
Appendix for the Report
Dosimetric Assessment of the
Portable Device
Panasonic KX-TGA 930
(FCC ID: ACJ96NKX-TGA930)

According to the FCC Requirements

SAR Distribution Plots

November 05, 2007
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The test results only relate to the items tested.
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1 SAR Distribution Plots, Head Measurements

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [TGA930_bplm_1_Ant1.da4](#)

DUT: Panasonic; Type: KX-TGA930; Serial: 93830

Program Name: Cheek Left

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

Medium parameters used: $f = 1924.99$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³

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: DAE4 Sn631; Calibrated: 17.09.2007
- 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 (7x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.032 mW/g

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

Reference Value = 3.26 V/m; Power Drift = -0.034 dB

Peak SAR (extrapolated) = 0.059 W/kg

SAR(1 g) = 0.035 mW/g; SAR(10 g) = 0.019 mW/g

Maximum value of SAR (measured) = 0.039 mW/g

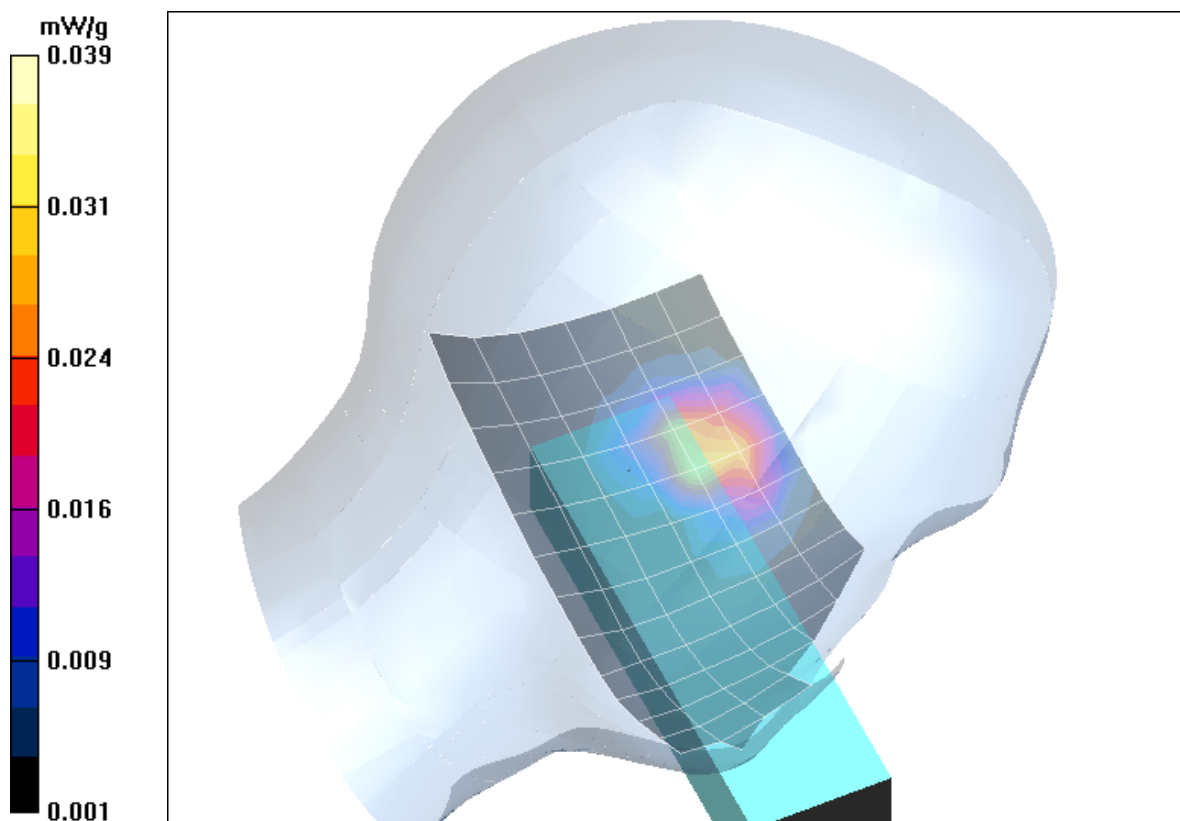


Fig. 1: SAR distribution for DECT US, channel 2, cheek position, antenna 1, left side of head (October 29, 2007; Ambient Temperature: 21.9°C; Liquid Temperature: 21.1°C).

Test Laboratory: IMST GmbH, DASY Blue (I); **File Name:** [TGA930_bplm_2_Ant1.da4](#)

DUT: Panasonic; **Type:** KX-TGA930; **Serial:** 93830

Program Name: Tilted Left

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

Medium parameters used: $f = 1924.99$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³

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: DAE4 Sn631; Calibrated: 17.09.2007
- 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 (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.022 mW/g

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

Reference Value = 2.72 V/m; Power Drift = 0.068 dB

Peak SAR (extrapolated) = 0.037 W/kg

SAR(1 g) = 0.023 mW/g; SAR(10 g) = 0.013 mW/g

Maximum value of SAR (measured) = 0.025 mW/g

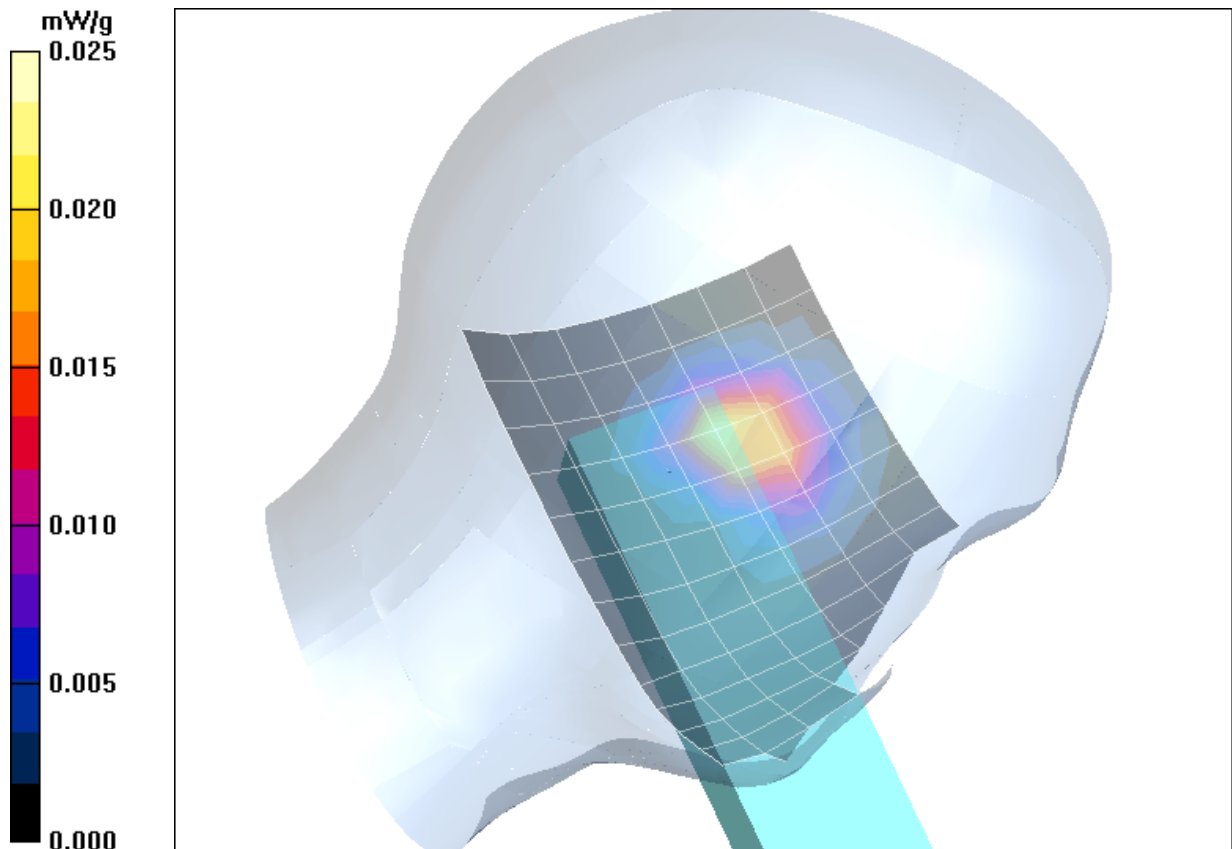


Fig. 2: SAR distribution for DECT US, channel 2, tilted position, antenna 1, left side of head (October 29, 2007; Ambient Temperature: 21.9°C; Liquid Temperature: 21.1°C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [TGA930_bprm_1_Ant1.da4](#)

DUT: Panasonic; Type: KX-TGA930; Serial: 93830

Program Name: Cheek Right

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

Medium parameters used: $f = 1924.99$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³

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: DAE4 Sn631; Calibrated: 17.09.2007
- 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 (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.023 mW/g

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

Reference Value = 3.03 V/m; Power Drift = 0.065 dB

Peak SAR (extrapolated) = 0.035 W/kg

SAR(1 g) = 0.021 mW/g; SAR(10 g) = 0.012 mW/g

Maximum value of SAR (measured) = 0.024 mW/g

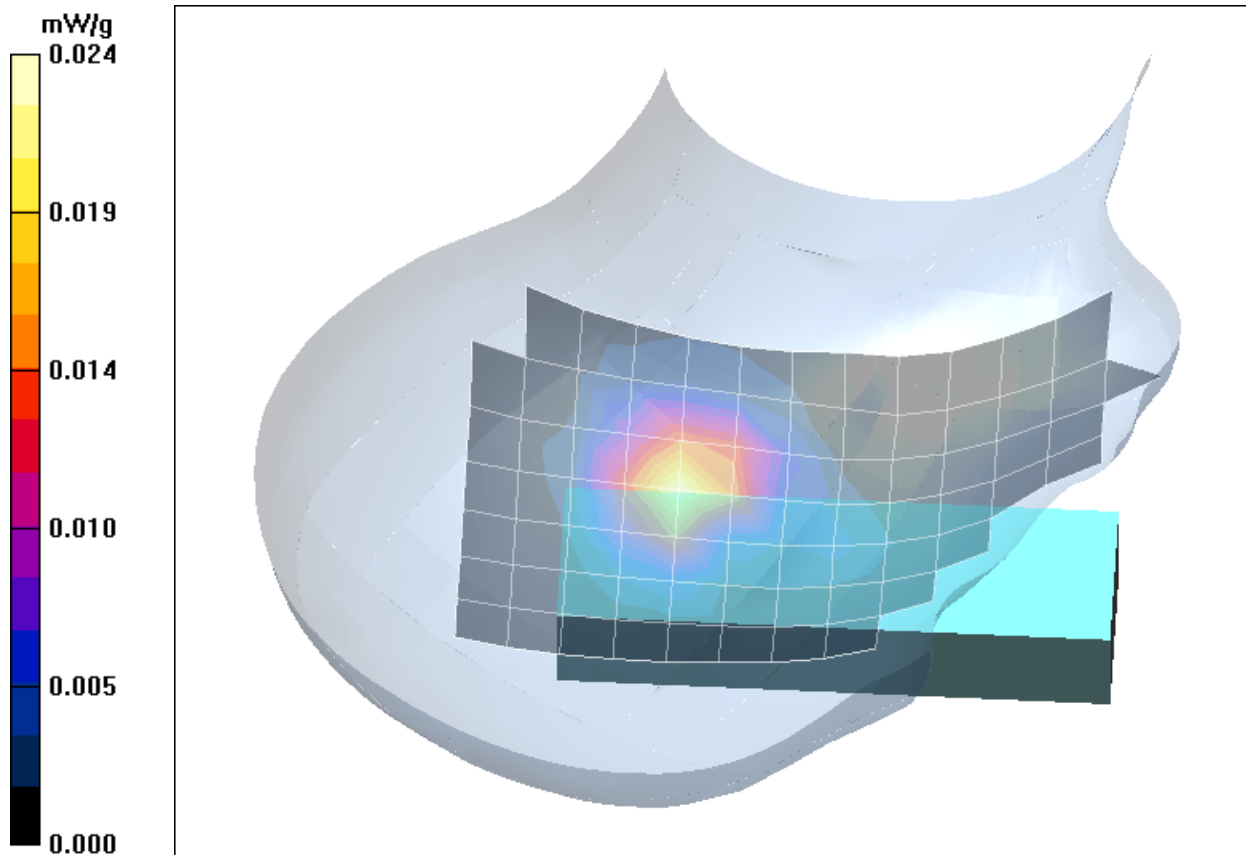


Fig. 3: SAR distribution for DECT US, channel 2, cheek position, antenna 1, right side of head (October 29, 2007; Ambient Temperature: 21.9°C; Liquid Temperature: 21.1°C).

Test Laboratory: IMST GmbH, DASY Blue (I); **File Name:** [TGA930_bprm_2_Ant1.da4](#)

DUT: Panasonic; **Type:** KX-TGA930; **Serial:** 93830

Program Name: Tilted Right

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

Medium parameters used: $f = 1924.99$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³

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: DAE4 Sn631; Calibrated: 17.09.2007
- 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 (8x14x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 2.70 V/m; Power Drift = -0.076 dB

Peak SAR (extrapolated) = 0.026 W/kg

SAR(1 g) = 0.016 mW/g; SAR(10 g) = 0.009 mW/g

Maximum value of SAR (measured) = 0.017 mW/g

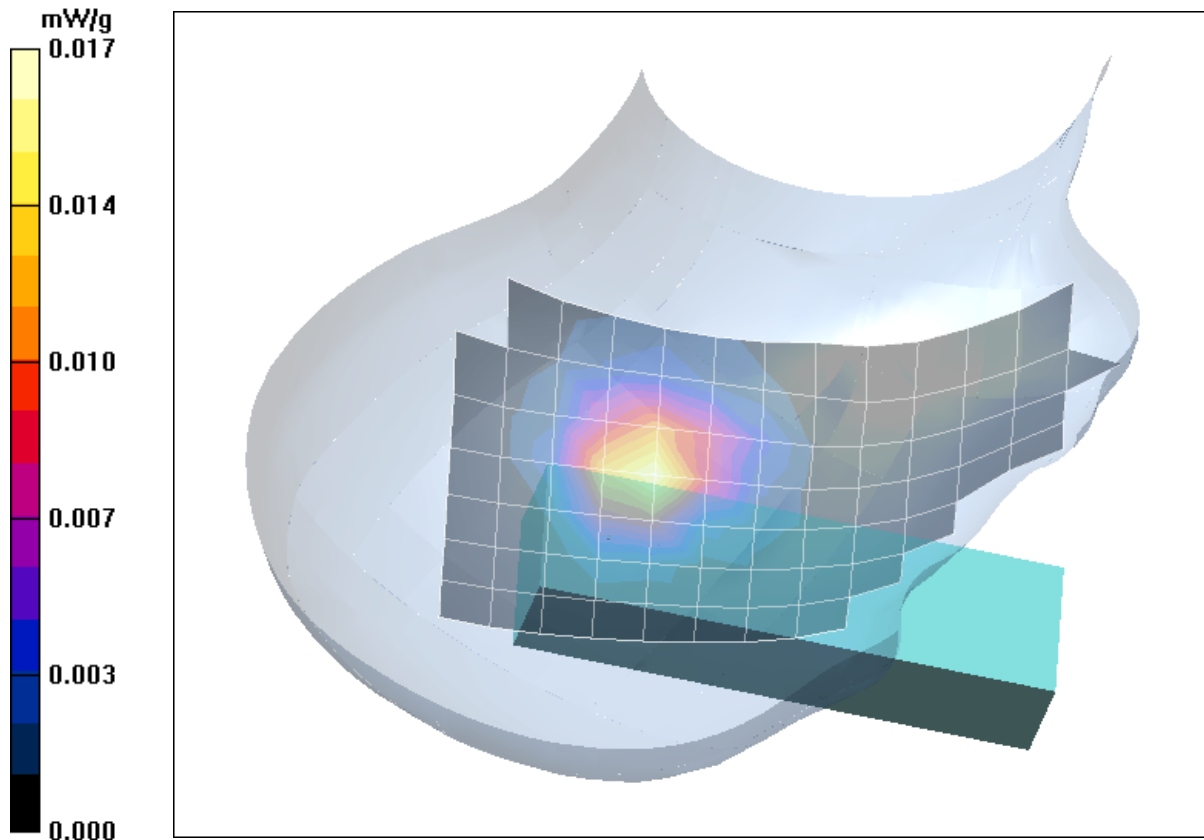


Fig. 4: SAR distribution for DECT US, channel 2, tilted position, antenna 1, right side of head (October 29, 2007; Ambient Temperature: 21.9°C; Liquid Temperature: 21.1°C)

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [TGA930_bplm_1_Ant2.da4](#)

DUT: Panasonic; Type: KX-TGA930; Serial: 93830

Program Name: Cheek Left

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

Medium parameters used: $f = 1924.99$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³

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: DAE4 Sn631; Calibrated: 17.09.2007
- 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 (7x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.028 mW/g

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

Reference Value = 4.48 V/m; Power Drift = -0.157 dB

Peak SAR (extrapolated) = 0.047 W/kg

SAR(1 g) = 0.029 mW/g; SAR(10 g) = 0.017 mW/g

Maximum value of SAR (measured) = 0.031 mW/g

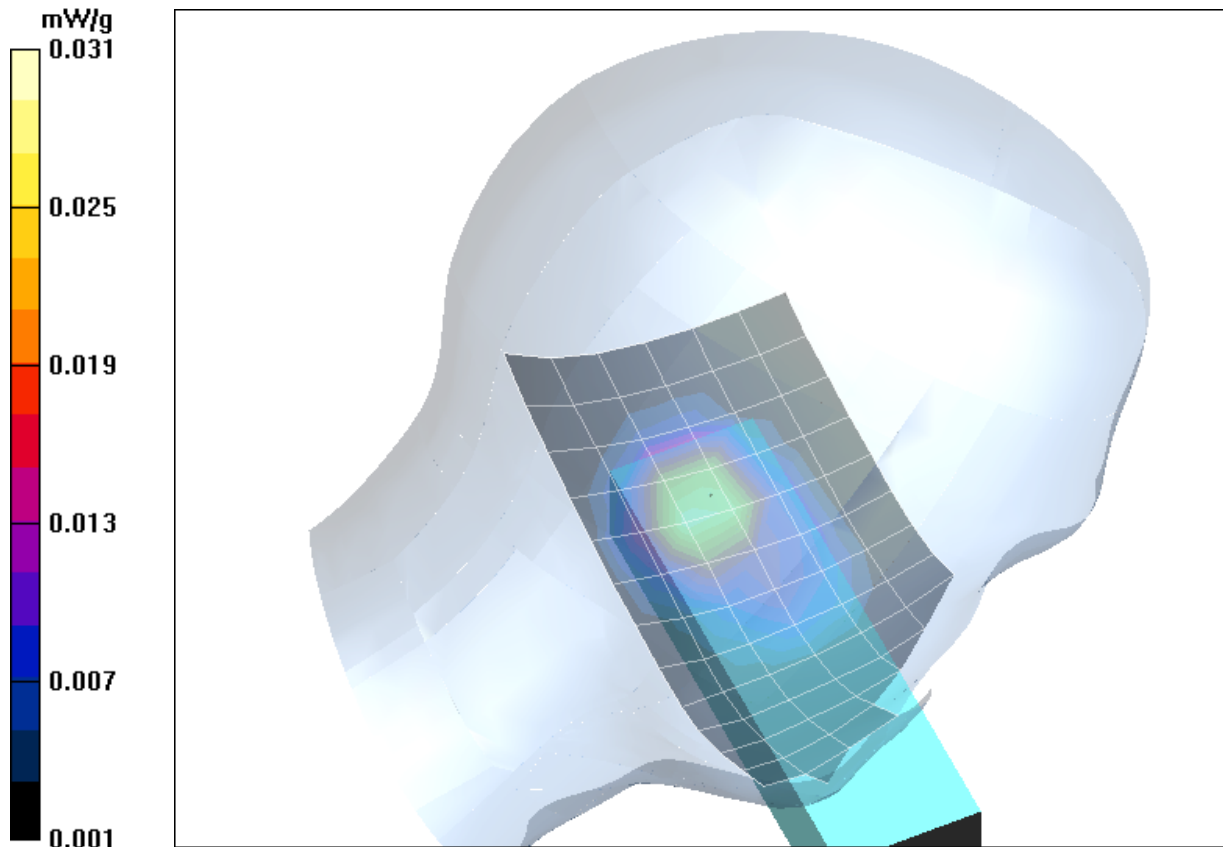


Fig. 5: SAR distribution for DECT US, channel 2, cheek position, antenna 2, left side of head (October 29, 2007; Ambient Temperature: 21.9°C; Liquid Temperature: 21.1°C).

Test Laboratory: IMST GmbH, DASY Blue (I); **File Name:** [TGA930_bplm_2_Ant2.da4](#)

DUT: Panasonic; **Type:** KX-TGA930; **Serial:** 93830

Program Name: Tilted Left

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

Medium parameters used: $f = 1924.99$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³

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: DAE4 Sn631; Calibrated: 17.09.2007
- 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 (7x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.018 mW/g

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

Reference Value = 3.73 V/m; Power Drift = -0.036 dB

Peak SAR (extrapolated) = 0.032 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

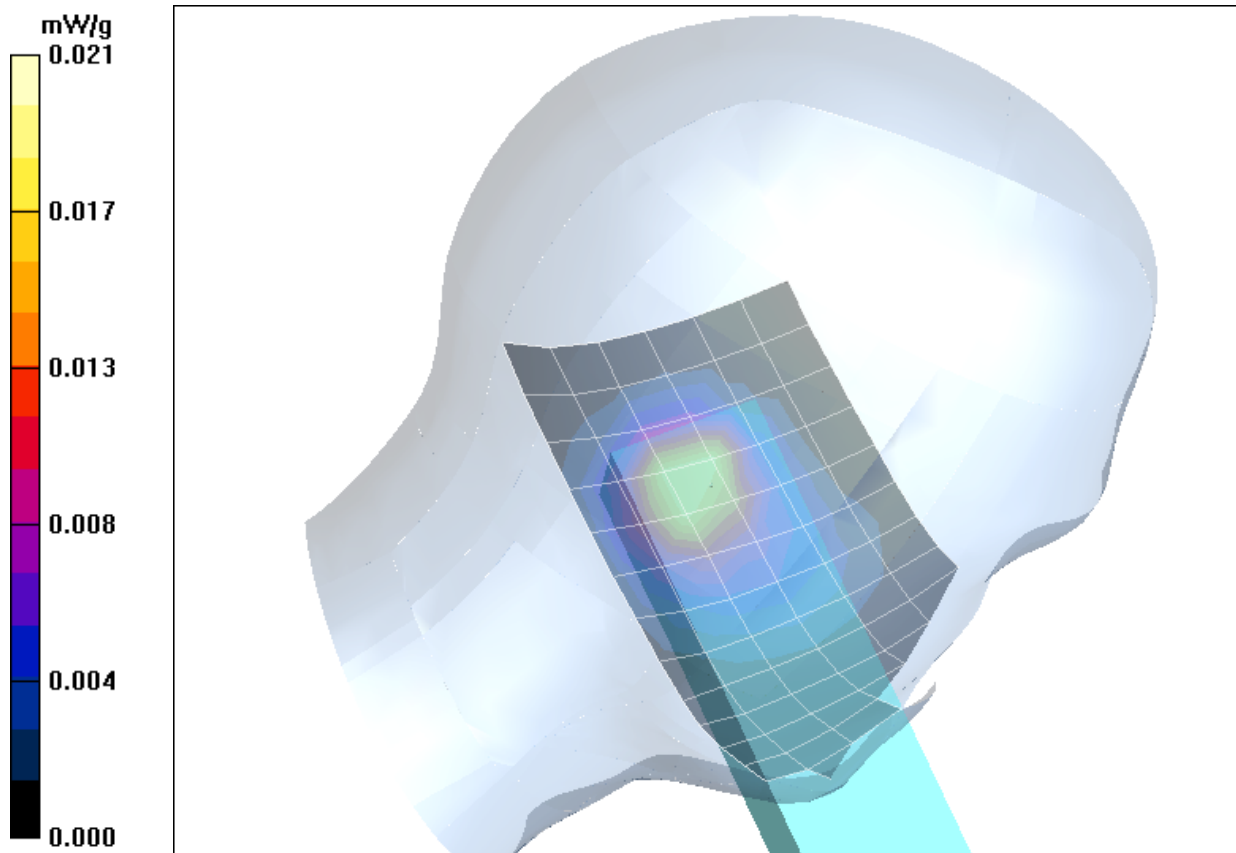


Fig. 6: SAR distribution for DECT US, channel 2, tilted position, antenna 2, left side of head (October 29, 2007; Ambient Temperature: 21.9°C; Liquid Temperature: 21.1°C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [TGA930_bprm_1_Ant2.da4](#)

DUT: Panasonic; Type: KX-TGA930; Serial: 93830

Program Name: Cheek Right

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

Medium parameters used: $f = 1924.99$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³

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: DAE4 Sn631; Calibrated: 17.09.2007
- 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 (7x14x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 3.66 V/m; Power Drift = 0.110 dB

Peak SAR (extrapolated) = 0.068 W/kg

SAR(1 g) = 0.039 mW/g; SAR(10 g) = 0.021 mW/g

Maximum value of SAR (measured) = 0.044 mW/g

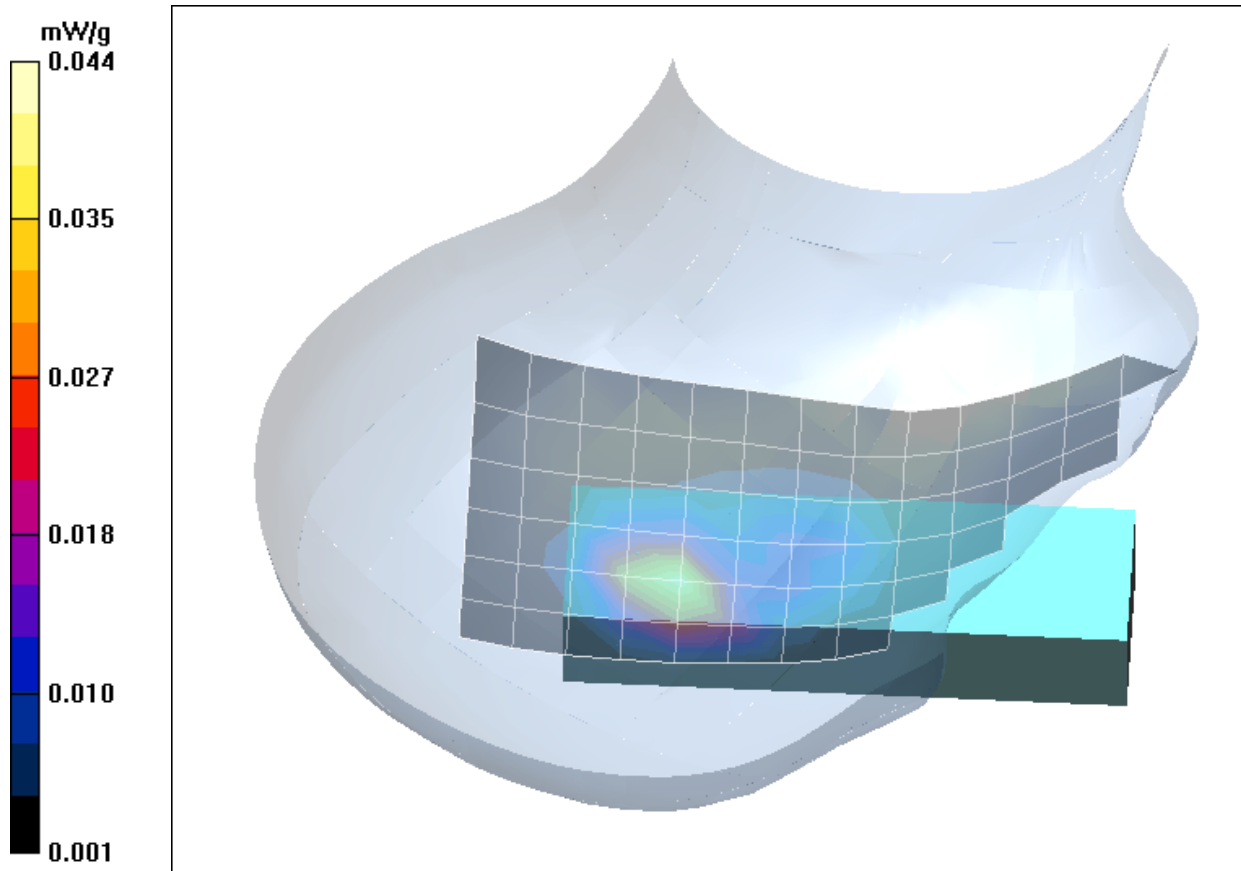


Fig. 7: SAR distribution for DECT US, channel 2, cheek position, antenna 2, right side of head (October 29, 2007; Ambient Temperature: 21.9°C; Liquid Temperature: 21.1°C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [TGA930_bprm_2_Ant2.da4](#)

DUT: Panasonic; Type: KX-TGA930; Serial: 93830

Program Name: Tilted Right

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

Medium parameters used: $f = 1924.99$ MHz; $\sigma = 1.44$ mho/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³

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: DAE4 Sn631; Calibrated: 17.09.2007
- 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 (8x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.024 mW/g

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

Reference Value = 3.89 V/m; Power Drift = -0.024 dB

Peak SAR (extrapolated) = 0.043 W/kg

SAR(1 g) = 0.025 mW/g; SAR(10 g) = 0.013 mW/g

Maximum value of SAR (measured) = 0.028 mW/g

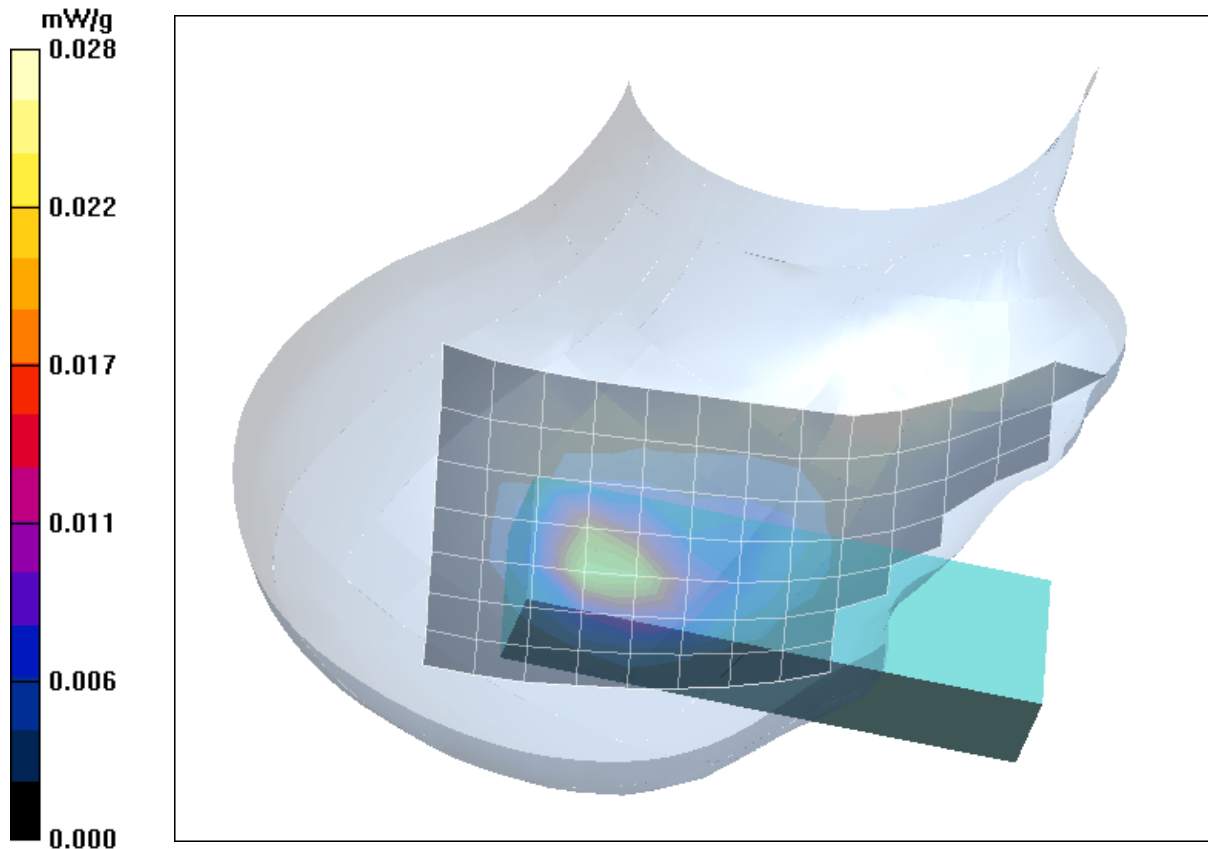


Fig. 8: SAR distribution for DECT US, channel 2, tilted position, antenna 2, right side of head (October 29, 2007; Ambient Temperature: 21.9°C; Liquid Temperature: 21.1°C)

2 SAR Distribution Plots, Body Measurements

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [TGA930 bphm 1 ant 1 HS.da4](#)

DUT: Panasonic; Type: KX-TGA930; Serial: 93830

Program Name: Body

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24
 Medium parameters used: $f = 1925$ MHz; $\sigma = 1.55$ mho/m; $\epsilon_r = 53.1$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.67, 7.67, 7.67); Calibrated: 18.09.2007
- 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

Body/Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.022 mW/g

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

Reference Value = 0.000 V/m; Power Drift = 0.100 dB

Peak SAR (extrapolated) = 0.054 W/kg

SAR(1 g) = 0.020 mW/g; SAR(10 g) = 0.010 mW/g

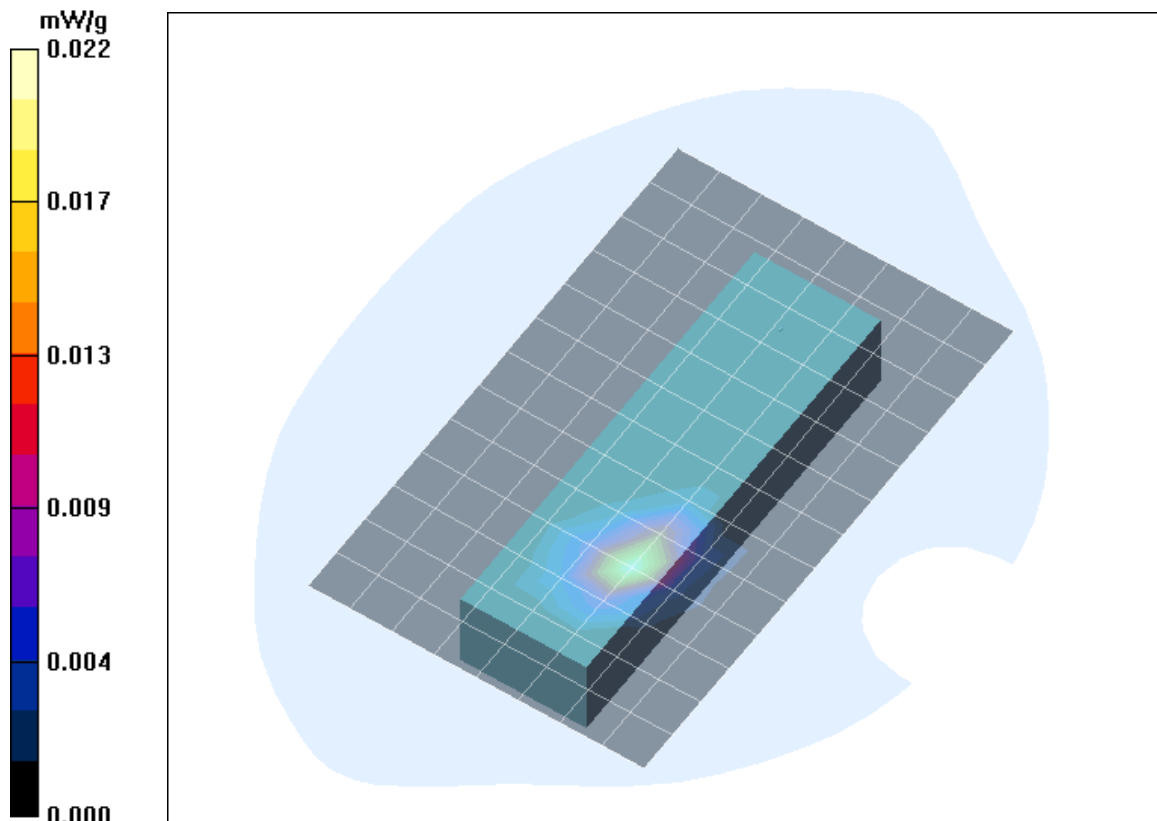


Fig. 9: SAR distribution for DECT US, channel 2, body worn configuration, with headset, antenna 1, display towards the ground, with belt clip and 0 mm distance (November 02, 2007; Ambient Temperature: 21.9° C; Liquid Temperature: 21.1° C).

Test Laboratory: IMST GmbH, DASY Blue (I); File Name: [TGA930 bphm 1 ant 2 HS.da4](#)

DUT: Panasonic; Type: KX-TGA930; Serial: 93830

Program Name: Body

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24
 Medium parameters used: $f = 1925$ MHz; $\sigma = 1.55$ mho/m; $\epsilon_r = 53.1$; $\rho = 1000$ kg/m³
 Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.67, 7.67, 7.67); Calibrated: 18.09.2007
- 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

Body/Area Scan (9x14x1): Measurement grid: dx=15mm, dy=15mm

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

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

Reference Value = 0.899 V/m; Power Drift = 0.169 dB

Peak SAR (extrapolated) = 0.023 W/kg

SAR(1 g) = 0.015 mW/g; SAR(10 g) = 0.0059 mW/g

Maximum value of SAR (measured) = 0.018 mW/g

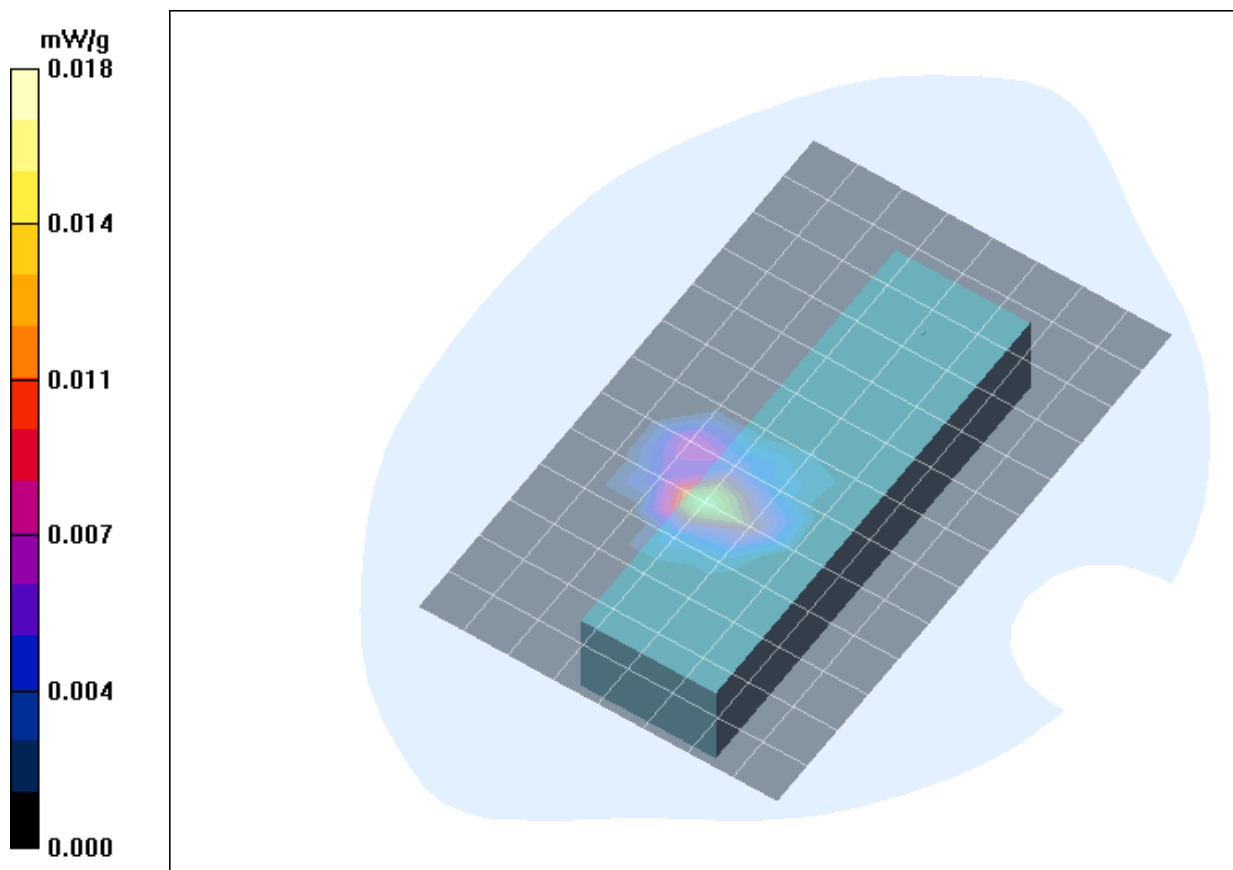


Fig. 10: SAR distribution for DECT US, channel 2, body worn configuration, with headset, antenna 2, display towards the ground, with belt clip and 0 mm distance (November 02, 2007; Ambient Temperature: 22.5° C; Liquid Temperature: 21.4° C).

3 SAR z-axis scans (Validation)

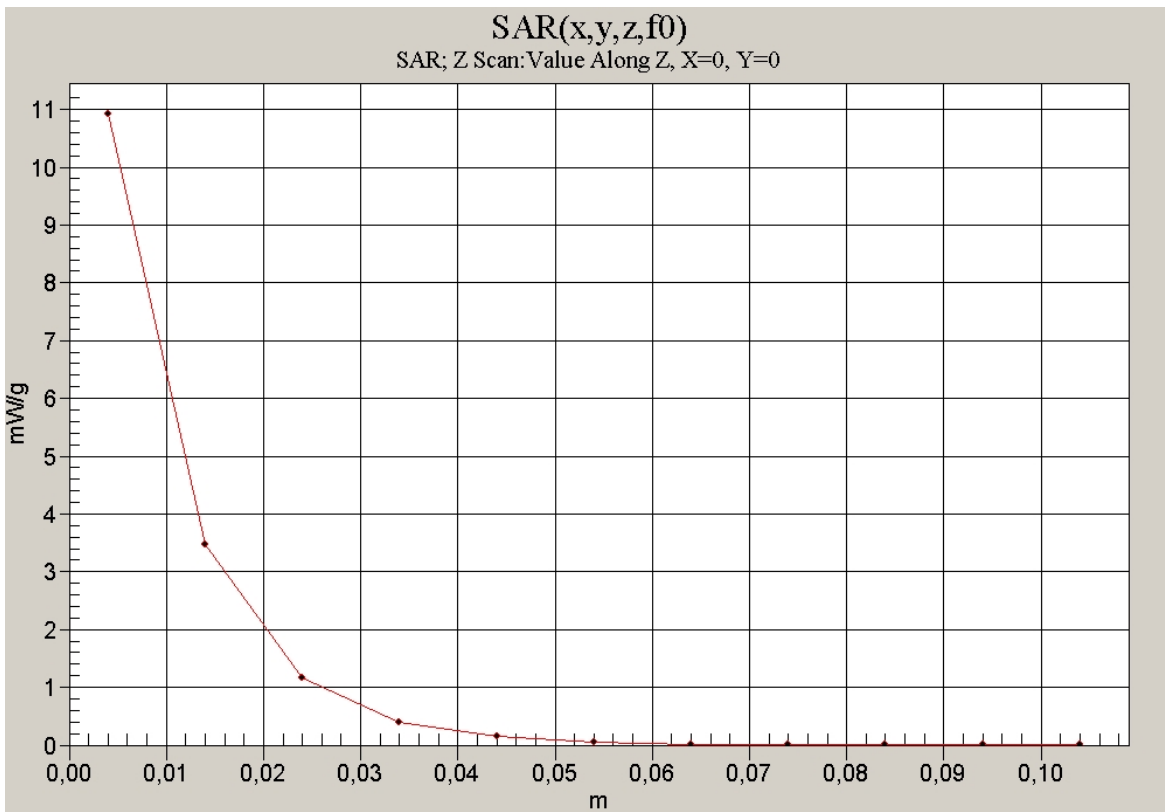


Fig. 11: SAR versus liquid depth, 1900 MHz, head (October 29, 2007; Ambient Temperature: 21.9° C; Liquid Temperature : 21.1° C).

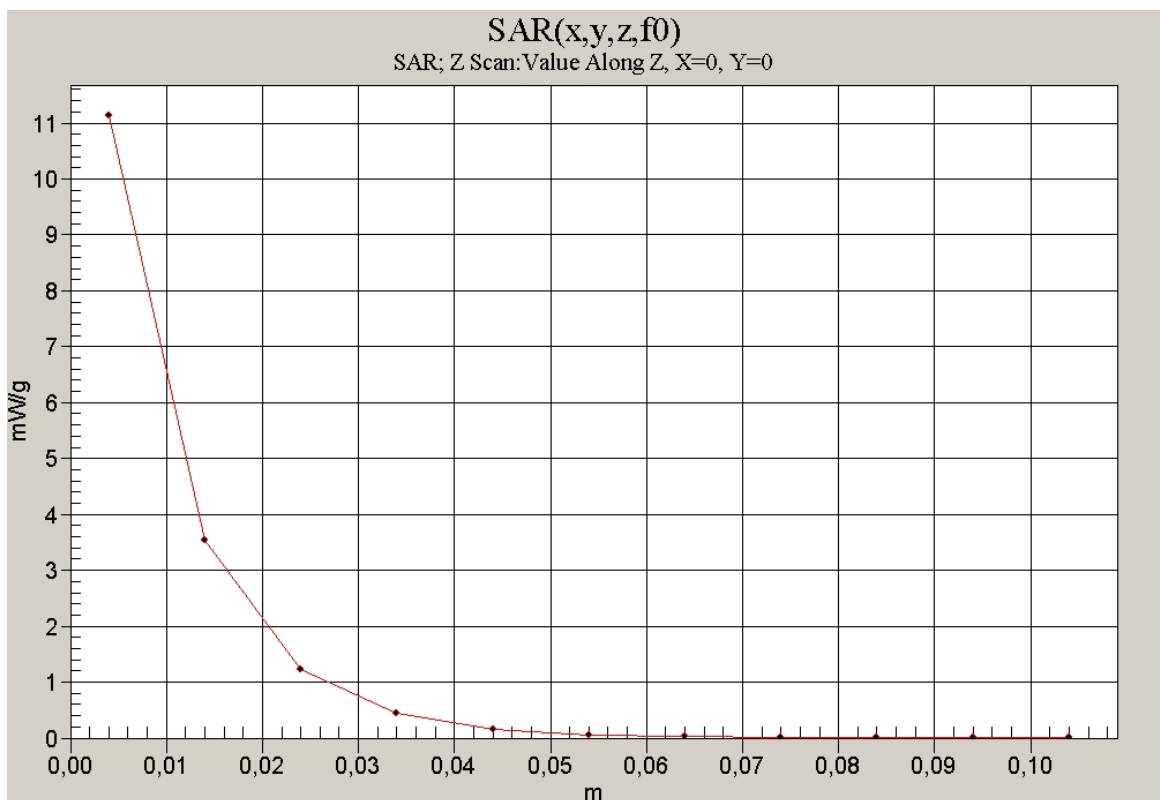


Fig. 12: SAR versus liquid depth, 1900 MHz, body (November 02, 2007; Ambient Temperature: 22.1° C; Liquid Temperature : 21.3° C).

4 SAR z-axis scans (Measurements)

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

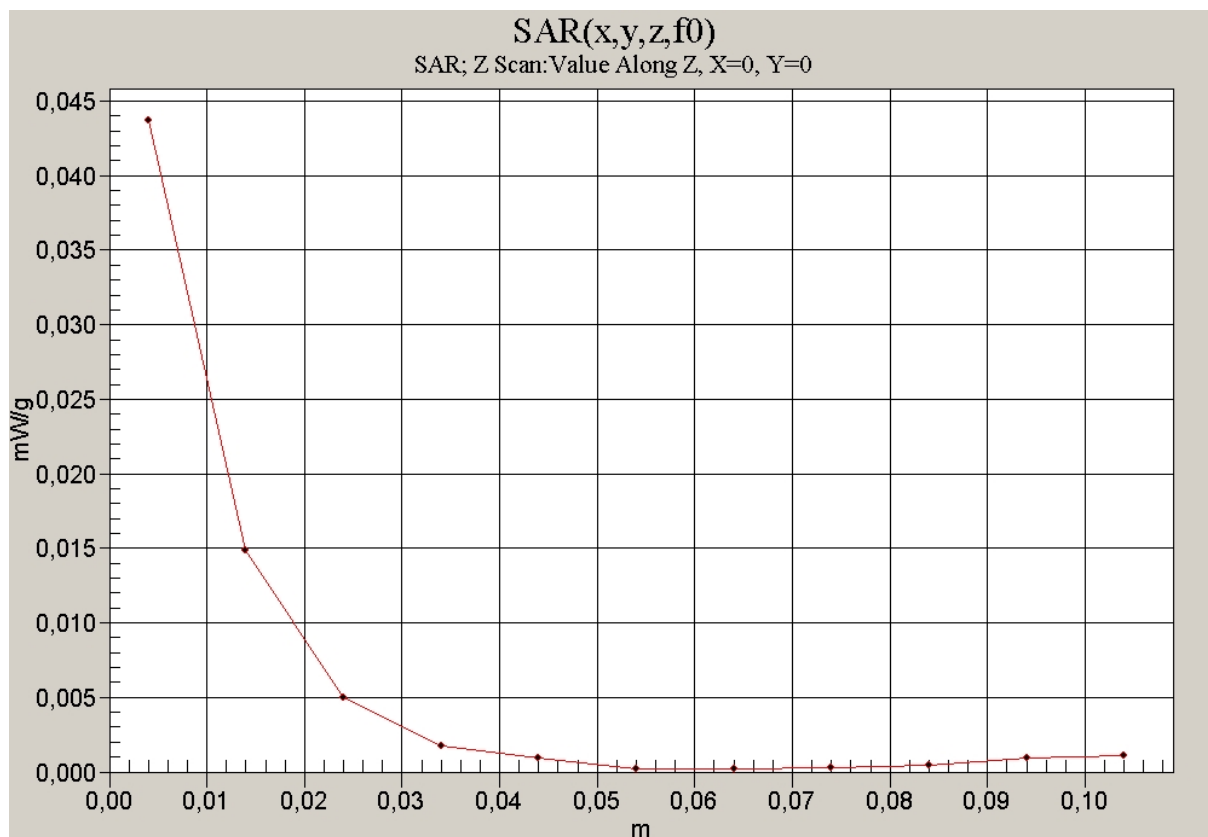


Fig. 13: SAR versus liquid depth, head: DECT US, channel 2, cheek position, antenna 2, right side of head, (October 29, 2007; Ambient Temperature: 21.9° C; Liquid Temperature: 21.1° C).

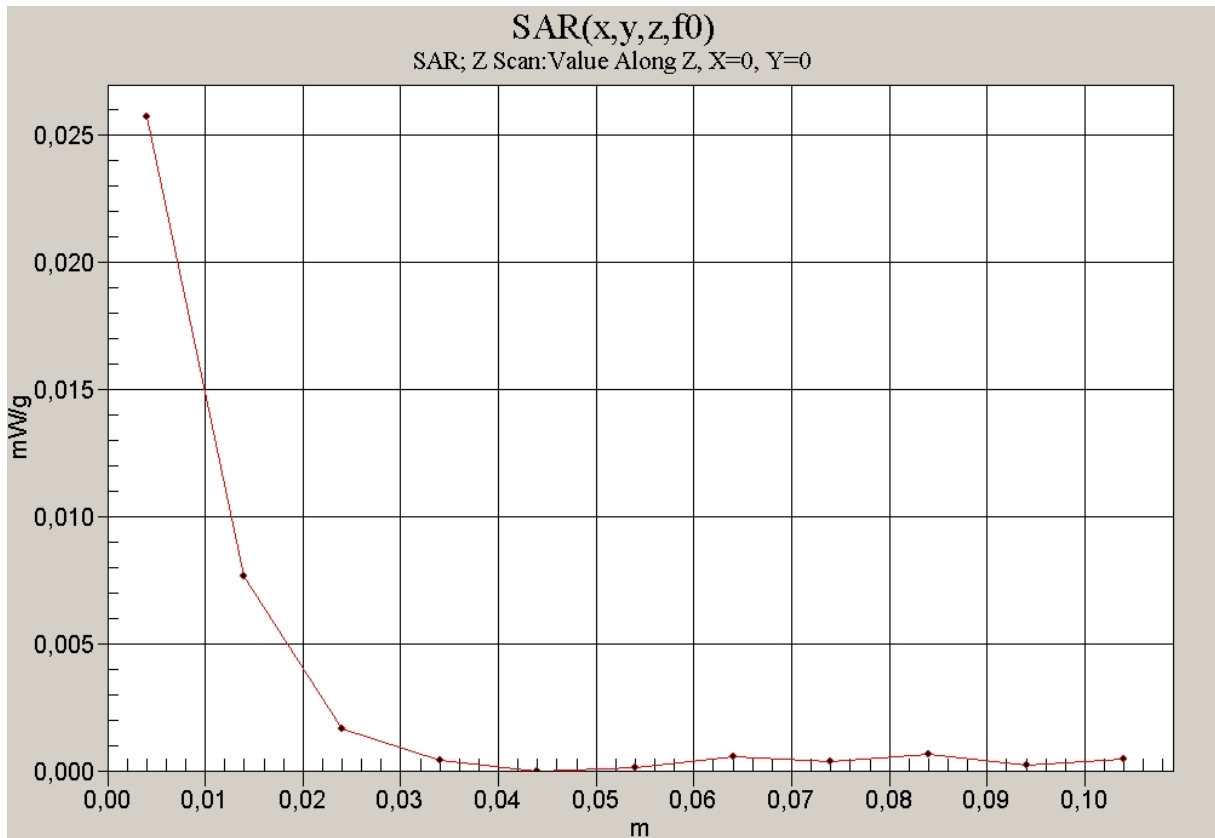


Fig. 14: SAR versus liquid depth, body: DECT US 1900, channel 2, antenna 1, Position 1, with headset, display towards the ground, with belt clip and 0 mm distance (November 02, 2007; Ambient Temperature: 21.9° C; Liquid Temperature: 21.1° C).