

Appendix for the Report

Dosimetric Assessment of the Portable Device RTX4088 (FCC ID: T7HCT4088) (IC: 4979B-CT4088)

According to the FCC Requirements SAR Distribution Plots

January 31, 2012

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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, Head Measurements

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [RTX4088_yplm_1.da4](#)

DUT: RTX; Type: 4088; Serial: 0002858900007

Program Name: DECT

Communication System: DECT US2TX; Frequency: 1924.99 MHz; Duty Cycle: 1:12

Medium parameters used: $f = 1924.99$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(5.12, 5.12, 5.12); Calibrated: 21.02.2011

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

- Electronics: DAE3 Sn335; Calibrated: 22.02.2011

- 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) = 0.053 mW/g

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

Reference Value = 6.22 V/m; Power Drift = -0.023 dB

Peak SAR (extrapolated) = 0.080 W/kg

SAR(1 g) = 0.050 mW/g; SAR(10 g) = 0.029 mW/g

Maximum value of SAR (measured) = 0.055 mW/g

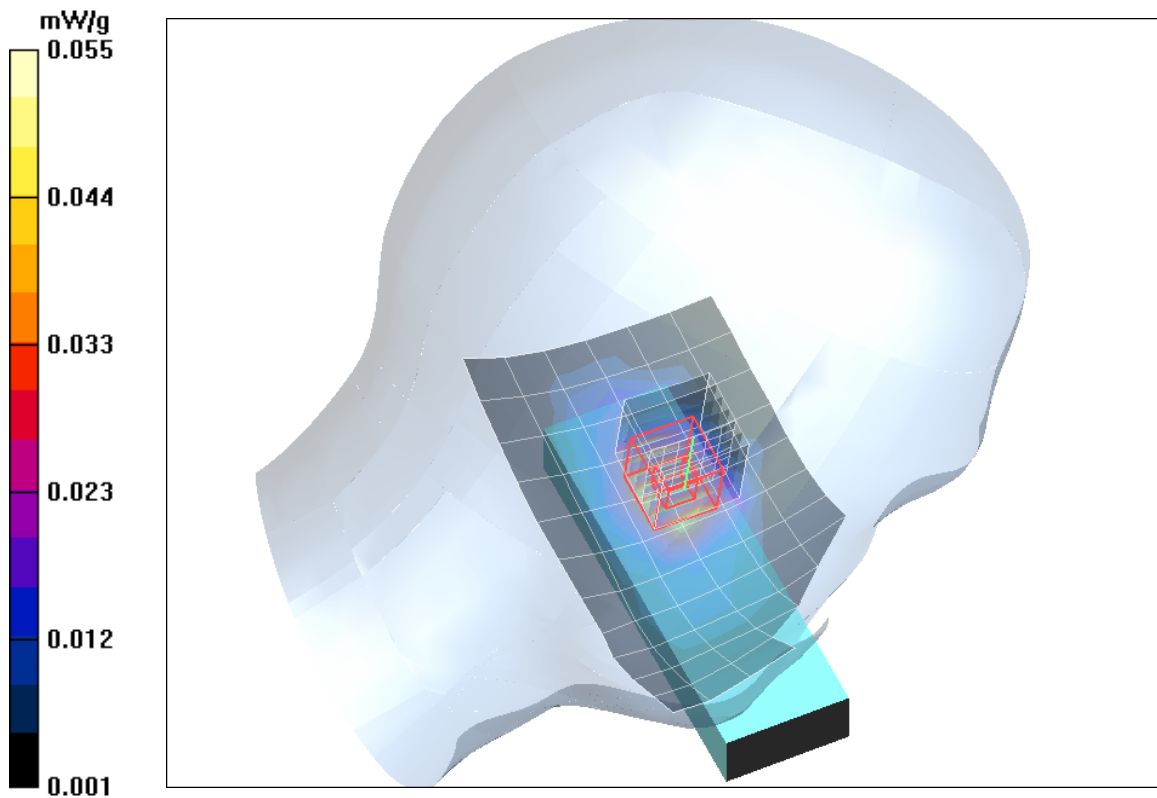


Fig. 1: SAR distribution for DECT US, channel 2, cheek position, left side of head (January 26, 2012; Ambient Temperature: 22.2°C; Liquid Temperature: 21.9°C).

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [RTX4088_yplm_2.da4](#)

DUT: RTX; Type: 4088; Serial: 0002858900007

Program Name: DECT

Communication System: DECT US2TX; Frequency: 1924.99 MHz; Duty Cycle: 1:12

Medium parameters used: $f = 1924.99$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(5.12, 5.12, 5.12); Calibrated: 21.02.2011

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

- Electronics: DAE3 Sn335; Calibrated: 22.02.2011

- 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) = 0.033 mW/g

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

Reference Value = 5.06 V/m; Power Drift = -0.072 dB

Peak SAR (extrapolated) = 0.051 W/kg

SAR(1 g) = 0.031 mW/g; SAR(10 g) = 0.017 mW/g

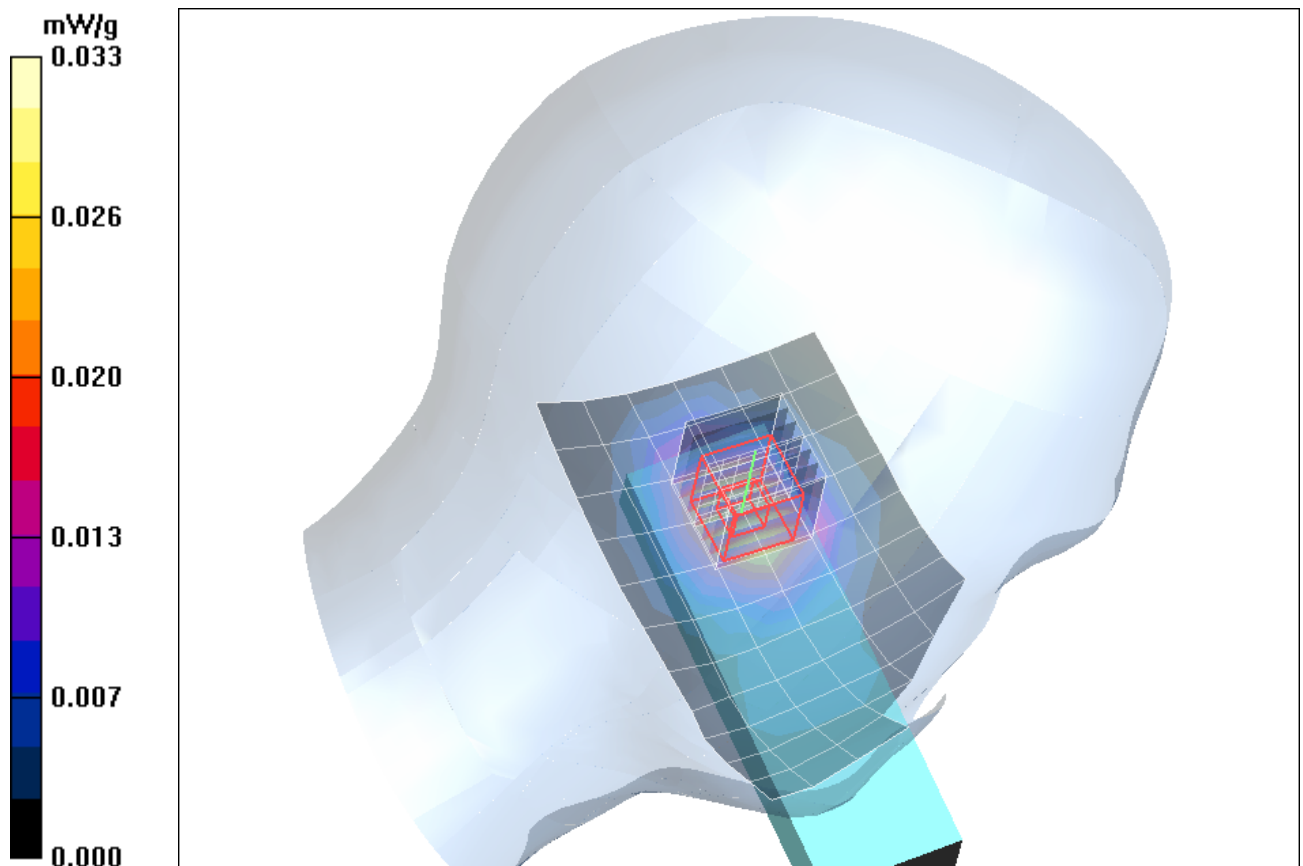


Fig. 2: SAR distribution for DECT US, channel 2, tilted position, left side of head (January 26, 2012; Ambient Temperature: 22.2°C; Liquid Temperature: 21.9°C).

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [RTX4088_yprm_1.da4](#)

DUT: RTX; Type: 4088; Serial: 0002858900007

Program Name: DECT

Communication System: DECT US2TX; Frequency: 1924.99 MHz; Duty Cycle: 1:12

Medium parameters used: $f = 1924.99$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(5.12, 5.12, 5.12); Calibrated: 21.02.2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 22.02.2011
- 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) = 0.040 mW/g

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

Reference Value = 5.53 V/m; Power Drift = -0.009 dB

Peak SAR (extrapolated) = 0.058 W/kg

SAR(1 g) = 0.039 mW/g; SAR(10 g) = 0.023 mW/g

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

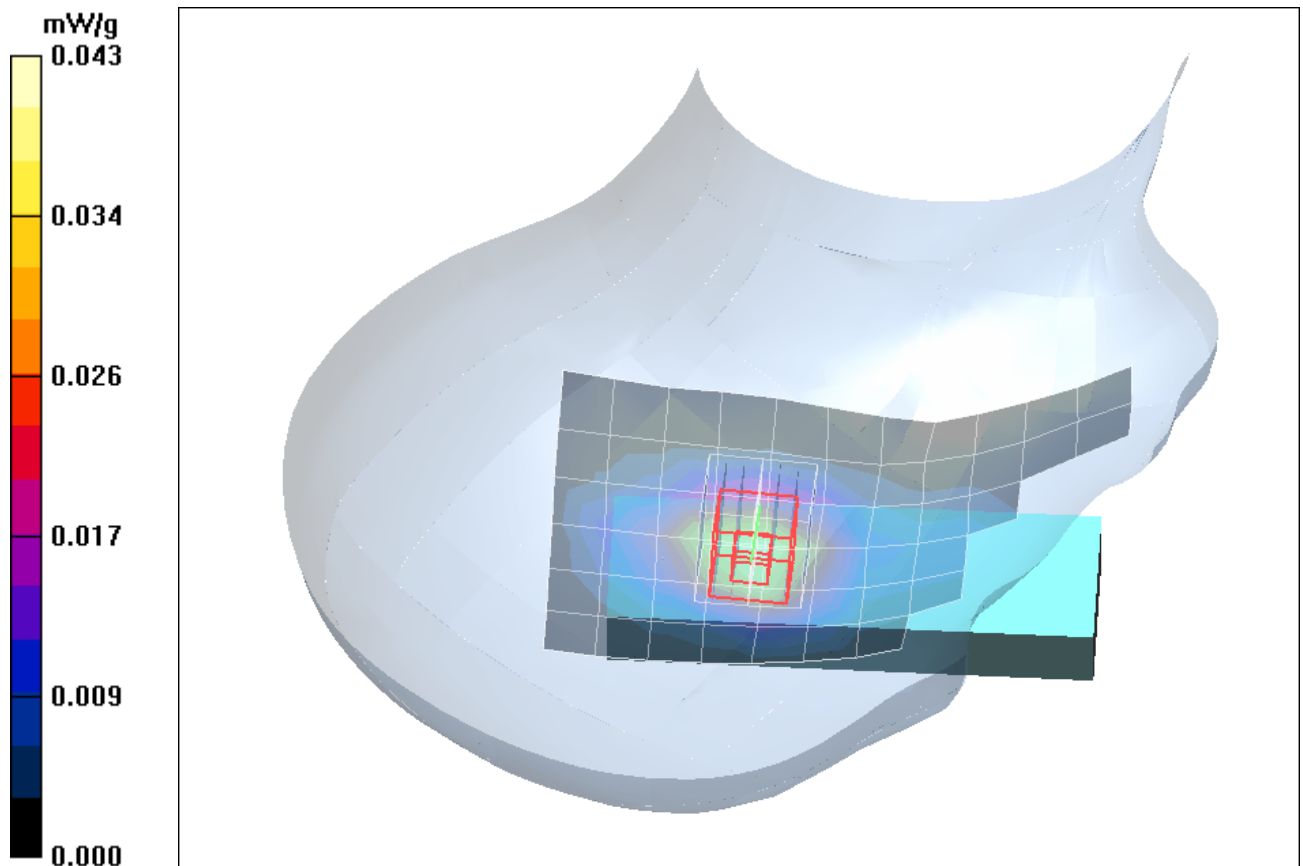


Fig. 3: SAR distribution for DECT US, channel 2, cheek position, right side of head (January 26, 2012; Ambient Temperature: 22.2°C; Liquid Temperature: 21.9°C).

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [RTX4088_yprm_2.da4](#)

DUT: RTX; Type: 4088; Serial: 0002858900007

Program Name: DECT

Communication System: DECT US2TX; Frequency: 1924.99 MHz; Duty Cycle: 1:12
Medium parameters used: $f = 1924.99$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 39$; $\rho = 1000$ kg/m³
Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(5.12, 5.12, 5.12); Calibrated: 21.02.2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 22.02.2011
- 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) = 0.028 mW/g

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

Reference Value = 4.57 V/m; Power Drift = -0.034 dB

Peak SAR (extrapolated) = 0.045 W/kg

SAR(1 g) = 0.028 mW/g; SAR(10 g) = 0.016 mW/g

Maximum value of SAR (measured) = 0.030 mW/g

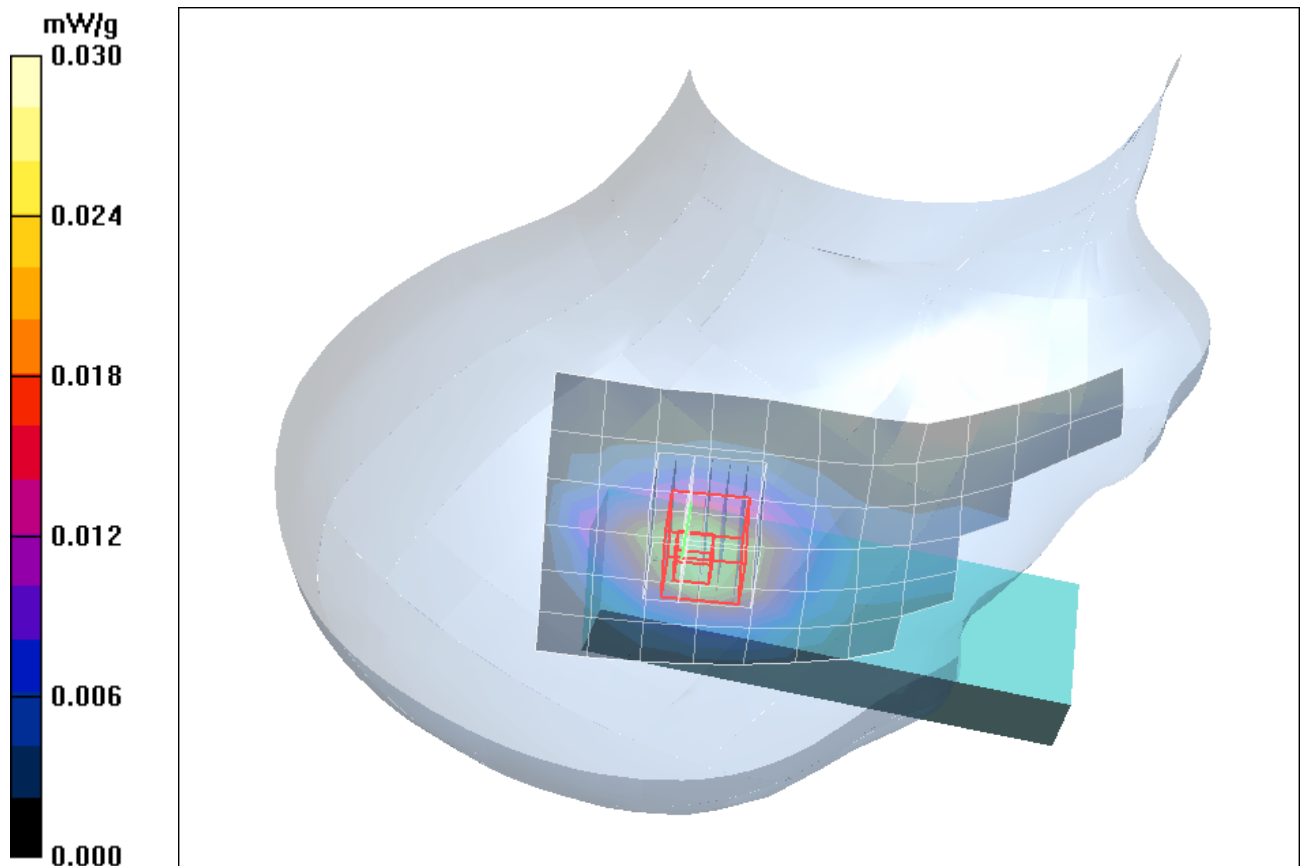


Fig. 4: SAR distribution for DECT US, channel 2, tilted position, right side of head
(January 26, 2012; Ambient Temperature: 22.2°C; Liquid Temperature: 21.9°C)

2 SAR Distribution Plots, Body Measurements

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [RTX4088_yphm_1_dspl_up_hs.da4](#)

DUT: RTX; Type: 4088; Serial: 0002858900007

Program Name: DECT

Communication System: DECT US2TX; Frequency: 1924.99 MHz; Duty Cycle: 1:12

Medium parameters used: $f = 1924.99$ MHz; $\sigma = 1.58$ mho/m; $\epsilon_r = 52.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(4.54, 4.54, 4.54); Calibrated: 21.02.2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 22.02.2011
- 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/Area Scan (7x12x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.040 mW/g

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

Reference Value = 3.18 V/m; Power Drift = -0.182 dB

Peak SAR (extrapolated) = 0.063 W/kg

SAR(1 g) = 0.038 mW/g; SAR(10 g) = 0.022 mW/g

Maximum value of SAR (measured) = 0.042 mW/g

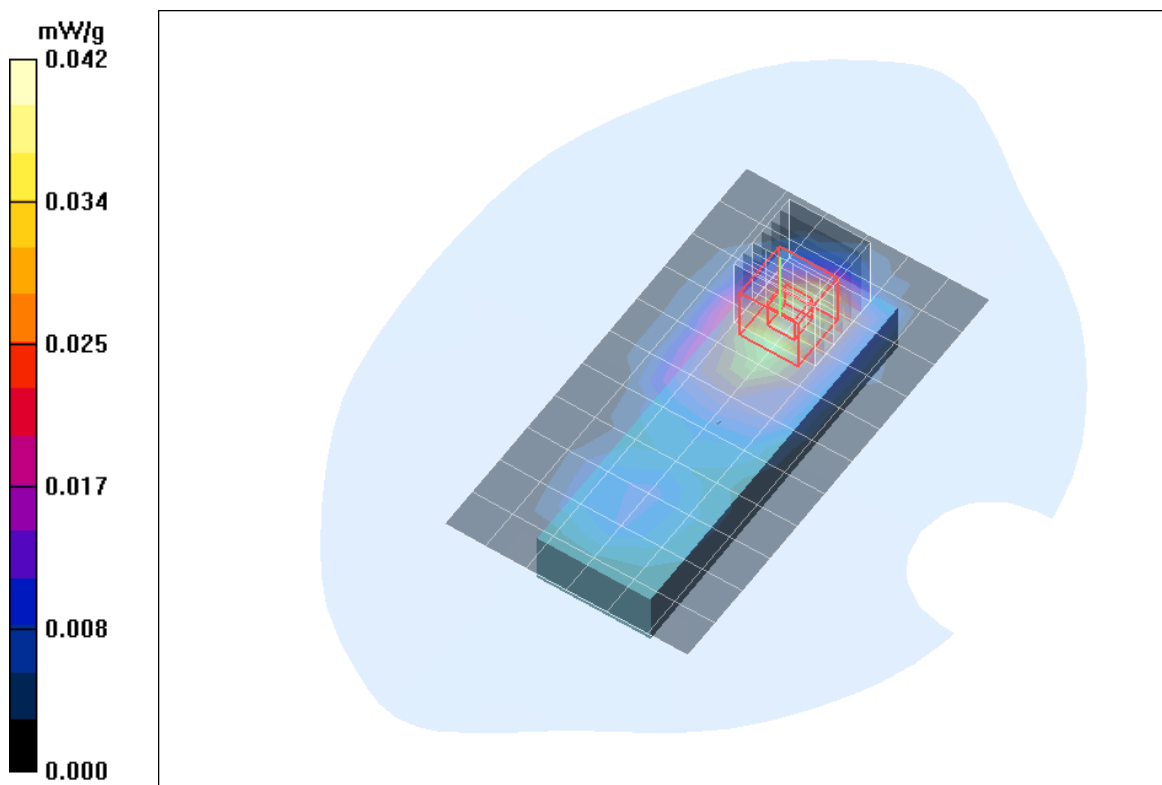


Fig. 5: SAR distribution for DECT US, channel 2, body worn configuration, display towards the phantom, with headset and 0 mm distance (January 30, 2012; Ambient Temperature: 21.7° C; Liquid Temperature: 21.4° C).

Test Laboratory: Imst GmbH, DASY Yellow (II); **File Name:** [RTX4088_yphm_2_dspl_down_hs.da4](#)

DUT: RTX; **Type:** 4088; **Serial:** 0002858900007

Program Name: DECT

Communication System: DECT US2TX; Frequency: 1924.99 MHz; Duty Cycle: 1:12

Medium parameters used: $f = 1924.99$ MHz; $\sigma = 1.58$ mho/m; $\epsilon_r = 52.3$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(4.54, 4.54, 4.54); Calibrated: 21.02.2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 22.02.2011
- 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/Area Scan (7x12x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.030 mW/g

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

Reference Value = 2.62 V/m; Power Drift = -0.005 dB

Peak SAR (extrapolated) = 0.040 W/kg

SAR(1 g) = 0.027 mW/g; SAR(10 g) = 0.015 mW/g

Maximum value of SAR (measured) = 0.031 mW/g

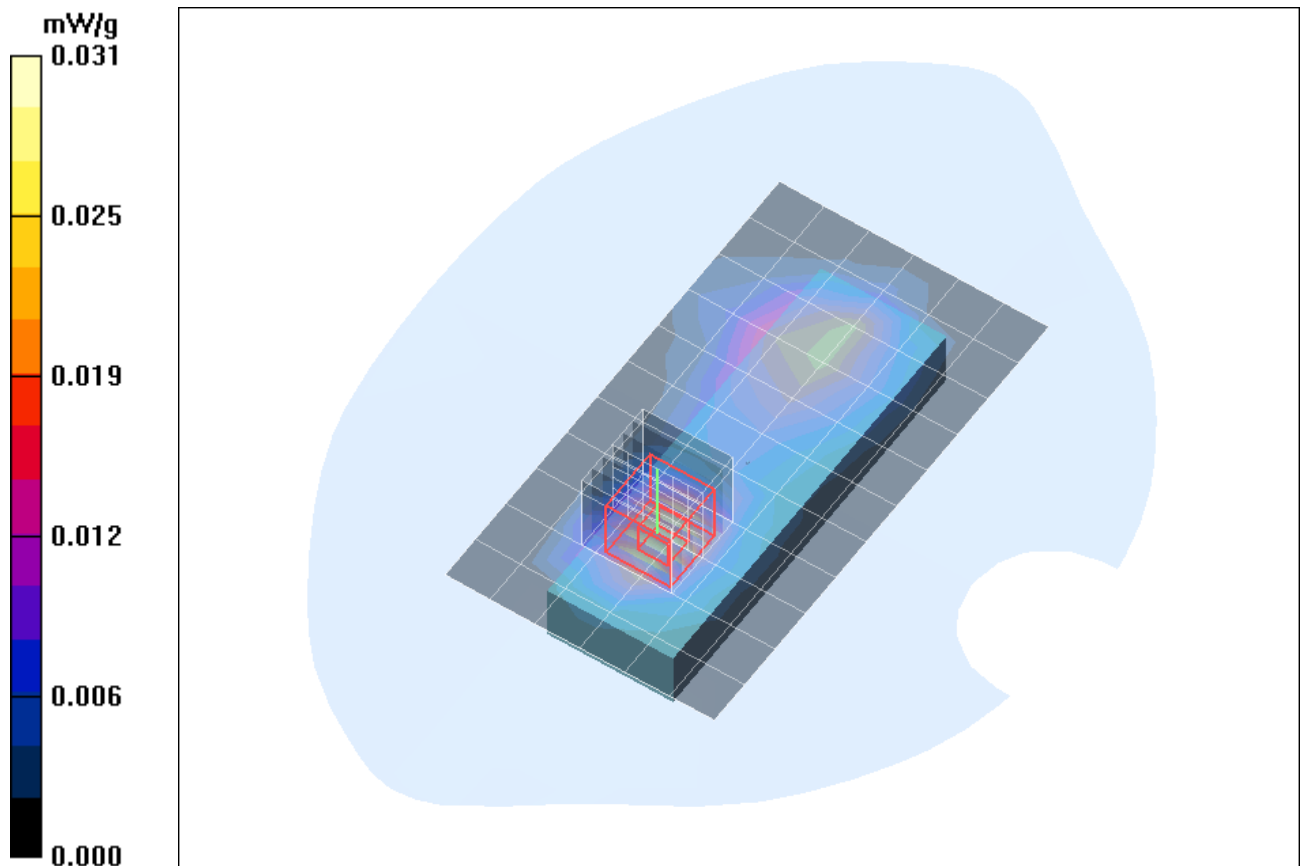


Fig. 6: SAR distribution for DECT US, channel 2, body worn configuration, display towards the ground, with headset and 0 mm distance (January 30, 2012; Ambient Temperature: 21.7° C; Liquid Temperature: 21.4° C).

3 SAR Z-Axis Scans (Validation)

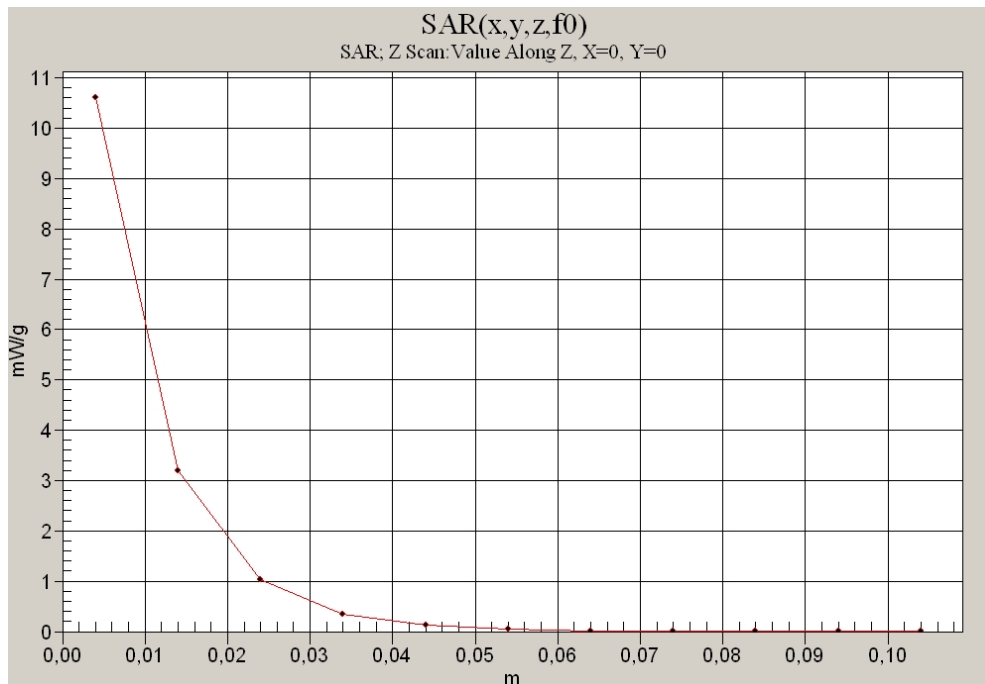


Fig. 7: SAR versus liquid depth, 1900 MHz, head (January 26, 2012; Ambient Temperature: 21.5° C; Liquid Temperature : 21.4° C).

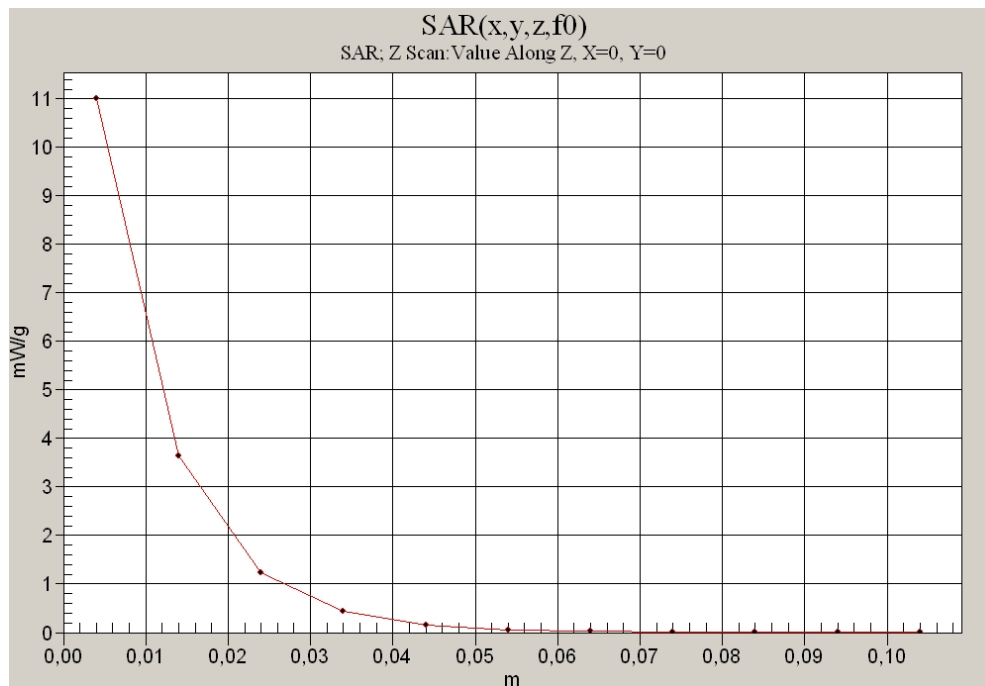


Fig. 8: SAR versus liquid depth, 1900 MHz, body (January 30, 2012; Ambient Temperature: 21.5° C; Liquid Temperature : 21.4° C).

4 SAR Z-Axis Scans (Measurements)

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

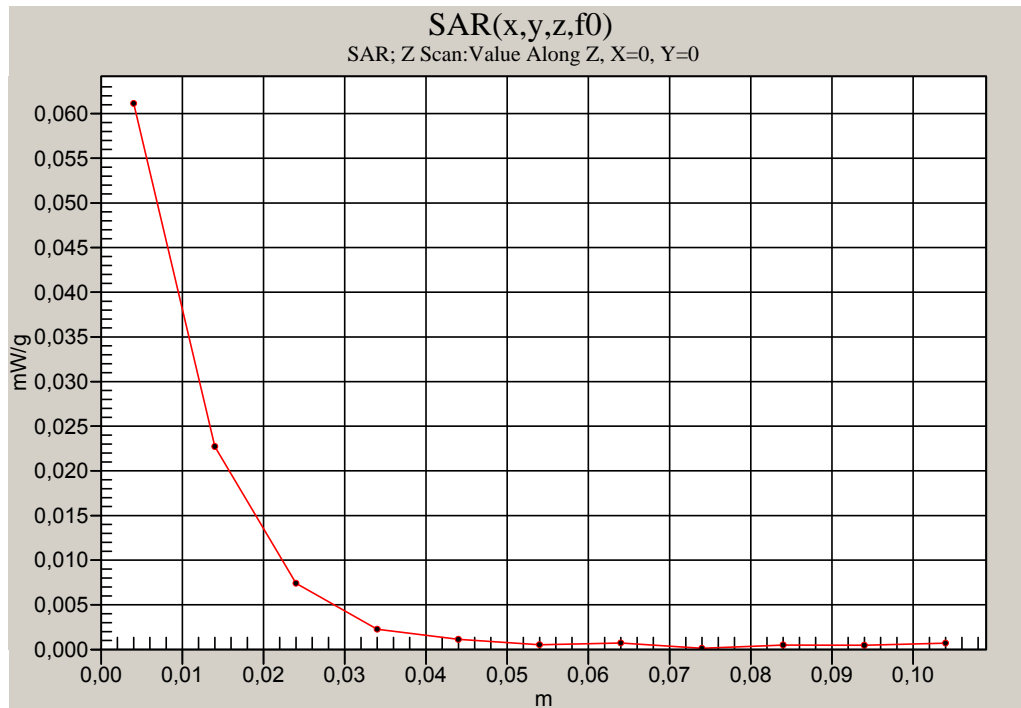


Fig. 9: SAR versus liquid depth, head: DECT US, channel 2, cheek position, left side of head (January 26, 2012; Ambient Temperature: 22.2° C; Liquid Temperature : 21.9° C).

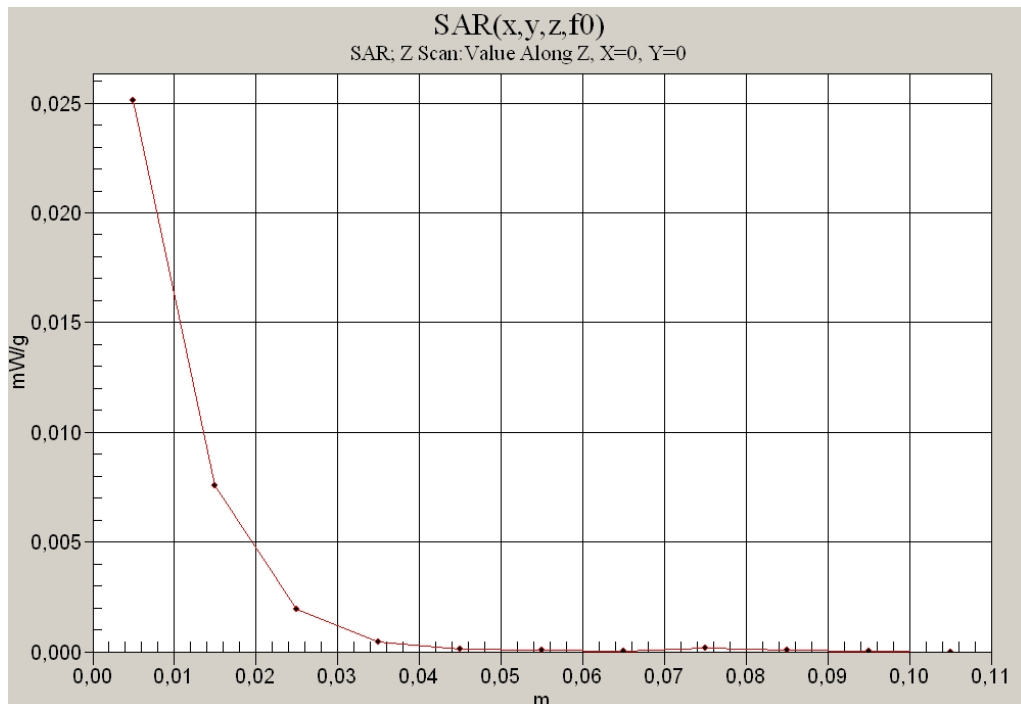


Fig. 10: SAR versus liquid depth, body: DECT US, antenna 2, headset and 0 mm distance, display towards the phantom (January 30, 2012; Ambient Temperature: 21.7° C; Liquid Temperature: 21.4° C).