



**MOTOROLA**

October 13, 2003

Supplement to SAR Test Report for Motorola portable cellular phone (FCC ID IHDT56DG1)

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## Summary of FCC request for additional information

There was a request for additional information regarding Motorola's SAR Test Report for Motorola portable cellular phone (FCC ID IHDT56DG1). The requested information is addressed below in the same numbering sequence received.

6. Several cellular band SAR plots list Power Step 2. Please confirm that measurements were performed at the highest available power output.

**Response:** We have confirmed that all the measurements are taken at the highest available power output.

7. Please provide SAR data plots for: left head touch for both cellular and PCS; left head tilt for PCS; right head tilt for cellular; body antenna extended for cellular AMPS; body for PCS.

**Response:** Please look at appendix 1 for the requested SAR plots.

8. In Fig.2 (p.12) of the SAR report, the contour overlay does not appear to cover the entire antenna area. Please address.

**Response:** The overlay contour in the picture is placed incorrectly and seems shifted 5mm upward and therefore appears to be not covering the antenna portion of the phone completely. The actual testing was performed with the correct contour plot. The corrected overlay picture is attached in appendix 2.

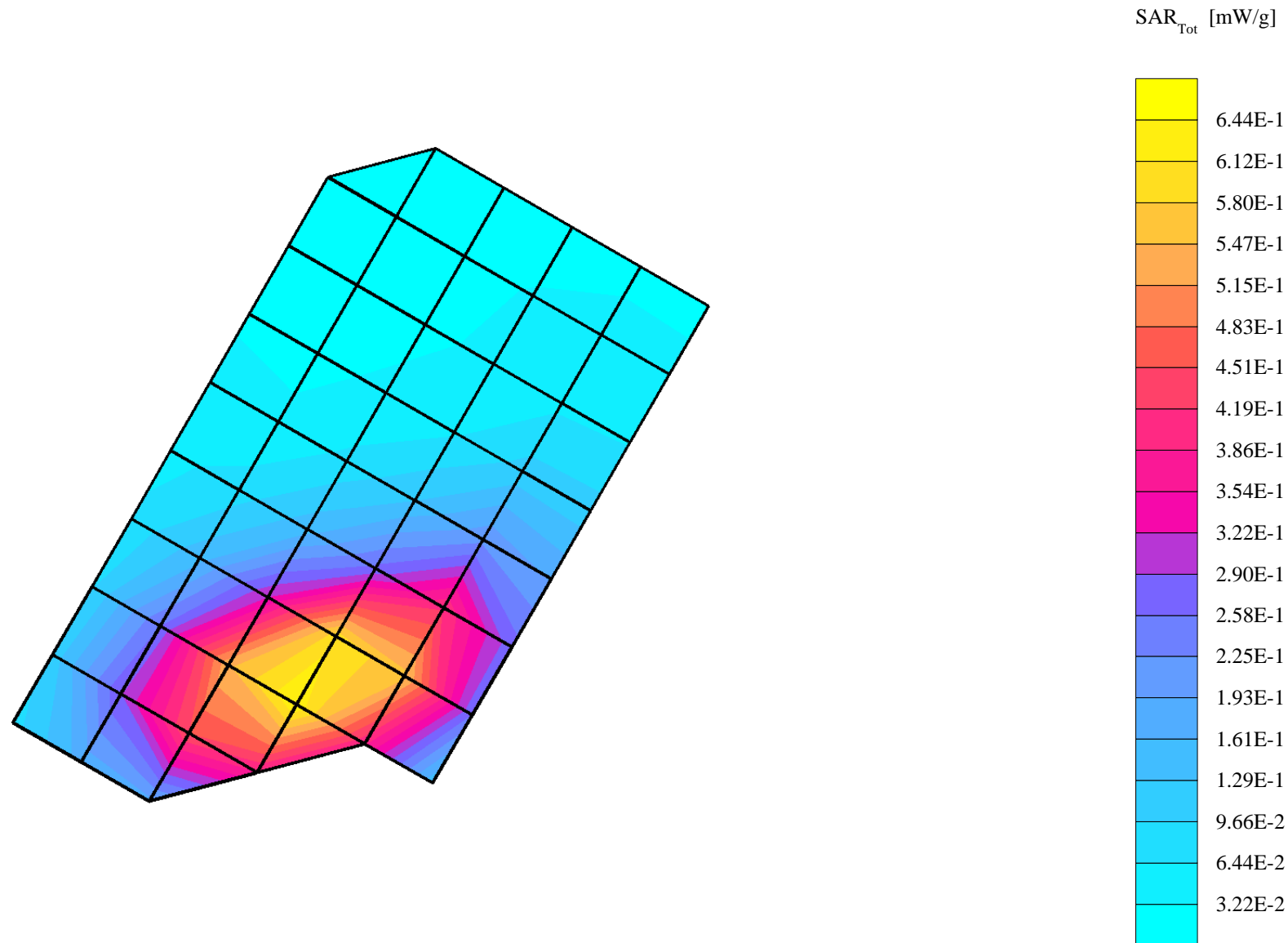
9. What separation distance was used for body SAR tests? None is indicated.

**Response:** Please look at pictures in appendix 7 (Page 24 & 25) of the original report. These separation distance of the phone in the belt clip, from the base of the flat surface, is measured with the antenna extended and antenna retracted configurations.

## Appendix 1 (Requested SAR Plots)

**SN# 3D50A6D0**

Ch# 384 / Pwr Step: 2 OTA / Antenna Position: EXT / Battery Model #: SNN5588A / DEVICE POSITION (cheek or rotated): CHEEK  
R1 TP-1005 SAM Expanded Sugar (Rev. 2)-9Jan03 Phantom; Left Hand Section; Position: (90°,180°); Frequency: 837 MHz  
Probe: ET3DV6R - SN1506 - IEEE Head; ConvF(6.10,6.10,6.10); Crest factor: 1.0; 835 MHz Head & Body:  $\sigma = 0.91$  mho/m  $\epsilon_r = 42.6$   $\rho = 1.00$  g/cm<sup>3</sup>  
Cube 7x7x7: SAR (1g): 0.660 mW/g, SAR (10g): 0.450 mW/g, (Worst-case extrapolation)  
Coarse: Dx = 15.0, Dy = 15.0, Dz = 15.0  
Penetration depth: 15.8 (13.9, 18.2) [mm]  
Powerdrift: -0.35 dB



**SN# 3D50A6D0**

Ch# 384 / Pwr Step: 02 / Antenna Position: EXT / Battery Model #: SNN5588A / DEVICE POSITION (cheek or rotated): TILTED

R1 TP-1005 SAM Expanded Sugar (Rev. 2)-9Jan03 Phantom; Right Hand Section; Position: (90°,180°); Frequency: 836 MHz

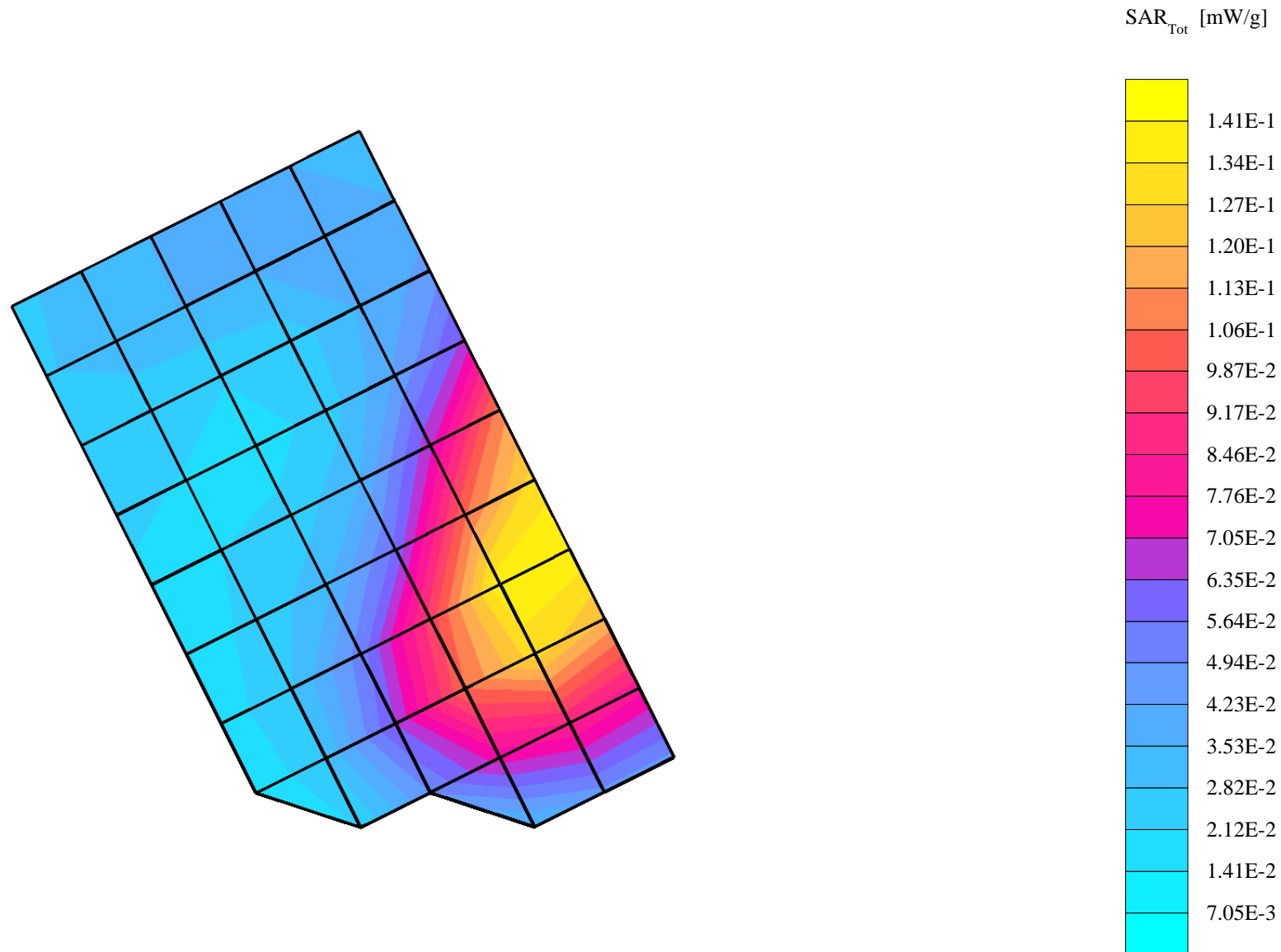
Probe: ET3DV6R - SN1506 - IEEE Head; ConvF(6.10,6.10,6.10); Crest factor: 1.0; 835 MHz Head & Body:  $\sigma = 0.90$  mho/m  $\epsilon_r = 42.2$   $\rho = 1.00$  g/cm<sup>3</sup>

Cube 7x7x7: SAR (1g): 0.149 mW/g, SAR (10g): 0.109 mW/g, (Worst-case extrapolation)

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

Penetration depth: 19.0 (17.3, 21.1) [mm]

Powerdrift: -0.08 dB



**SN# 3D50A6D0**

Ch# 600 / Pwr Step: ALWAYS UP / Antenna Position: RET / Battery Model #: SNN5588A / DEVICE POSITION (cheek or rotated): CHEEK

R1 TP-1154 GLYCOL SAM Expanded (Rev. 2)-9Jan03 Phantom; Left Hand Section; Position: (90°,180°); Frequency: 1880 MHz

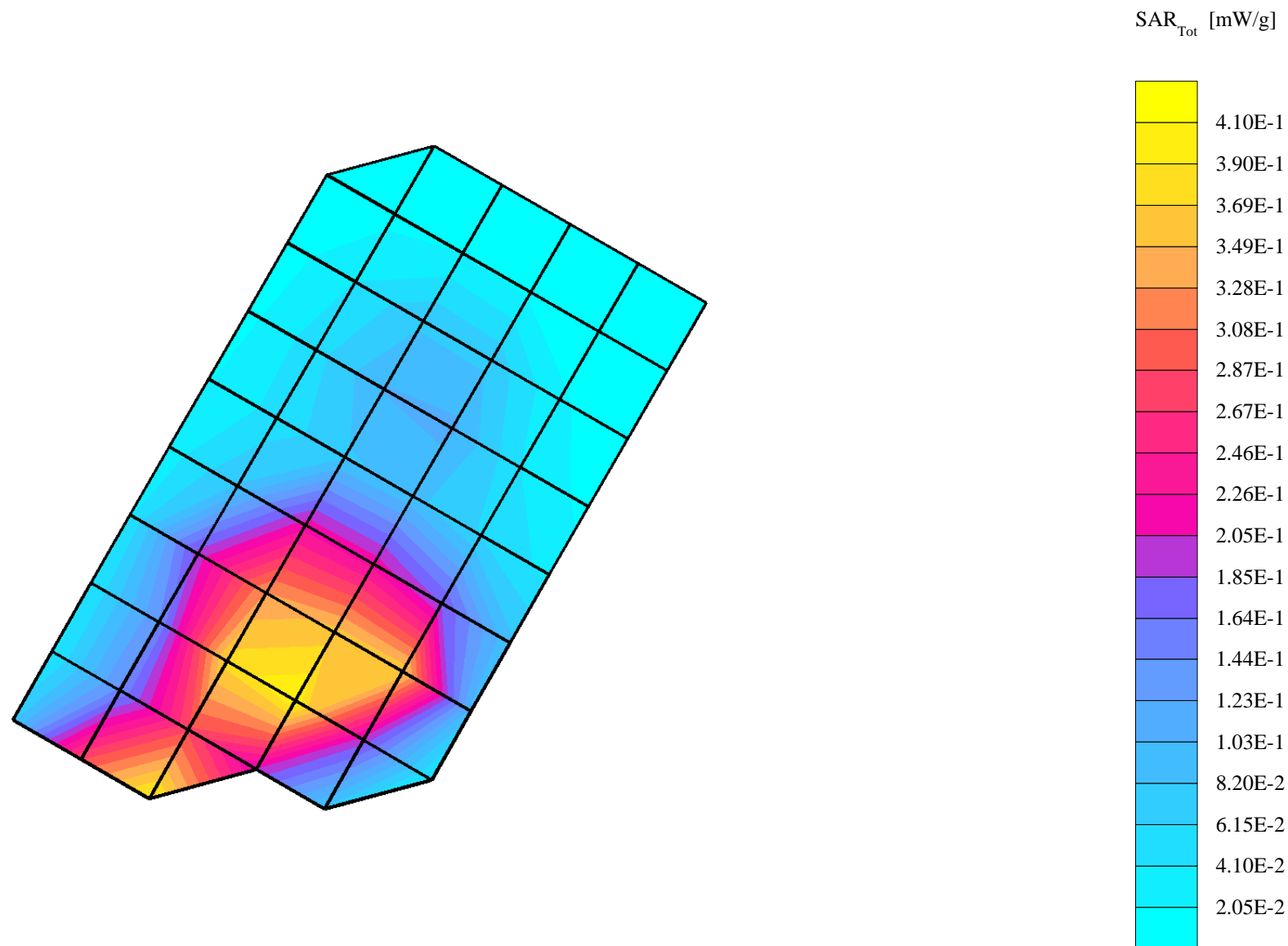
Probe: ET3DV6R - SN1506 - IEEE Head; ConvF(4.90,4.90,4.90); Crest factor: 1.0; 1880 MHz Head & Body:  $\sigma = 1.46$  mho/m  $\epsilon_r = 38.3$   $\rho = 1.00$  g/cm<sup>3</sup>

Cube 7x7x7: SAR (1g): 0.469 mW/g, SAR (10g): 0.262 mW/g, (Worst-case extrapolation)

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

Penetration depth: 9.2 (8.8, 10.0) [mm]

Powerdrift: -0.26 dB



**SN# 3D50A6D0**

Ch# 600 / Pwr Step: ALWAYS UP / Antenna Position: RET / Battery Model #: SNN5588A / DEVICE POSITION (cheek or rotated): TILT

R1 TP-1154 GLYCOL SAM Expanded (Rev. 2)-9Jan03 Phantom; Left Hand Section; Position: (90°,180°); Frequency: 1880 MHz

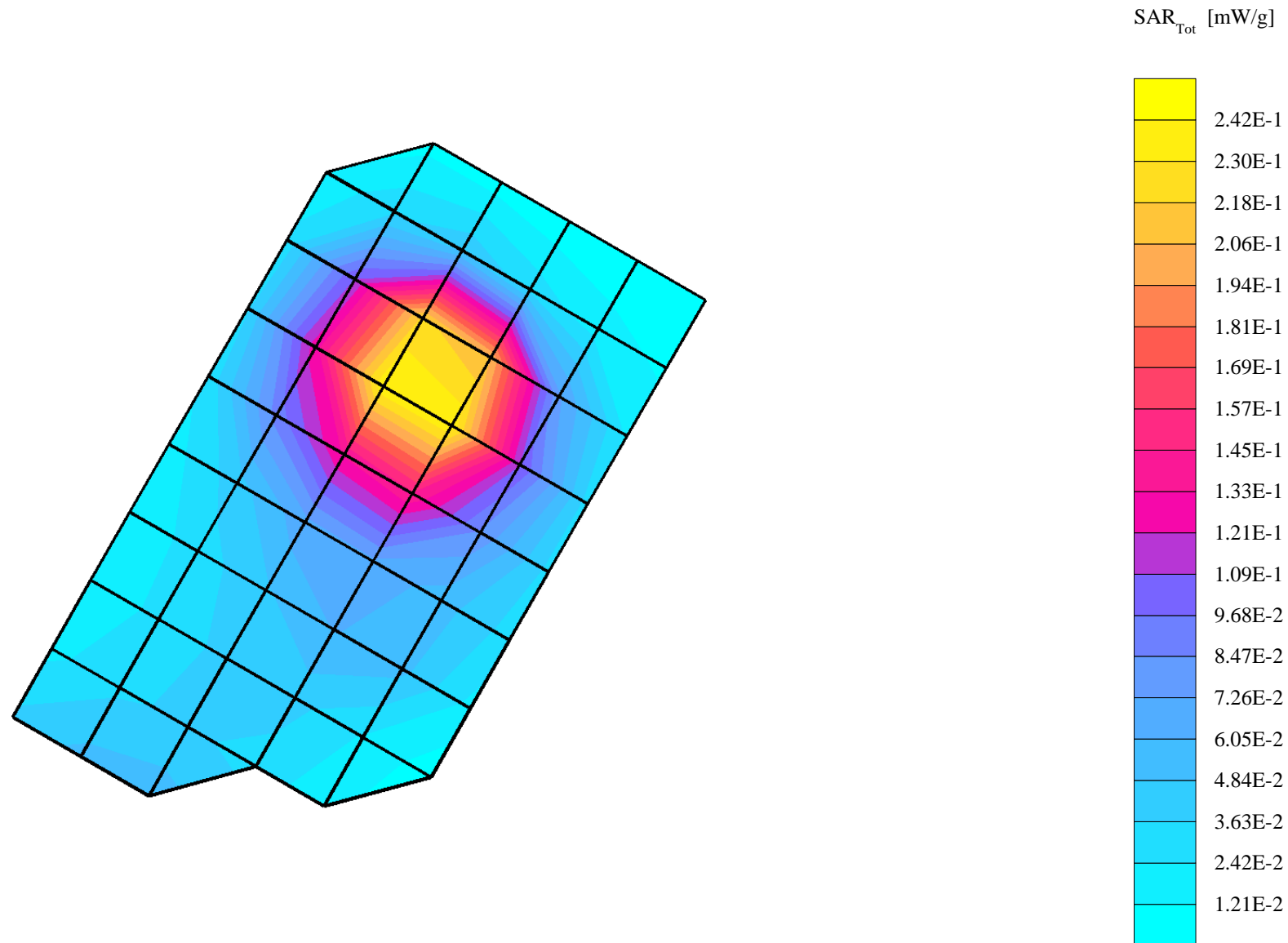
Probe: ET3DV6R - SN1506 - IEEE Head; ConvF(4.90,4.90,4.90); Crest factor: 1.0; 1880 MHz Head & Body:  $\sigma = 1.46$  mho/m  $\epsilon_r = 38.3$   $\rho = 1.00$  g/cm<sup>3</sup>

Cube 7x7x7: SAR (1g): 0.277 mW/g, SAR (10g): 0.163 mW/g, (Worst-case extrapolation)

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

Penetration depth: 10.8 (10.6, 11.1) [mm]

Powerdrift: -0.02 dB



**SN# 3D50A6D0**

Ch# 384 / Pwr Step:2 ota always up / Antenna Position:extended / Battery Model #: snn5588a / Accessory Model #: rotat holster syn8763a (+90 worstcase)

R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 1 Section; Position: (0°,0°); Frequency: 836 MHz

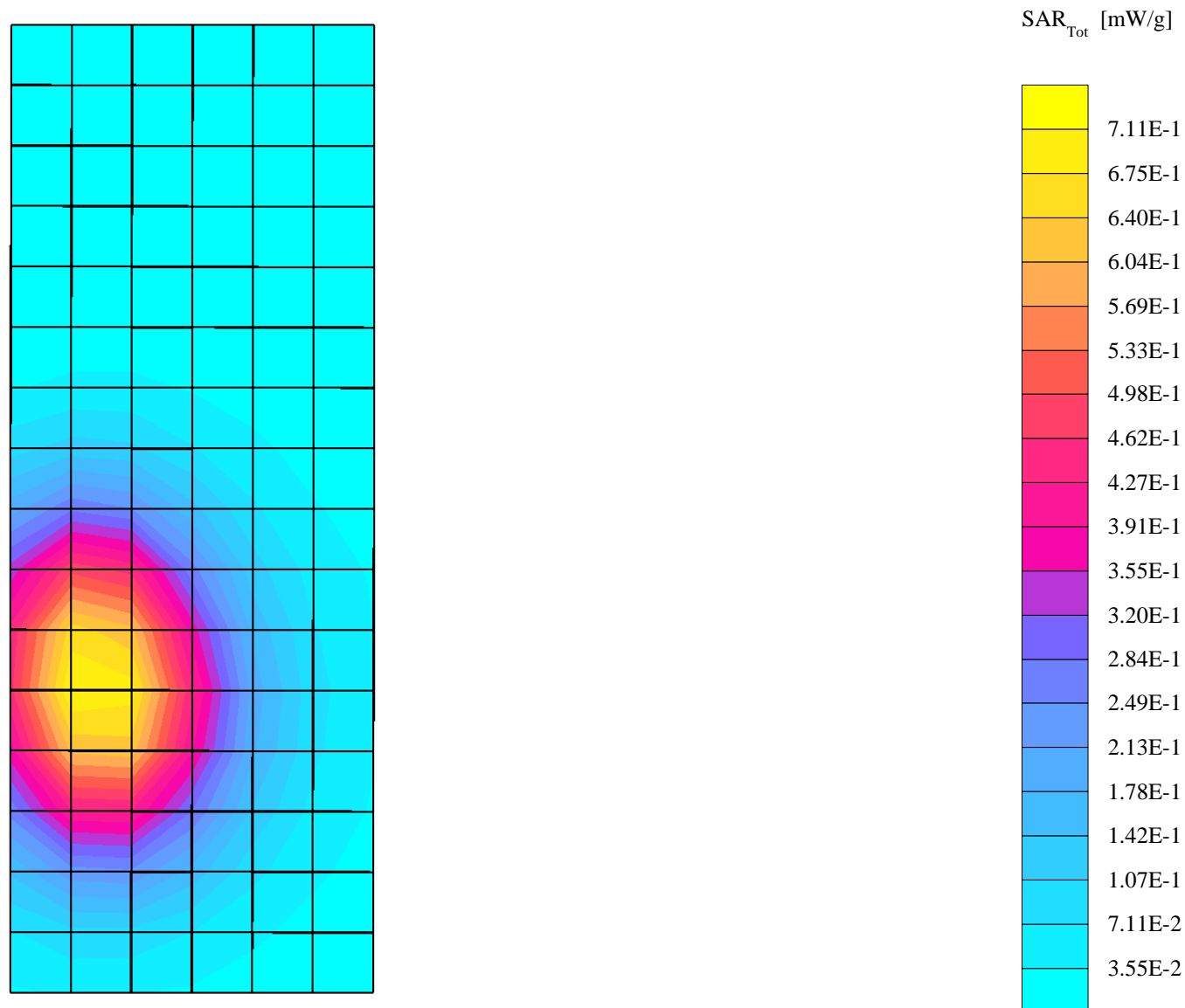
Probe: ET3DV6 - SN1506 - FCC Body; ConvF(5.80,5.80,5.80); Crest factor: 1.0; 835 MHz Head & Body:  $\sigma = 0.98$  mho/m  $\epsilon_r = 55.5$   $\rho = 1.00$  g/cm<sup>3</sup>

Cube 7x7x7: SAR (1g): 0.719 mW/g, SAR (10g): 0.507 mW/g, (Worst-case extrapolation)

Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0

Penetration depth: 15.7 (14.7, 16.9) [mm]

Powerdrift: -0.15 dB



**SN# 3D50A6D0**

Ch# 600 / Pwr Step: Allways up (OTA) / Antenna Position: Extended / Battery Model #: SNN5588A / Accessory Model #: Rotating Holster SYN8763A phone +90 degrees  
R1 Amy Twin Phantom Rev.4 (22Aug02) Phantom; section 2 Section; Position: (0°,0°); Frequency: 1880 MHz

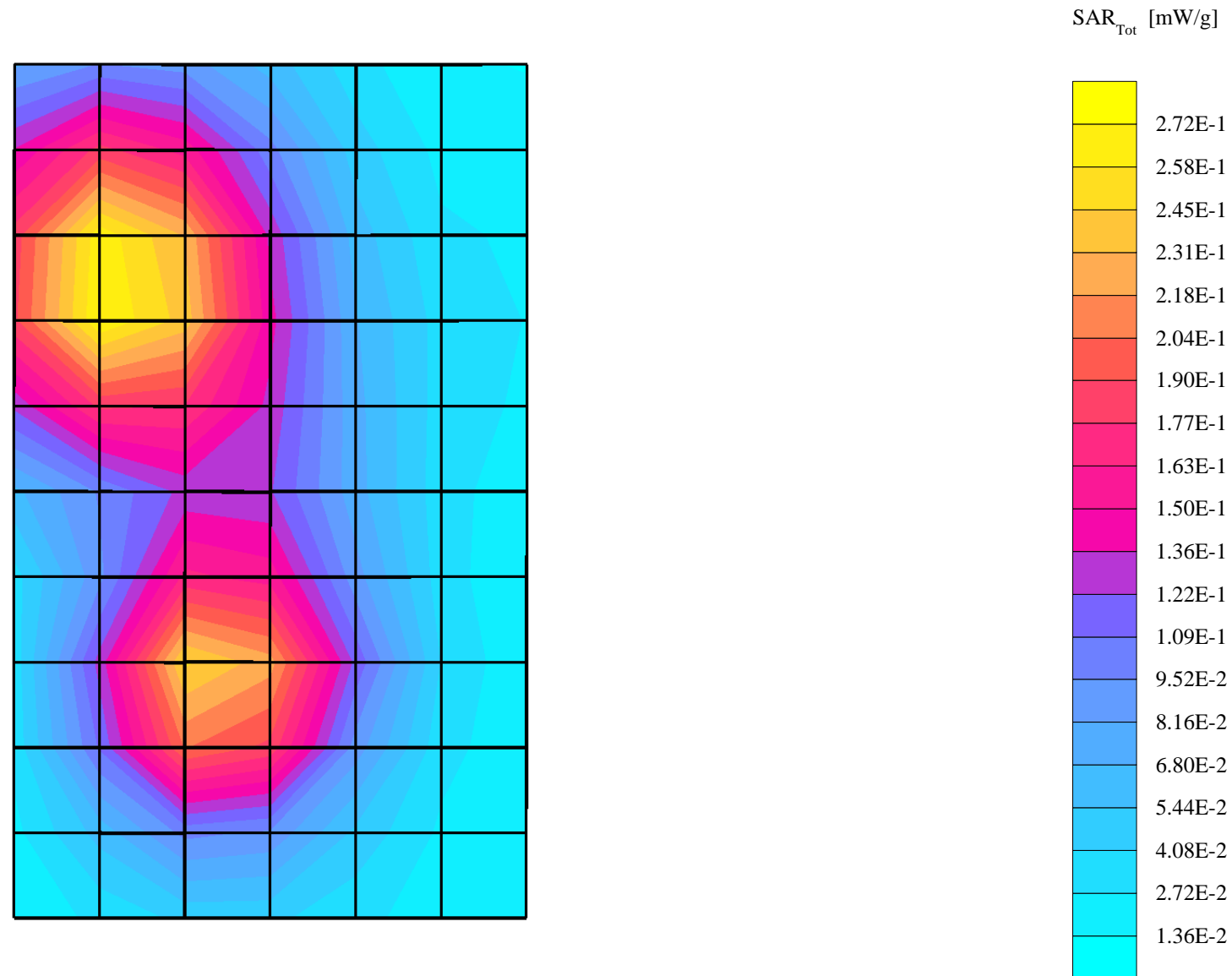
Probe: ET3DV6 - SN1506 - FCC Body; ConvF(4.50,4.50,4.50); Crest factor: 1.0; 1880 MHz Head & Body:  $\sigma = 1.59$  mho/m  $\epsilon_r = 52.0$   $\rho = 1.00$  g/cm<sup>3</sup>

Cube 7x7x7: SAR (1g): 0.285 mW/g, SAR (10g): 0.174 mW/g, (Worst-case extrapolation)

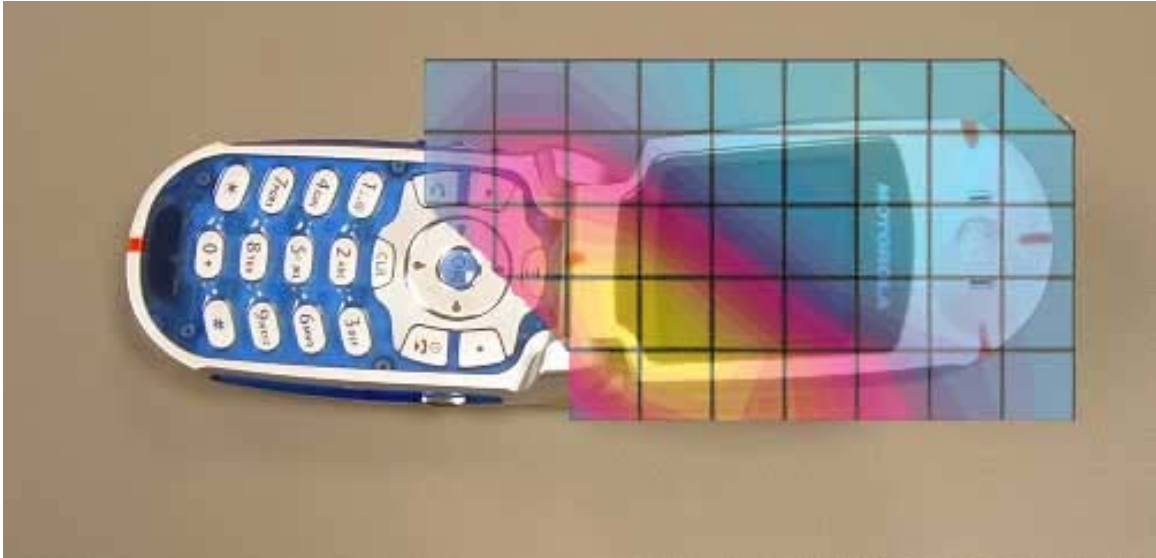
Coarse: Dx = 15.0, Dy = 15.0, Dz = 10.0

Penetration depth: 10.1 (9.0, 11.6) [mm]

Powerdrift: -0.09 dB



## Appendix 2 (Requested Contour Overlay)



800 MHz Left Head Adjacent Contour Overlaid on Phone with Antenna Extended (15° Tilt)