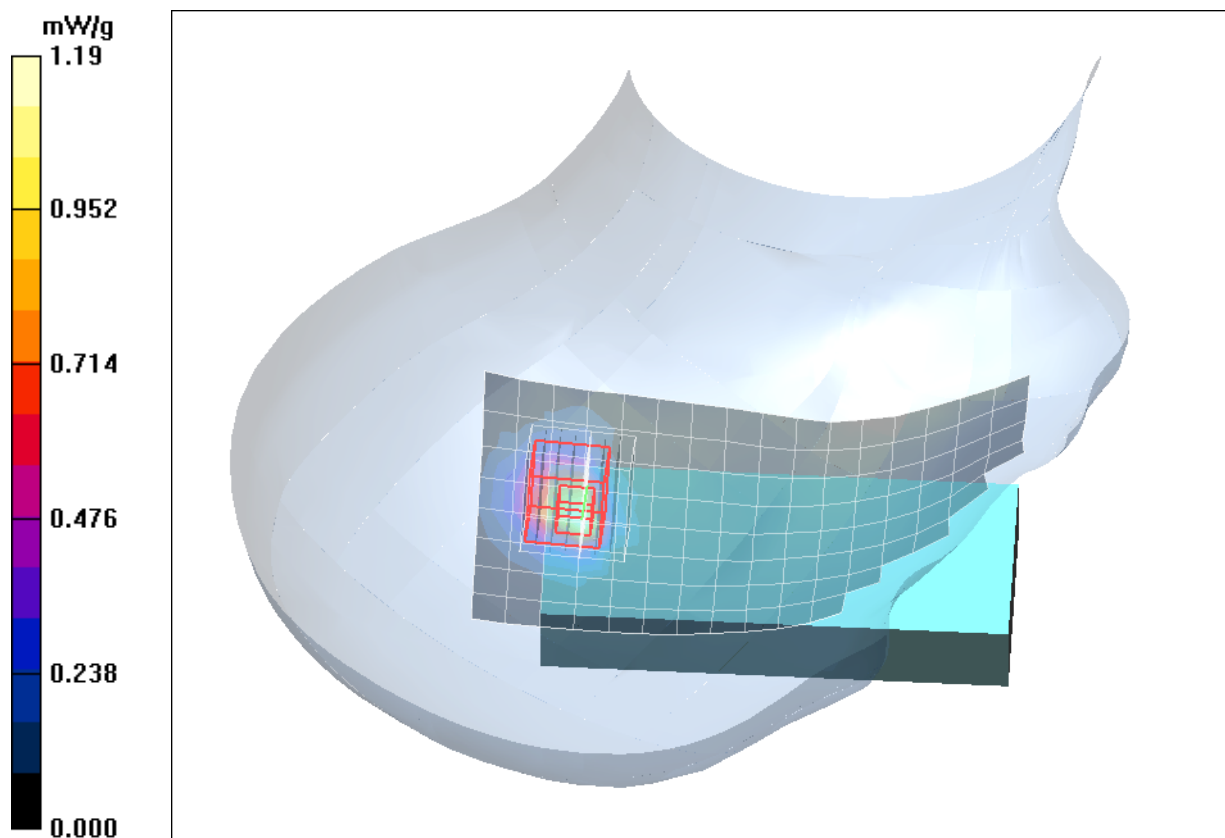


Fig. 43: SAR distribution for IEEE 802.11 n, channel 116, cheek position, right side of head (August 23, 2010; Ambient Temperature: 22.0° C; Liquid Temperature: 21.6° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwrn 1 CH124 n cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5620 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5620$ MHz; $\sigma = 5.23$ mho/m; $\epsilon_r = 34.4$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.93, 4.93, 4.93); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Cheek Right/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 1.40 mW/g

Cheek Right/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 16.0 V/m; Power Drift = -0.064 dB

Peak SAR (extrapolated) = 3.69 W/kg

SAR(1 g) = 1.13 mW/g; SAR(10 g) = 0.366 mW/g

Maximum value of SAR (measured) = 1.26 mW/g

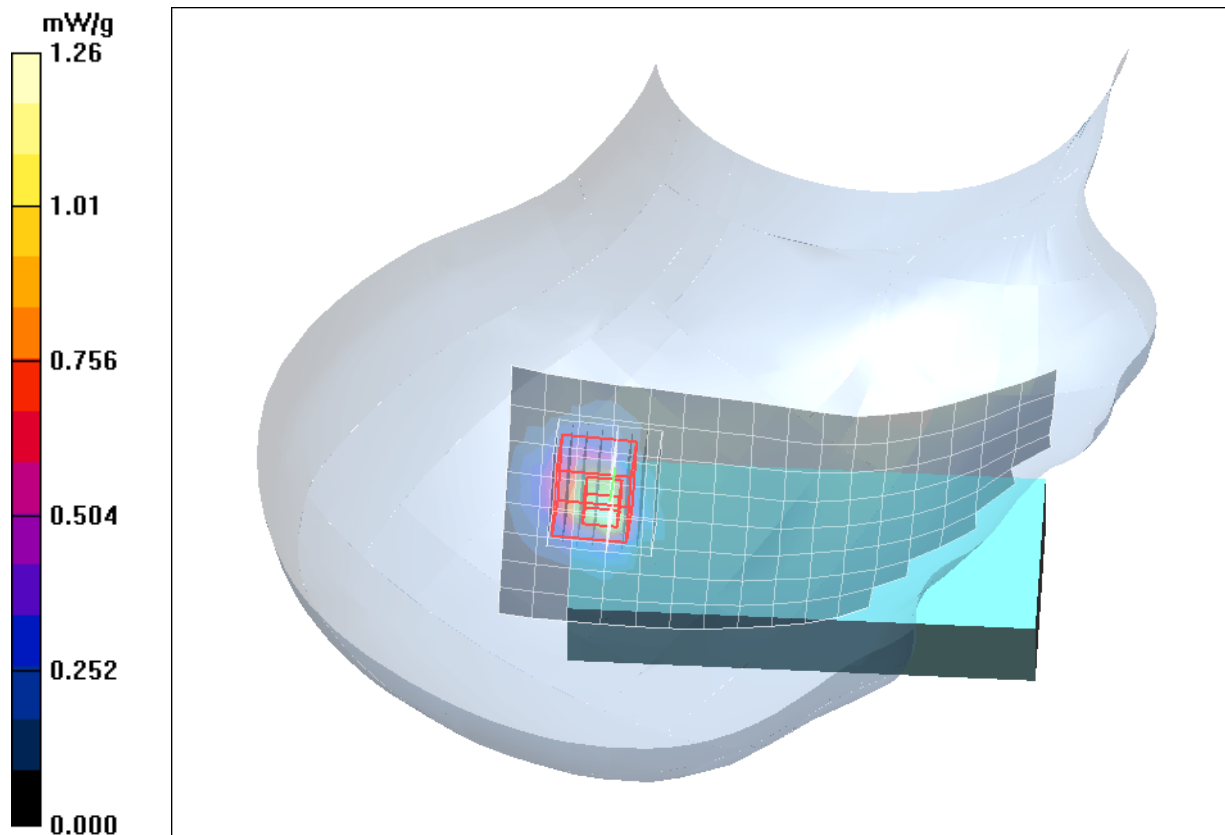


Fig. 44: SAR distribution for IEEE 802.11 n, channel 124, cheek position, right side of head (August 23, 2010; Ambient Temperature: 22.0° C; Liquid Temperature: 21.6° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwrn 1 CH136 n cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5680 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5680$ MHz; $\sigma = 5.19$ mho/m; $\epsilon_r = 34.3$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.93, 4.93, 4.93); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Cheek Right/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 1.43 mW/g

Cheek Right/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 15.5 V/m; Power Drift = -0.157 dB

Peak SAR (extrapolated) = 3.11 W/kg

SAR(1 g) = 0.962 mW/g; SAR(10 g) = 0.311 mW/g

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

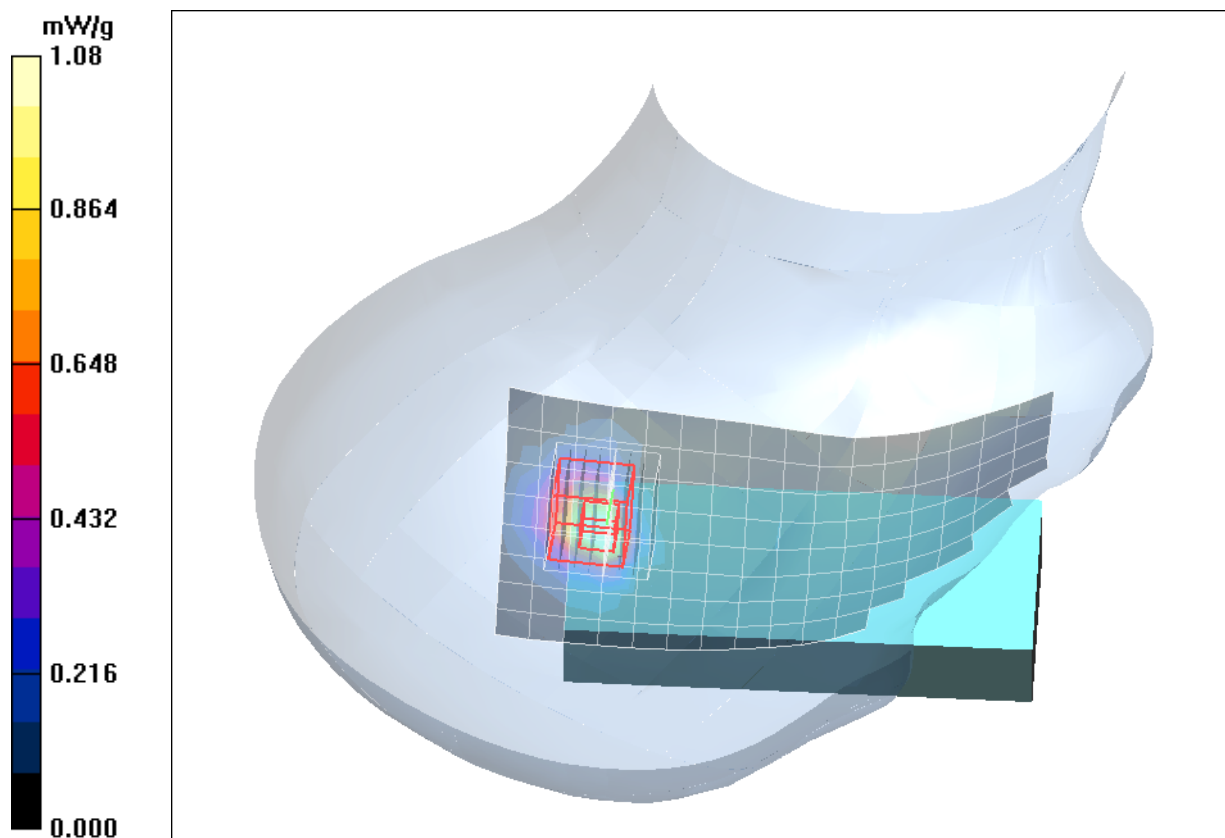


Fig. 45: SAR distribution for IEEE 802.11 n, channel 136, cheek position, right side of head (August 23, 2010; Ambient Temperature: 22.0° C; Liquid Temperature: 21.6° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwrn 2 CH124 n cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5620 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5620$ MHz; $\sigma = 5.23$ mho/m; $\epsilon_r = 34.4$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.93, 4.93, 4.93); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Tilted Right/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

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

Tilted Right/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

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

Peak SAR (extrapolated) = 3.89 W/kg

SAR(1 g) = 1.2 mW/g; SAR(10 g) = 0.396 mW/g

Maximum value of SAR (measured) = 1.30 mW/g

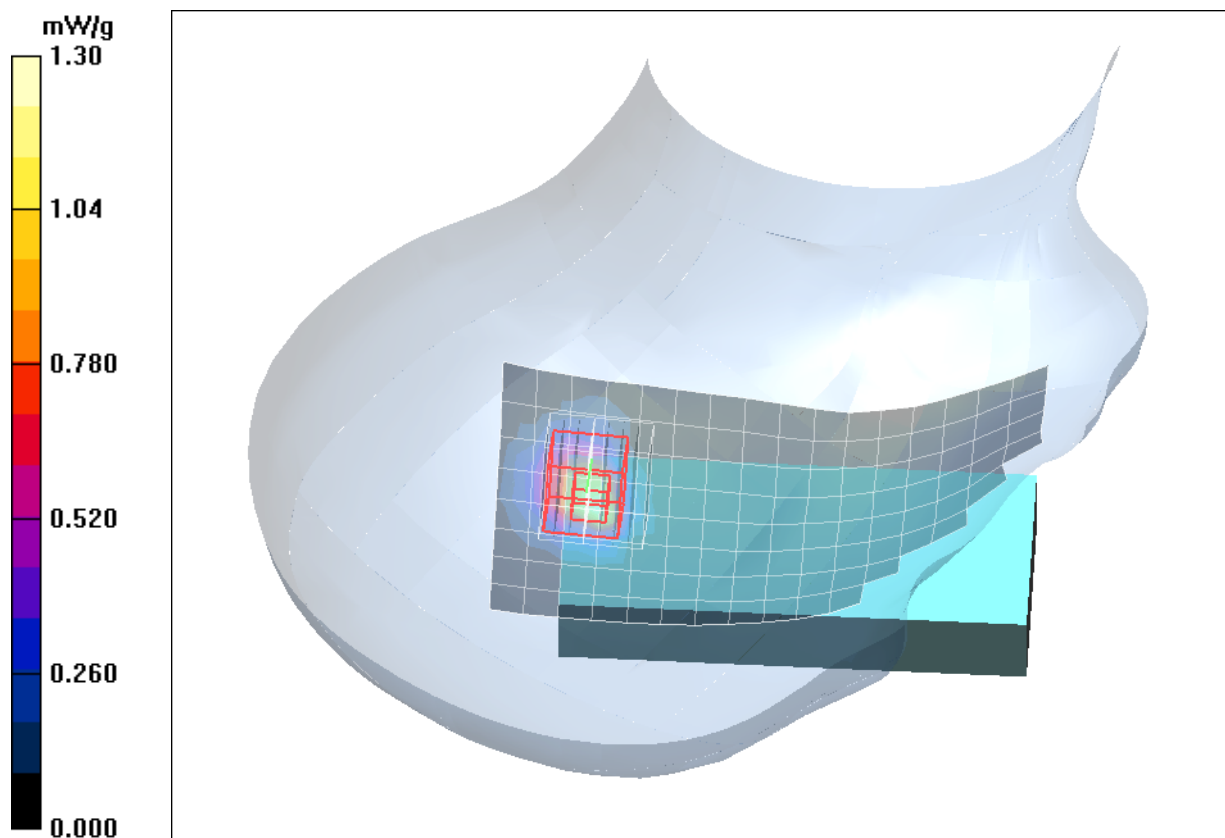


Fig. 46: SAR distribution for IEEE 802.11 n, channel 124, tilted position, right side of head (August 23, 2010; Ambient Temperature: 22.0° C; Liquid Temperature: 21.6° C).

14 SAR Distribution Plots, IEEE 802.11 n Body (5500 MHz Range)

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA_bwhm_1_CH104_n_hs_up.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5520 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5520$ MHz; $\sigma = 5.79$ mho/m; $\epsilon_r = 48.5$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.22, 4.22, 4.22); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- 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 (10x18x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.651 mW/g

Body Worn/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 11.7 V/m; Power Drift = -0.183 dB

Peak SAR (extrapolated) = 2.96 W/kg

SAR(1 g) = 0.865 mW/g; SAR(10 g) = 0.245 mW/g

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

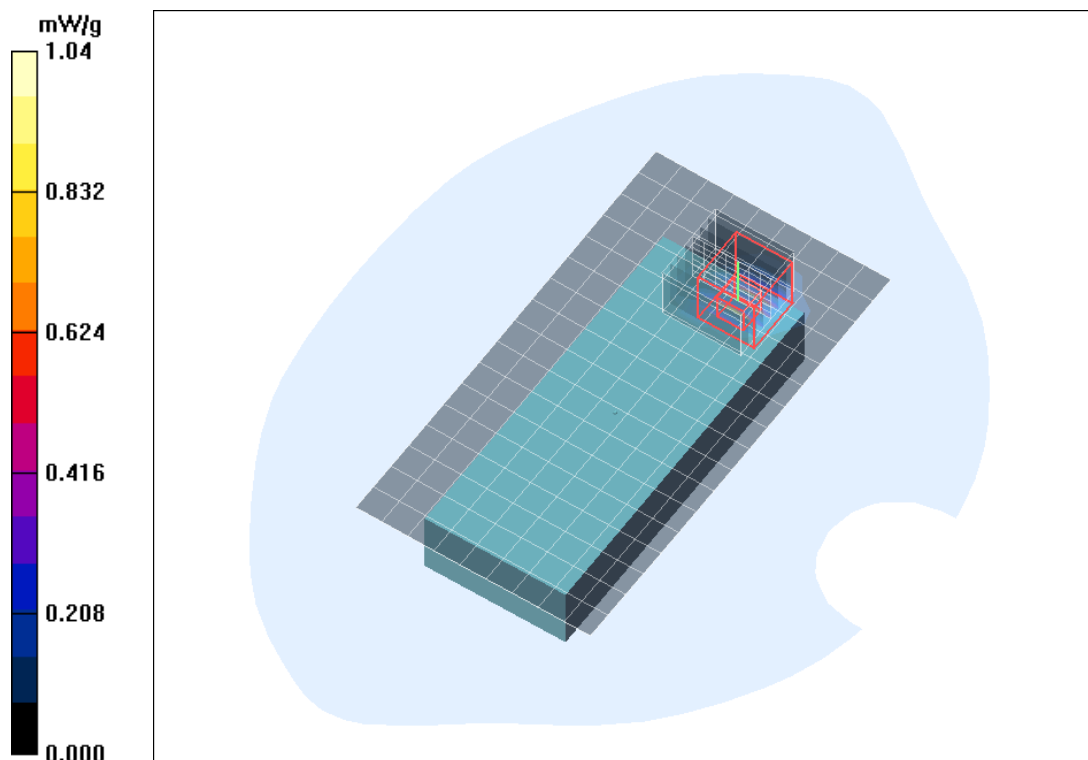


Fig. 47: SAR distribution for IEEE 802.11 n, channel 104, body worn configuration, display towards the phantom, 0 mm distance (September 06, 2010; Ambient Temperature: 21.1° C; Liquid Temperature: 20.7° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwhm 1 CH116 n hs up.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5580 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5580$ MHz; $\sigma = 5.83$ mho/m; $\epsilon_r = 48.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.22, 4.22, 4.22); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- 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 (10x18x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.974 mW/g

Body Worn/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 13.4 V/m; Power Drift = 0.029 dB

Peak SAR (extrapolated) = 3.40 W/kg

SAR(1 g) = 0.981 mW/g; SAR(10 g) = 0.272 mW/g

Maximum value of SAR (measured) = 1.13 mW/g

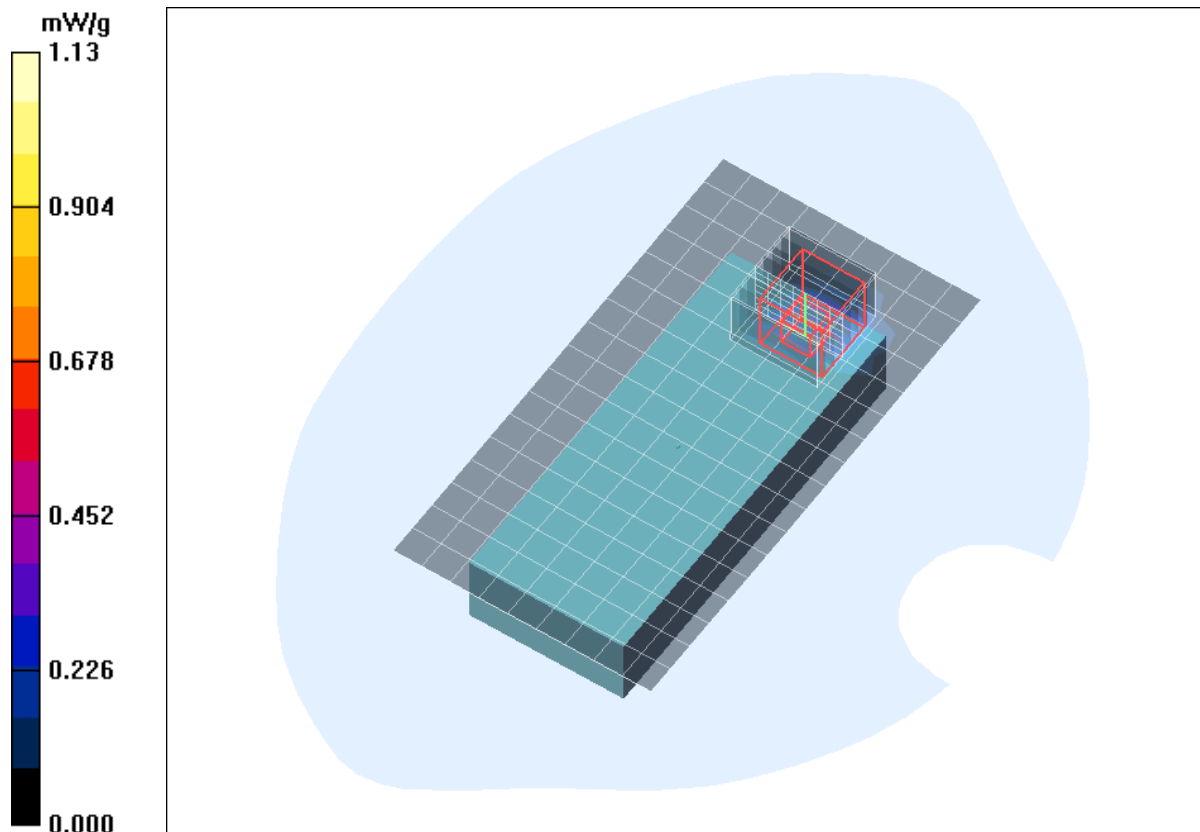


Fig. 48: SAR distribution for IEEE 802.11 n, channel 116, body worn configuration, display towards the phantom, 0 mm distance (September 06, 2010; Ambient Temperature: 21.1° C; Liquid Temperature: 20.7° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwhm 1 CH124 n hs up.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5620 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5620$ MHz; $\sigma = 5.93$ mho/m; $\epsilon_r = 48.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.22, 4.22, 4.22); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- 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 (10x18x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 1.25 mW/g

Body Worn/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 13.9 V/m; Power Drift = 0.047 dB

Peak SAR (extrapolated) = 4.01 W/kg

SAR(1 g) = 1.16 mW/g; SAR(10 g) = 0.321 mW/g

Maximum value of SAR (measured) = 1.38 mW/g

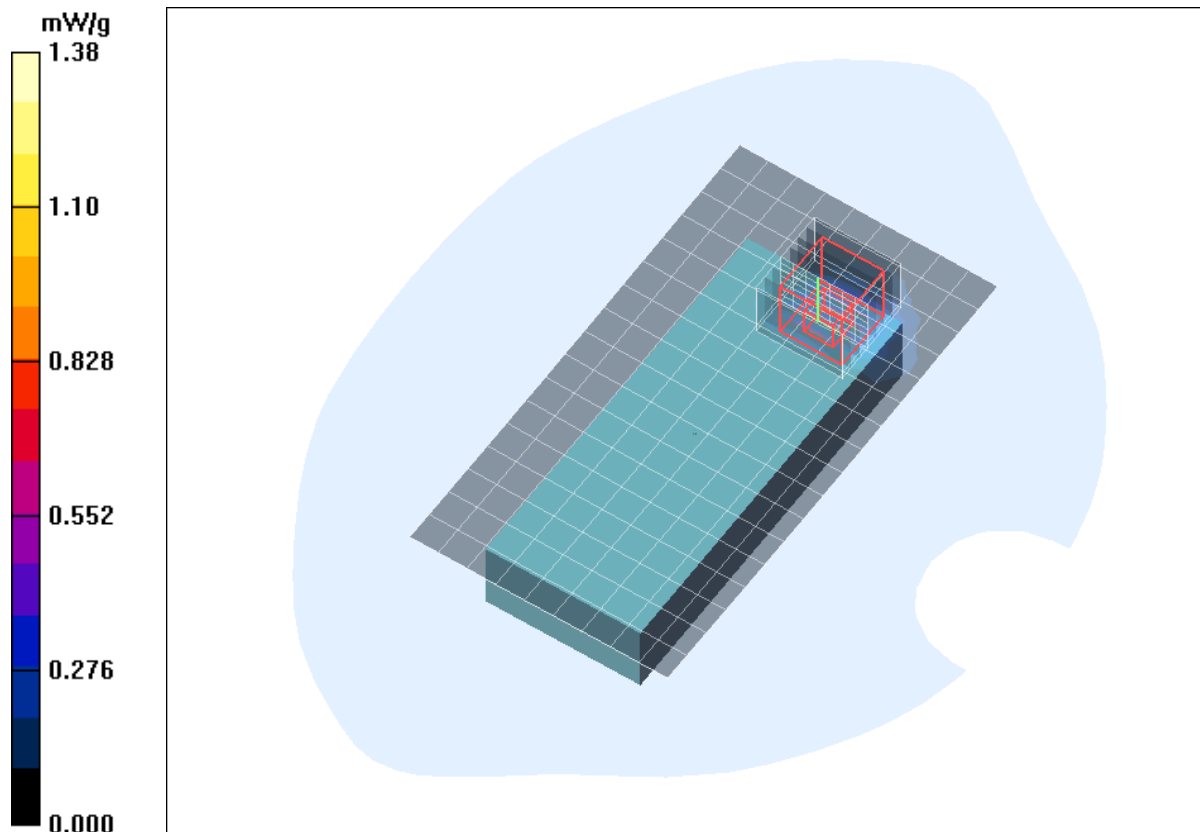


Fig. 49: SAR distribution for IEEE 802.11 n, channel 124, body worn configuration, display towards the phantom, 0 mm distance (September 06, 2010; Ambient Temperature: 21.1° C; Liquid Temperature: 20.7° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwhm 1 CH136 n hs up.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5680 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5680$ MHz; $\sigma = 5.99$ mho/m; $\epsilon_r = 48.1$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.22, 4.22, 4.22); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- 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 (10x18x1): Measurement grid: dx=10mm, dy=10mm

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

Body Worn/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 13.7 V/m; Power Drift = 0.166 dB

Peak SAR (extrapolated) = 3.92 W/kg

SAR(1 g) = 1.14 mW/g; SAR(10 g) = 0.302 mW/g

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

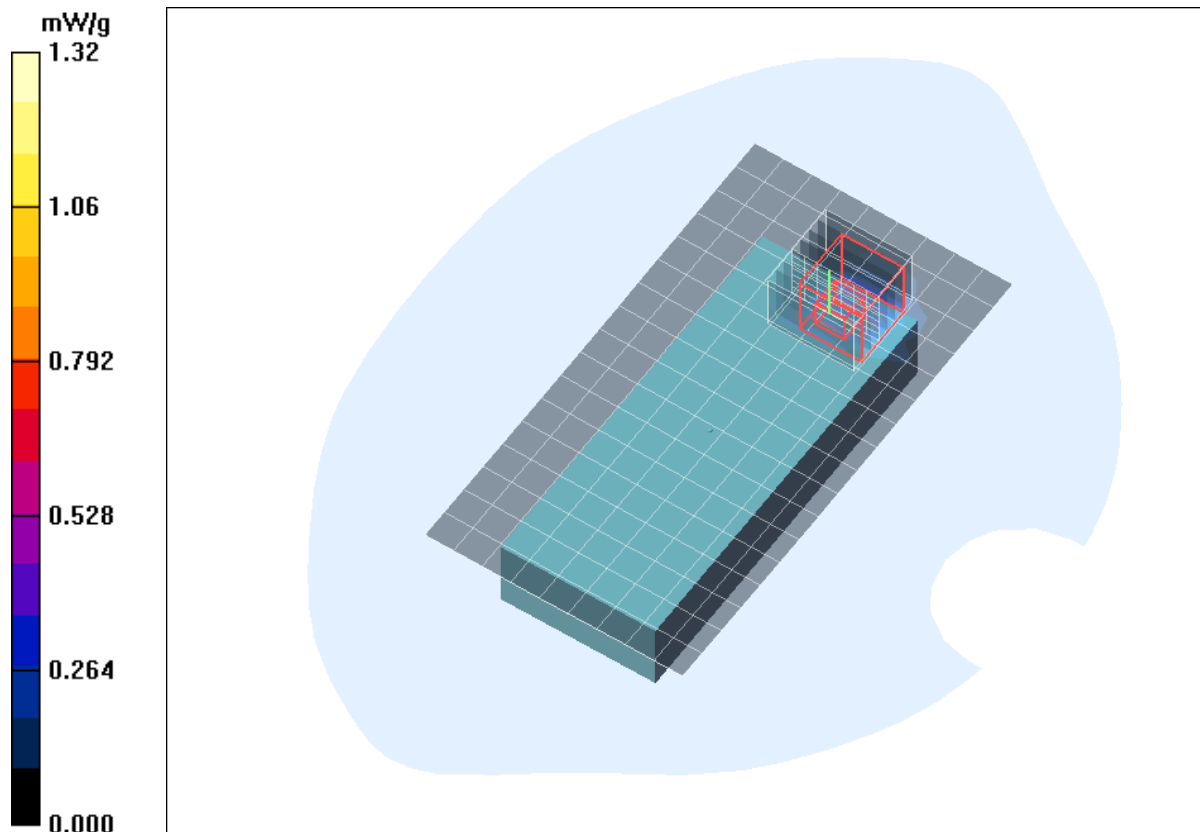


Fig. 50: SAR distribution for IEEE 802.11 n, channel 136, body worn configuration, display towards the phantom, 0 mm distance (September 06, 2010; Ambient Temperature: 21.1° C; Liquid Temperature: 20.7° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwhm 2 CH124 n hs down.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5620 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5620$ MHz; $\sigma = 5.93$ mho/m; $\epsilon_r = 48.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.22, 4.22, 4.22); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- 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 (10x18x1): Measurement grid: dx=10mm, dy=10mm

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

Body Worn/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 3.16 V/m; Power Drift = 0.056 dB

Peak SAR (extrapolated) = 0.770 W/kg

SAR(1 g) = 0.113 mW/g; SAR(10 g) = 0.040 mW/g

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

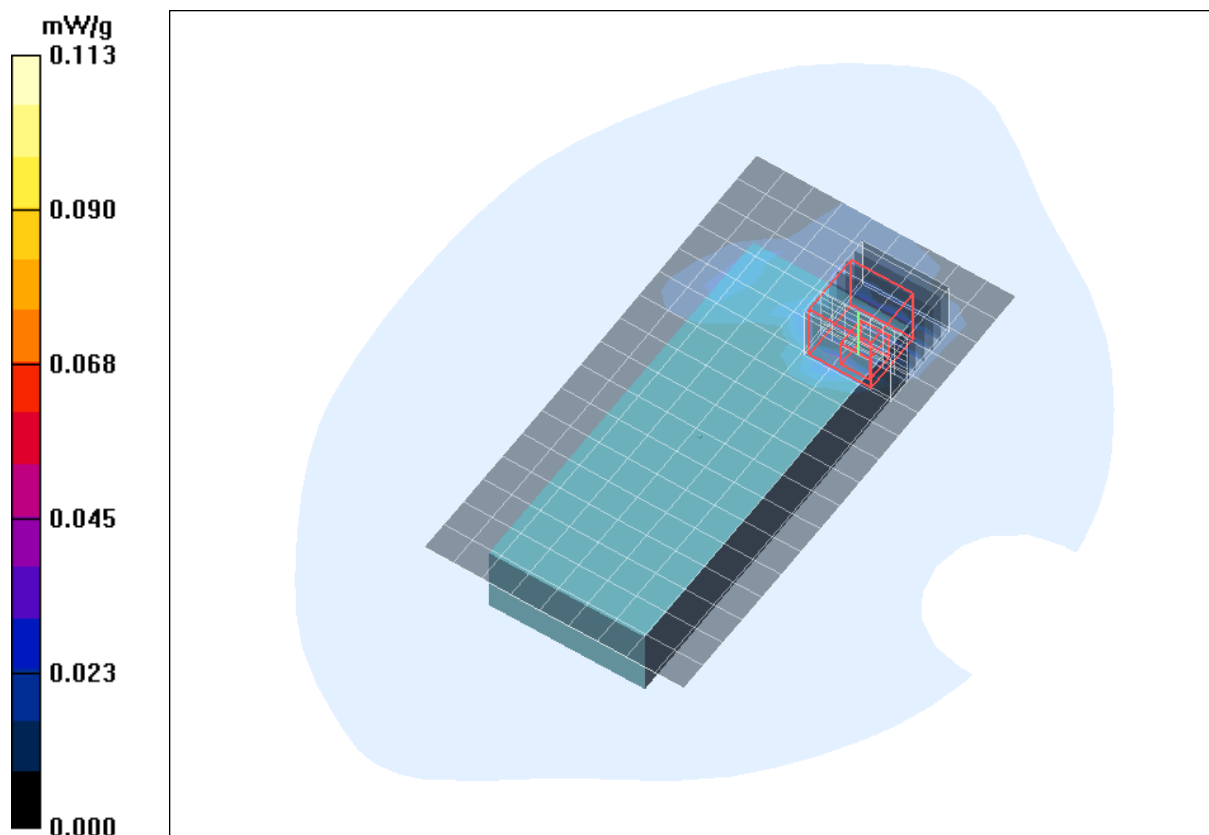


Fig. 51: SAR distribution for IEEE 802.11 n, channel 124, body worn configuration, display towards the ground, 0 mm distance (September 06, 2010; Ambient Temperature: 21.1° C; Liquid Temperature: 20.7° C).

15 SAR Distribution Plots, IEEE 802.11 n Head (5800 MHz Range)

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA_bwl_m_1_CH153_n_cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5765 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5765$ MHz; $\sigma = 5.37$ mho/m; $\epsilon_r = 34.2$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.63, 4.63, 4.63); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Cheek Left/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 1.01 mW/g

Cheek Left/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 13.9 V/m; Power Drift = -0.052 dB

Peak SAR (extrapolated) = 3.08 W/kg

SAR(1 g) = 0.910 mW/g; SAR(10 g) = 0.280 mW/g

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

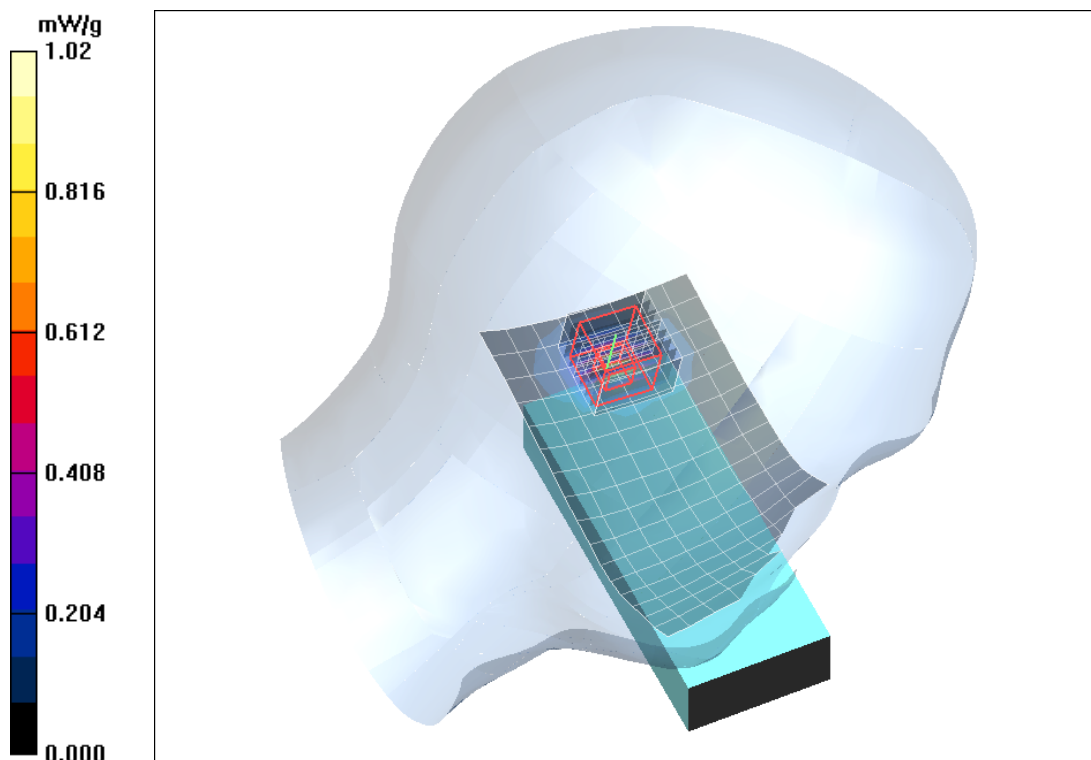


Fig. 52: SAR distribution for IEEE 802.11 n, channel 153, cheek position, left side of head (August 19, 2010; Ambient Temperature: 22.2° C; Liquid Temperature: 21.7° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwlm 2 CH153 n cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5765 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5765$ MHz; $\sigma = 5.37$ mho/m; $\epsilon_r = 34.2$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.63, 4.63, 4.63); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Tilted Left/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 1.19 mW/g

Tilted Left/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 15.1 V/m; Power Drift = -0.021 dB

Peak SAR (extrapolated) = 3.89 W/kg

SAR(1 g) = 1.06 mW/g; SAR(10 g) = 0.312 mW/g

Maximum value of SAR (measured) = 1.12 mW/g

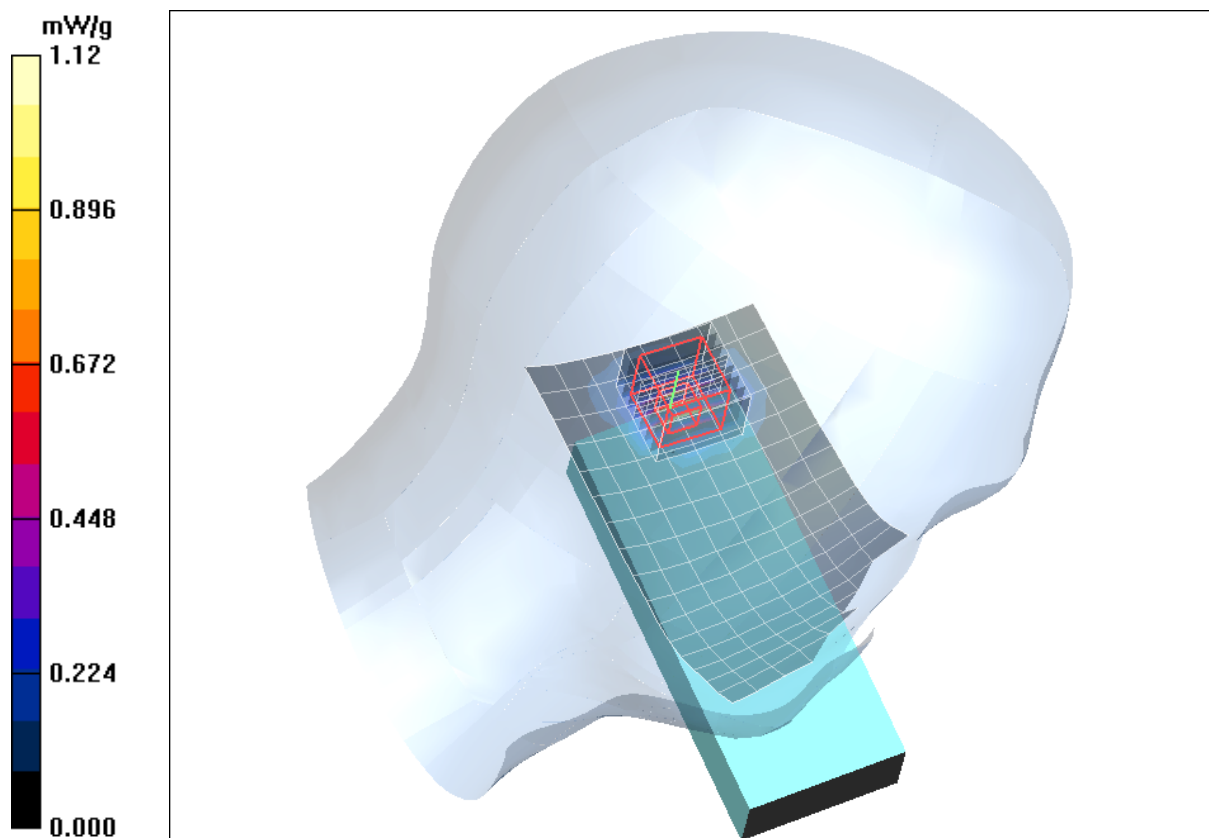


Fig. 53: SAR distribution for IEEE 802.11 n, channel 153 tilted position, left side of head (August 19, 2010; Ambient Temperature: 22.2° C; Liquid Temperature: 21.7° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwrn 1 CH153 n cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5765 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5765$ MHz; $\sigma = 5.37$ mho/m; $\epsilon_r = 34.2$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.63, 4.63, 4.63); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Cheek Right/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 1.09 mW/g

Cheek Right/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 14.8 V/m; Power Drift = 0.115 dB

Peak SAR (extrapolated) = 3.21 W/kg

SAR(1 g) = 0.955 mW/g; SAR(10 g) = 0.302 mW/g

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

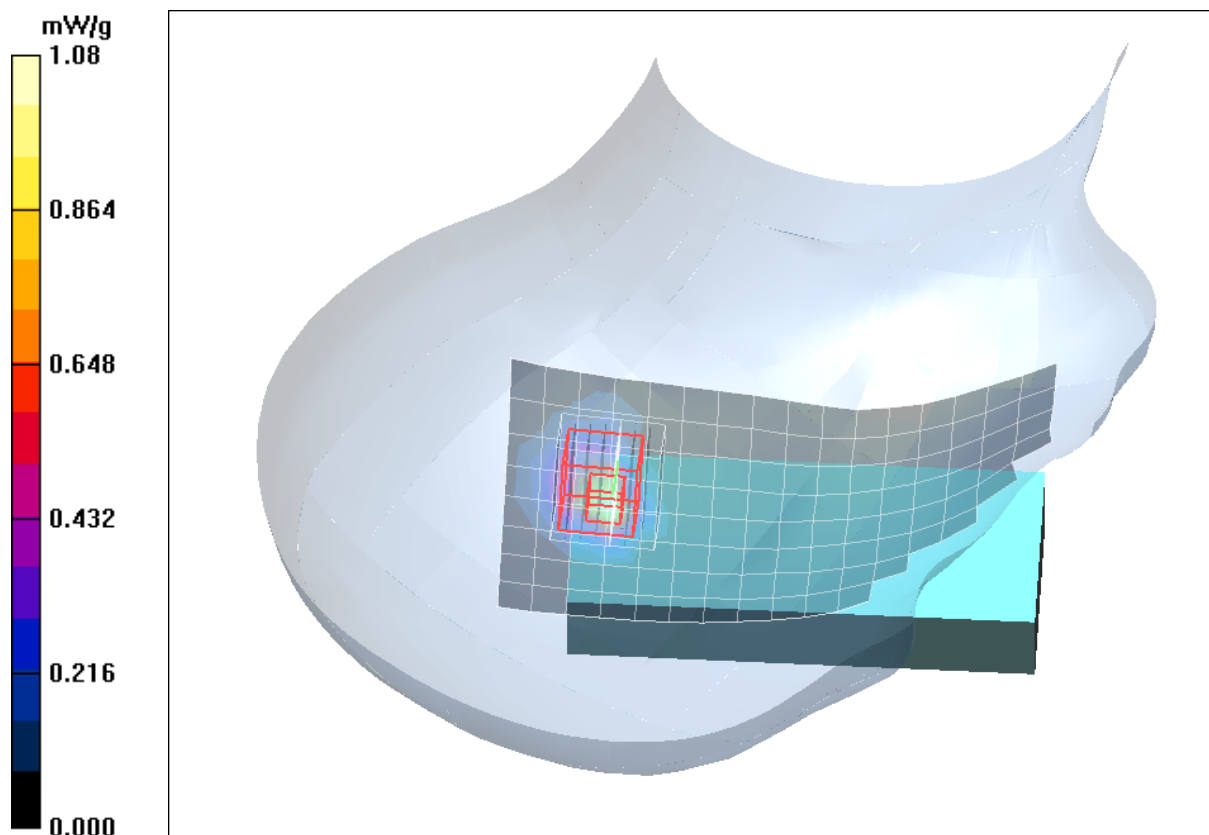


Fig. 54: SAR distribution for IEEE 802.11 n, channel 153, cheek position, right side of head (August 19, 2010; Ambient Temperature: 22.2° C; Liquid Temperature: 21.7° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwrn 2 CH153 n cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5765 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5765$ MHz; $\sigma = 5.37$ mho/m; $\epsilon_r = 34.2$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.63, 4.63, 4.63); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Tilted Right/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 1.26 mW/g

Tilted Right/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 15.6 V/m; Power Drift = 0.133 dB

Peak SAR (extrapolated) = 3.64 W/kg

SAR(1 g) = 1.08 mW/g; SAR(10 g) = 0.346 mW/g

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

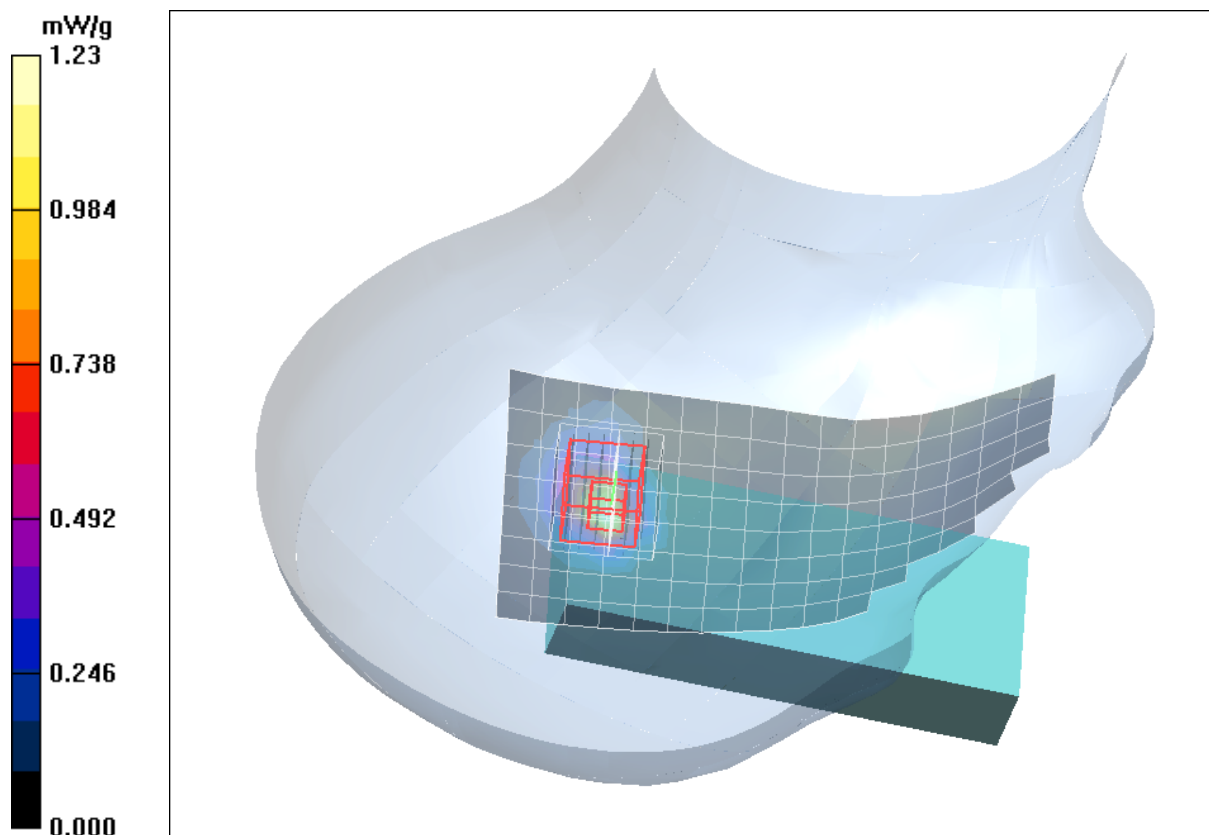


Fig. 55: SAR distribution for IEEE 802.11 n, channel 153, tilted position, right side of head (August 19, 2010; Ambient Temperature: 22.2° C; Liquid Temperature: 21.7° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwrn 2 CH149 n cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5745 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5745$ MHz; $\sigma = 5.37$ mho/m; $\epsilon_r = 34.2$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.63, 4.63, 4.63); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Tilted Right/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.706 mW/g

Tilted Right/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 11.9 V/m; Power Drift = 0.182 dB

Peak SAR (extrapolated) = 2.10 W/kg

SAR(1 g) = 0.620 mW/g; SAR(10 g) = 0.192 mW/g

Maximum value of SAR (measured) = 0.727 mW/g

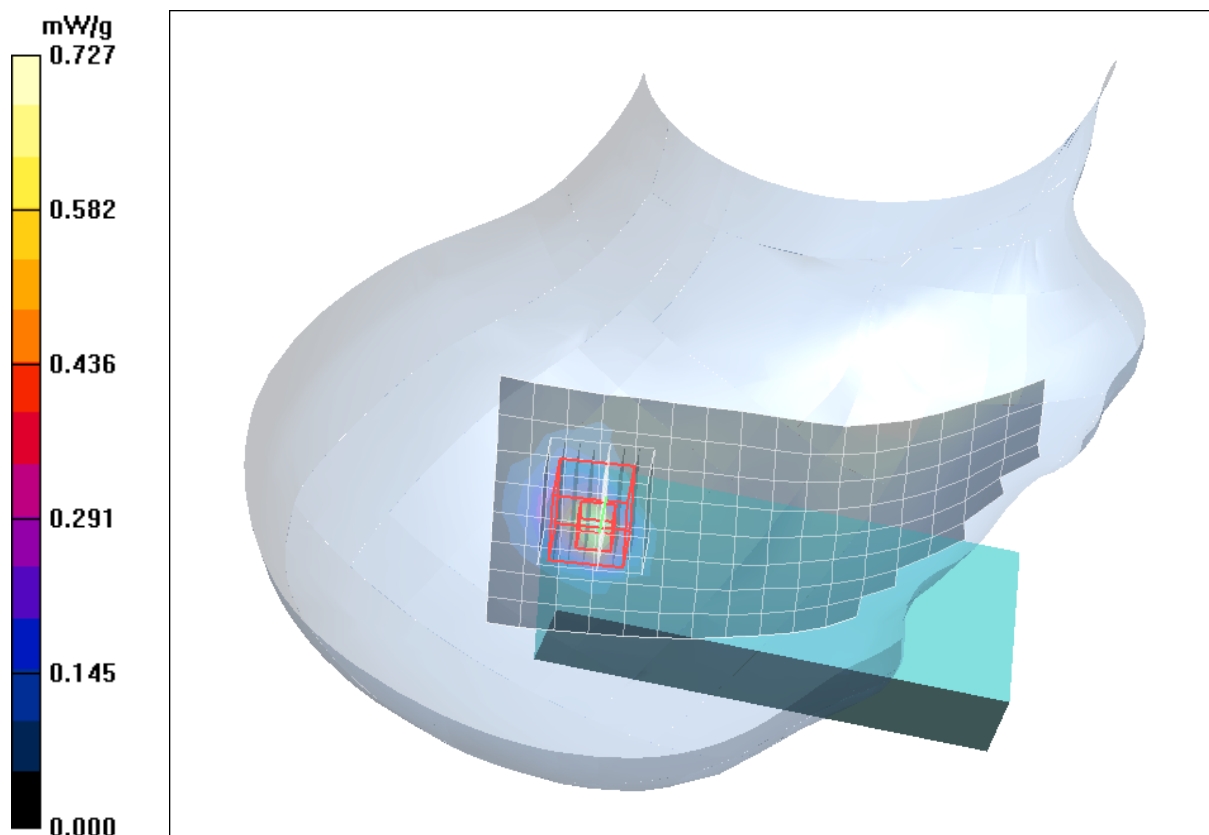


Fig. 56: SAR distribution for IEEE 802.11 n, channel 149, tilted position, right side of head (August 19, 2010; Ambient Temperature: 22.2° C; Liquid Temperature: 21.7° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwrn 2 CH161 n cw.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5805 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5805$ MHz; $\sigma = 5.38$ mho/m; $\epsilon_r = 34.2$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.63, 4.63, 4.63); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

Tilted Right/Area Scan (9x17x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.940 mW/g

Tilted Right/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 13.7 V/m; Power Drift = 0.138 dB

Peak SAR (extrapolated) = 2.59 W/kg

SAR(1 g) = 0.782 mW/g; SAR(10 g) = 0.247 mW/g

Maximum value of SAR (measured) = 0.884 mW/g

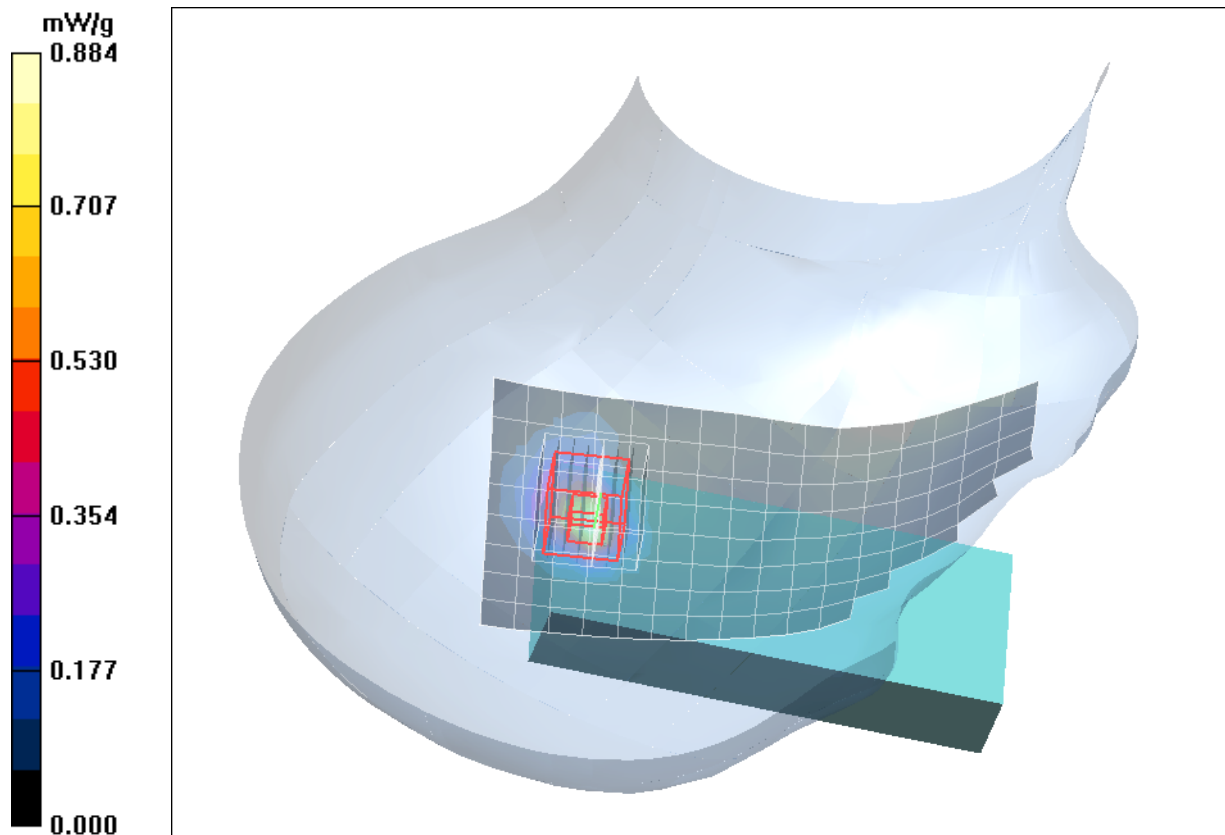


Fig. 57: SAR distribution for IEEE 802.11 n, channel 161, tilted position, right side of head (August 19, 2010; Ambient Temperature: 22.2° C; Liquid Temperature: 21.7° C).

16 SAR Distribution Plots, IEEE 802.11 n Body (5800 MHz Range)

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA_bwhm_1_CH153_n_hs_up.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5765 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5765$ MHz; $\sigma = 6.14$ mho/m; $\epsilon_r = 47.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.2, 4.2, 4.2); Calibrated: 18.09.2009
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 10.02.2010
- 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 (10x18x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.988 mW/g

Body Worn/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 12.7 V/m; Power Drift = 0.167 dB

Peak SAR (extrapolated) = 3.59 W/kg

SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.287 mW/g

Maximum value of SAR (measured) = 1.18 mW/g

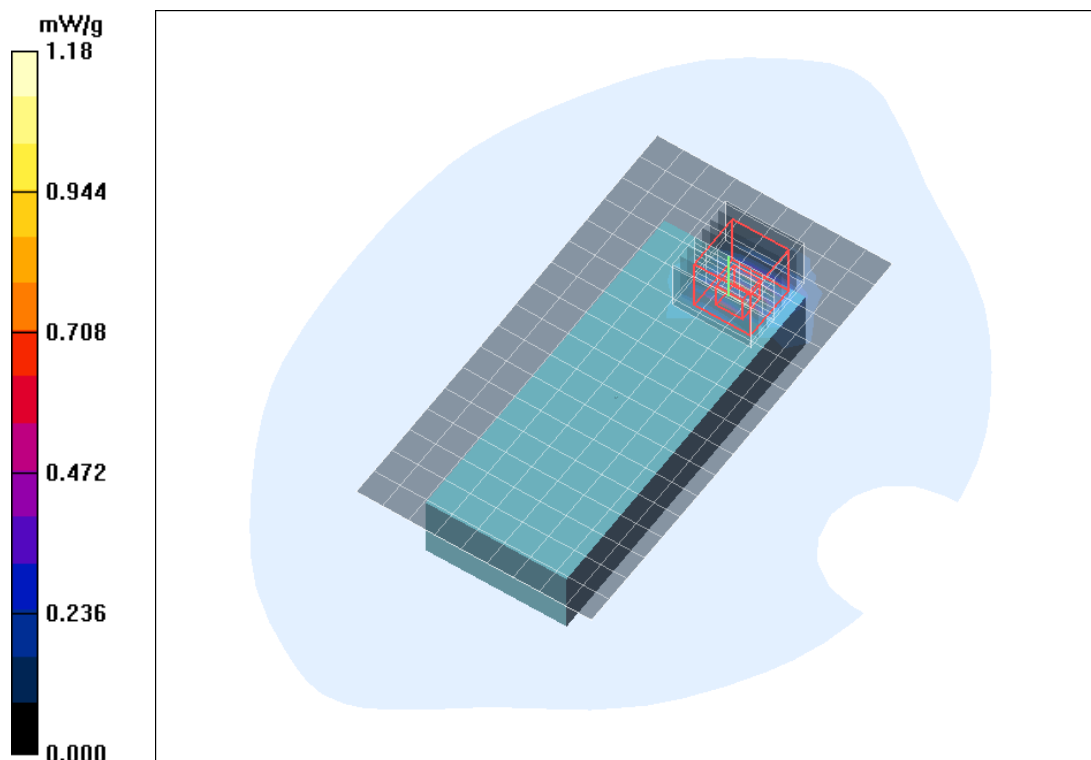


Fig. 58: SAR distribution for IEEE 802.11 n, channel 153, body worn configuration, display towards the phantom, 0 mm distance (September 03, 2010; Ambient Temperature: 21.0° C; Liquid Temperature: 20.7° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwhm 1 CH149 n hs up.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5745 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5745$ MHz; $\sigma = 6.12$ mho/m; $\epsilon_r = 47.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.2, 4.2, 4.2); Calibrated: 18.09.2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn335; Calibrated: 10.02.2010

- 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 (10x18x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.452 mW/g

Body Worn/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 9.23 V/m; Power Drift = 0.048 dB

Peak SAR (extrapolated) = 1.78 W/kg

SAR(1 g) = 0.504 mW/g; SAR(10 g) = 0.138 mW/g

Maximum value of SAR (measured) = 0.588 mW/g

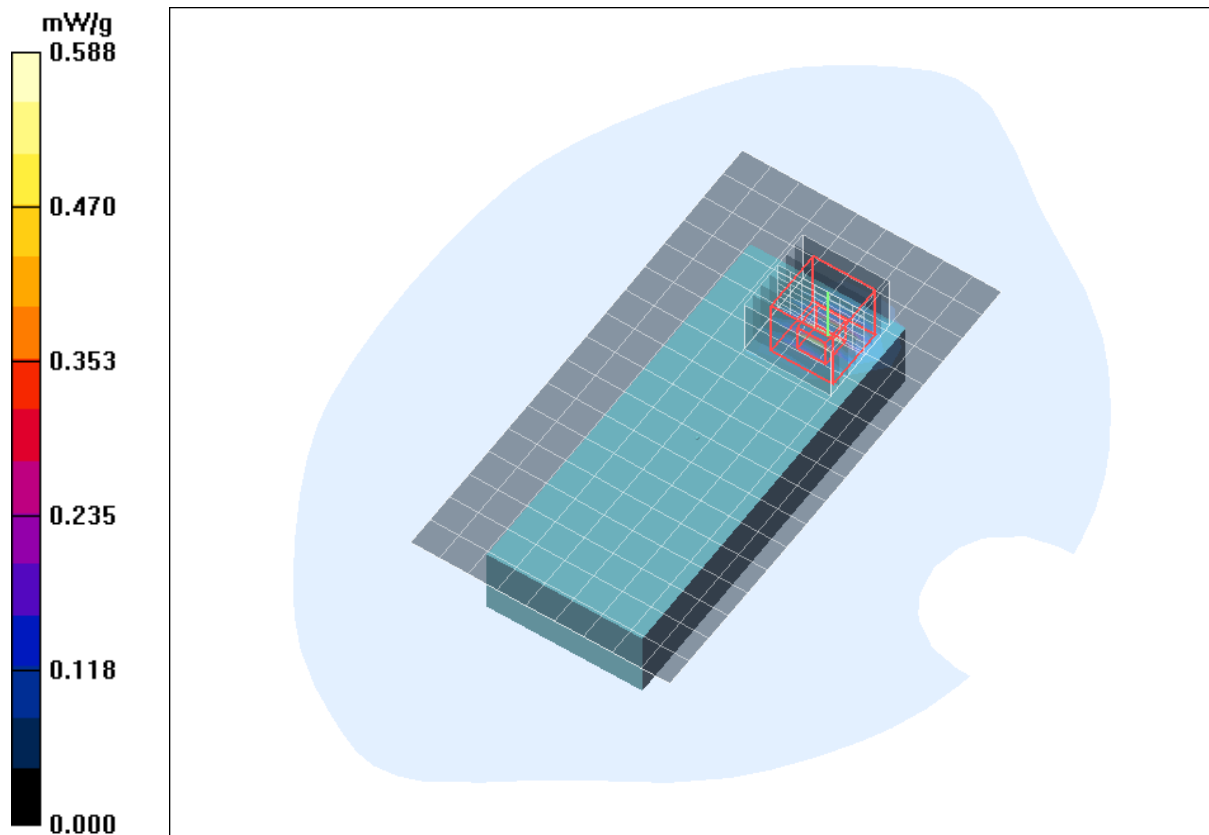


Fig. 59: SAR distribution for IEEE 802.11 n, channel 149, body worn configuration, display towards the phantom, 0 mm distance (September 03, 2010; Ambient Temperature: 21.0° C; Liquid Temperature: 20.7° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwhm 1 CH161 n hs up.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5805 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5805$ MHz; $\sigma = 6.26$ mho/m; $\epsilon_r = 47.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.2, 4.2, 4.2); Calibrated: 18.09.2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn335; Calibrated: 10.02.2010

- 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 (10x18x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.901 mW/g

Body Worn/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 12.4 V/m; Power Drift = 0.193 dB

Peak SAR (extrapolated) = 2.89 W/kg

SAR(1 g) = 0.811 mW/g; SAR(10 g) = 0.225 mW/g

Maximum value of SAR (measured) = 0.956 mW/g

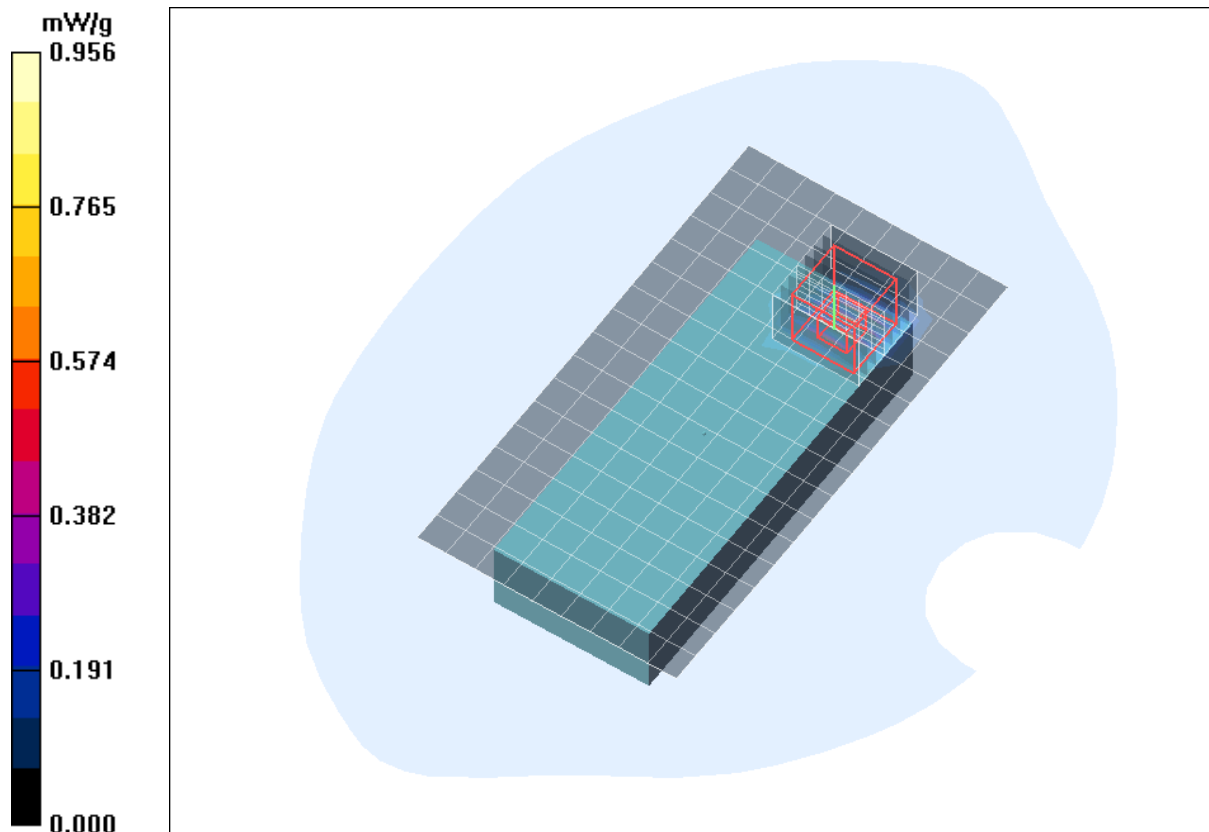


Fig. 60: SAR distribution for IEEE 802.11 n, channel 161, body worn configuration, display towards the phantom, 0 mm distance (September 03, 2010; Ambient Temperature: 21.0° C; Liquid Temperature: 20.7° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [EACA bwhm 2 CH153 n hs down.da4](#)

DUT: ASCOM; Type: WH1-EACA;

Program Name: IEEE 802.11 n

Communication System: 5 GHz ; Frequency: 5765 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 5765$ MHz; $\sigma = 6.14$ mho/m; $\epsilon_r = 47.8$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(4.2, 4.2, 4.2); Calibrated: 18.09.2009

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE3 Sn335; Calibrated: 10.02.2010

- 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 (10x18x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.041 mW/g

Body Worn/Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4.3mm, dy=4.3mm, dz=3mm

Reference Value = 2.38 V/m; Power Drift = 0.122 dB

Peak SAR (extrapolated) = 0.577 W/kg

SAR(1 g) = 0.074 mW/g; SAR(10 g) = 0.023 mW/g

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

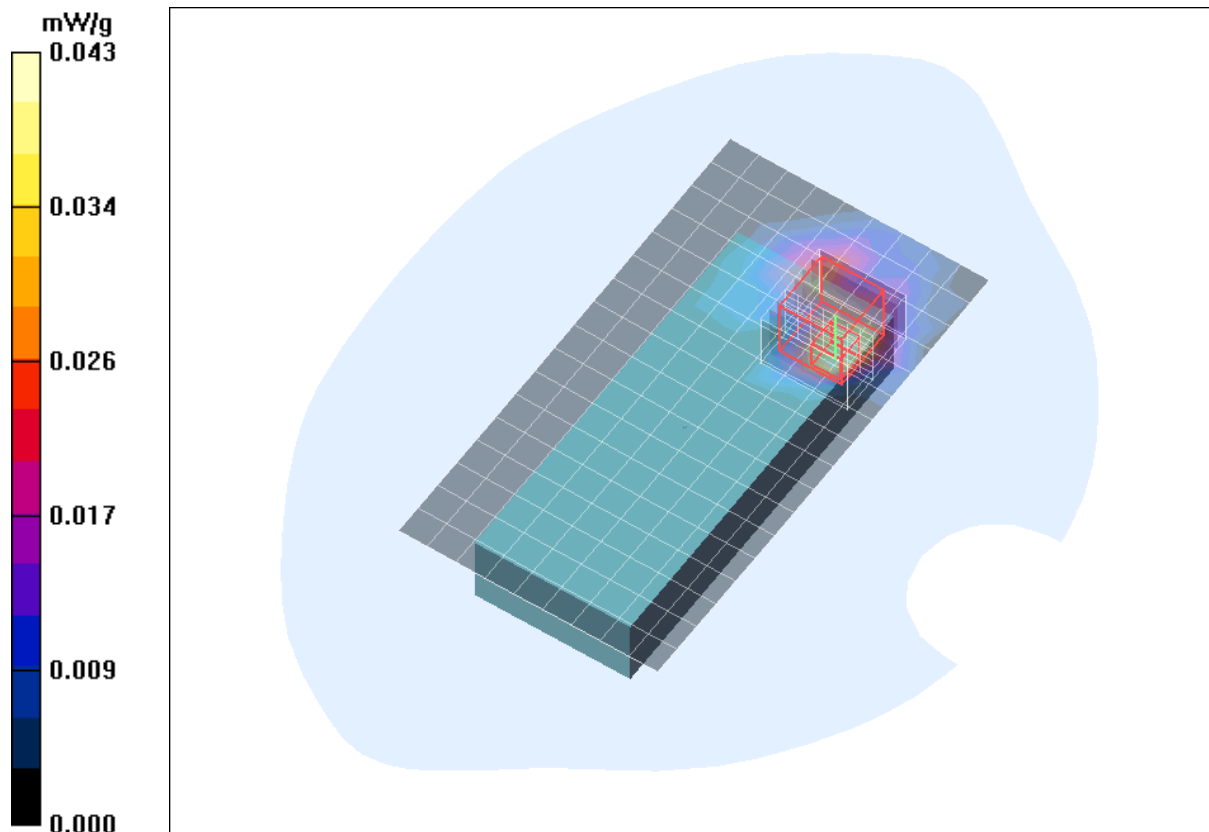


Fig. 61: SAR distribution for IEEE 802.11 n, channel 153, body worn configuration, display towards the ground, 0 mm distance (September 03, 2010; Ambient Temperature: 21.0° C; Liquid Temperature: 20.7° C).

17 SAR Z-axis Scans (Validation)

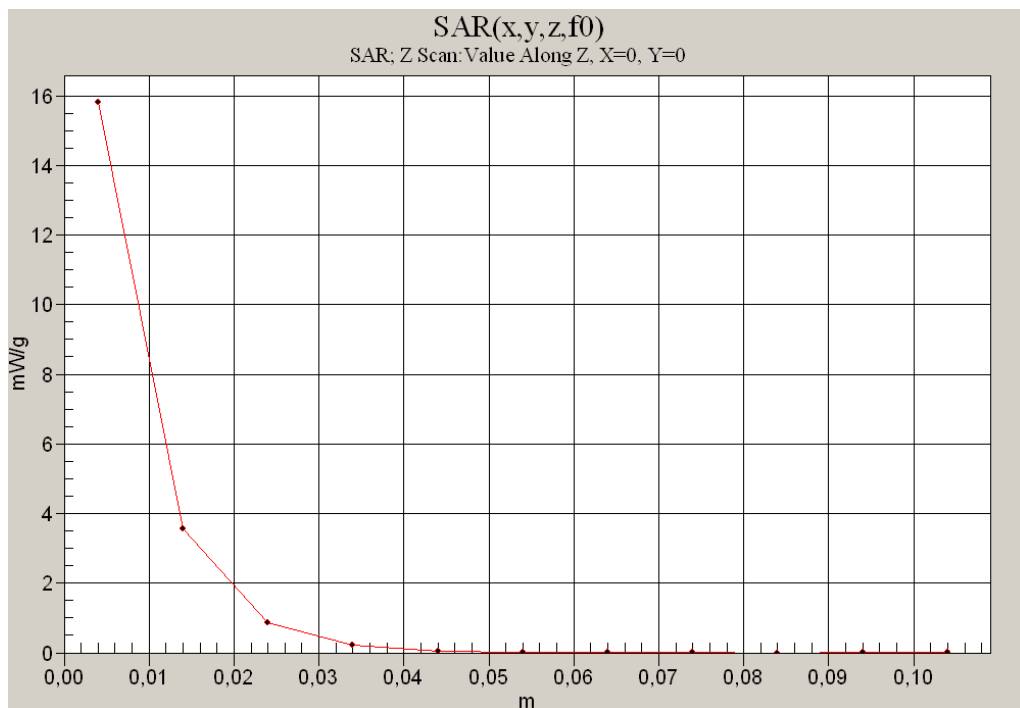


Fig. 62: SAR versus liquid depth, 2450 MHz, head (August 26, 2010; Ambient Temperature: 22.2° C; Liquid Temperature: 21.8° C).

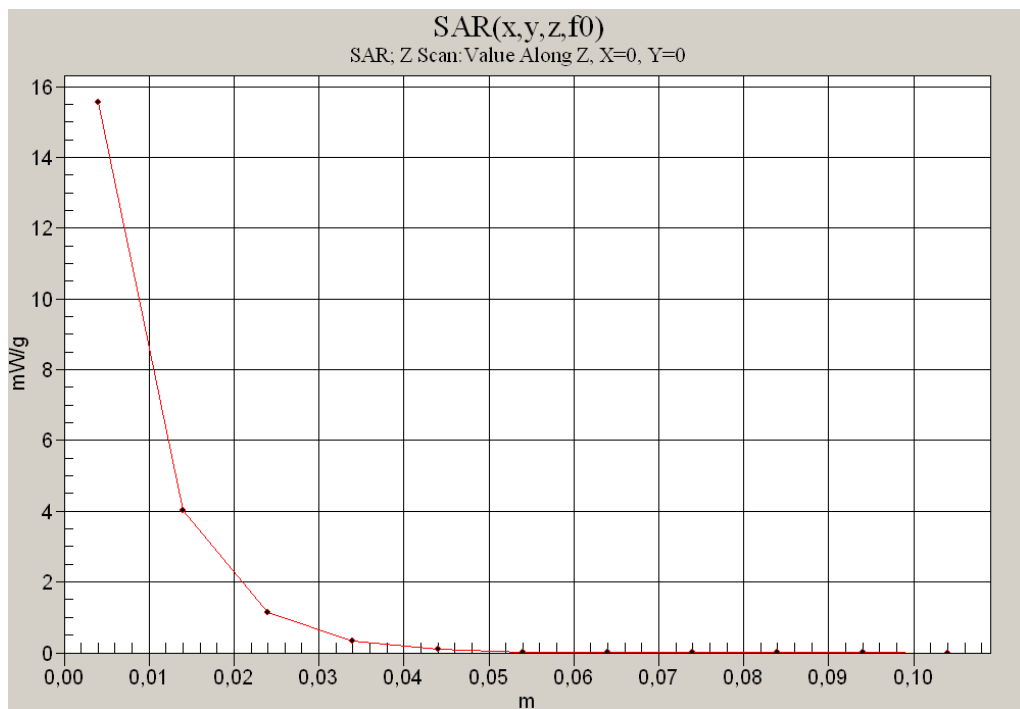


Fig. 63: SAR versus liquid depth, 2450 MHz, body (August 30, 2010; Ambient Temperature: 21.7° C; Liquid Temperature: 21.3° C).

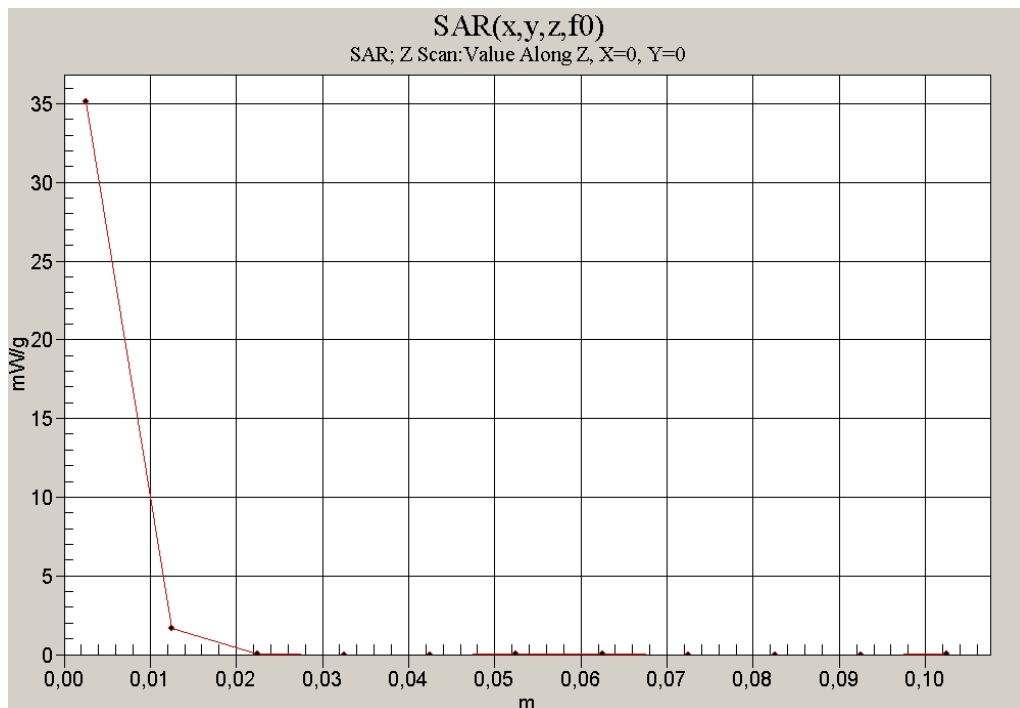


Fig. 64: SAR versus liquid depth, 5200 MHz, head (August 24, 2010; Ambient Temperature: 22.0° C; Liquid Temperature: 21.5° C).

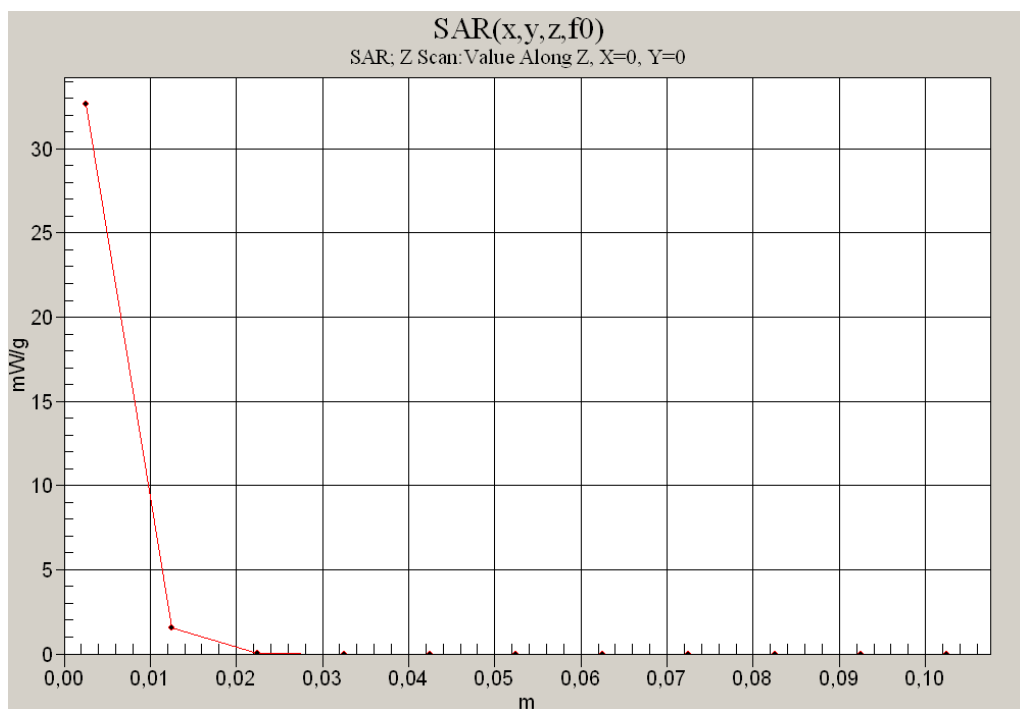


Fig. 65: SAR versus liquid depth, 5200 MHz, body (September 07, 2010; Ambient Temperature: 21.5° C; Liquid Temperature: 20.9° C).

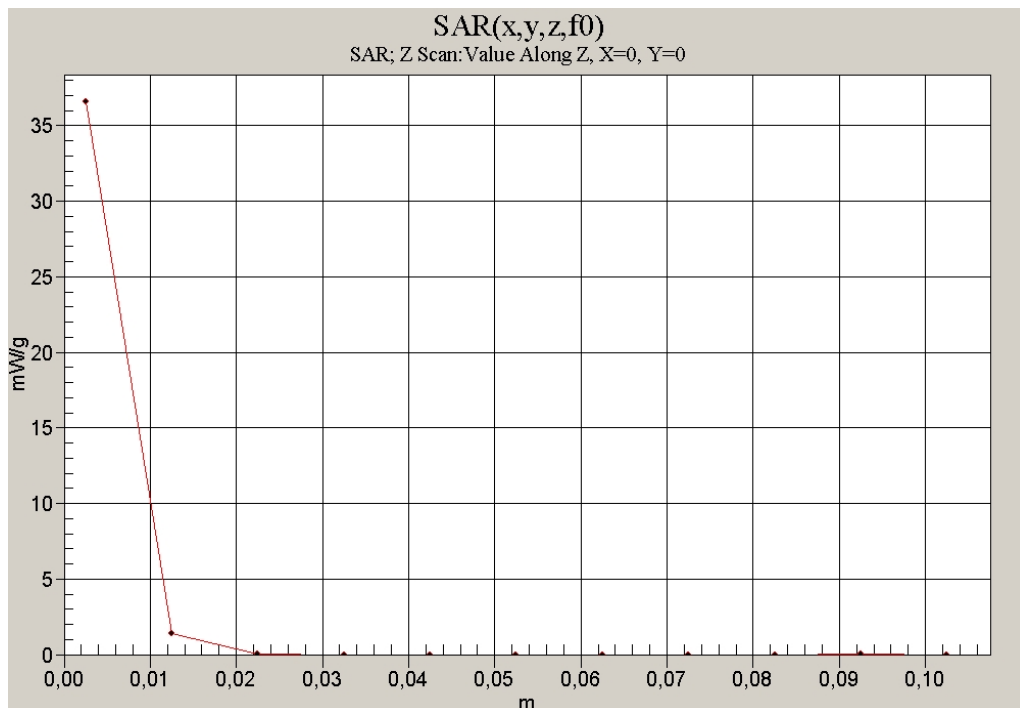


Fig. 66: SAR versus liquid depth, 5500 MHz, head (August 23, 2010; Ambient Temperature: 22.0° C; Liquid Temperature: 21.6° C).

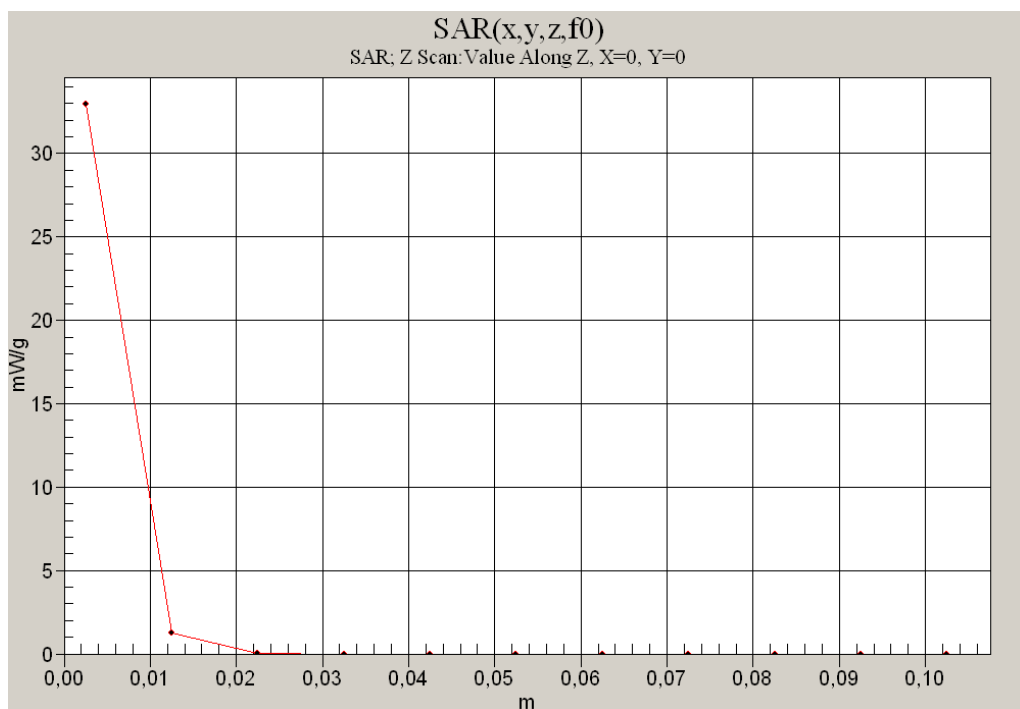


Fig. 67: SAR versus liquid depth, 5500 MHz, body (September 06, 2010; Ambient Temperature: 21.0° C; Liquid Temperature: 20.7° C).

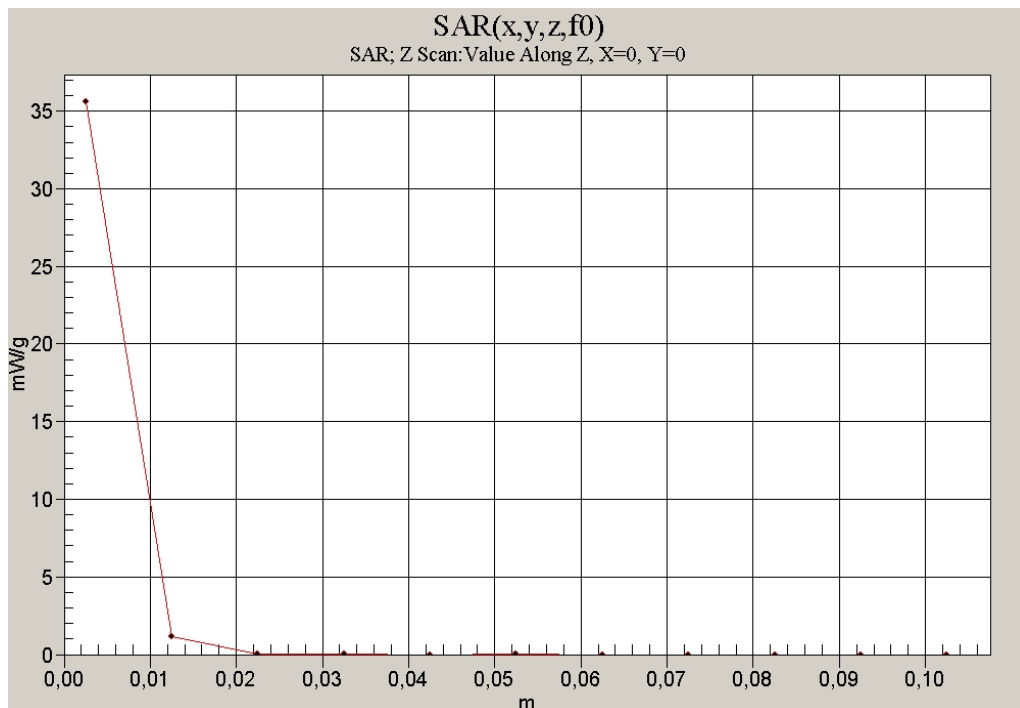


Fig. 68: SAR versus liquid depth, 5800 MHz, head (August 19, 2010; Ambient Temperature: 21.0° C; Liquid Temperature: 20.7° C).

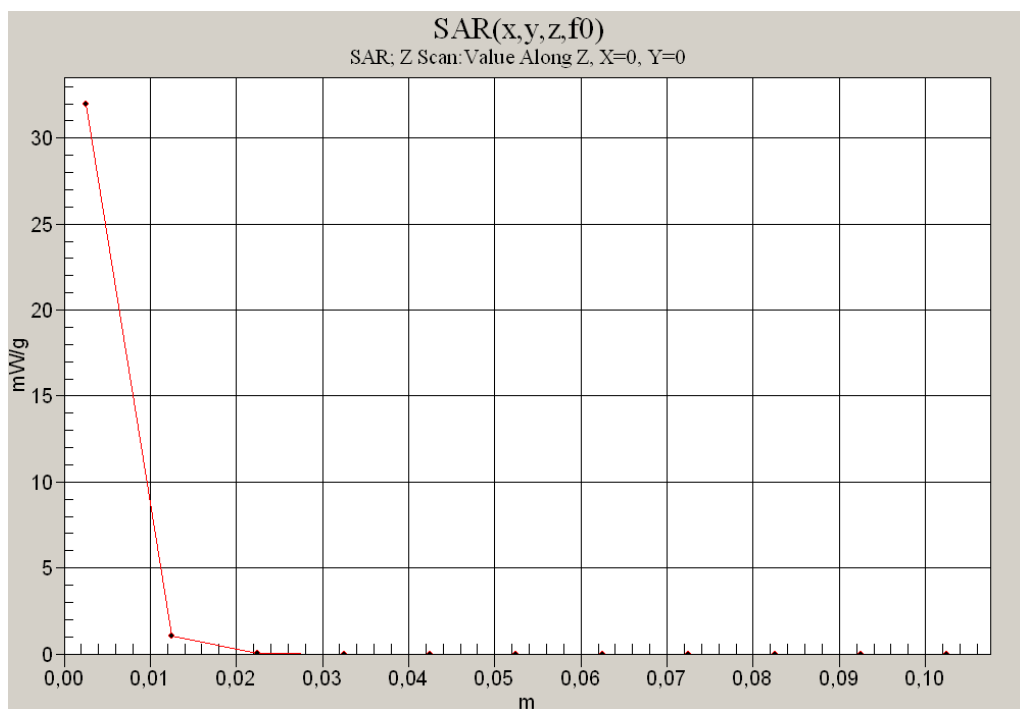


Fig. 69: SAR versus liquid depth, 5800 MHz, body (September 03, 2010; Ambient Temperature: 21.1° C; Liquid Temperature: 20.7° C).

18 SAR Z-axis Scans (Measurements)

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

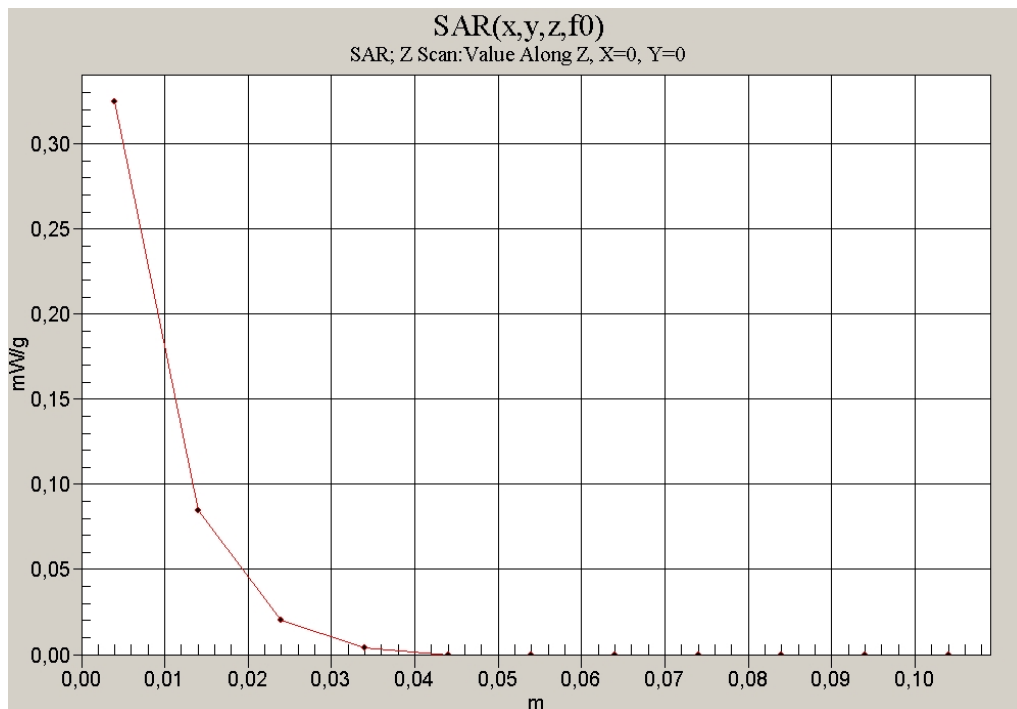


Fig. 70: SAR versus liquid depth, head: IEEE 802.11 b, channel 6, cheek position, left side of head (August 26, 2010; Ambient Temperature: 22.2° C; Liquid Temperature : 21.8° C).

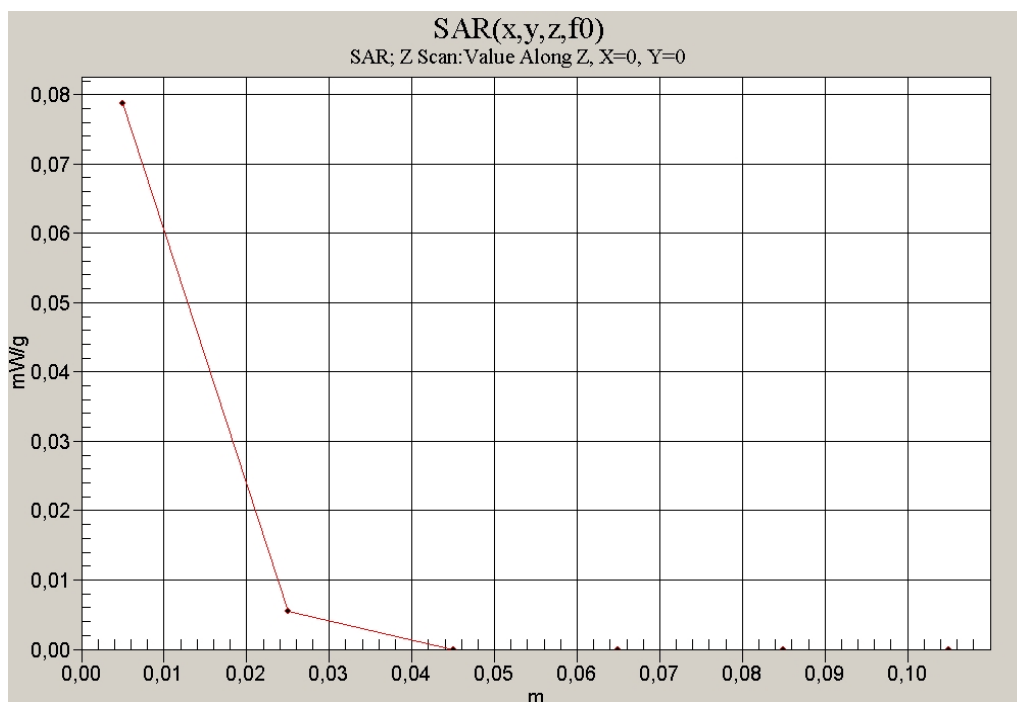


Fig. 71: SAR versus liquid depth, body: IEEE 802.11 b, channel 6, display towards the phantom (August 30, 2010; Ambient Temperature: 21.5° C; Liquid Temperature: 21.2° C).

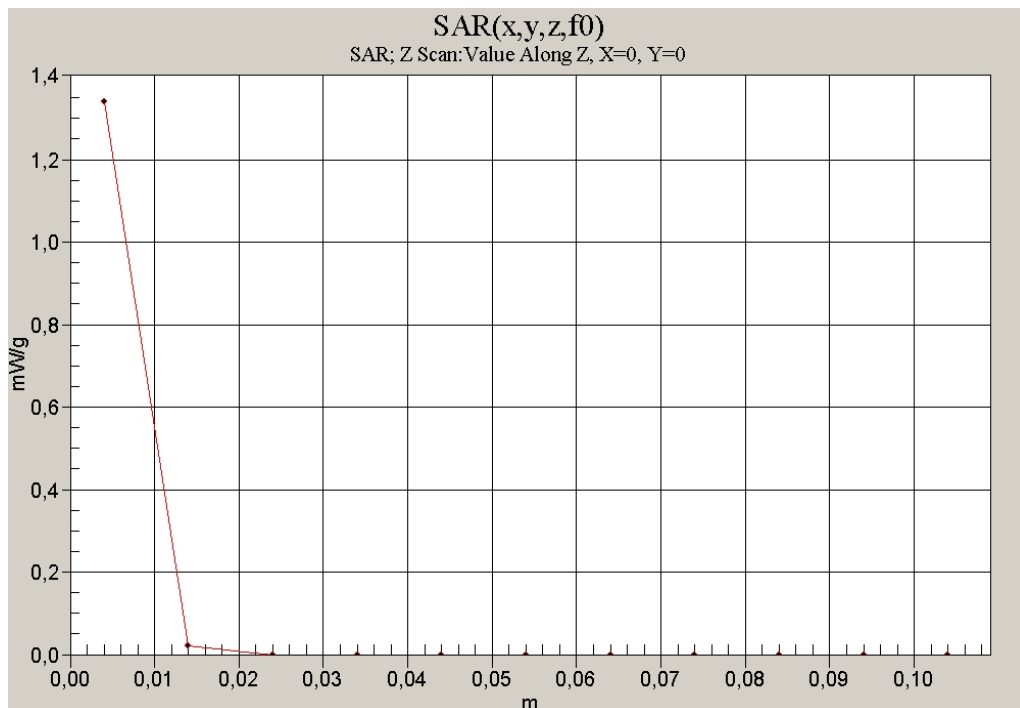


Fig. 72: SAR versus liquid depth, head: IEEE 802.11 a channel 124, tilted position, right side of head (August 23, 2010; Ambient Temperature: 22.0° C; Liquid Temperature : 21.6° C).

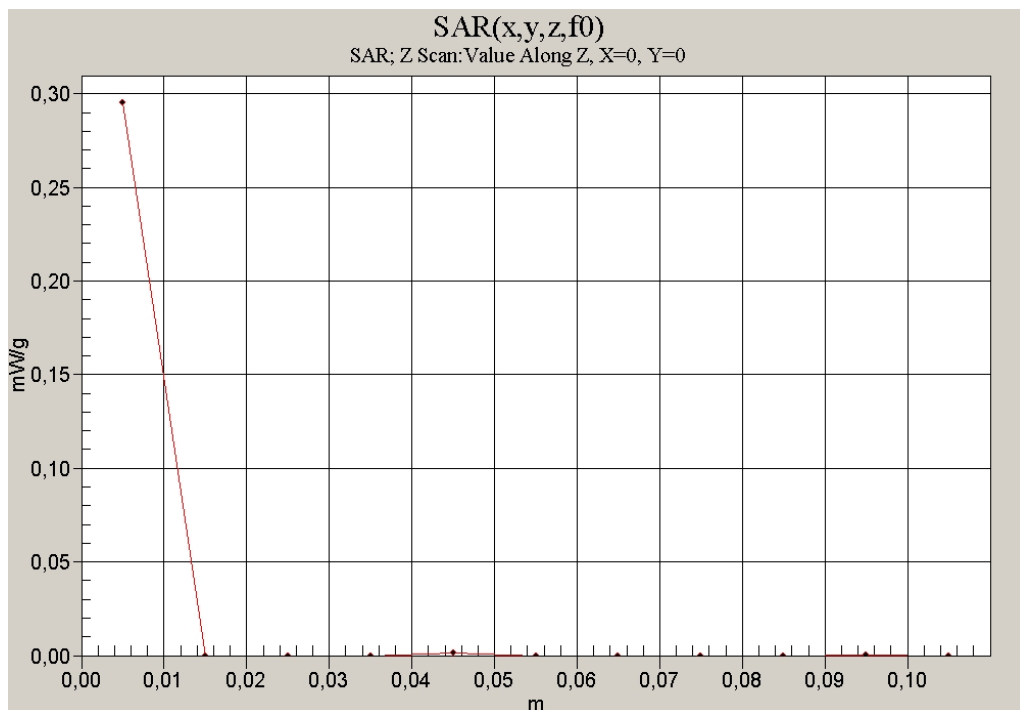


Fig. 73: SAR versus liquid depth, body: IEEE 802.11 a (5500 MHz range), channel 124, display towards the phantom (September 06, 2010; Ambient Temperature: 21.1°C; Liquid Temperature: 20.7°C).