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Appendix for the Report

Dosimetric Assessment of the Portable Device KX-UDT121 (FCC ID: ACJ96NKX-UDT121) (IC: 216A-KXUDT121)

According to the FCC Requirements SAR Distribution Plots

April 19, 2012

IMST GmbH

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Customer

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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 Measurement

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [UDT121_yplm_1_ant1.da4](#)

DUT: Panasonic; Type: KX-UDT121;

Program Name: DECT

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

Medium parameters used: $f = 1924.99$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(8.07, 8.07, 8.07); Calibrated: 26.09.2011

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

- Electronics: DAE4 Sn631; Calibrated: 21.09.2011

- 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 (7x13x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 1.17 V/m; Power Drift = 0.128 dB

Peak SAR (extrapolated) = 0.007 W/kg

SAR(1 g) = 0.0036 mW/g; SAR(10 g) = 0.00172 mW/g

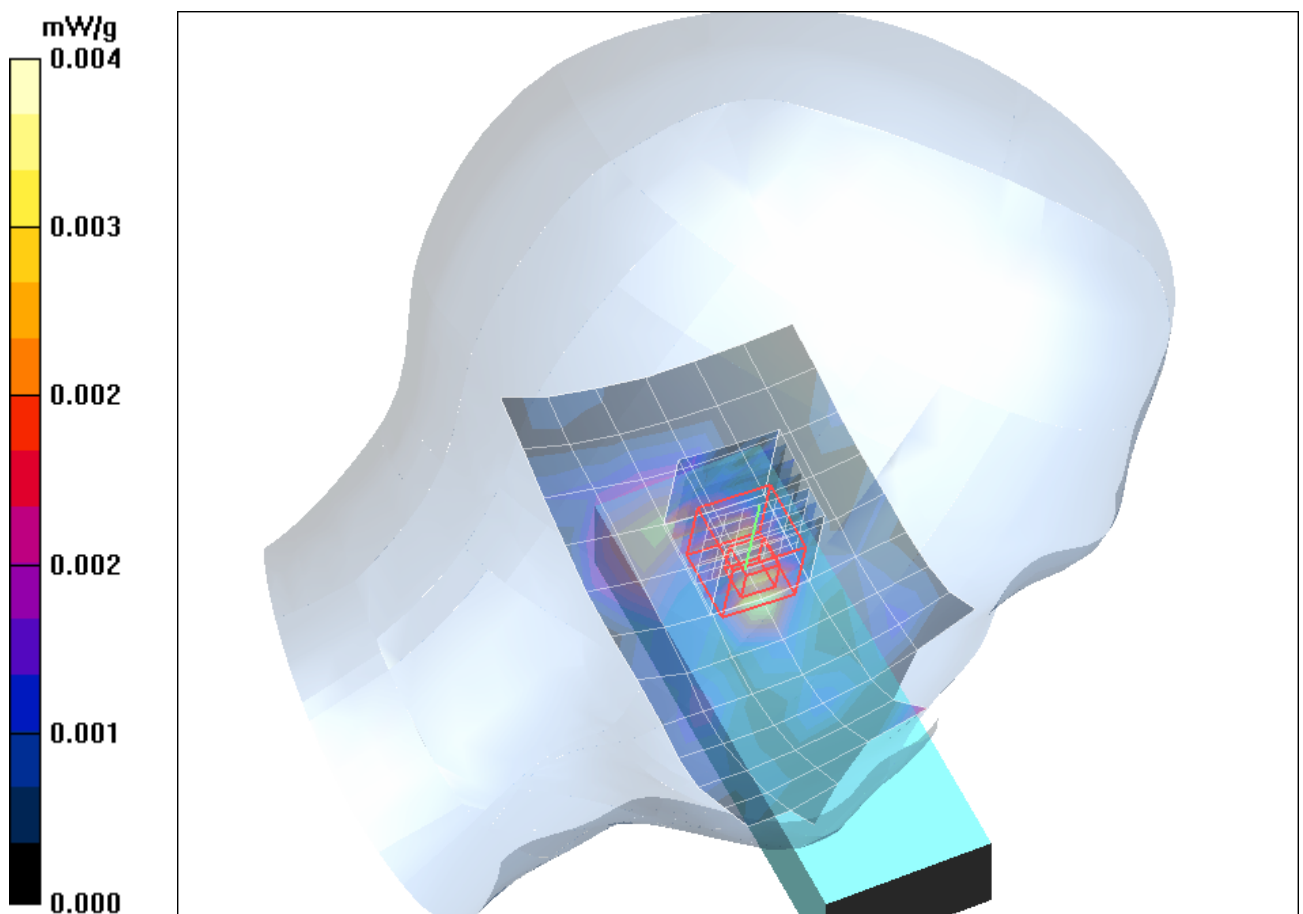


Fig. 1: SAR distribution for DECT US, channel 2, cheek position, left side of head, Antenna 1 (April 04, 2012; Ambient Temperature: 21.6°C; Liquid Temperature: 21.3°C).

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [UDT121_yplm_2_ant1.da4](#)

DUT: Panasonic; Type: KX-UDT121;

Program Name: DECT

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

Medium parameters used: $f = 1924.99$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(8.07, 8.07, 8.07); Calibrated: 26.09.2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 21.09.2011
- 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 (7x13x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 1.12 V/m; Power Drift = -0.128 dB

Peak SAR (extrapolated) = 0.007 W/kg

SAR(1 g) = 0.00244 mW/g; SAR(10 g) = 0.00112 mW/g

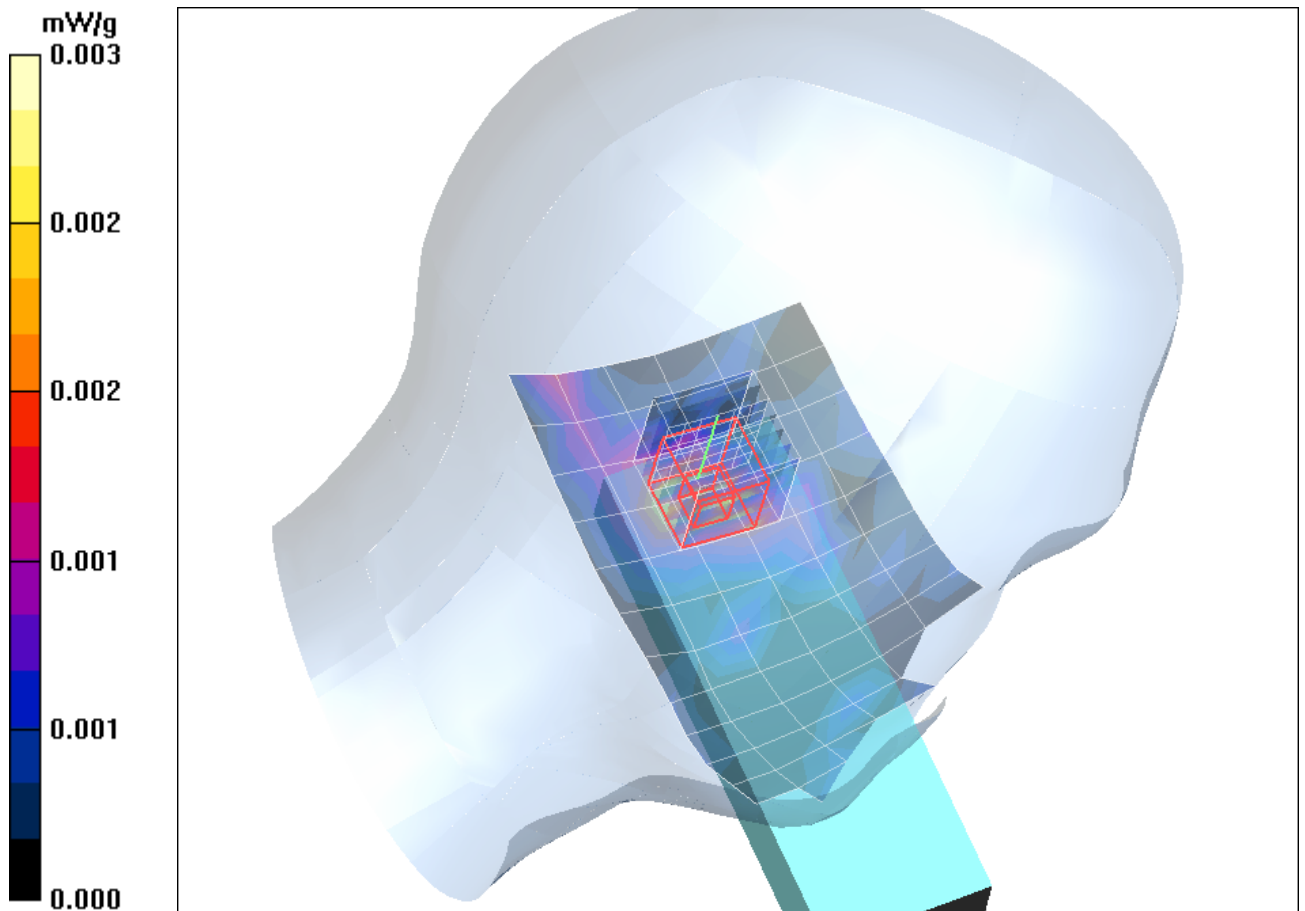


Fig. 2: SAR distribution for DECT US, channel 2, tilted position, left side of head, Antenna 1 (April 04, 2012; Ambient Temperature: 21.6°C; Liquid Temperature: 21.3°C).

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [UDT121_yprm_1_ant1.da4](#)

DUT: Panasonic; Type: KX-UDT121;

Program Name: DECT

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

Medium parameters used: $f = 1924.99$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(8.07, 8.07, 8.07); Calibrated: 26.09.2011

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

- Electronics: DAE4 Sn631; Calibrated: 21.09.2011

- 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 (7x13x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 1.05 V/m; Power Drift = 0.181 dB

Peak SAR (extrapolated) = 0.022 W/kg

SAR(1 g) = 0.00429 mW/g; SAR(10 g) = 0.00149 mW/g

Maximum value of SAR (measured) = 0.005 mW/g

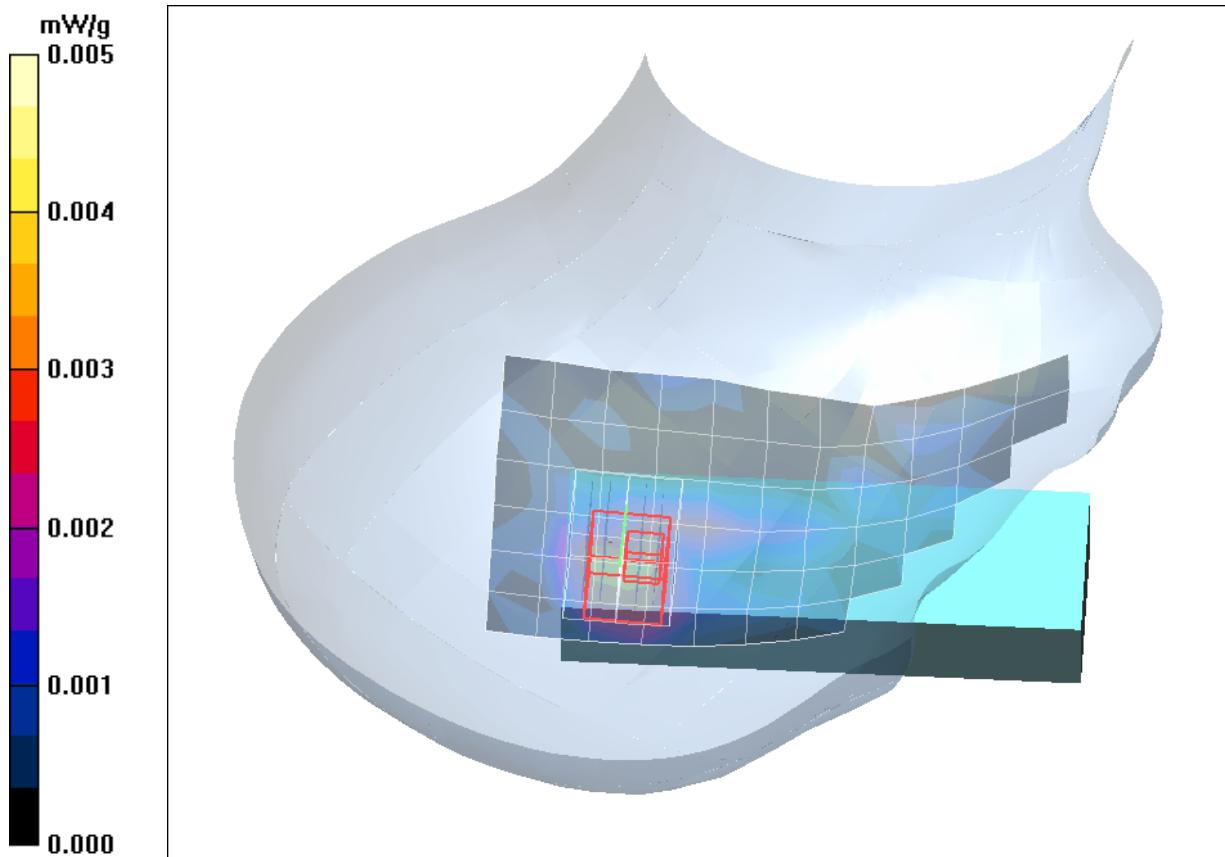


Fig. 3: SAR distribution for DECT US, channel 2, cheek position, right side of head, Antenna 1 (April 04, 2012; Ambient Temperature: 21.6°C; Liquid Temperature: 21.3°C).

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [UDT121_yprm_2_ant1.da4](#)

DUT: Panasonic; Type: KX-UDT121;

Program Name: DECT

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

Medium parameters used: $f = 1924.99$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(8.07, 8.07, 8.07); Calibrated: 26.09.2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 21.09.2011
- 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 (7x13x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 1.16 V/m; Power Drift = 0.143 dB

Peak SAR (extrapolated) = 0.010 W/kg

SAR(1 g) = 0.00259 mW/g; SAR(10 g) = 0.000774 mW/g

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

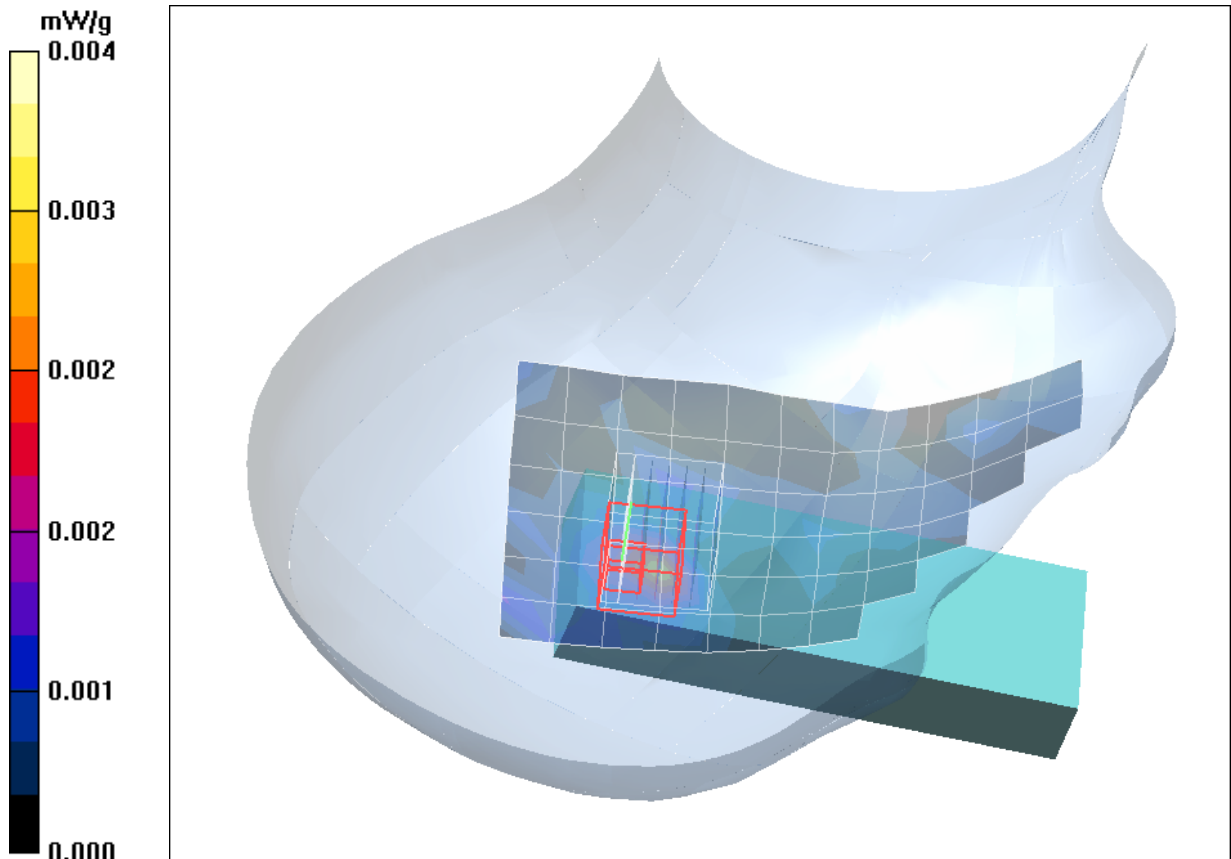


Fig. 4: SAR distribution for DECT US, channel 2, tilted position, right side of head, Antenna 1 (April 04, 2012; Ambient Temperature: 21.6°C; Liquid Temperature: 21.3°C)

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [UDT121_yplm_1_ant2.da4](#)

DUT: Panasonic; Type: KX-UDT121;

Program Name: DECT

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

Medium parameters used: $f = 1924.99$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(8.07, 8.07, 8.07); Calibrated: 26.09.2011

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

- Electronics: DAE4 Sn631; Calibrated: 21.09.2011

- 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 (7x13x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.008 mW/g

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

Reference Value = 0.775 V/m; Power Drift = 0.092 dB

Peak SAR (extrapolated) = 0.018 W/kg

SAR(1 g) = 0.00651 mW/g; SAR(10 g) = 0.0028 mW/g

Maximum value of SAR (measured) = 0.009 mW/g

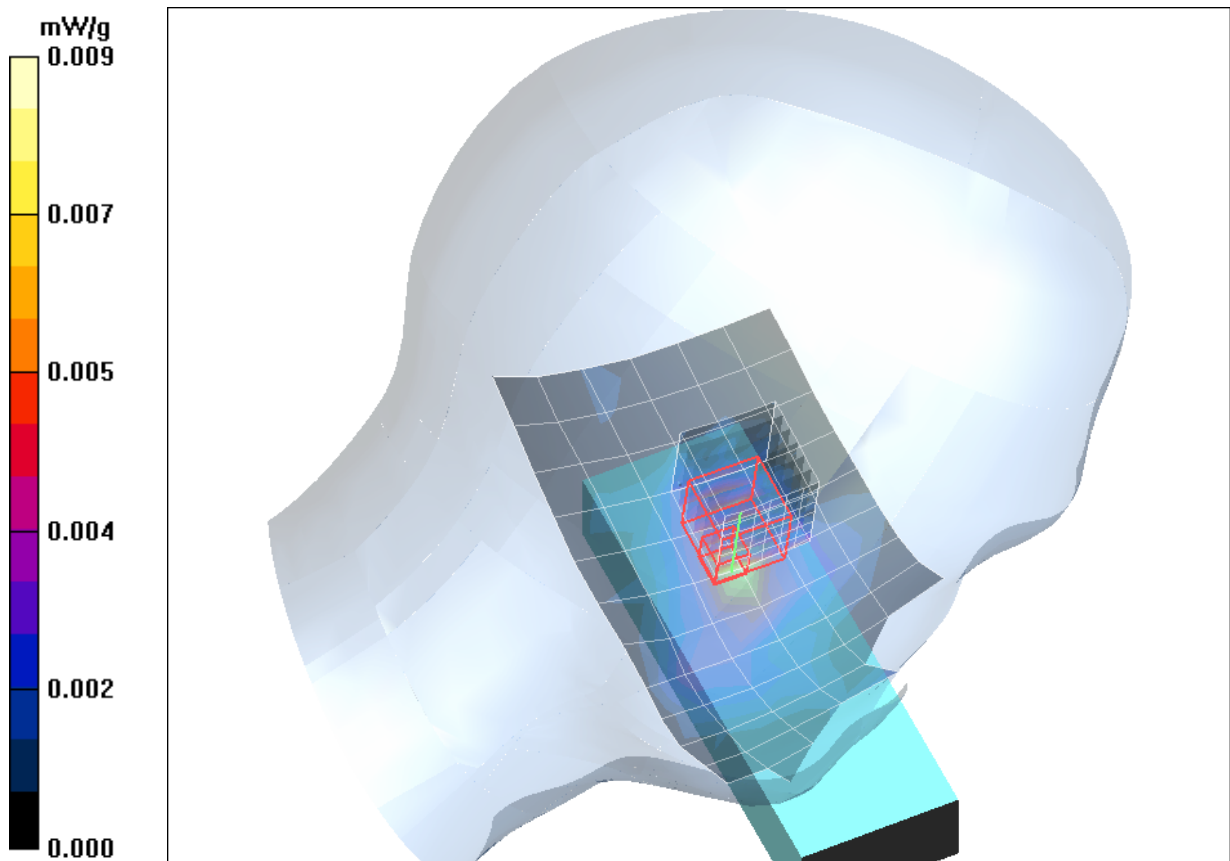


Fig. 5: SAR distribution for DECT US, channel 2, cheek position, left side of head, Antenna 2 (April 04, 2012; Ambient Temperature: 21.6°C; Liquid Temperature: 21.3°C).

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [UDT121_yplm_2_ant2.da4](#)

DUT: Panasonic; Type: KX-UDT121;

Program Name: DECT

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

Medium parameters used: $f = 1924.99$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(8.07, 8.07, 8.07); Calibrated: 26.09.2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 21.09.2011
- 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 (7x13x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 0.784 V/m; Power Drift = -0.068 dB

Peak SAR (extrapolated) = 0.007 W/kg

SAR(1 g) = 0.00208 mW/g; SAR(10 g) = 0.000544 mW/g

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

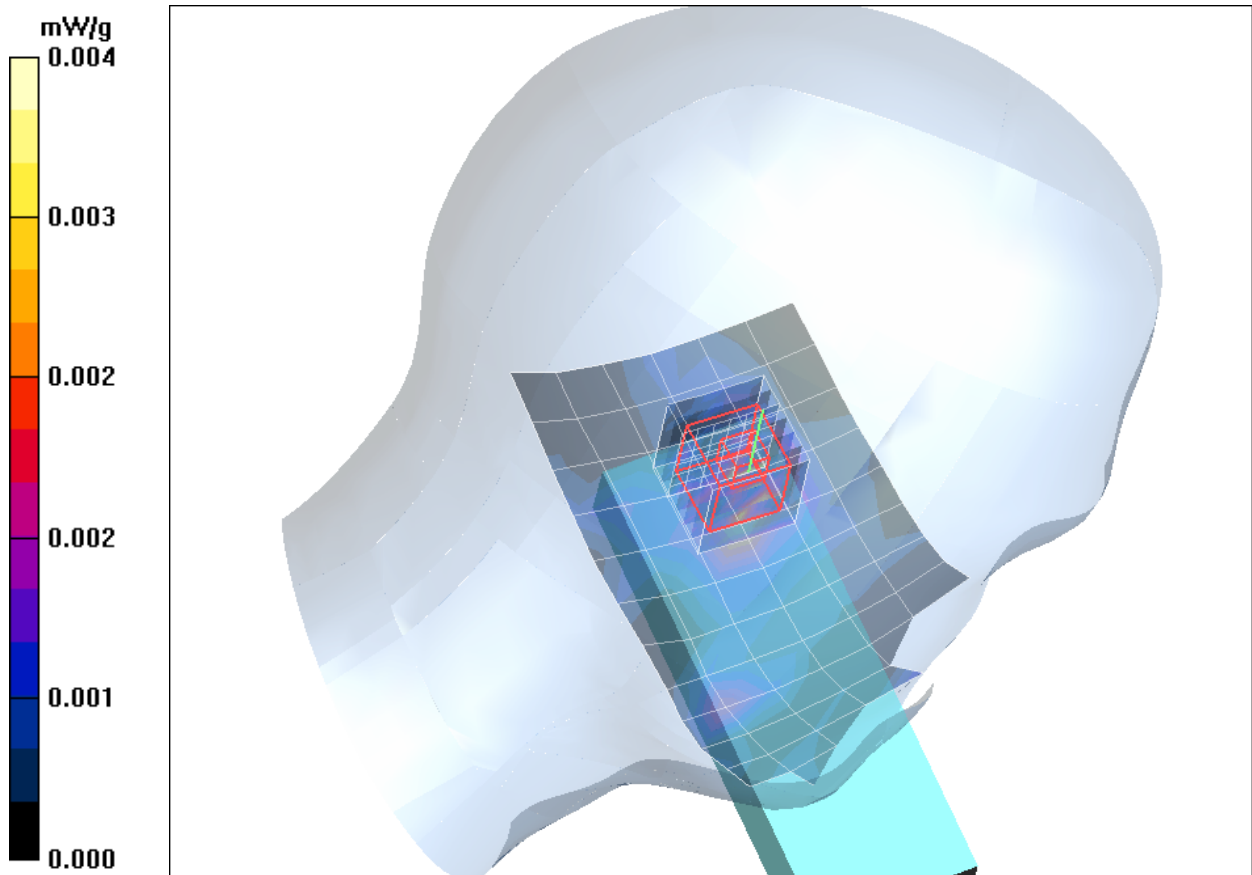


Fig. 6: SAR distribution for DECT US, channel 2, tilted position, left side of head, Antenna 2 (April 04, 2012; Ambient Temperature: 21.6°C; Liquid Temperature: 21.3°C).

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [UDT121_yprm_1_ant2.da4](#)

DUT: Panasonic; Type: KX-UDT121;

Program Name: DECT

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

Medium parameters used: $f = 1924.99$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(8.07, 8.07, 8.07); Calibrated: 26.09.2011

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

- Electronics: DAE4 Sn631; Calibrated: 21.09.2011

- 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 (7x13x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.006 mW/g

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

Reference Value = 1.43 V/m; Power Drift = 0.056 dB

Peak SAR (extrapolated) = 0.021 W/kg

SAR(1 g) = 0.00523 mW/g; SAR(10 g) = 0.00203 mW/g

Maximum value of SAR (measured) = 0.007 mW/g

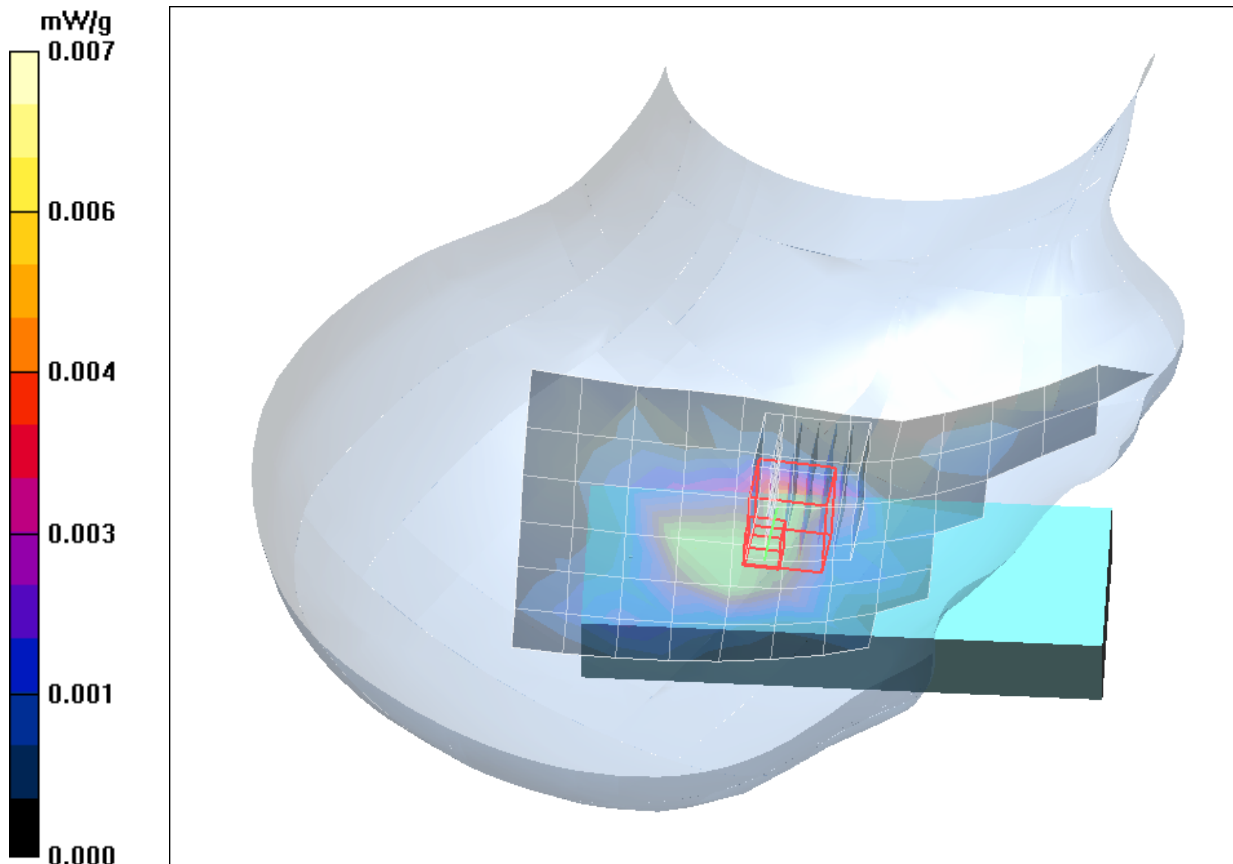


Fig. 7: SAR distribution for DECT US, channel 2, cheek position, right side of head, Antenna 2 (April 04, 2012; Ambient Temperature: 21.6°C; Liquid Temperature: 21.3°C).

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [UDT121_yprm_2_ant2.da4](#)

DUT: Panasonic; Type: KX-UDT121;

Program Name: DECT

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

Medium parameters used: $f = 1924.99$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(8.07, 8.07, 8.07); Calibrated: 26.09.2011

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

- Electronics: DAE4 Sn631; Calibrated: 21.09.2011

- 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 (7x13x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 1.01 V/m; Power Drift = 0.027 dB

Peak SAR (extrapolated) = 0.011 W/kg

SAR(1 g) = 0.00244 mW/g; SAR(10 g) = 0.00121 mW/g

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

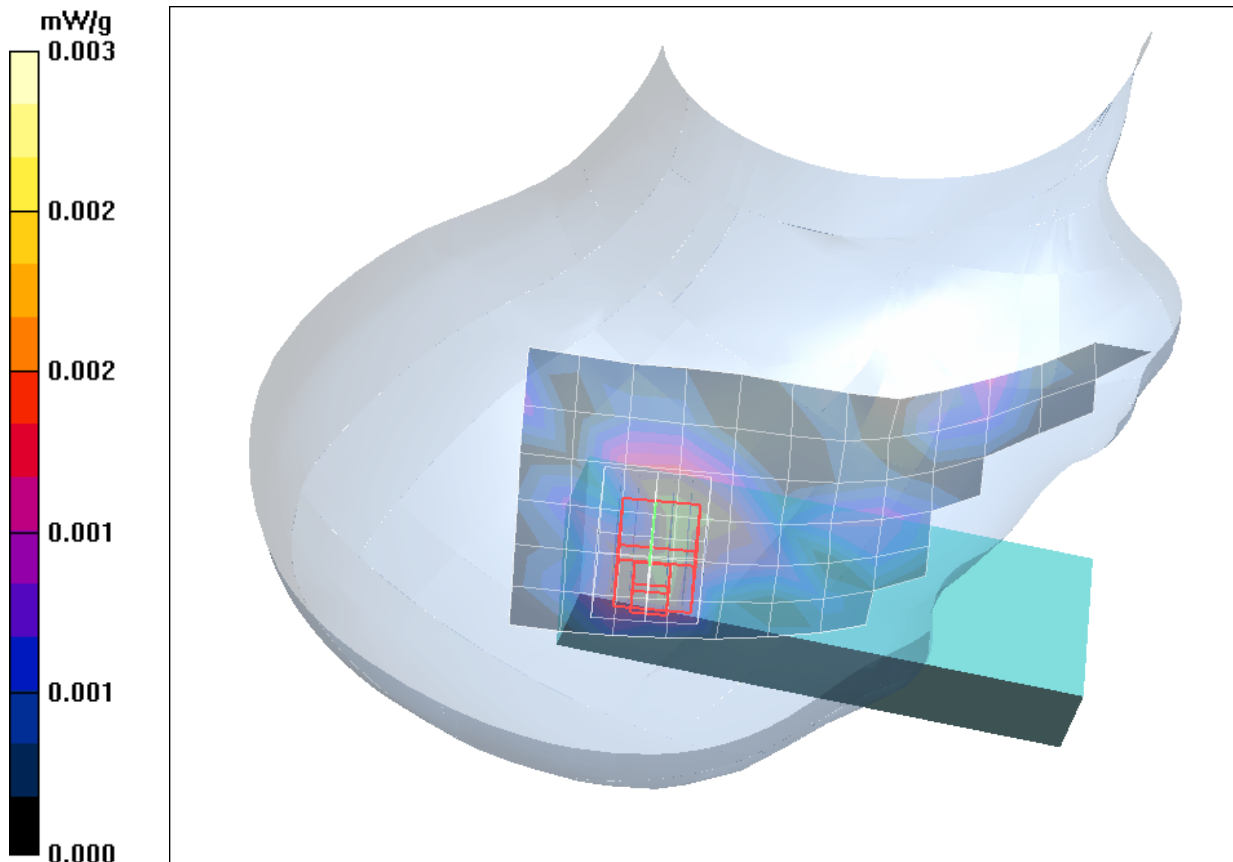


Fig. 8: SAR distribution for DECT US, channel 2, tilted position, right side of head, Antenna 2 (April 04, 2012; Ambient Temperature: 21.6°C; Liquid Temperature: 21.3°C)

2 SAR Distribution Plots, Body Measurements

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [UDT121_yphm_1_dspl_up_hs_ant1.da4](#)

DUT: Panasonic; Type: KX-UDT121;
Program Name: DECT

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24
Medium parameters used: $f = 1924.99$ MHz; $\sigma = 1.56$ mho/m; $\epsilon_r = 52.6$; $\rho = 1000$ kg/m³
Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(8.03, 8.03, 8.03); Calibrated: 26.09.2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 21.09.2011
- 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) = 0.005 mW/g

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

Reference Value = 0.855 V/m; Power Drift = -0.145 dB

Peak SAR (extrapolated) = 0.015 W/kg

SAR(1 g) = 0.00749 mW/g; SAR(10 g) = 0.00389 mW/g

Maximum value of SAR (measured) = 0.008 mW/g

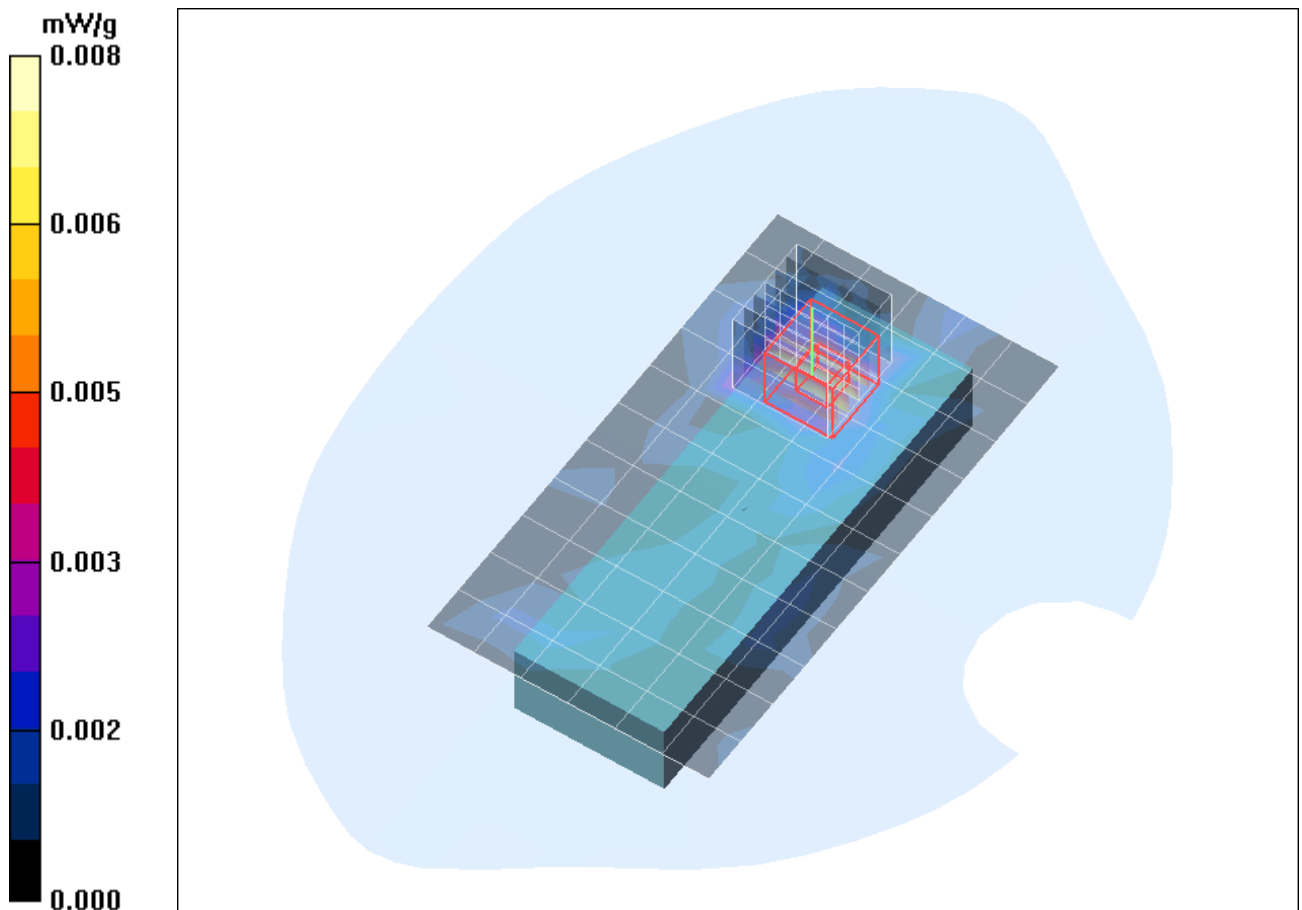


Fig. 9: SAR distribution for DECT US, channel 2, body worn configuration, display towards the phantom, with headset and 0 mm distance, Antenna 1 (April 12, 2012; Ambient Temperature: 21.8° C; Liquid Temperature: 21.4° C).

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

[UDT121_yphm_2_dspl_down_hs_ant1.da4](#)

DUT: Panasonic; Type: KX-UDT121;

Program Name: DECT

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

Medium parameters used: $f = 1924.99$ MHz; $\sigma = 1.56$ mho/m; $\epsilon_r = 52.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(8.03, 8.03, 8.03); Calibrated: 26.09.2011

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

- Electronics: DAE4 Sn631; Calibrated: 21.09.2011

- 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) = 0.010 mW/g

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

Reference Value = 0.895 V/m; Power Drift = -0.113 dB

Peak SAR (extrapolated) = 0.015 W/kg

SAR(1 g) = 0.00893 mW/g; SAR(10 g) = 0.00457 mW/g

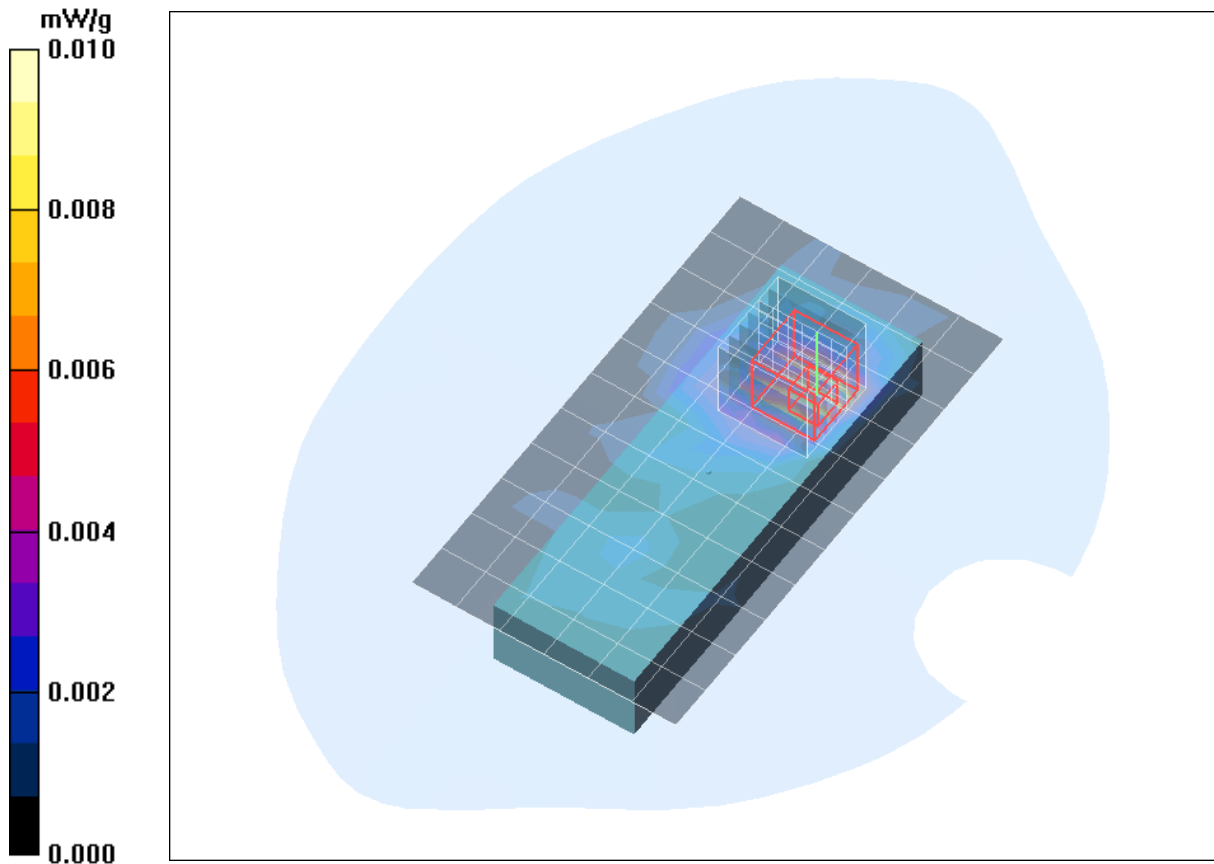


Fig. 10: SAR distribution for DECT US, channel 2, body worn configuration, display towards the ground, with headset and 0 mm distance, Antenna 1 (April 12, 2012; Ambient Temperature: 21.8° C; Liquid Temperature: 21.4° C).

Test Laboratory: Imst GmbH, DASY Yellow (II); File Name: [UDT121_yphm_1_up_down_hs_ant2.da4](#)

DUT: Panasonic; Type: KX-UDT121;

Program Name: DECT

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

Medium parameters used: $f = 1924.99$ MHz; $\sigma = 1.56$ mho/m; $\epsilon_r = 52.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(8.03, 8.03, 8.03); Calibrated: 26.09.2011
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 21.09.2011
- 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) = 0.012 mW/g

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

Reference Value = 1.65 V/m; Power Drift = 0.161 dB

Peak SAR (extrapolated) = 0.044 W/kg

SAR(1 g) = 0.012 mW/g; SAR(10 g) = 0.00619 mW/g

Maximum value of SAR (measured) = 0.013 mW/g

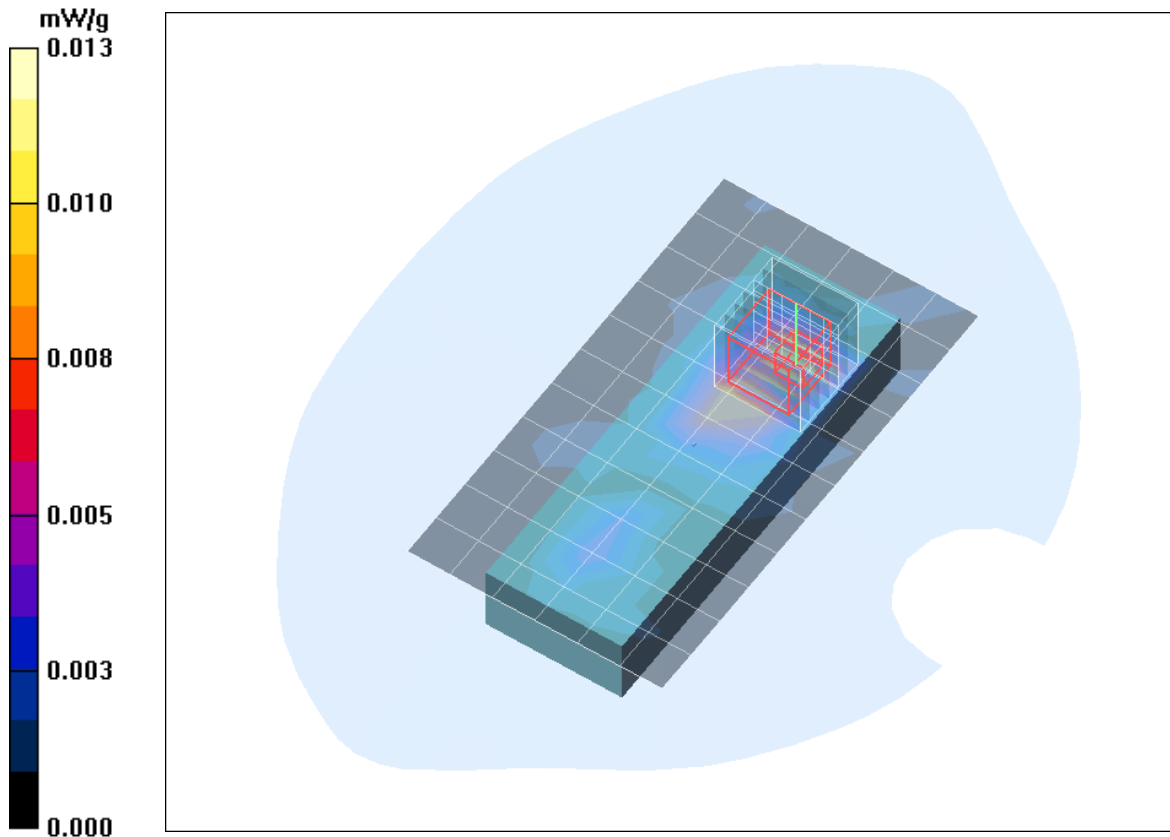


Fig. 11: SAR distribution for DECT US, channel 2, body worn configuration, display towards the phantom, with headset and 0 mm distance, Antenna 2 (April 12, 2012; Ambient Temperature: 21.8° C; Liquid Temperature: 21.4° C).

Test Laboratory: Imst GmbH, DASY Yellow (II); **File Name:**

[UDT121_yphm_2_dspl_down_hs_ant2.da4](#)

DUT: Panasonic; **Type:** KX-UDT121;

Program Name: DECT

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

Medium parameters used: $f = 1924.99$ MHz; $\sigma = 1.56$ mho/m; $\epsilon_r = 52.6$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(8.03, 8.03, 8.03); Calibrated: 26.09.2011

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

- Electronics: DAE4 Sn631; Calibrated: 21.09.2011

- 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) = 0.007 mW/g

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

Reference Value = 1.05 V/m; Power Drift = 0.163 dB

Peak SAR (extrapolated) = 0.010 W/kg

SAR(1 g) = 0.006 mW/g; SAR(10 g) = 0.003 mW/g

Maximum value of SAR (measured) = 0.008 mW/g

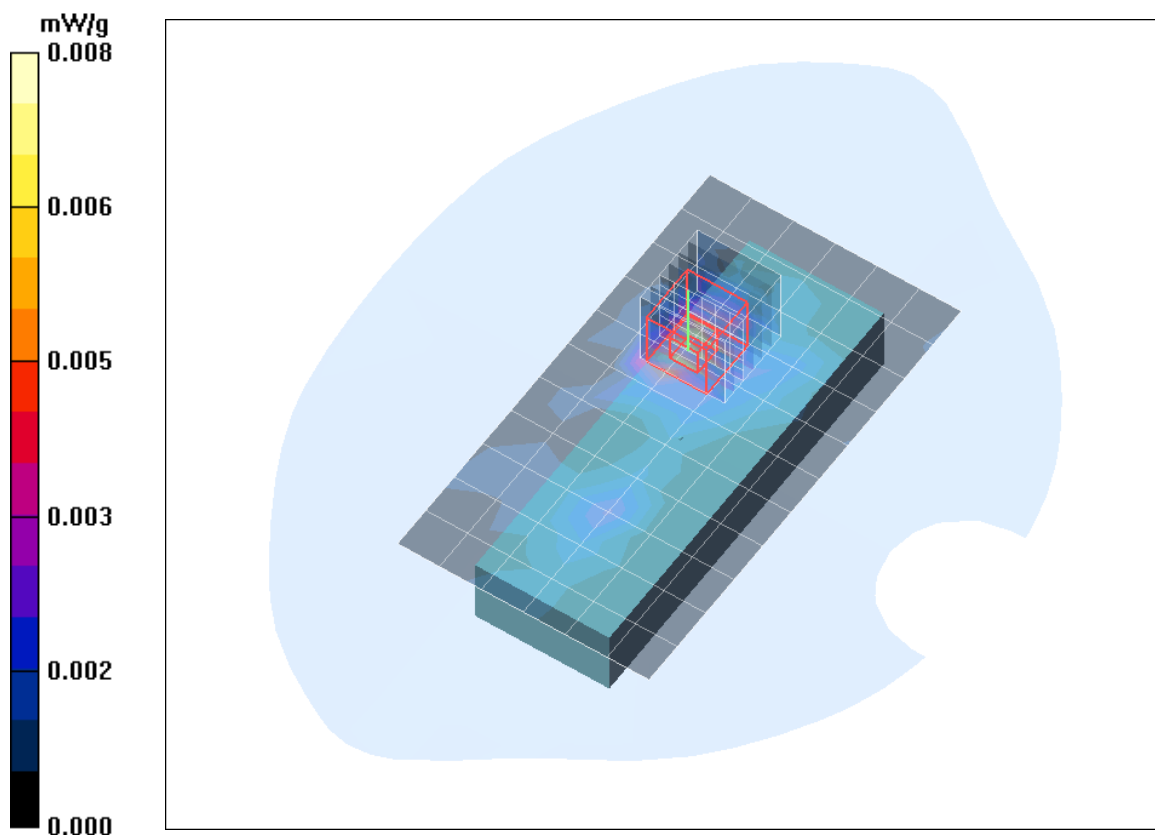


Fig. 12: SAR distribution for DECT US, channel 2, body worn configuration, display towards the ground, with headset and 0 mm distance, Antenna 2 (April 12, 2012; Ambient Temperature: 21.8° C; Liquid Temperature: 21.4° C).

3 SAR Z-Axis Scans (Validation)

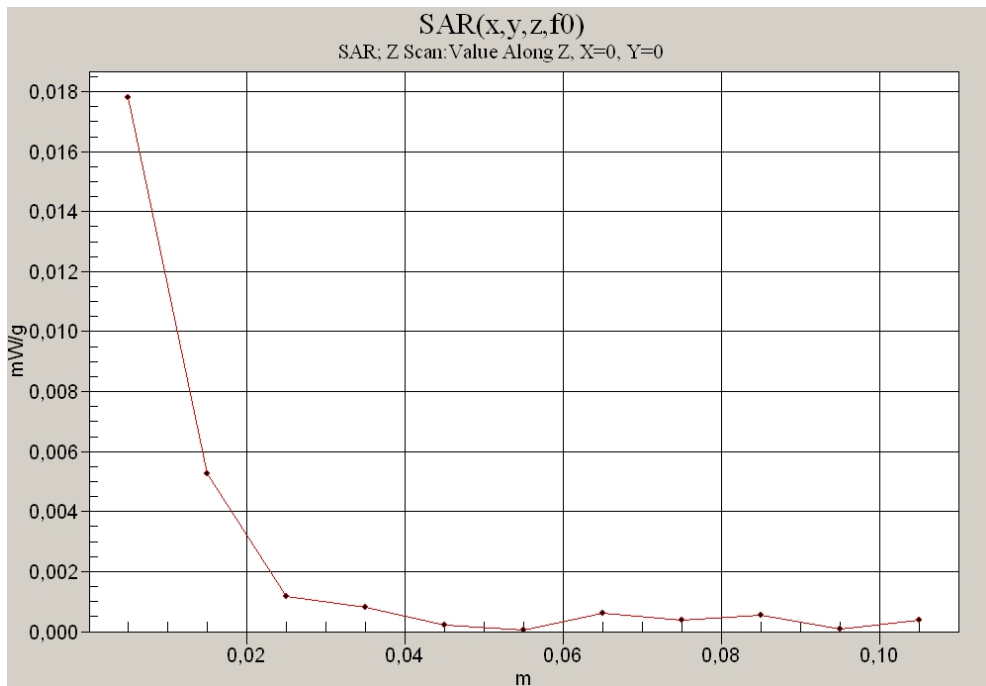


Fig. 13: SAR versus liquid depth, 1900 MHz, head (April 04, 2012; Ambient Temperature: 21.6° C; Liquid Temperature : 21.3° C).

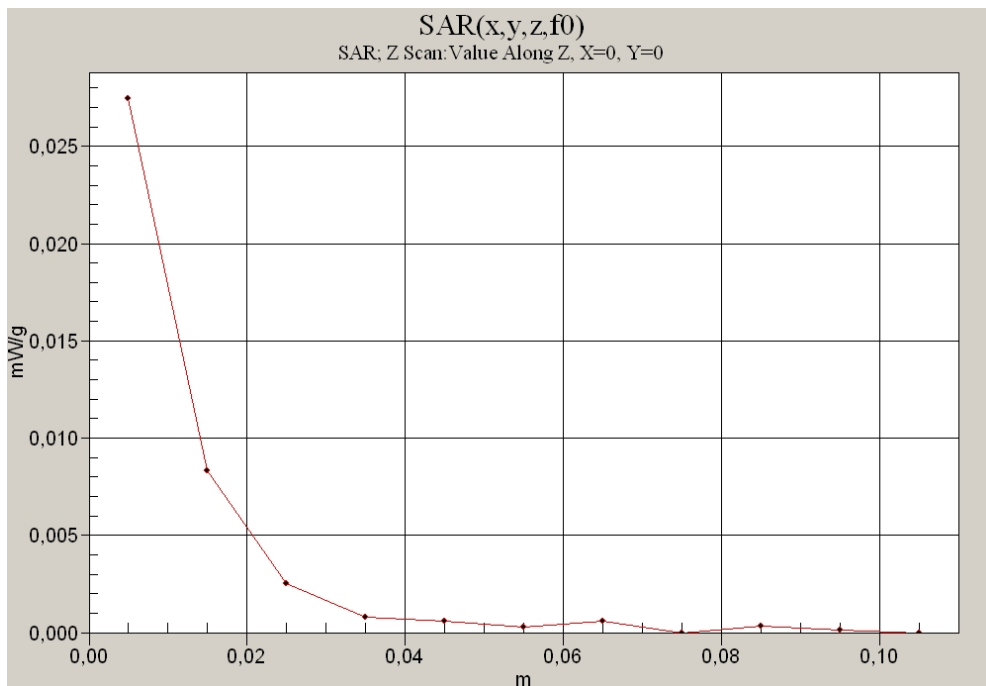


Fig. 14: SAR versus liquid depth, 1900 MHz, body (April 12, 2012; Ambient Temperature: 21.8° C; Liquid Temperature : 21.4° C).

4 SAR Z-Axis Scans (Measurements)

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

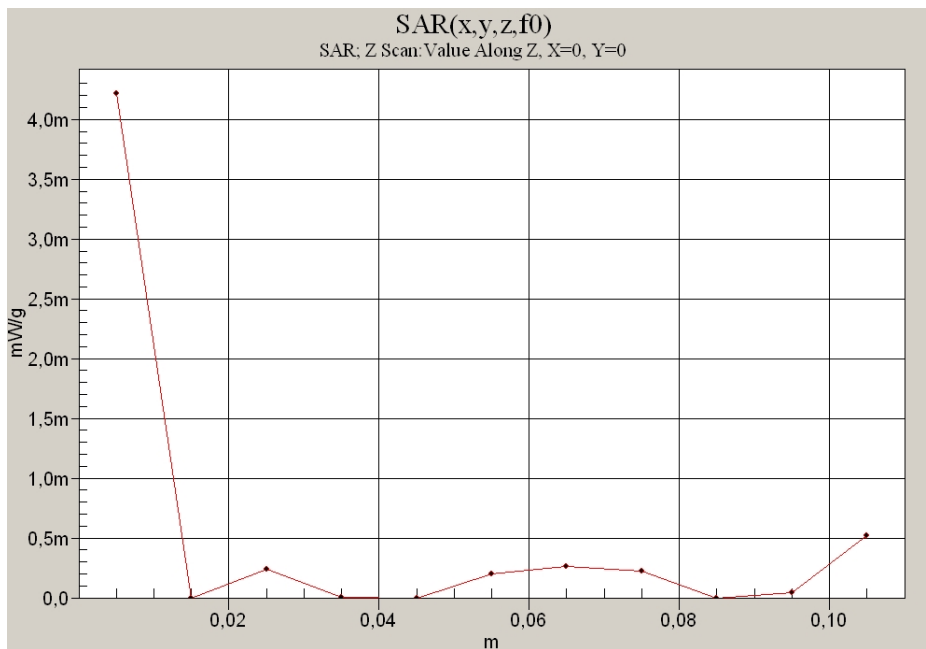


Fig. 15: SAR versus liquid depth, head: DECT US, channel 2, cheek position, left side of head (April 04, 2012; Ambient Temperature: 21.6° C; Liquid Temperature : 21.3° C).

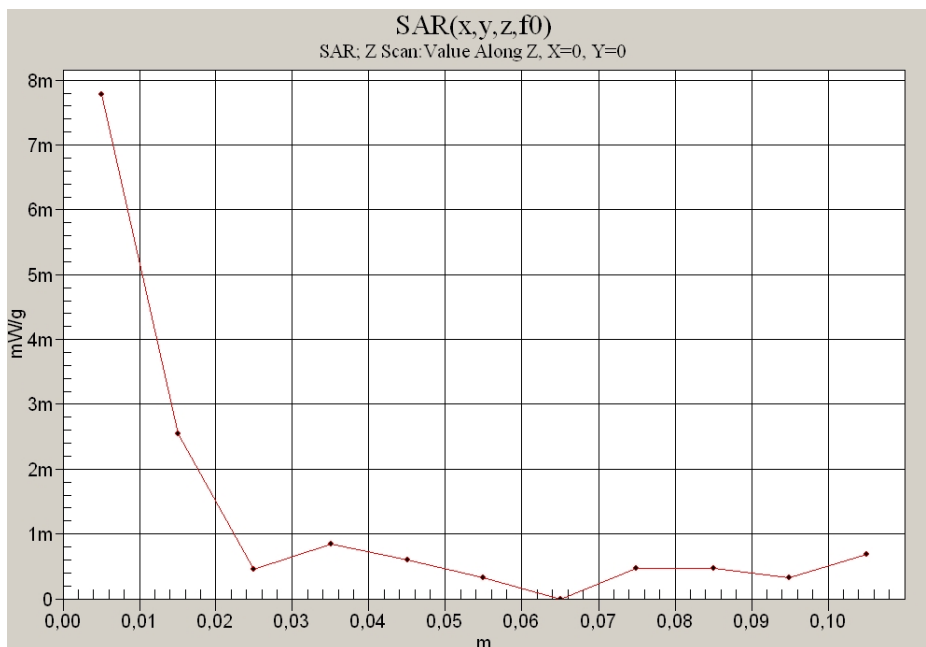


Fig. 16: SAR versus liquid depth, body: DECT US, antenna 2, headset and 0 mm distance, display towards the phantom (April 12, 2012; Ambient Temperature: 21.8° C; Liquid Temperature: 21.4° C).