
Appendix for the Report

Dosimetric Assessment of the Siemens S55 (FCC ID: PWX-S55) According to the FCC Requirements

SAR Distribution Plots

July 17, 2001
IMST GmbH
Carl-Friedrich-Gauß-Str. 2
D-47475 Kamp-Lintfort

Customer
Siemens Information & Communication Mobile LLC
16745 West Bernado Drive, Suite 400
San Diego-CA 92127

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, TEST SIDE AMBIENT CONDITIONS.....	3
2	SAR DISTRIBUTION PLOTS, PCS1900 (HEAD)	5
3	SAR DISTRIBUTION PLOTS, PCS1900 (BODY)	13
4	SAR Z-AXIS SCANS (VALIDATION)	17
5	SAR Z-AXIS SCANS (MEASUREMENTS)	19

1 SAR Distribution Plots, Test side ambient conditions.

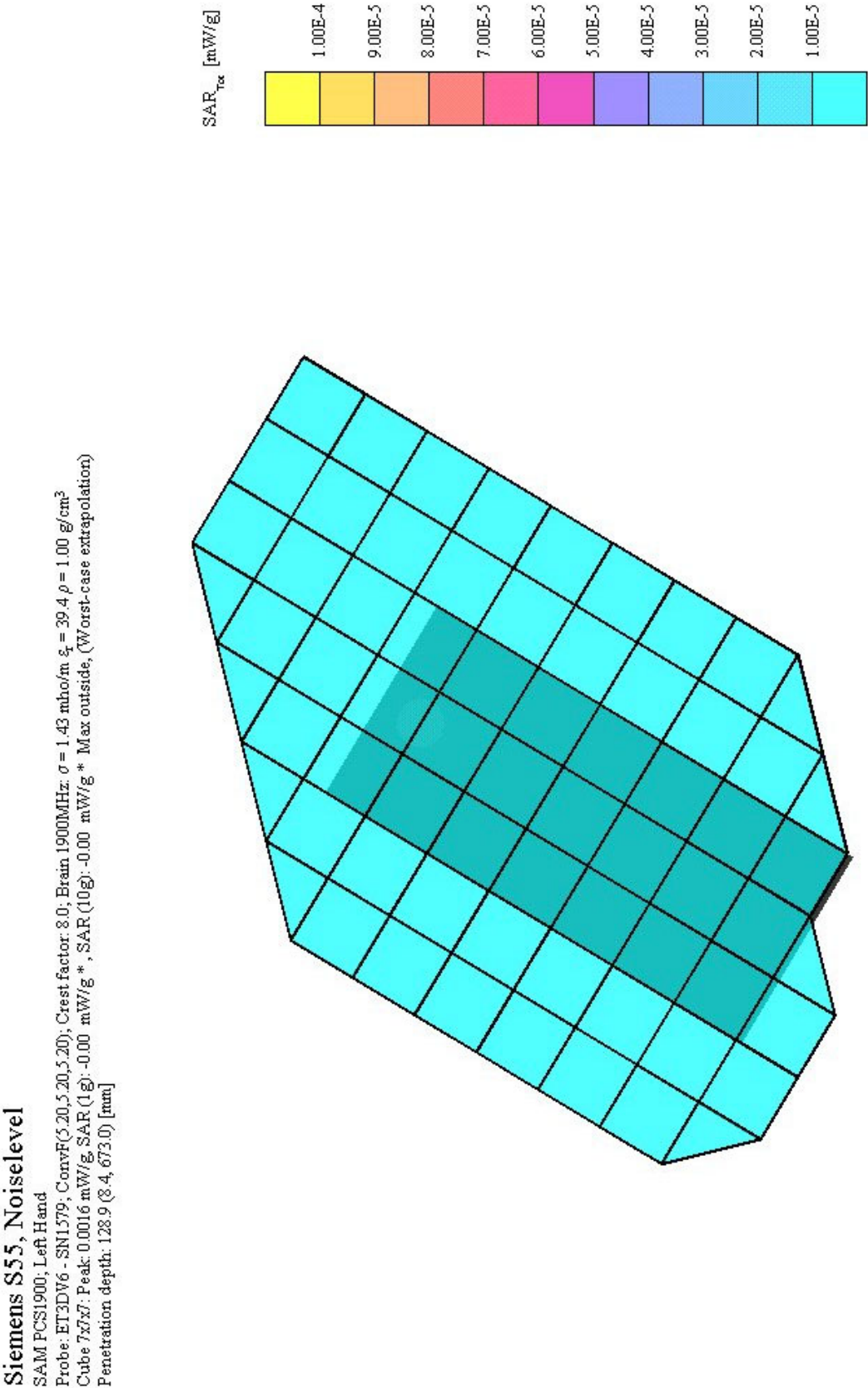


Fig. 1: Test side ambient measurements, 1900 MHz, head position.

Siemens S55, Noiselevel
SAM PCS1900; Flat
Probe: ET3DW6 - SN1579; ConvF(4.80,4.80,4.80); Crest factor: 8.0; body 1900 MHz; $\sigma = 1.53$ mho/m $\epsilon_r = 51.8$ $\rho = 1.00$ g/cm³
Cube 7x7x7; Peak: 0.0004 mW/g; SAR(1 g): -0.00 mW/g *, SAR(10g): -0.00 mW/g *; Max outside, (Worst-case extrapolation)
Penetration depth: 39.5 (34.0, 53.0) [mm]

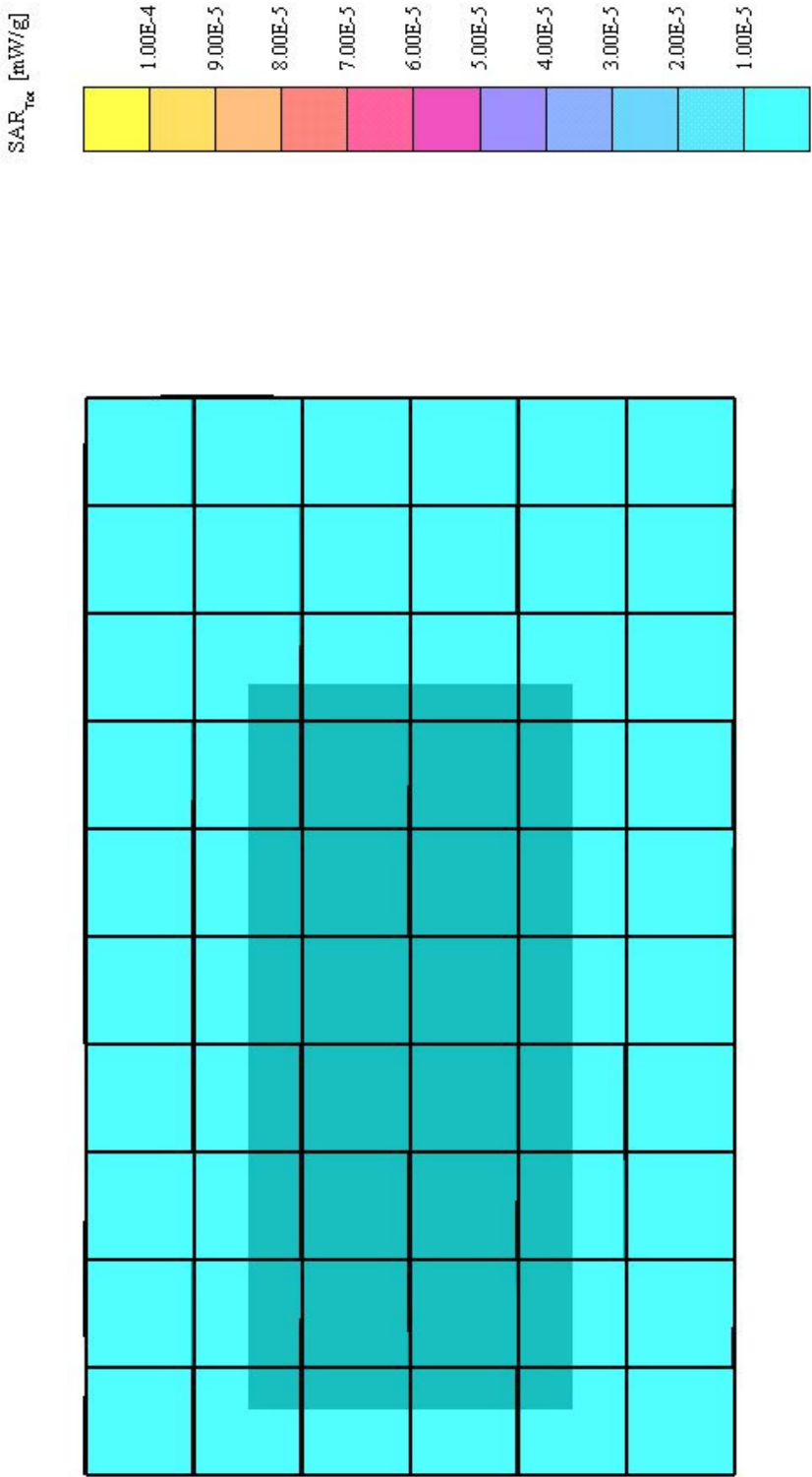


Fig. 2: Test side ambient measurements, 1900 MHz, body worn position.

2 SAR Distribution Plots, PCS1900 (Head)

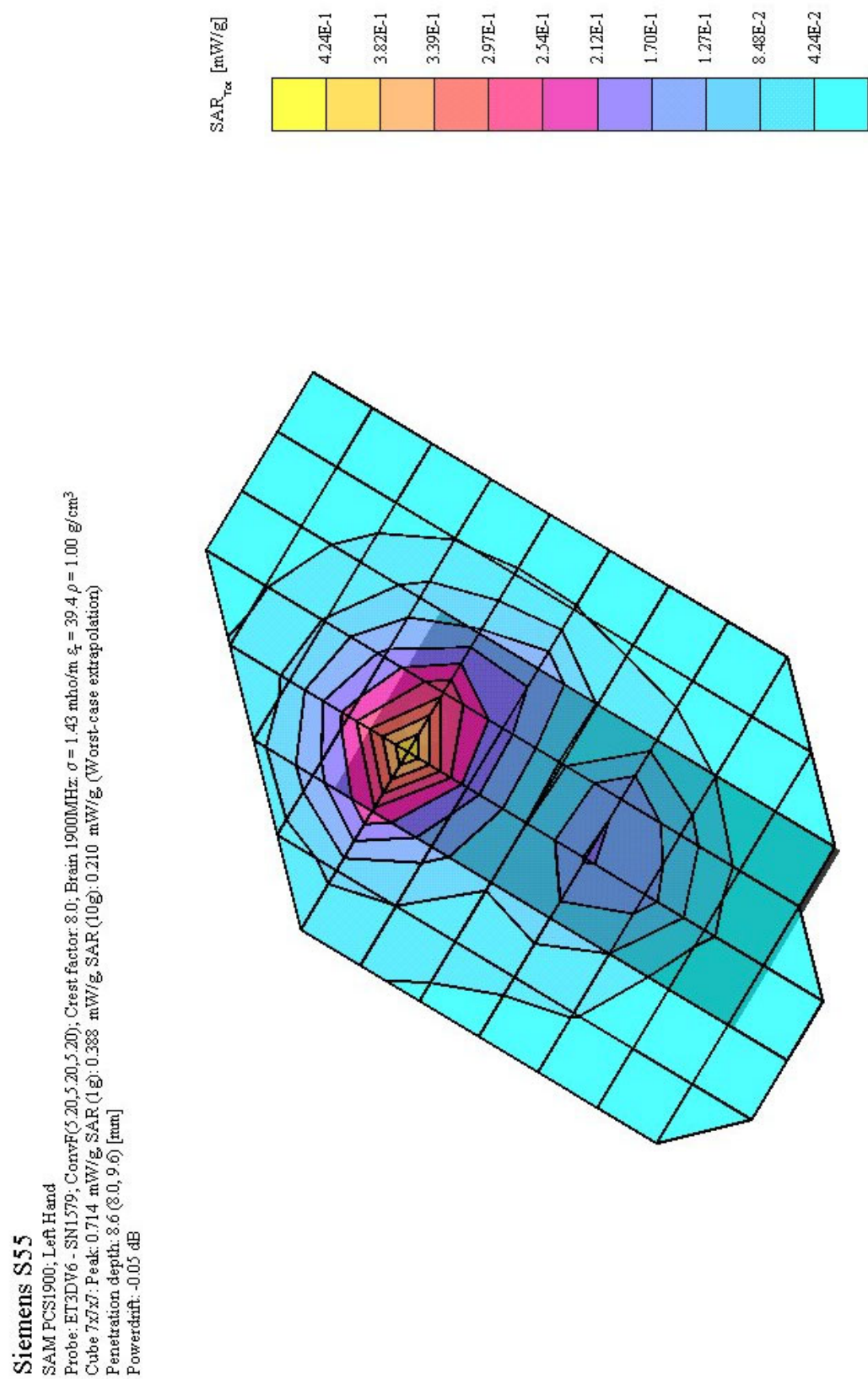


Fig. 3: SAR distribution, PCS1900, channel 661, cheek position, left side of head.

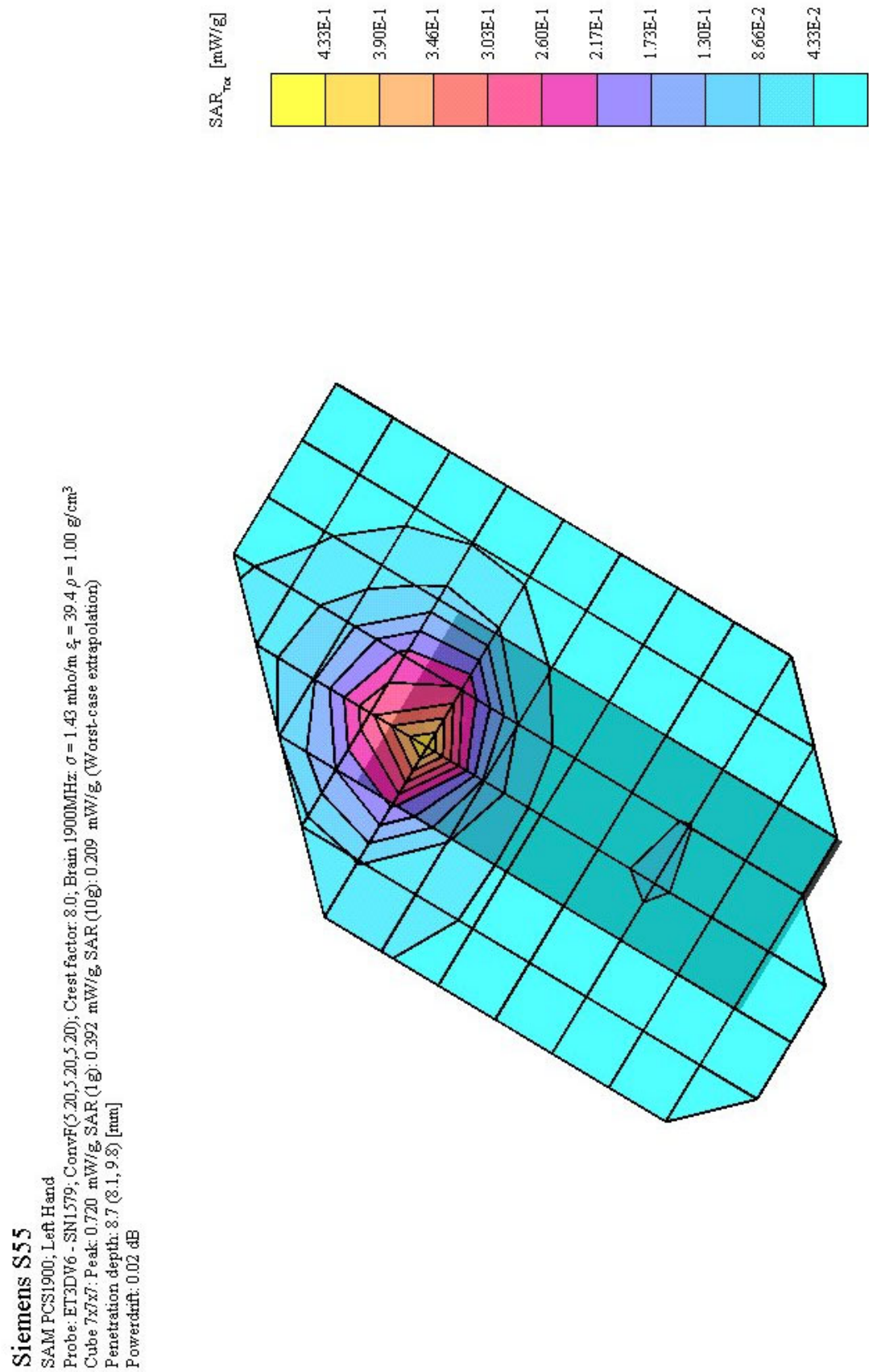


Fig. 4: SAR distribution, PCS1900, channel 661, tilted position, left side of head.

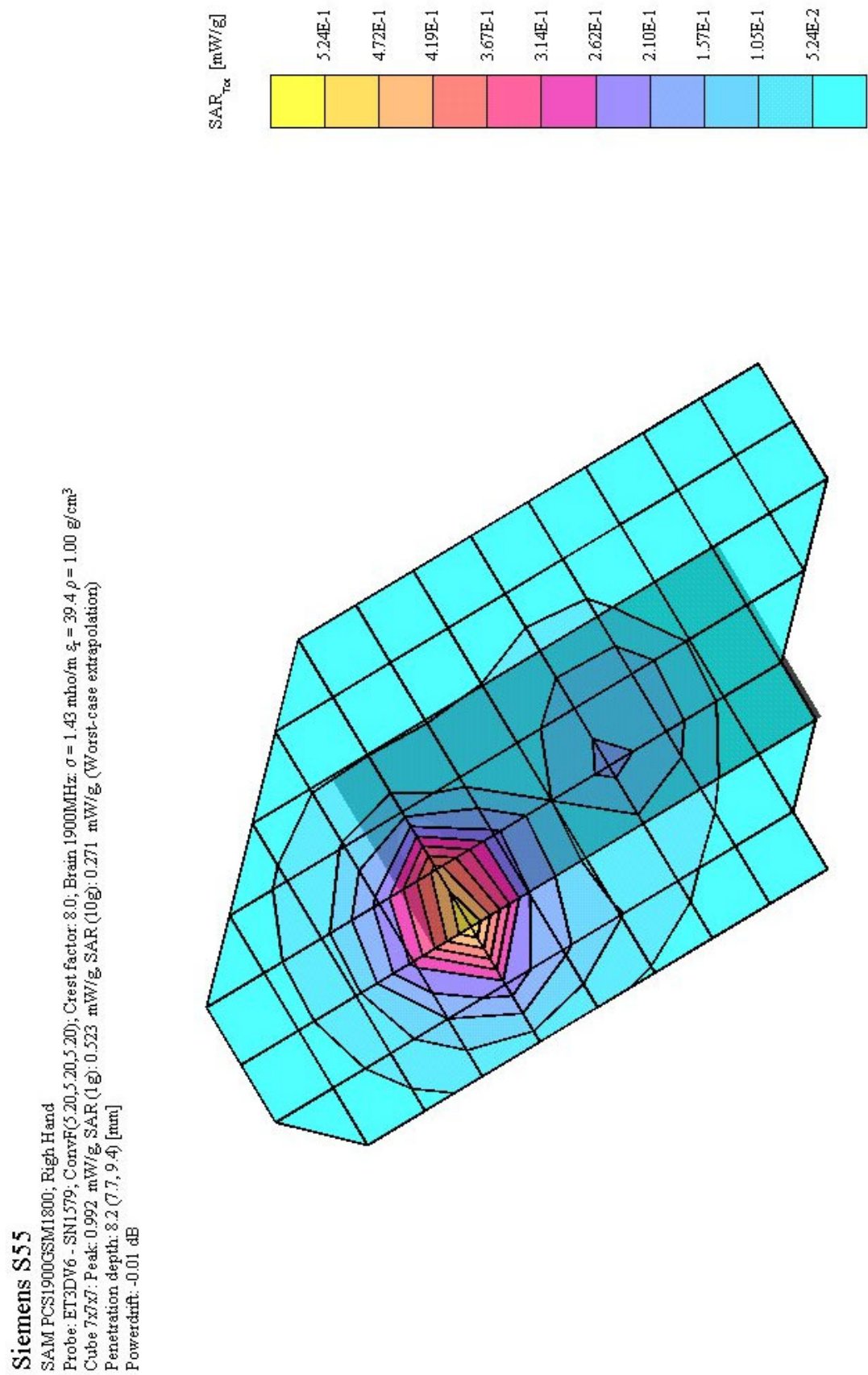


Fig. 5: SAR distribution, PCS1900, channel 661, cheek position, right side of head.

Siemens S55

GSM1800; Right Hand

Probe: ET3DV6 - SN1579; ConvF(5 20.5 20.5 20); Crest factor: 8.0; Brain 1900MHz: $\sigma = 1.43$ mho/m $\epsilon_r = 39.4$ $\rho = 1.00$ g/cm³

Cube 7x7x7: Peak: 0.966 mW/g SAR (1g): 0.503 mW/g SAR (10g): 0.257 mW/g (Worst-case extrapolation)

Penetration depth: 8.4 (7.8, 9.5) [mm]

Powerdrift: -0.10 dB

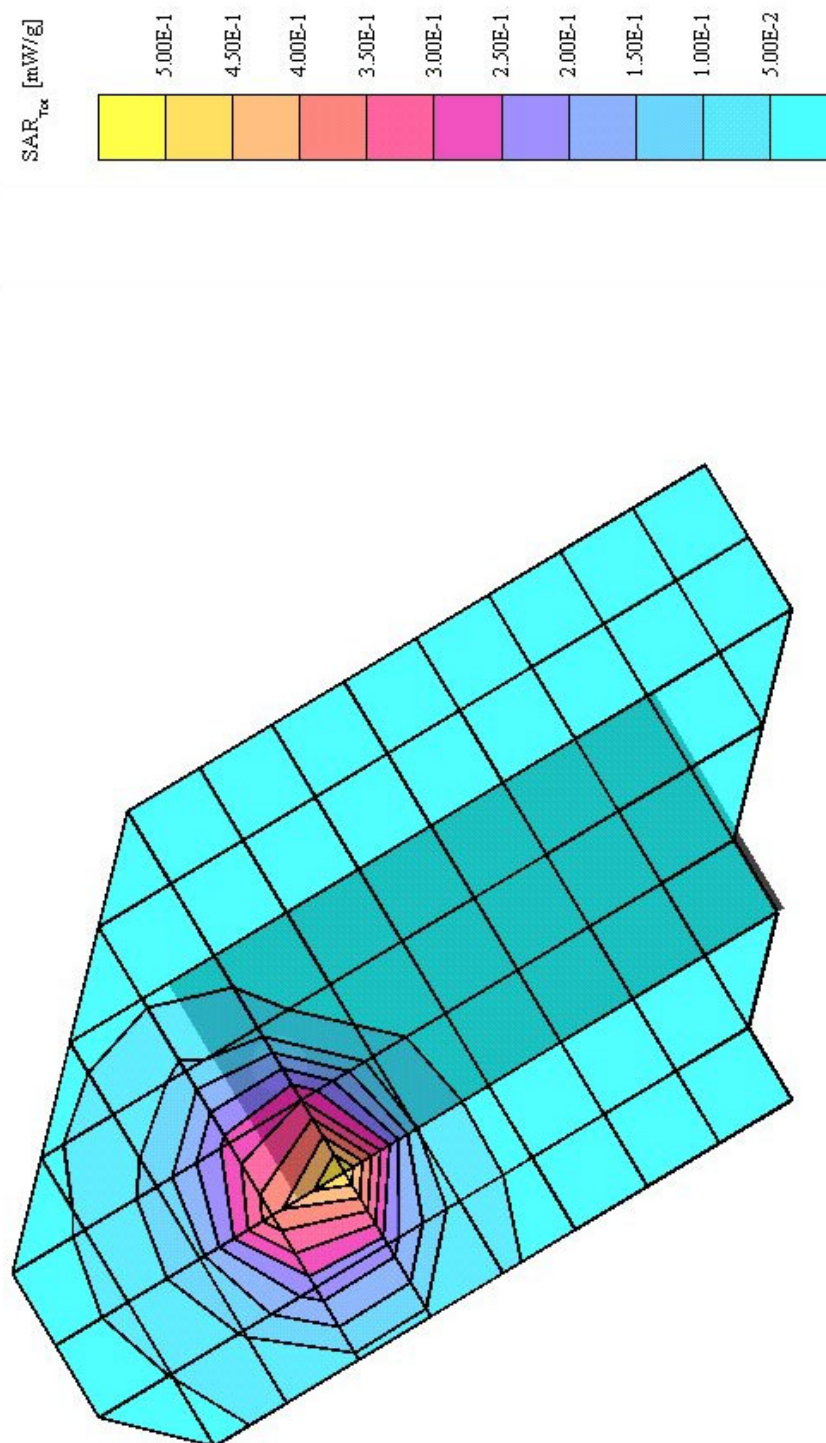


Fig. 6: SAR distribution, PCS1900, channel 661, tilted position, right side of head.

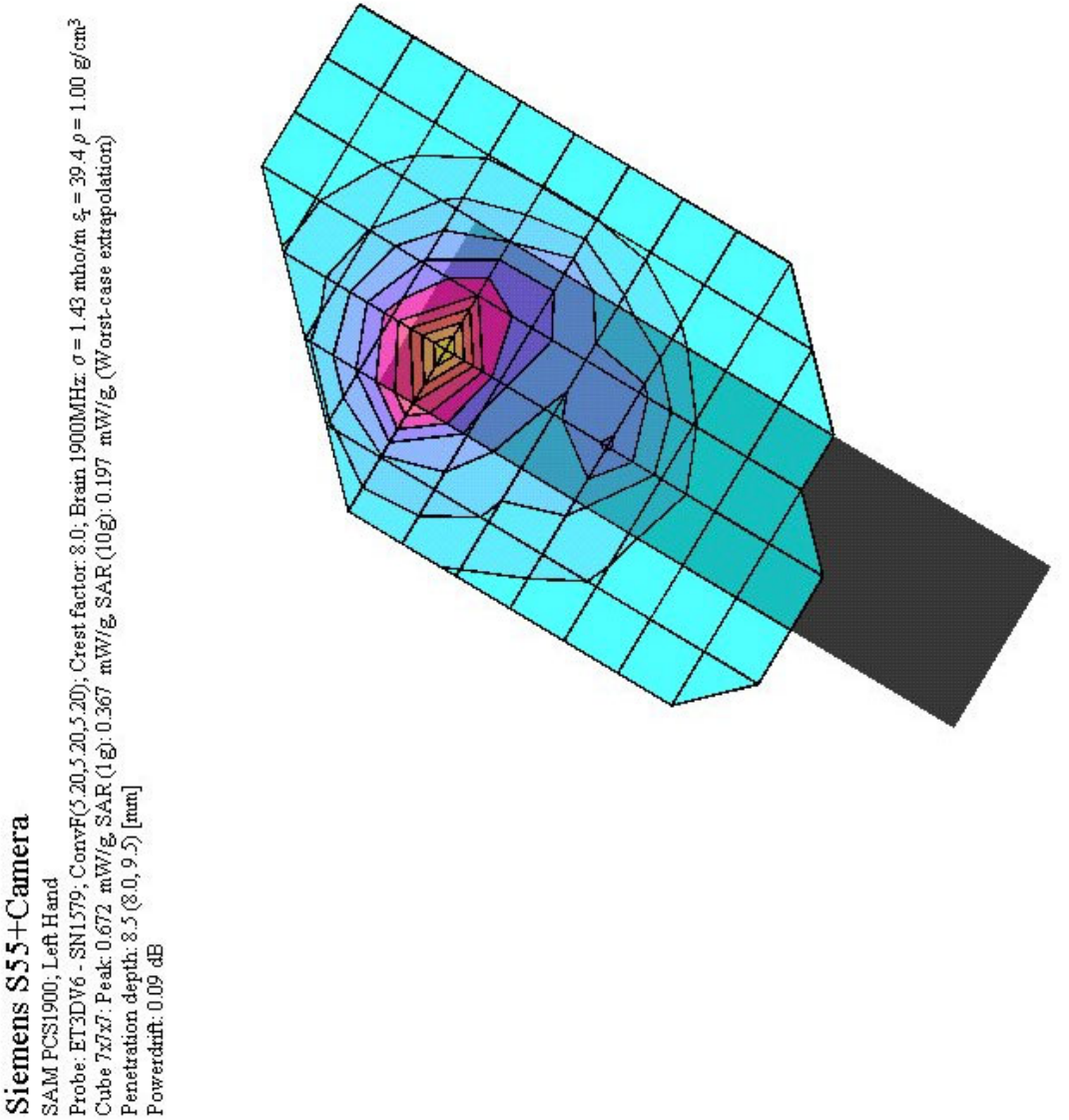


Fig. 7: SAR distribution, PCS1900 with QuickPic Camera, channel 661, cheek position, left side of head.

Siemens S55+Camera

SAM PCS1900; Left Hand

Probe: ET3DV6 - SN1579; ConvF(5.20,5.20,5.20); Crest factor: 8.0; Brain 1900MHz: $\sigma = 1.43$ mho/m $\epsilon_r = 39.4$ $\rho = 1.00$ g/cm³

Cube 7x7x7: Peak: 0.641 mW/g SAR (1g): 0.348 mW/g SAR (10g): 0.185 mW/g (Worst-case extrapolation)

Penetration depth: 8.5 (8.0, 9.6) [mm]

Powerdrift: 0.06 dB

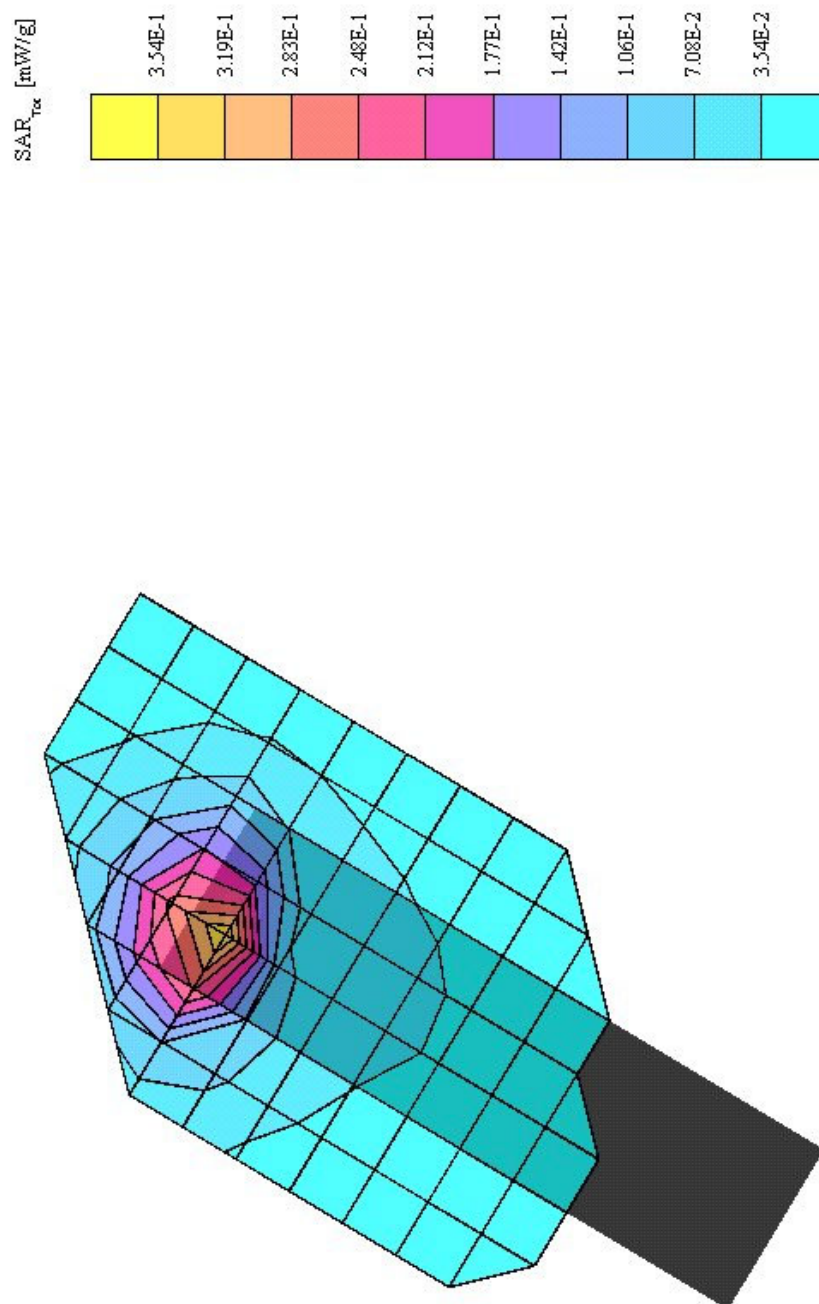


Fig. 8: SAR distribution, PCS1900 with QuickPic Camera, channel 661, tilted position, left side of head.

Siemens S55+Camera

SAM PCS1900; Right Hand
Probe: ET3DV6 - SN1579; ConvF(5.20,5.20,5.20); Crest factor: 8.0; Brain 1900MHz: $\sigma = 1.43$ mho/m $\epsilon_r = 39.4$ $\rho = 1.00$ g/cm³
Cube 7x7x7; Peak: 0.997 mW/g SAR (1 g); 0.522 mW/g SAR (10g); 0.269 mW/g (Worst-case extrapolation)
Penetration depth: 8.1 (7.6, 9.0) [mm]
Powerdrift: 0.00 dB

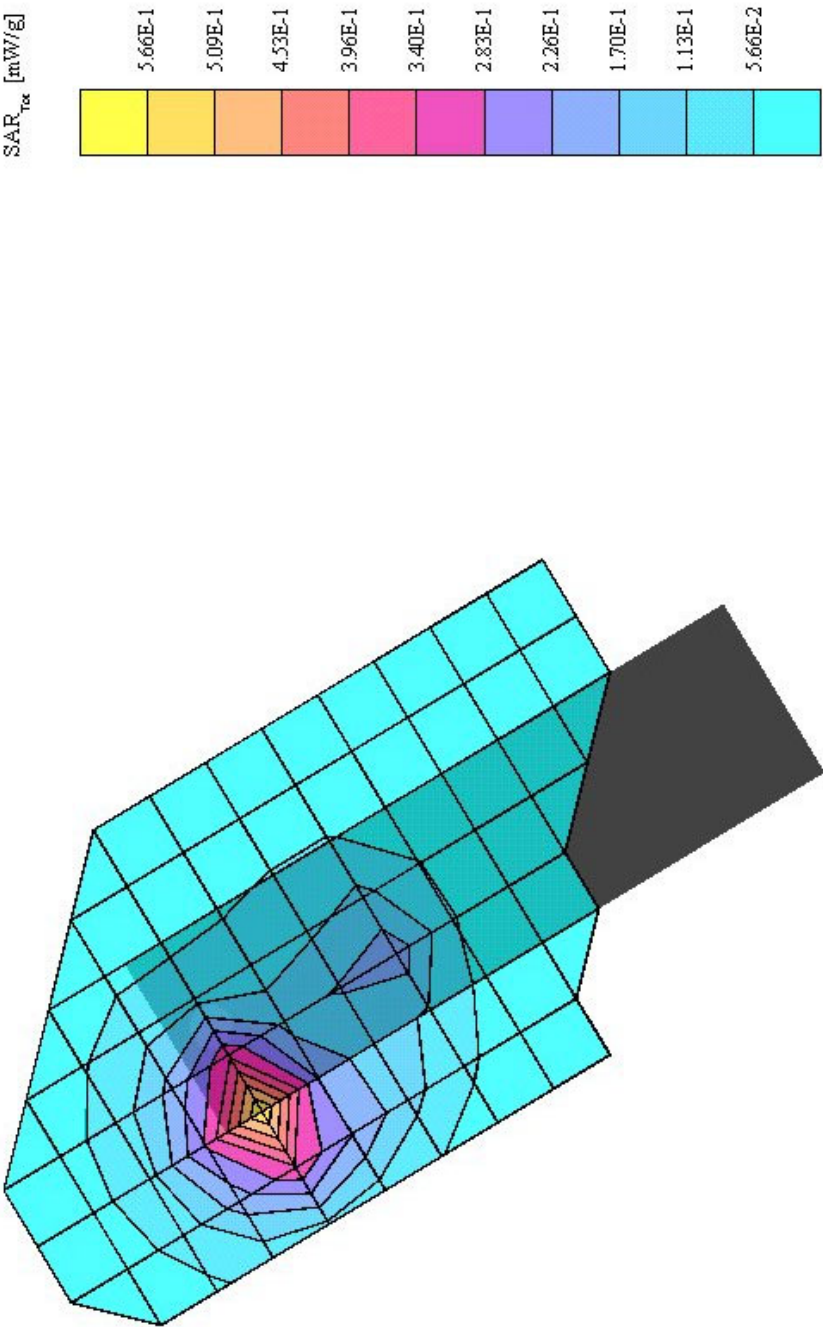


Fig. 9: SAR distribution, PCS1900 with QuickPic Camera, channel 661, cheek position, right side of head.

Siemens S55+Camera

SAM PCS1900; Right Hand

Probe: ET3DV6 - SN1579; ConvF(5.20,5.20,5.20); Crest factor: 8.0; Brain 1900MHz: $\sigma = 1.43$ mho/m $\epsilon_r = 39.4$ $\rho = 1.00$ g/cm³

Cube 7x7x7: Peak: 0.927 mW/g SAR (1g): 0.483 mW/g SAR (10g): 0.243 mW/g (Worst-case extrapolation)

Penetration depth: 8.1 (7.6, 9.1) [mm]

Powerdrift: -0.06 dB

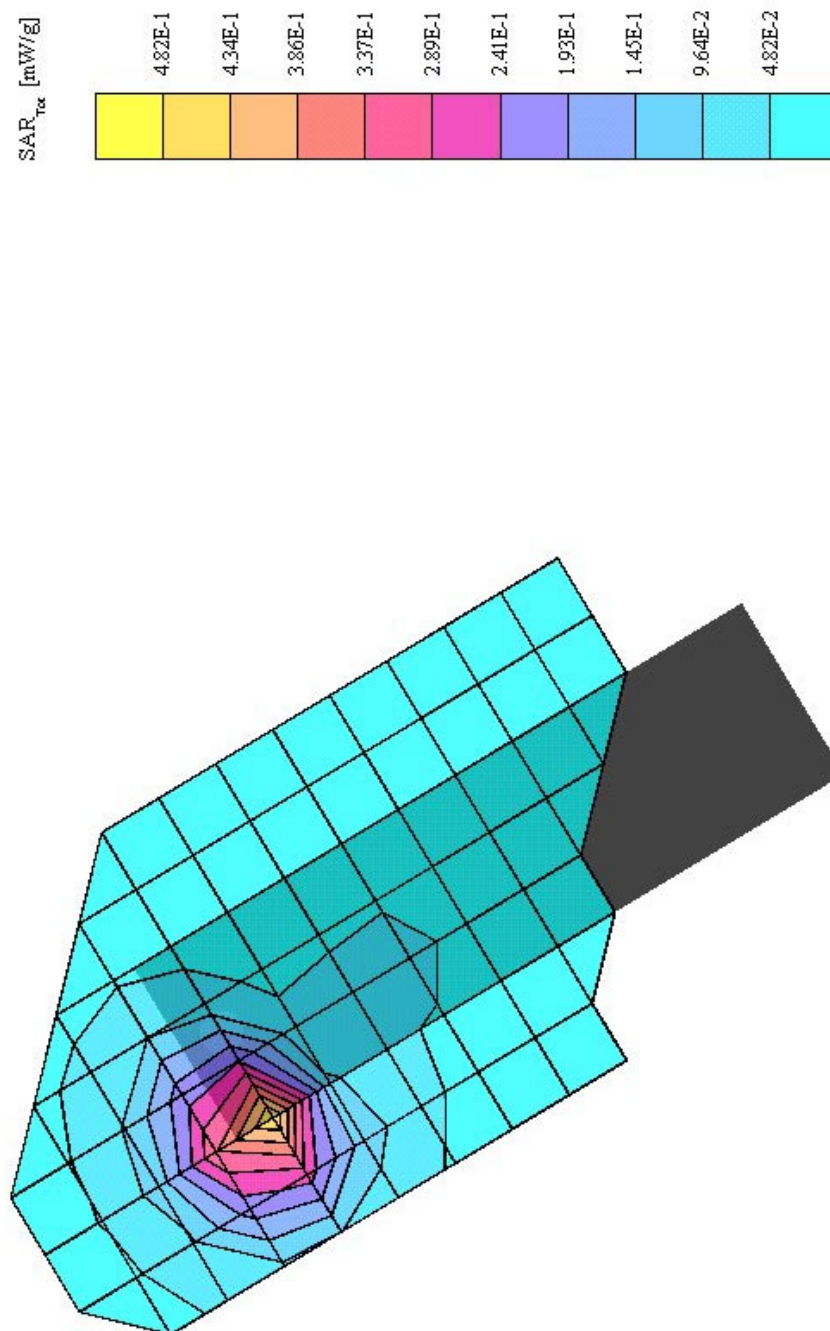


Fig. 10: SAR distribution, PCS1900 with QuickPic Camera, channel 661, tilted position, right side of head.

3 SAR Distribution Plots, PCS1900 (Body)

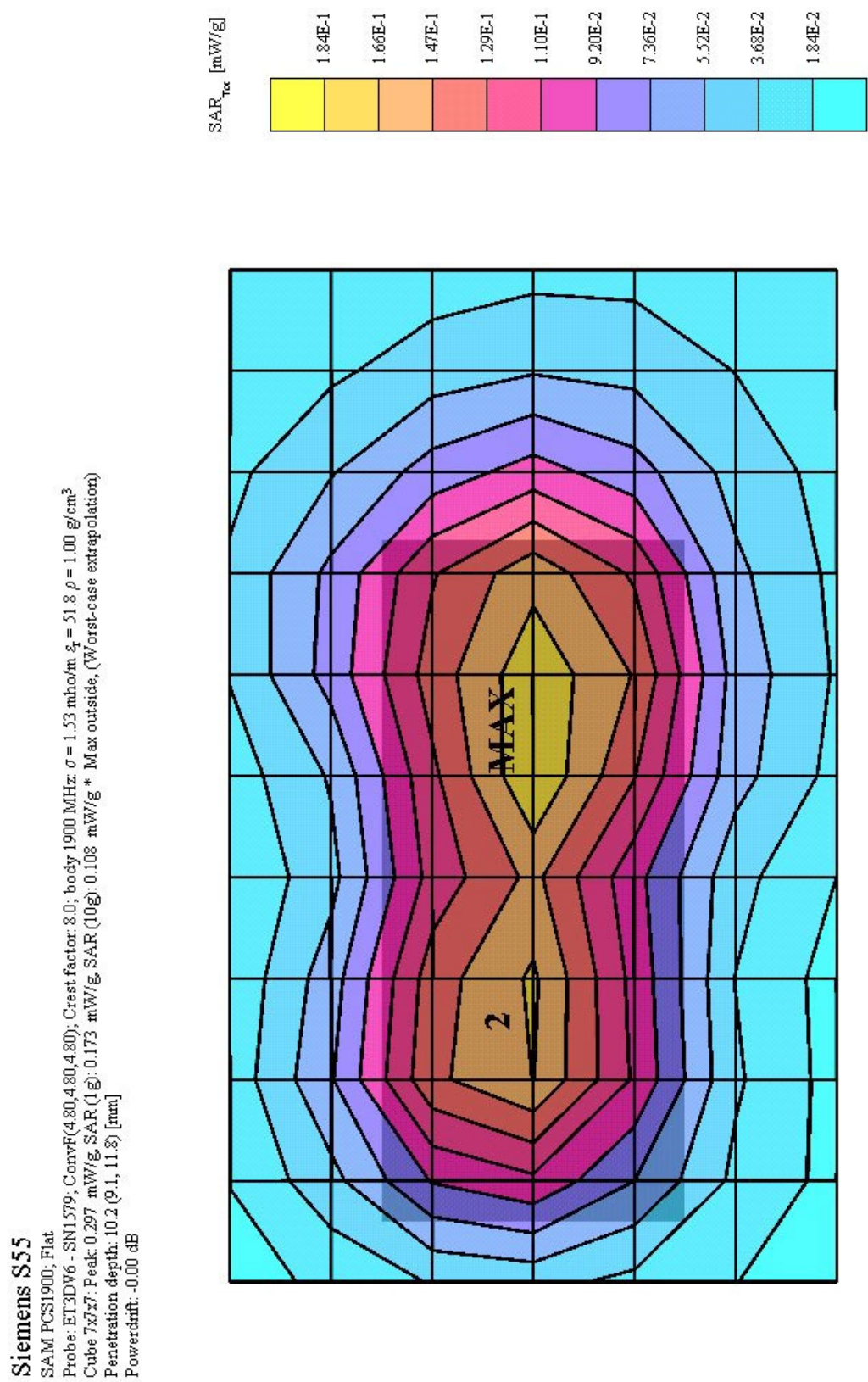


Fig. 11: SAR distribution, PCS1900, channel 512, body worn configuration, Belt Clip with Headset (Talk mode, 1 TX slot), Cube 2: 0.101 W/kg.

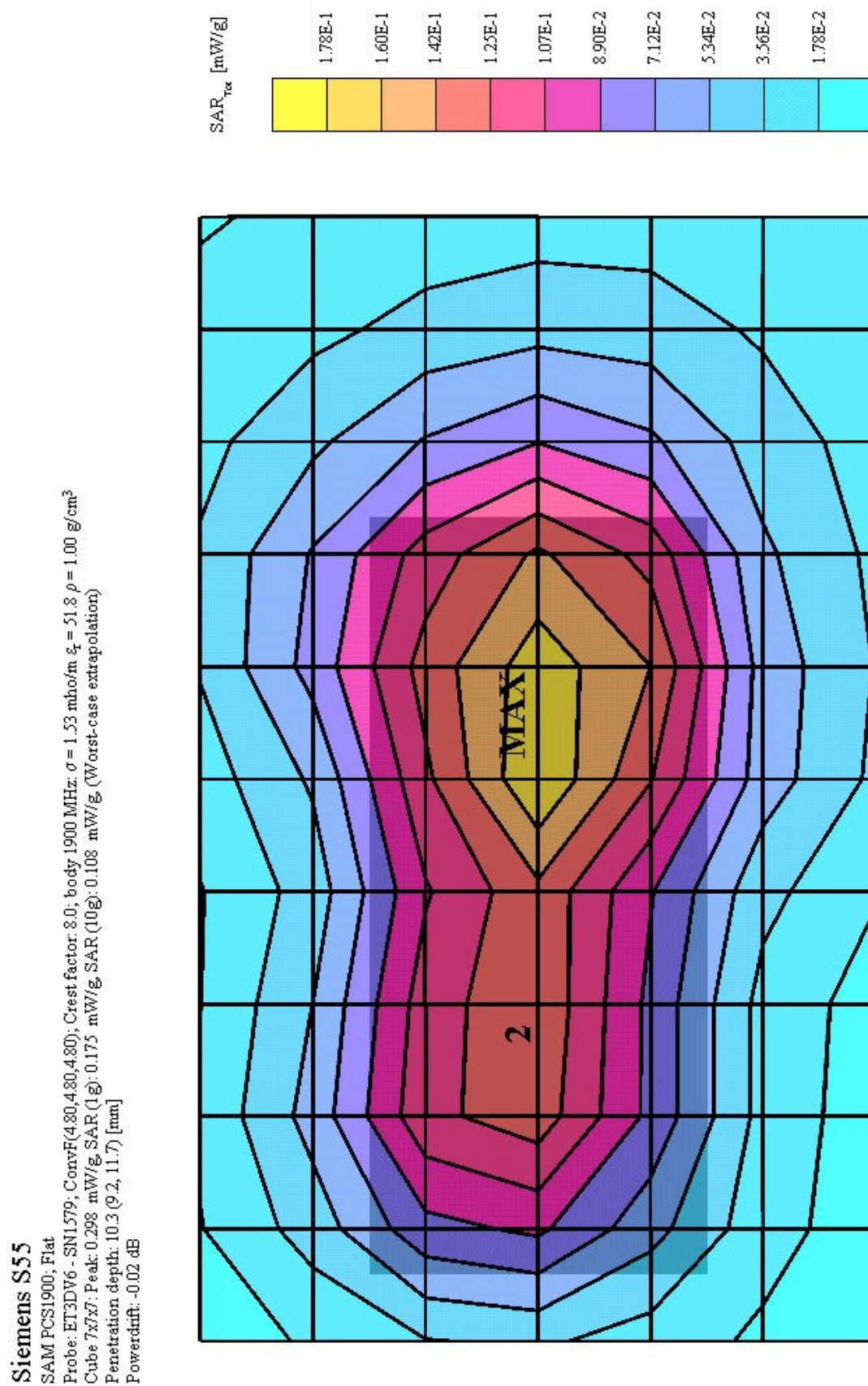


Fig. 12: SAR distribution, PCS1900, channel 661, body worn configuration, Belt Clip with Headset (Talk mode, 1 TX slot), Cube 2: 0.138 W/kg.

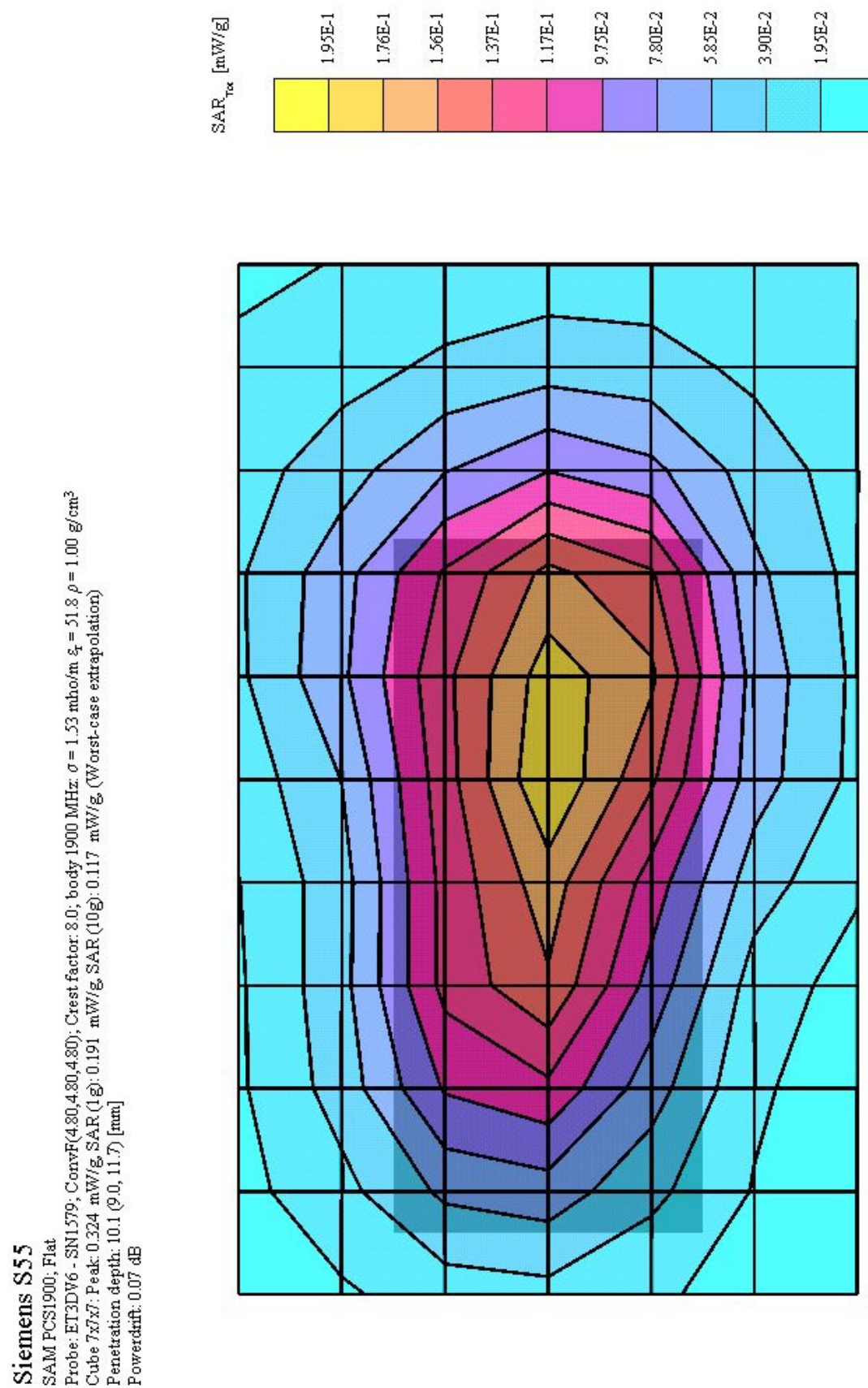


Fig. 13: SAR distribution, PCS1900, channel 810, body worn configuration, Belt Clip with Headset (Talk mode, 1 TX slot).

Siemens S55, GPRS Mode without Headset

SAM PCS1900; Flat

Probe: ET3DV6 - SN1579; ConvF(480,480,480); Crest factor: 8.0; body 1900 MHz: $\sigma = 1.53$ mho/m $\epsilon_r = 51.8$ $\rho = 1.00$ g/cm³

Cube 7x7x7: Peak: 0.294 mW/g SAR (1g): 0.179 mW/g SAR (10g): 0.113 mW/g (Worst-case extrapolation)

Penetration depth: 11.6 (9.9, 13.7) [mm]

Powerdrift: 0.02 dB

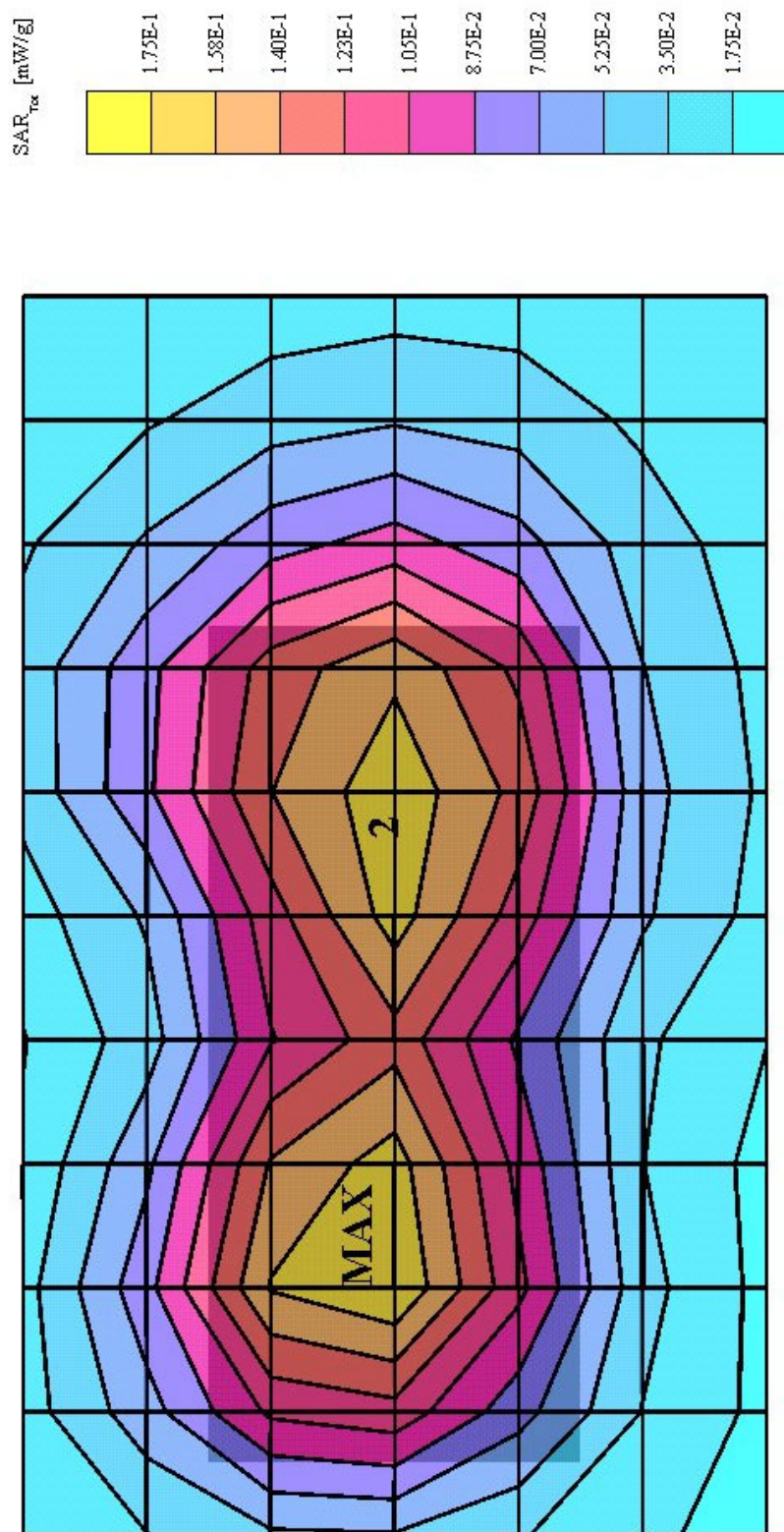


Fig. 14: Worst case SAR distribution, PCS1900, channel 512, body worn configuration, Belt Clip without Headset (GPRS mode, 2 TX slots), Cube 2: 0.113 W/kg. Since the plots are similar for this configuration, only the worst case is shown.

4 SAR z-axis scans (Validation)

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

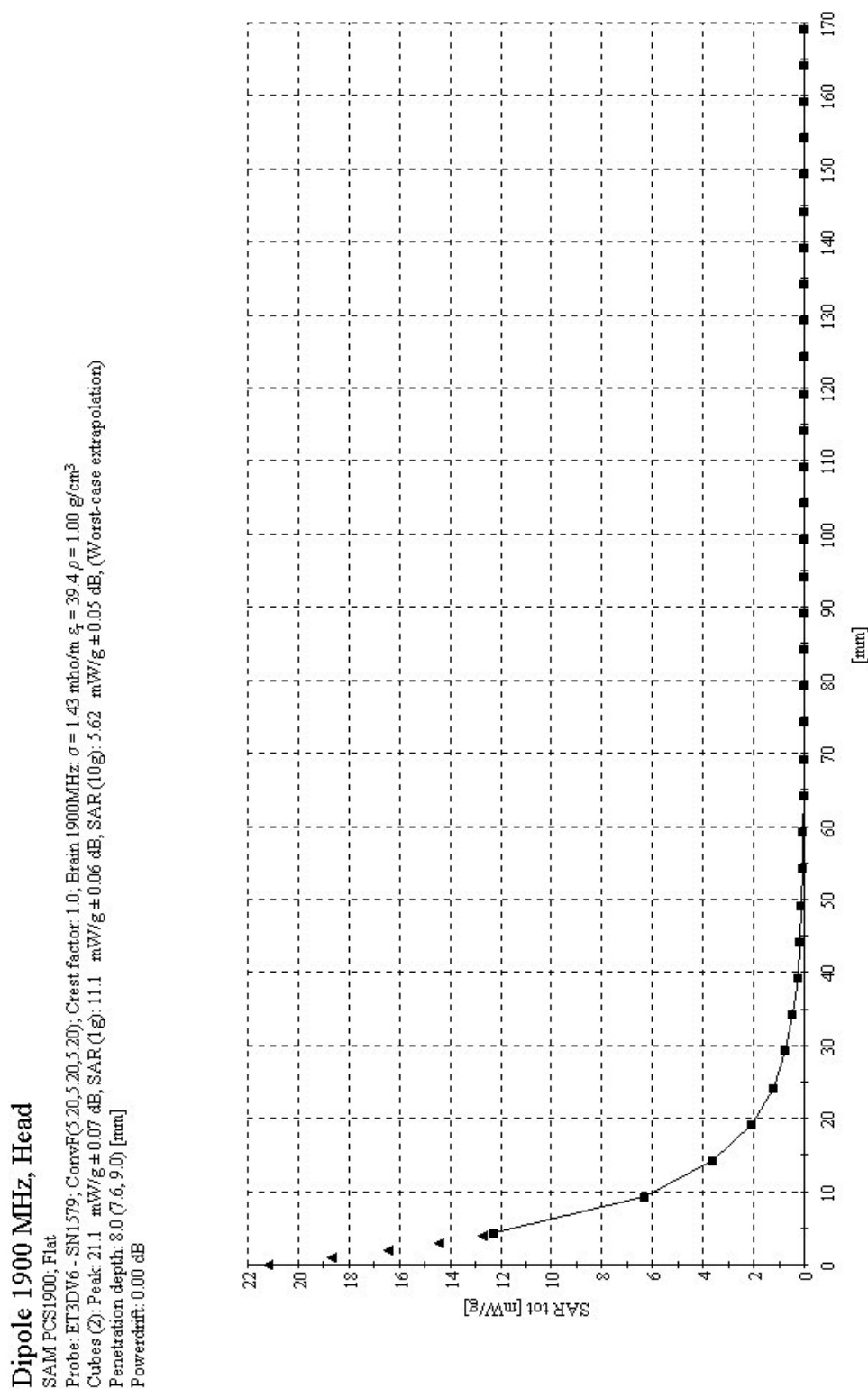


Fig. 15: SAR versus liquid depth, 1900 MHz, Validation Head.

Dipole 1900 MHz, Body
SAM PCS 1900; Flat
Probe: ET3DV6 - SN1579; ConvF(4.80,4.80); Crest factor: 1.0; body 1900 MHz: $\sigma = 1.53 \text{ mho/m}$ $\epsilon_r = 51.8$ $\rho = 1.00 \text{ g/cm}^3$
Cubes (2): Peak: $21.1 \text{ mW/g} \pm 0.08 \text{ dB}$, SAR (1g): $11.2 \text{ mW/g} \pm 0.08 \text{ dB}$, SAR (10g): $5.69 \text{ mW/g} \pm 0.08 \text{ dB}$, (Worst-case extrapolation)
Penetration depth: $8.5 (7.8, 9.9) \text{ [mm]}$

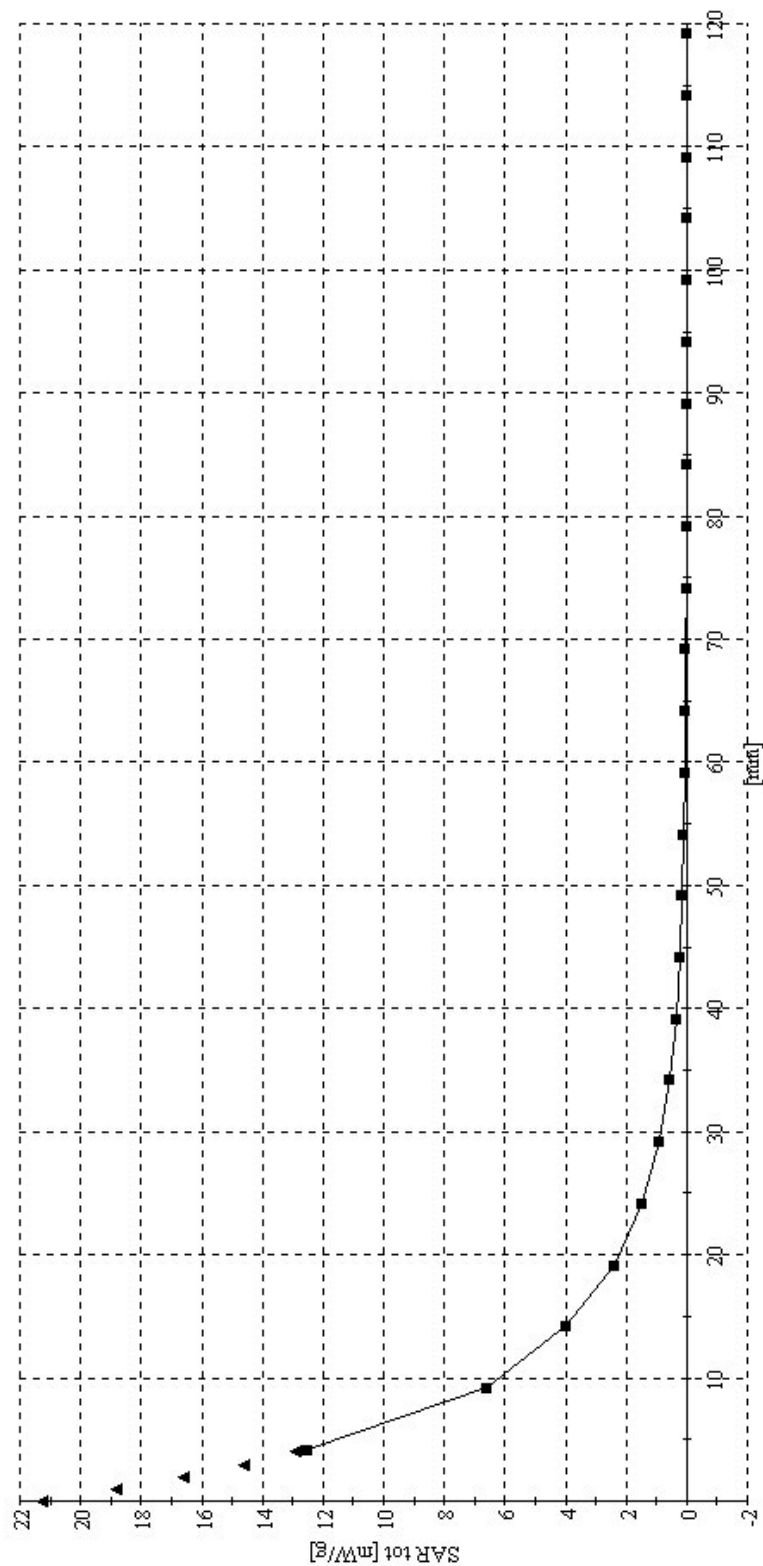


Fig. 16: SAR versus liquid depth, 1900 MHz, Validation Body

5 SAR z-axis scans (Measurements)

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

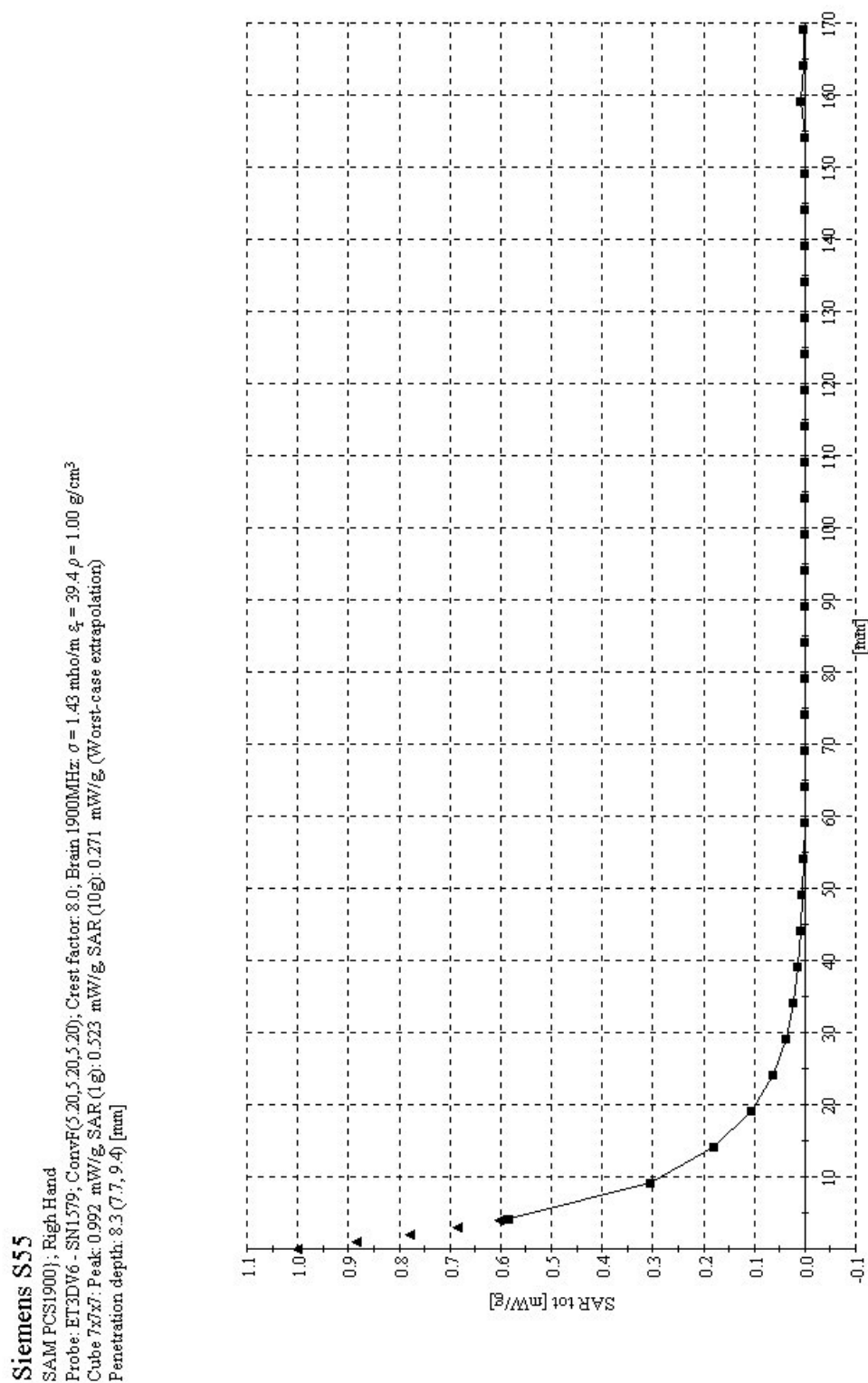


Fig. 17: SAR versus liquid depth, PCS 1900, channel 661, cheek position, right side of head.

Siemens S55+Camera

SAM PCS1900; Right Hand

Probe: ET3DV6 - SN1579; ConvF(5 20.5 20.5 20); Crest factor: 8.0; Brain: 1900MHz; $\sigma = 1.43$ mho/m $\epsilon_r = 39.4$ $\rho = 1.00$ g/cm³

Cube 7x7x7; Peak: 0.997 mW/g SAR (1g); 0.522 mW/g SAR (10g); 0.269 mW/g SAR (Worst-case extrapolation)

Penetration depth: 8.3 (7.7, 9.3) [mm]

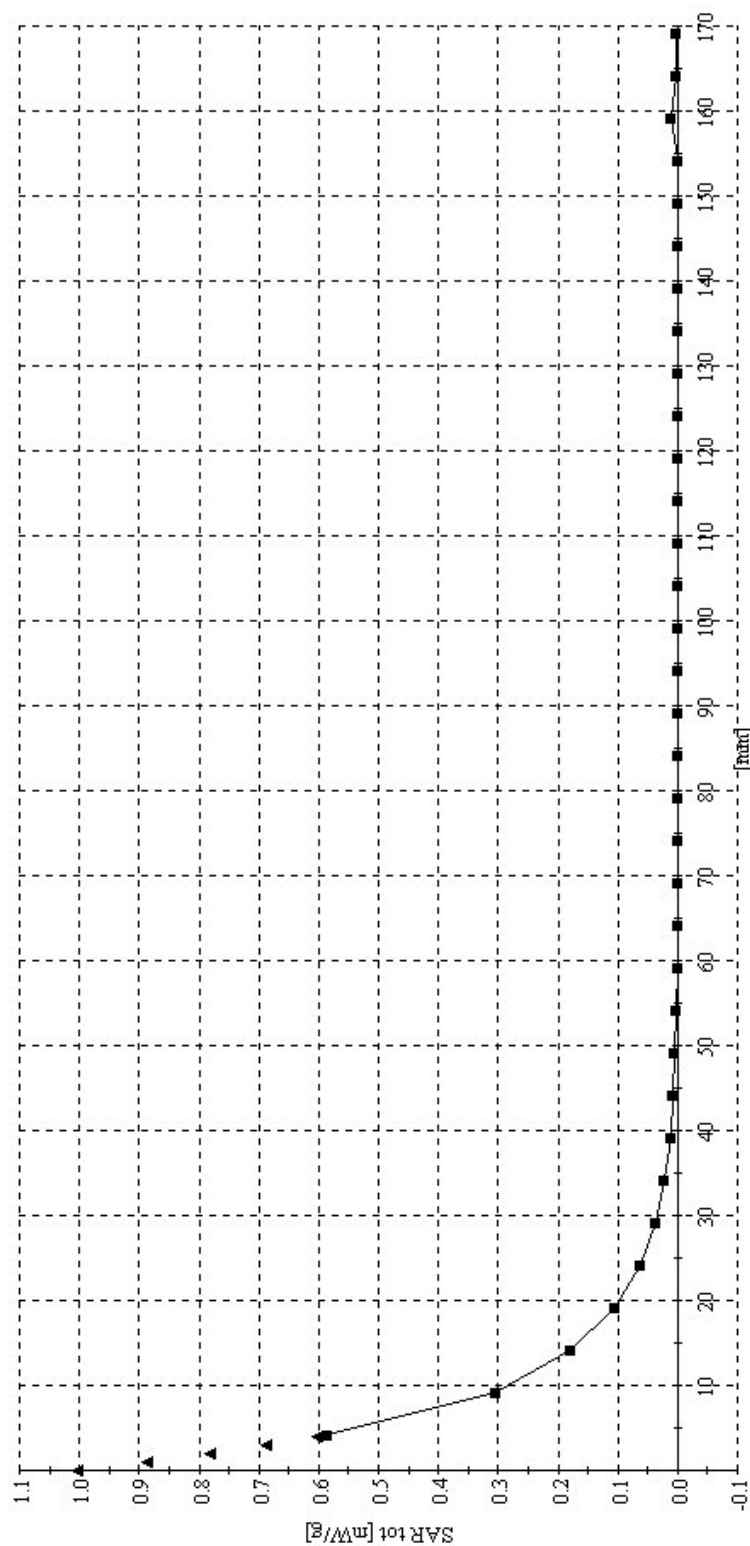


Fig. 18: SAR versus liquid depth, PCS 1900 with QuickPic Camera, channel 661, cheek position, right side of head.

Siemens S55
 SAM PCS1900; Flat
 Probe: ET3DV6 - SN1579; ConvF(480,480,480); Crest factor: 8.0; body 1900 MHz; $\sigma = 1.53$ mho/m $\epsilon_r = 51.8$ $\rho = 1.00$ g/cm³
 Cube 7x7x7; Peak: 0.324 mW/g SAR (1g); 0.191 mW/g SAR (10g); 0.117 mW/g SAR (Worst-case extrapolation)
 Penetration depth: 10.1 (9.0, 11.6) [mm]

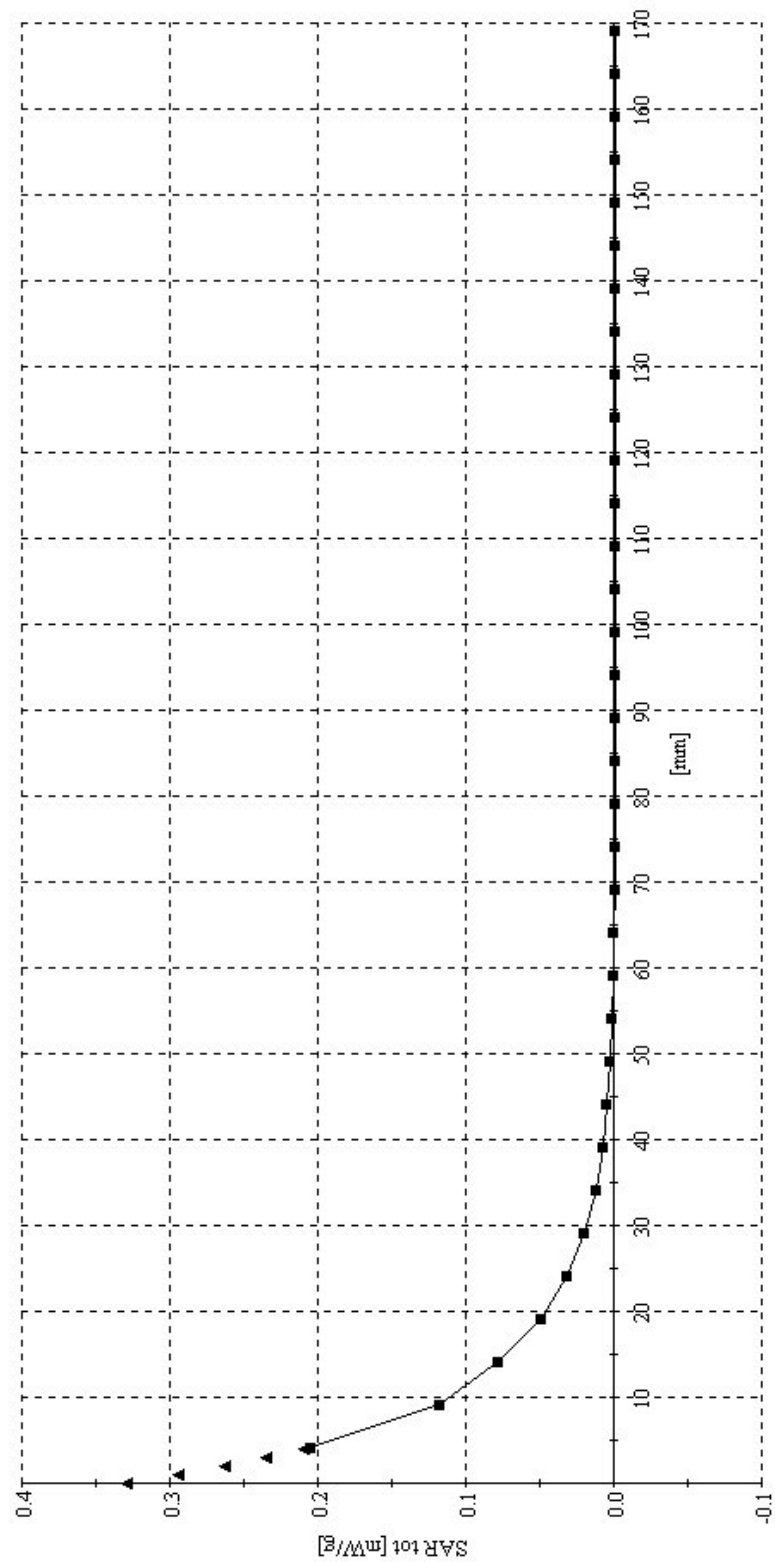


Fig. 19: SAR versus liquid depth, PCS 1900, channel 810, body worn configuration, Belt Clip with Headset (Talk mode, 1 TX slot).

Siemens S55

SAM PCS1900; Flat

Probe: ET3DV6 - SN1579; ConvF(480,480,480); Crest factor: 8.0; body 1900 MHz: $\sigma = 1.53$ mho/m $\epsilon_r = 51.8$ $\rho = 1.00$ g/cm³

Cube 7x7x7: Peak: 0.294 mW/g, SAR (1g): 0.179 mW/g, SAR (10g): 0.113 mW/g, (Worst-case extrapolation)

Penetration depth: 11.5 (10.1, 13.4) [mm]

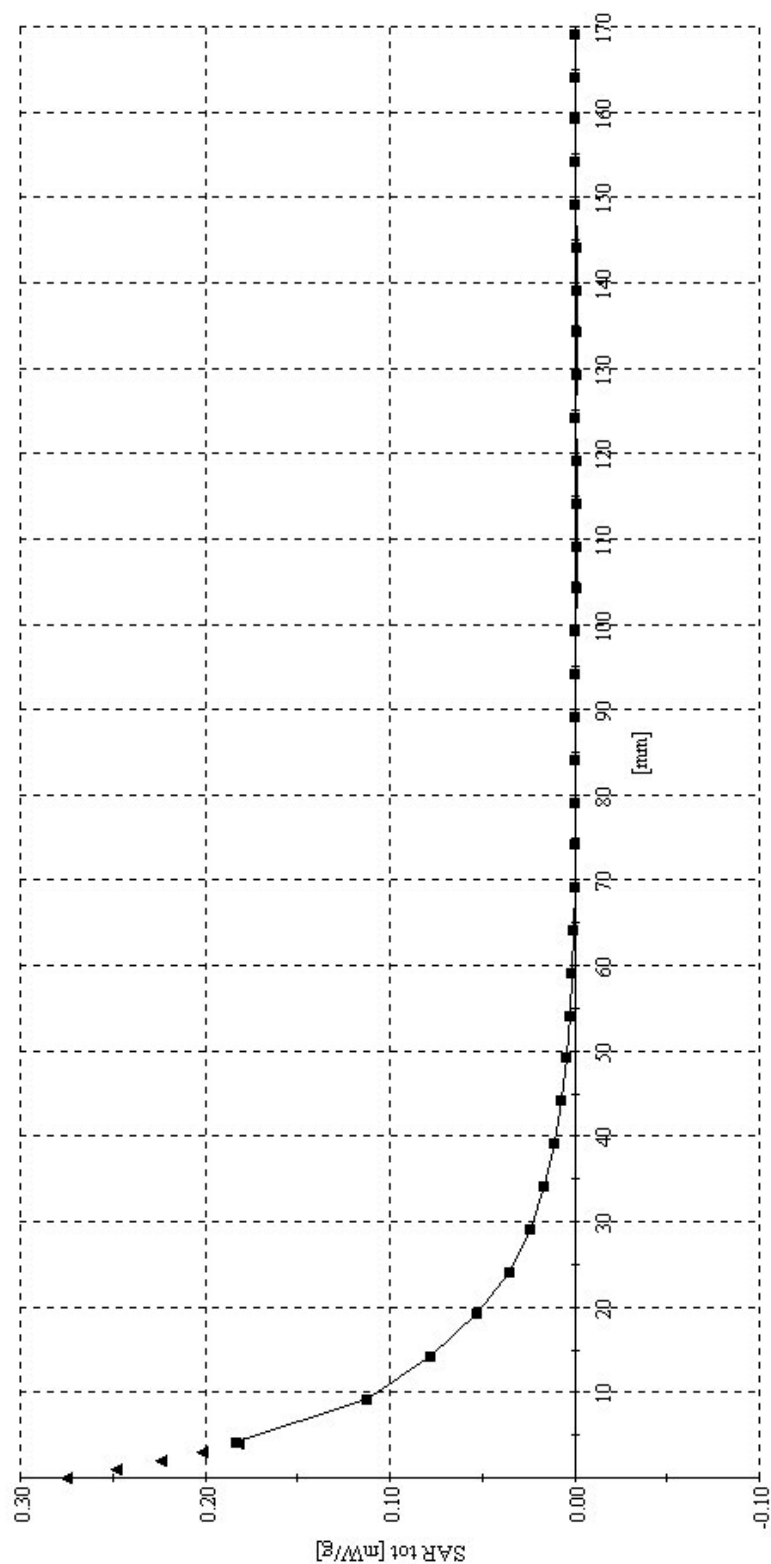


Fig. 20: SAR versus liquid depth, PCS 1900, channel 512, body worn configuration, Belt Clip without Headset (GPRS mode, 2 TX slots).