



Test & Certification Center (TCC) - Dallas

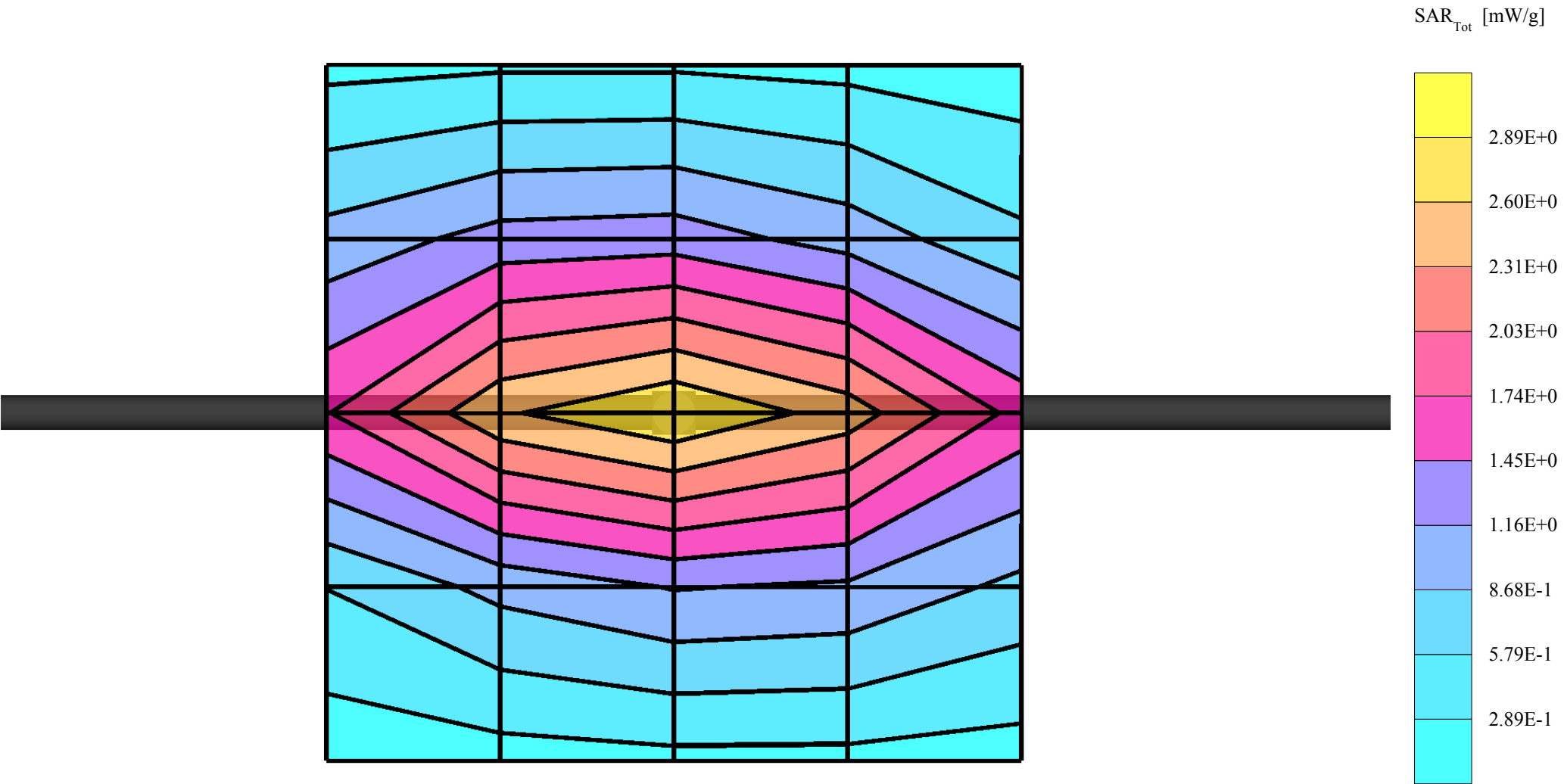


Accredited Laboratory
Certificate Number: 1819-01

APPENDIX A: VALIDATION SCANS

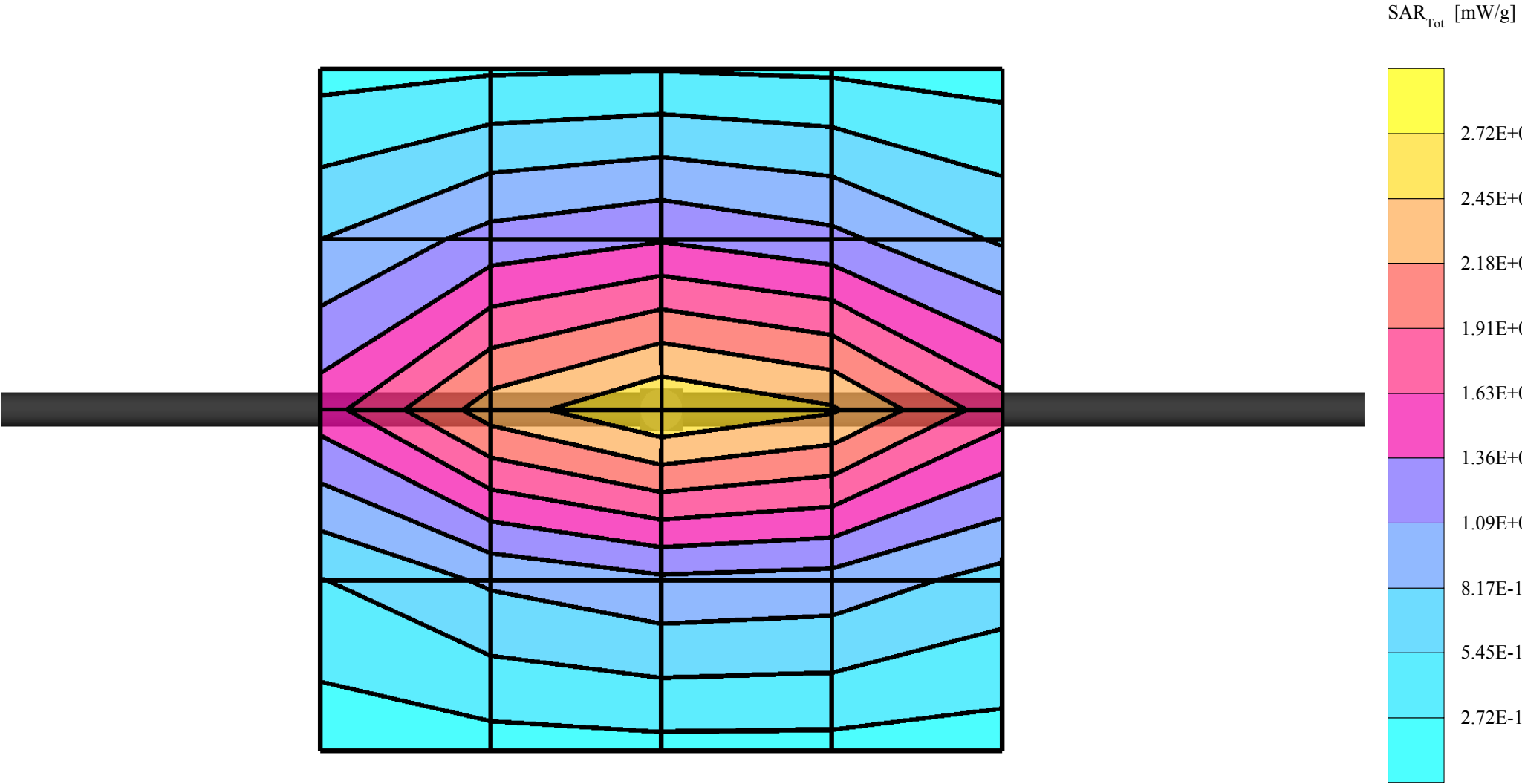
Dipole 835 MHz, Head Validation

SAM 1 (Cellular - Brain Tissue)
Frequency: 835 MHz; Crest factor: 1.0
Validation 835MHz - Brain Tissue: $\sigma = 0.92$ mho/m $\epsilon_r = 41.5$ $\rho = 1.00$ g/cm³
Probe: ET3DV6 - SN1504; ConvF(6.20,6.20,6.20)
Cubes (2): Peak: 3.75 mW/g ± 0.09 dB, SAR (1g): 2.53 mW/g ± 0.11 dB, SAR (10g): 1.67 mW/g ± 0.12 dB, (Advanced extrapolation)
Penetration depth: 13.2 (12.7, 13.8) [mm]
Powerdrift: 0.14 dB
Liquid Temperature: 20.8



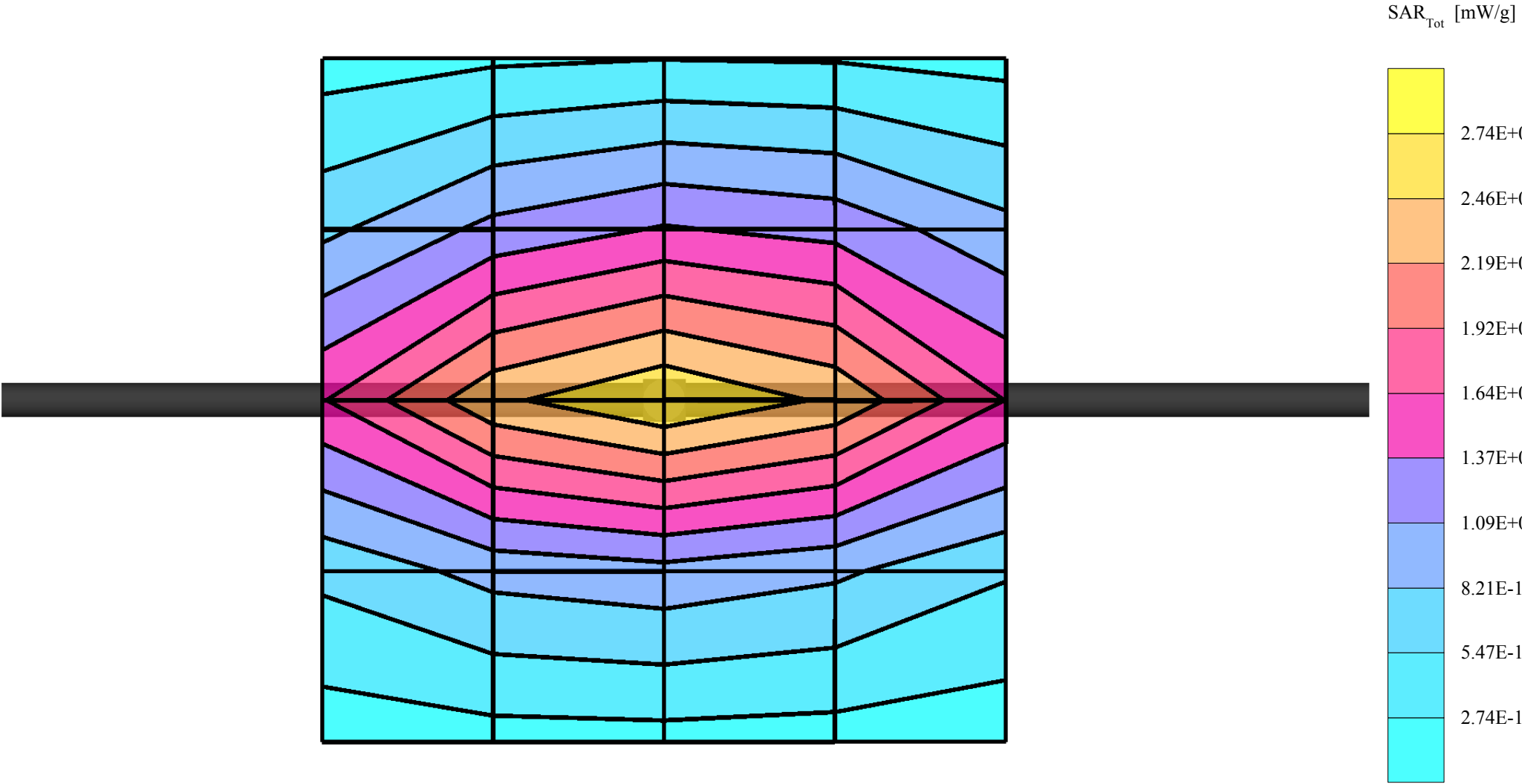
Dipole 835 MHz, Head Validation

SAM 1 (Cellular - Brain Tissue)
Frequency: 835 MHz; Crest factor: 1.0
Validation 835MHz - Brain Tissue: $\sigma = 0.88$ mho/m $\epsilon_r = 40.8$ $\rho = 1.00$ g/cm³
Probe: ET3DV6 - SN1504; ConvF(6.20,6.20,6.20)
Cubes (2): Peak: 3.57 mW/g ± 0.07 dB, SAR (1g): 2.41 mW/g ± 0.07 dB, SAR (10g): 1.58 mW/g ± 0.07 dB, (Advanced extrapolation)
Penetration depth: 13.1 (12.6, 13.8) [mm]
Powerdrift: 0.01 dB
Liquid Temperature: 21.0



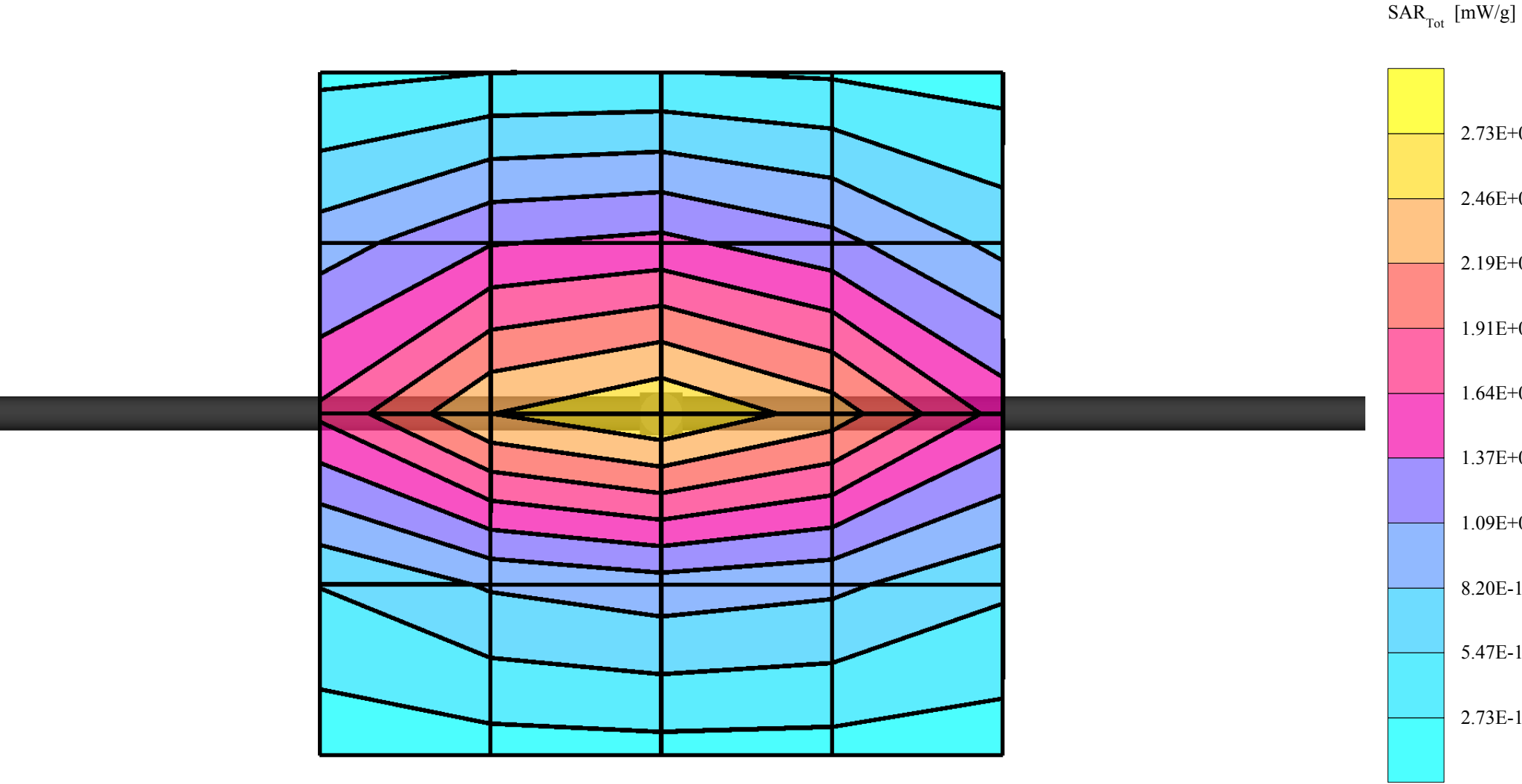
Dipole 835 MHz, Head Validation

SAM 1 (Cellular - Brain Tissue) Phantom
Frequency: 835 MHz; Crest factor: 1.0
Validation 835MHz - Brain Tissue: $\sigma = 0.89$ mho/m $\epsilon_r = 41.2$ $\rho = 1.00$ g/cm³
Probe: ET3DV6 - SN1504; ConvF(6.20,6.20,6.20)
Cubes (2): SAR (1g): 2.44 mW/g $\pm$ 0.09 dB, SAR (10g): 1.60 mW/g $\pm$ 0.09 dB, (Advanced extrapolation)
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: -0.01 dB
Liquid Temperature: 21.0



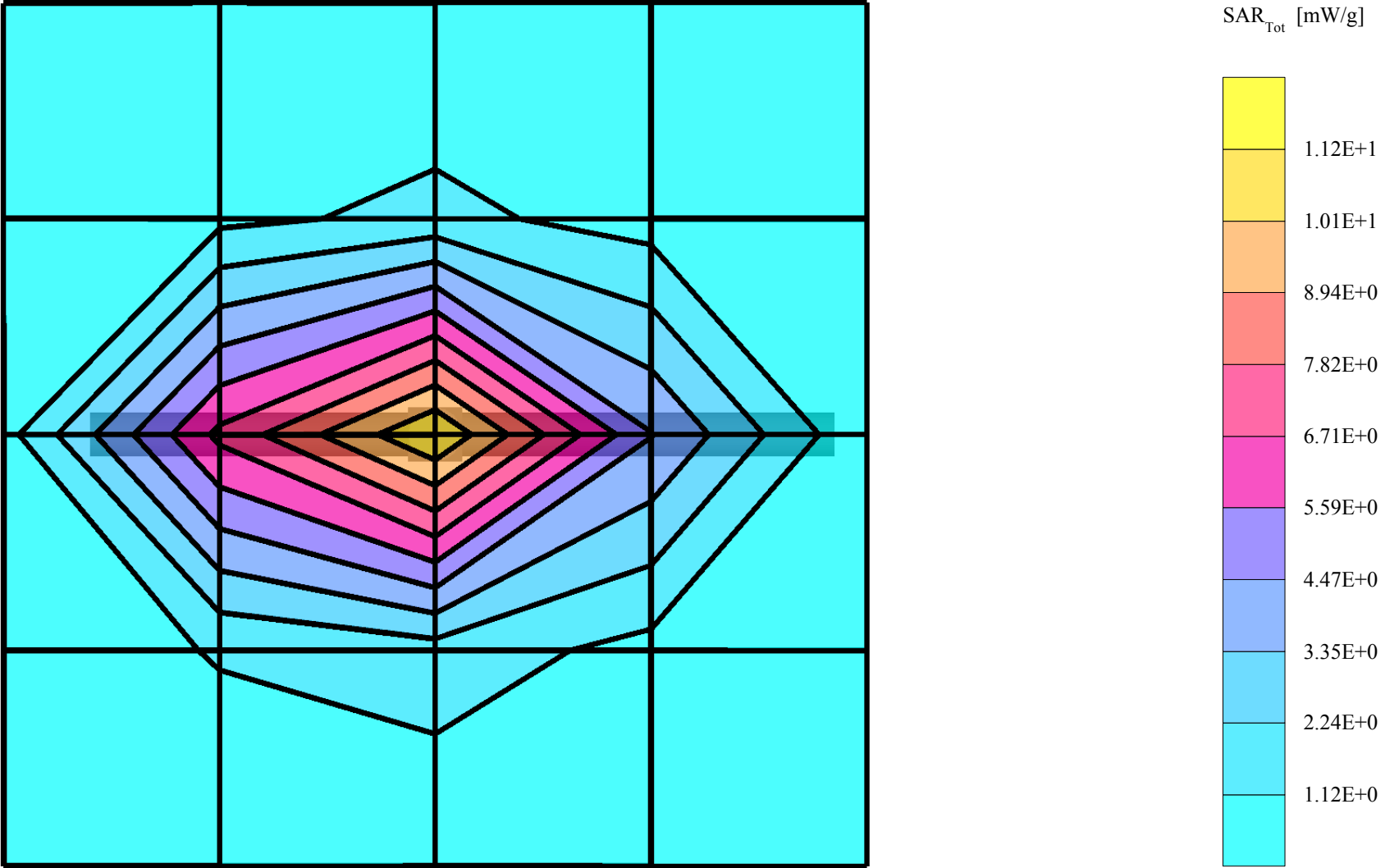
Dipole 835 MHz, Head Validation

SAM 1 (Cellular - Brain Tissue) Phantom
Frequency: 835 MHz; Crest factor: 1.0
Validation 835MHz - Brain Tissue: $\sigma = 0.89$ mho/m $\epsilon_r = 40.7$ $\rho = 1.00$ g/cm³
Probe: ET3DV6 - SN1504; ConvF(6.20,6.20,6.20)
Cubes (2): SAR (1g): 2.45 mW/g $\pm$ 0.10 dB, SAR (10g): 1.61 mW/g $\pm$ 0.10 dB, (Advanced extrapolation)
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: -0.01 dB
Liquid Temperature: 20.6



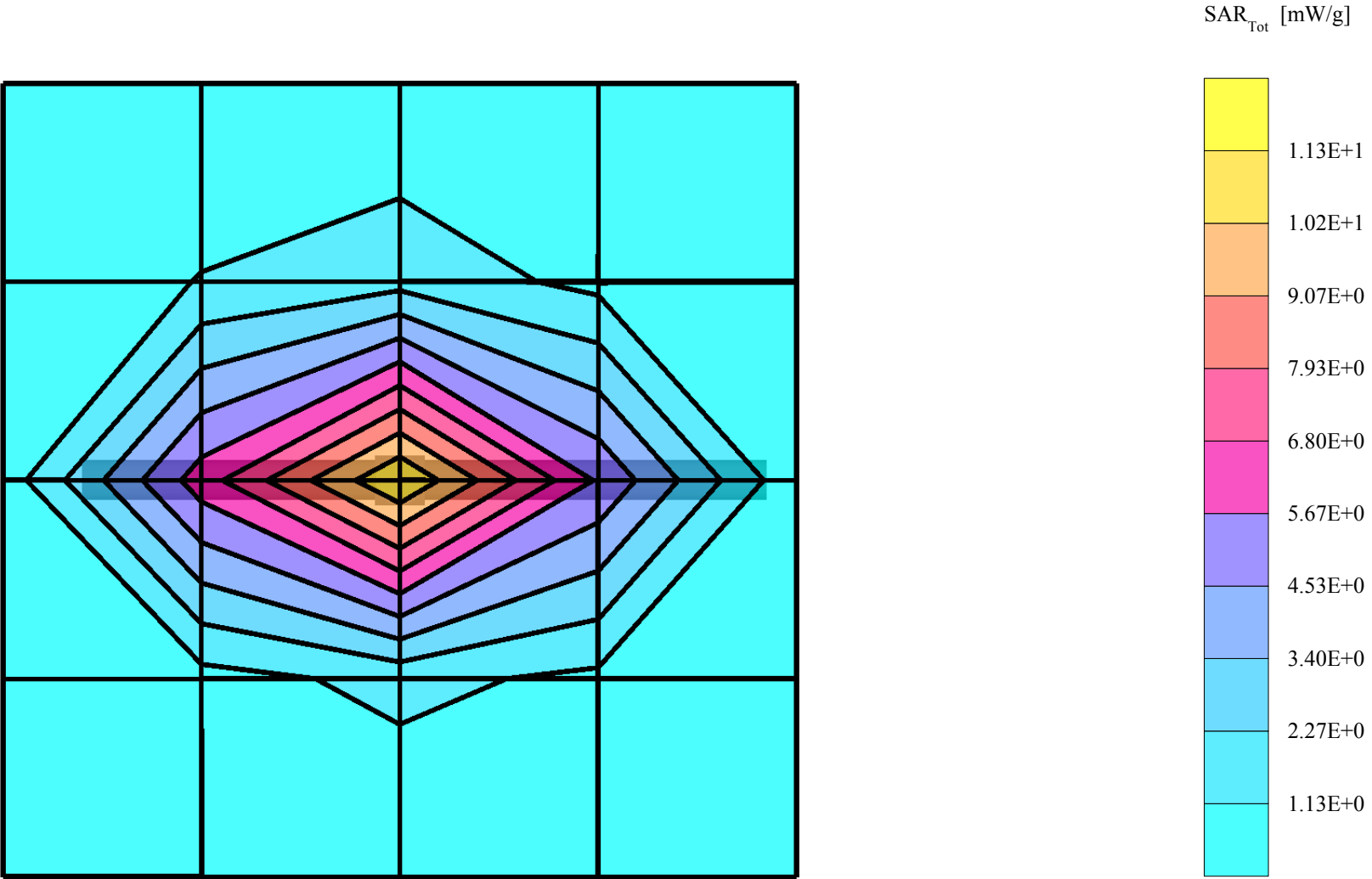
Dipole 1900 MHz, Head Validation

SAM 3 (PCS - Brain / Muscle Tissue)
Frequency: 1900 MHz; Crest factor: 1.0
Validation 1900MHz - Brain Tissue: $\sigma = 1.43$ mho/m $\epsilon_r = 42.0$ $\rho = 1.00$ g/cm³
Probe: ET3DV6 - SN1504; ConvF(5.00,5.00,5.00)
Cubes (2): Peak: 16.7 mW/g $\pm$ 0.09 dB, SAR (1g): 9.30 mW/g $\pm$ 0.09 dB, SAR (10g): 4.82 mW/g $\pm$ 0.09 dB, (Advanced extrapolation)
Penetration depth: 8.6 (8.4, 8.8) [mm]
Powerdrift: -0.00 dB
Liquid Temperature: 19.8



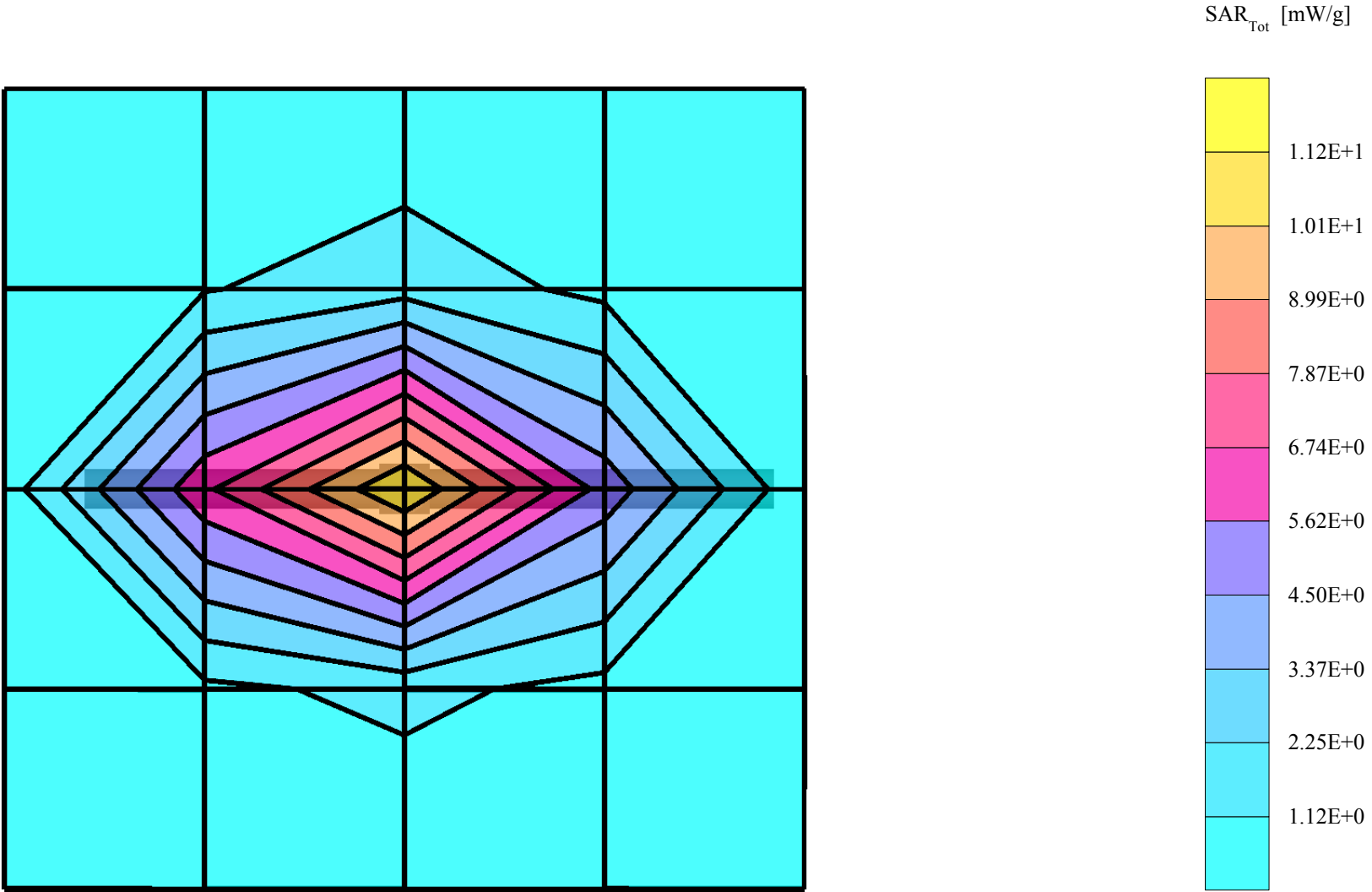
Dipole 1900 MHz, Head Validation

SAM 3 (PCS - Brain / Muscle Tissue)
Frequency: 1900 MHz; Crest factor: 1.0
Validation 1900MHz - Brain Tissue: $\sigma = 1.47$ mho/m $\epsilon_r = 40.7$ $\rho = 1.00$ g/cm³
Probe: ET3DV6 - SN1504; ConvF(5.00,5.00,5.00)
Cubes (2): Peak: 16.7 mW/g $\pm$ 0.11 dB, SAR (1g): 9.34 mW/g $\pm$ 0.10 dB, SAR (10g): 4.87 mW/g $\pm$ 0.10 dB, (Advanced extrapolation)
Penetration depth: 8.5 (8.4, 8.8) [mm]
Powerdrift: 0.05 dB
Liquid Temperature: 19.7



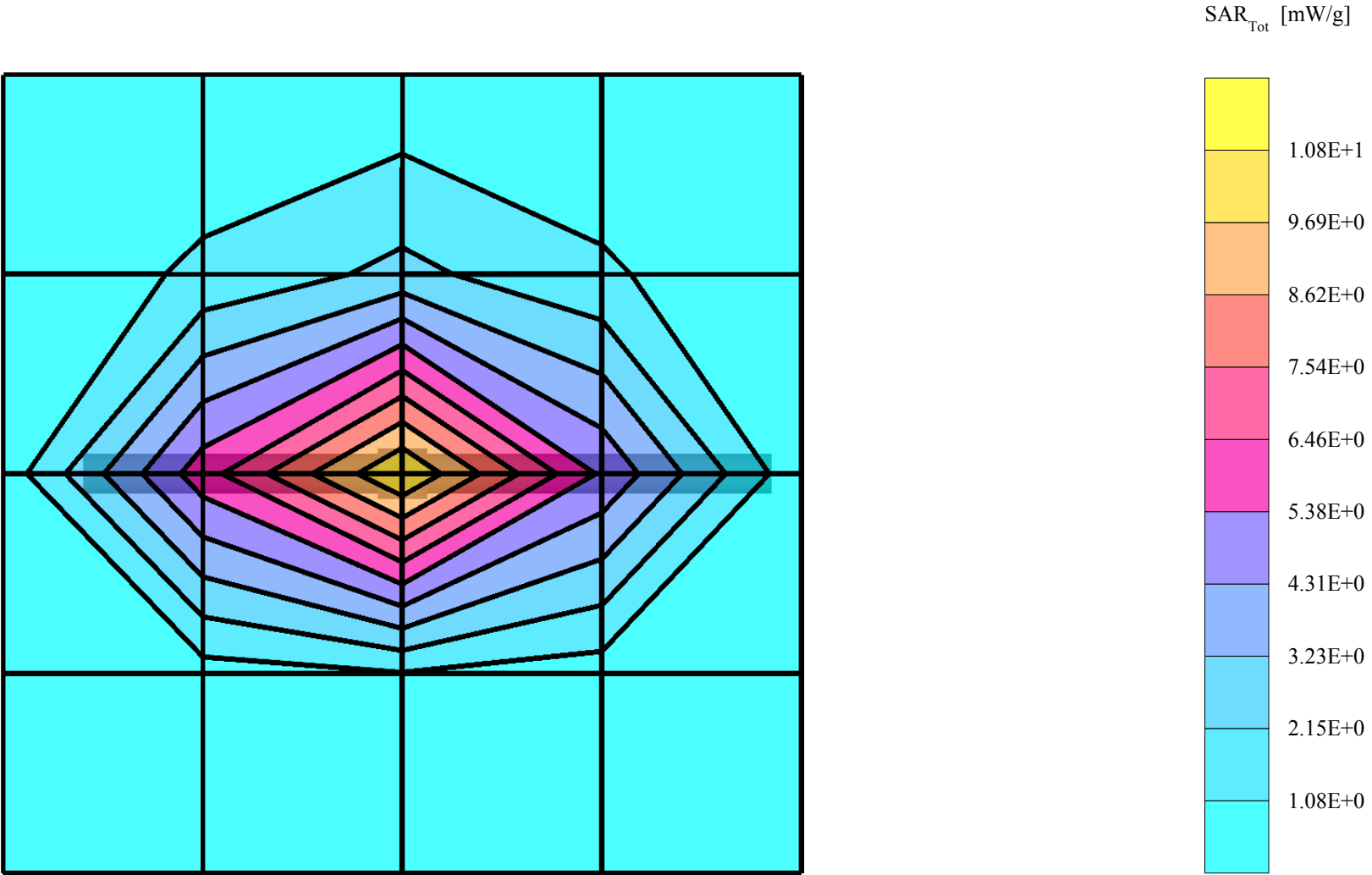
Dipole 1900 MHz, Head Validation

SAM 3 (PCS - Brain / Muscle Tissue)
Frequency: 1900 MHz; Crest factor: 1.0
Validation 1900MHz - Brain Tissue: $\sigma = 1.47$ mho/m $\epsilon_r = 40.5$ $\rho = 1.00$ g/cm³
Probe: ET3DV6 - SN1504; ConvF(5.00,5.00,5.00)
Cubes (2): Peak: 16.7 mW/g $\pm$ 0.11 dB, SAR (1g): 9.31 mW/g $\pm$ 0.10 dB, SAR (10g): 4.83 mW/g $\pm$ 0.10 dB, (Advanced extrapolation)
Penetration depth: 8.5 (8.4, 8.8) [mm]
Powerdrift: 0.02 dB
Liquid Temperature: 19.1



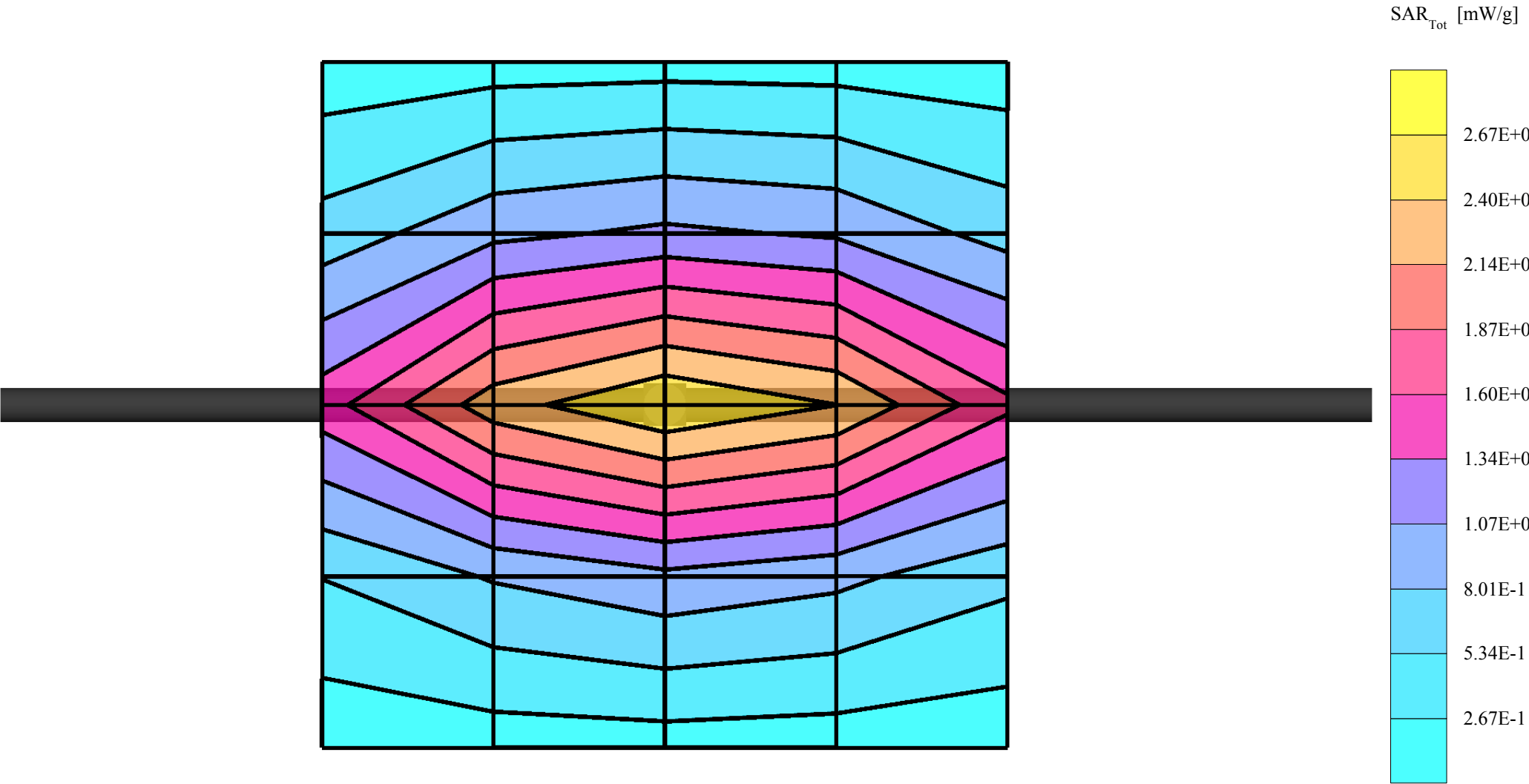
Dipole 1900 MHz, Head Validation

SAM 3 (PCS - Brain / Muscle Tissue)
Frequency: 1900 MHz; Crest factor: 1.0
Validation 1900MHz - Brain Tissue: $\sigma = 1.47$ mho/m $\epsilon_r = 40.1$ $\rho = 1.00$ g/cm³
Probe: ET3DV6 - SN1504; ConvF(5.00,5.00,5.00)
Cubes (2): Peak: 16.4 mW/g $\pm$ 0.13 dB, SAR (1g): 9.18 mW/g $\pm$ 0.11 dB, SAR (10g): 4.78 mW/g $\pm$ 0.10 dB, (Advanced extrapolation)
Penetration depth: 8.5 (8.4, 8.7) [mm]
Powerdrift: -0.04 dB
Liquid Temperature: 18.6



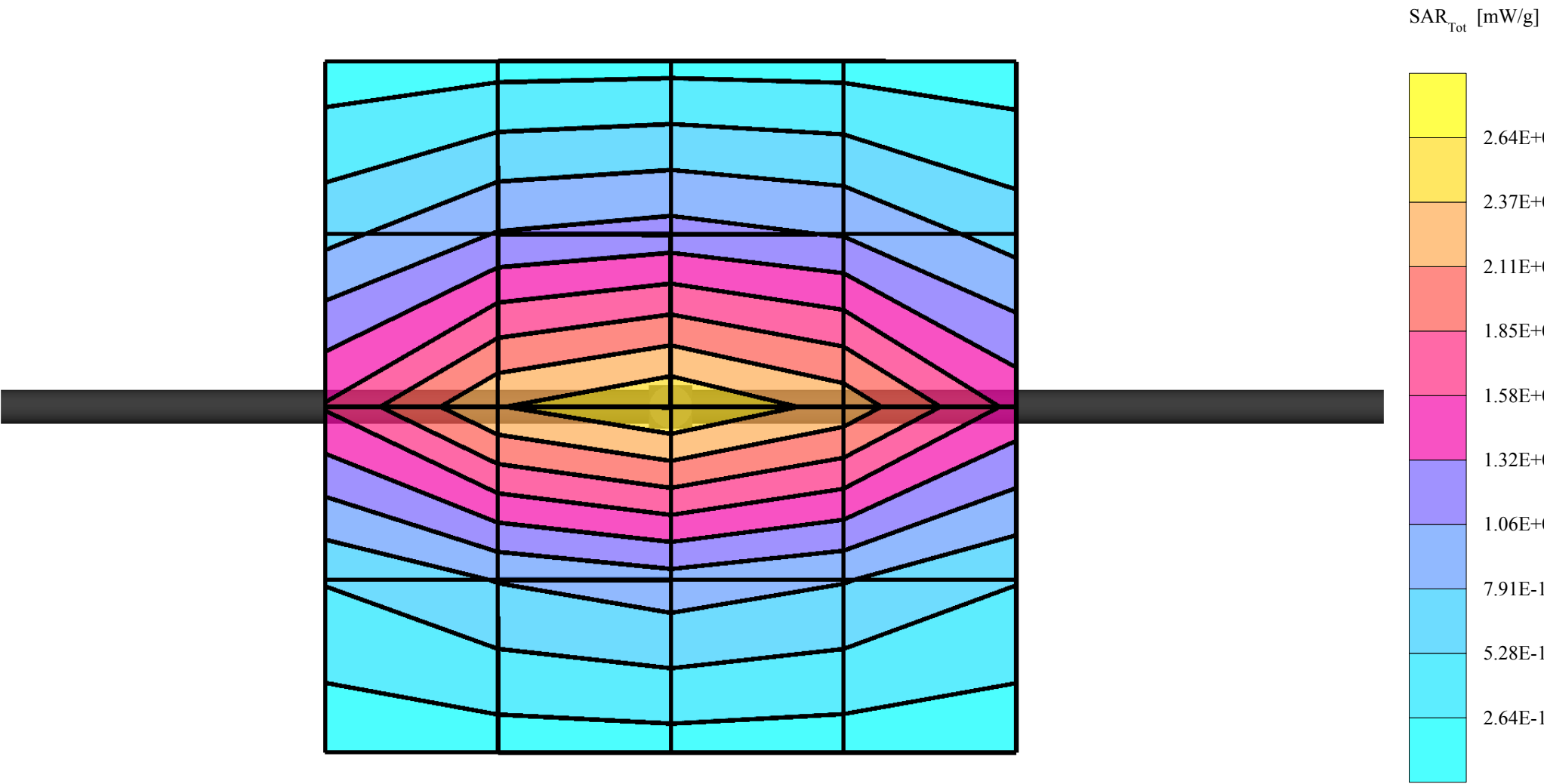
Dipole 835 MHz, Body Validation

SAM 2 (Cellular - Muscle Tissue)
Frequency: 835 MHz; Crest factor: 1.0
Validation 835MHz - Muscle Tissue: $\sigma = 0.94$ mho/m $\epsilon_r = 55.9$ $\rho = 1.00$ g/cm³
Probe: ET3DV6 - SN1504; ConvF(6.20,6.20,6.20)
Cubes (2): Peak: 3.40 mW/g ± 0.10 dB, SAR (1g): 2.36 mW/g ± 0.10 dB, SAR (10g): 1.58 mW/g ± 0.10 dB, (Advanced extrapolation)
Penetration depth: 14.2 (13.9, 14.7) [mm]
Powerdrift: -0.00 dB
Liquid Temperature: 21.3



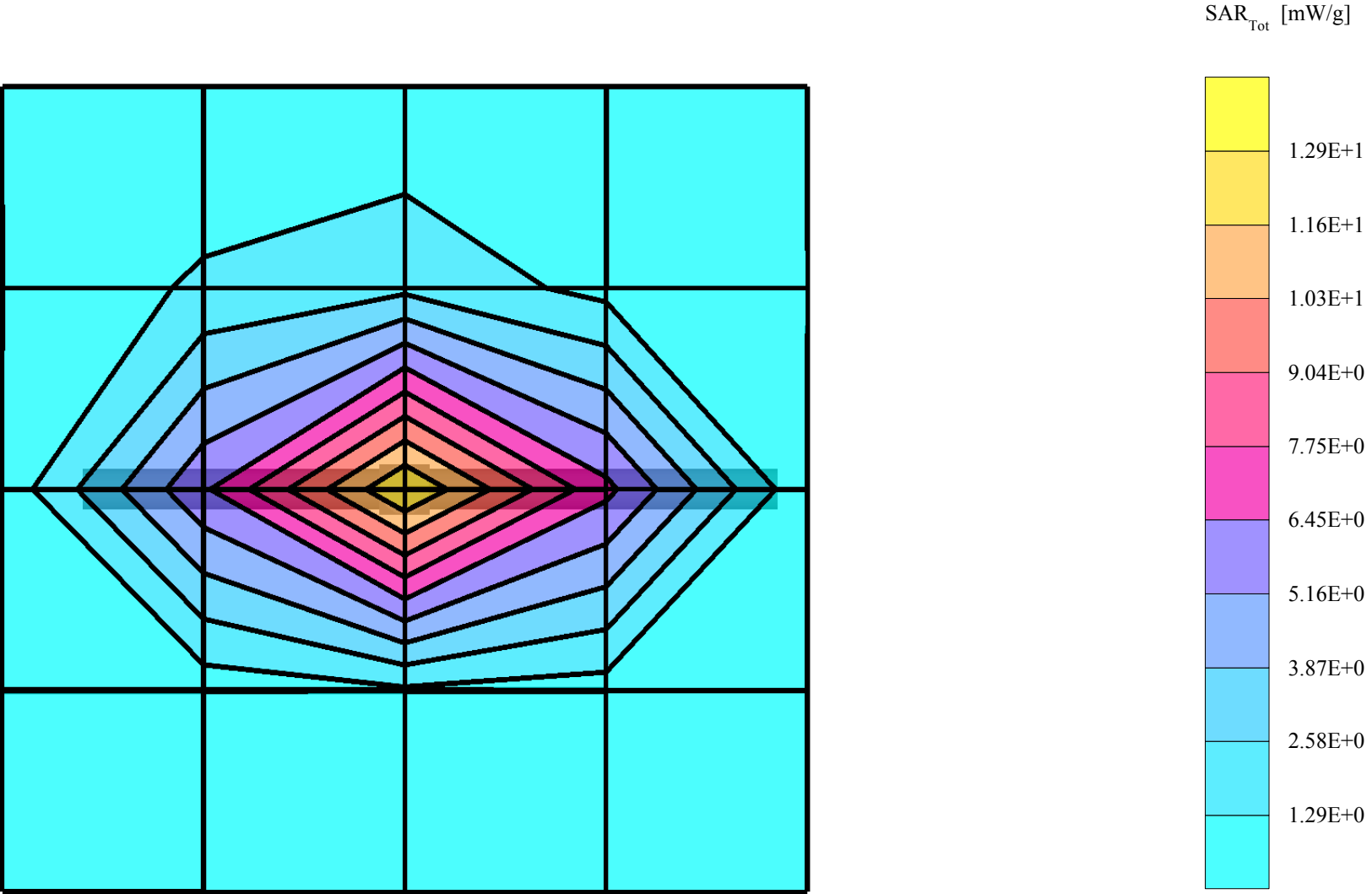
Dipole 835 MHz, Body Validation

SAM 2 (Cellular - Muscle Tissue)
Frequency: 835 MHz; Crest factor: 1.0
Validation 835MHz - Muscle Tissue: $\sigma = 0.93 \text{ mho/m}$ $\epsilon_r = 55.5$ $\rho = 1.00 \text{ g/cm}^3$
Probe: ET3DV6 - SN1504; ConvF(6.20,6.20,6.20)
Cubes (2): Peak: $3.37 \text{ mW/g} \pm 0.10 \text{ dB}$, SAR (1g): $2.34 \text{ mW/g} \pm 0.09 \text{ dB}$, SAR (10g): $1.56 \text{ mW/g} \pm 0.09 \text{ dB}$, (Advanced extrapolation)
Penetration depth: 14.1 (13.8, 14.7) [mm]
Powerdrift: -0.00 dB
Liquid Temperature: 21.5



Dipole 1900 MHz, Body Validation

SAM 3 (PCS - Brain / Muscle Tissue)
Frequency: 1900 MHz; Crest factor: 1.0
PCS Band - Muscle Tissue: $\sigma = 1.58 \text{ mho/m}$ $\epsilon_r = 51.0$ $\rho = 1.00 \text{ g/cm}^3$
Probe: ET3DV6 - SN1504; ConvF(4.50,4.50,4.50)
Cubes (2): Peak: $18.6 \text{ mW/g} \pm 0.13 \text{ dB}$, SAR (1g): $10.6 \text{ mW/g} \pm 0.10 \text{ dB}$, SAR (10g): $5.53 \text{ mW/g} \pm 0.09 \text{ dB}$, (Advanced extrapolation)
Penetration depth: 9.0 (8.9, 9.2) [mm]
Powerdrift: 0.01 dB
Liquid Temperature: 22.0





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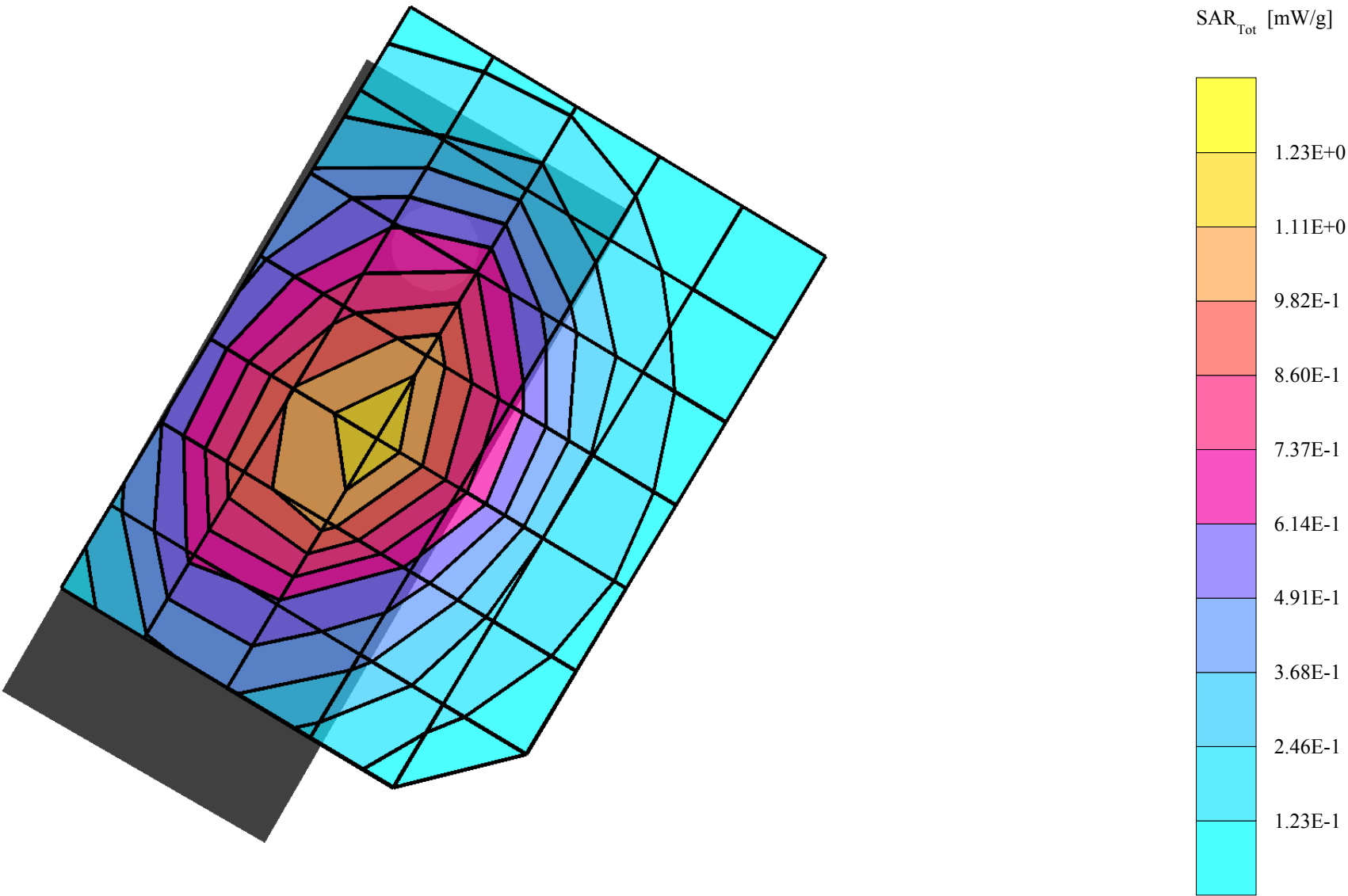


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APPENDIX B: MEASUREMENT SCANS

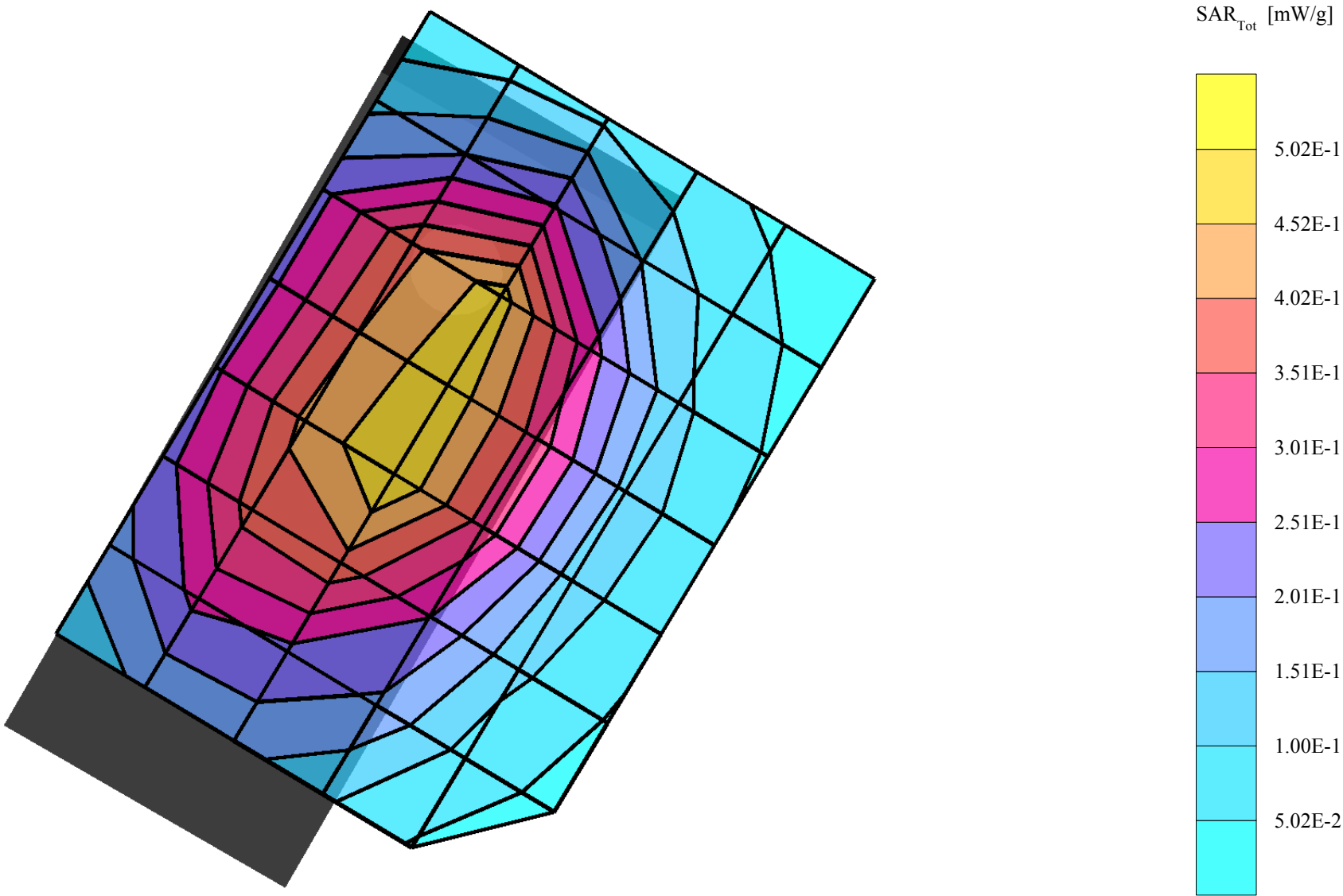
NPM-10, GSM 850, Channel 251, Left Cheek Position

SAM 1 (Cellular - Brain Tissue) Phantom
Frequency: 824 MHz; Crest factor: 8.0
Cellular Band - Brain Tissue: $\sigma = 0.93 \text{ mho/m}$ $\epsilon_r = 41.5$ $\rho = 1.00 \text{ g/cm}^3$
Probe: ET3DV6 - SN1504; ConvF(6.20,6.20,6.20)
Cube 5x5x7: SAR (1g): 1.19 mW/g, SAR (10g): 0.819 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Powerdrift: 0.01 dB
Liquid Temperature: 20.8



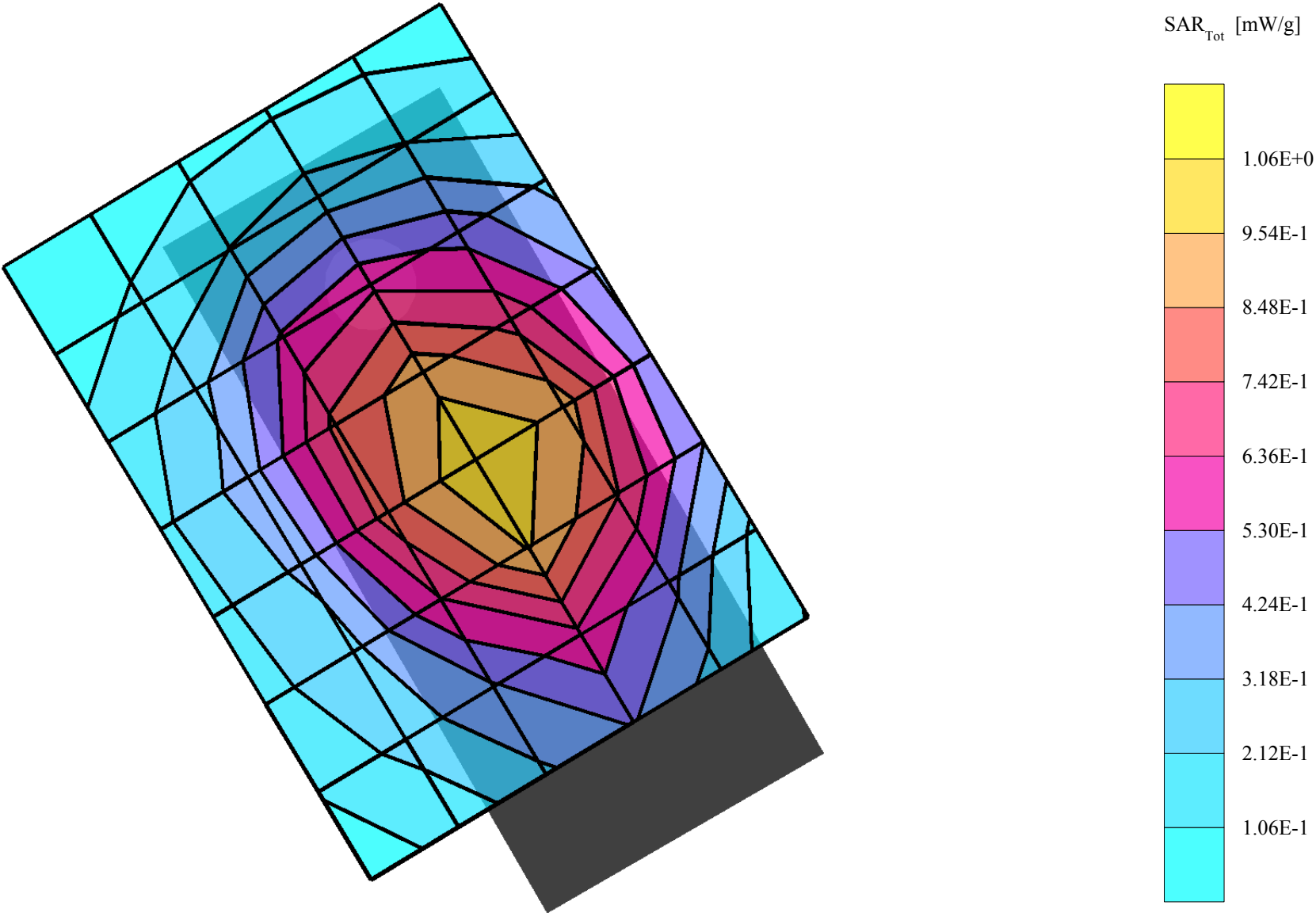
NPM-10, GSM 850, Channel 190, Left Tilt Position

SAM 1 (Cellular - Brain Tissue) Phantom
Frequency: 837 MHz; Crest factor: 8.0
Cellular Band - Brain Tissue: $\sigma = 0.93$ mho/m $\epsilon_r = 41.5$ $\rho = 1.00$ g/cm³
Probe: ET3DV6 - SN1504; ConvF(6.20,6.20,6.20)
Cube 5x5x7: SAR (1g): 0.487 mW/g, SAR (10g): 0.342 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Powerdrift: -0.05 dB
Liquid Temperature: 20.8



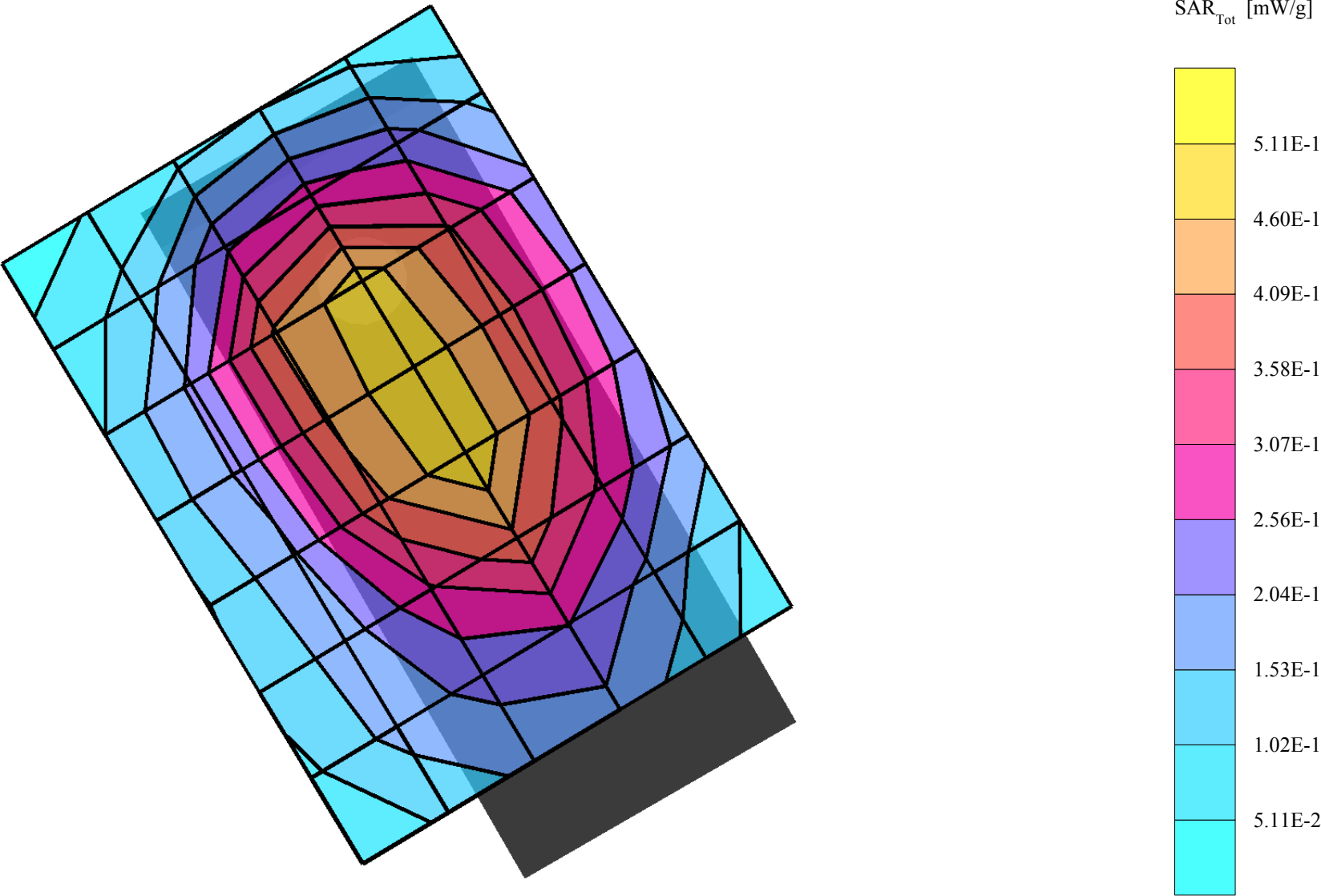
NPM-10, GSM 850, Channel 251, Right Cheek Position

SAM 1 (Cellular - Brain Tissue) Phantom
Frequency: 849 MHz; Crest factor: 8.0
Cellular Band - Brain Tissue: $\sigma = 0.89$ mho/m $\epsilon_r = 40.7$ $\rho = 1.00$ g/cm³
Probe: ET3DV6 - SN1504; ConvF(6.20,6.20,6.20)
Cube 5x5x7: SAR (1g): 1.01 mW/g, SAR (10g): 0.705 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Powerdrift: -0.02 dB
Liquid Temperature: 20.6



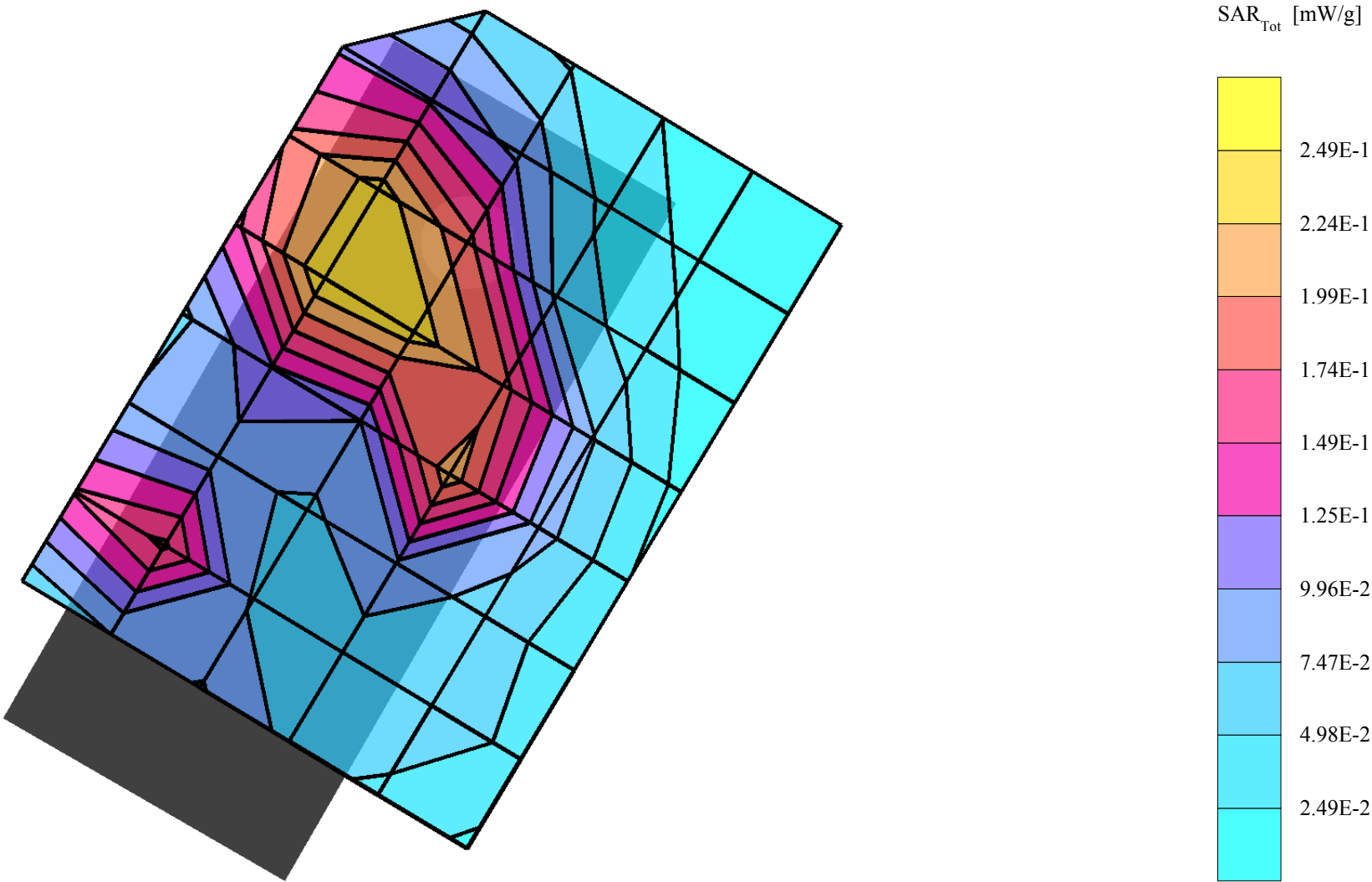
NPM-10, GSM 850, Channel 190, Right Tilt Position

SAM 1 (Cellular - Brain Tissue) Phantom
Frequency: 837 MHz; Crest factor: 8.0
Cellular Band - Brain Tissue: $\sigma = 0.93 \text{ mho/m}$ $\epsilon_r = 41.5$ $\rho = 1.00 \text{ g/cm}^3$
Probe: ET3DV6 - SN1504; ConvF(6.20,6.20,6.20)
Cube 5x5x7: SAR (1g): 0.494 mW/g * , SAR (10g): 0.345 mW/g * Max outside, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Powerdrift: 0.03 dB
Liquid Temperature: 20.8



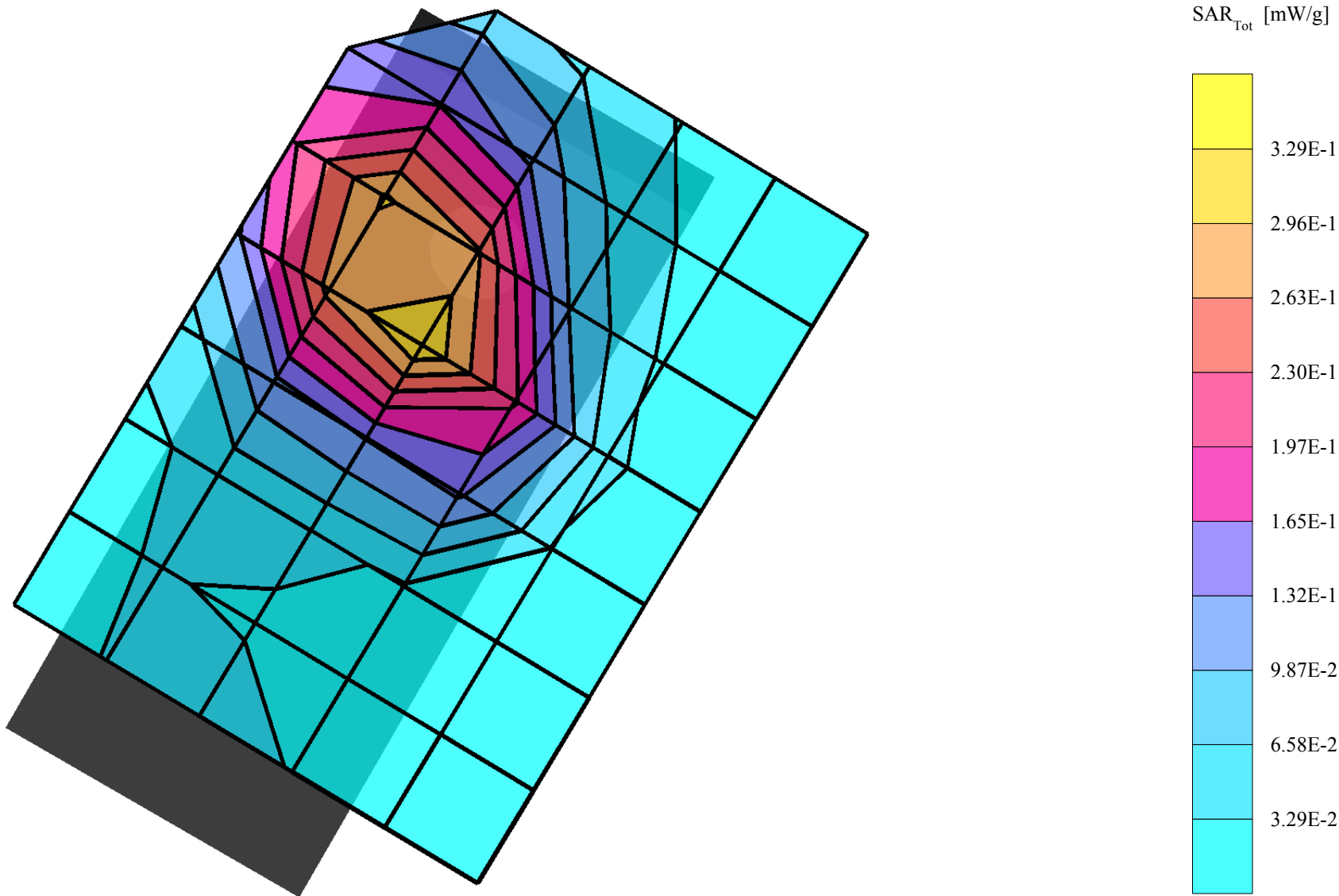
NPM-10, GSM 1900, Channel 661, Left Cheek Position

SAM 3 (PCS - Brain / Muscle Tissue) Phantom
Frequency: 1880 MHz; Crest factor: 8.0
PCS Band - Brain Tissue: $\sigma = 1.46$ mho/m $\epsilon_r = 40.6$ $\rho = 1.00$ g/cm³
Probe: ET3DV6 - SN1504; ConvF(5.00,5.00,5.00)
Cube 5x5x7: SAR (1g): 0.267 mW/g, SAR (10g): 0.153 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Powerdrift: -0.01 dB
Liquid Temperature: 19.1



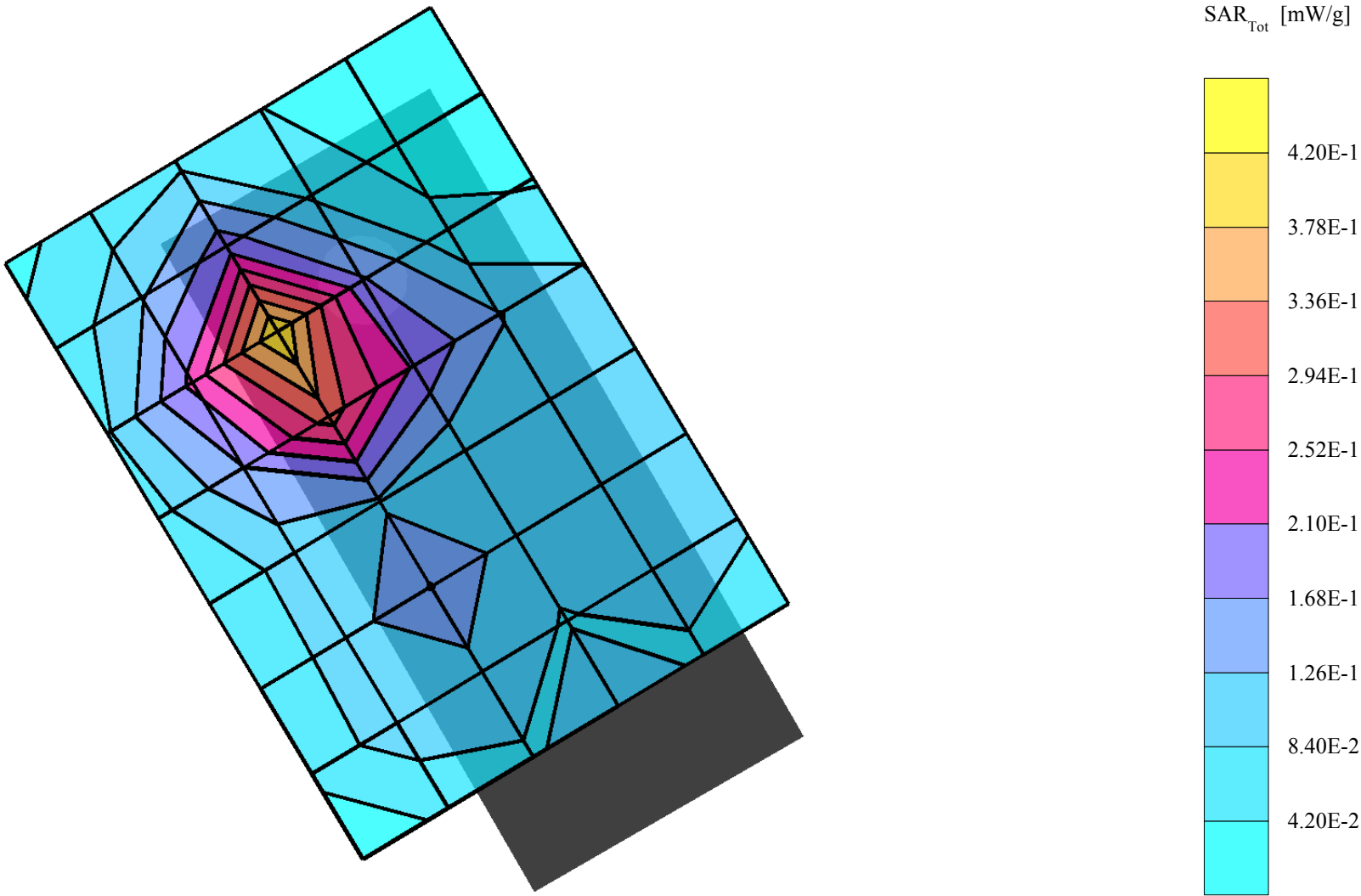
NPM-10, GSM 1900, Channel 661, Left Tilt Position

SAM 3 (PCS - Brain / Muscle Tissue) Phantom
Frequency: 1880 MHz; Crest factor: 8.0
PCS Band - Brain Tissue: $\sigma = 1.46 \text{ mho/m}$ $\epsilon_r = 40.6$ $\rho = 1.00 \text{ g/cm}^3$
Probe: ET3DV6 - SN1504; ConvF(5.00,5.00,5.00)
Cube 5x5x7: SAR (1g): 0.341 mW/g, SAR (10g): 0.196 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Powerdrift: -0.03 dB
Liquid Temperature: 19.1



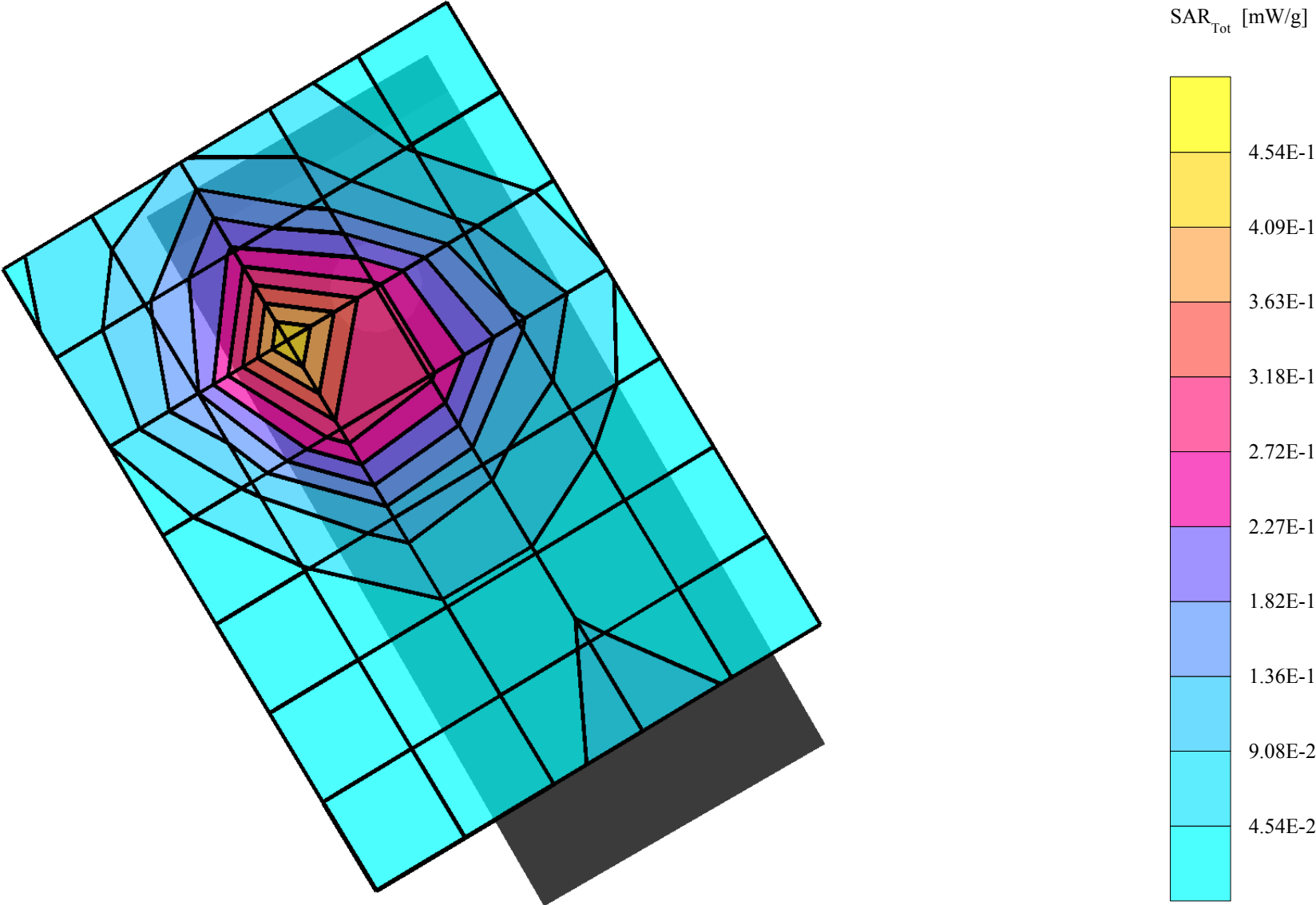
NPM-10, GSM 1900, Channel 512, Right Cheek Position

SAM 3 (PCS - Brain / Muscle Tissue) Phantom
Frequency: 1850 MHz; Crest factor: 8.0
PCS Band - Brain Tissue: $\sigma = 1.45 \text{ mho/m}$ $\epsilon_r = 40.2$ $\rho = 1.00 \text{ g/cm}^3$
Probe: ET3DV6 - SN1504; ConvF(5.00,5.00,5.00)
Cube 5x5x7: SAR (1g): 0.394 mW/g, SAR (10g): 0.206 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Powerdrift: 0.40 dB
Liquid Temperature: 18.6



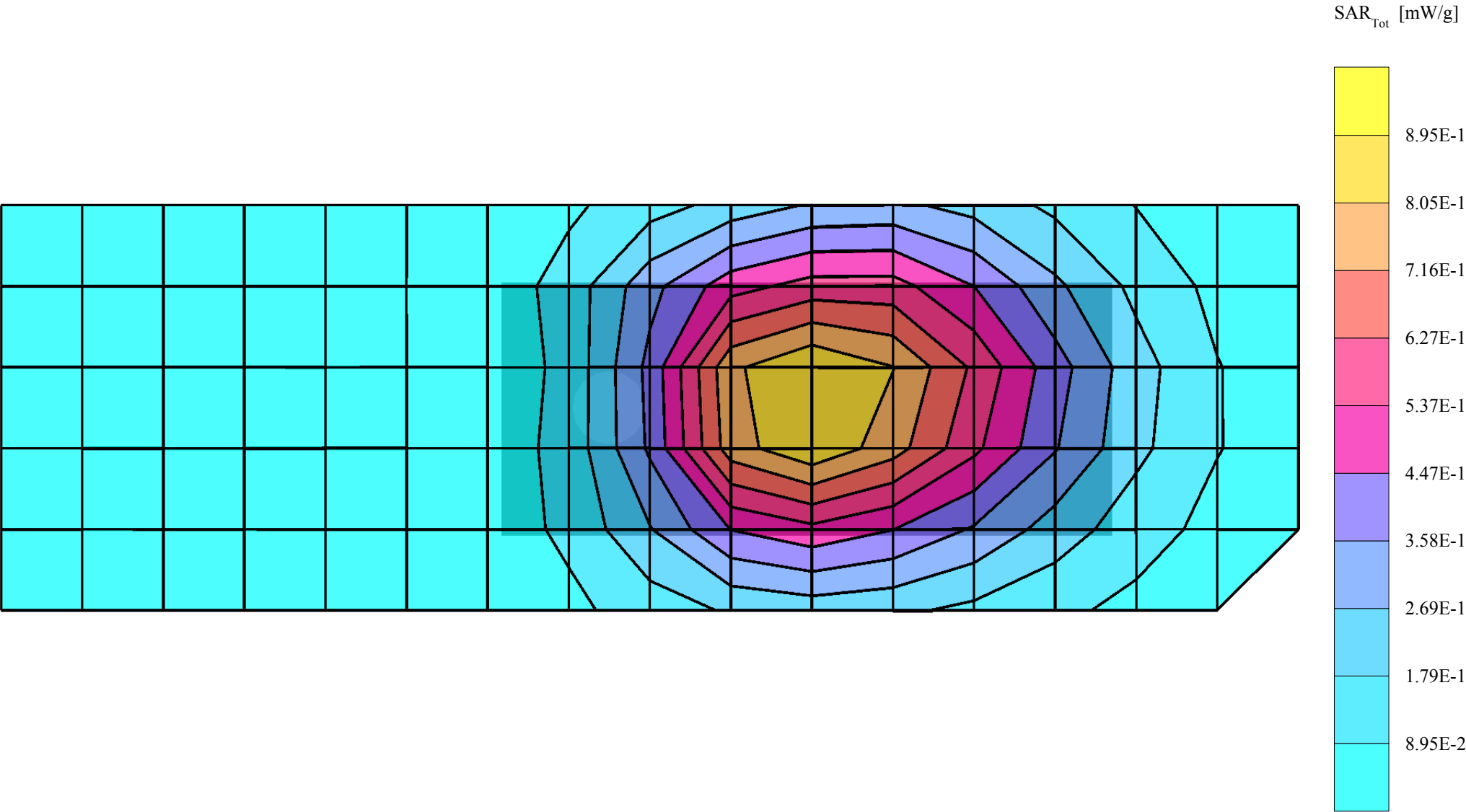
NPM-10, GSM 1900, Channel 512, Right Tilt Position

SAM 3 (PCS - Brain / Muscle Tissue) Phantom
Frequency: 1850 MHz; Crest factor: 8.0
PCS Band - Brain Tissue: $\sigma = 1.46$ mho/m $\epsilon_r = 40.6$ $\rho = 1.00$ g/cm³
Probe: ET3DV6 - SN1504; ConvF(5.00,5.00,5.00)
Cube 5x5x7: SAR (1g): 0.422 mW/g, SAR (10g): 0.229 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0
Powerdrift: 0.03 dB
Liquid Temperature: 19.1



NPM-10, GSM 850, Channel 128, Flat Back with 1.5cm Spacer and HDE-2 Headset

SAM 2 (Cellular - Muscle Tissue) Phantom
Frequency: 824 MHz; Crest factor: 8.0
Cellular Band - Muscle Tissue: $\sigma = 0.94 \text{ mho/m}$ $\epsilon_r = 55.9$ $\rho = 1.00 \text{ g/cm}^3$
Probe: ET3DV6 - SN1504; ConvF(6.20,6.20,6.20)
Cube 5x5x7: SAR (1g): 0.895 mW/g, SAR (10g): 0.626 mW/g, (Worst-case extrapolation)
Coarse: Dx = 15.0, Dy = 15.0, Dz = 12.0
Powerdrift: -0.01 dB
Liquid Temperature: 21.3



NPM-10, GSM 1900, Channel 661, Flat Back with 1.5cm Spacer and HDE-2 Headset

SAM 3 (PCS - Brain / Muscle Tissue) Phantom

Frequency: 1880 MHz; Crest factor: 8.0

PCS Band - Muscle Tissue: $\sigma = 1.56$ mho/m $\epsilon_r = 51.0$ $\rho = 1.00$ g/cm³

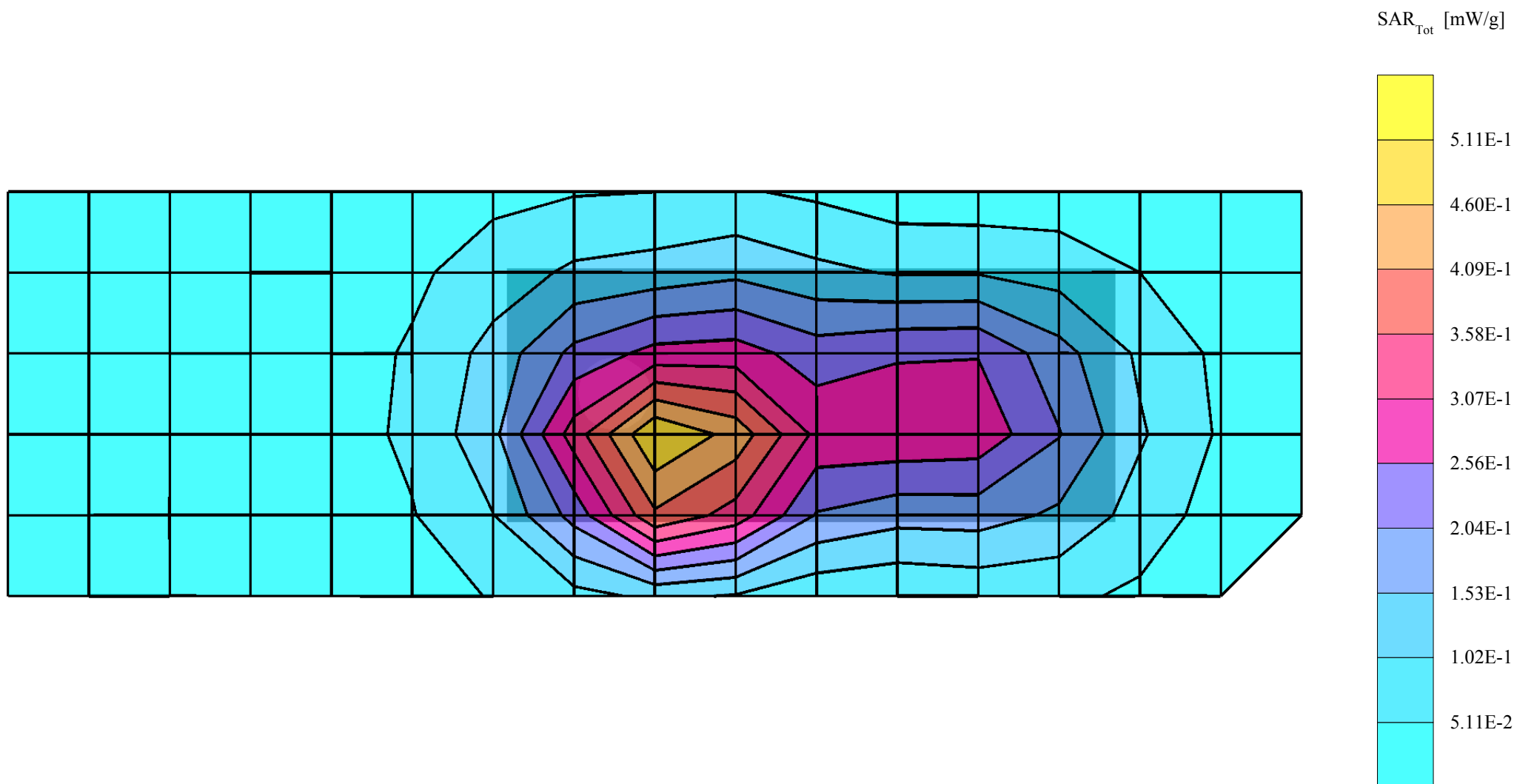
Probe: ET3DV6 - SN1504; ConvF(4.50,4.50,4.50)

Cube 5x5x7: SAR (1g): 0.511 mW/g, SAR (10g): 0.293 mW/g, (Worst-case extrapolation)

Coarse: Dx = 15.0, Dy = 15.0, Dz = 12.0

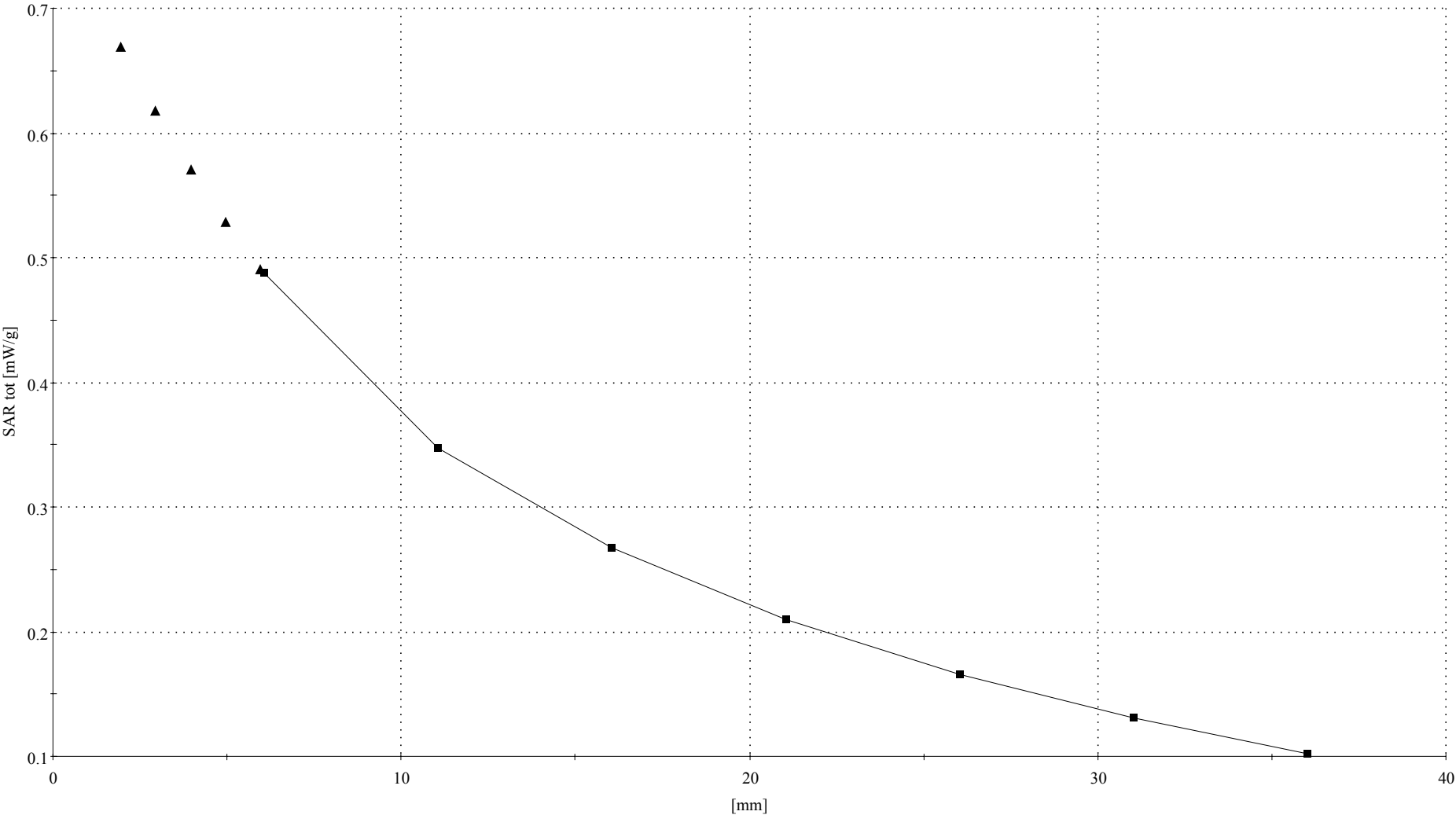
Powerdrift: -0.03 dB

Liquid Temperature: 22.0



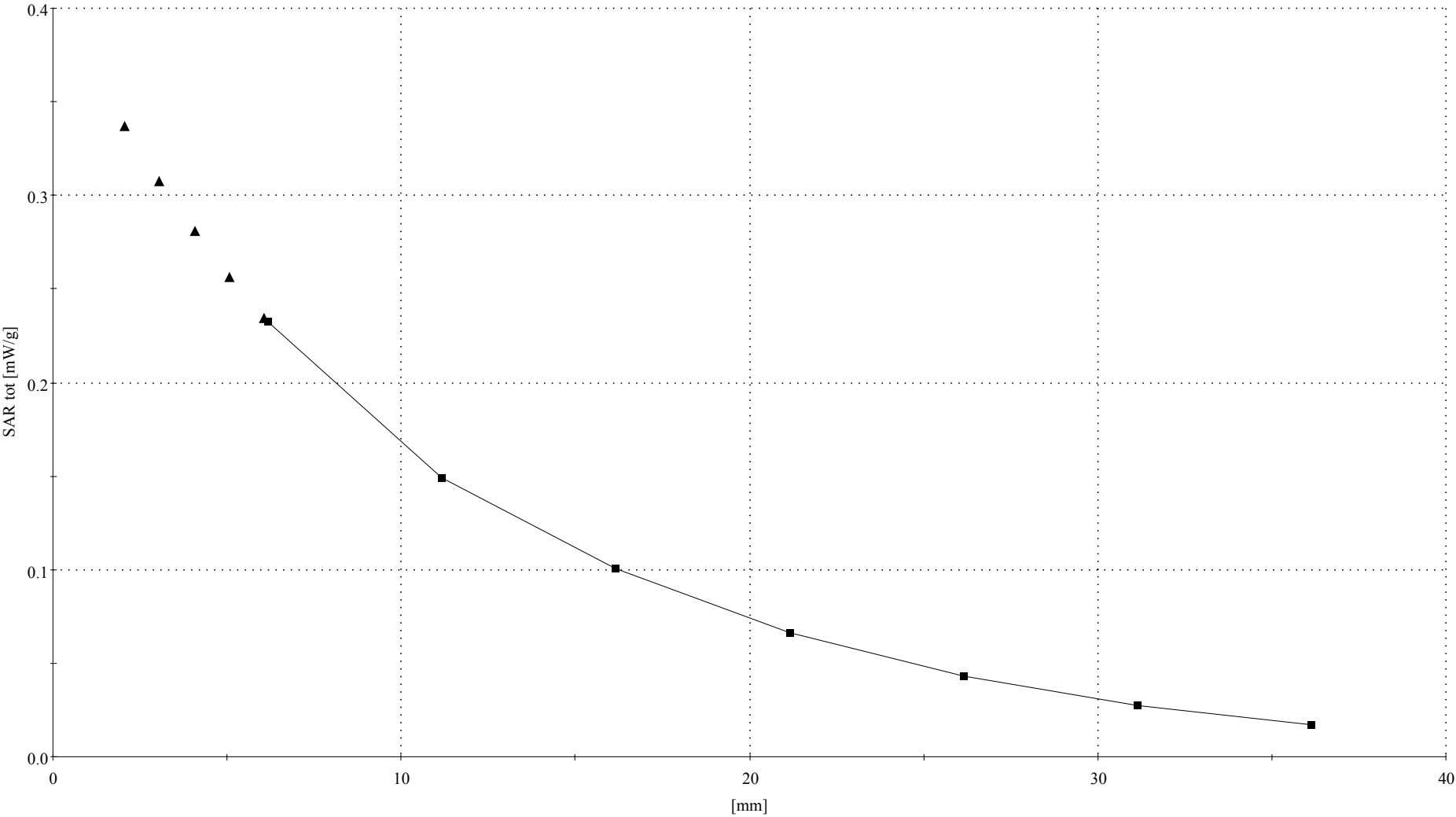
NPM-10, GSM 850, Channel 251, Left Cheek Position

SAM 1 (Cellular - Brain Tissue) Phantom
Frequency: 824 MHz; Crest factor: 8.0
Cellular Band - Brain Tissue: $\sigma = 0.93 \text{ mho/m}$ $\epsilon_r = 41.5$ $\rho = 1.00 \text{ g/cm}^3$
Probe: ET3DV6 - SN1504; ConvF(6.20,6.20,6.20)
Cube 5x5x7: SAR (1g): 1.19 mW/g, SAR (10g): 0.819 mW/g, (Worst-case extrapolation)
Cube 5x5x7: Dx = 8.0, Dy = 8.0, Dz = 5.0
Liquid Temperature: 20.8



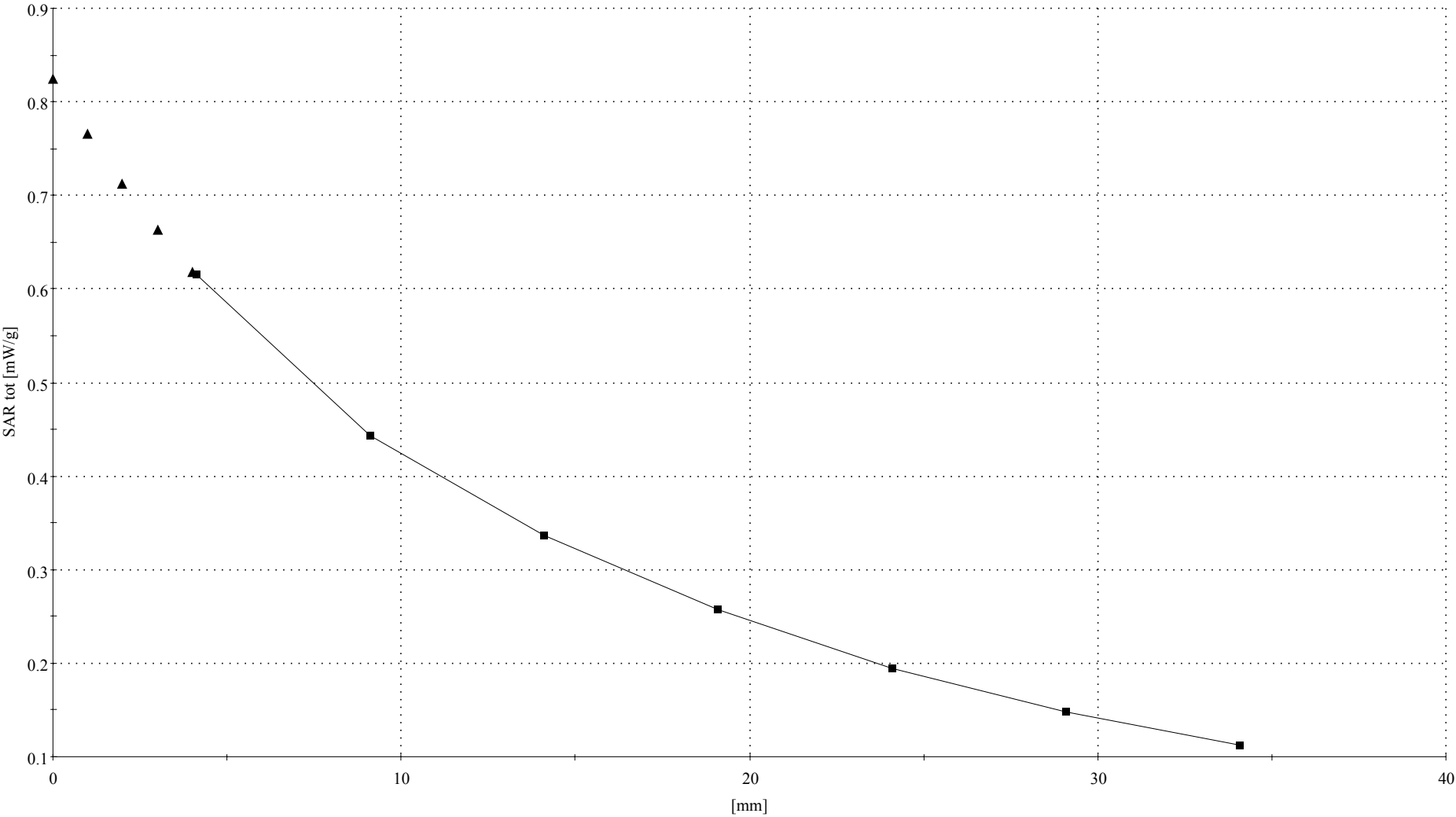
NPM-10, GSM 1900, Channel 512, Right Tilt Position

SAM 3 (PCS - Brain / Muscle Tissue) Phantom
Frequency: 1850 MHz; Crest factor: 8.0
PCS Band - Brain Tissue: $\sigma = 1.46 \text{ mho/m}$ $\epsilon_r = 40.6$ $\rho = 1.00 \text{ g/cm}^3$
Probe: ET3DV6 - SN1504; ConvF(5.00,5.00,5.00)
Cube 5x5x7: SAR (1g): 0.422 mW/g, SAR (10g): 0.229 mW/g, (Worst-case extrapolation)
Cube 5x5x7: Dx = 8.0, Dy = 8.0, Dz = 5.0
Liquid Temperature: 19.1



NPM-10, GSM 850, Channel 128, Flat Back with 1.5cm Spacer and HDE-2 Headset

SAM 2 (Cellular - Muscle Tissue) Phantom
Frequency: 824 MHz; Crest factor: 8.0
Cellular Band - Muscle Tissue: $\sigma = 0.94 \text{ mho/m}$ $\epsilon_r = 55.9$ $\rho = 1.00 \text{ g/cm}^3$
Probe: ET3DV6 - SN1504; ConvF(6.20,6.20,6.20)
Cube 5x5x7: SAR (1g): 0.895 mW/g, SAR (10g): 0.626 mW/g, (Worst-case extrapolation)
Cube 5x5x7: Dx = 8.0, Dy = 8.0, Dz = 5.0
Liquid Temperature: 21.3



NPM-10, GSM 1900, Channel 661, Flat Back with 1.5cm Spacer and HDE-2 Headset

SAM 3 (PCS - Brain / Muscle Tissue) Phantom

Frequency: 1880 MHz; Crest factor: 8.0

PCS Band - Muscle Tissue: $\sigma = 1.56$ mho/m $\epsilon_r = 51.0$ $\rho = 1.00$ g/cm³

Probe: ET3DV6 - SN1504; ConvF(4.50,4.50,4.50)

Cube 5x5x7: SAR (1g): 0.511 mW/g, SAR (10g): 0.293 mW/g, (Worst-case extrapolation)

Cube 5x5x7: Dx = 8.0, Dy = 8.0, Dz = 5.0

Liquid Temperature: 22.0

