
Appendix for the Report

Dosimetric Assessment of the Bang & Olufson BeoCom4 Base (FCC ID: BV5BEOCOM4BS)

According to the FCC Requirements

SAR Distribution Plots

June 28, 2006

IMST GmbH

Carl-Friedrich-Gauß-Str. 2

D-47475 Kamp-Lintfort

Customer

Bang & Olufson a/s

Postbox 40

DK-7600 Struer

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.

Table of Contents

1	SAR DISTRIBUTION PLOTS, BODY MEASUREMENTS, ANTENNA 1	3
2	SAR DISTRIBUTION PLOTS, BODY MEASUREMENTS, ANTENNA 2	8
3	SAR Z-AXIS SCANS (VALIDATION)	13
4	SAR Z-AXIS SCANS (MEASUREMENTS).....	14

1 SAR Distribution Plots, Body Measurements, Antenna 1

Test Laboratory: Imst GmbH; File Name: [Beoydhm 1 Ant1.da4](#)

DUT: B&O; Type: Beocom 4 UPCS;

Program Name: Body Worn

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24

Medium parameters used (extrapolated): $f = 1924.99$ MHz; $\sigma = 1.57$ mho/m; $\epsilon_r = 51.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.67, 7.67, 7.67); Calibrated: 23.09.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.03.2006
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body Worn/Area Scan (13x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.130 mW/g

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

Reference Value = 6.94 V/m; Power Drift = 0.117 dB

Peak SAR (extrapolated) = 0.208 W/kg

SAR(1 g) = 0.125 mW/g; SAR(10 g) = 0.064 mW/g

Maximum value of SAR (measured) = 0.140 mW/g

Body Worn/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.94 V/m; Power Drift = 0.117 dB

Peak SAR (extrapolated) = 0.182 W/kg

SAR(1 g) = 0.101 mW/g; SAR(10 g) = 0.044 mW/g

Maximum value of SAR (measured) = 0.135 mW/g

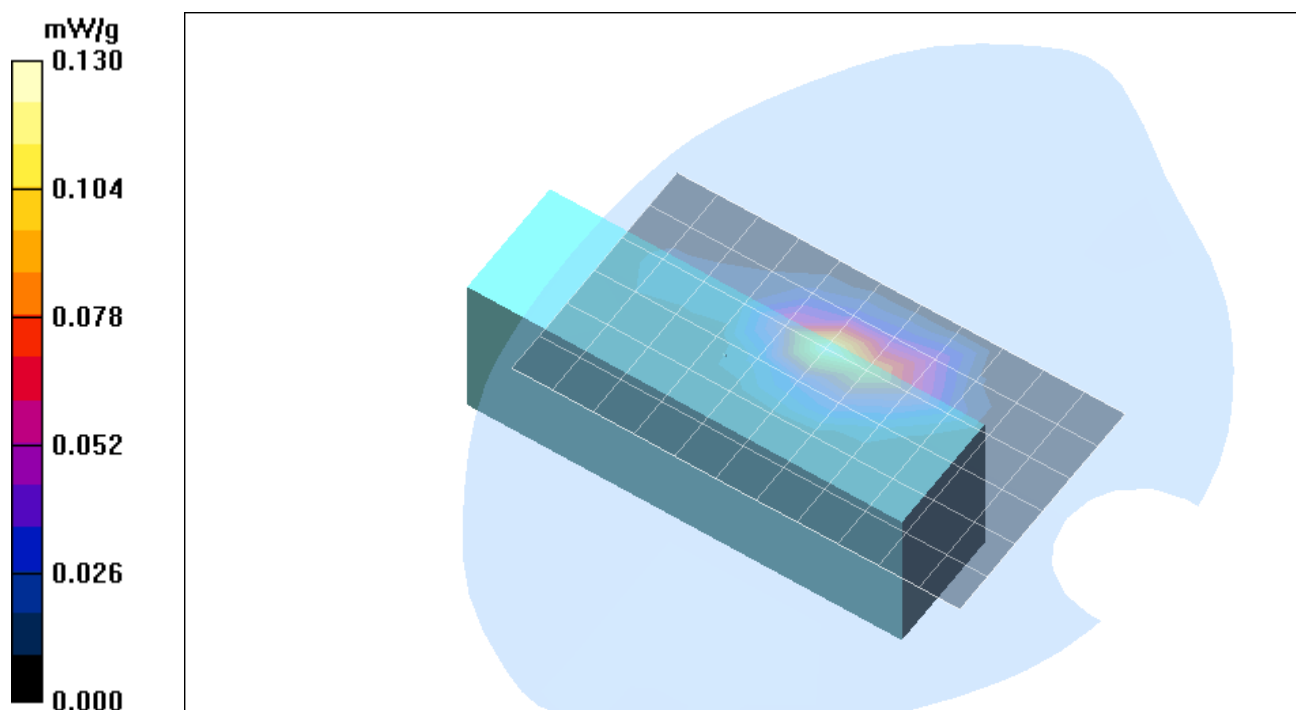


Fig. 1: SAR distribution for DECT US, channel 2, Position 1 (June 26, 2006; Ambient Temperature: 22.0°C; Liquid Temperature: 21.4°C).

Test Laboratory: Imst GmbH; **File Name:** [Beoydhm 2 Ant1.da4](#)

DUT: B&O; Type: Beocom 4 UPCS;

Program Name: Body Worn

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24

Medium parameters used (extrapolated): $f = 1924.99$ MHz; $\sigma = 1.57$ mho/m; $\epsilon_r = 51.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.67, 7.67, 7.67); Calibrated: 23.09.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.03.2006
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body Worn/Area Scan (13x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.056 mW/g

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

Reference Value = 5.83 V/m; Power Drift = -0.004 dB

Peak SAR (extrapolated) = 0.099 W/kg

SAR(1 g) = 0.057 mW/g; SAR(10 g) = 0.030 mW/g

Maximum value of SAR (measured) = 0.063 mW/g

Body Worn/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 5.83 V/m; Power Drift = -0.004 dB

Peak SAR (extrapolated) = 0.095 W/kg

SAR(1 g) = 0.043 mW/g; SAR(10 g) = 0.018 mW/g

Maximum value of SAR (measured) = 0.057 mW/g

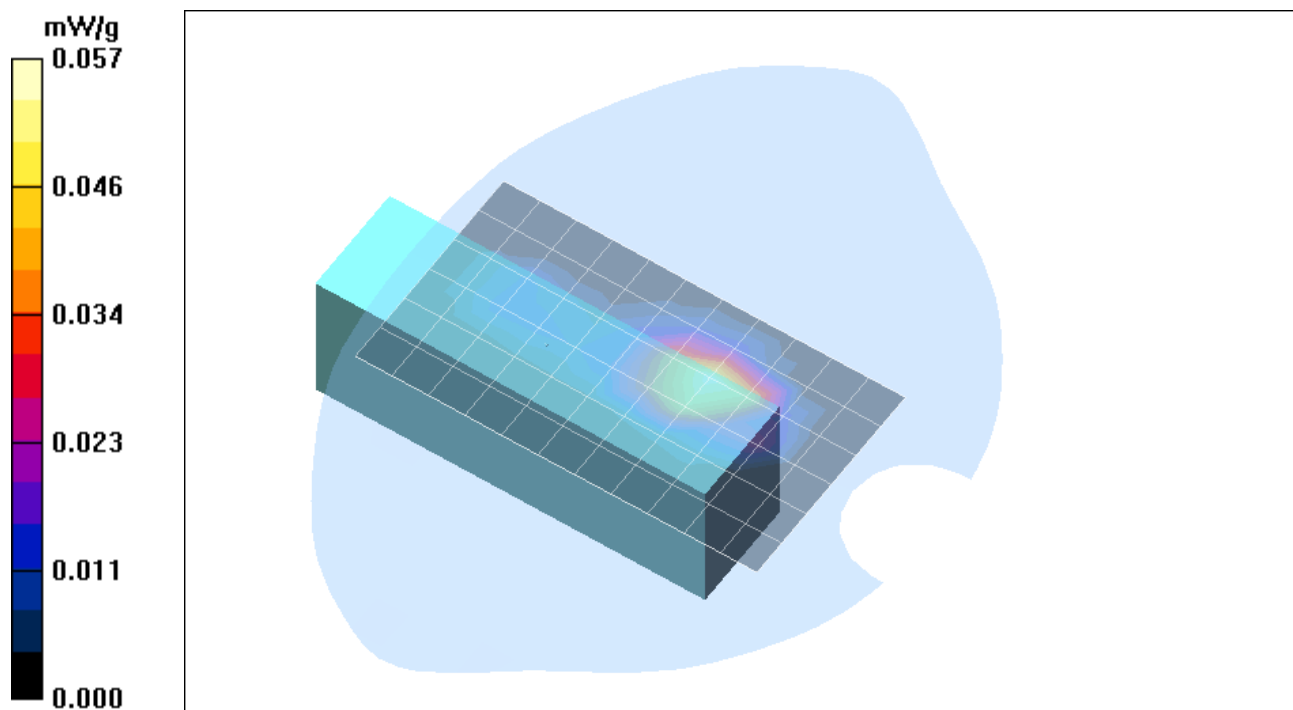


Fig. 2: SAR distribution for DECT US, channel 2, Position 2 (June 26, 2006; Ambient Temperature: 22.0°C; Liquid Temperature: 21.5°C).

Test Laboratory: Imst GmbH; **File Name:** [Beoydhm 3 Ant1.da4](#)

DUT: B&O; Type: Beocom 4 UPCS;

Program Name: Body Worn

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24

Medium parameters used (extrapolated): $f = 1924.99$ MHz; $\sigma = 1.57$ mho/m; $\epsilon_r = 51.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.67, 7.67, 7.67); Calibrated: 23.09.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.03.2006
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body Worn/Area Scan (13x7x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 0.003 mW/g

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

Reference Value = 0.619 V/m; Power Drift = 0.191 dB

Peak SAR (extrapolated) = 0.012 W/kg

SAR(1 g) = 0.0032 mW/g; SAR(10 g) = 0.0009 mW/g

Maximum value of SAR (measured) = 0.004 mW/g

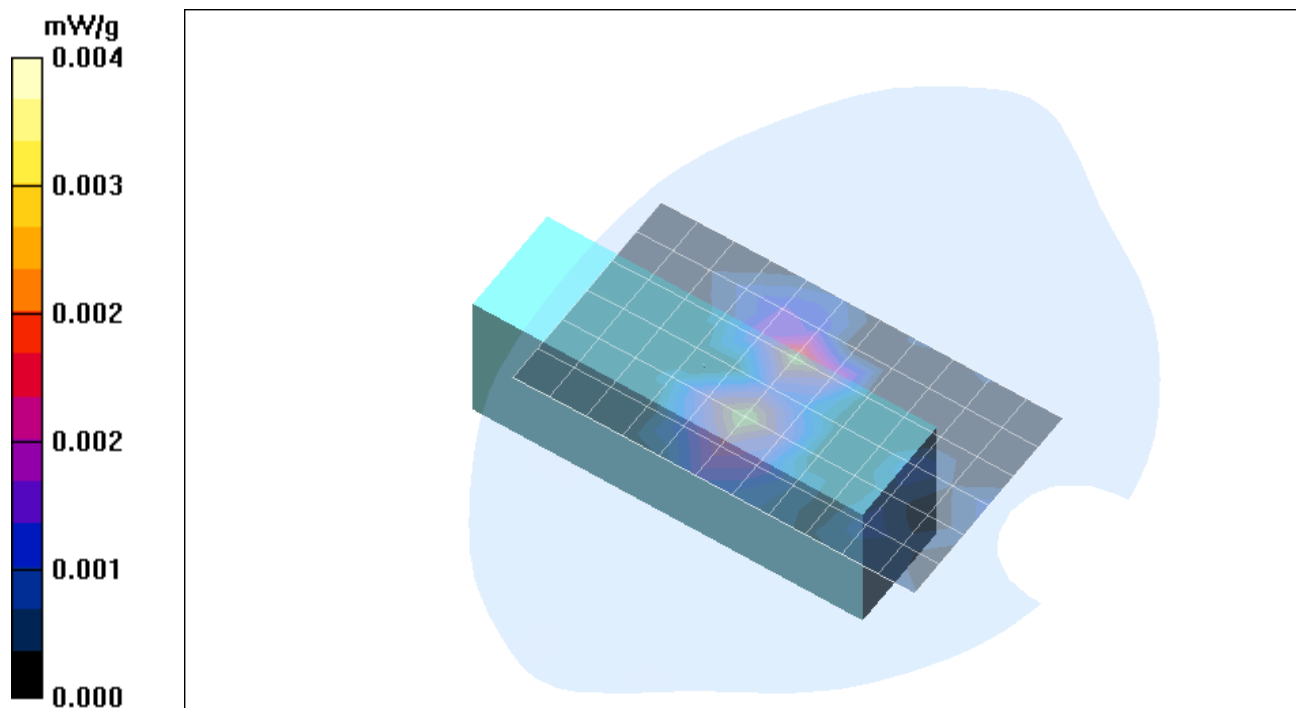


Fig. 3: SAR distribution for DECT US, channel 2, Position 3 (June 26, 2006; Ambient Temperature: 22.1° C; Liquid Temperature : 21.5° C).

Test Laboratory: Imst GmbH; **File Name:** [Beoydhm 4 Ant1.da4](#)

DUT: B&O; **Type:** Beocom 4 UPCS;

Program Name: Body Worn

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24

Medium parameters used (extrapolated): $f = 1924.99$ MHz; $\sigma = 1.57$ mho/m; $\epsilon_r = 51.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.67, 7.67, 7.67); Calibrated: 23.09.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.03.2006
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body Worn/Area Scan (13x7x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

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

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

Reference Value = 5.93 V/m; Power Drift = 0.157 dB

Peak SAR (extrapolated) = 0.097 W/kg

SAR(1 g) = 0.0543 mW/g; SAR(10 g) = 0.027 mW/g

Maximum value of SAR (measured) = 0.061 mW/g

Body Worn/Zoom Scan (7x7x7)/Cube 1: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 5.93 V/m; Power Drift = 0.157 dB

Peak SAR (extrapolated) = 0.062 W/kg

SAR(1 g) = 0.037 mW/g; SAR(10 g) = 0.019 mW/g

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

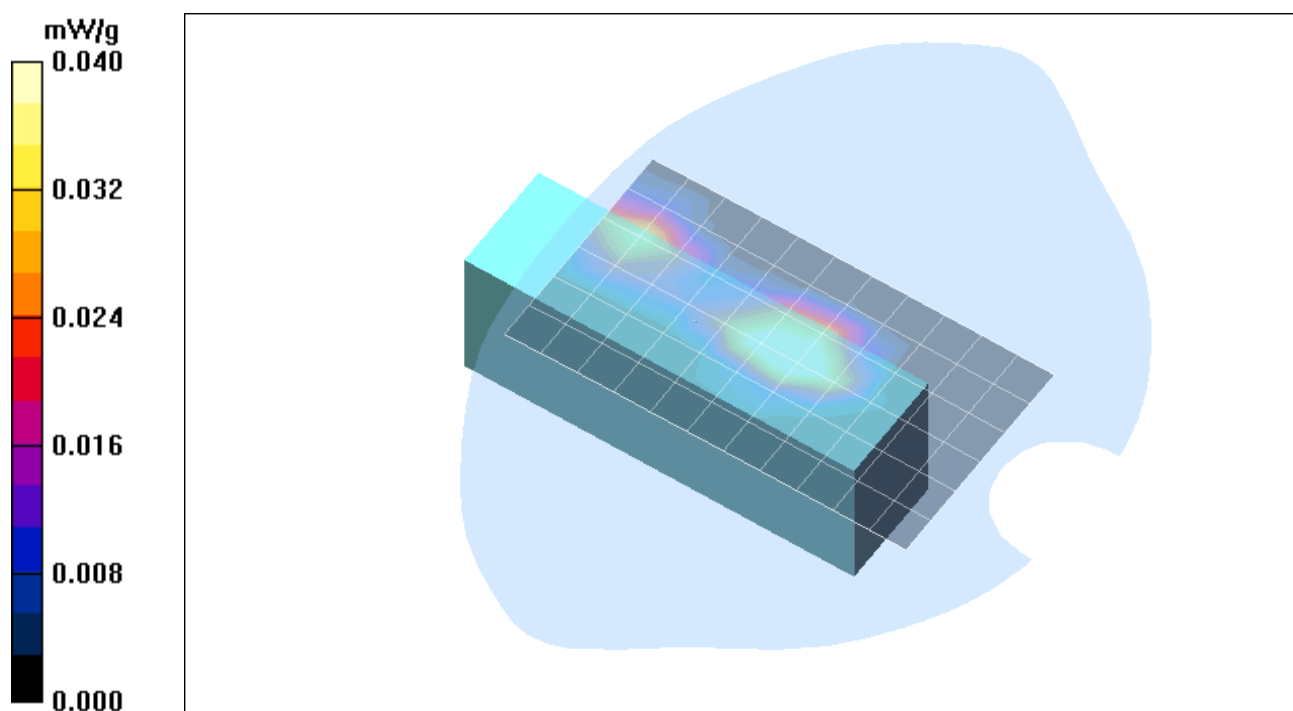


Fig. 4: SAR distribution for DECT US, channel 2, Position 4 (June 26, 2006; Ambient Temperature: 22.1 °C; Liquid Temperature : 21.5° C)

Test Laboratory: Imst GmbH; **File Name:** [Beoydhm 5 Ant1.da4](#)

DUT: B&O; Type: Beocom 4 UPCS; Program Name: Body Worn

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24

Medium parameters used (extrapolated): $f = 1924.99$ MHz; $\sigma = 1.57$ mho/m; $\epsilon_r = 51.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.67, 7.67, 7.67); Calibrated: 23.09.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.03.2006
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body Worn/Area Scan (7x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.016 mW/g

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

Reference Value = 3.36 V/m; Power Drift = -0.097 dB

Peak SAR (extrapolated) = 0.028 W/kg

SAR(1 g) = 0.016 mW/g; SAR(10 g) = 0.00599 mW/g

Maximum value of SAR (measured) = 0.020 mW/g

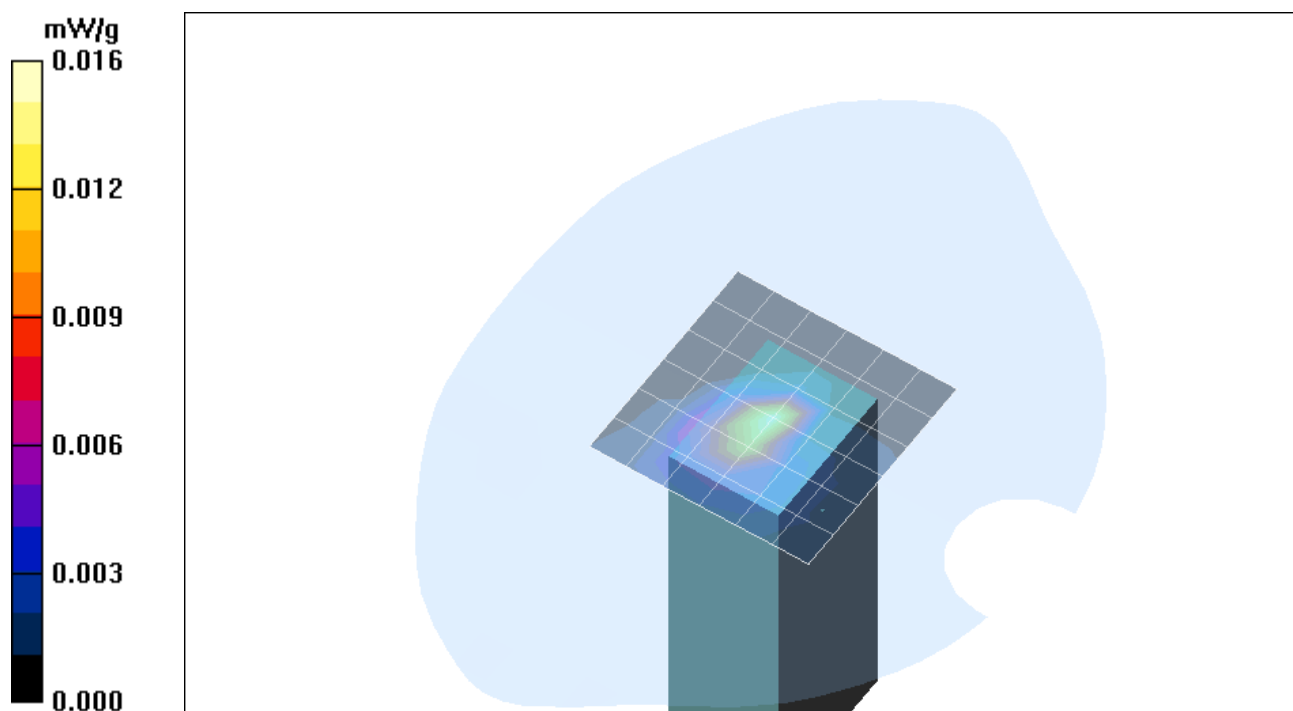


Fig. 5: SAR distribution for DECT US, channel 2, Position 5 (June 26, 2006; Ambient Temperature: 22.1 °C; Liquid Temperature : 21.4° C)

2 SAR Distribution Plots, Body Measurements, Antenna 2

Test Laboratory: Imst GmbH; File Name: [Beoydhm_1_Ant2.da4](#)

DUT: B&O; Type: Beocom 4 UPCS;

Program Name: Body Worn

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24

Medium parameters used (extrapolated): $f = 1924.99$ MHz; $\sigma = 1.57$ mho/m; $\epsilon_r = 51.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.67, 7.67, 7.67); Calibrated: 23.09.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.03.2006
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body Worn/Area Scan (13x7x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 0.165 mW/g

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

Reference Value = 6.99 V/m; Power Drift = 0.164 dB

Peak SAR (extrapolated) = 0.321 W/kg

SAR(1 g) = 0.154 mW/g; SAR(10 g) = 0.076 mW/g

Maximum value of SAR (measured) = 0.173 mW/g

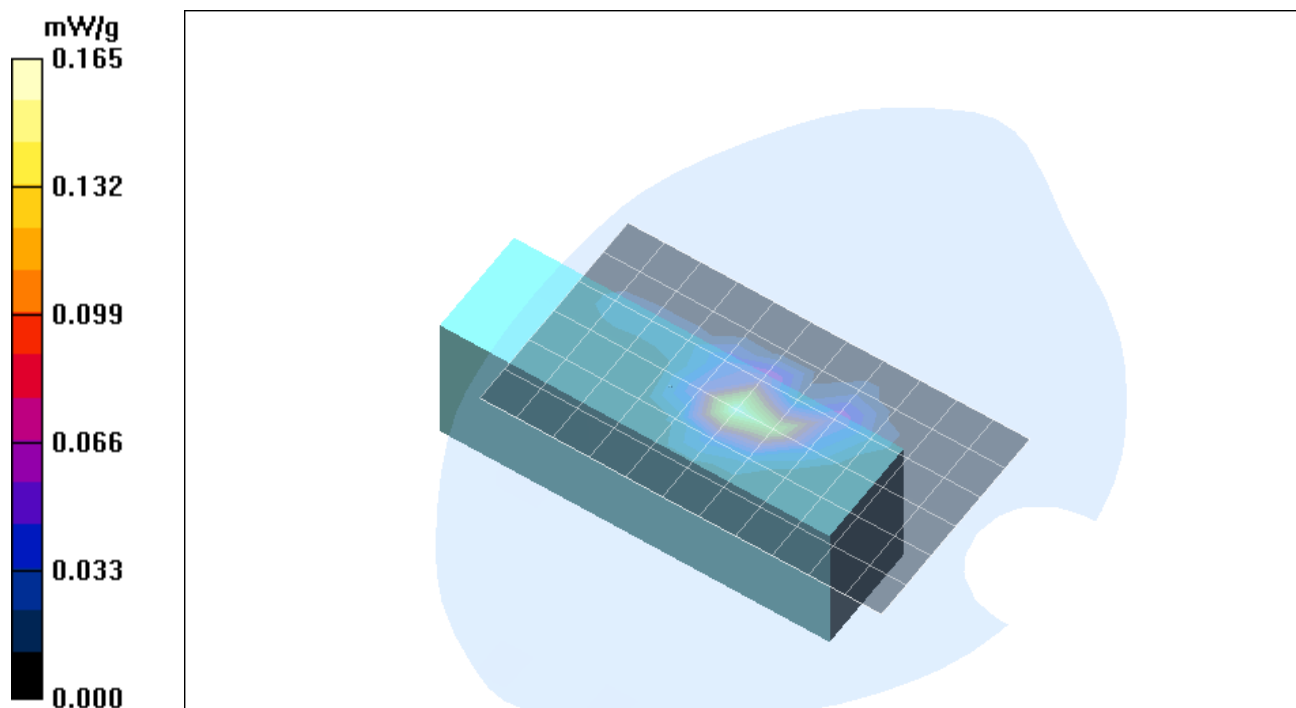


Fig. 6: SAR distribution for DECT US, channel 2, Position 1 (June 26, 2006; Ambient Temperature: 22.0°C; Liquid Temperature: 21.4°C).

Test Laboratory: Imst GmbH; **File Name:** [Beoydhm 2 Ant2.da4](#)

DUT: B&O; Type: Beocom 4 UPCS;

Program Name: Body Worn

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24

Medium parameters used (extrapolated): $f = 1924.99$ MHz; $\sigma = 1.57$ mho/m; $\epsilon_r = 51.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.67, 7.67, 7.67); Calibrated: 23.09.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.03.2006
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body Worn/Area Scan (13x7x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 4.22 V/m; Power Drift = -0.156 dB

Peak SAR (extrapolated) = 0.128 W/kg

SAR(1 g) = 0.0539 mW/g; SAR(10 g) = 0.029 mW/g

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

Body Worn/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.22 V/m; Power Drift = -0.156 dB

Peak SAR (extrapolated) = 0.247 W/kg

SAR(1 g) = 0.050 mW/g; SAR(10 g) = 0.021 mW/g

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

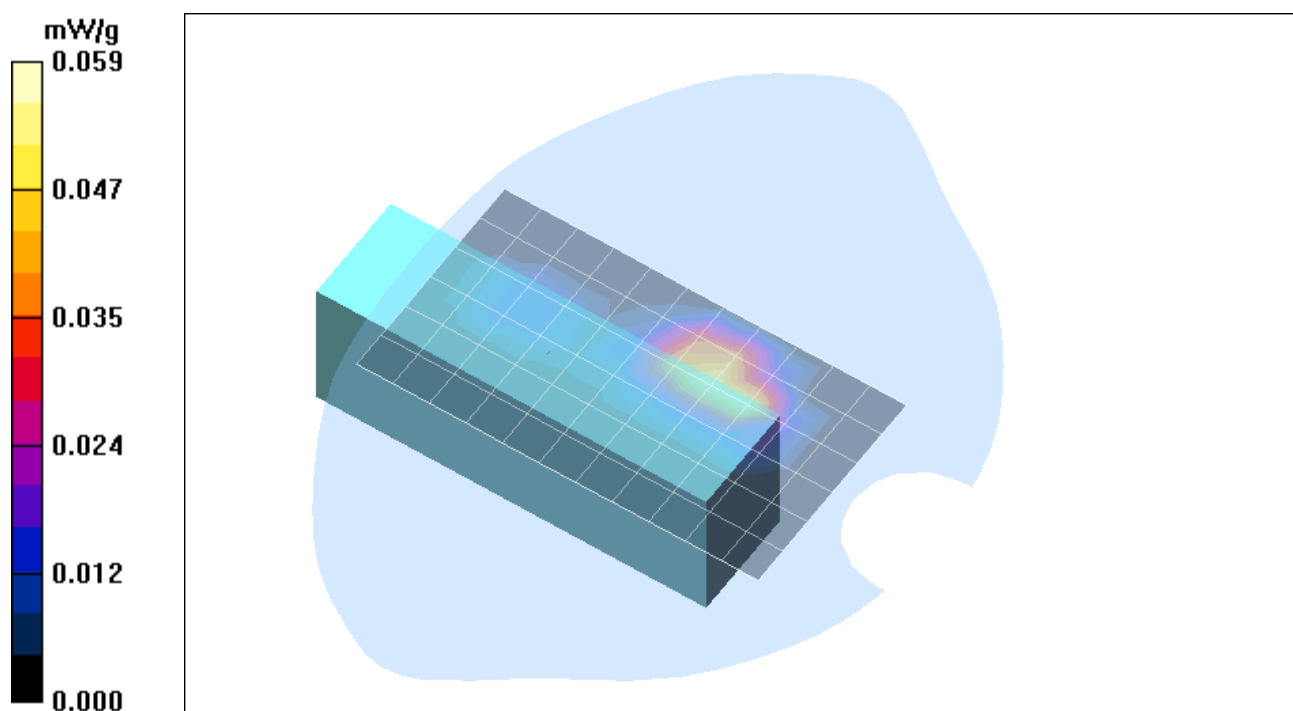


Fig. 7: SAR distribution for DECT US, channel 2, Position 2 (June 26, 2006; Ambient Temperature: 22.0°C; Liquid Temperature: 21.5°C).

Test Laboratory: Imst GmbH; **File Name:** [Beoydhm 3 Ant2.da4](#)

DUT: B&O; Type: Beocom 4 UPCS;

Program Name: Body Worn

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24

Medium parameters used (extrapolated): $f = 1924.99$ MHz; $\sigma = 1.57$ mho/m; $\epsilon_r = 51.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.67, 7.67, 7.67); Calibrated: 23.09.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.03.2006
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body Worn/Area Scan (13x7x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 5.20 V/m; Power Drift = 0.154 dB

Peak SAR (extrapolated) = 0.105 W/kg

SAR(1 g) = 0.0522 mW/g; SAR(10 g) = 0.022 mW/g

Maximum value of SAR (measured) = 0.062 mW/g

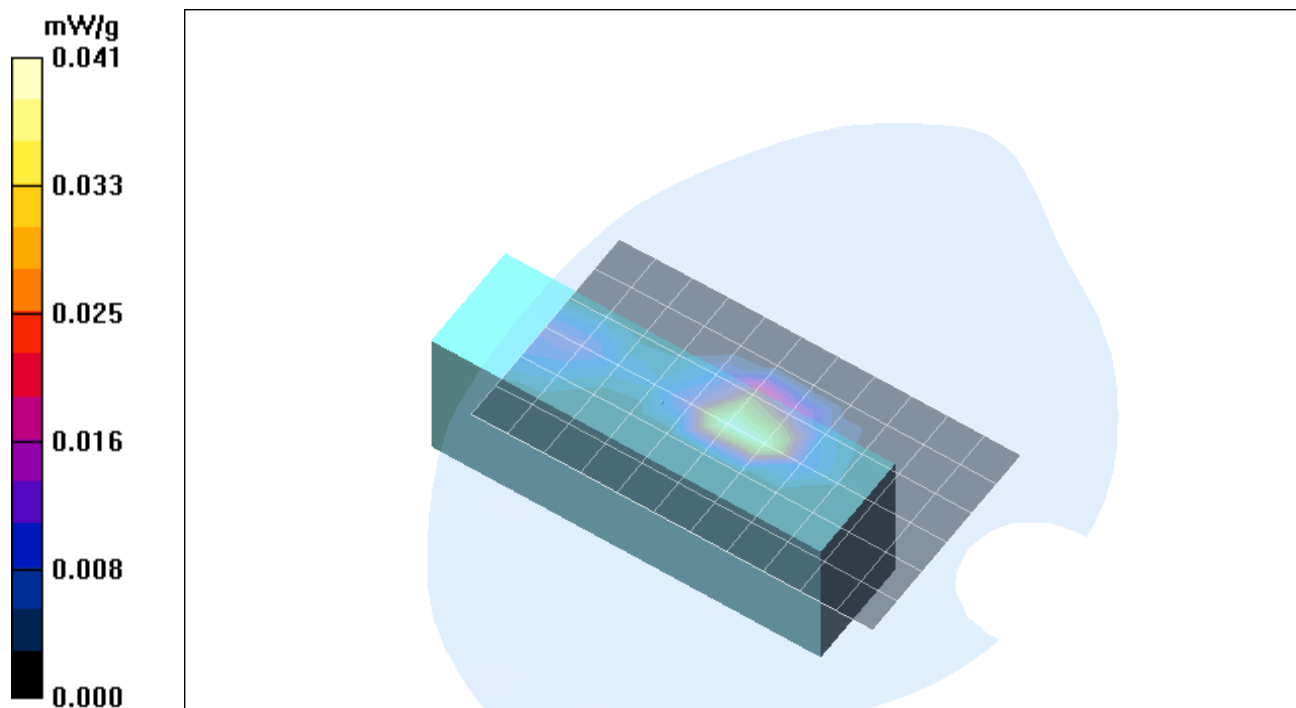


Fig. 8: SAR distribution for DECT US, channel 2, Position 3 (June 26, 2006; Ambient Temperature: 22.1° C; Liquid Temperature : 21.5° C).

Test Laboratory: Imst GmbH; **File Name:** [Beoydhm_4_Ant2.da4](#)

DUT: B&O; **Type:** Beocom 4 UPCS;

Program Name: Body Worn

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24

Medium parameters used (extrapolated): $f = 1924.99$ MHz; $\sigma = 1.57$ mho/m; $\epsilon_r = 51.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.67, 7.67, 7.67); Calibrated: 23.09.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.03.2006
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body Worn/Area Scan (13x7x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 0.014 mW/g

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

Reference Value = 1.67 V/m; Power Drift = 0.098 dB

Peak SAR (extrapolated) = 0.031 W/kg

SAR(1 g) = 0.0127 mW/g; SAR(10 g) = 0.00496 mW/g

Maximum value of SAR (measured) = 0.016 mW/g

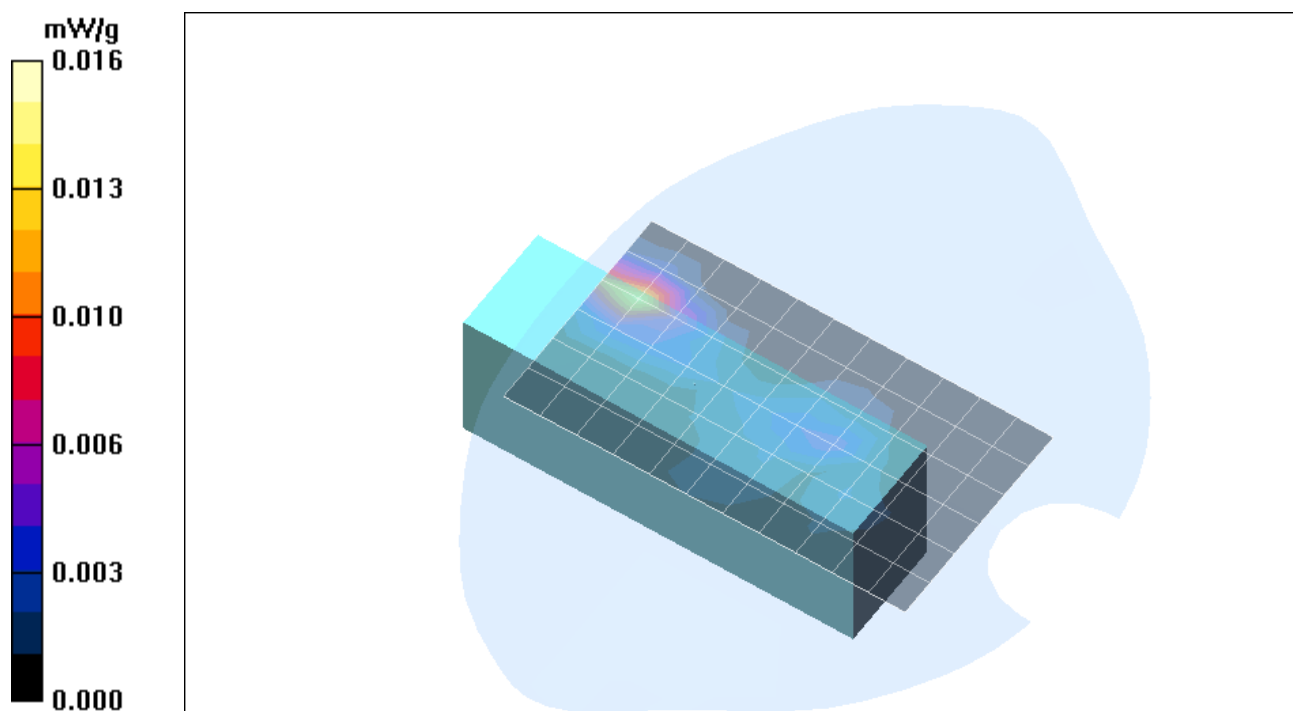


Fig. 9: SAR distribution for DECT US, channel 2, Position 4 (June 26, 2006; Ambient Temperature: 22.1 °C; Liquid Temperature : 21.5° C)

Test Laboratory: Imst GmbH; **File Name:** [Beoydhm 5 Ant2.da4](#)

DUT: B&O; Type: Beocom 4 UPCS;

Program Name: Body Worn

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24

Medium parameters used (extrapolated): $f = 1924.99$ MHz; $\sigma = 1.57$ mho/m; $\epsilon_r = 51.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.67, 7.67, 7.67); Calibrated: 23.09.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.03.2006
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body Worn/Area Scan (7x7x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.010 mW/g

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

Reference Value = 2.60 V/m; Power Drift = 0.111 dB

Peak SAR (extrapolated) = 0.031 W/kg

SAR(1 g) = 0.011 mW/g; SAR(10 g) = 0.00463 mW/g

Maximum value of SAR (measured) = 0.014 mW/g

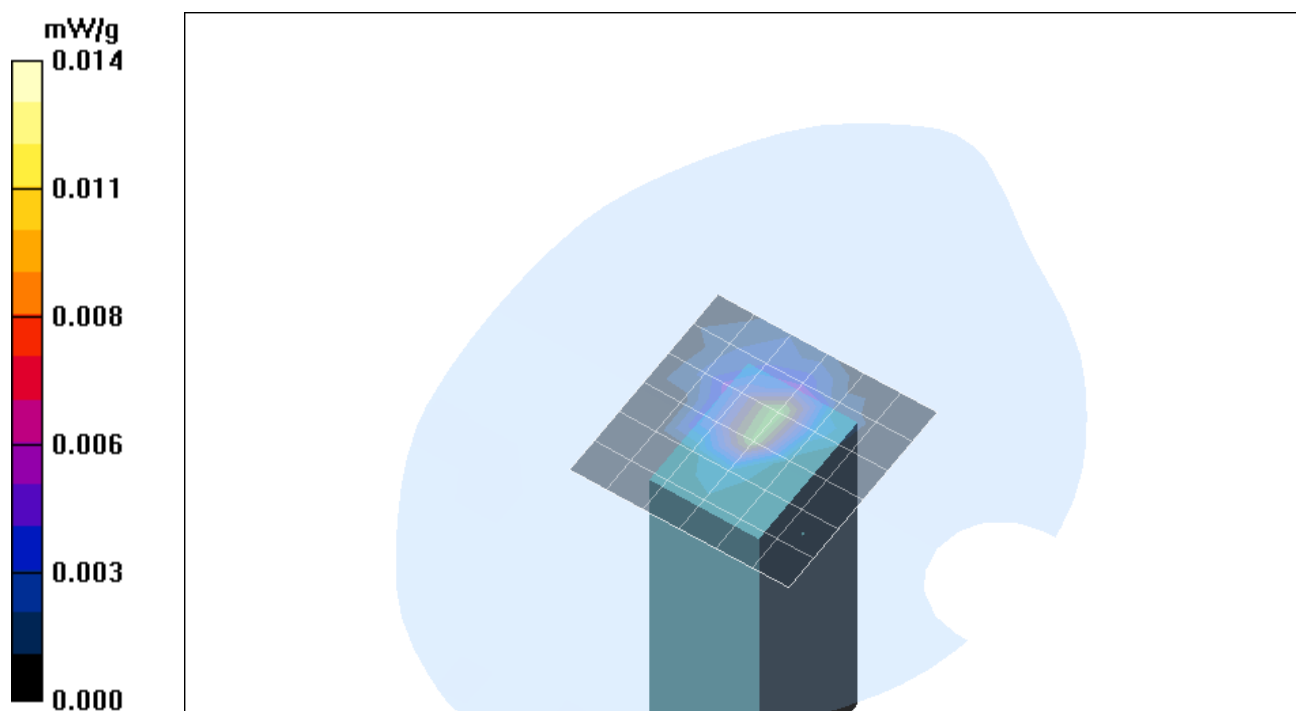


Fig. 10: SAR distribution for DECT US, channel 2, Position 5 (June 26, 2006; Ambient Temperature: 22.0° C; Liquid Temperature : 21.4° C)

3 SAR z-axis scans (Validation)

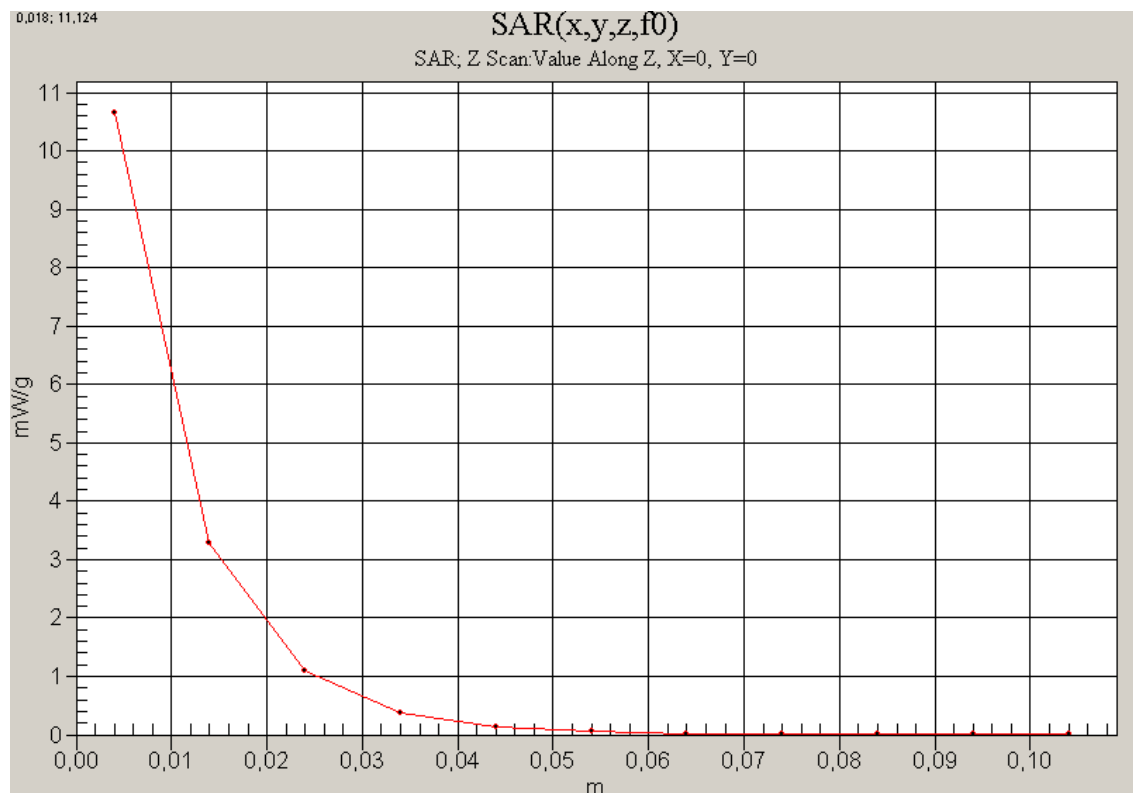


Fig. 11: SAR versus liquid depth, 1900 MHz, body (June 26, 2006; Ambient Temperature: 22.0° C; Liquid Temperature : 21.1° C).

4 SAR z-axis scans (Measurements)

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

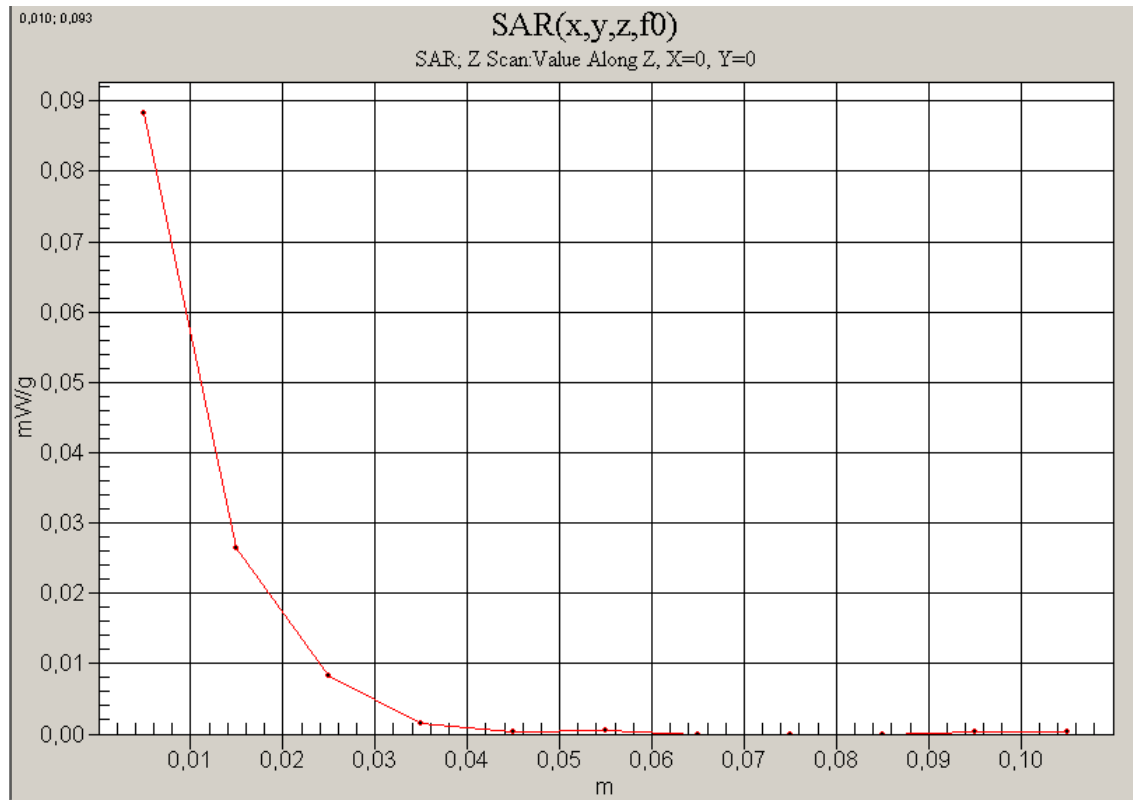


Fig. 12: SAR versus liquid depth, body: DECT US 1900, channel 2, position 1, antenna 2 (June 26, 2006; Ambient Temperature: 22.0° C; Liquid Temperature: 21.4° C).