
Appendix for the Report

Dosimetric Assessment of the Siemens C56 (FCC ID: PWX-C56) According to the FCC Requirements

SAR Distribution Plots

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1 SAR Distribution Plots, GSM850 (Head)

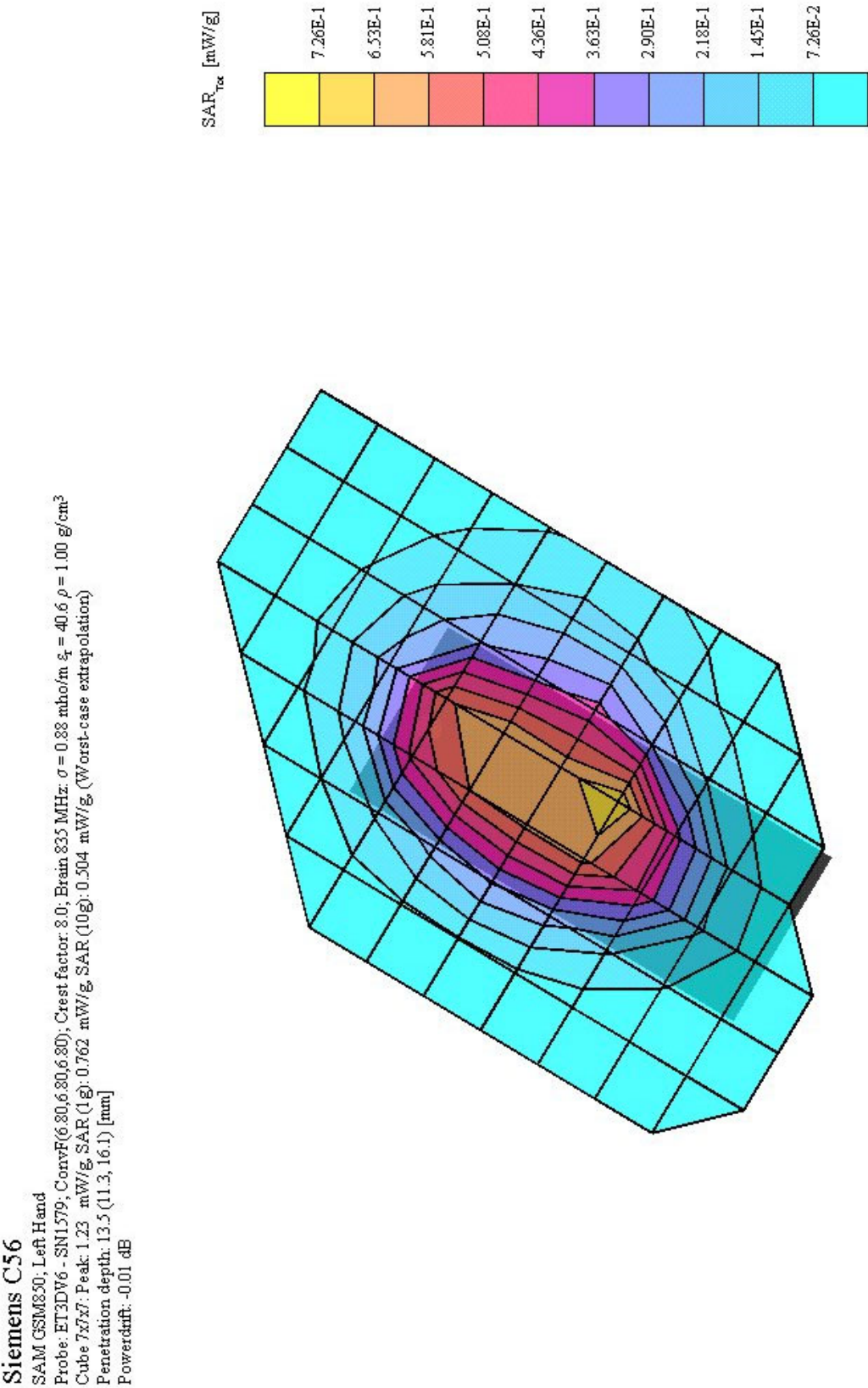


Fig. 1: SAR distribution, GSM850, channel 189, cheek position, left side of head.

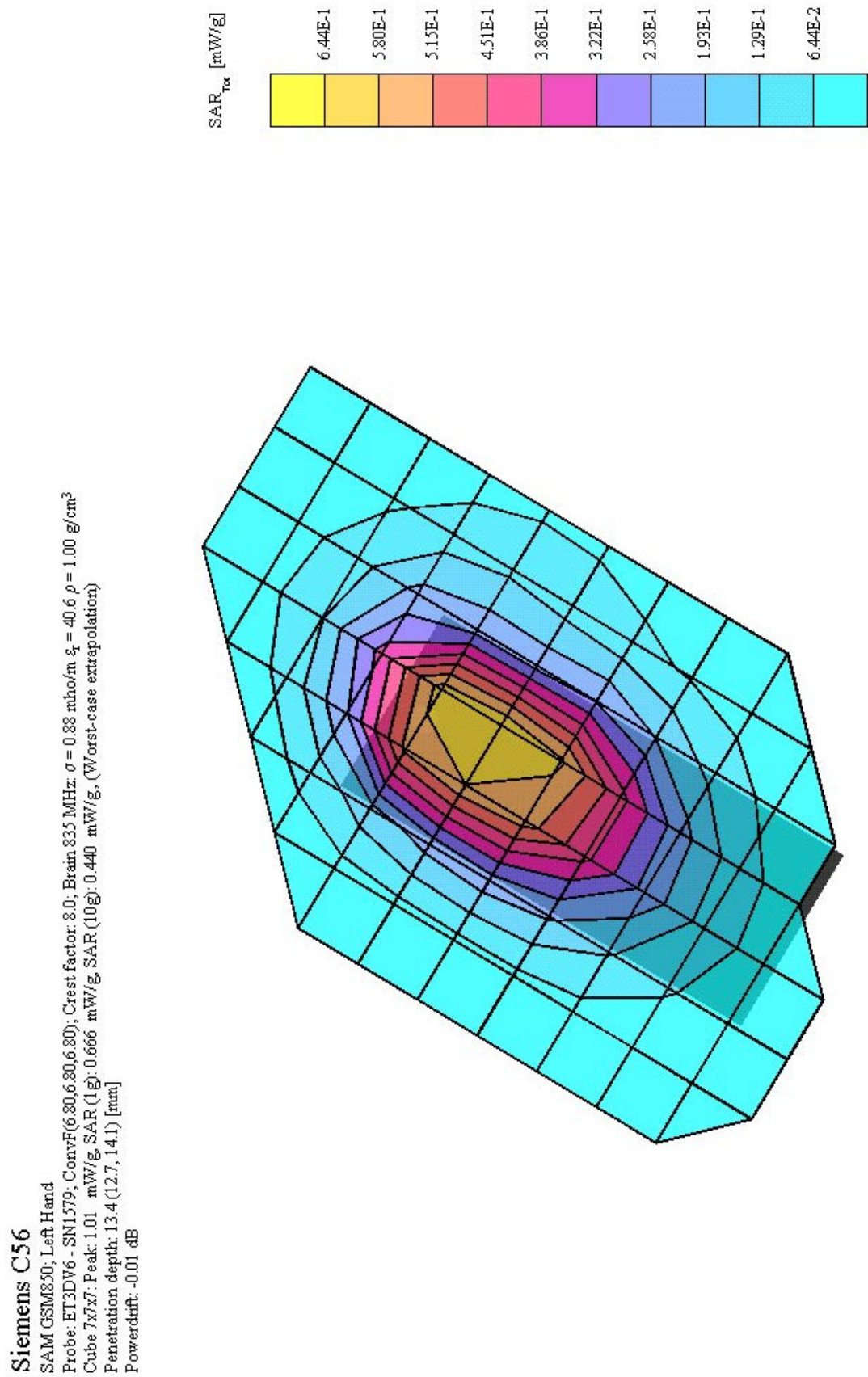


Fig. 2: SAR distribution, GSM850, channel 189, tilted position, left side of head.

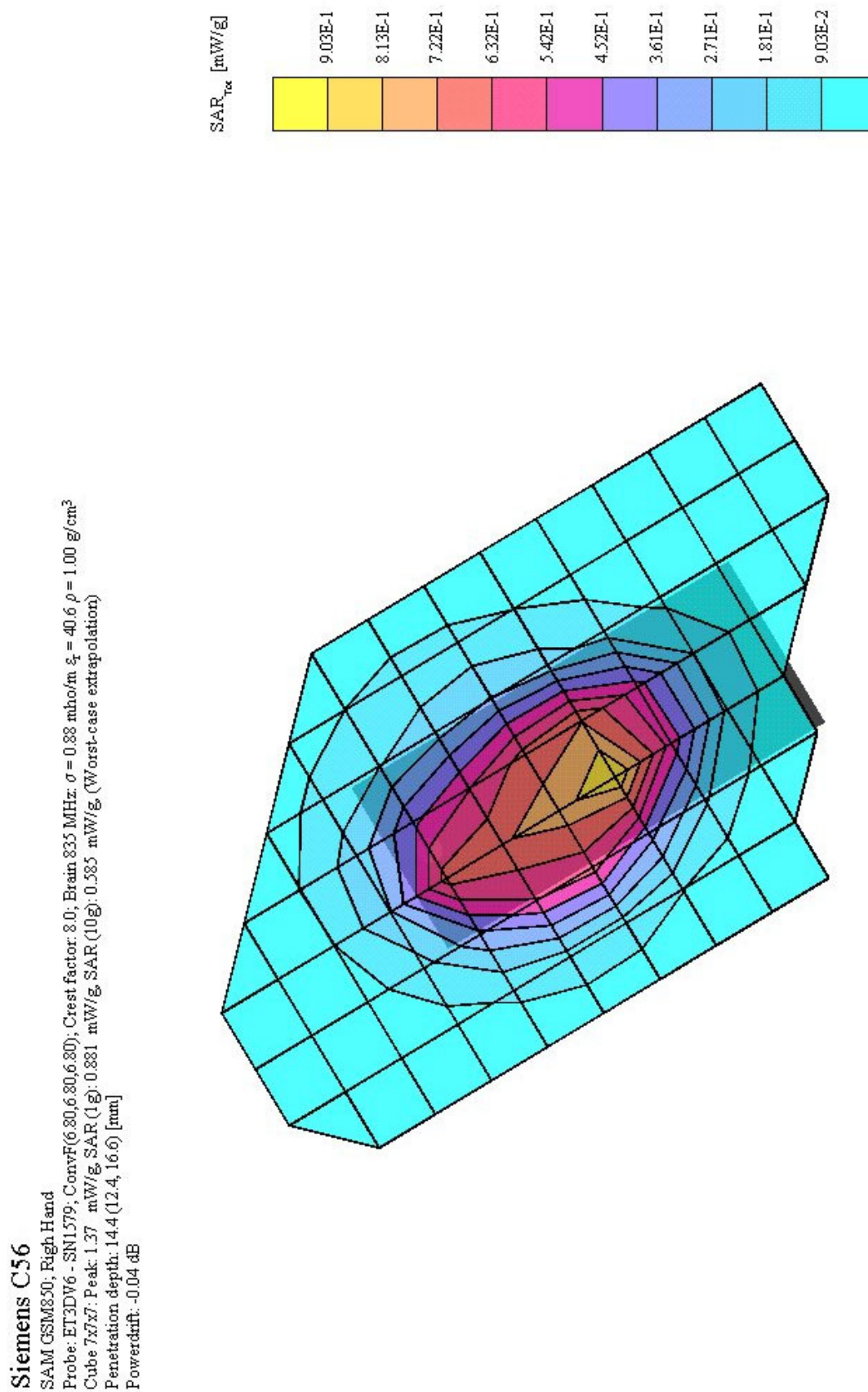


Fig. 3: Worst case SAR distribution, GSM850, channel 251, cheek position, right side of head. Since the plots are similar for this configuration, only the worst case is shown.

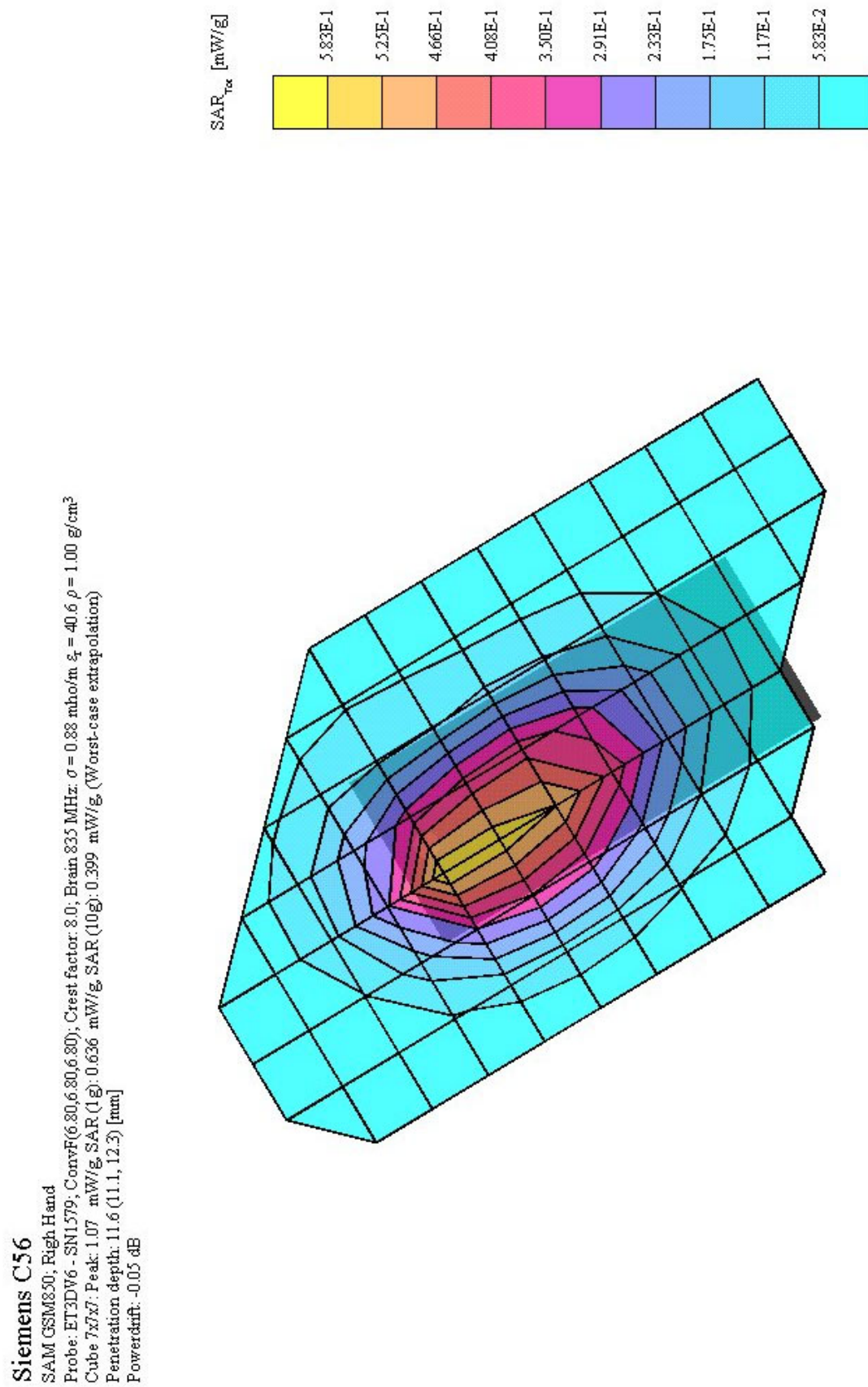


Fig. 4: SAR distribution, GSM850, channel 189, tilted position, right side of head.

2 SAR Distribution Plots, PCS1900 (Head)

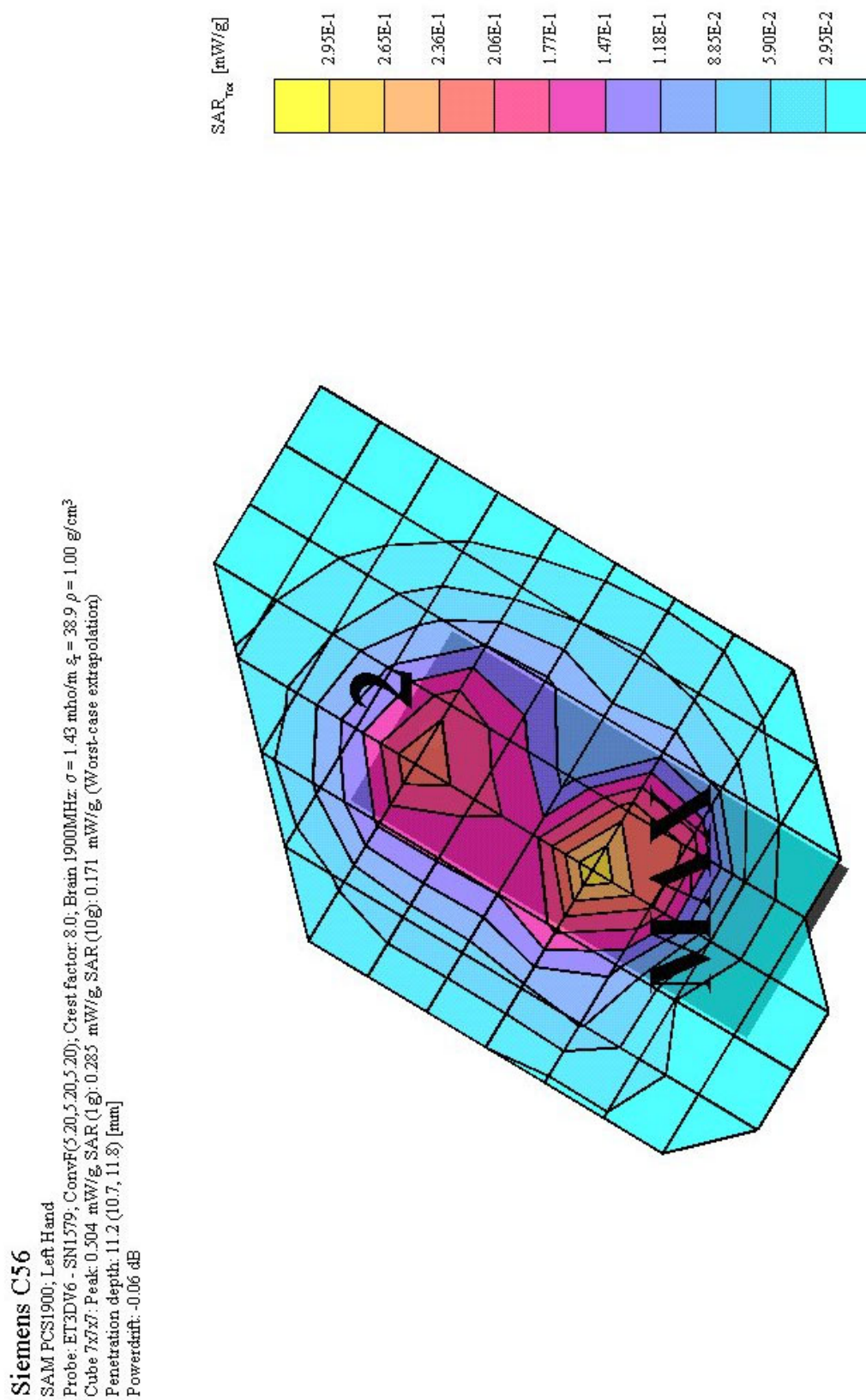


Fig. 5: SAR distribution, PCS1900, channel 661, cheek position, left side of head. Cube 2: 0.217 W/kg.

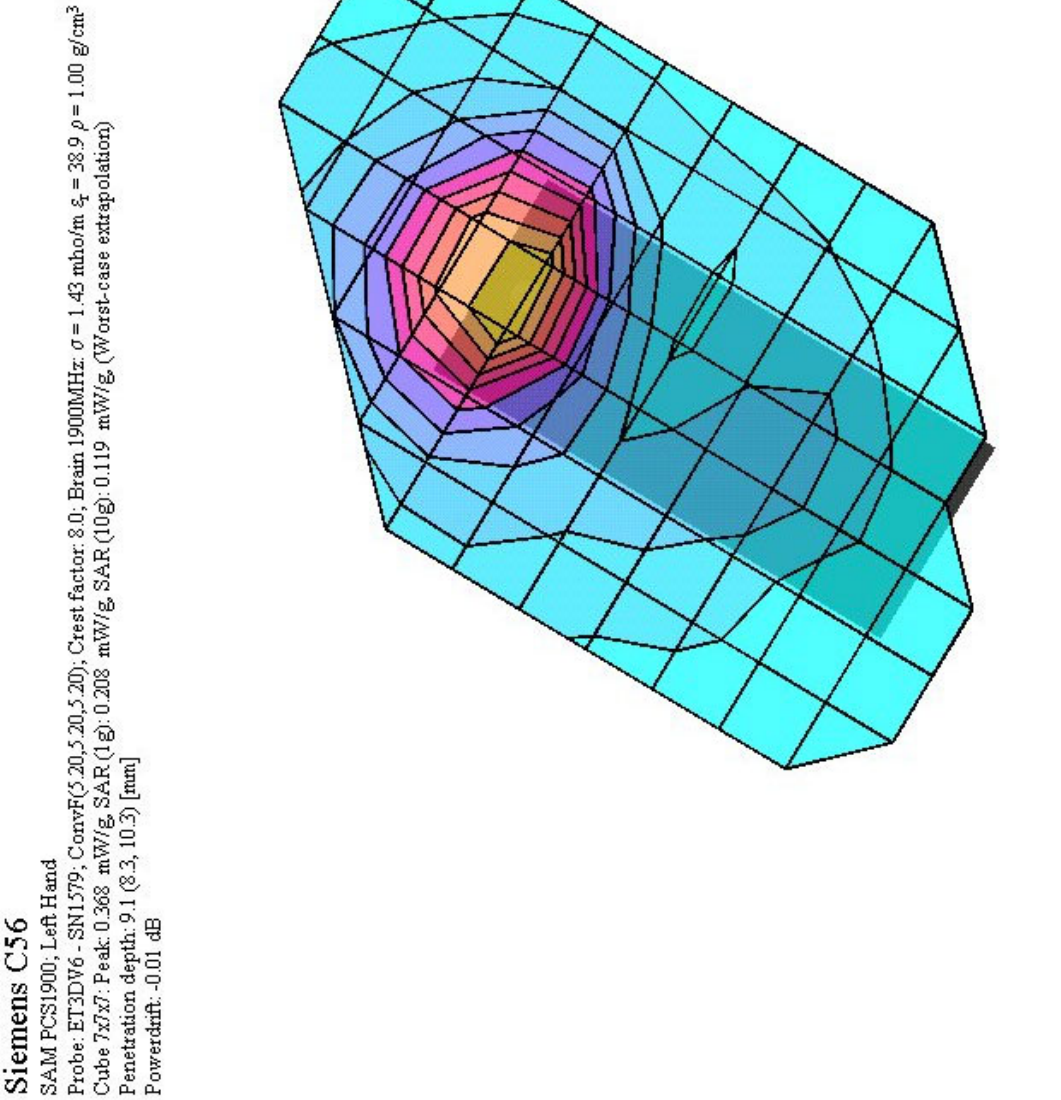


Fig. 6: SAR distribution, PCS1900, channel 661, tilted position, left side of head.

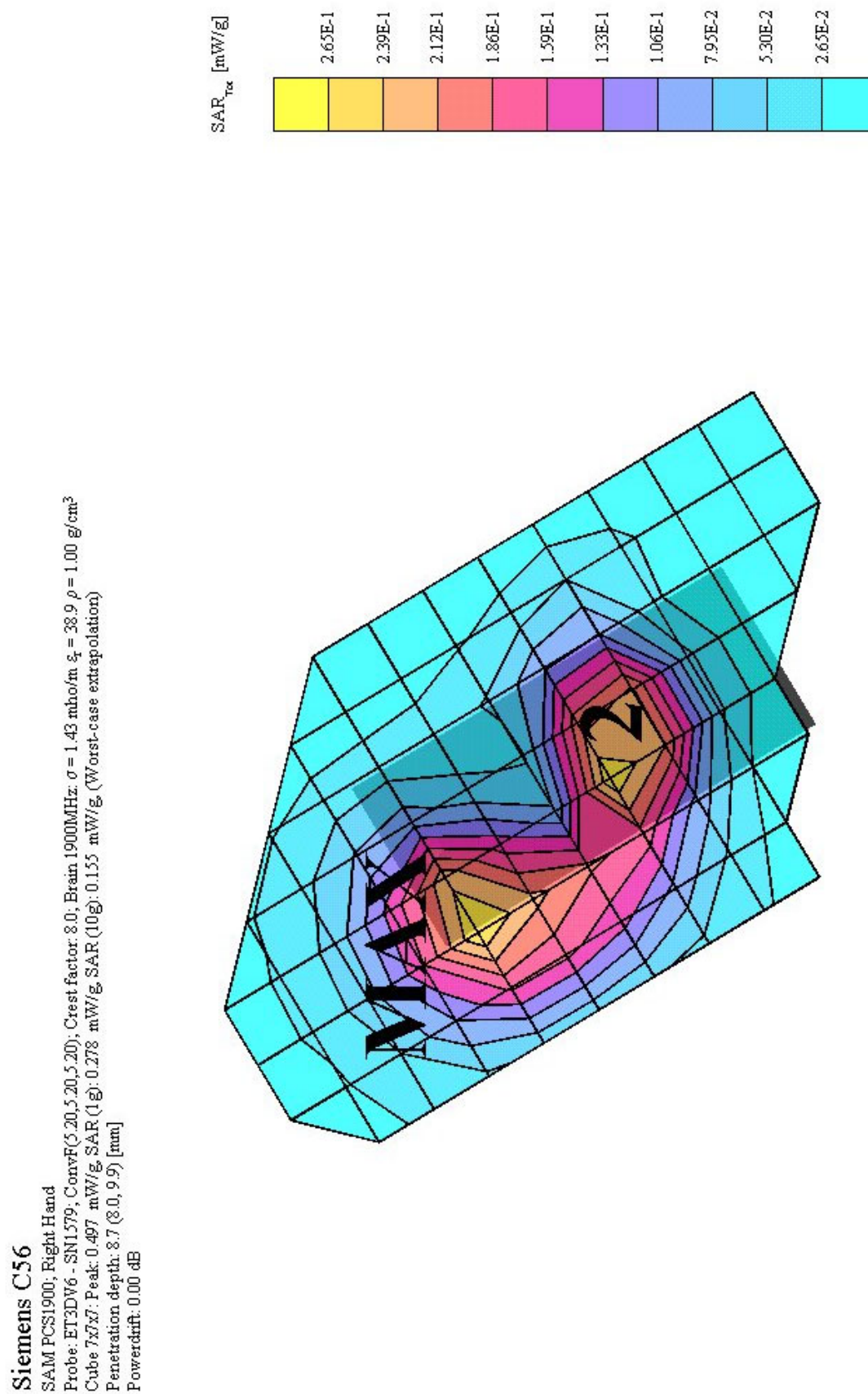


Fig. 7: SAR distribution, PCS1900, channel 661, cheek position, right side of head. Cube 2: 0.265 W/kg.

Siemens C56

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 $\epsilon_r = 38.9$ $\rho = 1.00$ g/cm³

Cube 7x7x7; Peak: 0.431 mW/g; SAR (1g): 0.242 mW/g; SAR (10g): 0.134 mW/g; (Worst-case extrapolation)

Penetration depth: 9.0 (8.4, 10.0) [mm]

Powerdistr: 0.12 dB

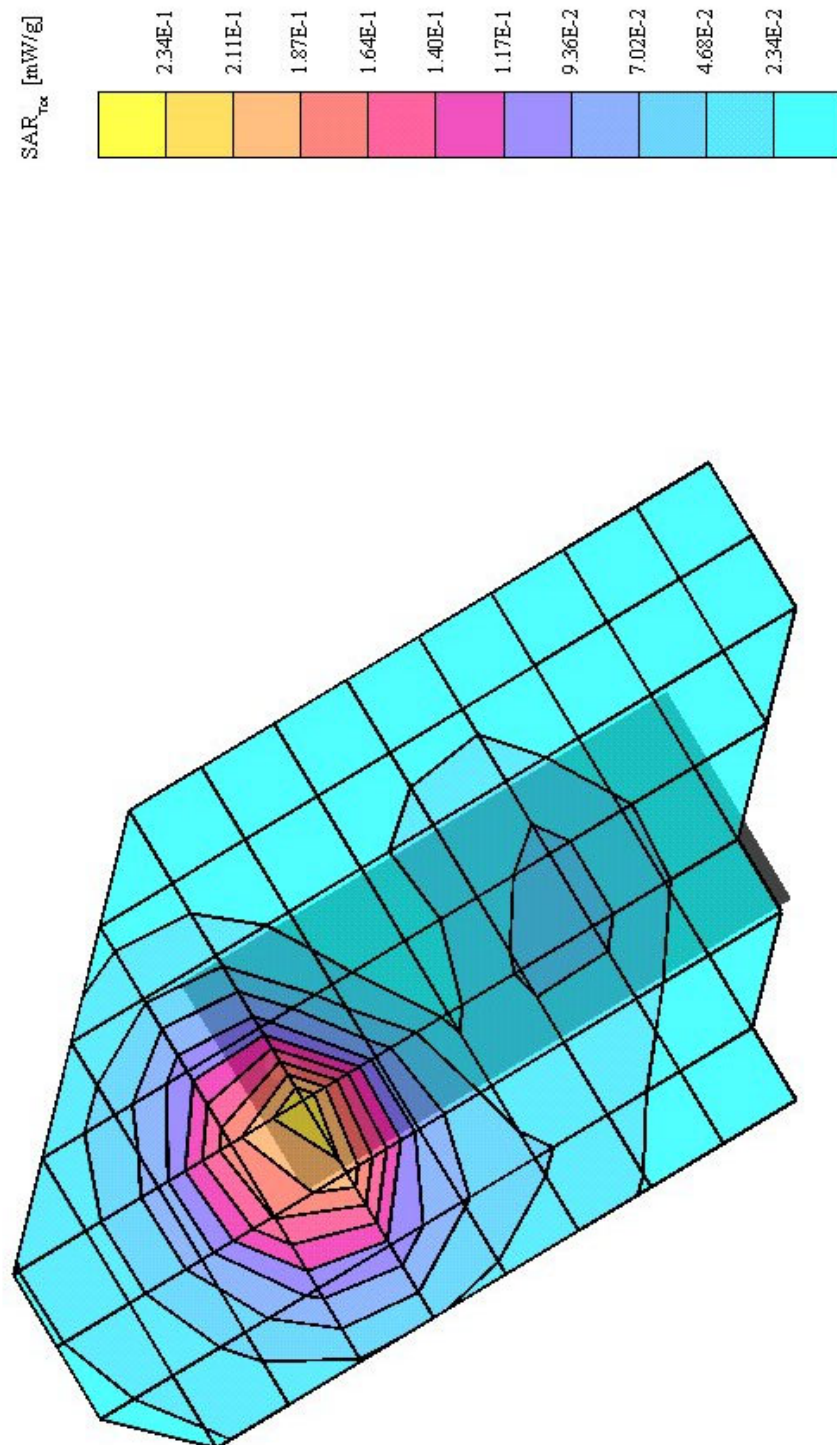


Fig. 8: SAR distribution, PCS1900, channel 661, tilted position, right side of head.

3 SAR Distribution PlotsGSM850 (Body)

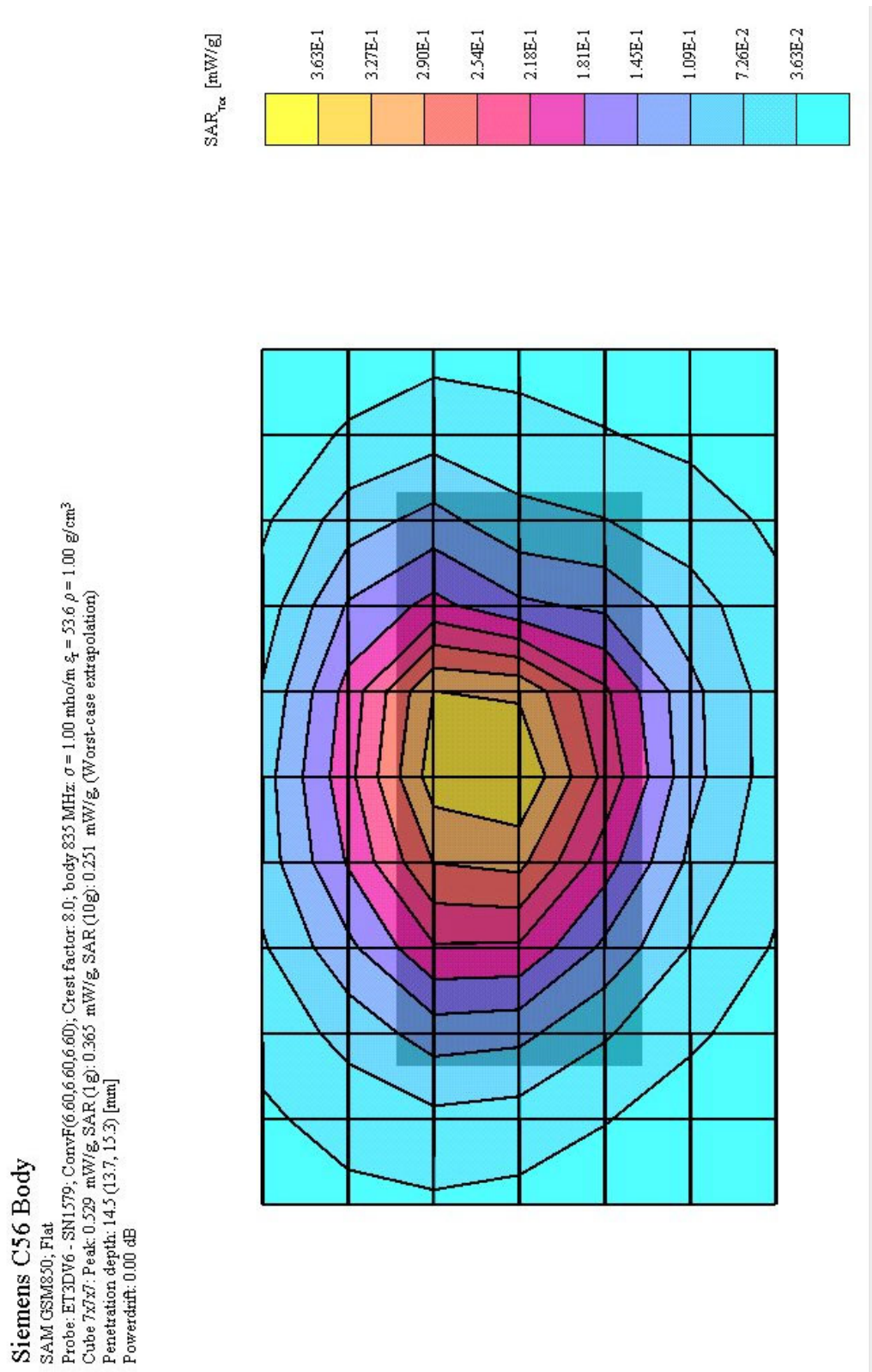


Fig. 9: Worst case SAR distribution, GSM850, channel 128, body worn configuration, Belt Clip with Headset (Talk mode, 1 TX slot). Since the plots are similar for this configuration, only the worst case is shown.

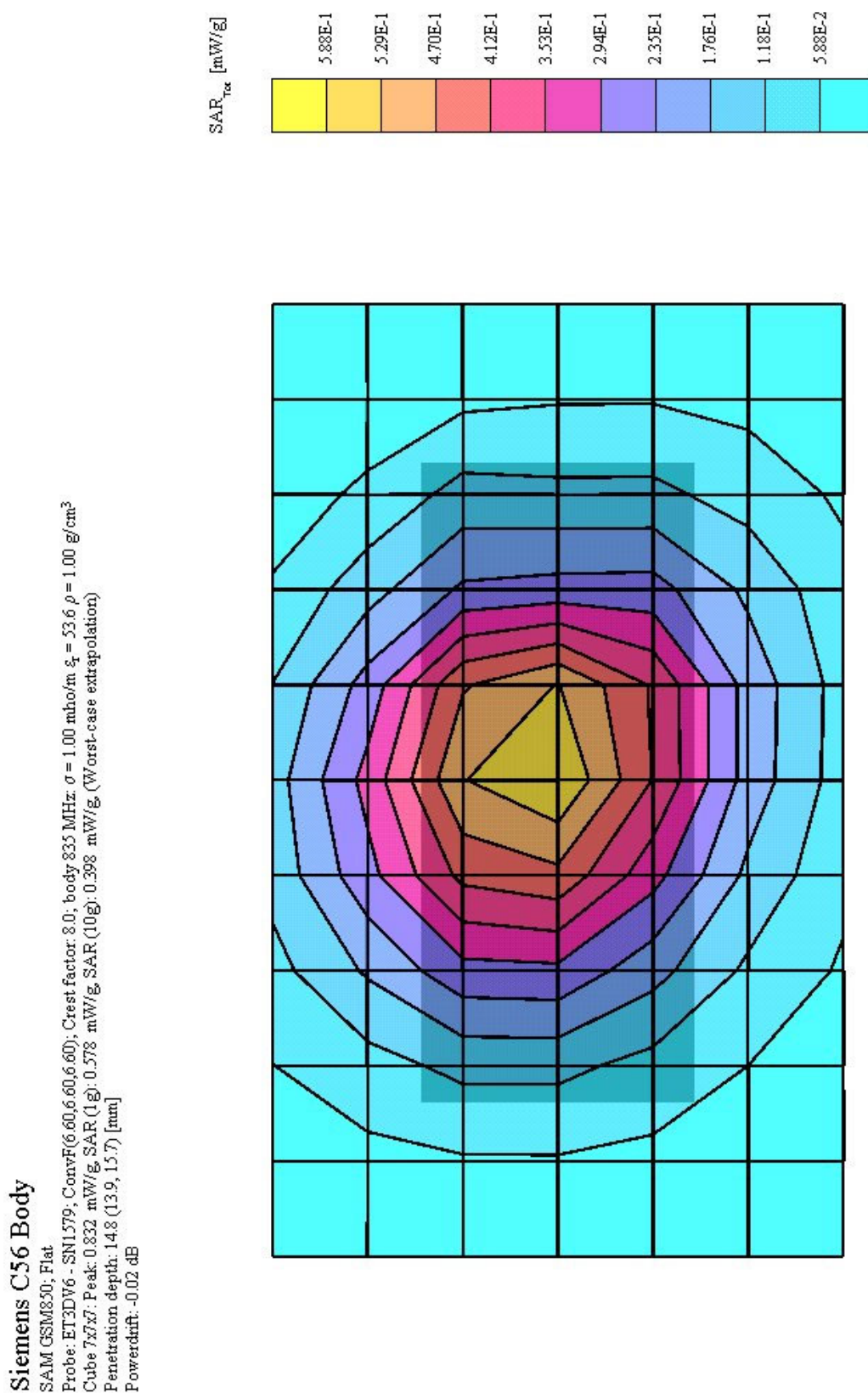


Fig. 10: Worst case SAR distribution, GSM850, channel 128, body worn configuration, Belt Clip without Headset (GPRS mode, 1 TX slot). Since the plots are similar for this configuration, only the worst case is shown.

4 SAR Distribution Plots, PCS1900 (Body)

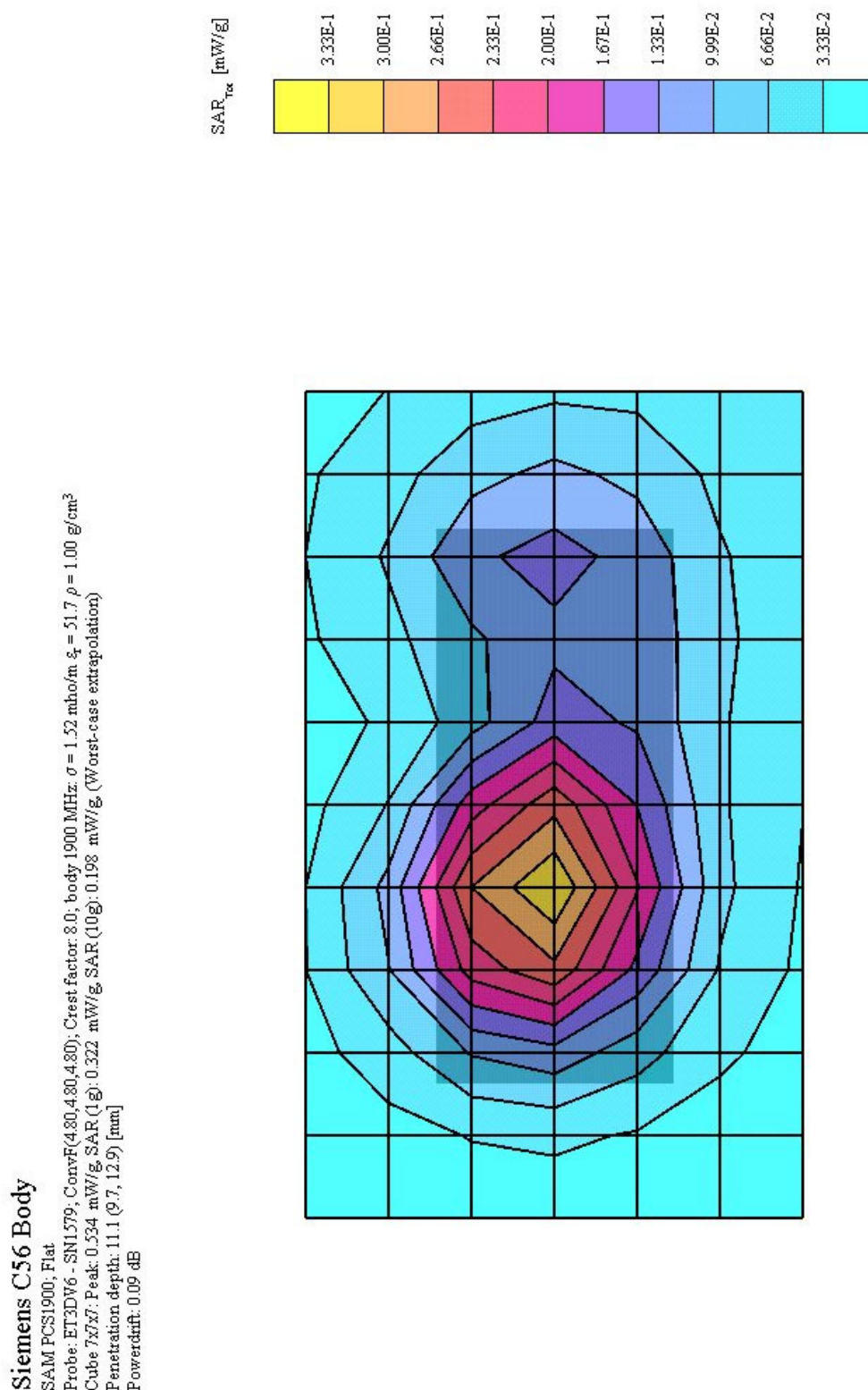


Fig. 11: SAR distribution, PCS1900, channel 512, body worn configuration, Belt Clip with Headset (Talk mode, 1 TX slot). Since the plots are similar for this configuration, only the worst case is shown.

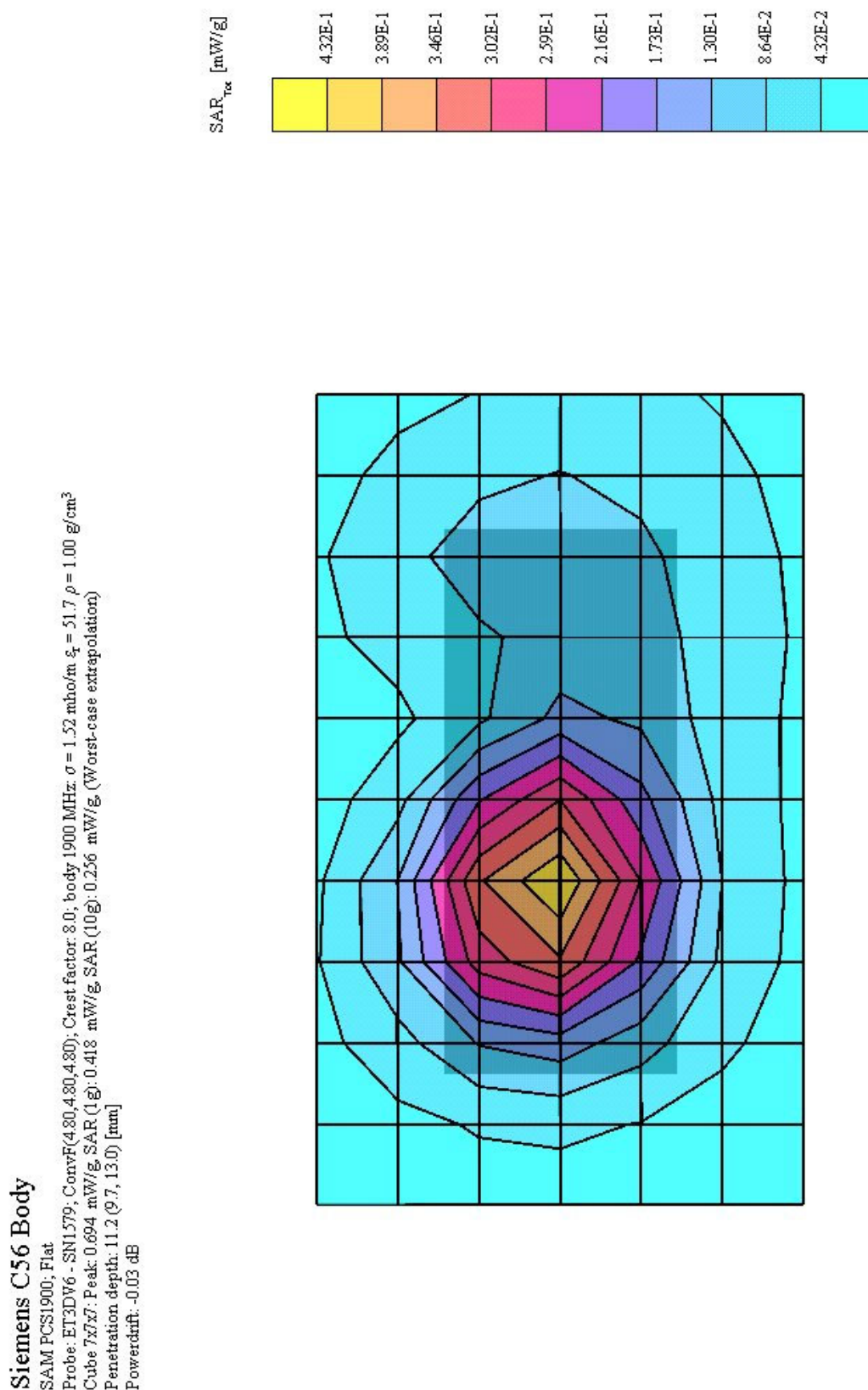


Fig. 12: SAR distribution, PCS1900, channel 512, body worn configuration, Belt Clip without Headset (GPRS mode, 1 TX slot), Since the plots are similar for this configuration, only the worst case is shown.

5 SAR z-axis scans (Validation)

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

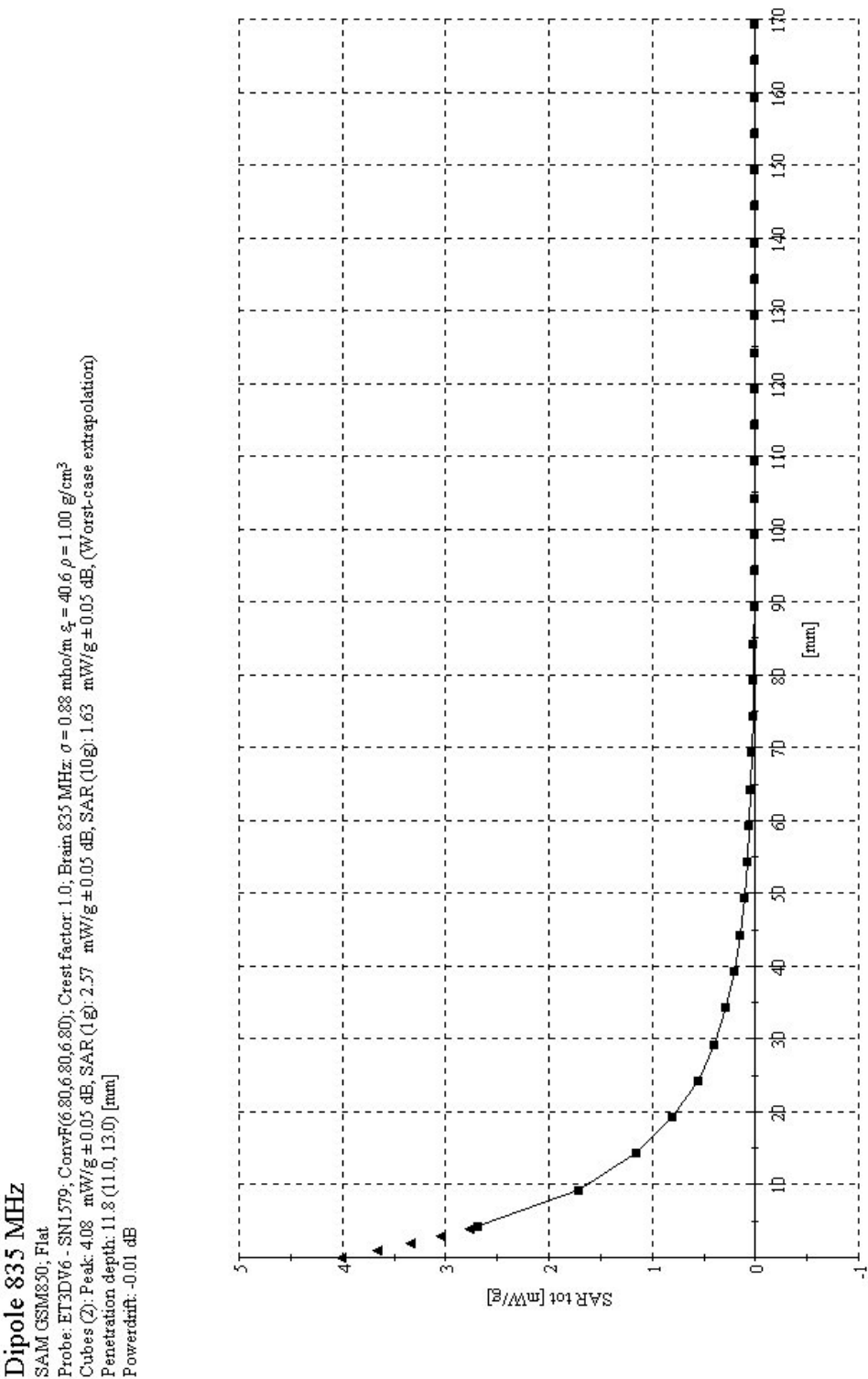


Fig. 13: SAR versus liquid depth, 835 MHz, Validation Head.

Dipole 835 MHz

SAM GSM830; Flat
Probe: ET3DV6 - SN1579; ConvF(6.60,6.60,6.60); Crest factor: 1.0; body 835 MHz; $\sigma = 1.00$ mho/m $\epsilon_r = 53.6$ $\rho = 1.00$ g/cm³
Cubes (2): Peak: 4.10 mW/g ± 0.07 dB, SAR (1g): 2.60 mW/g ± 0.07 dB, SAR (10g): 1.65 mW/g ± 0.07 dB, (Worst-case extrapolation)
Penetration depth: 12.0 (10.8, 13.5) [mm]
Powerdrift: 0.03 dB

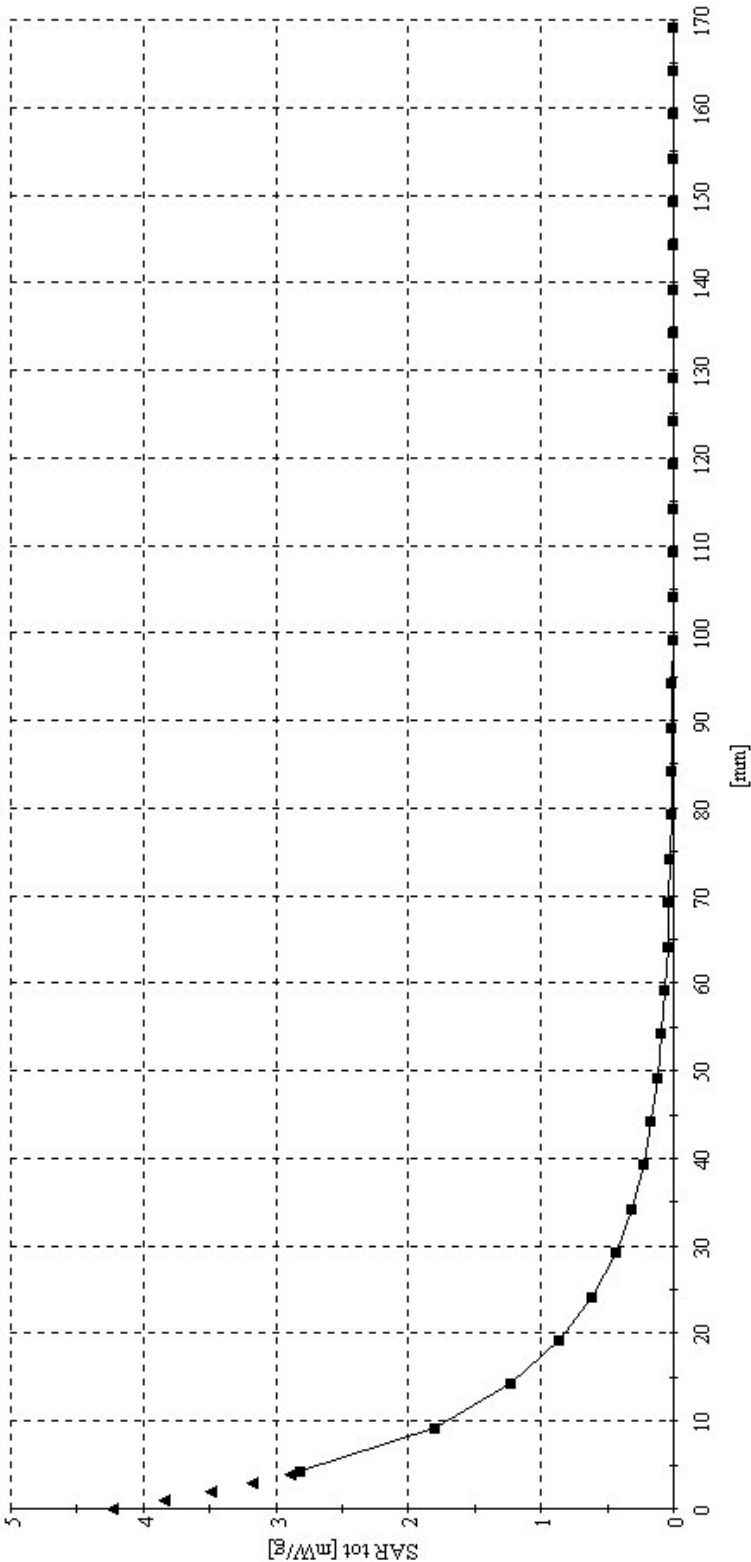


Fig. 14: SAR versus liquid depth, 835 MHz, Validation Body

Dipole 1900 MHz
SAM PCS1900; Flat
Probe: ET3DV6 - SN1579; ConvF(5 20,5 20,5 20); Crest factor: 1.0; Brain 1900MHz: $\sigma = 1.43 \text{ mho/m}$, $\epsilon_r = 38.9$, $\rho = 1.00 \text{ g/cm}^3$
Cubes (2): Peak: $21.5 \text{ mW/g} \pm 0.07 \text{ dB}$, SAR (1g): $11.3 \text{ mW/g} \pm 0.07 \text{ dB}$, SAR (10g): $5.73 \text{ mW/g} \pm 0.07 \text{ dB}$, (Worst-case extrapolation)
Penetration depth: $8.2 (7.8, 9.0) \text{ [mm]}$

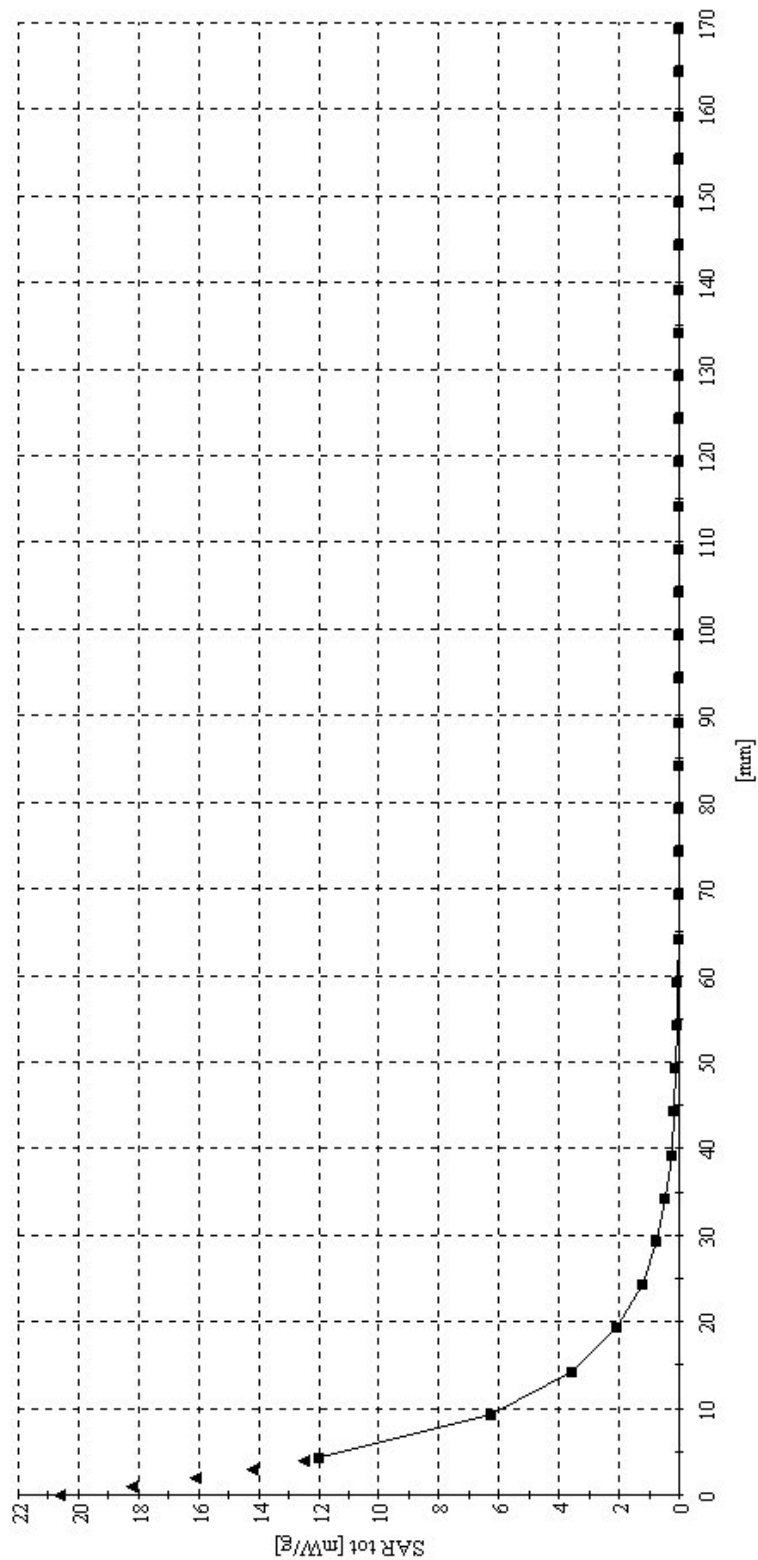


Fig. 15: SAR versus liquid depth, 1900 MHz, Validation Head.

Dipole 1900 MHz
SAM PCS1900; Flat
Probe: ET3DV6 - SN1579; ConvF(480,480,480); Crest factor: 1.0; body 1900 MHz; $\sigma = 1.52$ mho/m $\epsilon_r = 51.7$ $\rho = 1.00$ g/cm³
Cubes(2): Peak: 21.6 mW/g ± 0.18 dB; SAR (1g): 11.2 mW/g ± 0.10 dB; SAR (10g): 5.63 mW/g ± 0.07 dB, (Worst-case extrapolation)
Penetration depth: 8.4 (7.7, 9.6) [mm]
Powerdrift: -0.00 dB

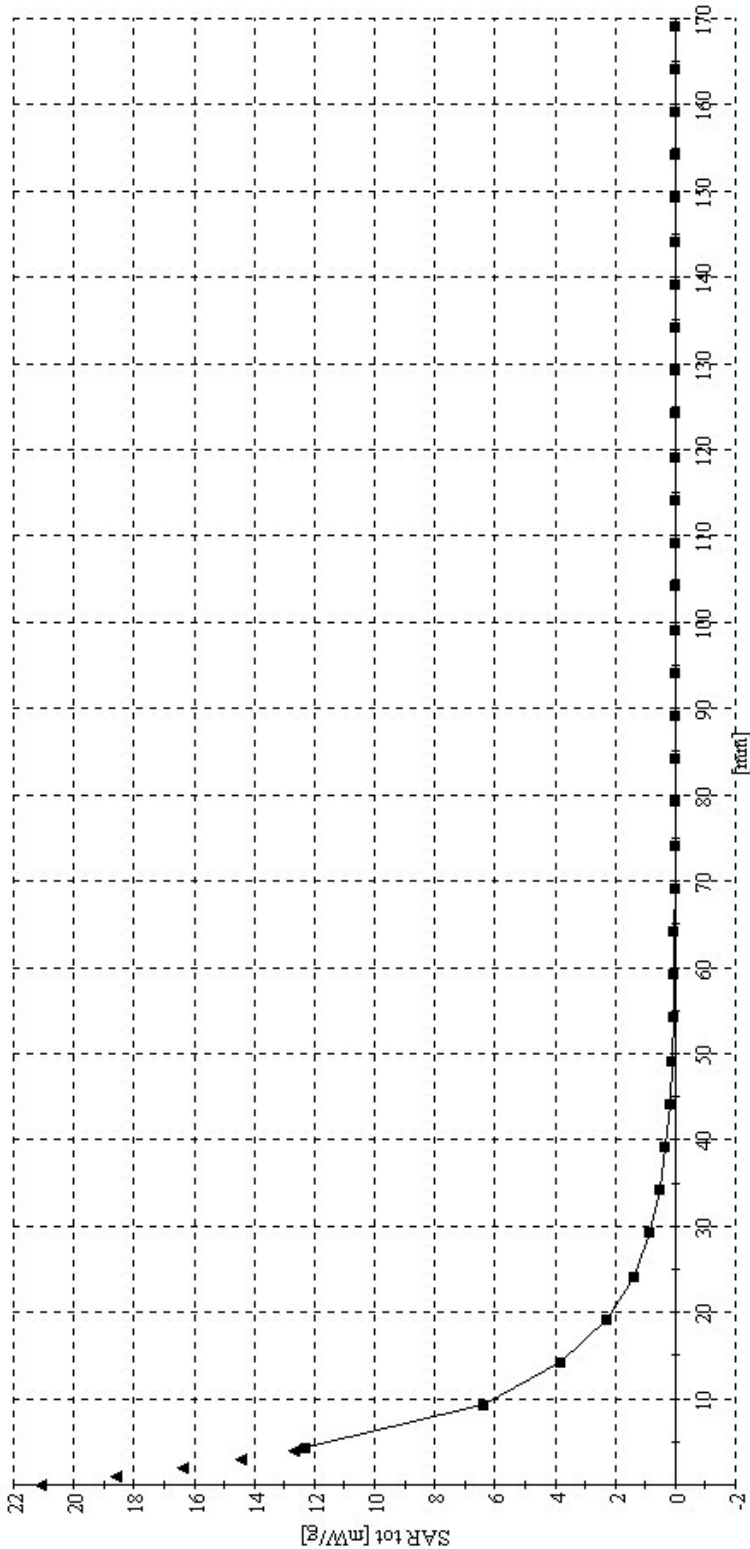


Fig. 16: SAR versus liquid depth, 1900 MHz, Validation Body

6 SAR z-axis scans (Measurements)

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

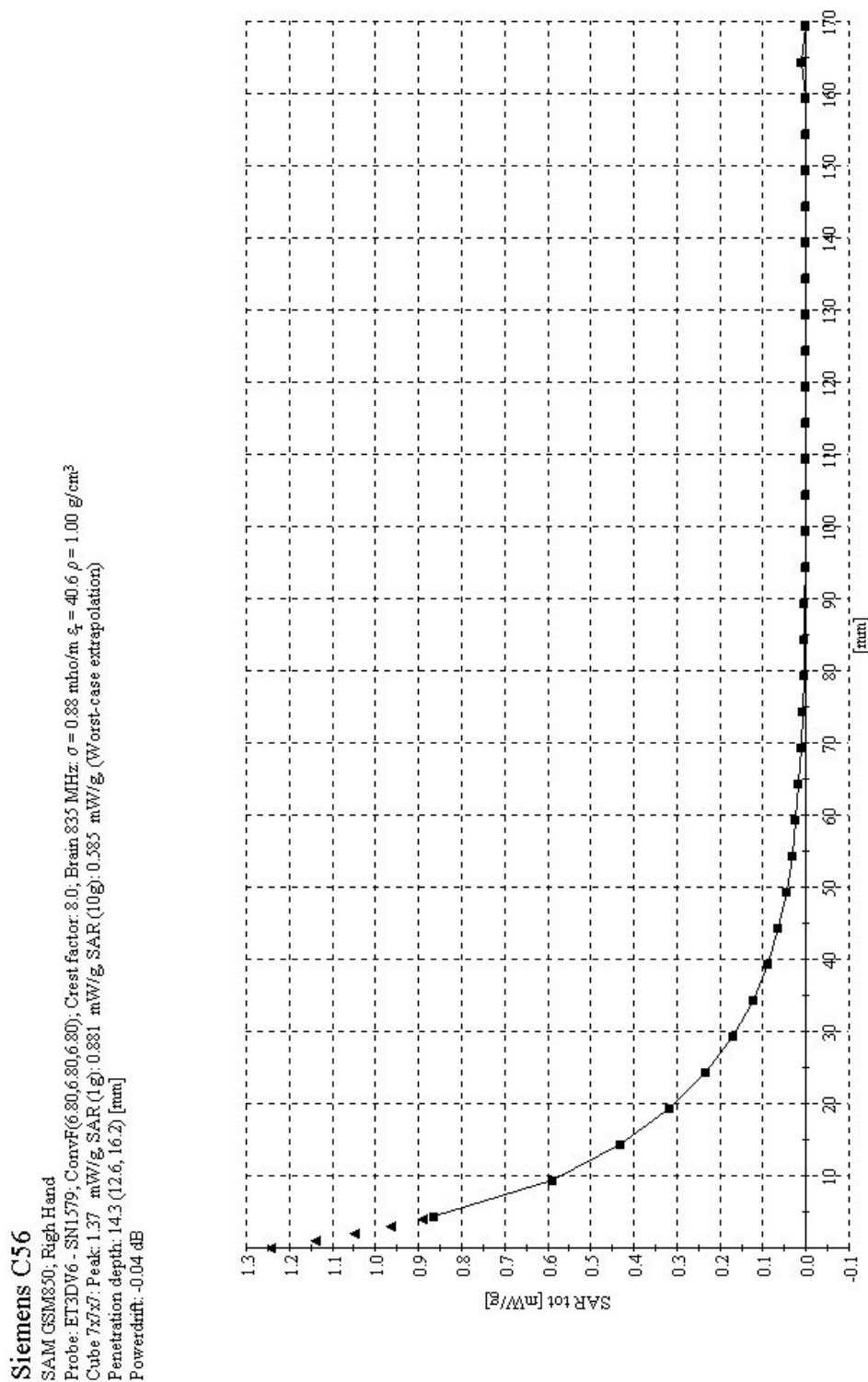


Fig. 17: SAR versus liquid depth, GSM850, channel 251, cheek position, right side of head.

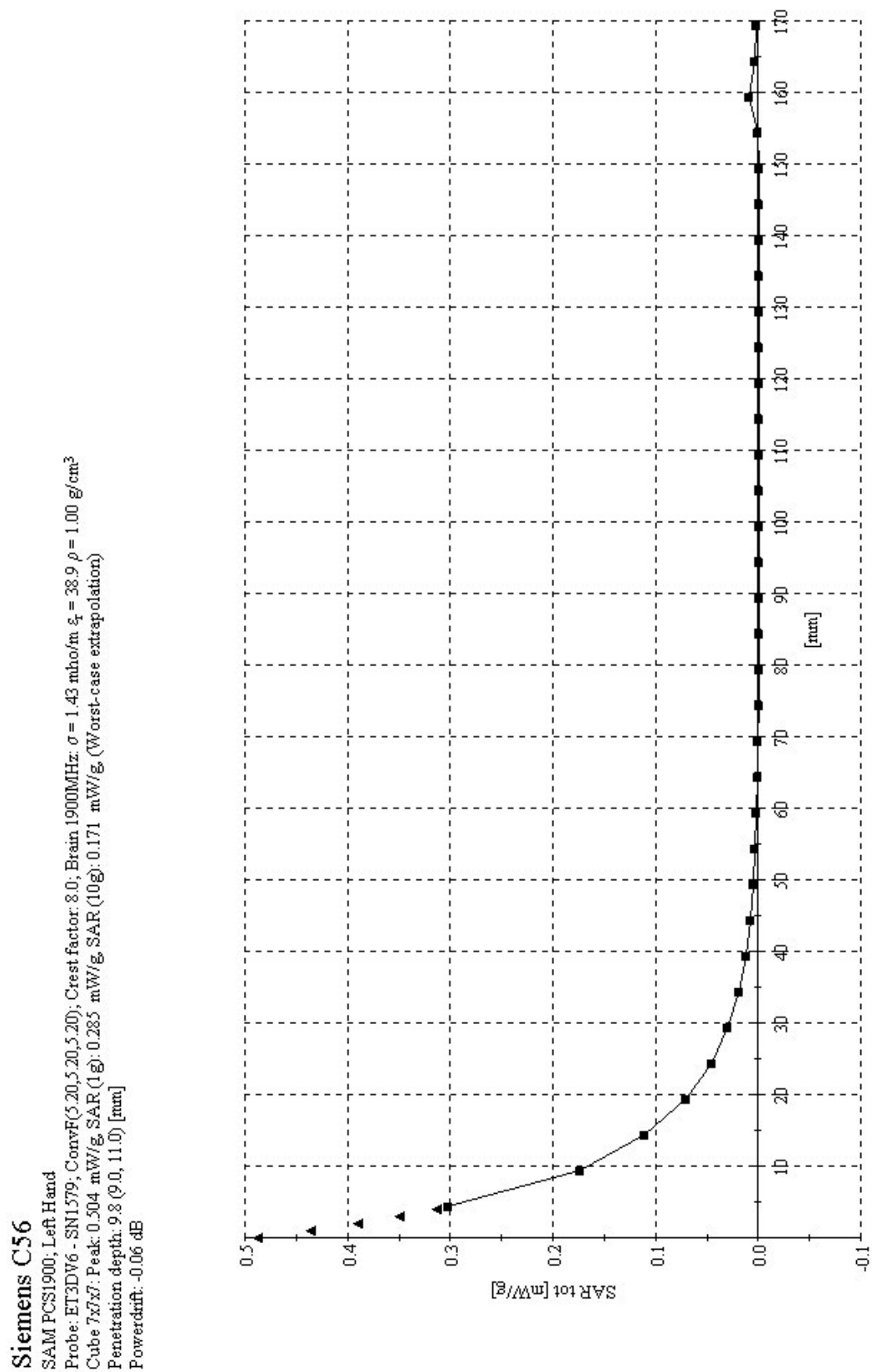


Fig. 18: SAR versus liquid depth, PCS 1900, channel 661, cheek position, left side of head.

Siemens C56 Body

SAM GSM850, Flat

Probe: ET3DV6 - SN1579; ConvF(6.60,6.60,6.60); Crest factor: 8.0; body 833 MHz; $\sigma = 1.00$ mho/m $\epsilon_r = 53.6$ $\rho = 1.00$ g/cm³

Cube 7x7x7; Peak: 0.529 mW/g; SAR (1g): 0.365 mW/g; SAR (10g): 0.251 mW/g; (Worst-case extrapolation)

Penetration depth: 14.8 (13.9, 15.7) [mm]

Powerdrift: 0.00 dB

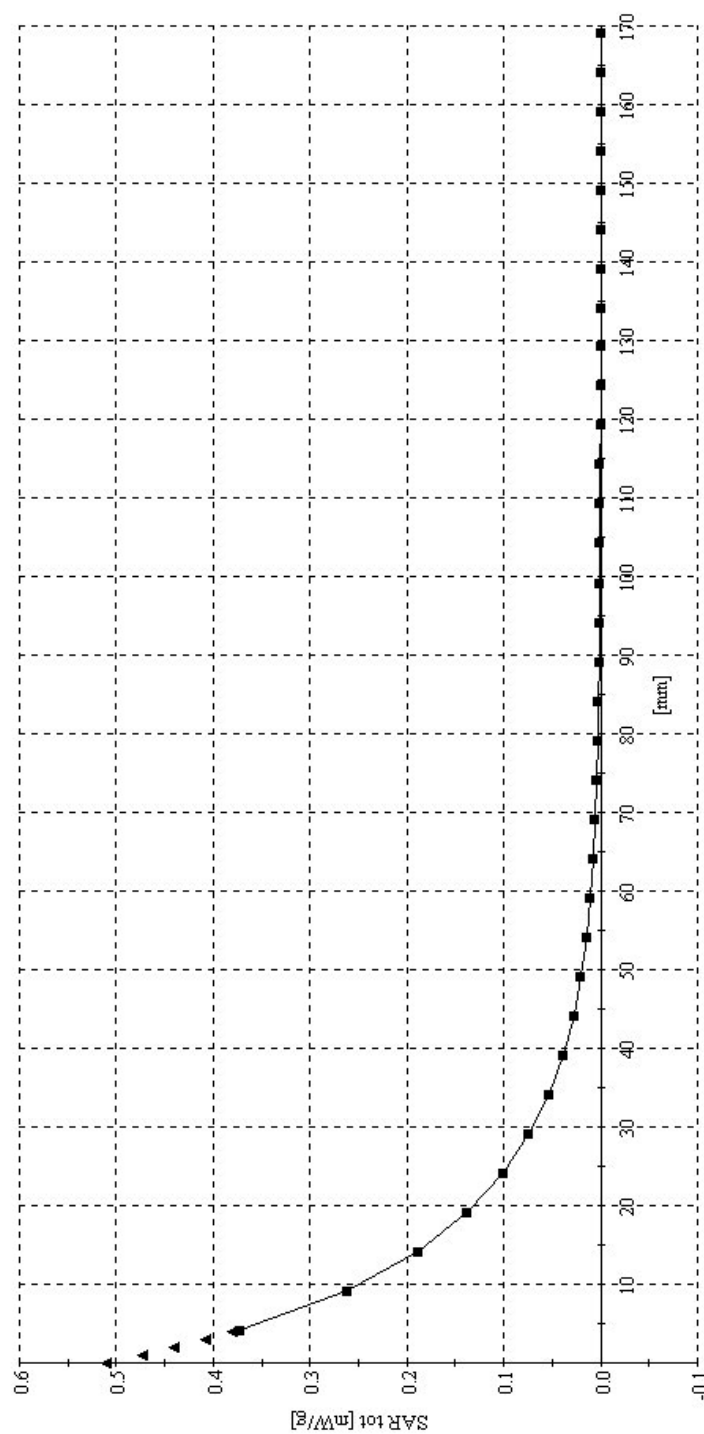


Fig. 19: SAR versus liquid depth, GSM850, channel 128, body worn configuration, Belt Clip with Headset (Talk mode, 1 TX slot).

Siemens C56 Body

SAM GSM850; Flat

Probe: ET3DW6 - SN1579; ConvF(6.60,6.60,6.60); Crest factor: 8.0; body 835 MHz; $\sigma = 1.00$ mho/m $\epsilon_r = 53.6$ $\rho = 1.00$ g/cm³

Cube 7x7x7: Peak: 0.832 mW/g SAR (1g): 0.578 mW/g SAR (10g): 0.398 mW/g SAR (Worst-case extrapolation)

Penetration depth: 15.1 (14.2, 16.1) [mm]

Powerdrift: -0.02 dB

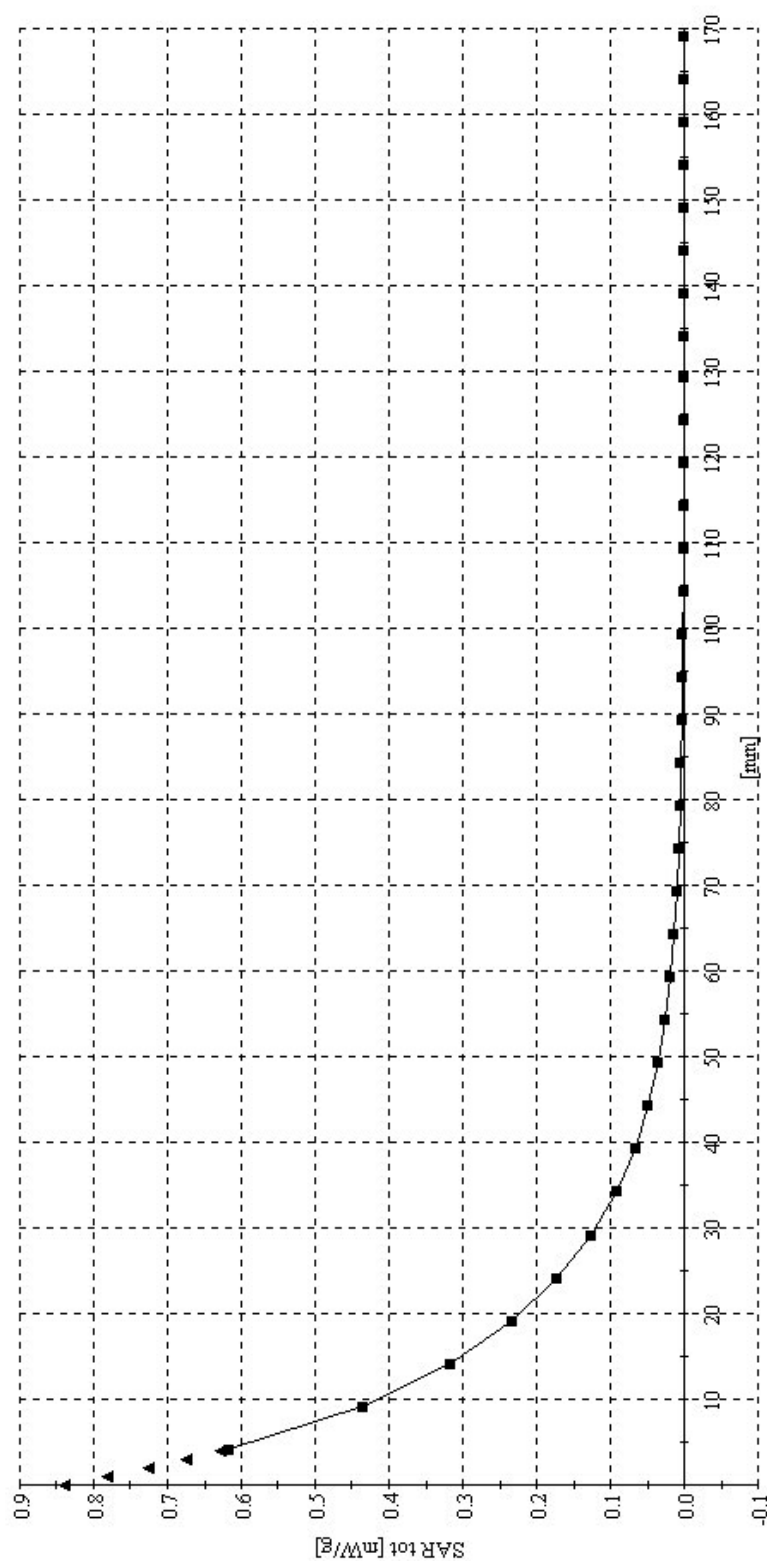


Fig. 20: SAR versus liquid depth, GSM850, channel 128, body worn configuration, Belt Clip without Headset (GPRS mode, 1 TX slot).

Siemens C56 Body

SAM GSM830; Flat

Probe: ET3DW6 - SN1579; ConvF(480,480,480); Crest factor: 8.0; body 1900 MHz: $\sigma = 1.52$ mho/m $\epsilon_r = 51.7$ $\rho = 1.00$ g/cm³

Cube 7x7x7: Peak: 0.534 mW/g, SAR (1 g): 0.322 mW/g, SAR (10 g): 0.198 mW/g, (Worst-case extrapolation)

Penetration depth: 11.1 (9.6, 13.1) [mm]

Powerdntf: 0.09 dB

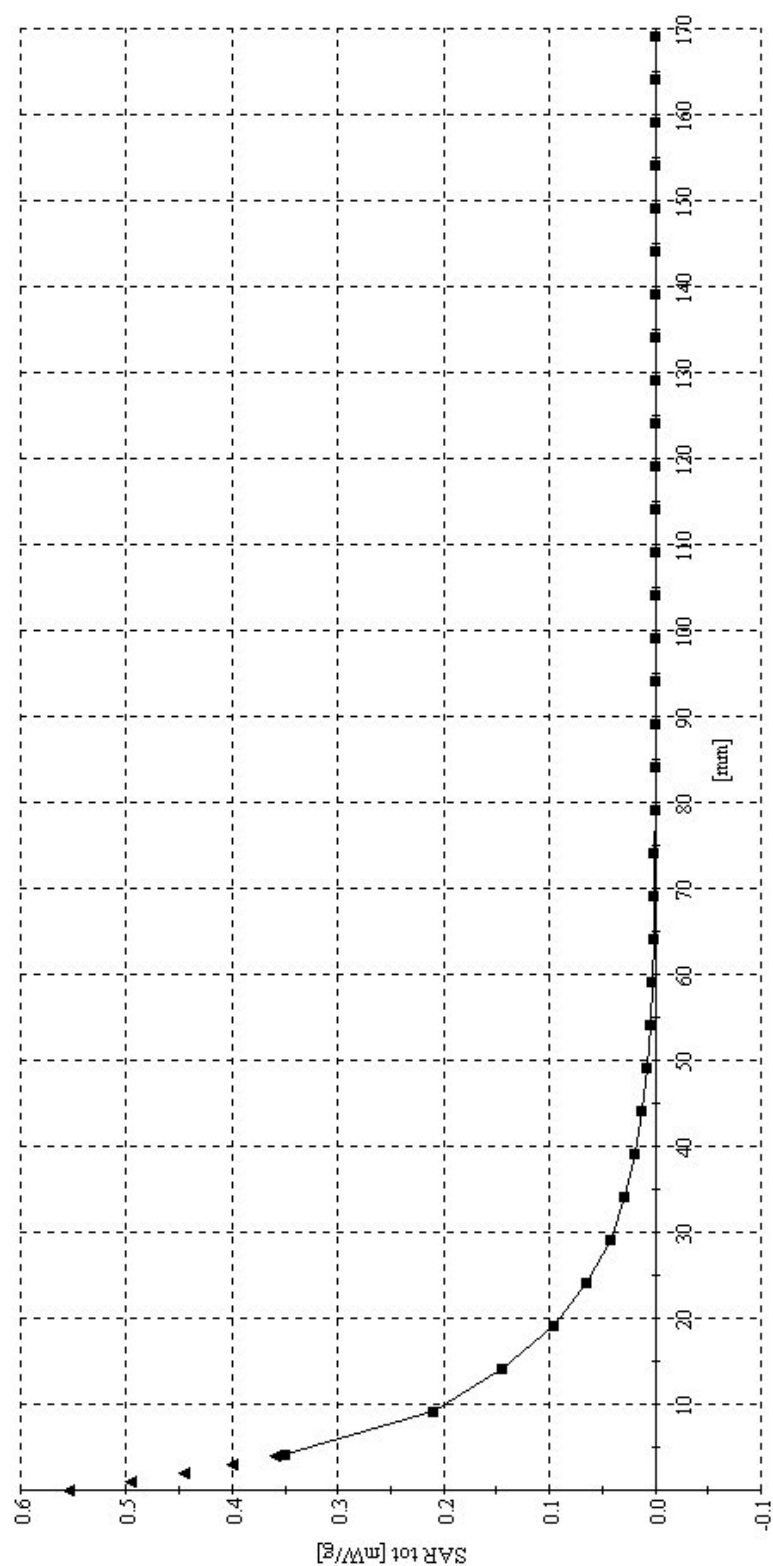


Fig. 21: SAR versus liquid depth, PCS 1900, channel 512, body worn configuration, Belt Clip with Headset (Talk mode, 1 TX slot).

Siemens C56 Body

SAM PCS1900; Flat

Probe: ET3DV6 - SN1579; ConvF(480,480,480); Crest factor: 8.0; body 1900 MHz: $\sigma = 1.52$ mho/m $\epsilon_r = 51.7$ $\rho = 1.00$ g/cm³

Cube 7x7x7: Peak: 0.694 mW/g SAR (1g): 0.418 mW/g SAR (10g): 0.256 mW/g (Worst-case extrapolation)

Penetration depth: 11.3 (10.1, 12.9) [mm]

Powerdrift: -0.03 dB

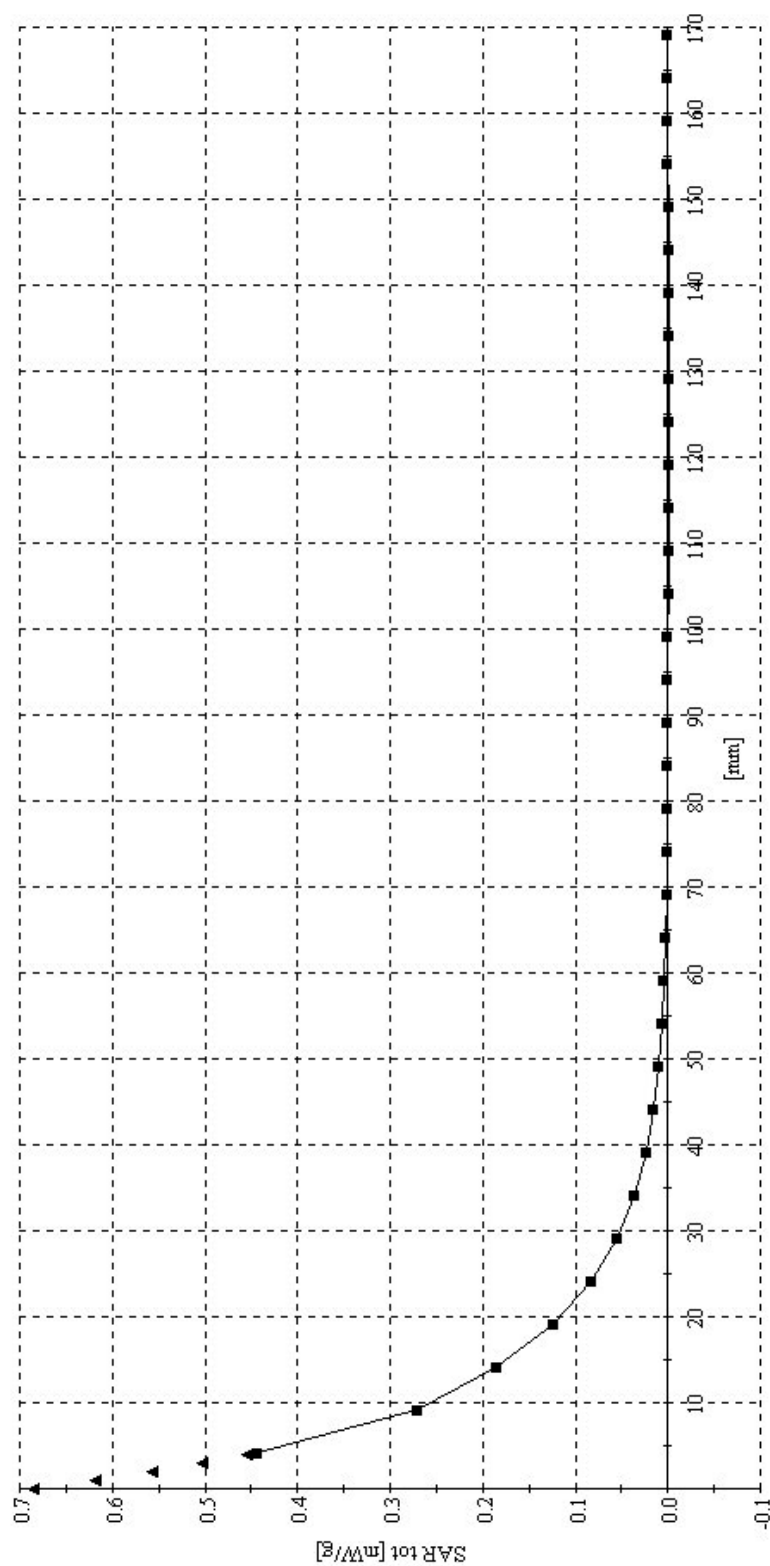


Fig. 22: SAR versus liquid depth, PCS 1900, channel 512, body worn configuration, Belt Clip without Headset (GPRS mode, 1 TX slot).