Deutscher Akkreditierungs Rat

DAT-P-152/98-01

Appendix for the Report

Dosimetric Assessment of the Portable Device Sennheiser Communications DW30HS (FCC ID: DMOCDHDEC)

According to the FCC Requirements

SAR Distribution Plots

August 03, 2010

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Table of Contents

1 SAR Distribution Plots, Head Measurements, Antenna 1

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: DW30_380_yplm_1_ant1.da4

DUT: Sennheiser; Type: DW30HS; Serial: 10000380
Program Name: Cheek Left

Communication System: DECT US; Frequency: 1924.99 MHz;Duty Cycle: 1:15
Medium parameters used: f = 1924.99 MHz; σ = 1.45 mho/m; ε_r = 40.5; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3536; ConvF(7.95, 7.95, 7.95); 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 (7x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.040 mW/g
Cheek Left/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.37 V/m; Power Drift = 0.180 dB
Peak SAR (extrapolated) = 0.063 W/kg
SAR(1 g) = 0.036 mW/g; SAR(10 g) = 0.020 mW/g
Maximum value of SAR (measured) = 0.039 mW/g

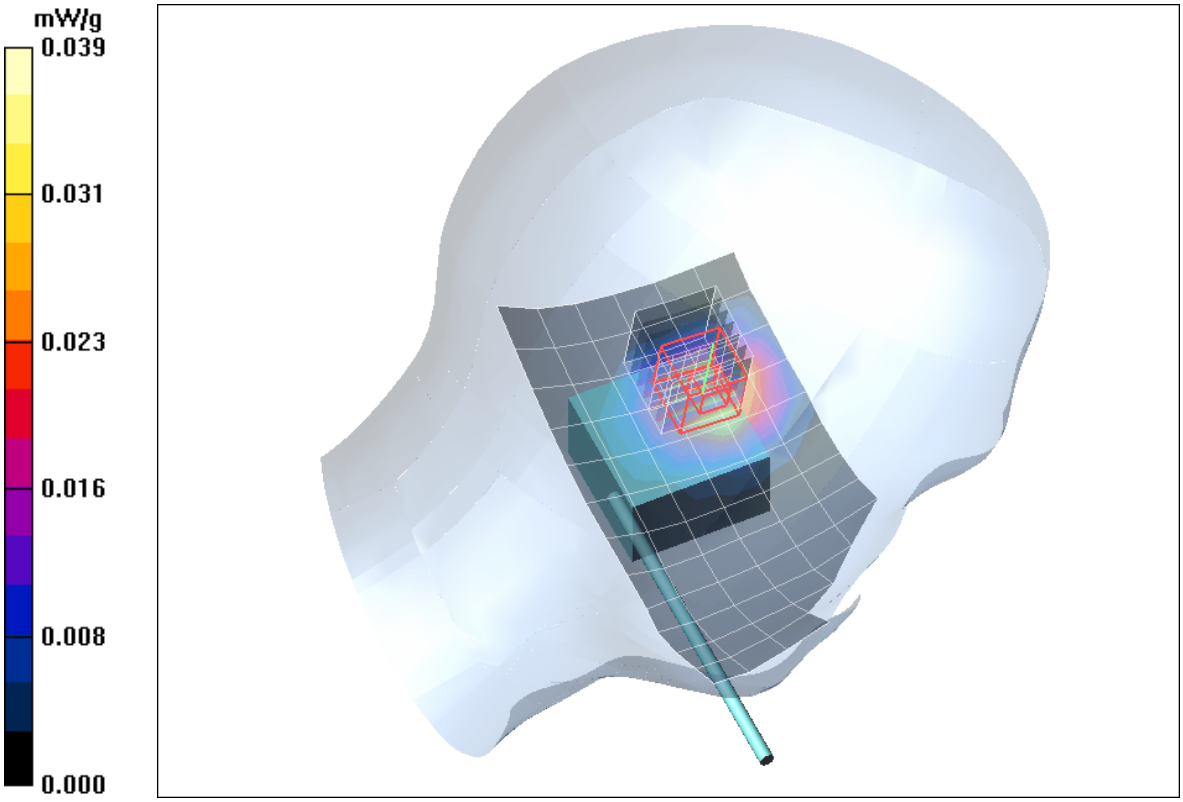

Fig. 1: SAR distribution for DECT US, channel 2, cheek position, left side of head, the view looking from above the phantom (June 16, 2010; Ambient Temperature: 20.7°C; Liquid Temperature: 20.2°C).

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: DW30_380_yprm_1_ant1.da4

DUT: Sennheiser; Type: DW30HS; Serial: 10000380
Program Name: Cheek Right

Communication System: DECT US; Frequency: 1924.99 MHz;Duty Cycle: 1:15
Medium parameters used: f = 1924.99 MHz; σ = 1.45 mho/m; ε_r = 40.5; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3536; ConvF(7.95, 7.95, 7.95); 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 (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.037 mW/g
Cheek Right/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.71 V/m; Power Drift = 0.005 dB
Peak SAR (extrapolated) = 0.065 W/kg
SAR(1 g) = 0.039 mW/g; SAR(10 g) = 0.021 mW/g
Maximum value of SAR (measured) = 0.042 mW/g

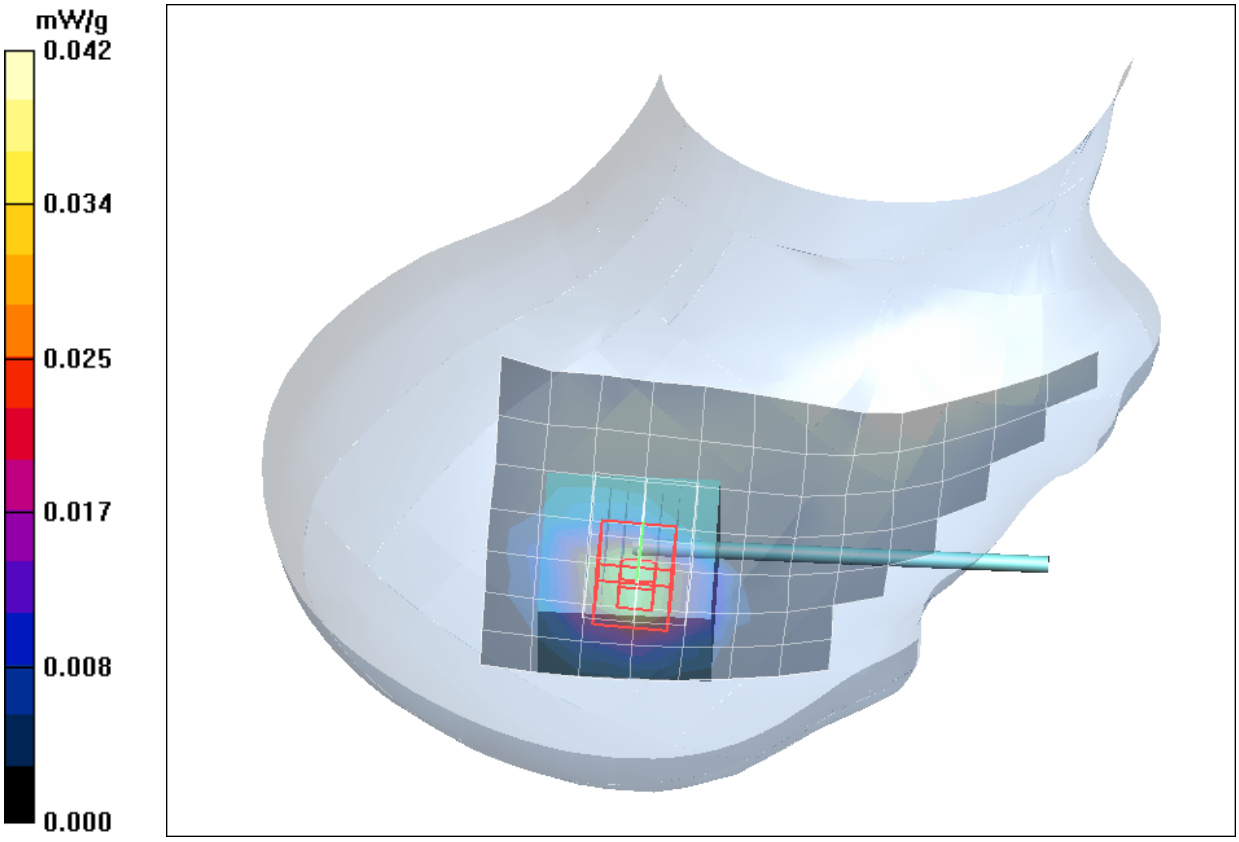

Fig. 2: SAR distribution for DECT US, channel 2, cheek position, right side of head, the view looking from above the phantom (June 16, 2010; Ambient Temperature: 20.7°C; Liquid Temperature: 20.2°C).

2 SAR Distribution Plots, Head Measurements, Antenna 2

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: DW30_380_yplm_1_ant2.da4

DUT: Sennheiser; Type: DW30HS; Serial: 10000380
Program Name: Cheek Left

Communication System: DECT US; Frequency: 1924.99 MHz;Duty Cycle: 1:15
Medium parameters used: f = 1924.99 MHz; σ = 1.45 mho/m; ε_r = 40.5; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3536; ConvF(7.95, 7.95, 7.95); 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 (7x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.021 mW/g
Cheek Left/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.91 V/m; Power Drift = -0.059 dB
Peak SAR (extrapolated) = 0.032 W/kg
SAR(1 g) = 0.018 mW/g; SAR(10 g) = 0.00887 mW/g
Maximum value of SAR (measured) = 0.020 mW/g

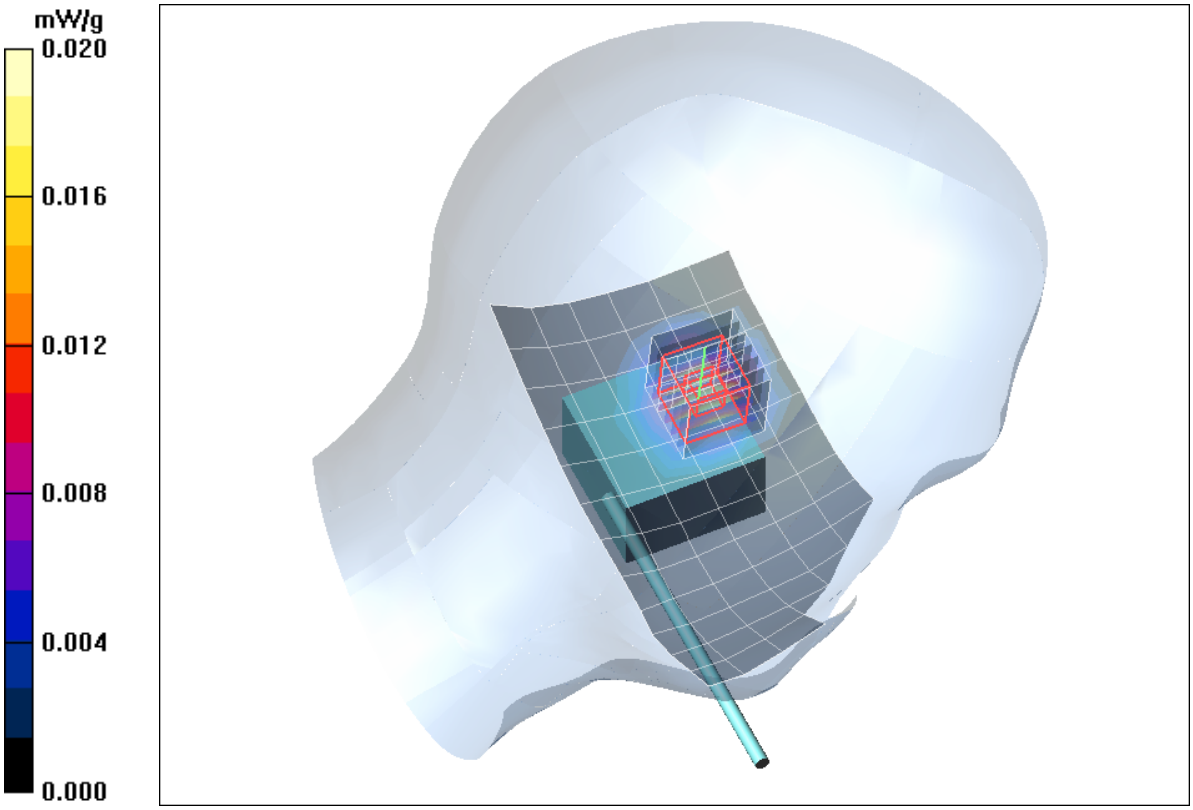

Fig. 3: SAR distribution for DECT US, channel 2, cheek position, left side of head, the view looking from above the phantom (June 16, 2010; Ambient Temperature: 20.7°C; Liquid Temperature: 20.2°C).

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: DW30_380_yprm_1_ant2.da4

DUT: Sennheiser; Type: DW30HS; Serial: 10000380
Program Name: Cheek Right

Communication System: DECT US; Frequency: 1924.99 MHz;Duty Cycle: 1:15
Medium parameters used: f = 1924.99 MHz; σ = 1.45 mho/m; ε_r = 40.5; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: EX3DV4 - SN3536; ConvF(7.95, 7.95, 7.95); 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 (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.019 mW/g
Cheek Right/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.40 V/m; Power Drift = -0.122 dB
Peak SAR (extrapolated) = 0.035 W/kg
SAR(1 g) = 0.018 mW/g; SAR(10 g) = 0.00923 mW/g
Maximum value of SAR (measured) = 0.020 mW/g

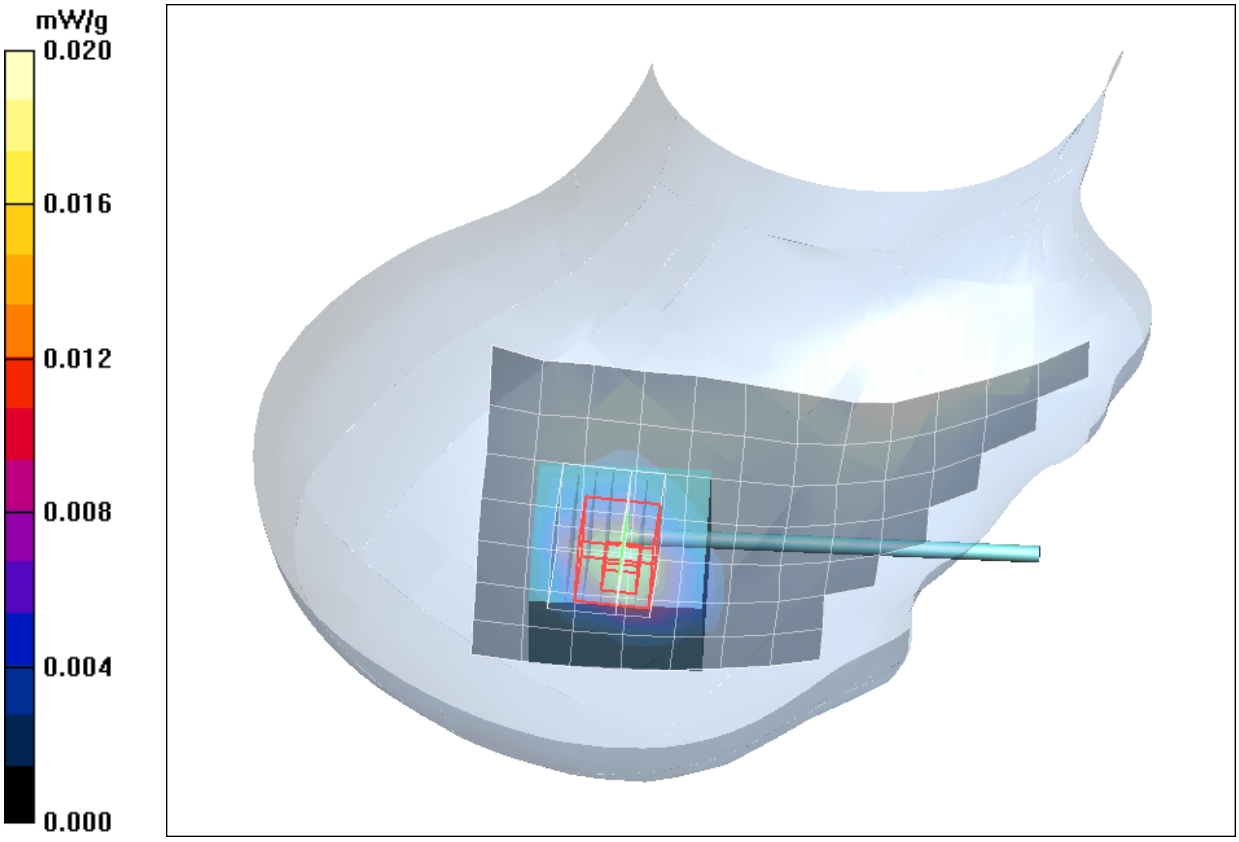

Fig. 4: SAR distribution for DECT US, channel 2, cheek position, right side of head, the view looking from above the phantom (June 16, 2010; Ambient Temperature: 20.7°C; Liquid Temperature: 20.2°C).

3 SAR z-axis scans (Validation)

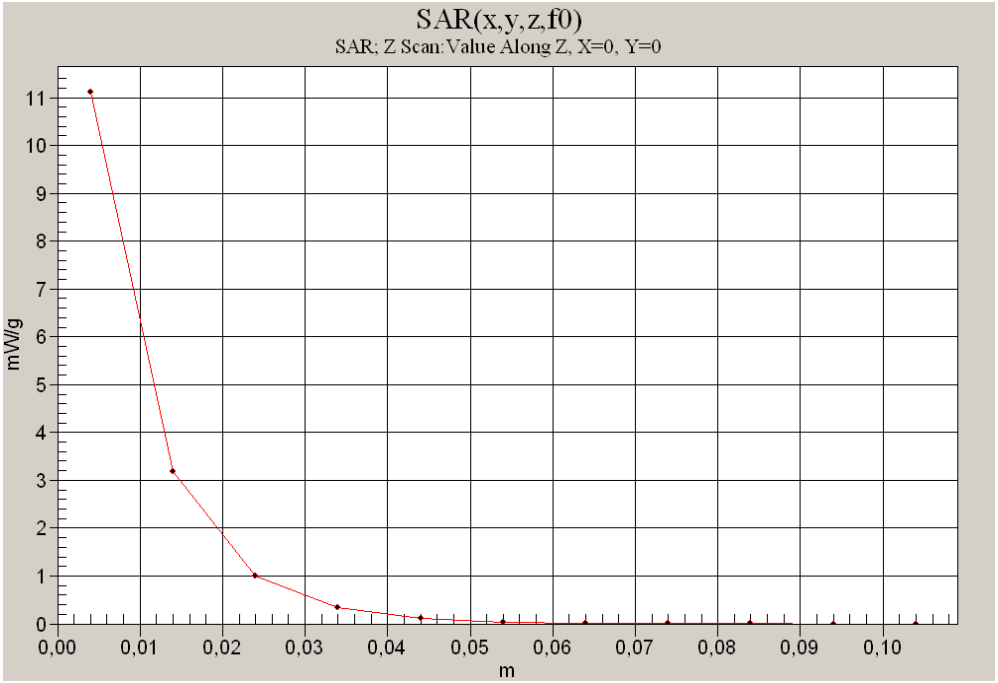

Fig. 5: SAR versus liquid depth, 1900 MHz, head (June 16, 2010; Ambient Temperature: 20.5° C; Liquid Temperature : 20.1° C).

4 SAR z-axis scans (Measurements)

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

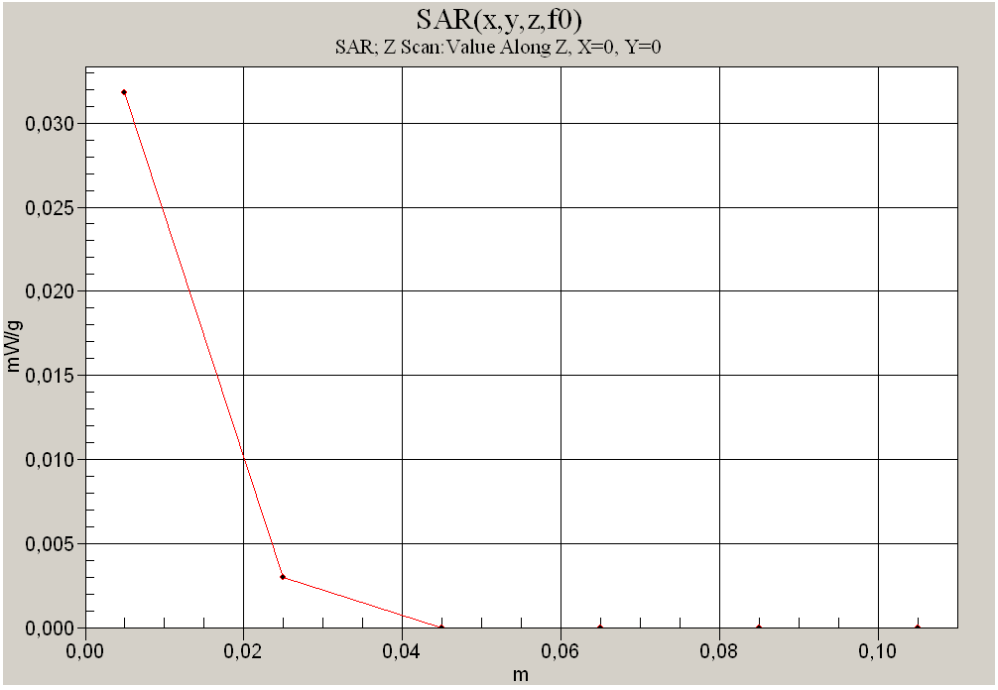

Fig. 6: SAR versus liquid depth, head: DECT US, channel 2, cheek position, right side of head, antenna 1 (June 16, 2010; Ambient Temperature: 20.7° C; Liquid Temperature : 20.2° C).