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Appendix for the Report

Dosimetric Assessment of the Portable Device Redox BX4 (FCC ID: Y6MNCOM7) (IC 9455A-NCOM7)

According to the FCC Requirements

SAR Distribution Plots

October 15, 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: [X4_yblm_1_wdh.da4](#)

DUT: REDOX; Type: X4;

Program Name: Bluetooth

Communication System: Bluetooth; Frequency: 2441 MHz; Duty Cycle: 1:1.3

Medium parameters used (interpolated): $f = 2441$ MHz; $\sigma = 1.81$ mho/m; $\epsilon_r = 39.7$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.76, 7.76, 7.76); Calibrated: 24.09.2012

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

- Electronics: DAE4 Sn631; Calibrated: 20.09.2012

- 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

Left/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 4.19 V/m; Power Drift = 0.197 dB

Peak SAR (extrapolated) = 0.184 W/kg

SAR(1 g) = 0.099 mW/g; SAR(10 g) = 0.051 mW/g

Maximum value of SAR (measured) = 0.110 mW/g

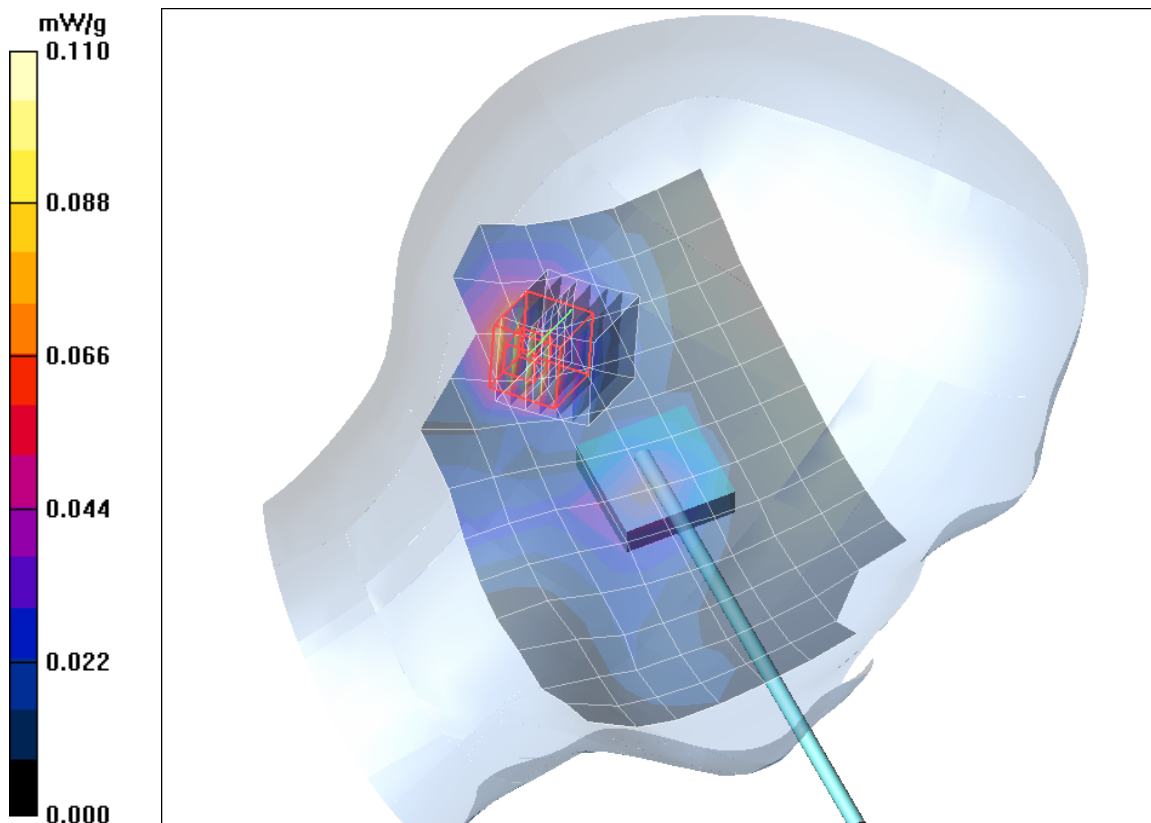


Fig. 1: SAR distribution for Bluetooth, channel 39, cheek position, left side of head (October 10, 2012; Ambient Temperature: 22.3°C; Liquid Temperature: 22.0°C).

Test Laboratory: Imst GmbH, DASY Yellow (II); **File Name:** [X4_ybl_1.da4](#)

DUT: REDOX; **Type:** X4;

Program Name: Bluetooth

Communication System: Bluetooth; Frequency: 2402 MHz; Duty Cycle: 1:1

Medium parameters used (extrapolated): $f = 2402$ MHz; $\sigma = 1.75$ mho/m; $\epsilon_r = 39.9$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.76, 7.76, 7.76); Calibrated: 24.09.2012

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

- Electronics: DAE4 Sn631; Calibrated: 20.09.2012

- 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

Left/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.085 mW/g

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

Reference Value = 3.46 V/m; Power Drift = 0.186 dB

Peak SAR (extrapolated) = 0.155 W/kg

SAR(1 g) = 0.086 mW/g; SAR(10 g) = 0.044 mW/g

Maximum value of SAR (measured) = 0.095 mW/g

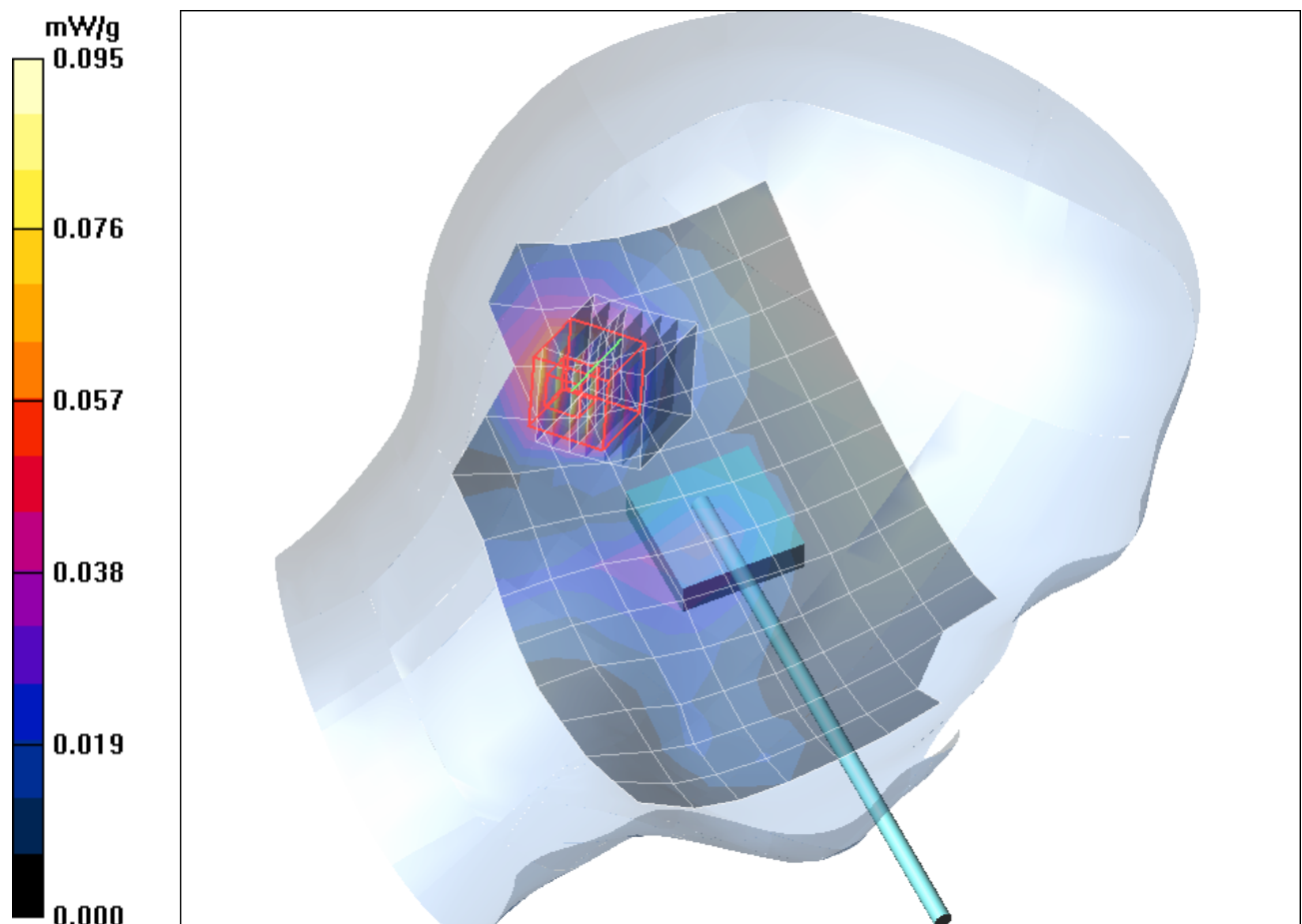


Fig. 2: SAR distribution for Bluetooth, channel 0, cheek position, left side of head (October 10, 2012; Ambient Temperature: 22.3°C; Liquid Temperature: 22.0°C).

Test Laboratory: Imst GmbH, DASY Yellow (II); **File Name:** [X4_yblh_1.da4](#)

DUT: REDOX; **Type:** X4;

Program Name: Bluetooth

Communication System: Bluetooth; Frequency: 2480 MHz; Duty Cycle: 1:1

Medium parameters used (extrapolated): $f = 2480$ MHz; $\sigma = 1.88$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.76, 7.76, 7.76); Calibrated: 24.09.2012

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

- Electronics: DAE4 Sn631; Calibrated: 20.09.2012

- 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

Left/Area Scan (9x13x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.082 mW/g

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

Reference Value = 3.86 V/m; Power Drift = 0.071 dB

Peak SAR (extrapolated) = 0.154 W/kg

SAR(1 g) = 0.080 mW/g; SAR(10 g) = 0.040 mW/g

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

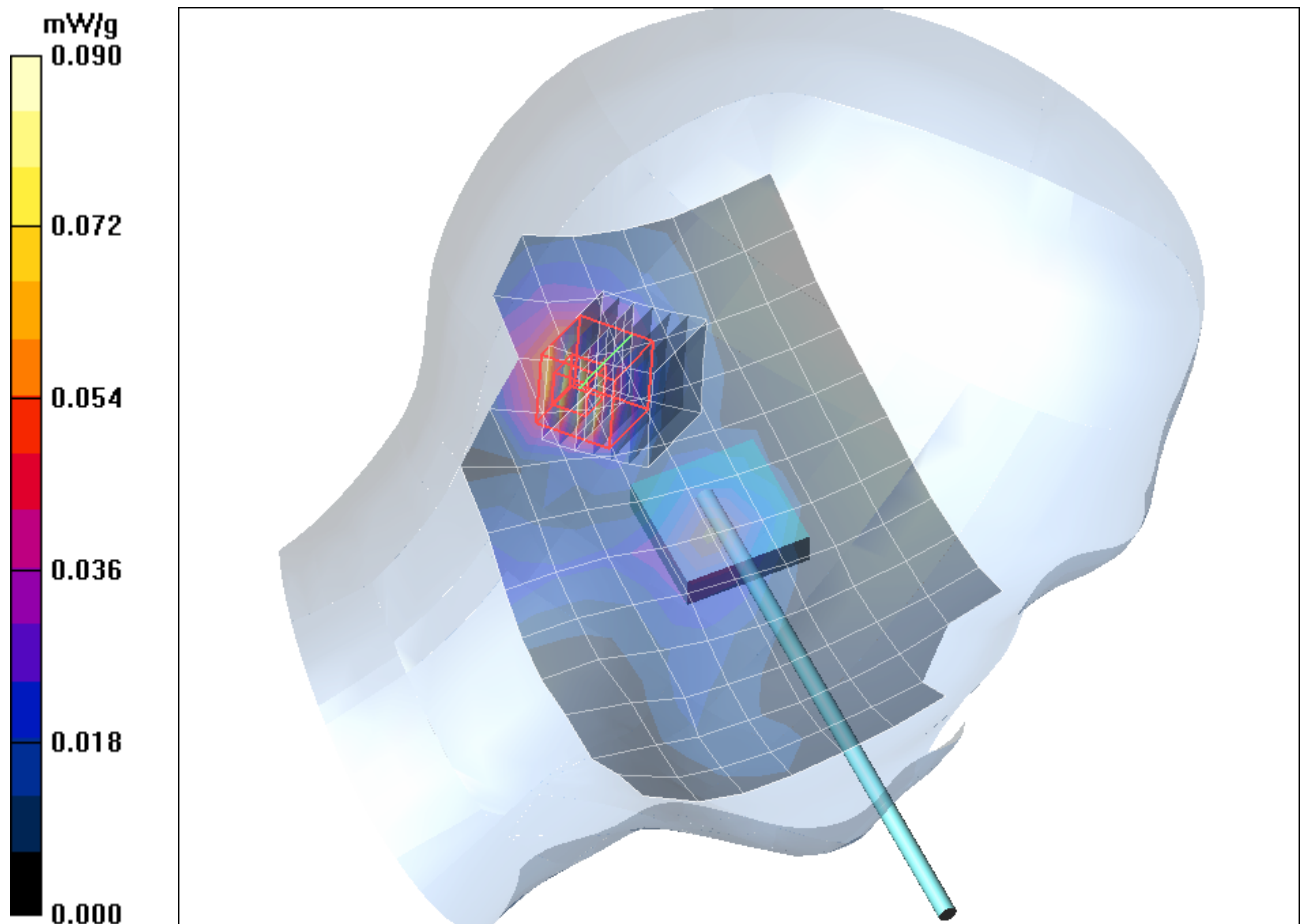


Fig. 3: SAR distribution for Bluetooth, channel 78, cheek position, left side of head (October 10, 2012; Ambient Temperature: 22.3°C; Liquid Temperature: 22.0°C).

Test Laboratory: Imst GmbH, DASY Yellow (II); **File Name:** [X4_ybrm_1.da4](#)

DUT: REDOX; **Type:** X4;

Program Name: Bluetooth

Communication System: Bluetooth; Frequency: 2441 MHz; Duty Cycle: 1:1

Medium parameters used (interpolated): $f = 2441$ MHz; $\sigma = 1.81$ mho/m; $\epsilon_r = 39.7$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.76, 7.76, 7.76); Calibrated: 24.09.2012

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

- Electronics: DAE4 Sn631; Calibrated: 20.09.2012

- 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 (9x13x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.002 mW/g

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

Reference Value = 0.554 V/m; Power Drift = 0.547 dB

Peak SAR (extrapolated) = 0.003 W/kg

SAR(1 g) = 0.000402 mW/g; SAR(10 g) = 7.53e-005 mW/g

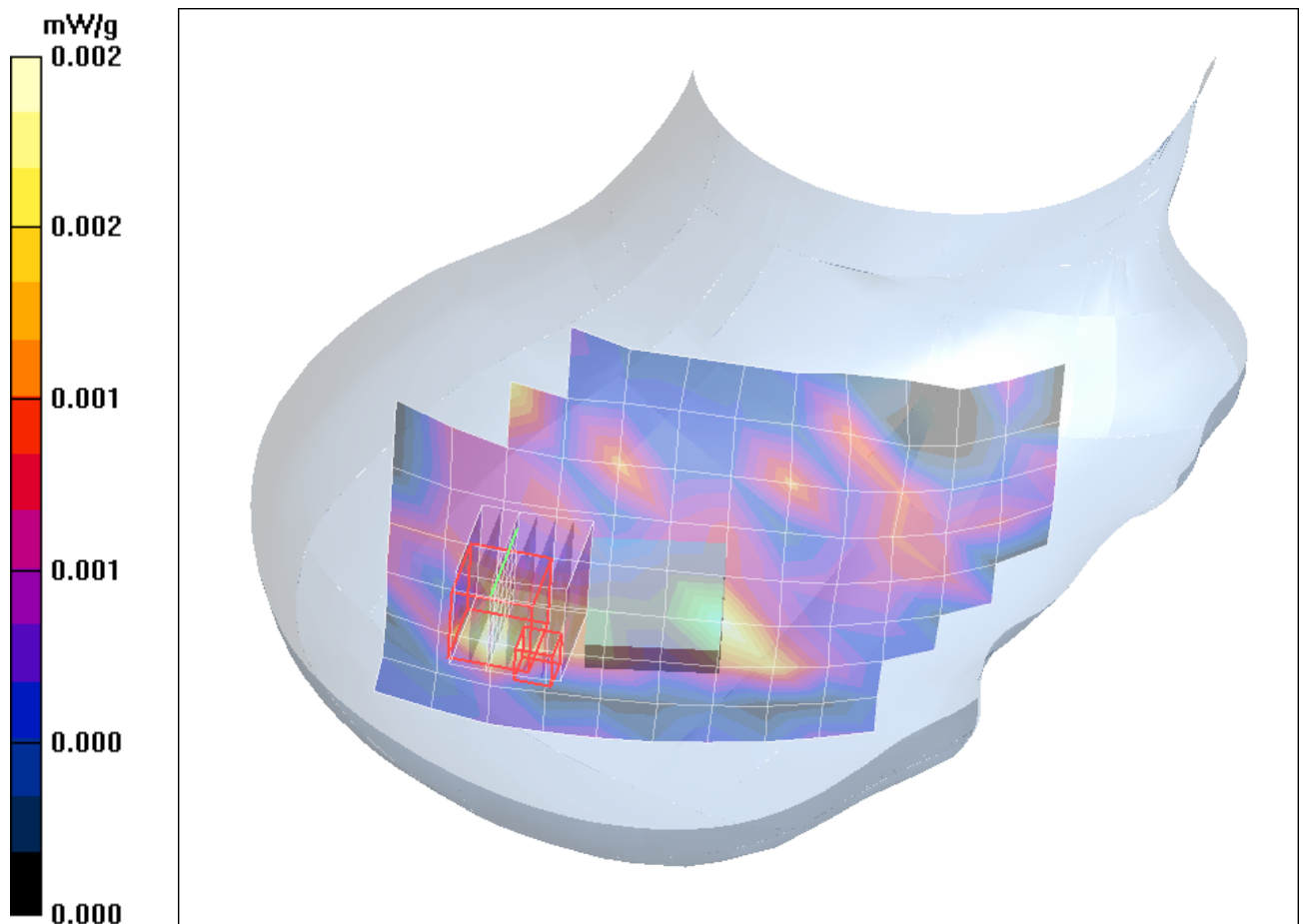


Fig. 4: SAR distribution for Bluetooth, channel 39, cheek position, right side of head (October 10, 2012; Ambient Temperature: 22.3°C; Liquid Temperature: 22.0°C).

2 SAR Z-axis Scans (Validation)

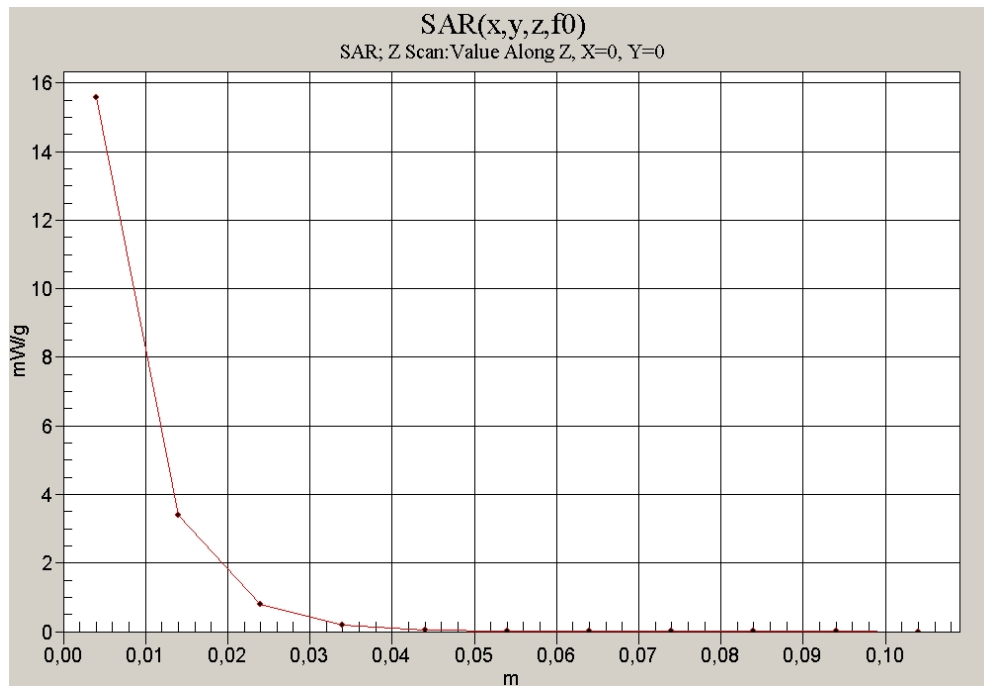


Fig. 5: SAR versus liquid depth, 2450 MHz, head (October 10, 2012; Ambient Temperature: 22.3° C; Liquid Temperature : 22.0° C).

3 SAR Z-axis Scans (Measurements)

The following picture shows the plot of SAR versus liquid depth for the worst case values.

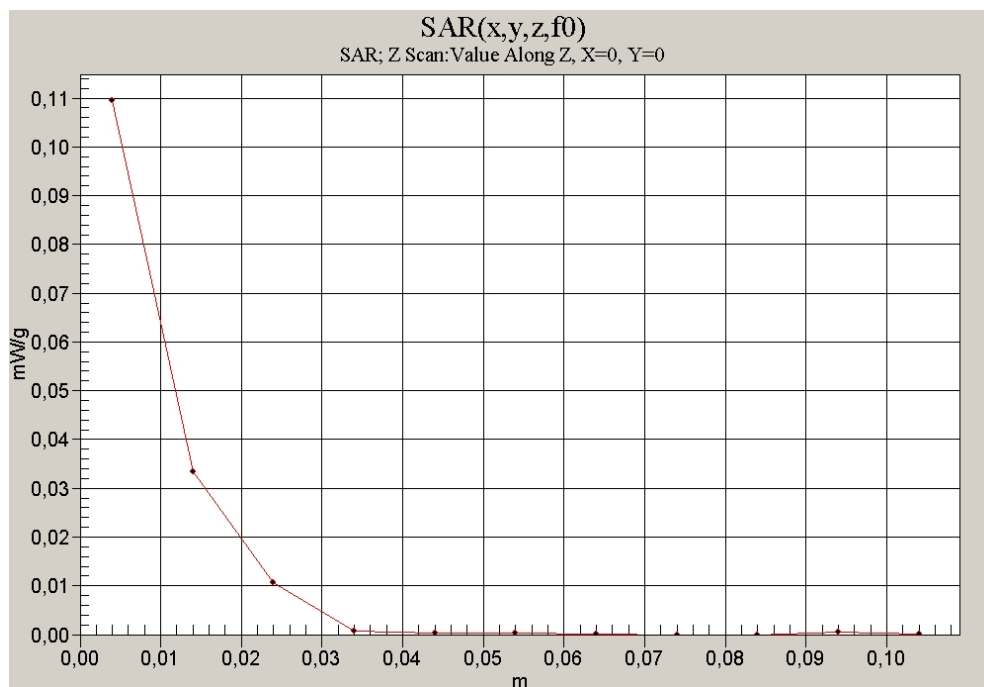


Fig. 6: SAR versus liquid depth, head: Bluetooth, channel 39, cheek position, left side of head (October 10, 2012; Ambient Temperature: 22.3° C; Liquid Temperature : 22.0° C).