

| | | |
|--|--------------------------|--------------------------|
| Company Kyocera Wireless Corp. | Document No. | |
| KWC-3225 SAR REPORT | Issue No: | Date Oct. 2002 |
| FCC ID OVFKWC-3225 | Page Number 23 | |

APPENDIX B: SAR DISTRIBUTION PRINTOUT

KWC-3225, FM Ch991, Left Cheek, 10-16-02

Liquid Temp = 22C +/- 1C

K3

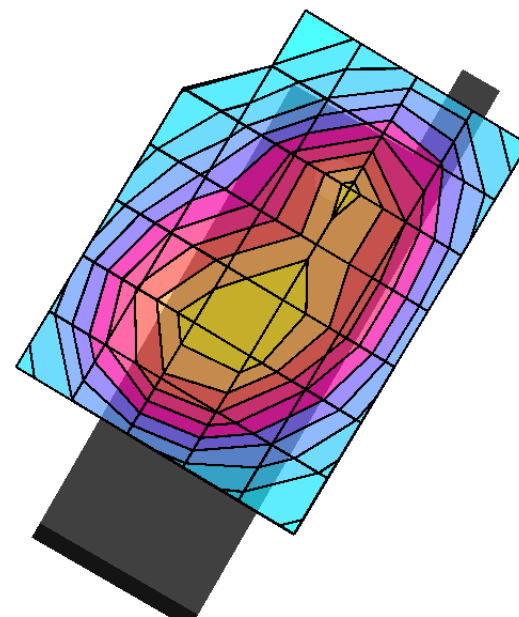
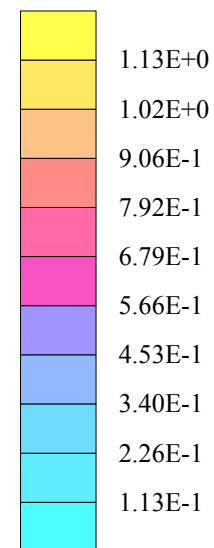
SAM Phantom; Left Hand Section; Position: (80°,60°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.70,6.70,6.70); Crest factor: 1.0; Head 835 MHz: $\sigma = 0.88$ mho/m $\epsilon_r = 41.9$ $\rho = 1.00$ g/cm³

Cube 5x5x7: SAR (1g): 1.10 mW/g, SAR (10g): 0.804 mW/g, (Worst-case extrapolation)

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

Powerdrift: 0.07 dB

SAR_{Tot} [mW/g]

KWC-3225, FM Ch991, Left Tilted, 10-16-02

Liquid Temp = 22C +/- 1C

K3

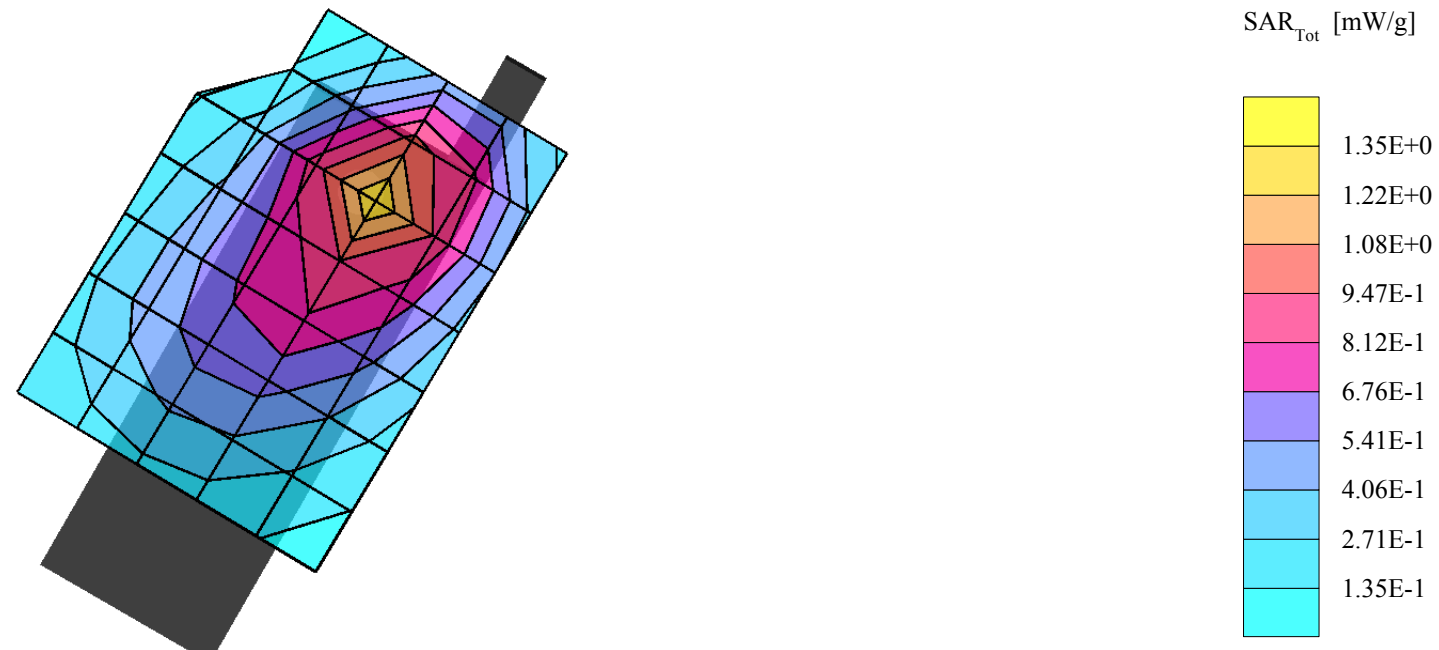
SAM Phantom; Left Hand Section; Position: (95°,60°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.70,6.70,6.70); Crest factor: 1.0; Head 835 MHz: $\sigma = 0.88$ mho/m $\epsilon_r = 41.9$ $\rho = 1.00$ g/cm³

Cube 5x5x7: SAR (1g): 1.21 mW/g, SAR (10g): 0.748 mW/g, (Worst-case extrapolation)

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

Powerdrift: -0.11 dB



KWC-3225, FM Ch383, Left Cheek, 10-16-02

Liquid Temp = 22C +/- 1C

K3

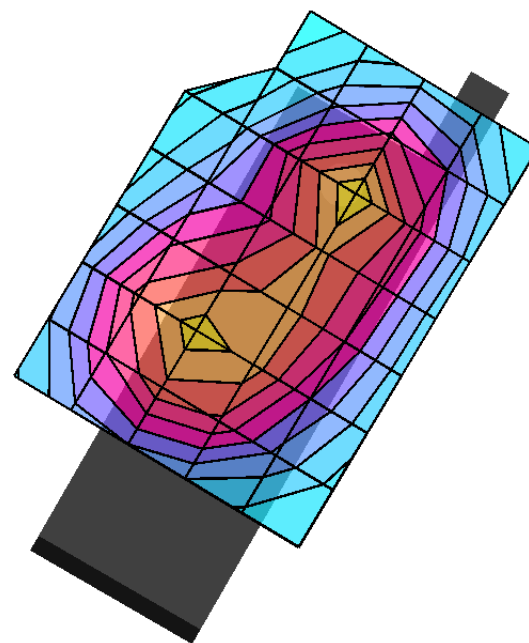
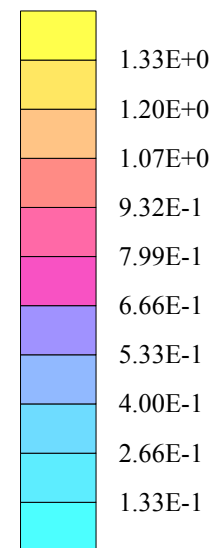
SAM Phantom; Left Hand Section; Position: (80°,60°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.70,6.70,6.70); Crest factor: 1.0; Head 835 MHz: $\sigma = 0.88$ mho/m $\epsilon_r = 41.9$ $\rho = 1.00$ g/cm³

Cube 5x5x7: SAR (1g): 1.18 mW/g, SAR (10g): 0.730 mW/g, (Worst-case extrapolation)

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

Powerdrift: -0.11 dB

SAR_{Tot} [mW/g]

1.33E+0

1.20E+0

1.07E+0

9.32E-1

7.99E-1

6.66E-1

5.33E-1

4.00E-1

2.66E-1

1.33E-1

KWC-3225, FM Ch383, Left Tilted, 10-16-02

Liquid Temp = 22C +/- 1C

K3

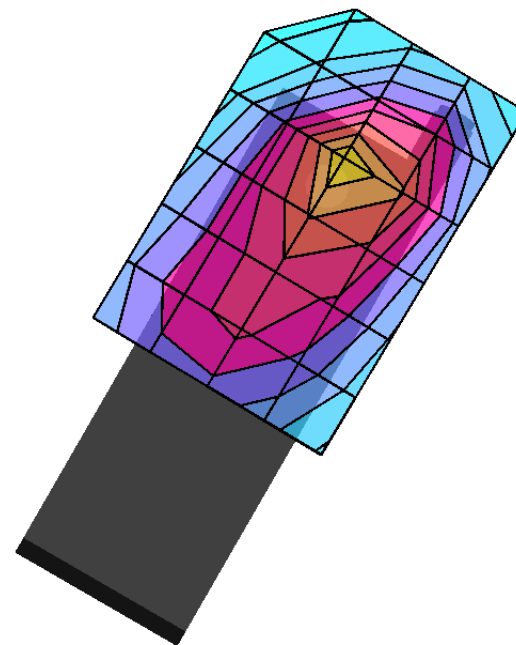
SAM Phantom; Left Hand Section; Position: (80°,60°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.70,6.70,6.70); Crest factor: 1.0; Head 835 MHz: $\sigma = 0.88$ mho/m $\epsilon_r = 41.9$ $\rho = 1.00$ g/cm³

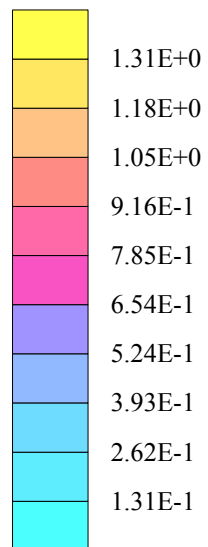
Cube 7x7x7: SAR (1g): 1.30 mW/g, SAR (10g): 0.778 mW/g * Max outside, (Worst-case extrapolation)

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

Powerdrift: -0.01 dB



SAR_{Tot} [mW/g]



KWC-3225, FM Ch799, Left Cheek, 10-16-02

Liquid Temp = 22C +/- 1C

K3

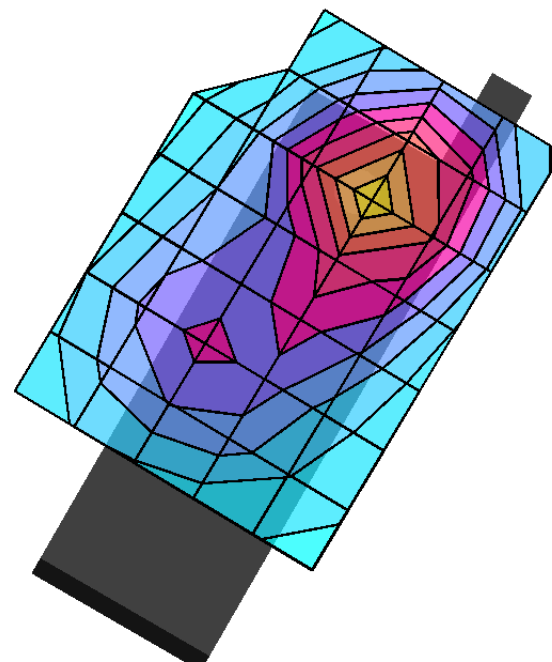
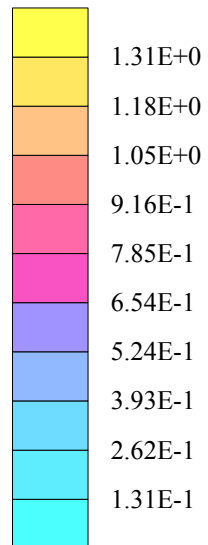
SAM Phantom; Left Hand Section; Position: (80°,60°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.70,6.70,6.70); Crest factor: 1.0; Head 835 MHz: $\sigma = 0.88$ mho/m $\epsilon_r = 41.9$ $\rho = 1.00$ g/cm³

Cube 5x5x7: SAR (1g): 1.20 mW/g, SAR (10g): 0.742 mW/g, (Worst-case extrapolation)

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

Powerdrift: 0.11 dB

SAR_{Tot} [mW/g]

KWC-3225, FM Ch799, Left Tilted, 10-16-02

Liquid Temp = 22C +/- 1C

K3

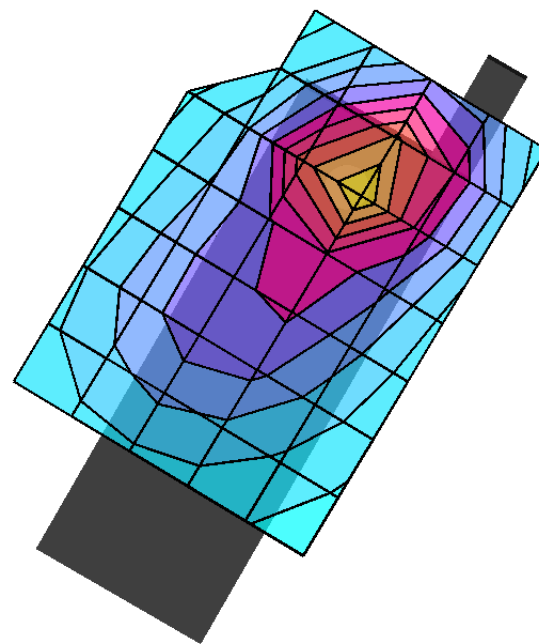
SAM Phantom; Left Hand Section; Position: (95°,60°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.70,6.70,6.70); Crest factor: 1.0; Head 835 MHz: $\sigma = 0.88$ mho/m $\epsilon_r = 41.9$ $\rho = 1.00$ g/cm³

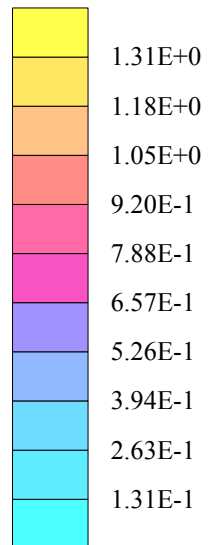
Cube 5x5x7: SAR (1g): 1.16 mW/g, SAR (10g): 0.690 mW/g, (Worst-case extrapolation)

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

Powerdrift: -0.01 dB



SAR_{Tot} [mW/g]



KWC-3225, CDMA Ch1013, Left Cheek, 10-16-02

Liquid Temp = 22C +/- 1C

K3

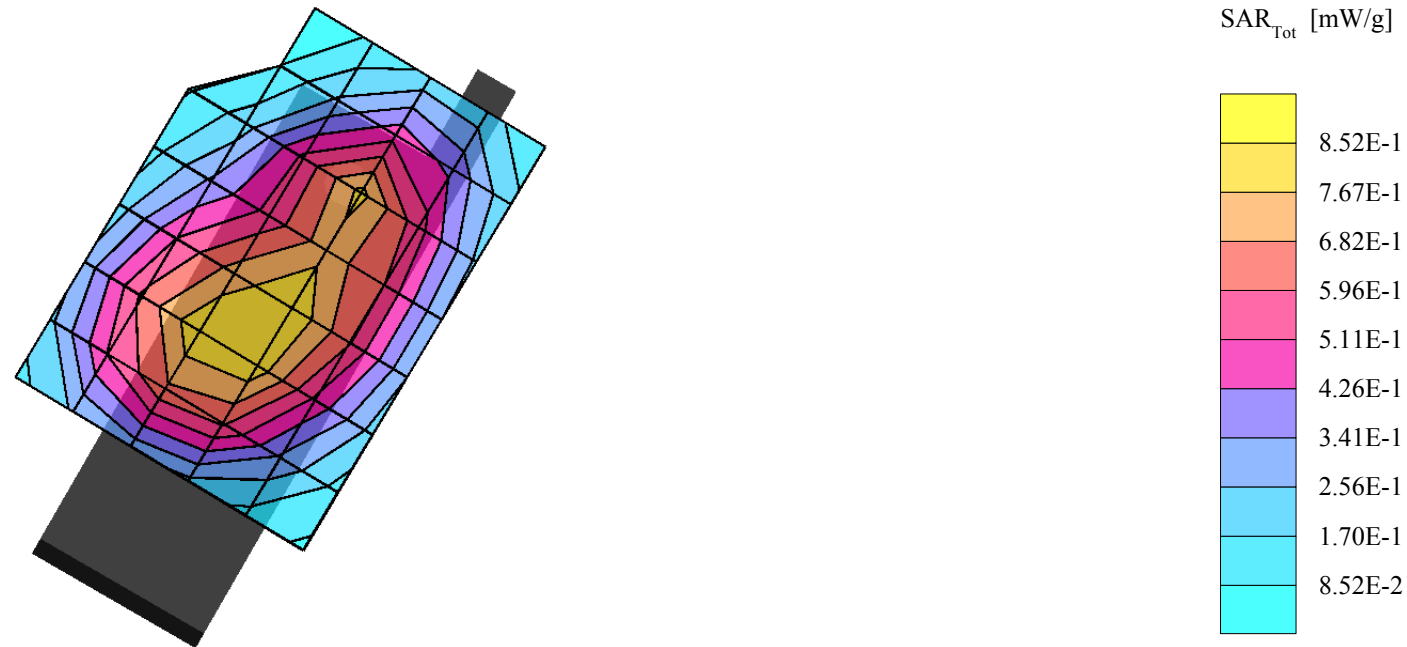
SAM Phantom; Left Hand Section; Position: (80°,60°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.70,6.70,6.70); Crest factor: 1.0; Head 835 MHz: $\sigma = 0.88$ mho/m $\epsilon_r = 41.9$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 0.830 mW/g, SAR (10g): 0.605 mW/g * Max outside, (Worst-case extrapolation)

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

Powerdrift: 0.09 dB



KWC-3225, CDMA Ch1013, Left Titled, 10-16-02

Liquid Temp = 22C +/- 1C

K3

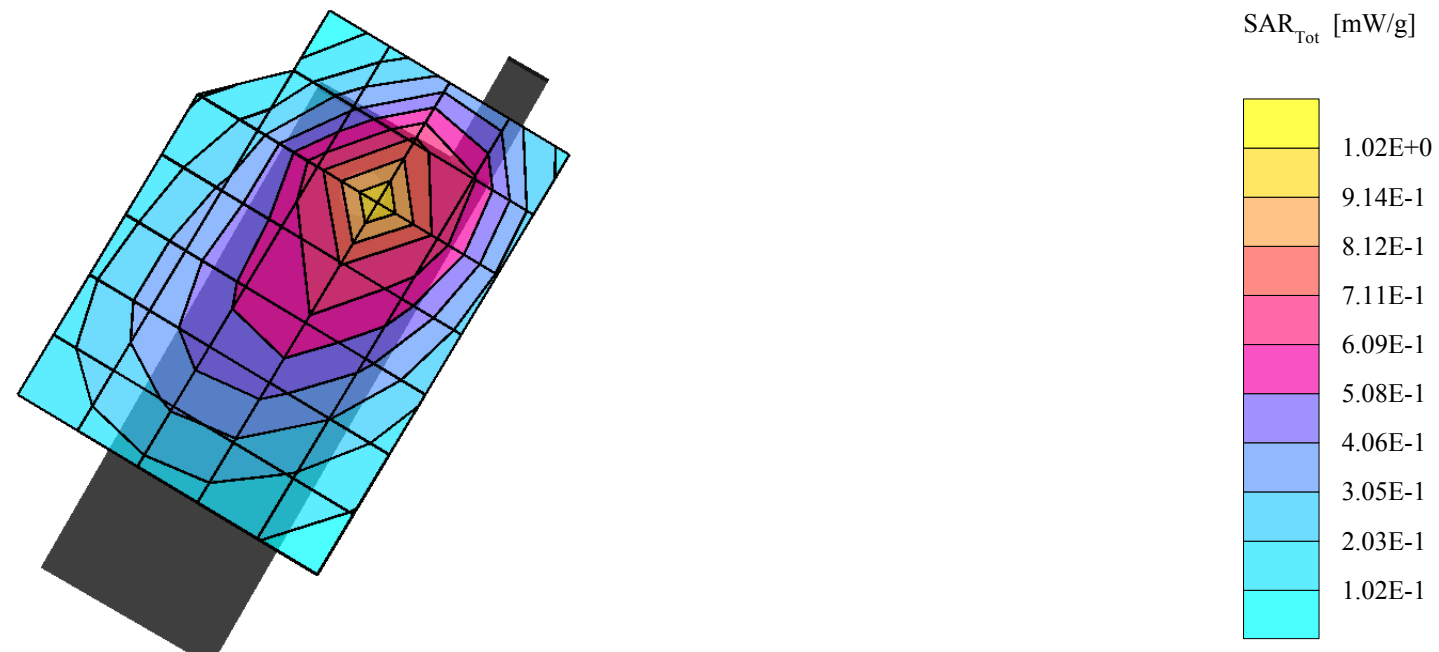
SAM Phantom; Left Hand Section; Position: (95°,60°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.70,6.70,6.70); Crest factor: 1.0; Head 835 MHz: $\sigma = 0.88$ mho/m $\epsilon_r = 41.9$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 0.925 mW/g, SAR (10g): 0.563 mW/g, (Worst-case extrapolation)

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

Powerdrift: -0.10 dB



KWC-3225, CDMA Ch383, Left Cheek, 10-16-02

Liquid Temp = 22C +/- 1C

K3

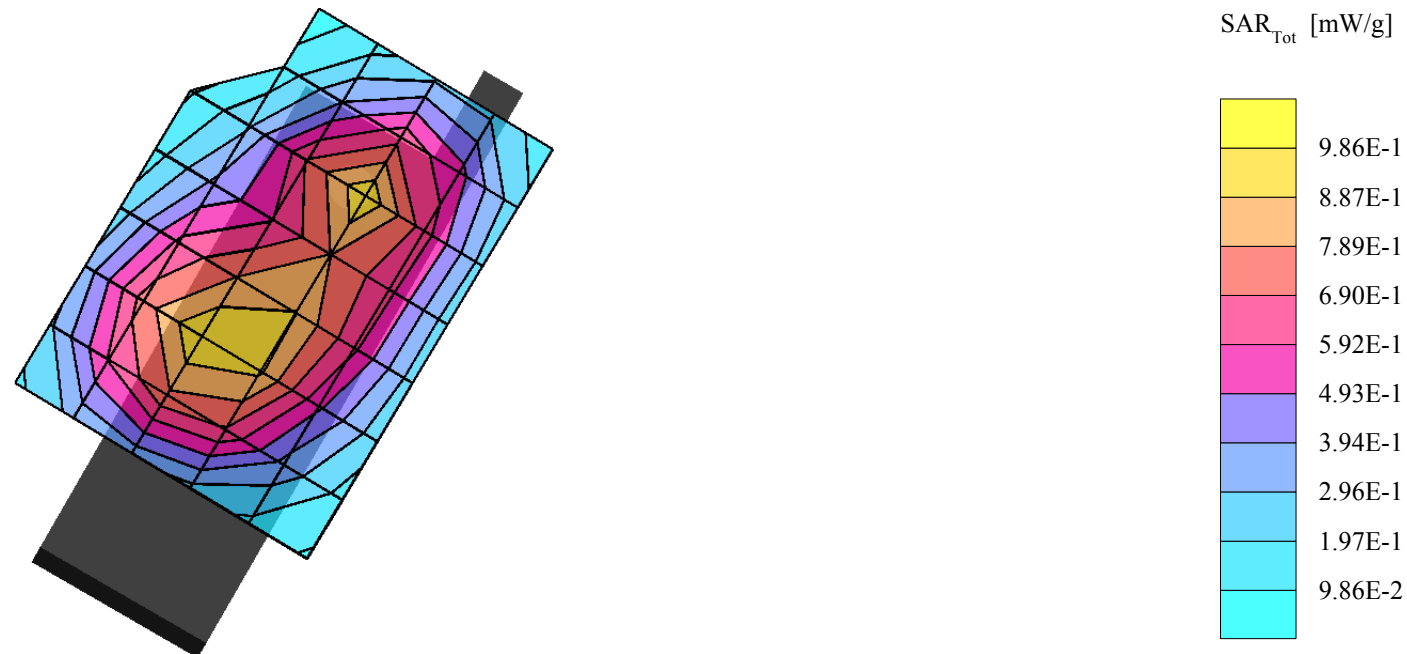
SAM Phantom; Left Hand Section; Position: (80°,60°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.70,6.70,6.70); Crest factor: 1.0; Head 835 MHz: $\sigma = 0.88$ mho/m $\epsilon_r = 41.9$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 0.908 mW/g, SAR (10g): 0.647 mW/g, (Worst-case extrapolation)

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

Powerdrift: -0.15 dB



KWC-3225, CDMA Ch383, Left Titled, 10-16-02

Liquid Temp = 22C +/- 1C

K3

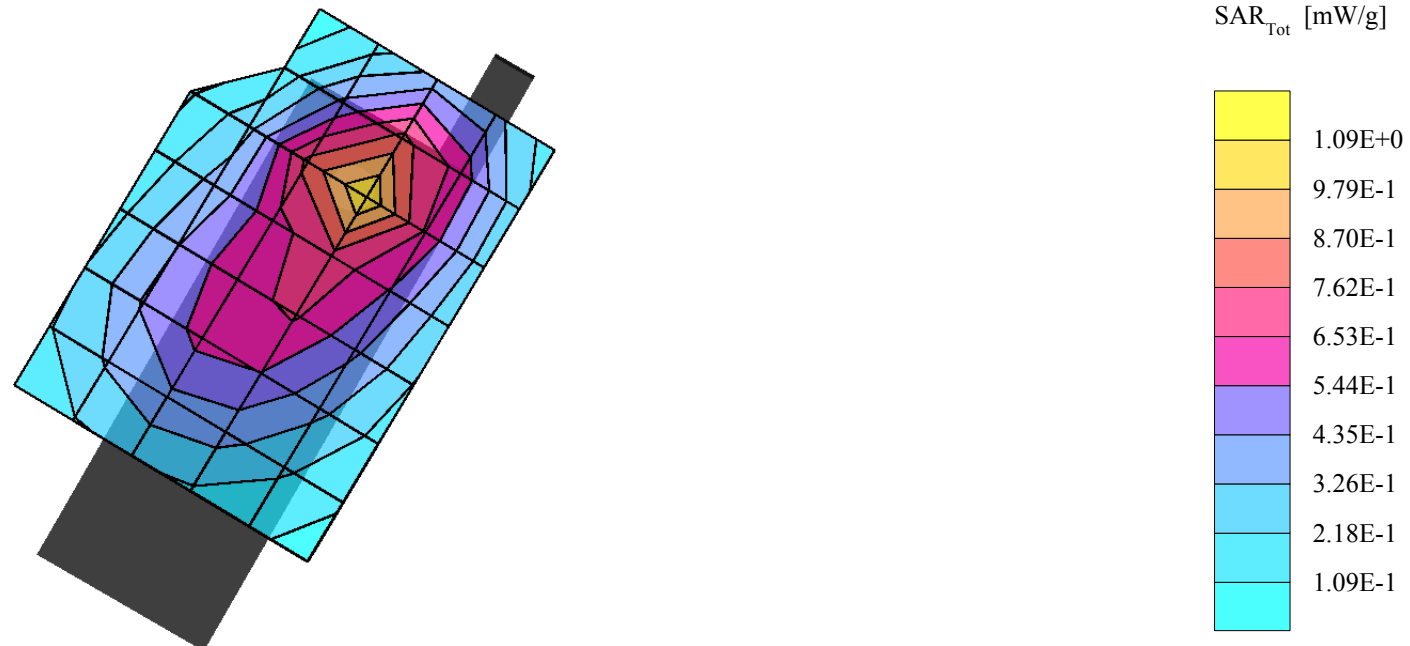
SAM Phantom; Left Hand Section; Position: (95°,60°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.70,6.70,6.70); Crest factor: 1.0; Head 835 MHz: $\sigma = 0.88$ mho/m $\epsilon_r = 41.9$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 0.966 mW/g, SAR (10g): 0.579 mW/g, (Worst-case extrapolation)

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

Powerdrift: 0.13 dB



KWC-3225, CDMA Ch777, Left Cheek, 10-16-02

Liquid Temp = 22C +/- 1C

K3

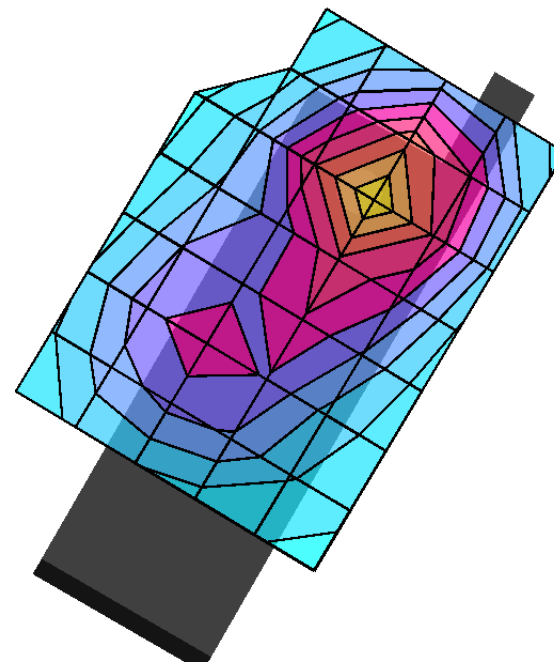
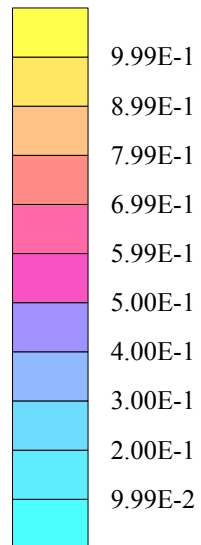
SAM Phantom; Left Hand Section; Position: (80°,60°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.70,6.70,6.70); Crest factor: 1.0; Head 835 MHz: $\sigma = 0.88$ mho/m $\epsilon_r = 41.9$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 0.904 mW/g, SAR (10g): 0.556 mW/g, (Worst-case extrapolation)

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

Powerdrift: 0.03 dB

SAR_{Tot} [mW/g]

KWC-3225, CDMA Ch777, Left Titled, 10-16-02

Liquid Temp = 22C +/- 1C

K3

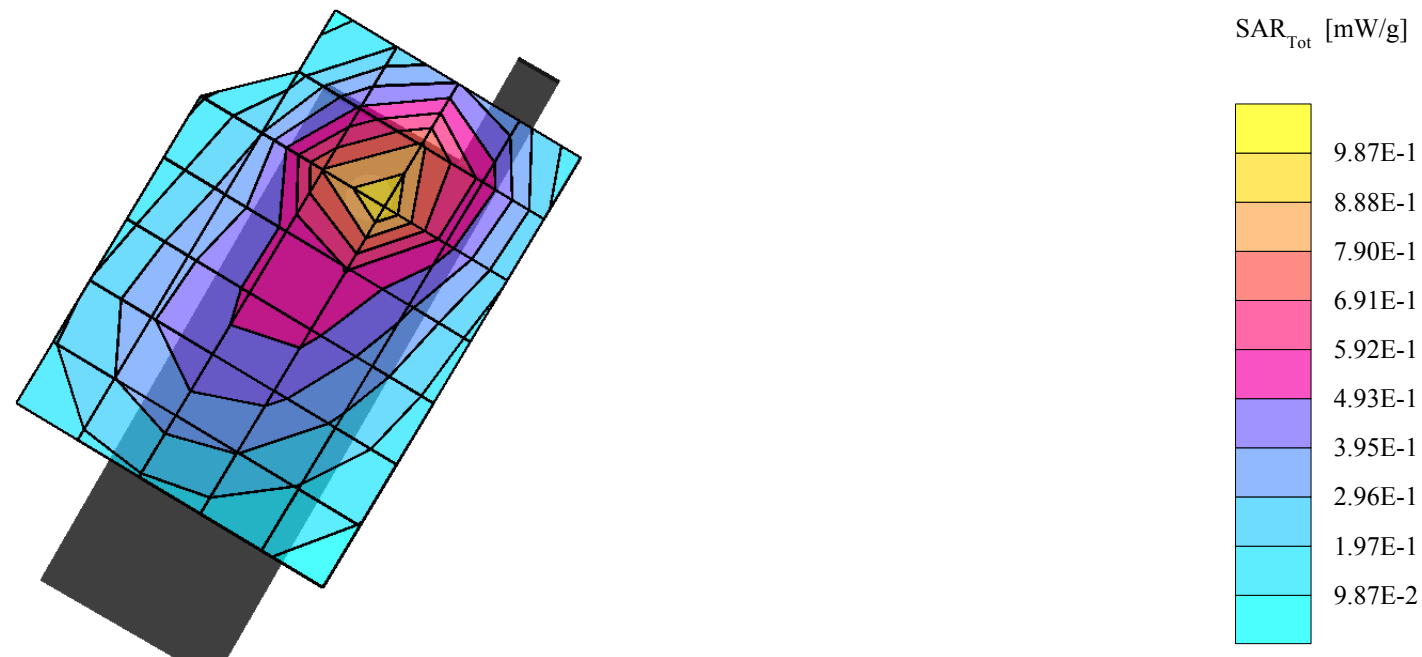
SAM Phantom; Left Hand Section; Position: (95°,60°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.70,6.70,6.70); Crest factor: 1.0; Head 835 MHz: $\sigma = 0.88$ mho/m $\epsilon_r = 41.9$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 0.909 mW/g, SAR (10g): 0.539 mW/g, (Worst-case extrapolation)

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

Powerdrift: -0.12 dB



KWC-3225, PCS Ch25, Left Cheek, 10-17-02

Liquid Temp = 22C +/- 1C

K3

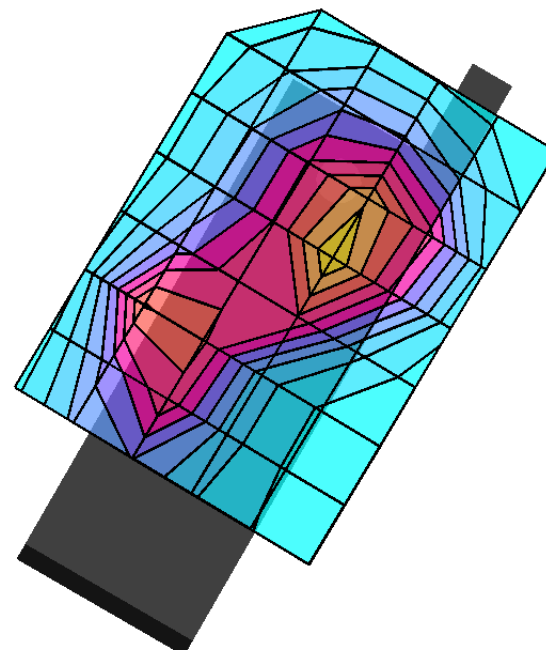
SAM Phantom; Left Hand Section; Position: (80°,60°); Frequency: 1900 MHz

Probe: ET3DV6 - SN1663; ConvF(5.30,5.30,5.30); Crest factor: 1.0; Head 1900 MHz: $\sigma = 1.40$ mho/m $\epsilon_r = 39.8$ $\rho = 1.00$ g/cm³

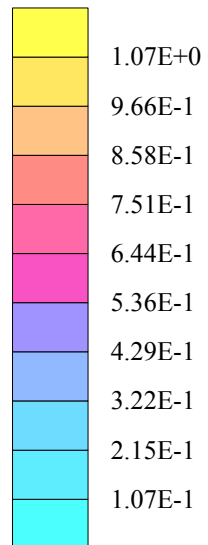
Cube 7x7x7: SAR (1g): 0.925 mW/g, SAR (10g): 0.546 mW/g, (Worst-case extrapolation)

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

Powerdrift: -0.01 dB



SAR_{Tot} [mW/g]



KWC-3225, PCS Ch25, Left Tilted, 10-17-02

Liquid Temp = 22C +/- 1C

K3

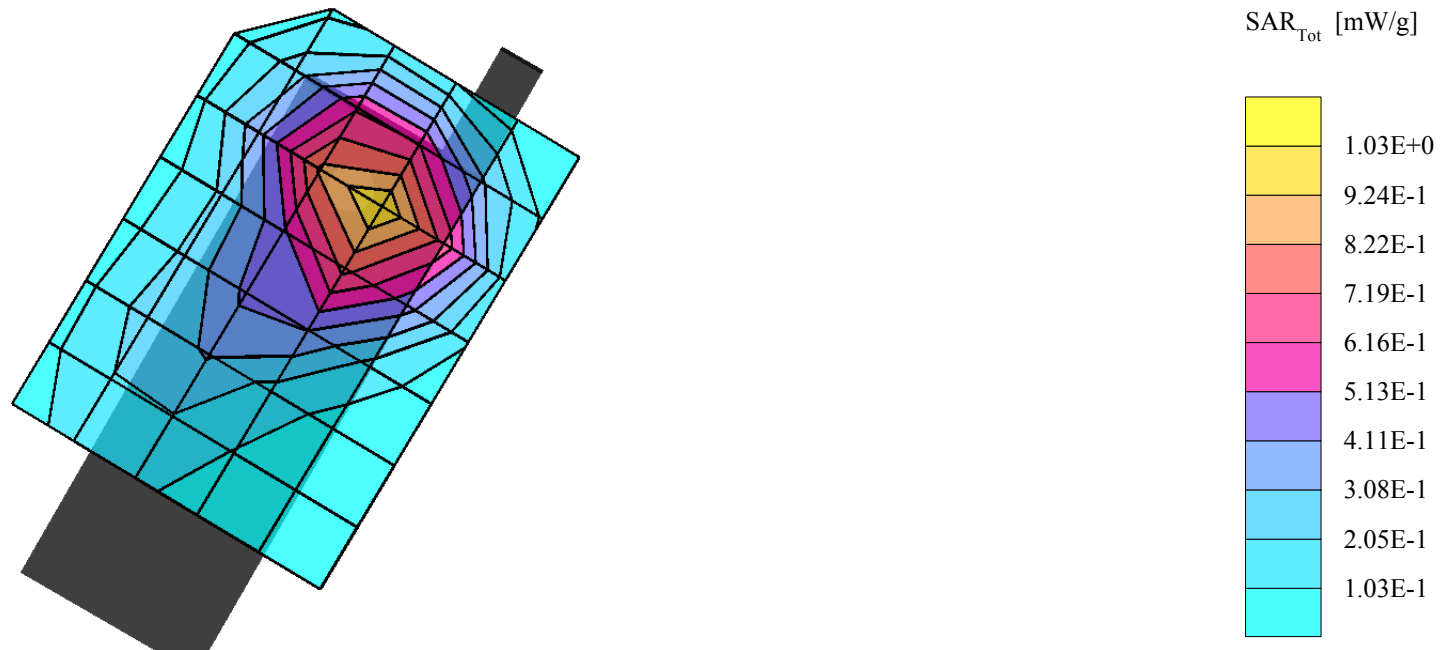
SAM Phantom; Left Hand Section; Position: (95°,60°); Frequency: 1900 MHz

Probe: ET3DV6 - SN1663; ConvF(5.30,5.30,5.30); Crest factor: 1.0; Head 1900 MHz: $\sigma = 1.40$ mho/m $\epsilon_r = 39.8$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 0.923 mW/g, SAR (10g): 0.540 mW/g, (Worst-case extrapolation)

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

Powerdrift: -0.00 dB



KWC-3225, PCS Ch600, Left Cheek, 10-17-02

Liquid Temp = 22C +/- 1C

K3

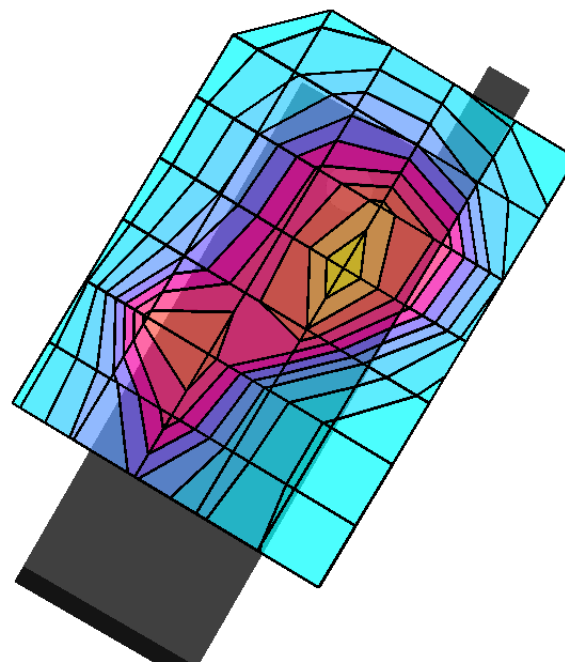
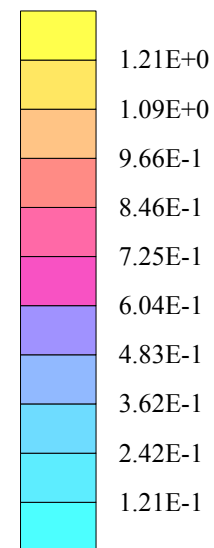
SAM Phantom; Left Hand Section; Position: (80°,60°); Frequency: 1900 MHz

Probe: ET3DV6 - SN1663; ConvF(5.30,5.30,5.30); Crest factor: 1.0; Head 1900 MHz: $\sigma = 1.40$ mho/m $\epsilon_r = 39.8$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 1.10 mW/g, SAR (10g): 0.642 mW/g, (Worst-case extrapolation)

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

Powerdrift: 0.06 dB

SAR_{Tot} [mW/g]

KWC-3225, PCS Ch600, Left Tilted, 10-17-02

Liquid Temp = 22C +/- 1C

K3

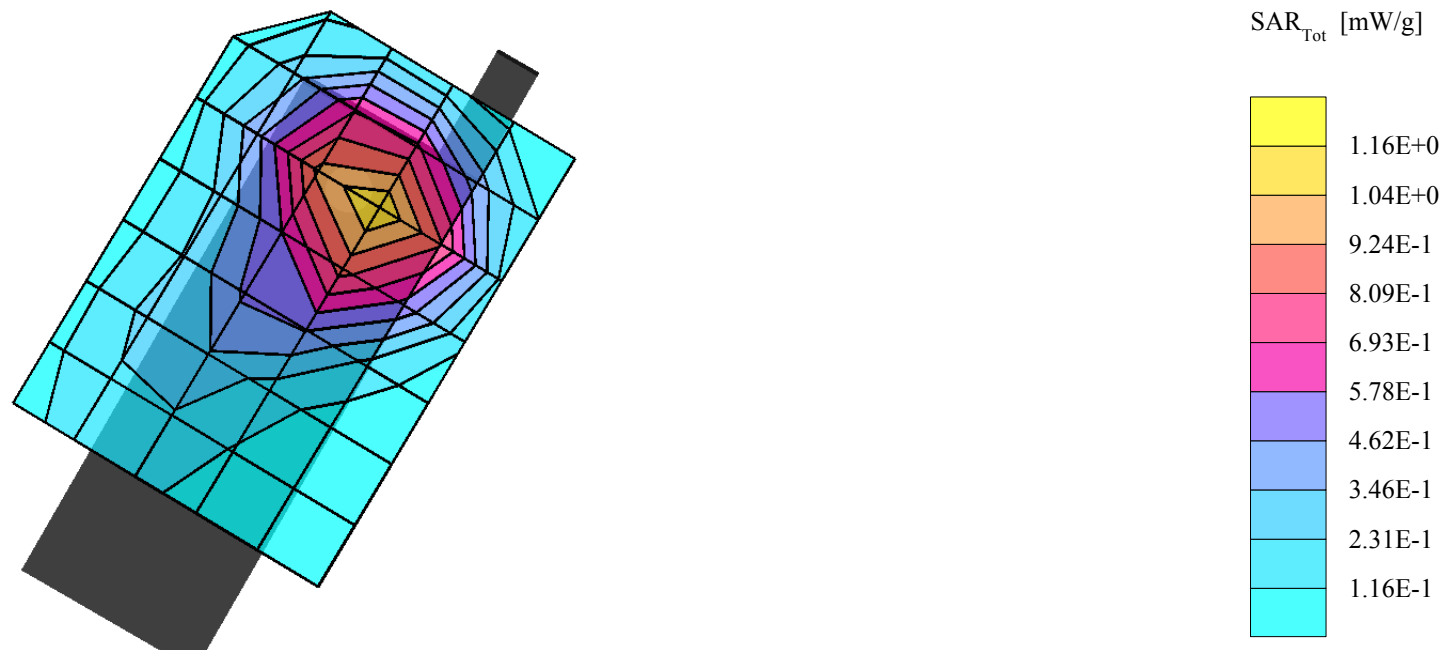
SAM Phantom; Left Hand Section; Position: (95°,60°); Frequency: 1900 MHz

Probe: ET3DV6 - SN1663; ConvF(5.30,5.30,5.30); Crest factor: 1.0; Head 1900 MHz: $\sigma = 1.40$ mho/m $\epsilon_r = 39.8$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 1.05 mW/g, SAR (10g): 0.613 mW/g, (Worst-case extrapolation)

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

Powerdrift: 0.00 dB



KWC-3225, PCS Ch1175, Left Cheek, 10-17-02

Liquid Temp = 22C +/- 1C

K3

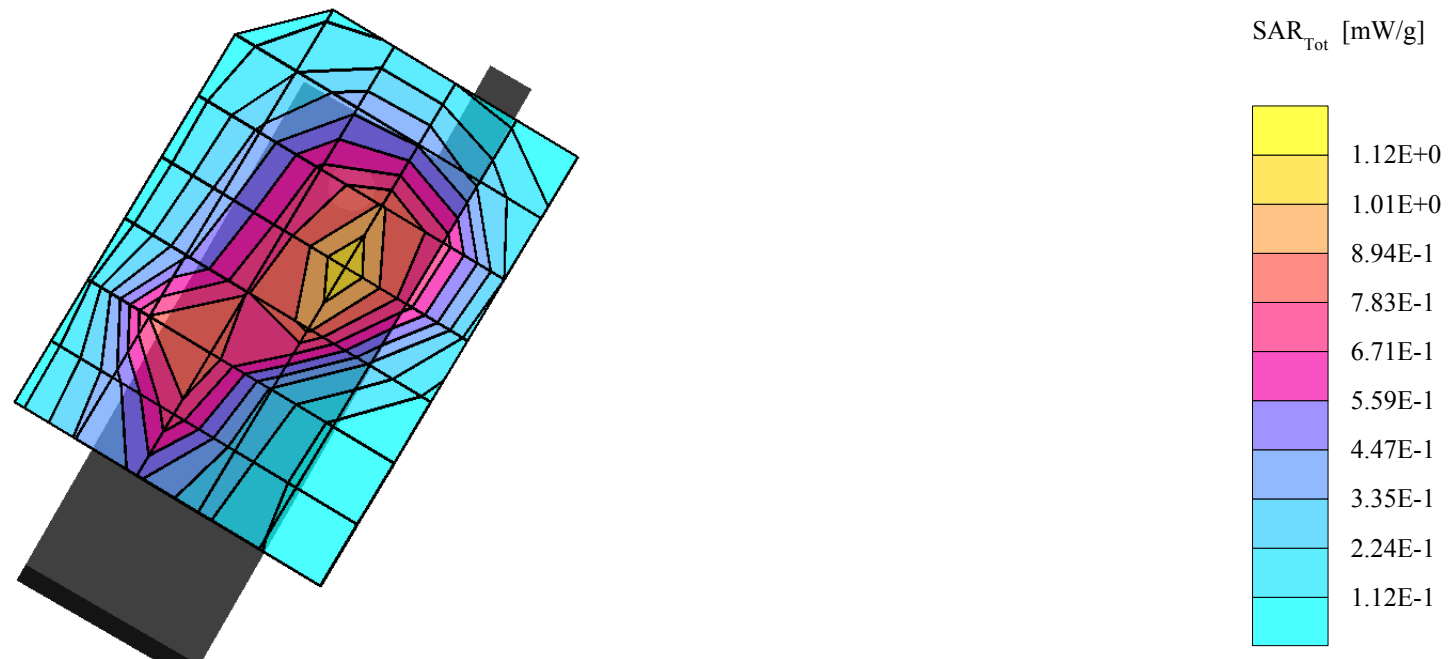
SAM Phantom; Left Hand Section; Position: (80°,60°); Frequency: 1900 MHz

Probe: ET3DV6 - SN1663; ConvF(5.30,5.30,5.30); Crest factor: 1.0; Head 1900 MHz: $\sigma = 1.40$ mho/m $\epsilon_r = 39.8$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 1.03 mW/g, SAR (10g): 0.579 mW/g, (Worst-case extrapolation)

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

Powerdrift: 0.09 dB



KWC-3225, PCS Ch1175, Left Tilted, 10-17-02

Liquid Temp = 22C +/- 1C

K3

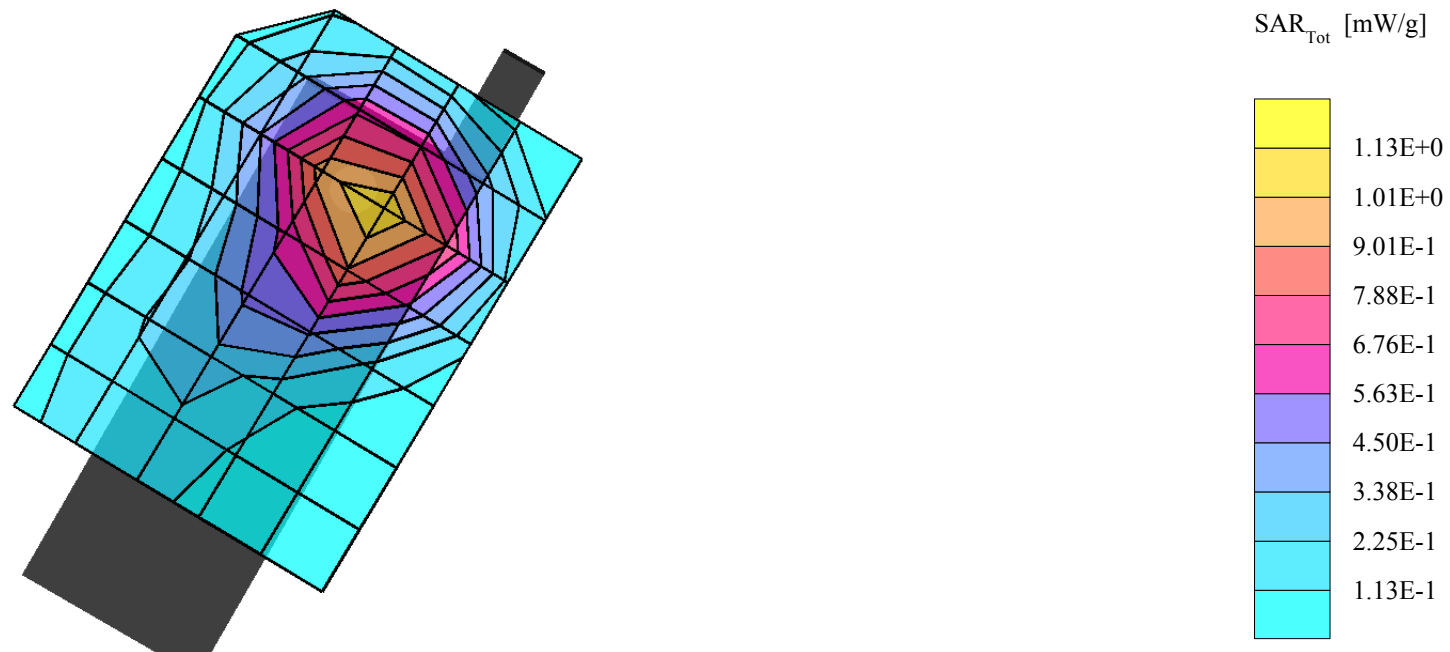
SAM Phantom; Left Hand Section; Position: (95°,60°); Frequency: 1900 MHz

Probe: ET3DV6 - SN1663; ConvF(5.30,5.30,5.30); Crest factor: 1.0; Head 1900 MHz: $\sigma = 1.40$ mho/m $\epsilon_r = 39.8$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 1.02 mW/g, SAR (10g): 0.599 mW/g, (Worst-case extrapolation)

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

Powerdrift: 0.05 dB



KWC-3225, FM Ch991, Right Cheek, 10-16-02

Liquid Temp = 22C +/- 1C

K3

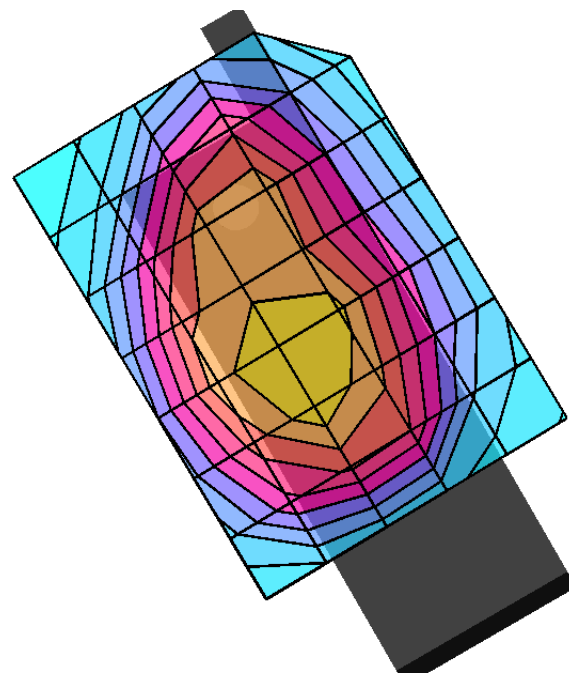
SAM Phantom; Righ Hand Section; Position: (80°,300°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.70,6.70,6.70); Crest factor: 1.0; Head 835 MHz: $\sigma = 0.88$ mho/m $\epsilon_r = 41.9$ $\rho = 1.00$ g/cm³

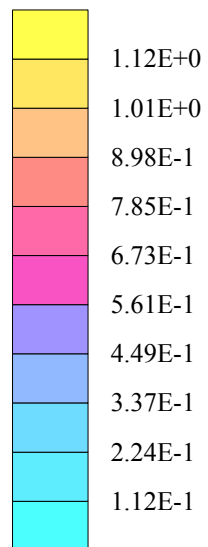
Cube 7x7x7: SAR (1g): 1.07 mW/g, SAR (10g): 0.794 mW/g, (Worst-case extrapolation)

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

Powerdrift: 0.09 dB



SAR_{Tot} [mW/g]



KWC-3225, FM Ch991, Right Tilted, 10-16-02

Liquid Temp = 22C +/- 1C

K3

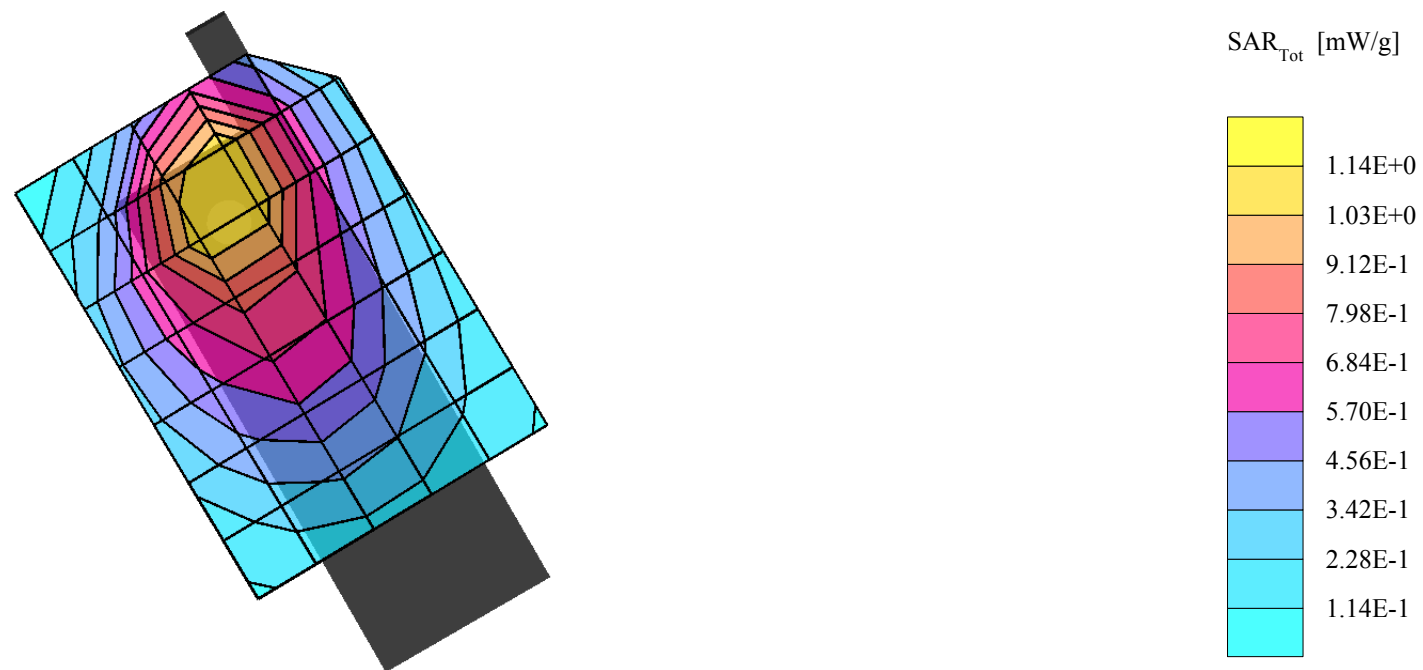
SAM Phantom; Righ Hand Section; Position: (95°,300°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.70,6.70,6.70); Crest factor: 1.0; Head 835 MHz: $\sigma = 0.88$ mho/m $\epsilon_r = 41.9$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 1.19 mW/g, SAR (10g): 0.749 mW/g, (Worst-case extrapolation)

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

Powerdrift: 0.03 dB



KWC-3225, FM Ch383, Right Cheek, 10-16-02

Liquid Temp = 22C +/- 1C

K3

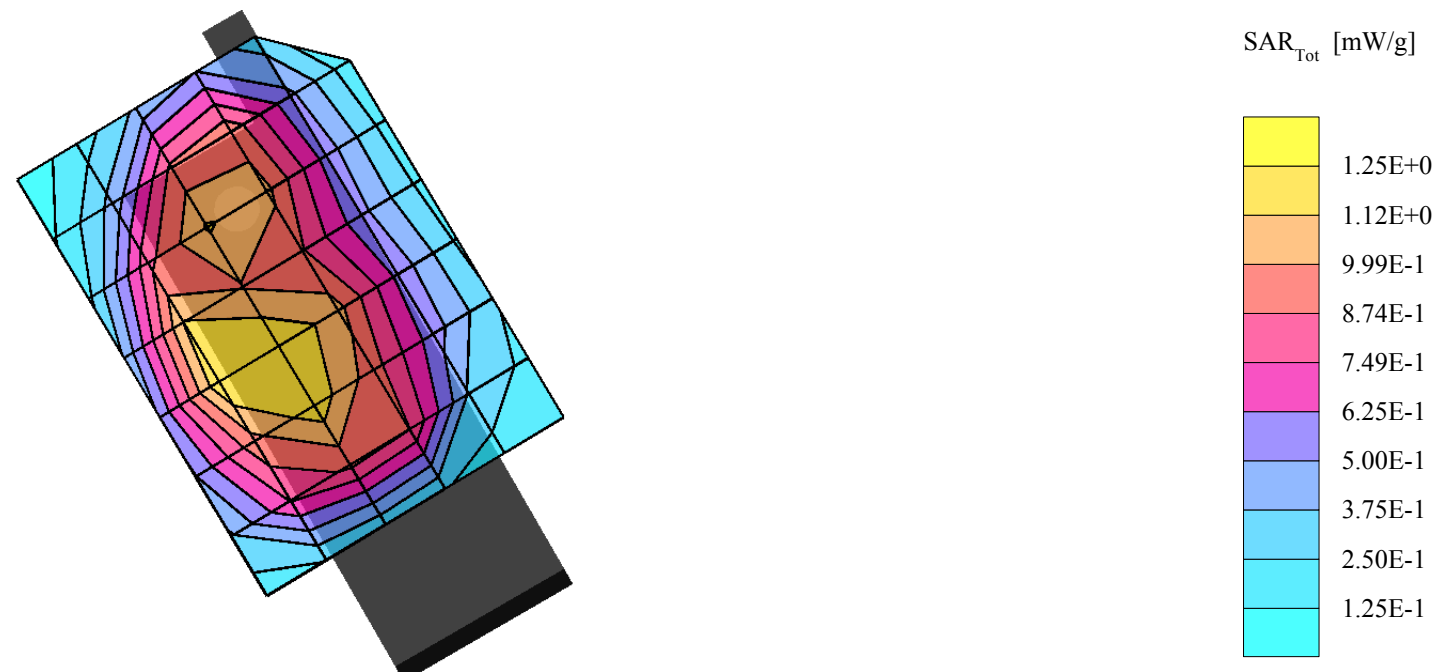
SAM Phantom; Righ Hand Section; Position: (80°,300°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.70,6.70,6.70); Crest factor: 1.0; Head 835 MHz: $\sigma = 0.88$ mho/m $\epsilon_r = 41.9$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 1.21 mW/g, SAR (10g): 0.869 mW/g, (Worst-case extrapolation)

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

Powerdrift: -0.09 dB



KWC-3225, FM Ch383, Right Tilted, 10-16-02

Liquid Temp = 22C +/- 1C

K3

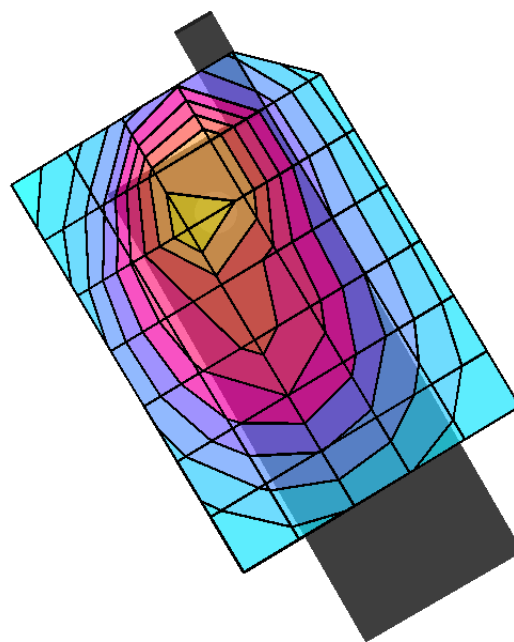
SAM Phantom; Righ Hand Section; Position: (95°,300°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.70,6.70,6.70); Crest factor: 1.0; Head 835 MHz: $\sigma = 0.88$ mho/m $\epsilon_r = 41.9$ $\rho = 1.00$ g/cm³

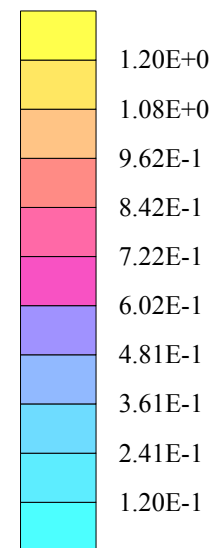
Cube 7x7x7: SAR (1g): 1.22 mW/g, SAR (10g): 0.752 mW/g, (Worst-case extrapolation)

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

Powerdrift: 0.04 dB



SAR_{Tot} [mW/g]



KWC-3225, FM Ch799, Right Cheek, 10-16-02

Liquid Temp = 22C +/- 1C

K3

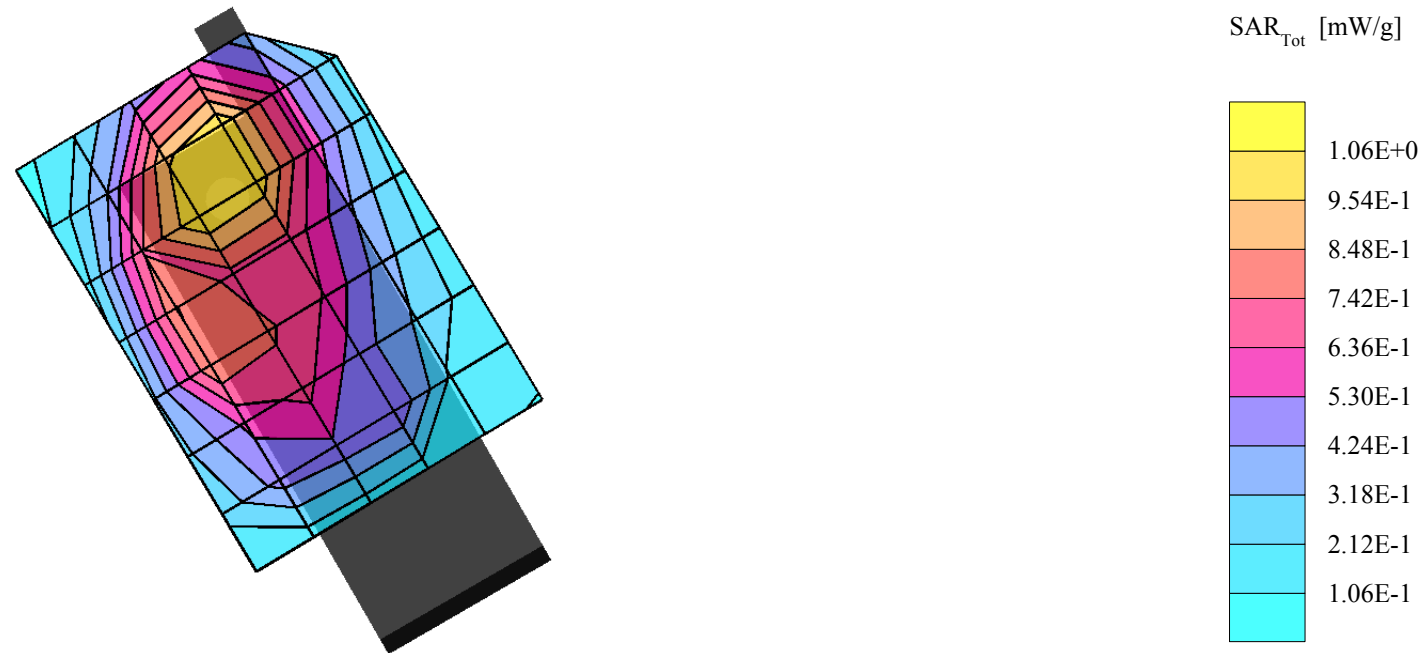
SAM Phantom; Righ Hand Section; Position: (80°,300°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.70,6.70,6.70); Crest factor: 1.0; Head 835 MHz: $\sigma = 0.88$ mho/m $\epsilon_r = 41.9$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 1.09 mW/g, SAR (10g): 0.692 mW/g, (Worst-case extrapolation)

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

Powerdrift: -0.08 dB



KWC-3225, FM Ch799, Right Tilted, 10-16-02

Liquid Temp = 22C +/- 1C

K3

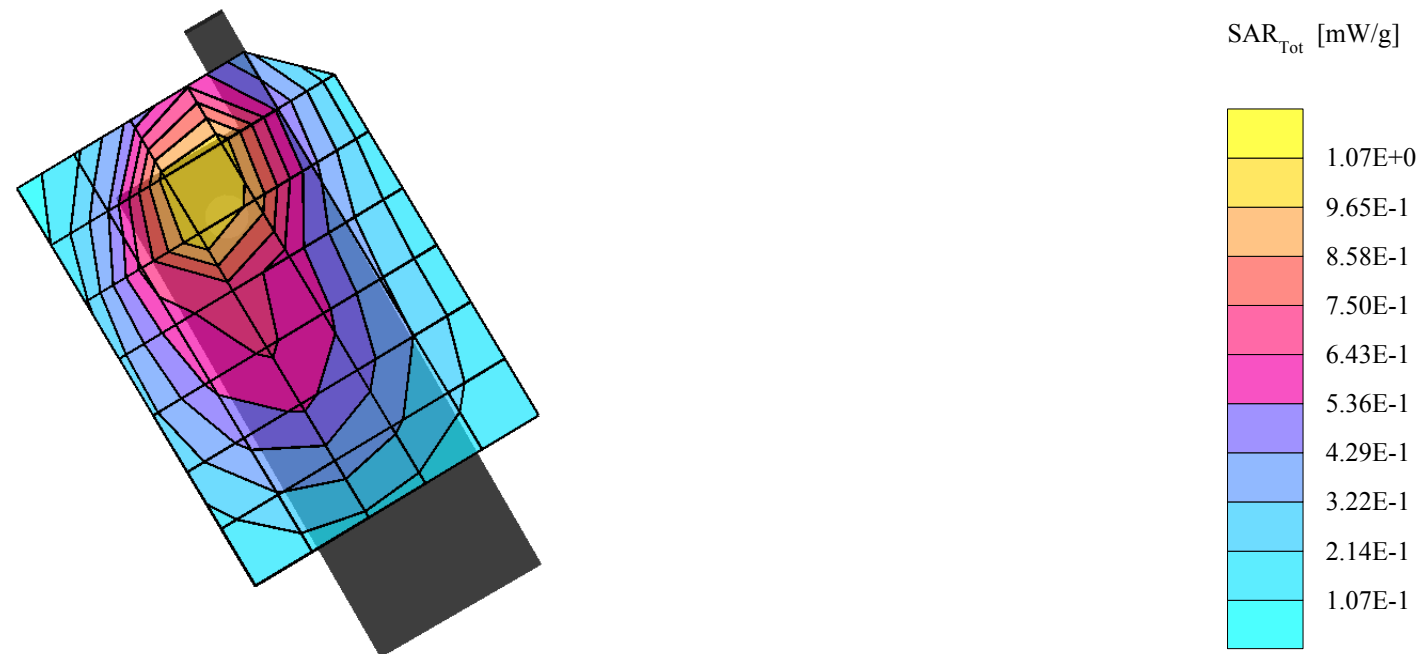
SAM Phantom; Righ Hand Section; Position: (95°,300°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.70,6.70,6.70); Crest factor: 1.0; Head 835 MHz: $\sigma = 0.88$ mho/m $\epsilon_r = 41.9$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 1.10 mW/g, SAR (10g): 0.668 mW/g, (Worst-case extrapolation)

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

Powerdrift: 0.04 dB



KWC-3225, CDMA Ch1013, Right Cheek, 10-16-02

Liquid Temp = 22C +/- 1C

K3

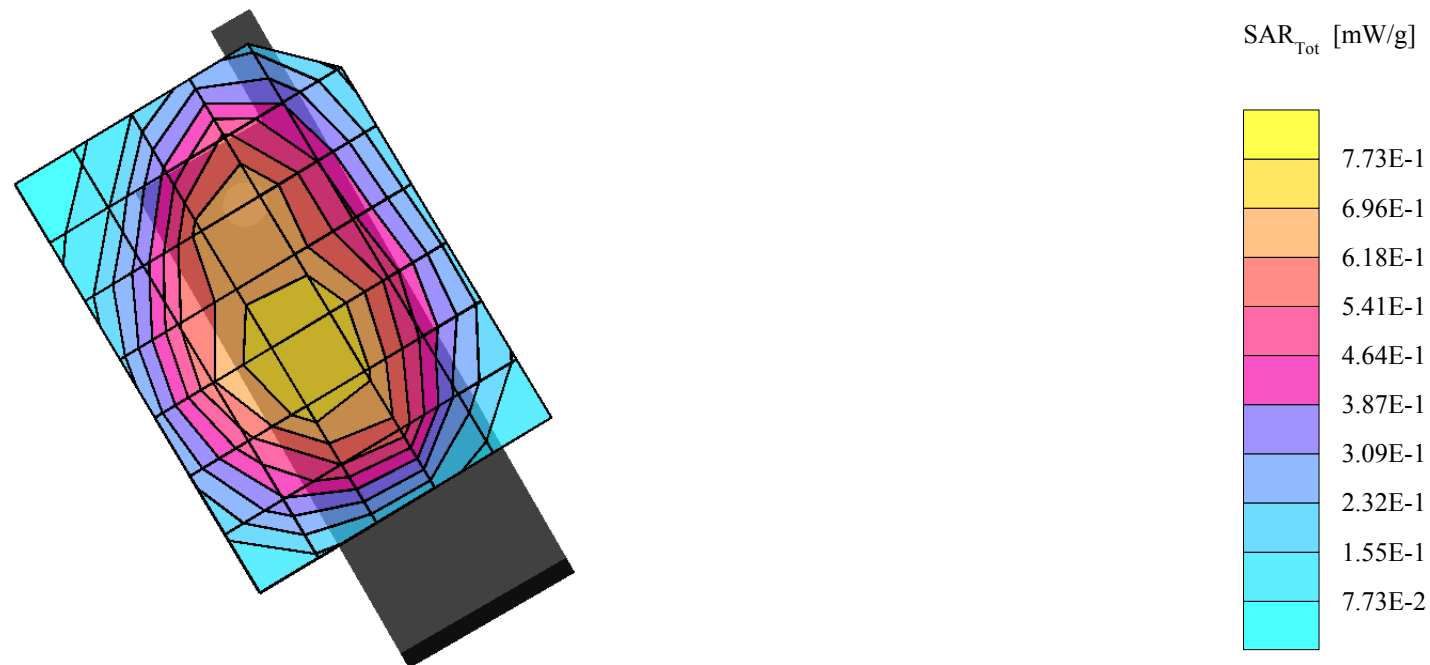
SAM Phantom; Righ Hand Section; Position: (80°,300°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.70,6.70,6.70); Crest factor: 1.0; Head 835 MHz: $\sigma = 0.88$ mho/m $\epsilon_r = 41.9$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 0.757 mW/g, SAR (10g): 0.559 mW/g, (Worst-case extrapolation)

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

Powerdrift: 0.10 dB



KWC-3225, CDMA Ch1013, Right Tilted, 10-16-02

Liquid Temp = 22C +/- 1C

K3

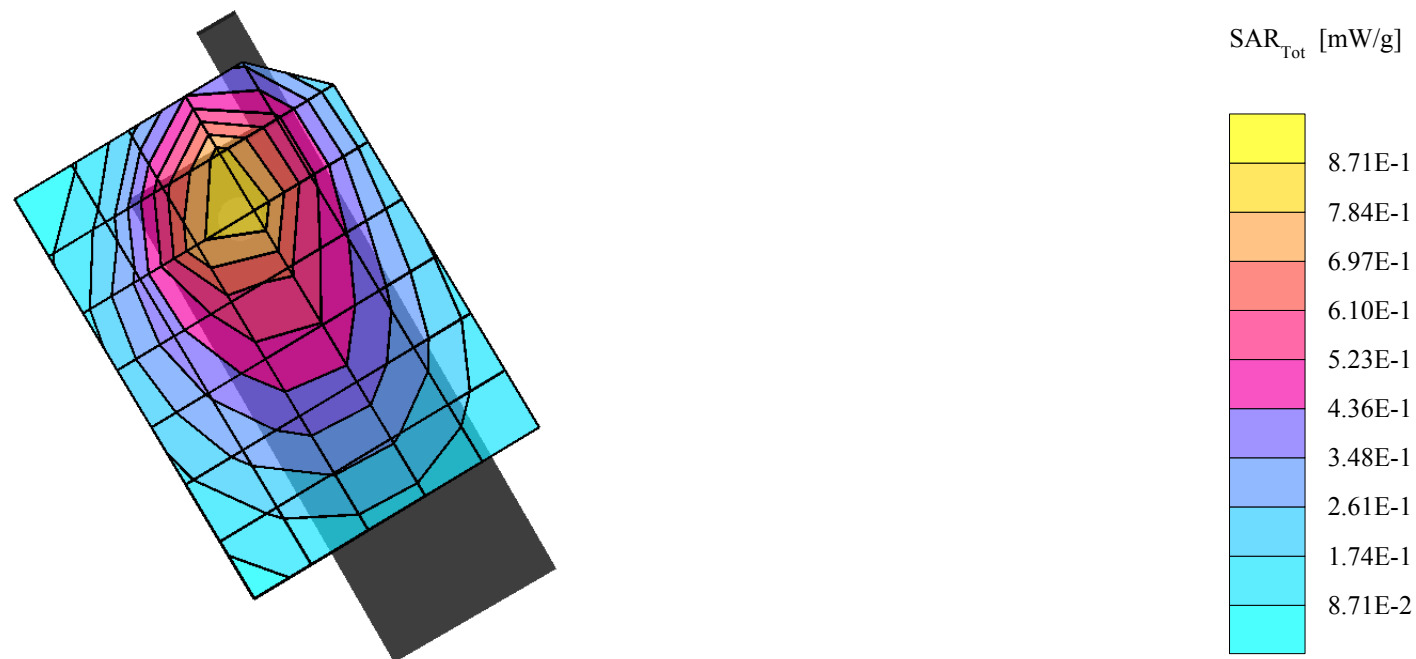
SAM Phantom; Righ Hand Section; Position: (95°,300°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.70,6.70,6.70); Crest factor: 1.0; Head 835 MHz: $\sigma = 0.88$ mho/m $\epsilon_r = 41.9$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 0.859 mW/g, SAR (10g): 0.534 mW/g, (Worst-case extrapolation)

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

Powerdrift: -0.04 dB



KWC-3225, CDMA Ch383, Right Cheek, 10-16-02

Liquid Temp = 22C +/- 1C

K3

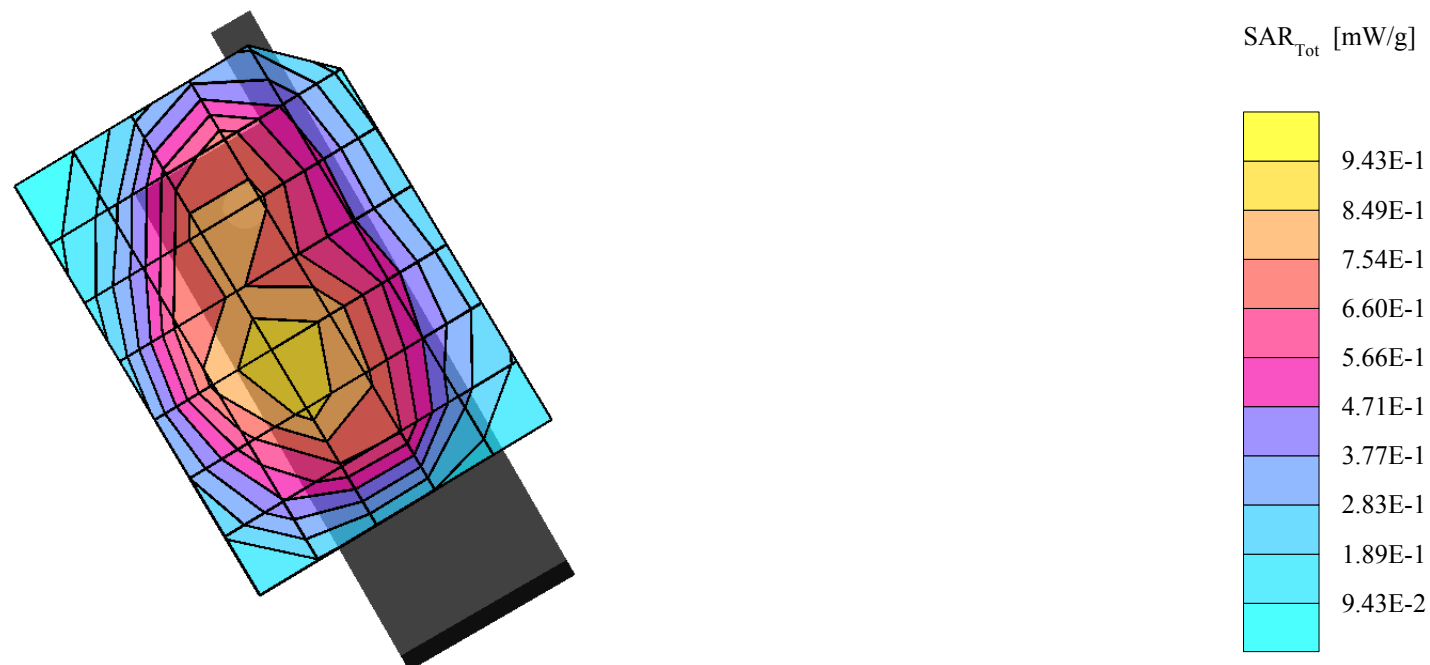
SAM Phantom; Righ Hand Section; Position: (80°,300°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.70,6.70,6.70); Crest factor: 1.0; Head 835 MHz: $\sigma = 0.88$ mho/m $\epsilon_r = 41.9$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 0.909 mW/g, SAR (10g): 0.653 mW/g, (Worst-case extrapolation)

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

Powerdrift: 0.07 dB



KWC-3225, CDMA Ch383, Right Tilted, 10-16-02

Liquid Temp = 22C +/- 1C

K3

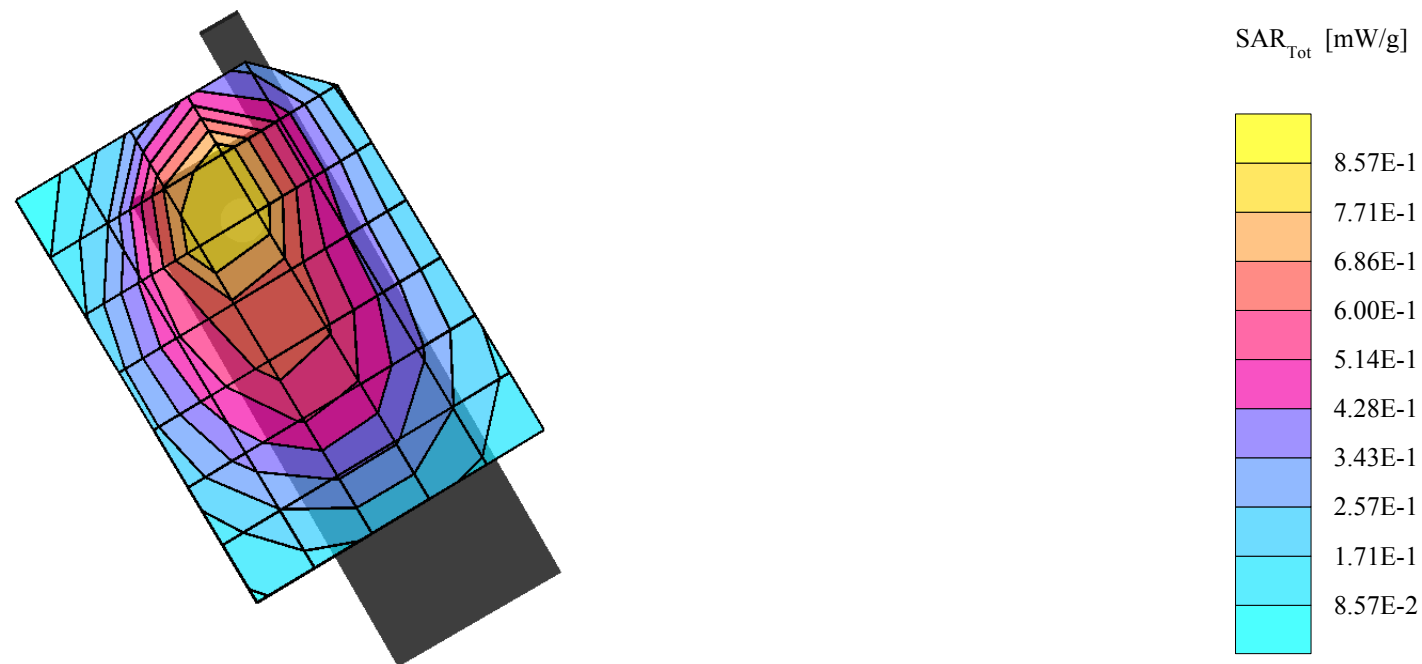
SAM Phantom; Righ Hand Section; Position: (95°,300°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.70,6.70,6.70); Crest factor: 1.0; Head 835 MHz: $\sigma = 0.88$ mho/m $\epsilon_r = 41.9$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 0.951 mW/g, SAR (10g): 0.580 mW/g, (Worst-case extrapolation)

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

Powerdrift: 0.08 dB



KWC-3225, CDMA Ch777, Right Cheek, 10-16-02

Liquid Temp = 22C +/- 1C

K3

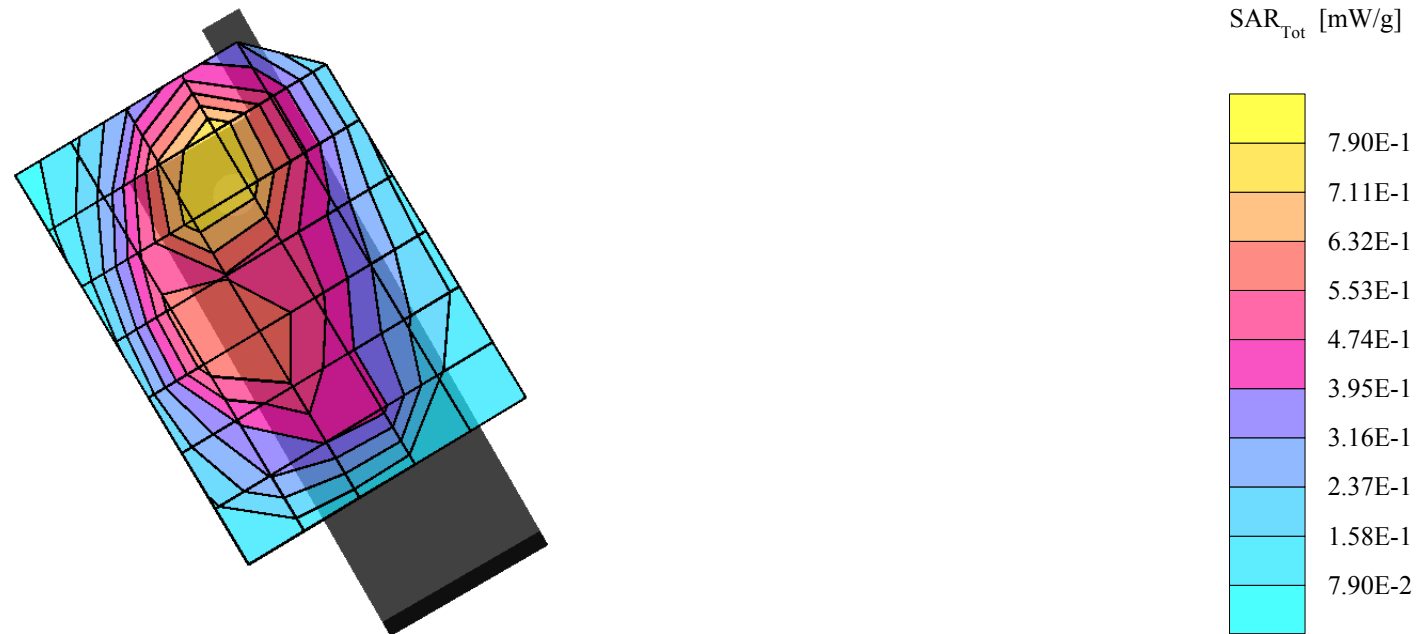
SAM Phantom; Righ Hand Section; Position: (80°,300°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.70,6.70,6.70); Crest factor: 1.0; Head 835 MHz: $\sigma = 0.88$ mho/m $\epsilon_r = 41.9$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 0.829 mW/g, SAR (10g): 0.517 mW/g, (Worst-case extrapolation)

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

Powerdrift: 0.04 dB



KWC-3225, CDMA Ch777, Right Tilted, 10-16-02

Liquid Temp = 22C +/- 1C

K3

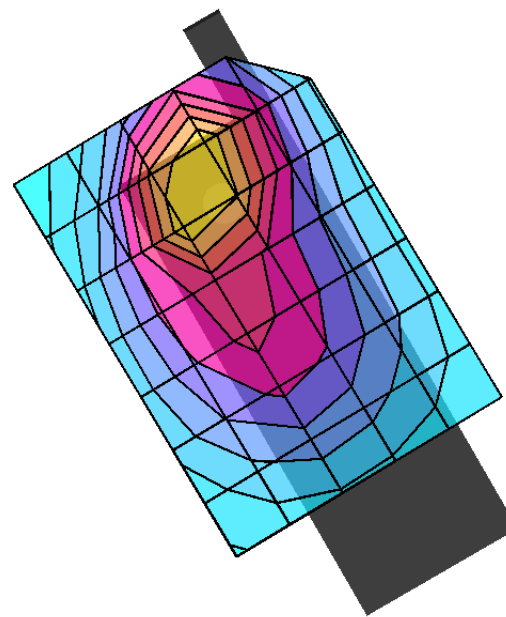
SAM Phantom; Righ Hand Section; Position: (95°,300°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.70,6.70,6.70); Crest factor: 1.0; Head 835 MHz: $\sigma = 0.88$ mho/m $\epsilon_r = 41.9$ $\rho = 1.00$ g/cm³

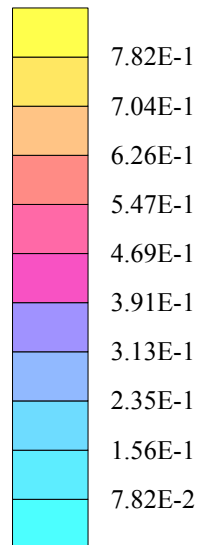
Cube 7x7x7: SAR (1g): 0.830 mW/g, SAR (10g): 0.501 mW/g, (Worst-case extrapolation)

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

Powerdrift: -0.01 dB



SAR_{Tot} [mW/g]



KWC-3225, PCS Ch25, Right Cheek, 10-17-02

Liquid Temp = 22C +/- 1C

K3

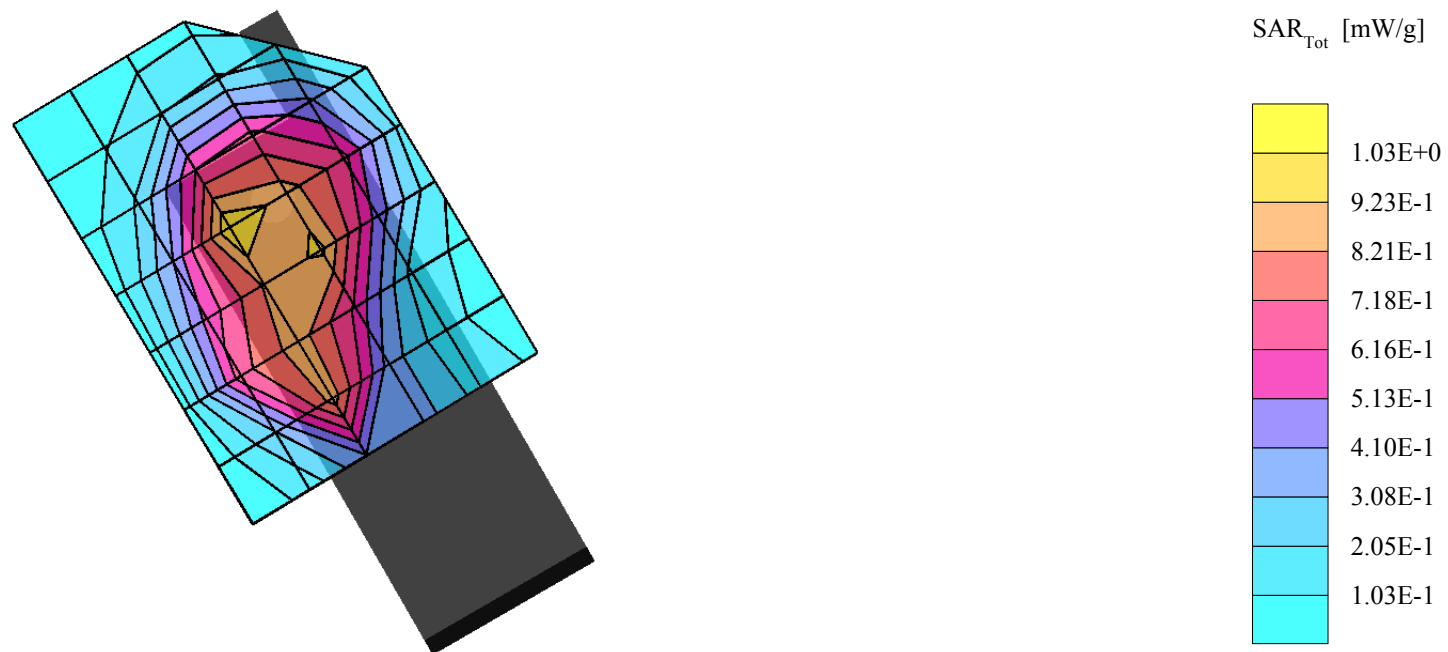
SAM Phantom; Righ Hand Section; Position: (80°,300°); Frequency: 1900 MHz

Probe: ET3DV6 - SN1663; ConvF(5.30,5.30,5.30); Crest factor: 1.0; Head 1900 MHz: $\sigma = 1.40$ mho/m $\epsilon_r = 39.8$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 0.998 mW/g, SAR (10g): 0.620 mW/g * Max outside, (Worst-case extrapolation)

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

Powerdrift: -0.06 dB



KWC-3225, PCS Ch25, Right Tilted, 10-17-02

Liquid Temp = 22C +/- 1C

K3

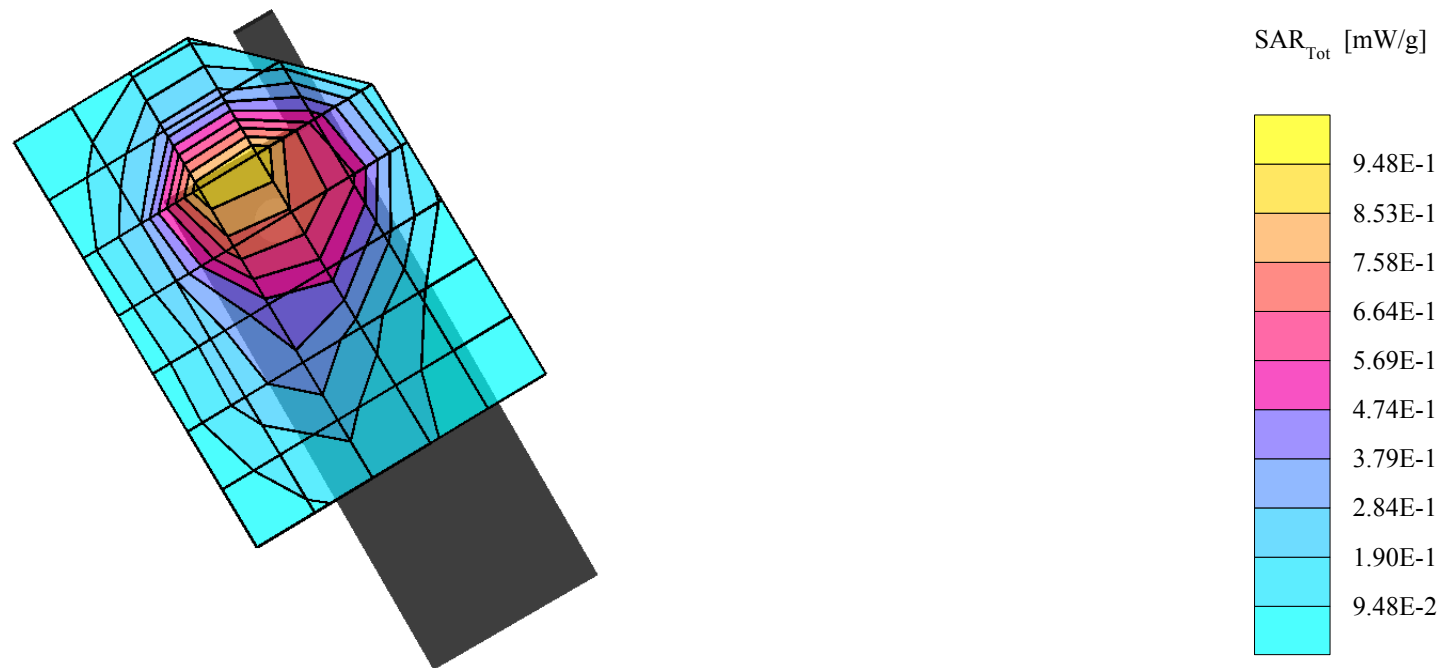
SAM Phantom; Righ Hand Section; Position: (95°,300°); Frequency: 1900 MHz

Probe: ET3DV6 - SN1663; ConvF(5.30,5.30,5.30); Crest factor: 1.0; Head 1900 MHz: $\sigma = 1.40$ mho/m $\epsilon_r = 39.8$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 1.01 mW/g, SAR (10g): 0.585 mW/g, (Worst-case extrapolation)

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

Powerdrift: 0.02 dB



KWC-3225, PCS Ch600, Right Cheek, 10-17-02

Liquid Temp = 22C +/- 1C

K3

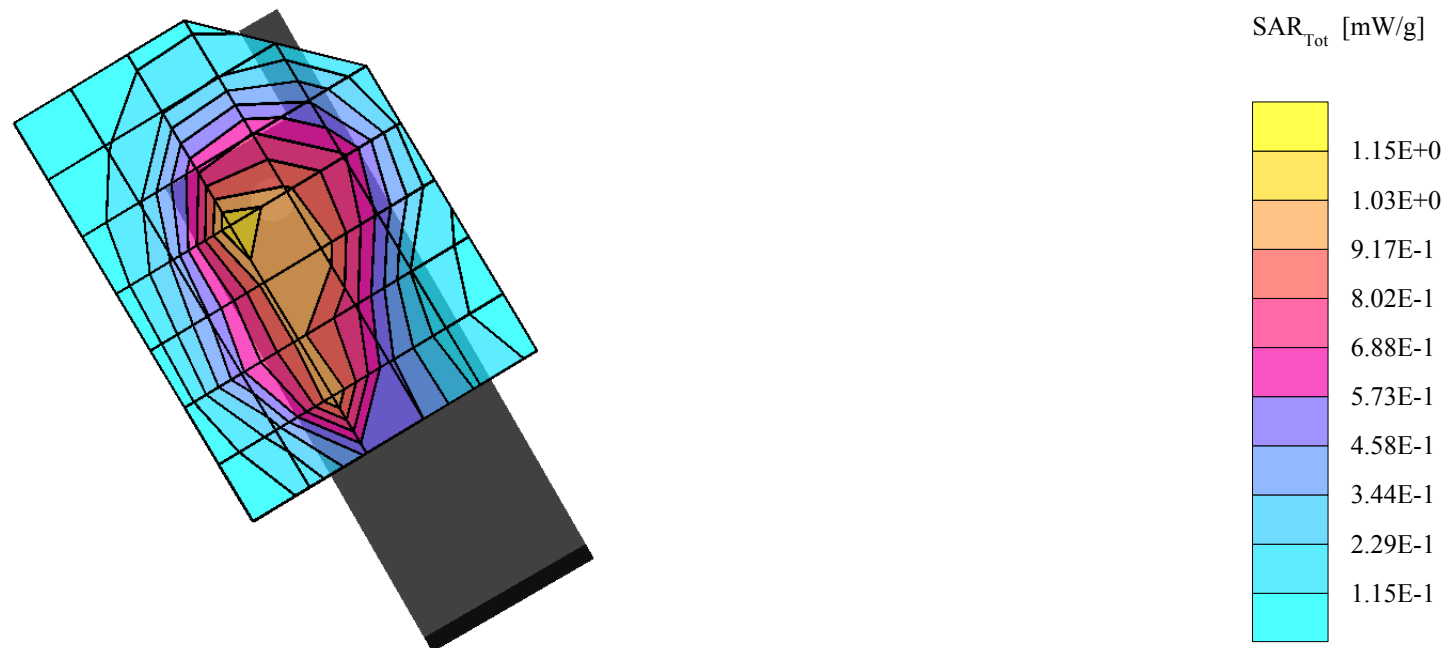
SAM Phantom; Righ Hand Section; Position: (80°,300°); Frequency: 1900 MHz

Probe: ET3DV6 - SN1663; ConvF(5.30,5.30,5.30); Crest factor: 1.0; Head 1900 MHz: $\sigma = 1.40$ mho/m $\epsilon_r = 39.8$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 1.12 mW/g, SAR (10g): 0.681 mW/g, (Worst-case extrapolation)

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

Powerdrift: -0.00 dB



KWC-3225, PCS Ch600, Right Tilted, 10-17-02

Liquid Temp = 22C +/- 1C

K3

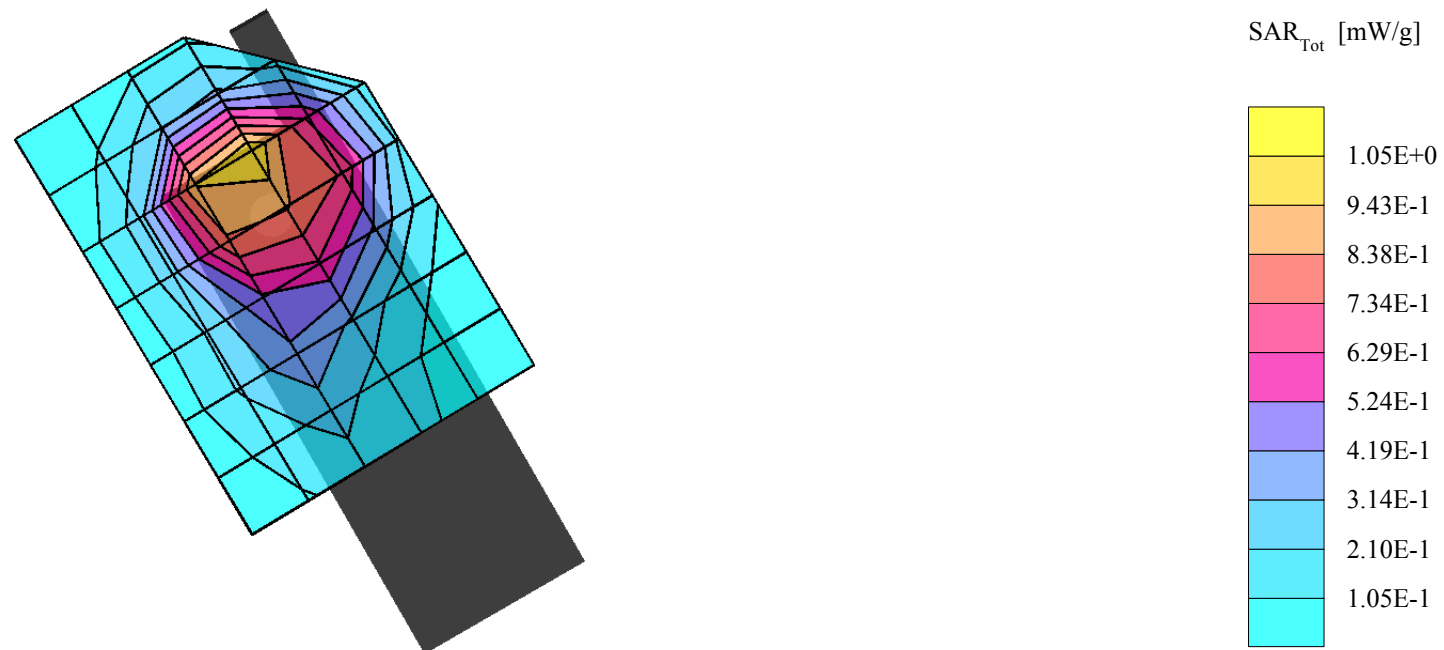
SAM Phantom; Righ Hand Section; Position: (95°,300°); Frequency: 1900 MHz

Probe: ET3DV6 - SN1663; ConvF(5.30,5.30,5.30); Crest factor: 1.0; Head 1900 MHz: $\sigma = 1.40$ mho/m $\epsilon_r = 39.8$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 1.09 mW/g, SAR (10g): 0.632 mW/g, (Worst-case extrapolation)

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

Powerdrift: -0.06 dB



KWC-3225, PCS Ch1175, Right Cheek, 10-17-02

Liquid Temp = 22C +/- 1C

K3

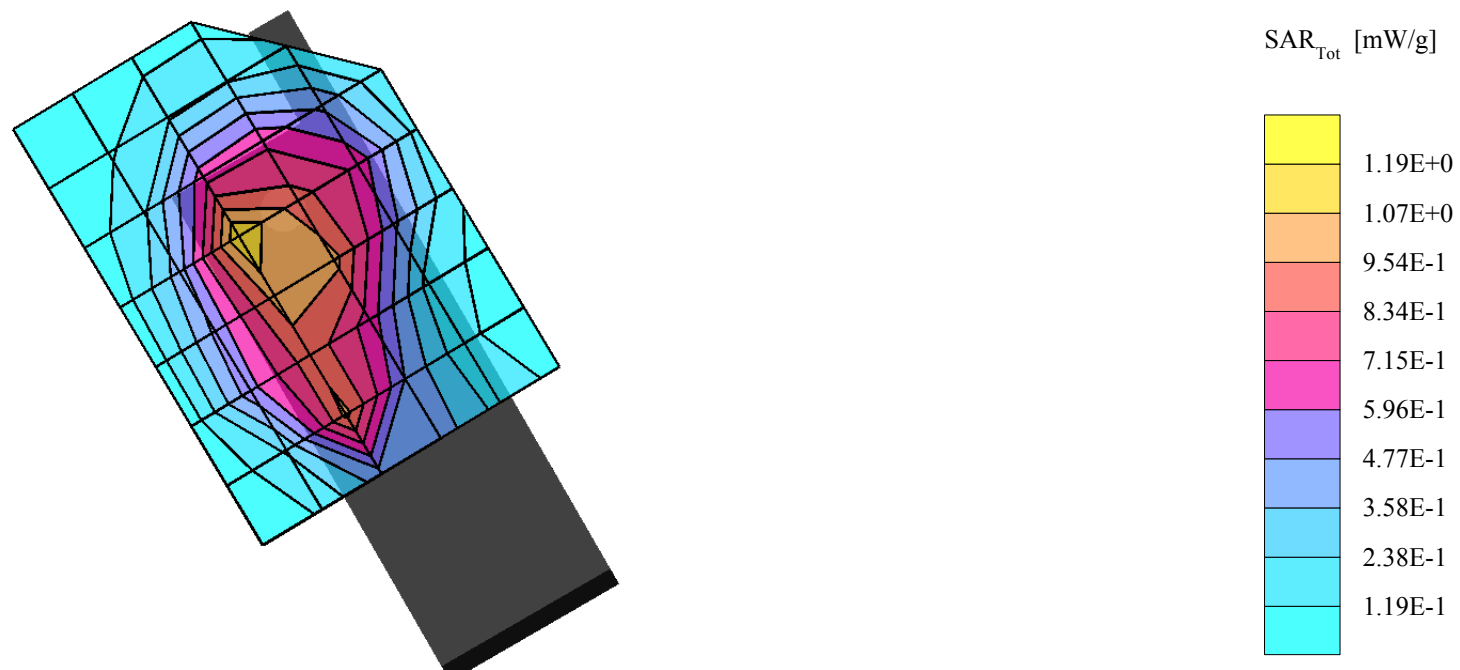
SAM Phantom; Righ Hand Section; Position: (80°,300°); Frequency: 1900 MHz

Probe: ET3DV6 - SN1663; ConvF(5.30,5.30,5.30); Crest factor: 1.0; Head 1900 MHz: $\sigma = 1.40$ mho/m $\epsilon_r = 39.8$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 1.10 mW/g, SAR (10g): 0.652 mW/g, (Worst-case extrapolation)

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

Powerdrift: 0.07 dB



KWC-3225, PCS Ch1175, Right Tilted, 10-17-02

Liquid Temp = 22C +/- 1C

K3

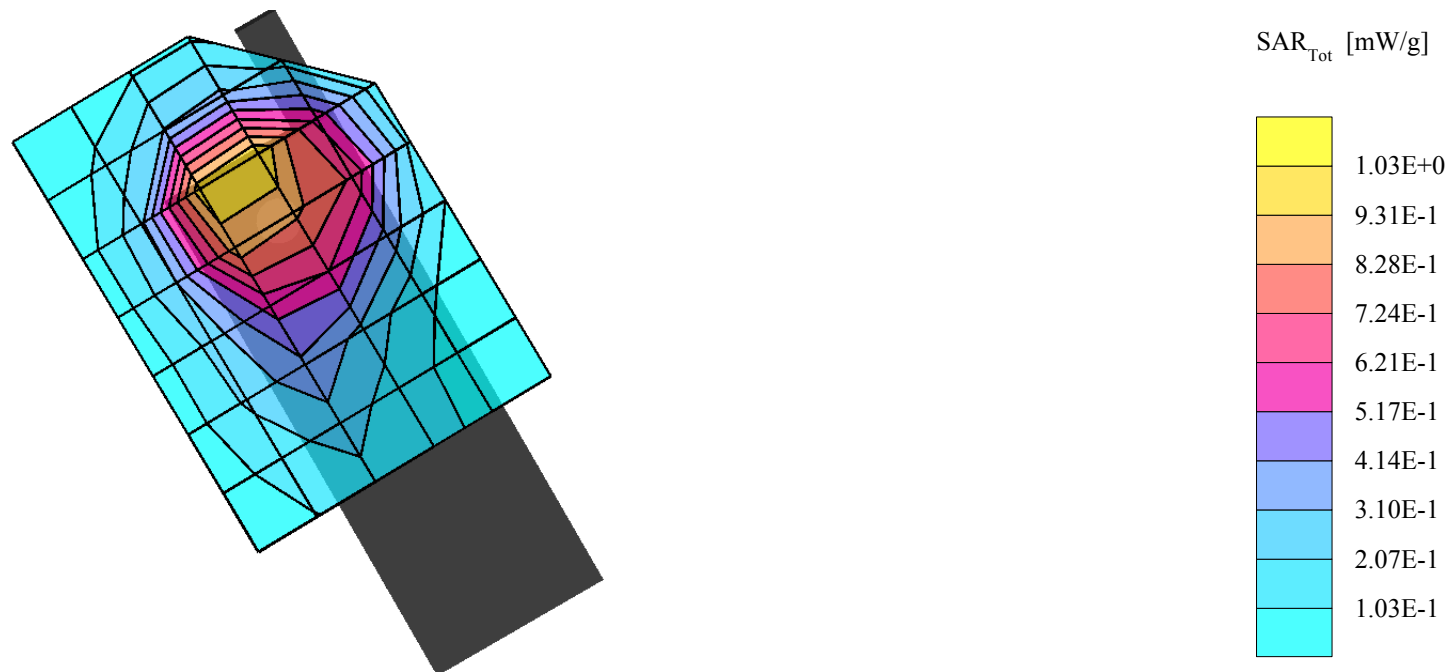
SAM Phantom; Righ Hand Section; Position: (95°,300°); Frequency: 1900 MHz

Probe: ET3DV6 - SN1663; ConvF(5.30,5.30,5.30); Crest factor: 1.0; Head 1900 MHz: $\sigma = 1.40$ mho/m $\epsilon_r = 39.8$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 1.07 mW/g, SAR (10g): 0.616 mW/g, (Worst-case extrapolation)

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

Powerdrift: 0.12 dB



KWC-3225, FM Ch991, Waist Level, with Leather Case, 10-17-02

Liquid Temp = 22C +/- 1C

K3 Waist

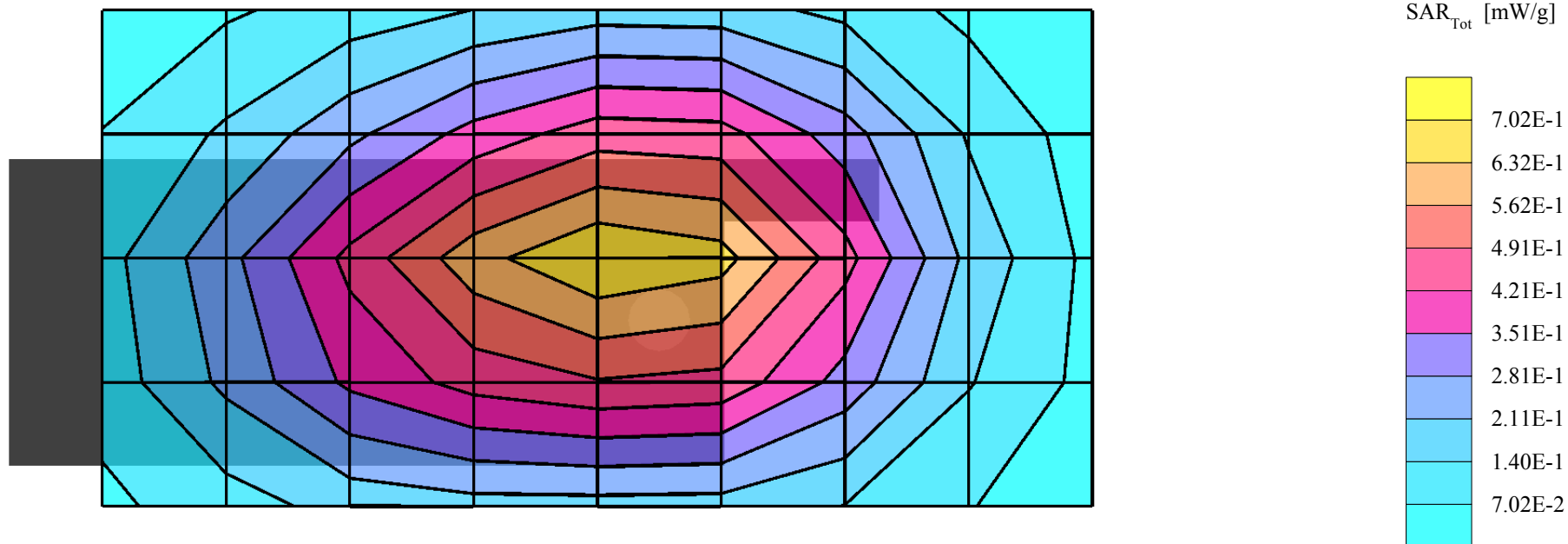
SAM Phantom; Flat Section; Position: (90°,90°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.50,6.50,6.50); Crest factor: 1.0; Muscle 835 MHz: $\sigma = 0.94$ mho/m $\epsilon_r = 56.5$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 0.649 mW/g, SAR (10g): 0.464 mW/g, (Worst-case extrapolation)

Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0

Powerdrift: 0.00 dB



KWC-3225, FM Ch991, Waist Level, with Universal Belt Clip, 10-17-02

Liquid Temp = 22C +/- 1C

K3 Waist

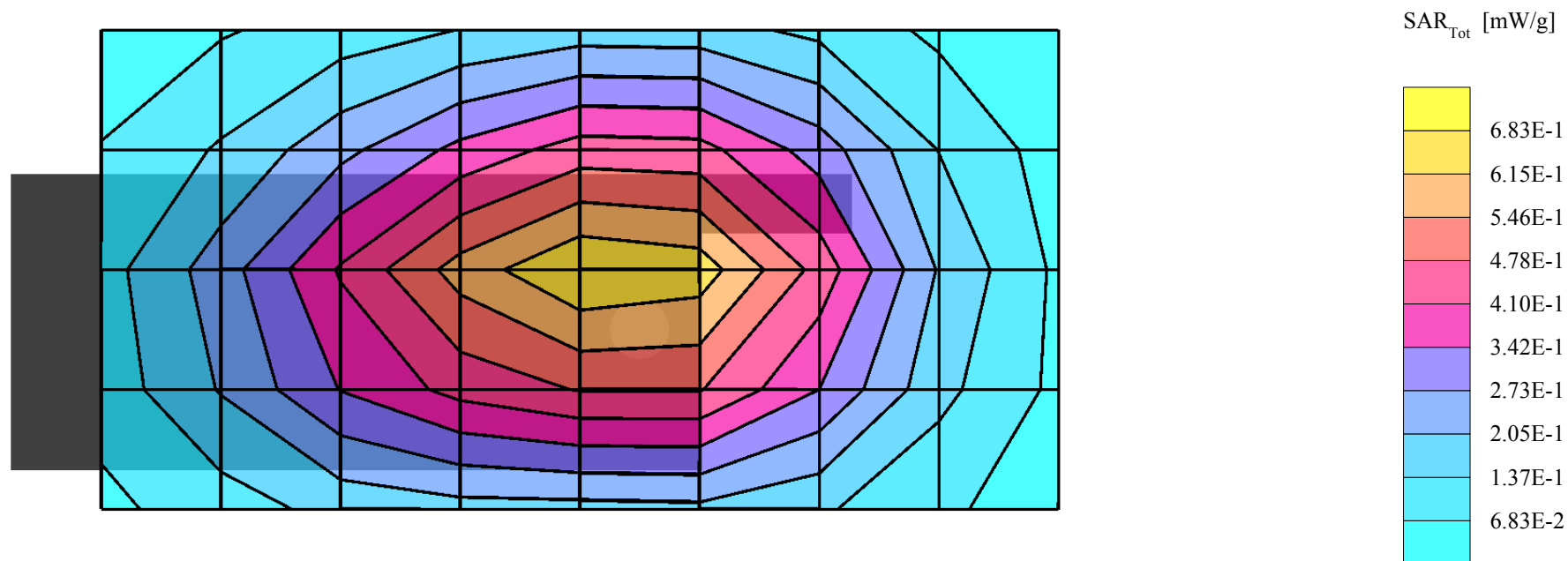
SAM Phantom; Flat Section; Position: (90°,90°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.50,6.50,6.50); Crest factor: 1.0; Muscle 835 MHz: $\sigma = 0.94$ mho/m $\epsilon_r = 56.5$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 0.636 mW/g, SAR (10g): 0.456 mW/g, (Worst-case extrapolation)

Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0

Powerdrift: -0.02 dB



KWC-3225, CDMA Ch1013, Waist Level, with Leather Case, 10-17-02

Liquid Temp = 22C +/- 1C

K3 Waist

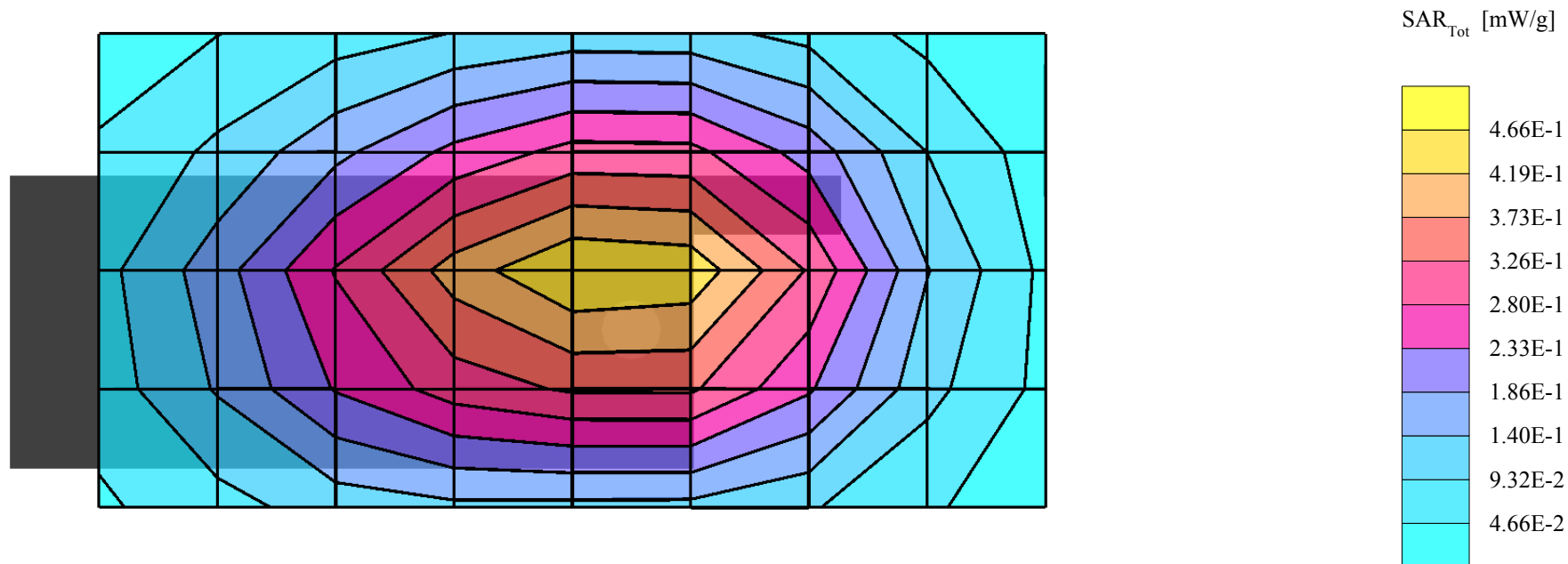
SAM Phantom; Flat Section; Position: (90°,90°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.50,6.50,6.50); Crest factor: 1.0; Muscle 835 MHz: $\sigma = 0.94$ mho/m $\epsilon_r = 56.5$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 0.436 mW/g, SAR (10g): 0.315 mW/g, (Worst-case extrapolation)

Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0

Powerdrift: 0.10 dB



KWC-3225, CDMA Ch1013, Waist Level, with Universal Belt Clip, 10-17-02

Liquid Temp = 22C +/- 1C

K3 Waist

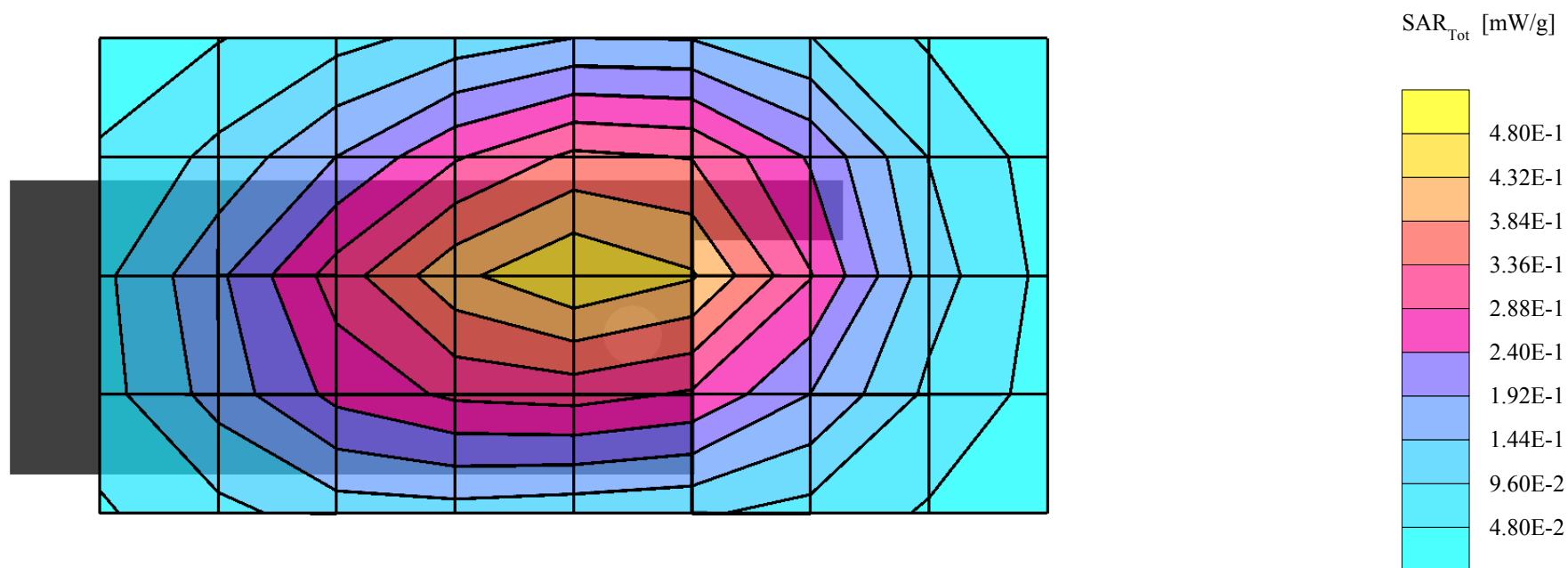
SAM Phantom; Flat Section; Position: (90°,90°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.50,6.50,6.50); Crest factor: 1.0; Muscle 835 MHz: $\sigma = 0.94$ mho/m $\epsilon_r = 56.5$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 0.456 mW/g, SAR (10g): 0.324 mW/g, (Worst-case extrapolation)

Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0

Powerdrift: -0.06 dB



KWC-3225, PCS Ch600, Waist Level, with Leather Case, 10-18-02

Liquid Temp = 22C +/- 1C

K3 Waist

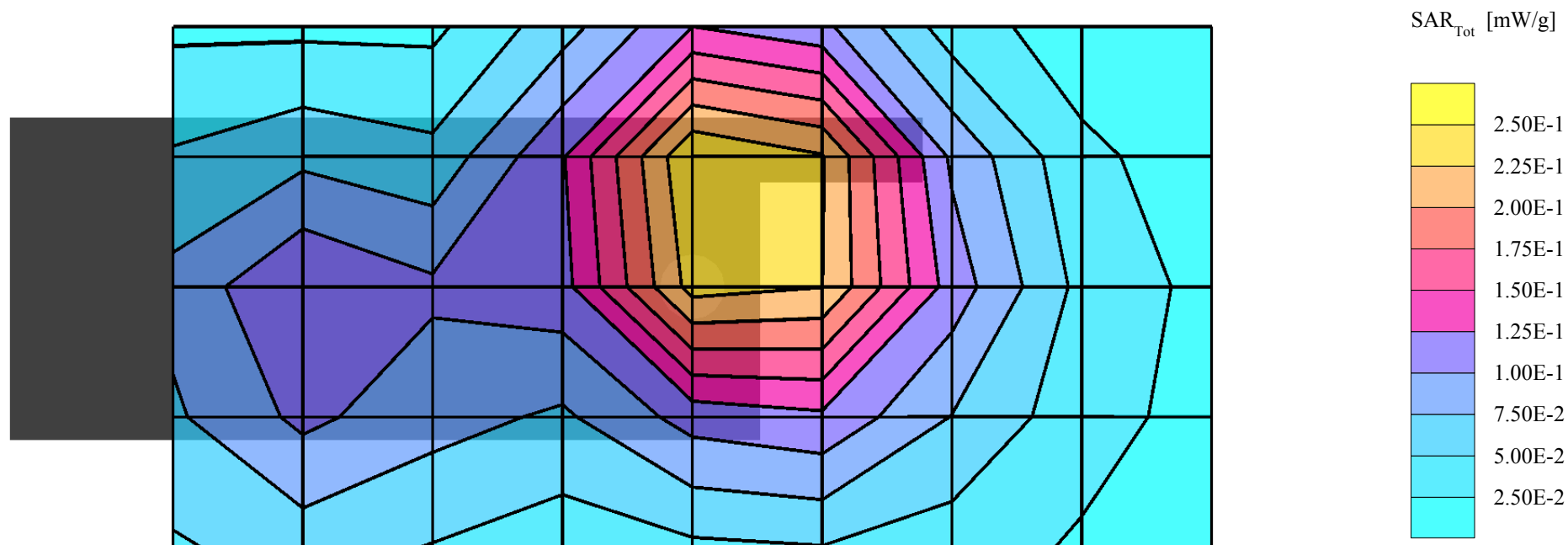
SAM Phantom; Flat Section; Position: (90°,90°); Frequency: 1900 MHz

Probe: ET3DV6 - SN1663; ConvF(4.80,4.80,4.80); Crest factor: 1.0; Muscle 1900 MHz: $\sigma = 1.53 \text{ mho/m}$ $\epsilon_r = 53.6$ $\rho = 1.00 \text{ g/cm}^3$

Cube 7x7x7: SAR (1g): 0.268 mW/g, SAR (10g): 0.163 mW/g, (Worst-case extrapolation)

Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0

Powerdrift: -0.02 dB



KWC-3225, PCS Ch600, Waist Level, with Universal Belt Clip, 10-18-02

Liquid Temp = 22C +/- 1C

K3 Waist

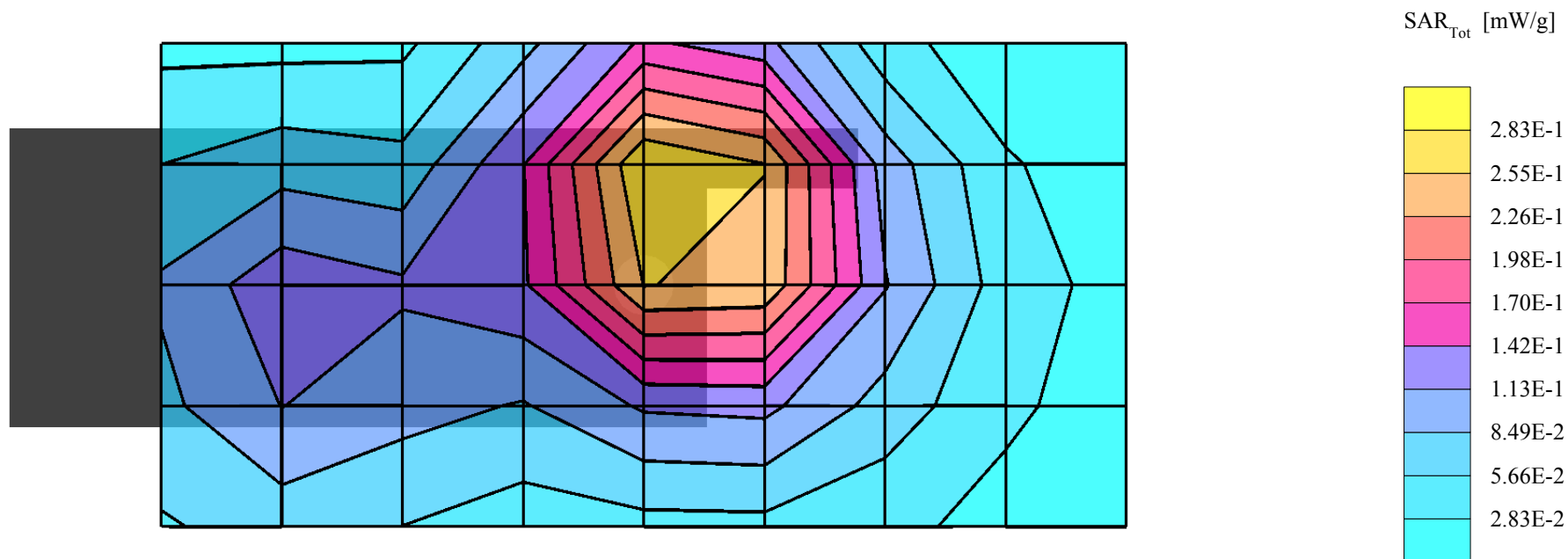
SAM Phantom; Flat Section; Position: (90°,90°); Frequency: 1900 MHz

Probe: ET3DV6 - SN1663; ConvF(4.80,4.80,4.80); Crest factor: 1.0; Muscle 1900 MHz: $\sigma = 1.53$ mho/m $\epsilon_r = 53.6$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 0.279 mW/g, SAR (10g): 0.185 mW/g, (Worst-case extrapolation)

Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0

Powerdrift: 0.05 dB



KWC-3225, FM Ch991, Waist Level, with 22.5mm Air Gap, 10-17-02

Liquid Temp = 22C +/- 1C

K3 Waist

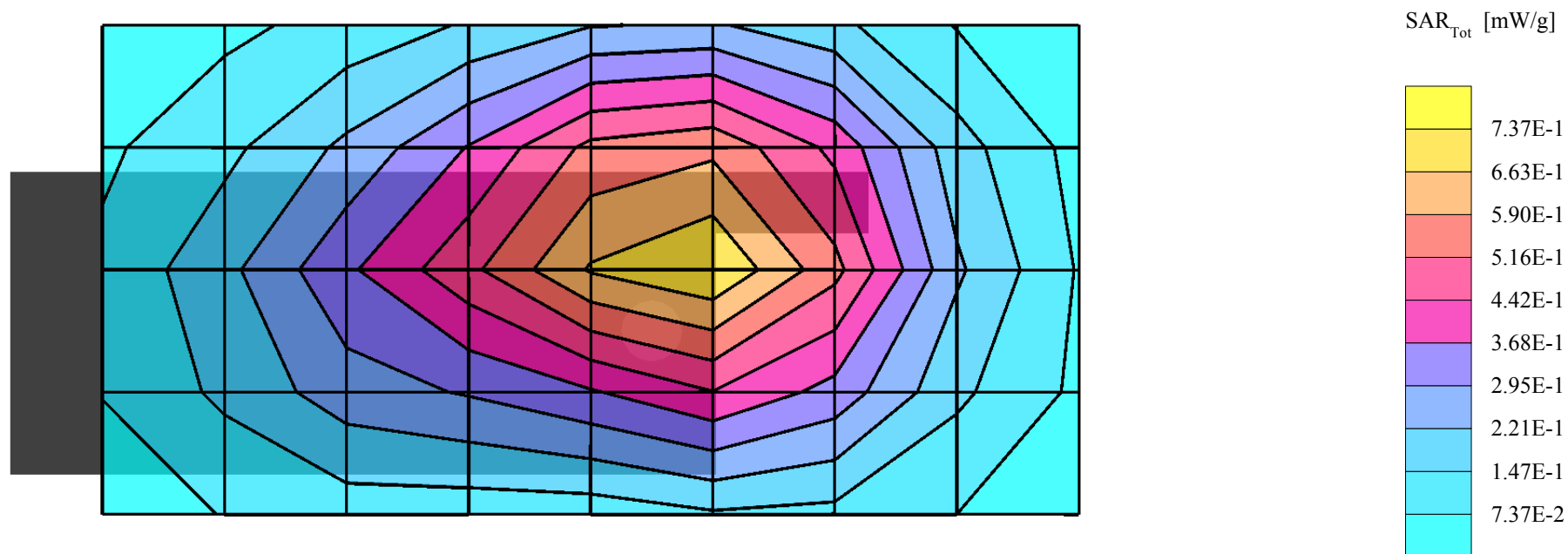
SAM Phantom; Flat Section; Position: (90°,90°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.50,6.50,6.50); Crest factor: 1.0; Muscle 835 MHz: $\sigma = 0.94$ mho/m $\epsilon_r = 56.5$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 0.690 mW/g, SAR (10g): 0.493 mW/g, (Worst-case extrapolation)

Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0

Powerdrift: -0.05 dB



KWC-3225, CDMA Ch1013, Waist Level, with Air Gap, 10-17-02

Liquid Temp = 22C +/- 1C

K3 Waist

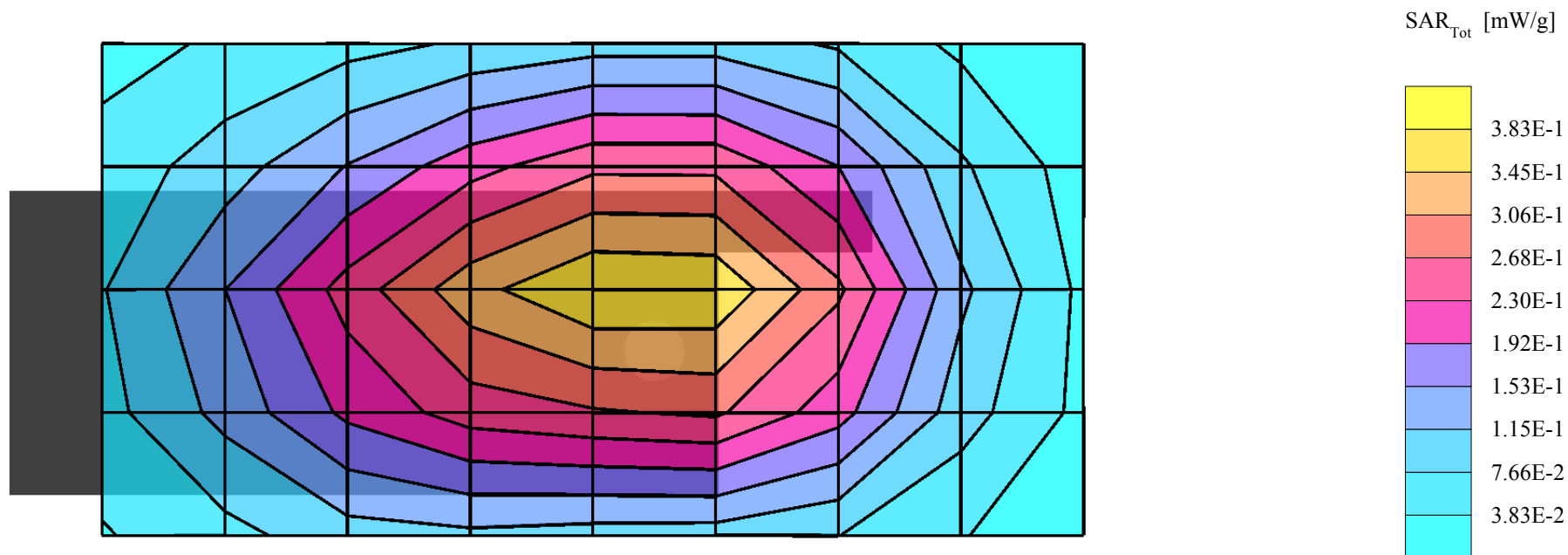
SAM Phantom; Flat Section; Position: (90°,90°); Frequency: 835 MHz

Probe: ET3DV6 - SN1663; ConvF(6.50,6.50,6.50); Crest factor: 1.0; Muscle 835 MHz: $\sigma = 0.94$ mho/m $\epsilon_r = 56.5$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 0.519 mW/g, SAR (10g): 0.364 mW/g, (Worst-case extrapolation)

Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0

Powerdrift: 0.09 dB



KWC-3225, PCS Ch600, Waist Level, with Air Gap, 10-18-02

Liquid Temp = 22C +/- 1C

K3 Waist

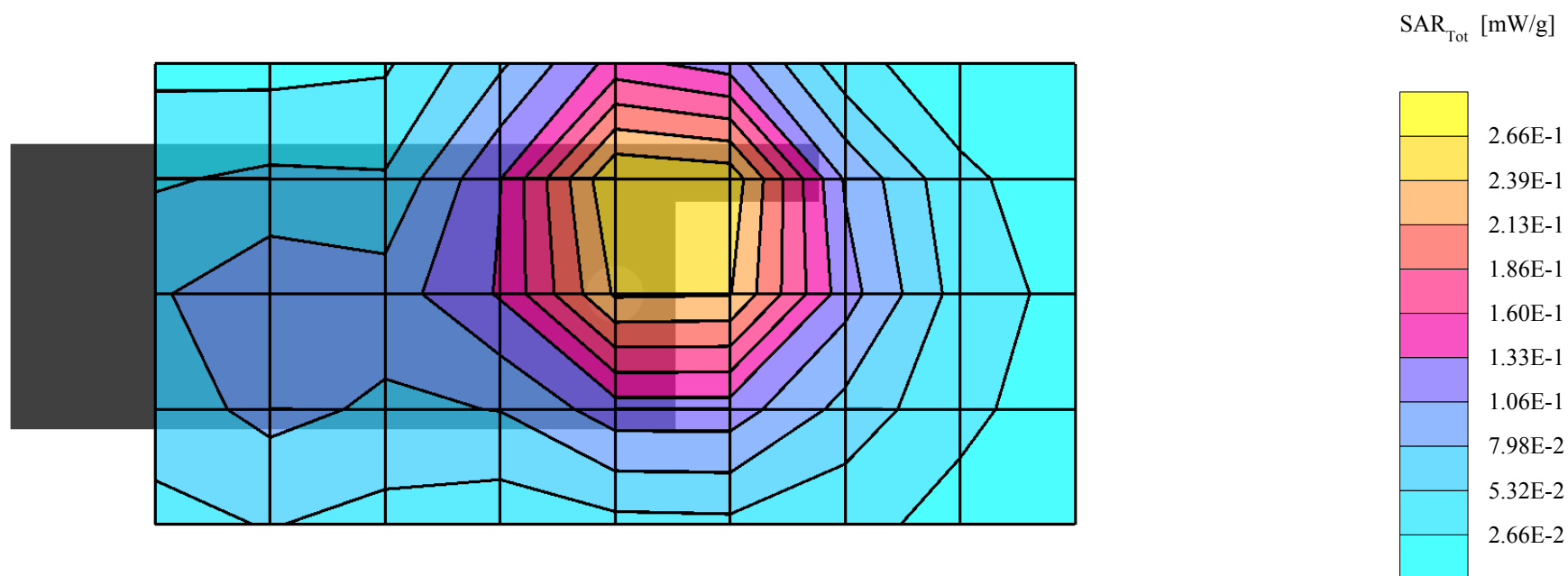
SAM Phantom; Flat Section; Position: (90°,90°); Frequency: 1900 MHz

Probe: ET3DV6 - SN1663; ConvF(4.80,4.80,4.80); Crest factor: 1.0; Muscle 1900 MHz: $\sigma = 1.53$ mho/m $\epsilon_r = 53.6$ $\rho = 1.00$ g/cm³

Cube 7x7x7: SAR (1g): 0.279 mW/g, SAR (10g): 0.173 mW/g, (Worst-case extrapolation)

Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0

Powerdrift: 0.12 dB



| | | |
|-----------------------------------|--------------------------|--------------------------|
| Company Kyocera Wireless Corp. | Document No. | |
| KWC-3225 SAR REPORT | Issue No: | Date Oct. 2002 |
| FCC ID OVFKWC-3225 | Page Number 23 | |

APPENDIX B: SAR DISTRIBUTION PRINTOUT

| | | |
|--|--------------------------|--------------------------|
| Company Kyocera Wireless Corp. | Document No. | |
| KWC-3225 SAR REPORT | Issue No: | Date Oct. 2002 |
| FCC ID OVFKWC-3225 | Page Number 24 | |

APPENDIX C: PROBE CALIBRATION CERTIFICATE

| | | |
|--|--------------------------|--------------------------|
| Company Kyocera Wireless Corp. | Document No. | |
| KWC-3225 SAR REPORT | Issue No: | Date Oct. 2002 |
| FCC ID OVFKWC-3225 | Page Number 24 | |

APPENDIX C: PROBE CALIBRATION CERTIFICATE

Schmid & Partner Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland, Phone +41 1 245 97 00, Fax +41 1 245 97 79

Calibration Certificate

Dosimetric E-Field Probe

Type:

ET3DV6

Serial Number:

1663

Place of Calibration:

Zurich

Date of Calibration:

February 21, 2002

Calibration Interval:

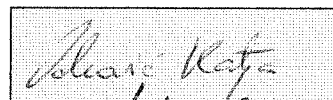
12 months

asset#
039933

Schmid & Partner Engineering AG hereby certifies, that this device has been calibrated on the date indicated above. The calibration was performed in accordance with specifications and procedures of Schmid & Partner Engineering AG.

Wherever applicable, the standards used in the calibration process are traceable to international standards. In all other cases the standards of the Laboratory for EMF and Microwave Electronics at the Swiss Federal Institute of Technology (ETH) in Zurich, Switzerland have been applied.

Calibrated by:



Approved by:



Probe ET3DV6

SN:1663

| | |
|-------------------|-------------------|
| Manufactured: | February 8, 2002 |
| Last calibration: | February 21, 2002 |

Calibrated for System DASY3

DASY3 - Parameters of Probe: ET3DV6 SN:1663

Sensitivity in Free Space

| | |
|-------|---|
| NormX | 1.84 $\mu\text{V}/(\text{V}/\text{m})^2$ |
| NormY | 1.83 $\mu\text{V}/(\text{V}/\text{m})^2$ |
| NormZ | 1.64 $\mu\text{V}/(\text{V}/\text{m})^2$ |

Diode Compression

| | | |
|-------|------------|----|
| DCP X | 100 | mV |
| DCP Y | 100 | mV |
| DCP Z | 100 | mV |

Sensitivity in Tissue Simulating Liquid

| | | | |
|---------|------------------------------|-----------------------------|-------------------------------|
| Head | 900 MHz | $\epsilon_r = 41.5 \pm 5\%$ | $\sigma = 0.97 \pm 5\%$ mho/m |
| Head | 835 MHz | $\epsilon_r = 41.5 \pm 5\%$ | $\sigma = 0.90 \pm 5\%$ mho/m |
| ConvF X | 6.7 $\pm 9.5\%$ (k=2) | | Boundary effect: |
| ConvF Y | 6.7 $\pm 9.5\%$ (k=2) | | Alpha 0.34 |
| ConvF Z | 6.7 $\pm 9.5\%$ (k=2) | | Depth 2.52 |
| Head | 1800 MHz | $\epsilon_r = 40.0 \pm 5\%$ | $\sigma = 1.40 \pm 5\%$ mho/m |
| Head | 1900 MHz | $\epsilon_r = 40.0 \pm 5\%$ | $\sigma = 1.40 \pm 5\%$ mho/m |
| ConvF X | 5.3 $\pm 9.5\%$ (k=2) | | Boundary effect: |
| ConvF Y | 5.3 $\pm 9.5\%$ (k=2) | | Alpha 0.48 |
| ConvF Z | 5.3 $\pm 9.5\%$ (k=2) | | Depth 2.34 |

Boundary Effect

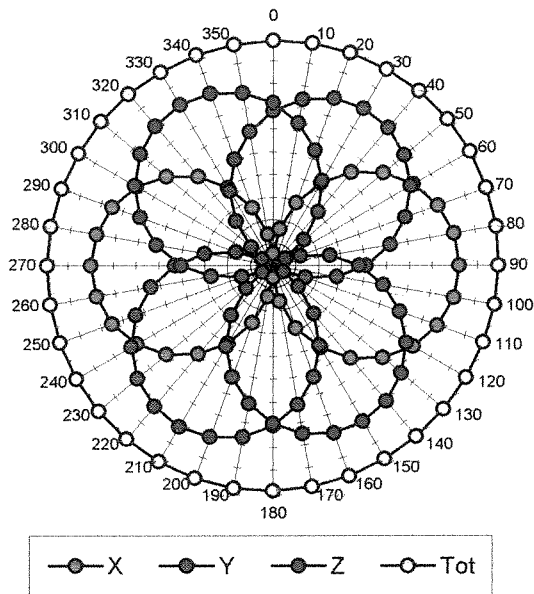
| | | | |
|------|--|--|-------------|
| Head | 900 MHz | Typical SAR gradient: 5 % per mm | |
| | Probe Tip to Boundary | 1 mm | 2 mm |
| | SAR _{be} [%] Without Correction Algorithm | 8.8 | 5.0 |
| | SAR _{be} [%] With Correction Algorithm | 0.3 | 0.5 |
| Head | 1800 MHz | Typical SAR gradient: 10 % per mm | |
| | Probe Tip to Boundary | 1 mm | 2 mm |
| | SAR _{be} [%] Without Correction Algorithm | 10.8 | 7.1 |
| | SAR _{be} [%] With Correction Algorithm | 0.1 | 0.3 |

Sensor Offset

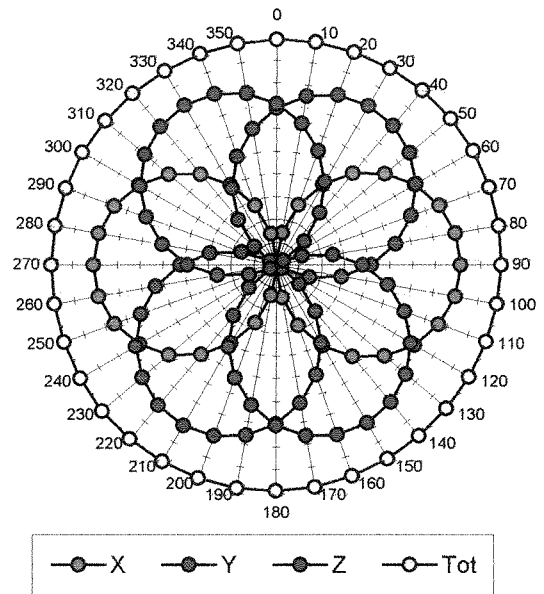
| | | |
|----------------------------|---------------------------------|----|
| Probe Tip to Sensor Center | 2.7 | mm |
| Optical Surface Detection | 1.0 \pm 0.2 | mm |

Receiving Pattern (ϕ), $\theta = 0^\circ$

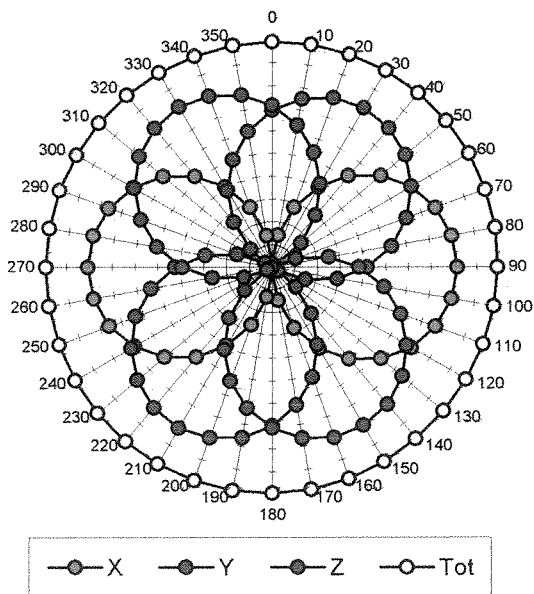
f = 30 MHz, TEM cell ifi110



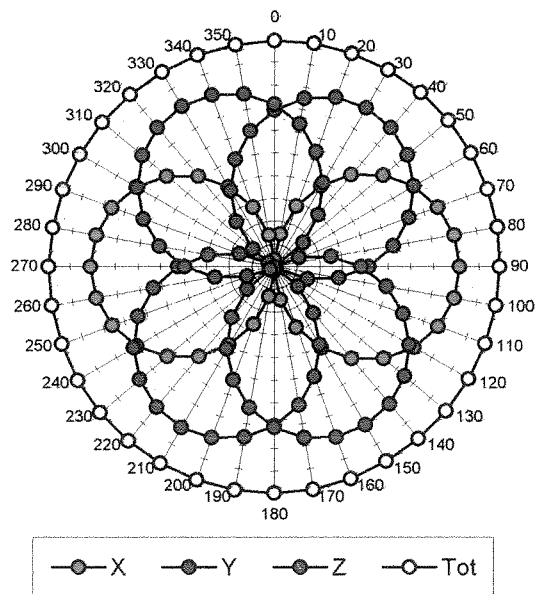
f = 100 MHz, TEM cell ifi110

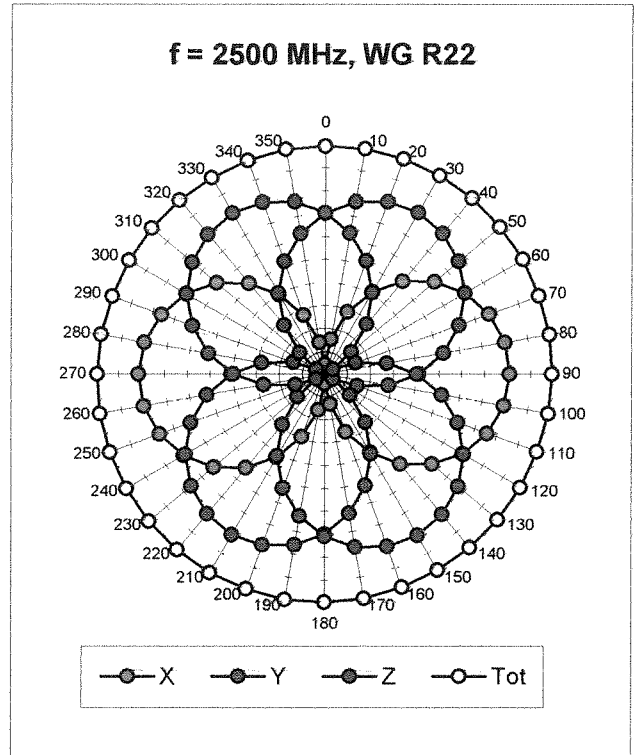
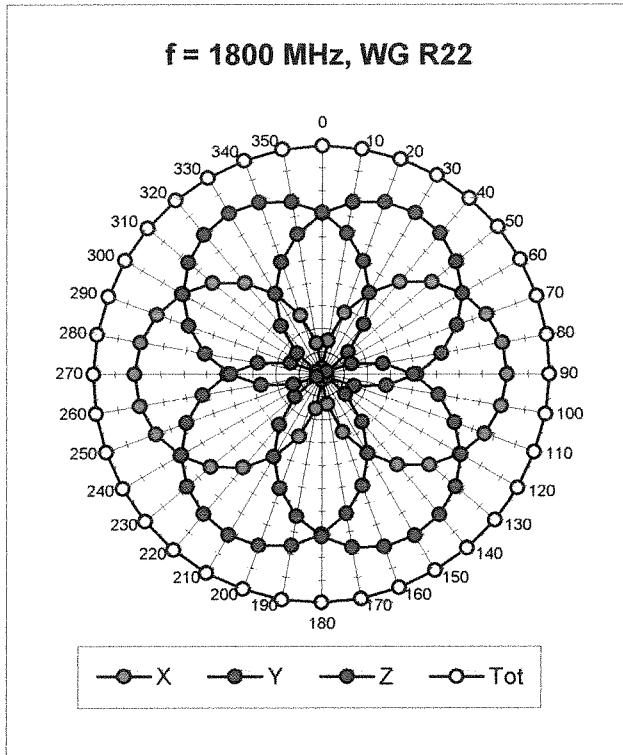


f = 300 MHz, TEM cell ifi110

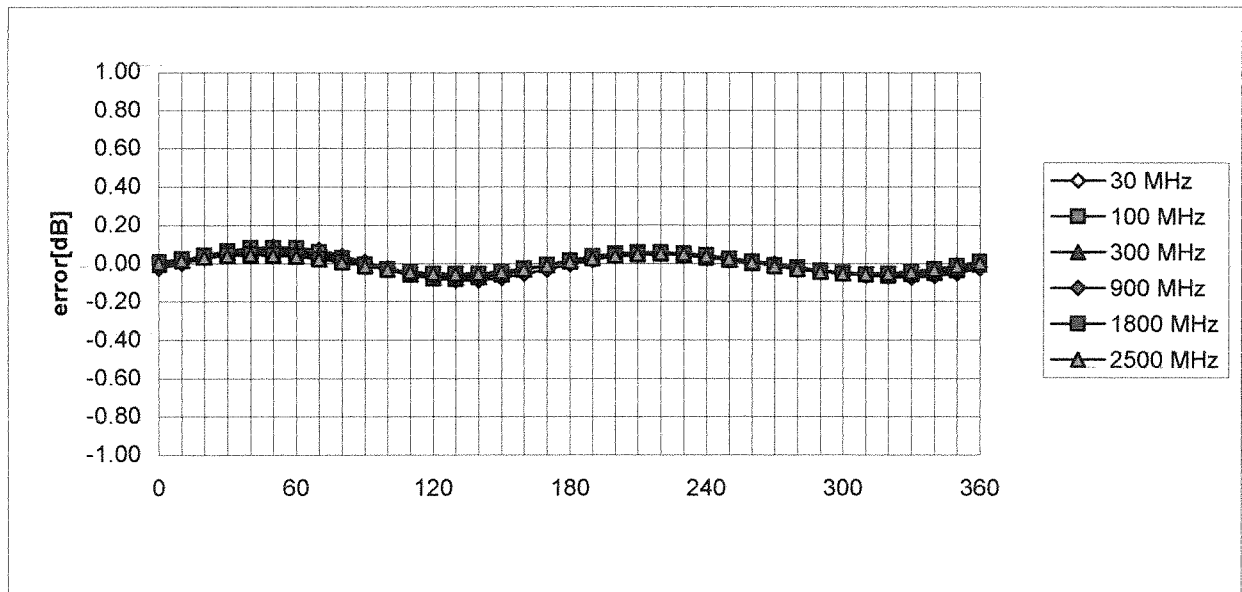


f = 900 MHz, TEM cell ifi110



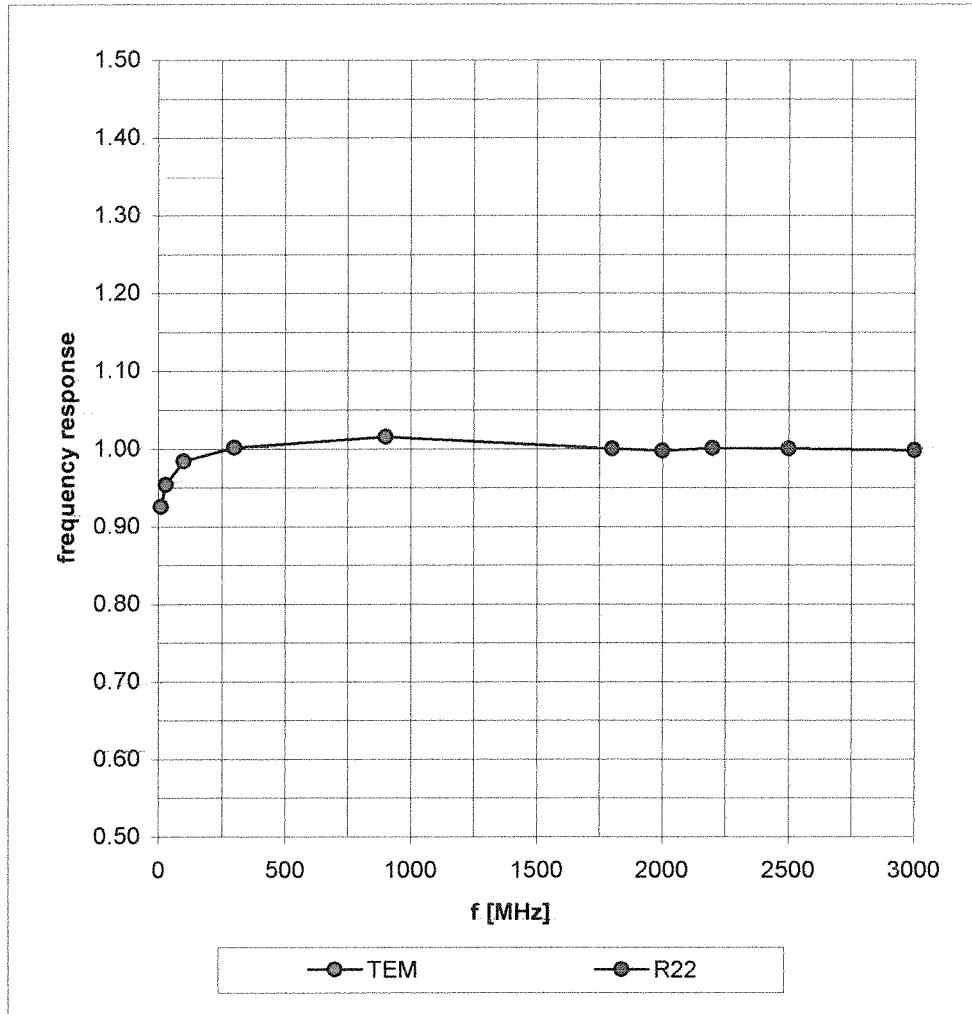


Isotropy Error (ϕ), $\theta = 0^\circ$

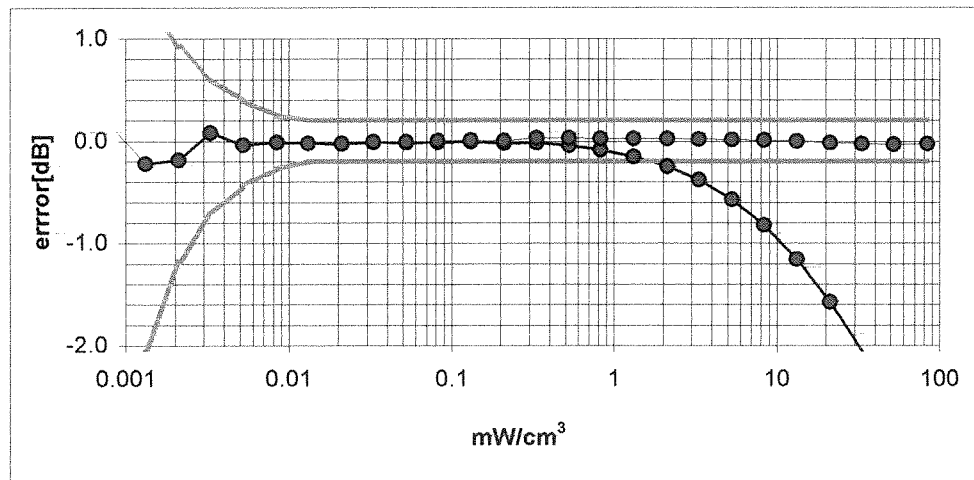
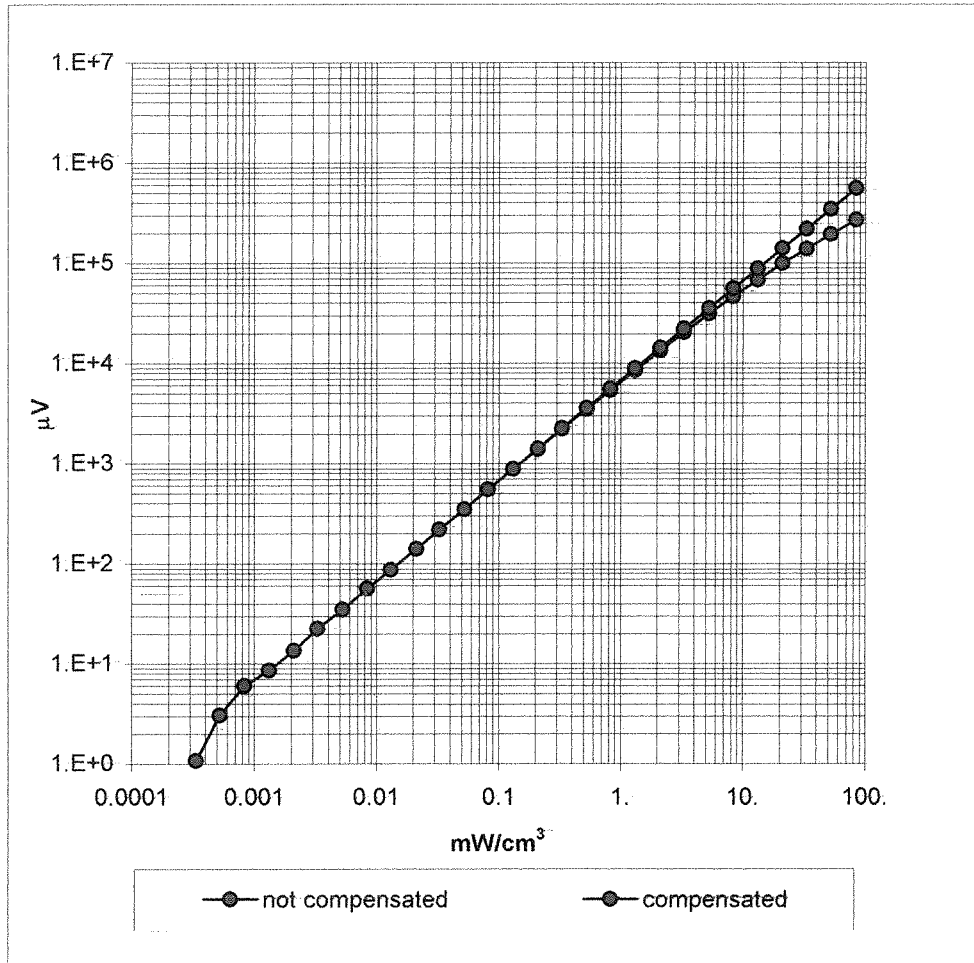


Frequency Response of E-Field

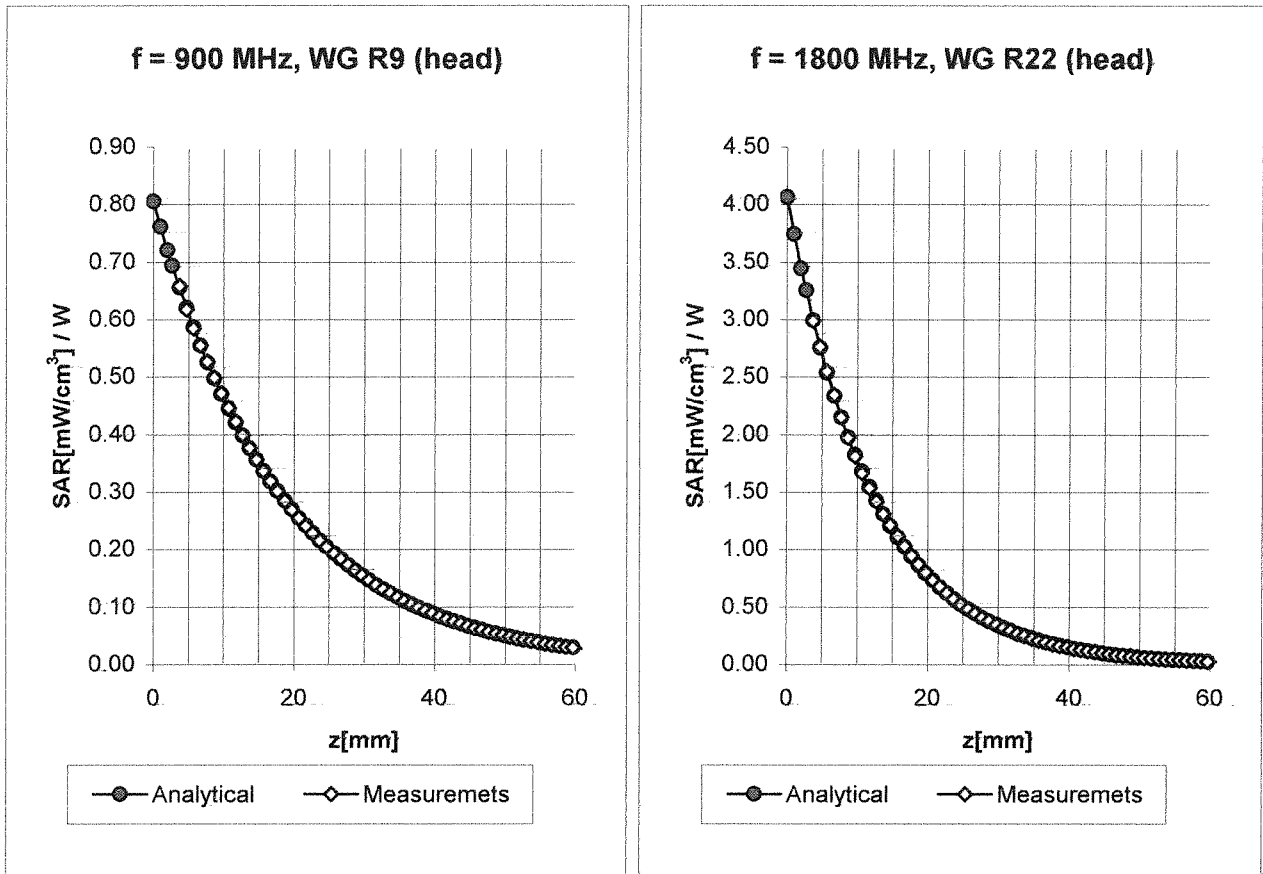
(TEM-Cell:ifi110, Waveguide R22)



Dynamic Range $f(\text{SAR}_{\text{brain}})$ (Waveguide R22)



Conversion Factor Assessment



| | | | |
|------|----------|------------------------------|-------------------------------|
| Head | 900 MHz | $\epsilon_r = 41.5 \pm 5\%$ | $\sigma = 0.97 \pm 5\%$ mho/m |
| Head | 835 MHz | $\epsilon_r = 41.5 \pm 5\%$ | $\sigma = 0.90 \pm 5\%$ mho/m |
| | ConvF X | 6.7 $\pm 9.5\%$ (k=2) | Boundary effect: |
| | ConvF Y | 6.7 $\pm 9.5\%$ (k=2) | Alpha 0.34 |
| | ConvF Z | 6.7 $\pm 9.5\%$ (k=2) | Depth 2.52 |
| Head | 1800 MHz | $\epsilon_r = 40.0 \pm 5\%$ | $\sigma = 1.40 \pm 5\%$ mho/m |
| Head | 1900 MHz | $\epsilon_r = 40.0 \pm 5\%$ | $\sigma = 1.40 \pm 5\%$ mho/m |
| | ConvF X | 5.3 $\pm 9.5\%$ (k=2) | Boundary effect: |
| | ConvF Y | 5.3 $\pm 9.5\%$ (k=2) | Alpha 0.48 |
| | ConvF Z | 5.3 $\pm 9.5\%$ (k=2) | Depth 2.34 |

Schmid & Partner Engineering AG

#039933

Zeughausstrasse 43, 8004 Zurich, Switzerland, Phone +41 1 245 97 00, Fax +41 1 245 97 79

Lin Lu / Jeff Fulghum
Kyocera Wireless
10300 Campus Point Drive
San Diego, CA 92121
U S A

Zurich, August 21st, 2002

Re: Additional Conversion Factors for Dosimetric E-Field Probe

Dear Lin,

Attached please find the additional conversion factors for your dosimetric E-field probe SN:1663 (based on our offer #1494). Should you have any additional questions, please do not hesitate to contact us. We are always honoured to offer our products and services to Kyocera Wireless.

Best regards,


Katja Pokovic

Encl.

Schmid & Partner Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland, Phone +41 1 245 97 00, Fax +41 1 245 97 79

Additional Conversion Factors for Dosimetric E-Field Probe

Type:

ET3DV6

Serial Number:

1663

Place of Assessment:

Zurich

Date of Assessment:

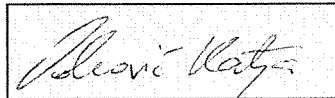
August 21, 2002

Probe Calibration Date:

February 21, 2002

Schmid & Partner Engineering AG hereby certifies that conversion factor(s) of this probe have been evaluated on the date indicated above. The assessment was performed using the FDTD numerical code SEMCAD of Schmid & Partner Engineering AG. Since the evaluation is coupled with measured conversion factors, it has to be recalculated yearly, i.e., following the re-calibration schedule of the probe. The uncertainty of the numerical assessment is based on the extrapolation from measured value at 900 MHz or at 1800 MHz.

Assessed by:



Dosimetric E-Field Probe ET3DV6 SN:1663

Conversion factor (\pm standard deviation)

835 MHz ConvF $6.5 \pm 8\%$

$\epsilon_r = 55.2 \pm 5\%$
 $\sigma = 0.97 \pm 5\% \text{ mho/m}$
(body tissue)

1900 MHz ConvF $4.8 \pm 8\%$

$\epsilon_r = 53.3 \pm 5\%$
 $\sigma = 1.52 \pm 5\% \text{ mho/m}$
(body tissue)