Deutscher Akkreditierungs Rat

DAT-P-152/98-01

Appendix for the Report

Dosimetric Assessment of the RTX Dualphone 3088.1 (FCC ID: ELIRTX3088-1)

According to the FCC Requirements

SAR Distribution Plots

May 08, 2007

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Table of Contents

1 SAR Distribution Plots, Head Measurements

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: RTX3088-1_bplm_1.da4

DUT: DUALphone; Type: RTX3088.1; Serial: 0712000000
Program Name: Cheek Left

Communication System: DECT US; Frequency: 1924.99 MHz;Duty Cycle: 1:24
Medium parameters used (extrapolated): f = 1924.99 MHz; σ = 1.42 mho/m; ε_r = 39.2; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6R - SN1669; ConvF(4.93, 4.93, 4.93); Calibrated: 15.02.2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.02.2007
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Cheek Left/Area Scan (7x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.025 mW/g
Cheek Left/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.59 V/m; Power Drift = -0.172 dB
Peak SAR (extrapolated) = 0.040 W/kg
SAR(1 g) = 0.026 mW/g; SAR(10 g) = 0.015 mW/g
Maximum value of SAR (measured) = 0.028 mW/g

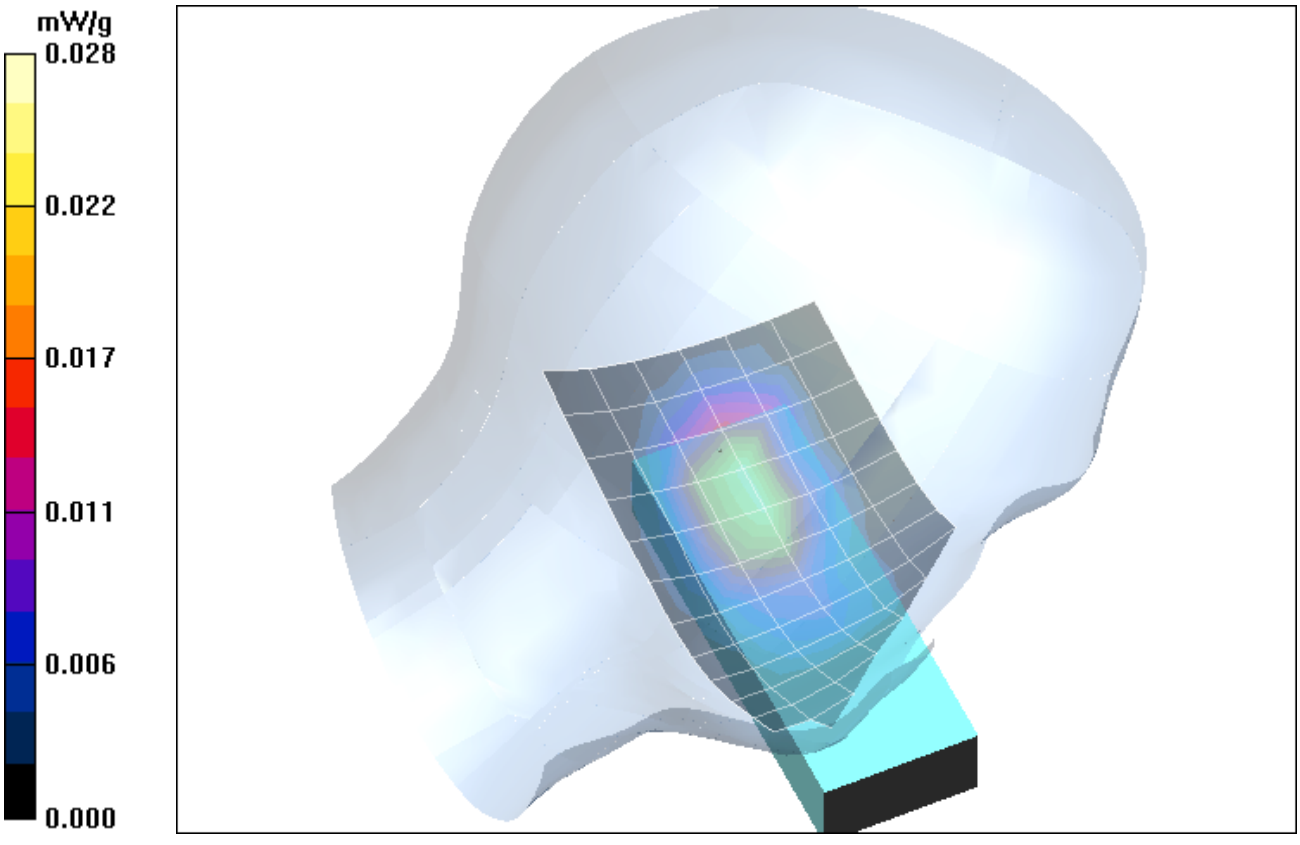

Fig. 1: SAR distribution for DECT US, channel 2, cheek position, left side of head (April 03, 2007; Ambient Temperature: 22.4°C; Liquid Temperature: 21.2°C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: RTX3088-1_bplm_2.da4

DUT: DUALphone; Type: RTX3088.1; Serial: 0712000000
Program Name: Tilted Left

Communication System: DECT US; Frequency: 1924.99 MHz;Duty Cycle: 1:24
Medium parameters used (extrapolated): f = 1924.99 MHz; σ = 1.42 mho/m; ε_r = 39.2; ρ = 1000 kg/m^3
Phantom section: Left Section

DASY4 Configuration:
- Probe: ET3DV6R - SN1669; ConvF(4.93, 4.93, 4.93); Calibrated: 15.02.2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.02.2007
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Tilted Left/Area Scan (6x10x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.016 mW/g
Tilted Left/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.13 V/m; Power Drift = 0.140 dB
Peak SAR (extrapolated) = 0.025 W/kg
SAR(1 g) = 0.016 mW/g; SAR(10 g) = 0.00905 mW/g
Maximum value of SAR (measured) = 0.017 mW/g

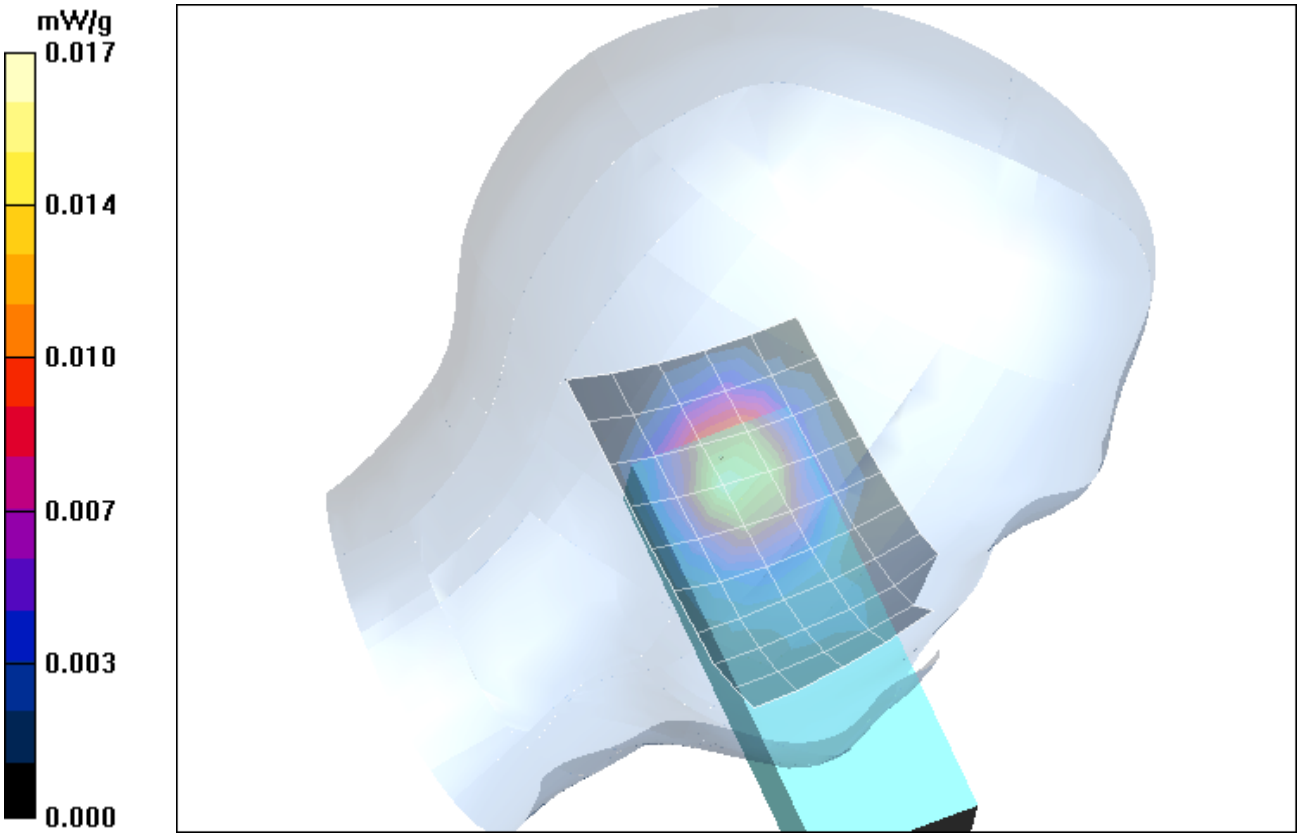

Fig. 2: SAR distribution for DECT US, channel 2, tilted position, left side of head (April 03, 2007; Ambient Temperature: 22.4°C; Liquid Temperature: 21.2°C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: RTX3088-1_bprm_1.da4

DUT: DUALphone; Type: RTX3088.1; Serial: 0712000000
Program Name: Cheek Right

Communication System: DECT US; Frequency: 1924.99 MHz;Duty Cycle: 1:24
Medium parameters used (extrapolated): f = 1924.99 MHz; σ = 1.42 mho/m; ε_r = 39.2; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ET3DV6R - SN1669; ConvF(4.93, 4.93, 4.93); Calibrated: 15.02.2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.02.2007
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Cheek Right/Area Scan (6x10x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.031 mW/g
Cheek Right/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.45 V/m; Power Drift = 0.134 dB
Peak SAR (extrapolated) = 0.046 W/kg
SAR(1 g) = 0.031 mW/g; SAR(10 g) = 0.019 mW/g
Maximum value of SAR (measured) = 0.034 mW/g

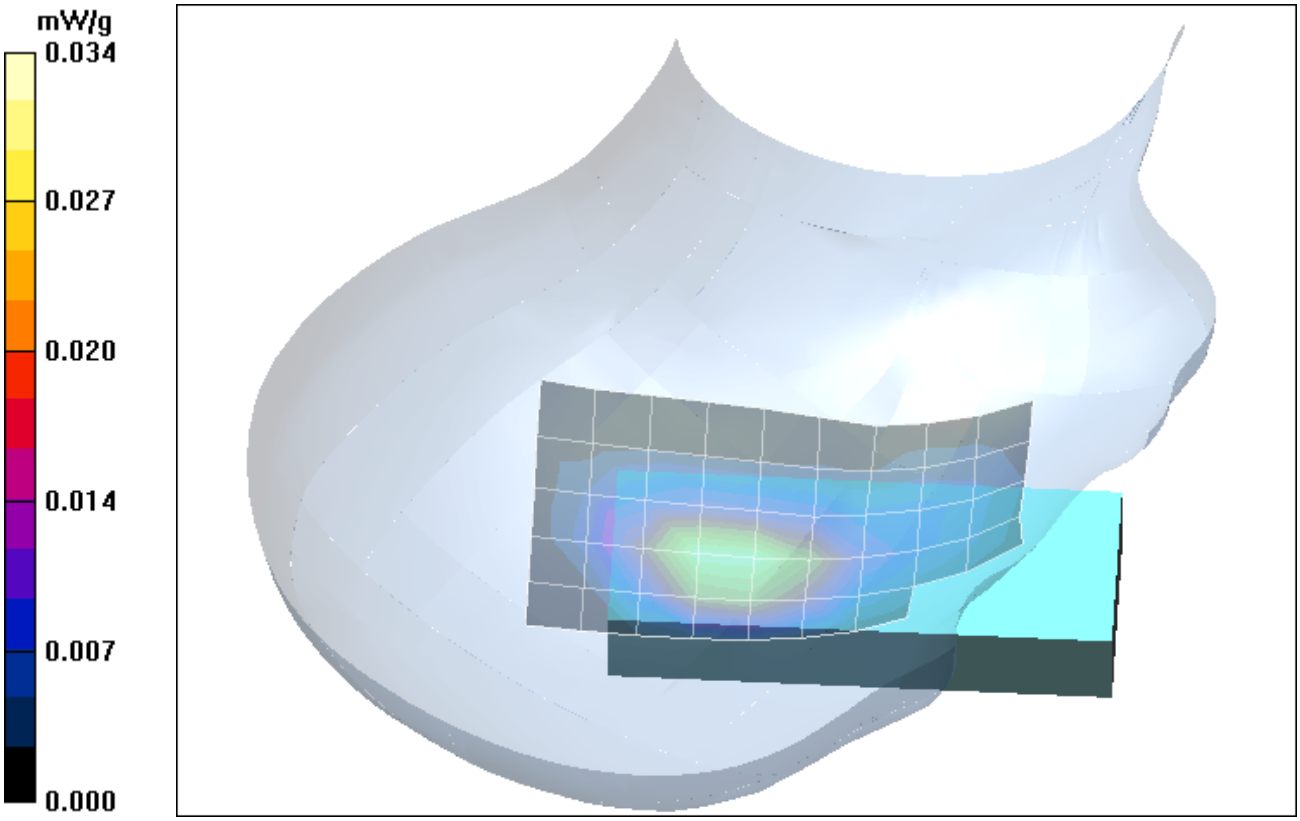

Fig. 3: SAR distribution for DECT US, channel 2, cheek position, right side of head (April 03, 2007; Ambient Temperature: 22.4°C; Liquid Temperature: 21.2°C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: RTX3088-1_bprm_2.da4

DUT: DUALphone; Type: RTX3088.1; Serial: 0712000000
Program Name: Tilted Right

Communication System: DECT US; Frequency: 1924.99 MHz;Duty Cycle: 1:24
Medium parameters used (extrapolated): f = 1924.99 MHz; σ = 1.42 mho/m; ε_r = 39.2; ρ = 1000 kg/m^3
Phantom section: Right Section

DASY4 Configuration:
- Probe: ET3DV6R - SN1669; ConvF(4.93, 4.93, 4.93); Calibrated: 15.02.2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.02.2007
- Phantom: SAM Glycol 1176; Type: Speag; Serial: 1176
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Tilted Right/Area Scan (6x10x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.019 mW/g
Tilted Right/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.15 V/m; Power Drift = 0.038 dB
Peak SAR (extrapolated) = 0.029 W/kg
SAR(1 g) = 0.019 mW/g; SAR(10 g) = 0.011 mW/g
Maximum value of SAR (measured) = 0.021 mW/g

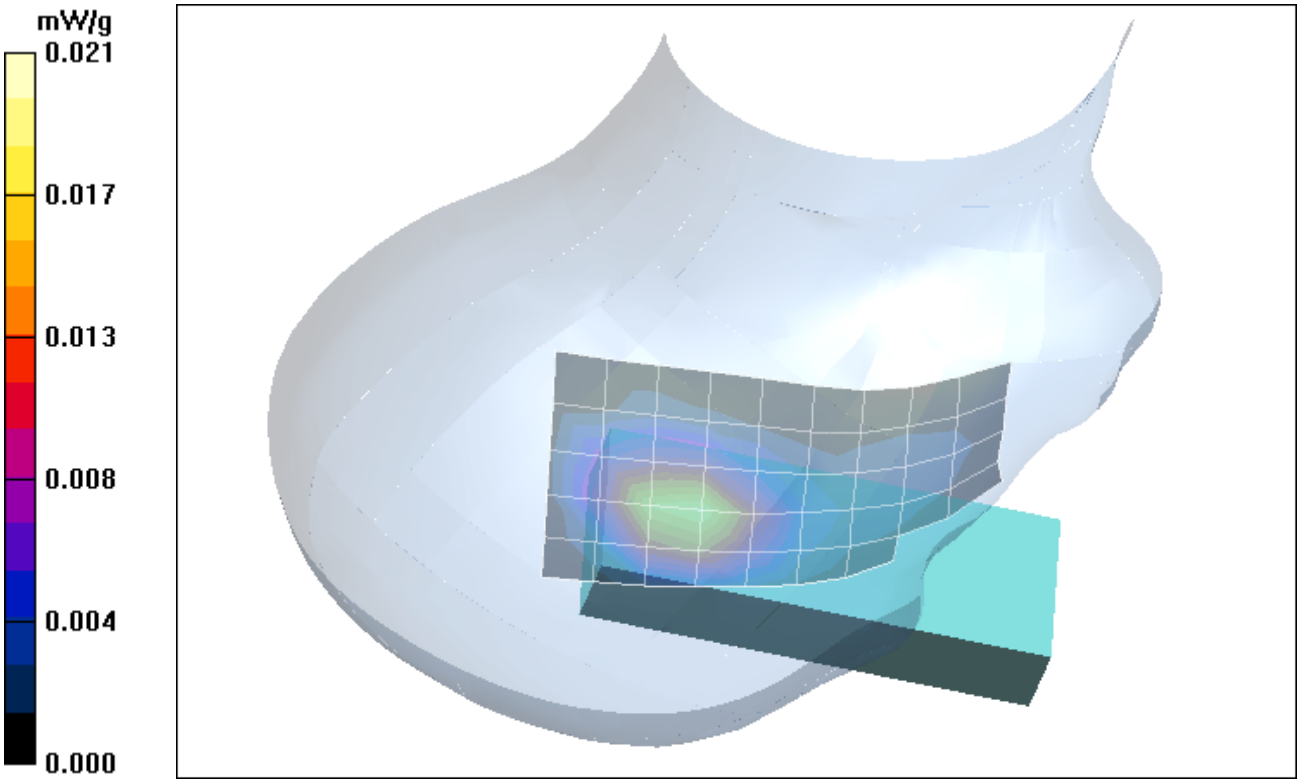

Fig. 4: SAR distribution for DECT US, channel 2, tilted position, right side of head (April 03, 2007; Ambient Temperature: 22.4°C; Liquid Temperature: 21.2°C)

2 SAR Distribution Plots, Body Measurements

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: RTX3088-1_yphm_1.da4

DUT: DUALphone; Type: RTX3088.1; Serial: 0712000000
Program Name: Body Worn

Communication System: DECT US; Frequency: 1924.99 MHz;Duty Cycle: 1:24
Medium parameters used (extrapolated): f = 1924.99 MHz; σ = 1.53 mho/m; ε_r = 54.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6R - SN1669; ConvF(4.49, 4.49, 4.49); Calibrated: 15.02.2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.02.2007
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Body Worn/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.026 mW/g
Body Worn/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.32 V/m; Power Drift = -0.181 dB
Peak SAR (extrapolated) = 0.039 W/kg
SAR(1 g) = 0.024 mW/g; SAR(10 g) = 0.014 mW/g

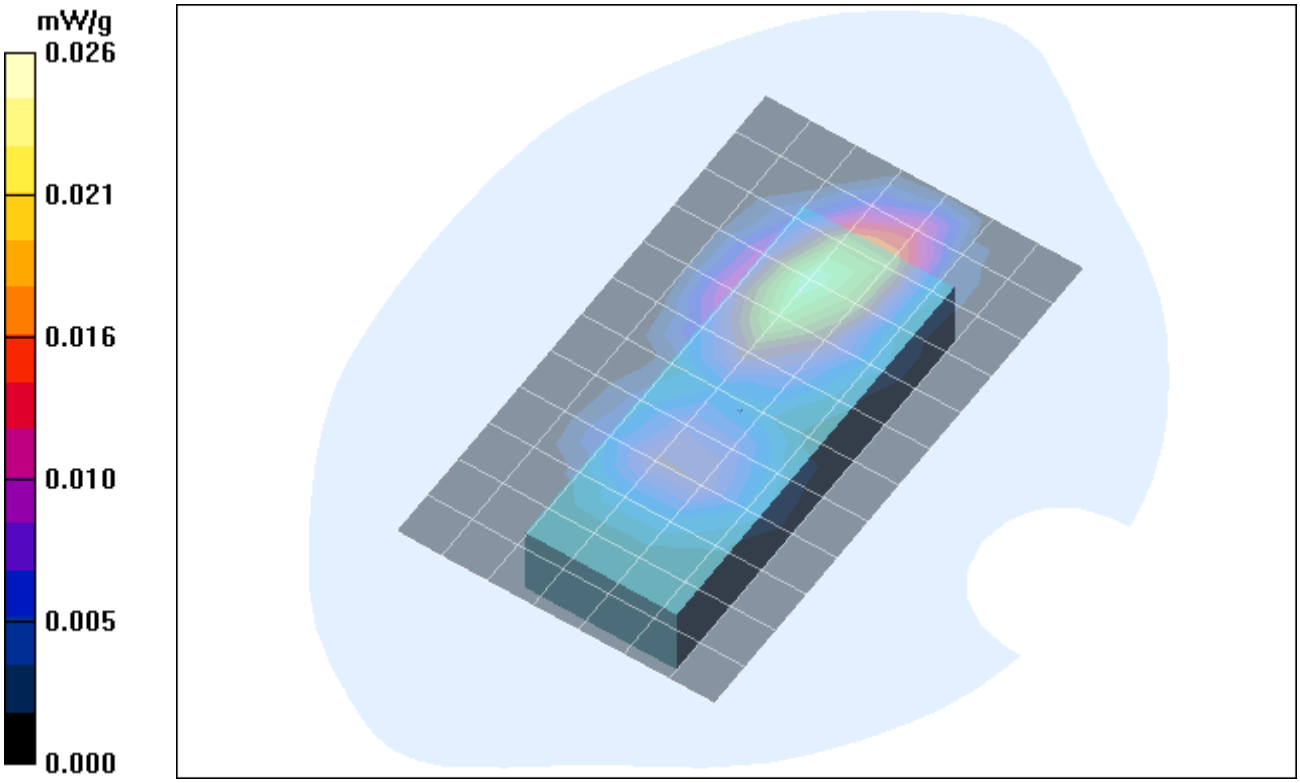

Fig. 5: SAR distribution for DECT US, channel 2, body worn configuration, display towards the ground, without accessory and 0 mm distance (April 03, 2007; Ambient Temperature: 22.6° C; Liquid Temperature: 21.3° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: RTX3088-1_yphm_1_headset.da4

DUT: DUALphone; Type: RTX3088.1; Serial: 0712000000
Program Name: Body Worn

Communication System: DECT US; Frequency: 1924.99 MHz;Duty Cycle: 1:24
Medium parameters used (extrapolated): f = 1924.99 MHz; σ = 1.53 mho/m; ε_r = 54.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6R - SN1669; ConvF(4.49, 4.49, 4.49); Calibrated: 15.02.2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.02.2007
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Body Worn/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.021 mW/g
Body Worn/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.52 V/m; Power Drift = -0.004 dB
Peak SAR (extrapolated) = 0.031 W/kg
SAR(1 g) = 0.019 mW/g; SAR(10 g) = 0.011 mW/g
Maximum value of SAR (measured) = 0.020 mW/g

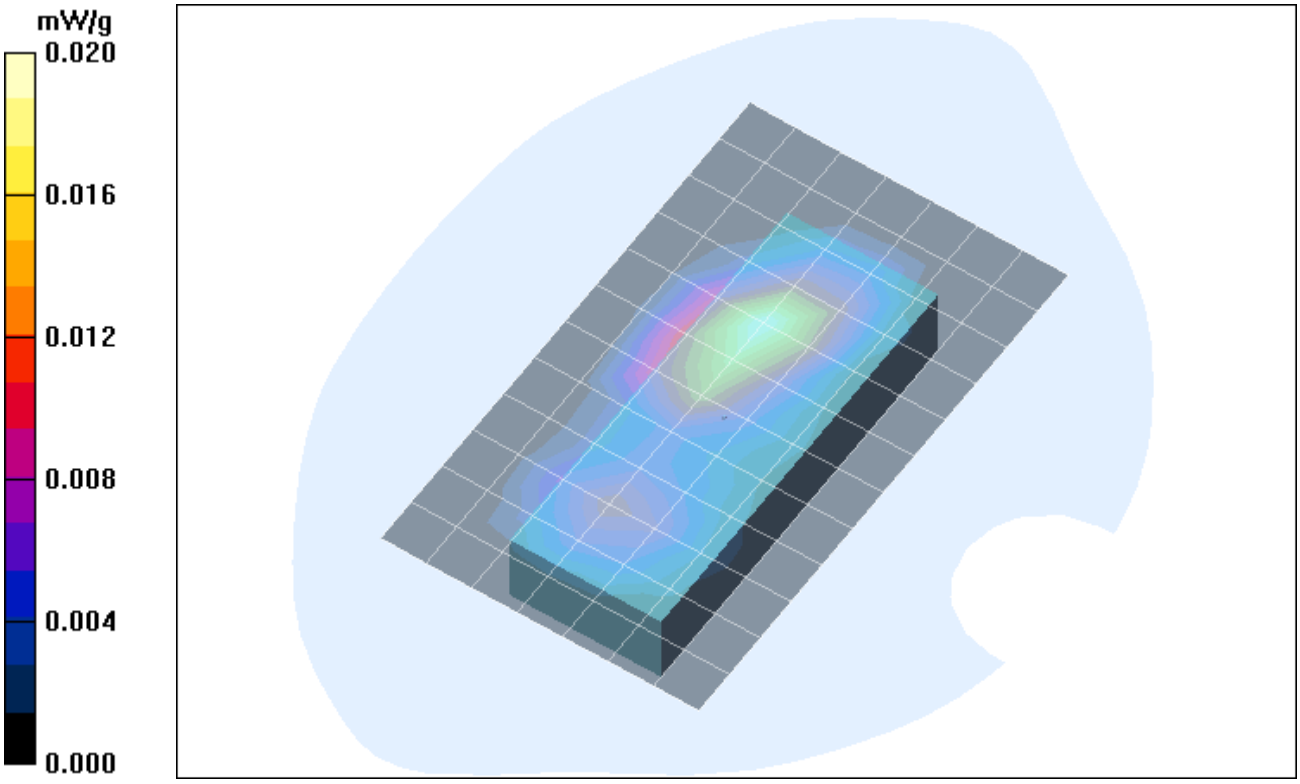

Fig. 6: SAR distribution for DECT US, channel 2, body worn configuration, display towards the ground, with no-name headset and 0 mm distance (April 03, 2007; Ambient Temperature: 22.6° C; Liquid Temperature: 21.3° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: RTX3088-1_yphm_2.da4

DUT: DUALphone; Type: RTX3088.1; Serial: 0712000000
Program Name: Body Worn

Communication System: DECT US; Frequency: 1924.99 MHz;Duty Cycle: 1:24
Medium parameters used (extrapolated): f = 1924.99 MHz; σ = 1.53 mho/m; ε_r = 54.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6R - SN1669; ConvF(4.49, 4.49, 4.49); Calibrated: 15.02.2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.02.2007
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Body Worn/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.036 mW/g
Body Worn/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.31 V/m; Power Drift = 0.023 dB
Peak SAR (extrapolated) = 0.061 W/kg
SAR(1 g) = 0.035 mW/g; SAR(10 g) = 0.020 mW/g
Maximum value of SAR (measured) = 0.038 mW/g

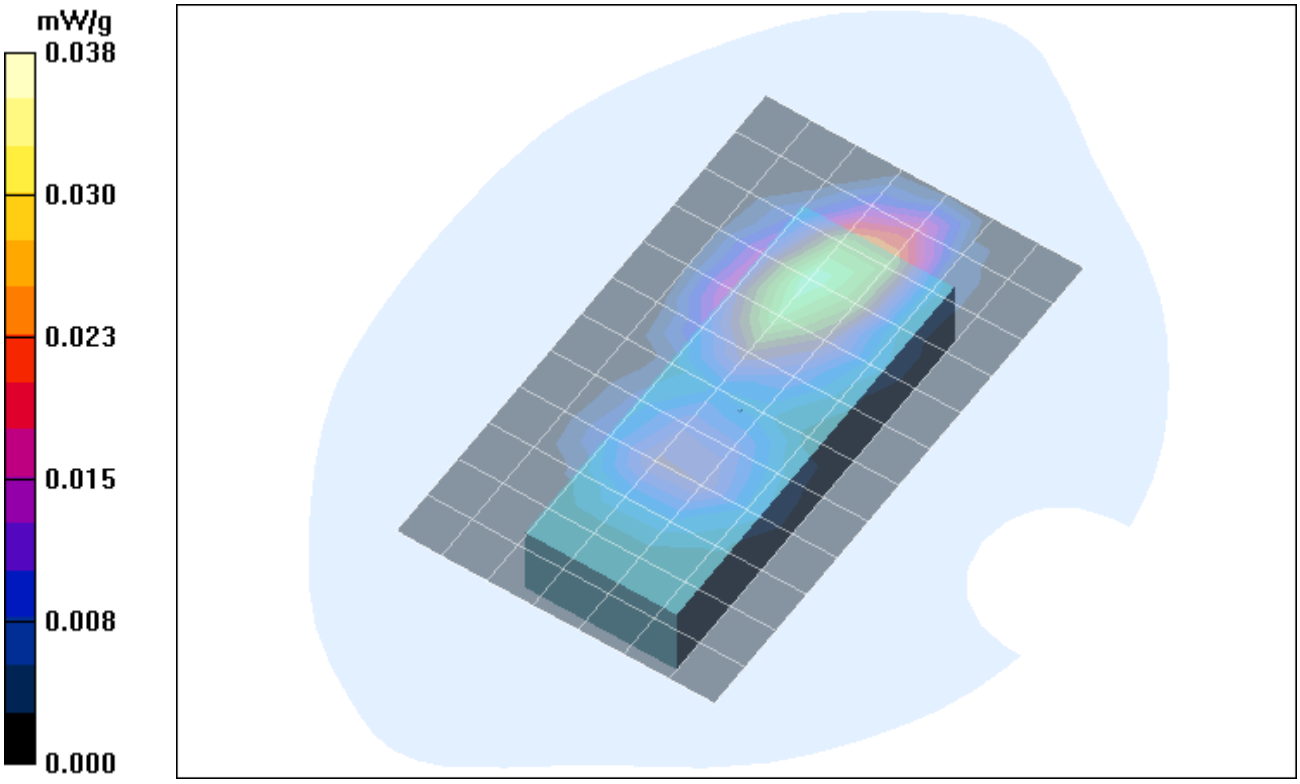

Fig. 7: SAR distribution for DECT US, channel 2, body worn configuration, display towards the phantom, without accessory and 0 mm distance (April 03, 2007; Ambient Temperature: 22.6° C; Liquid Temperature: 21.3° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: RTX3088-1_yphm_2_headset.da4

DUT: DUALphone; Type: RTX3088.1; Serial: 0712000000
Program Name: Body Worn

Communication System: DECT US; Frequency: 1924.99 MHz;Duty Cycle: 1:24
Medium parameters used (extrapolated): f = 1924.99 MHz; σ = 1.53 mho/m; ε_r = 54.1; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY4 Configuration:
- Probe: ET3DV6R - SN1669; ConvF(4.49, 4.49, 4.49); Calibrated: 15.02.2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.02.2007
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 53; Postprocessing SW: SEMCAD, V1.8 Build 172

Body Worn/Area Scan (8x13x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.036 mW/g
Body Worn/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.21 V/m; Power Drift = -0.017 dB
Peak SAR (extrapolated) = 0.053 W/kg
SAR(1 g) = 0.032 mW/g; SAR(10 g) = 0.019 mW/g
Maximum value of SAR (measured) = 0.035 mW/g

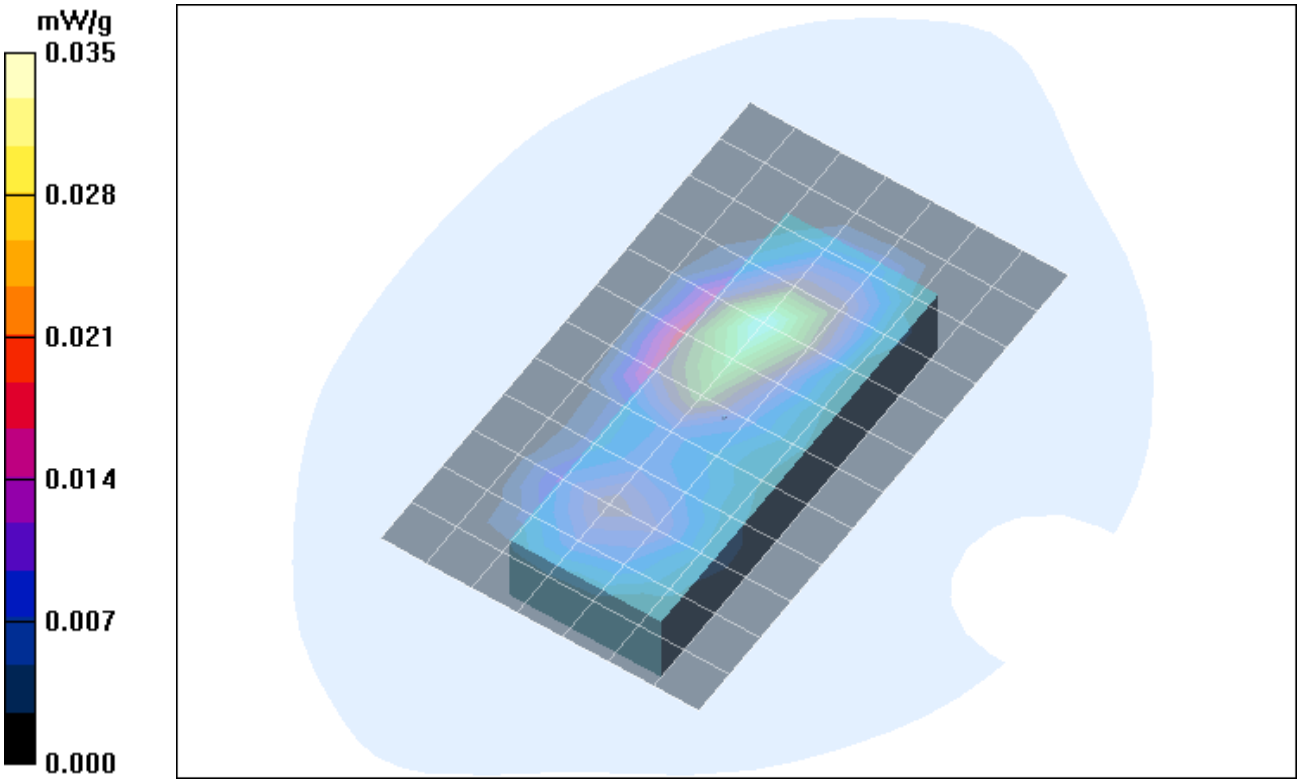

Fig. 8: SAR distribution for DECT US, channel 2, body worn configuration, display towards the phantom, with headset and 0 mm distance (April 03, 2007; Ambient Temperature: 22.6° C; Liquid Temperature: 21.3° C).

3 SAR z-axis scans (Validation)

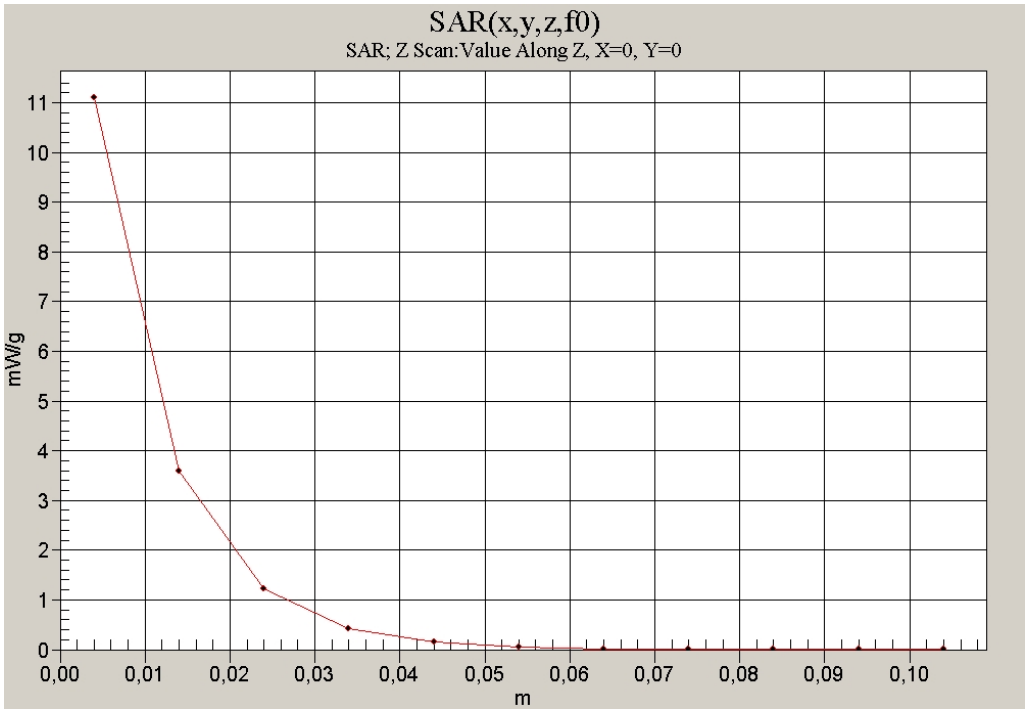

Fig. 9: SAR versus liquid depth, 1900 MHz, head (April 03, 2007; Ambient Temperature: 22.4° C; Liquid Temperature : 21.2° C).

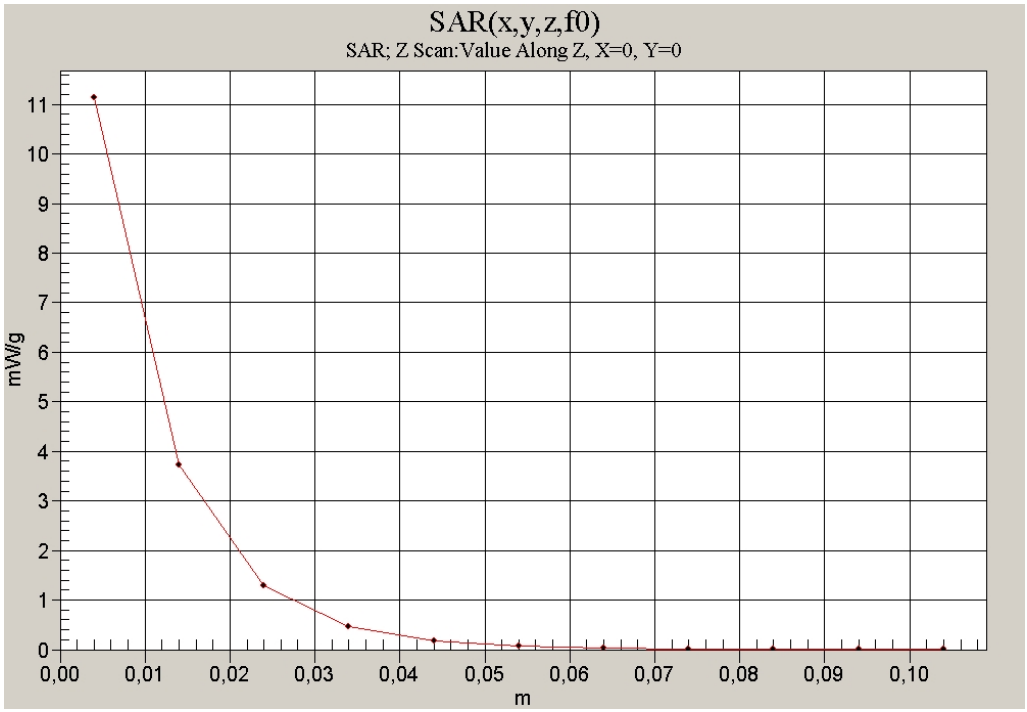

Fig. 10: SAR versus liquid depth, 1900 MHz, body (April 03, 2007; Ambient Temperature: 22.6° C; Liquid Temperature : 21.3° C).

4 SAR z-axis scans (Measurements)

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

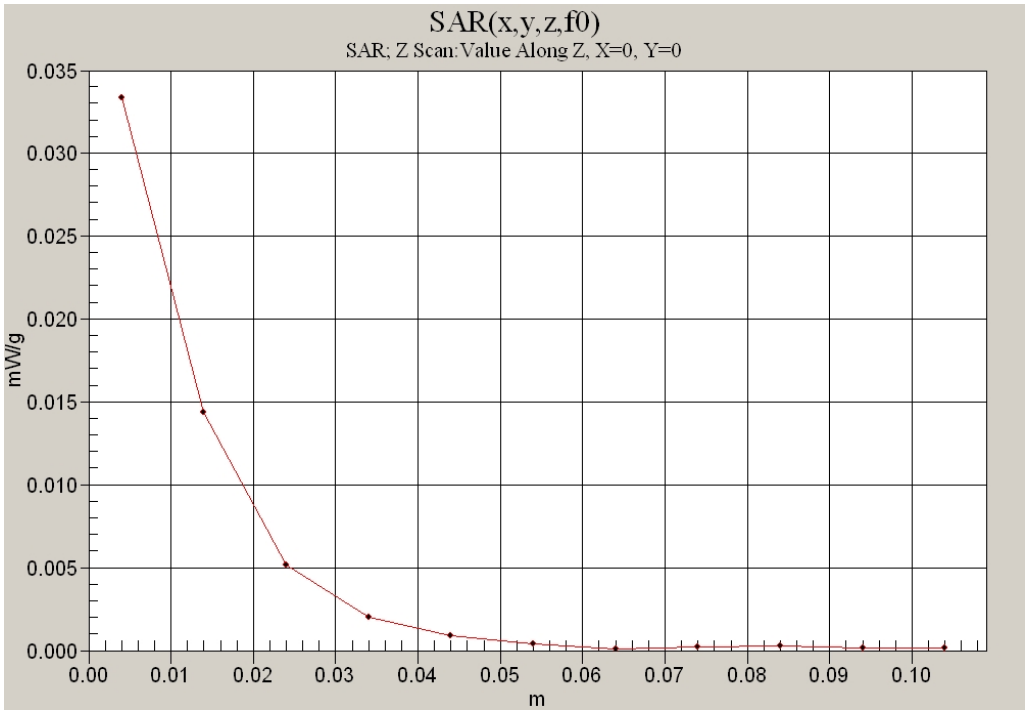

Fig. 11: SAR versus liquid depth, head: DECT US, channel 2, cheek position, right side of head, (April 03, 2007; Ambient Temperature: 22.4° C; Liquid Temperature : 21.2° C).

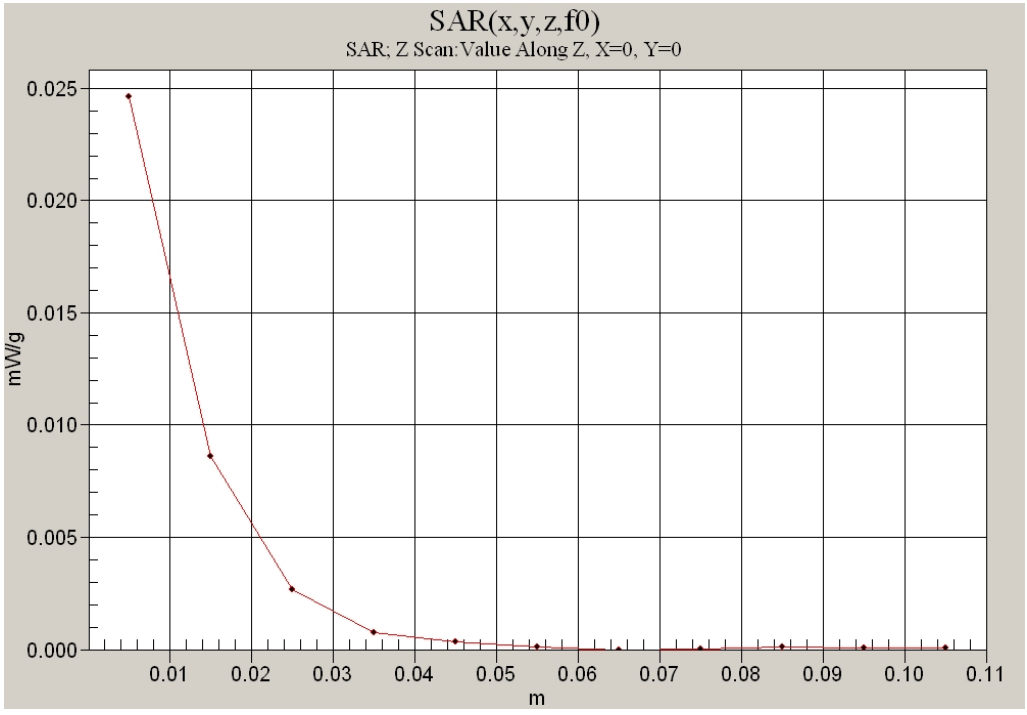

Fig. 12: SAR versus liquid depth, body: DECT US 1900, channel 2, Position 3 display towards the phantom without accessory (April 03, 2007; Ambient Temperature: 22.6° C; Liquid Temperature: 21.3° C).