

M/A-COM, Inc., Model No: P800  
FCC ID: BV8P800

Date of Test: June 15, 2002

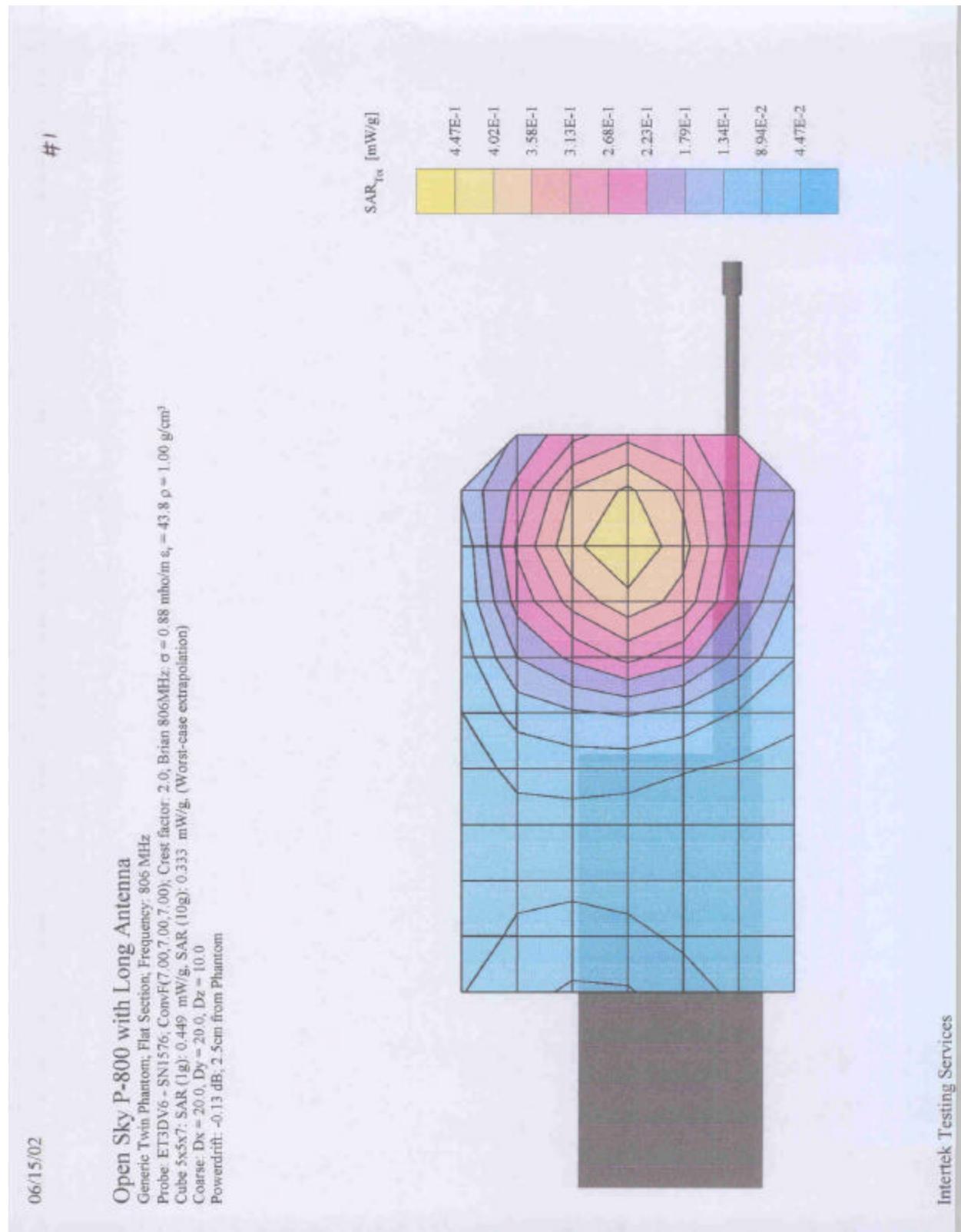
#### **APPENDIX A - SAR Evaluation Data**

Please note that the graphical visualization of the phone position onto the SAR distribution gives only limited information on the current distribution of the device, since the curvature of the head results in graphical distortion. Full information can only be obtained either by H-field scans in free space or SAR evaluation with a flat phantom.

**Powerdrift** is the measurement of power drift of the device over one complete SAR scan.

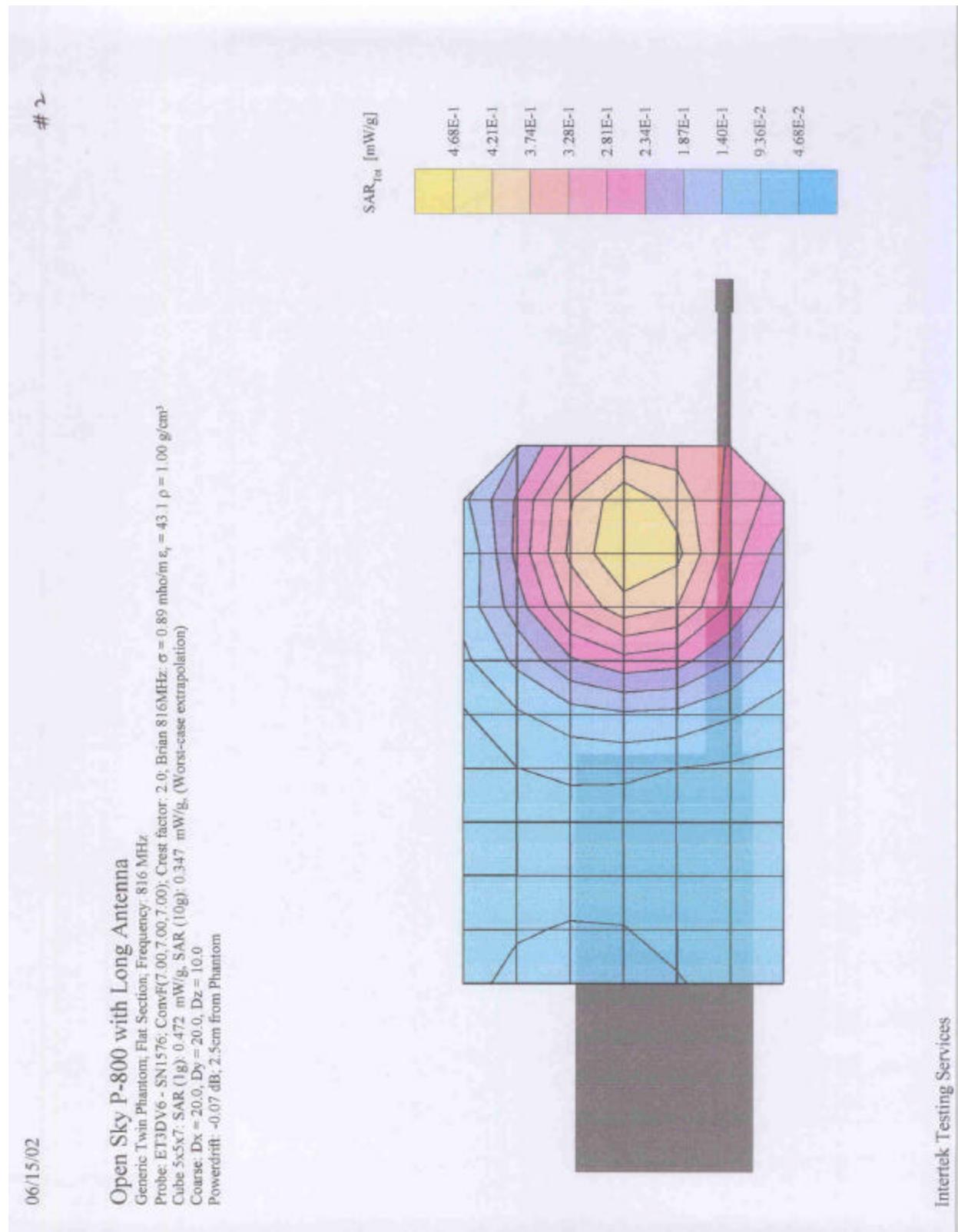
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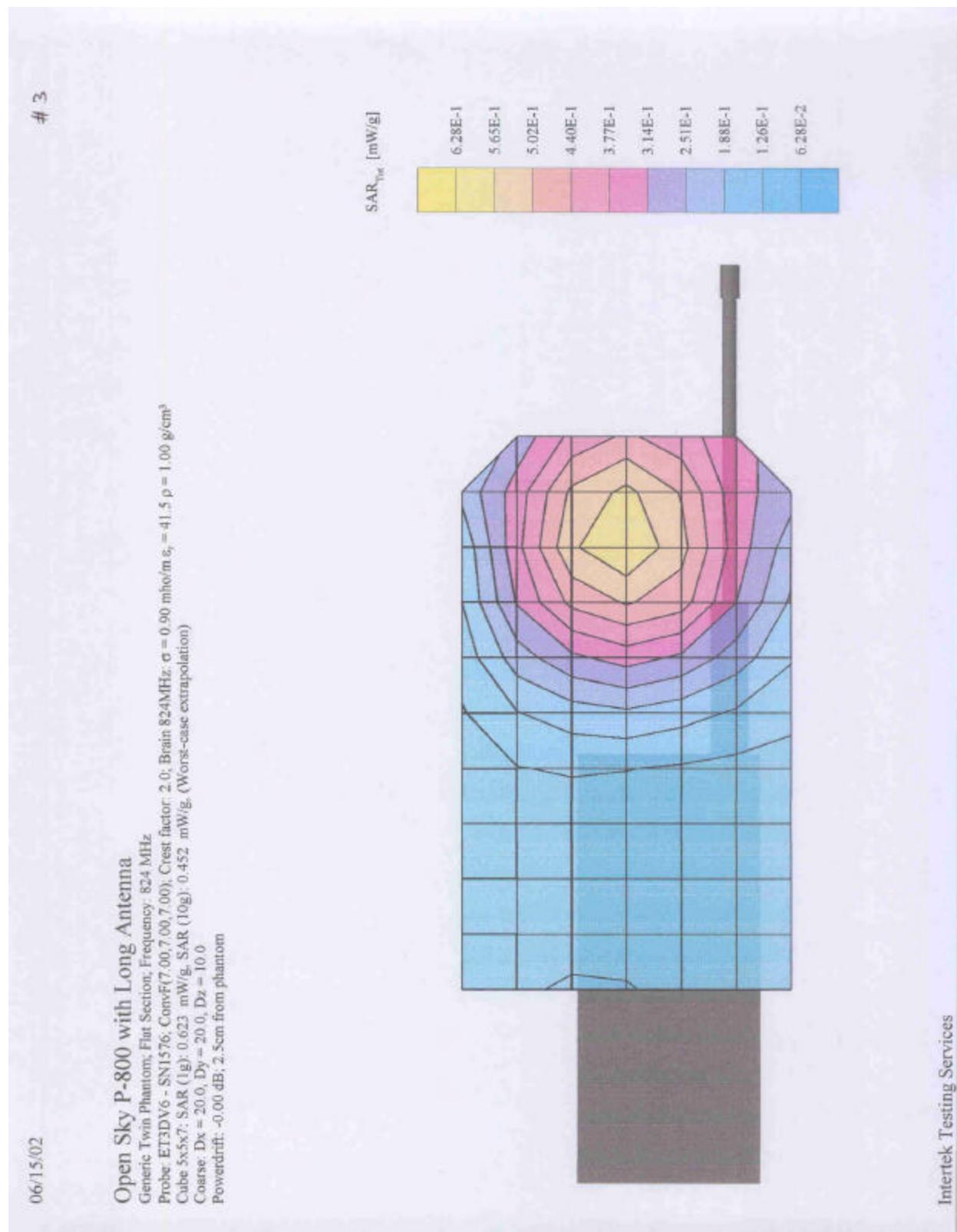
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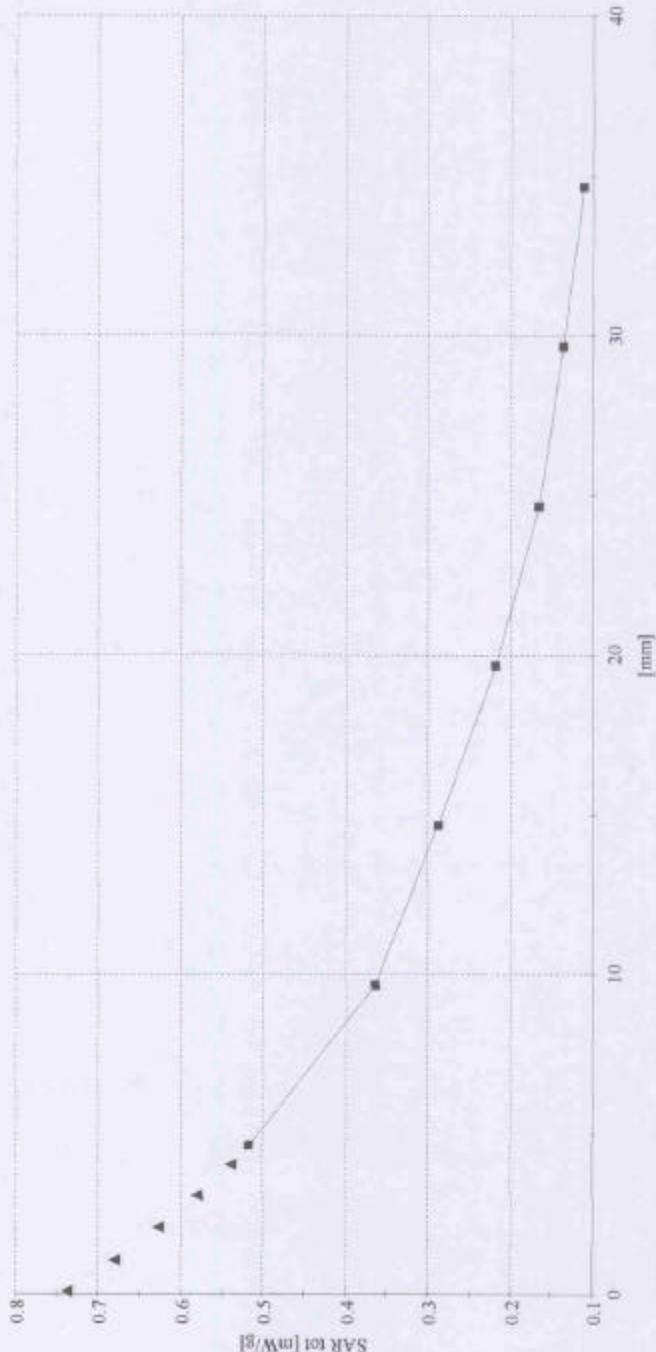
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06/15/02

#### Open Sky P-800 with Long Antenna

Generic Twin Phantom, Flat Section, Frequency: 824 MHz  
Probe: E13DV6 - SN1576, Conv/F(7.00,7.00,7.00), Crest factor: 2.0, Brain 824MHz:  $\alpha = 0.90$  mho/m  $\rho_s = 41.5$   $\rho = 1.00$  g/cm<sup>3</sup>

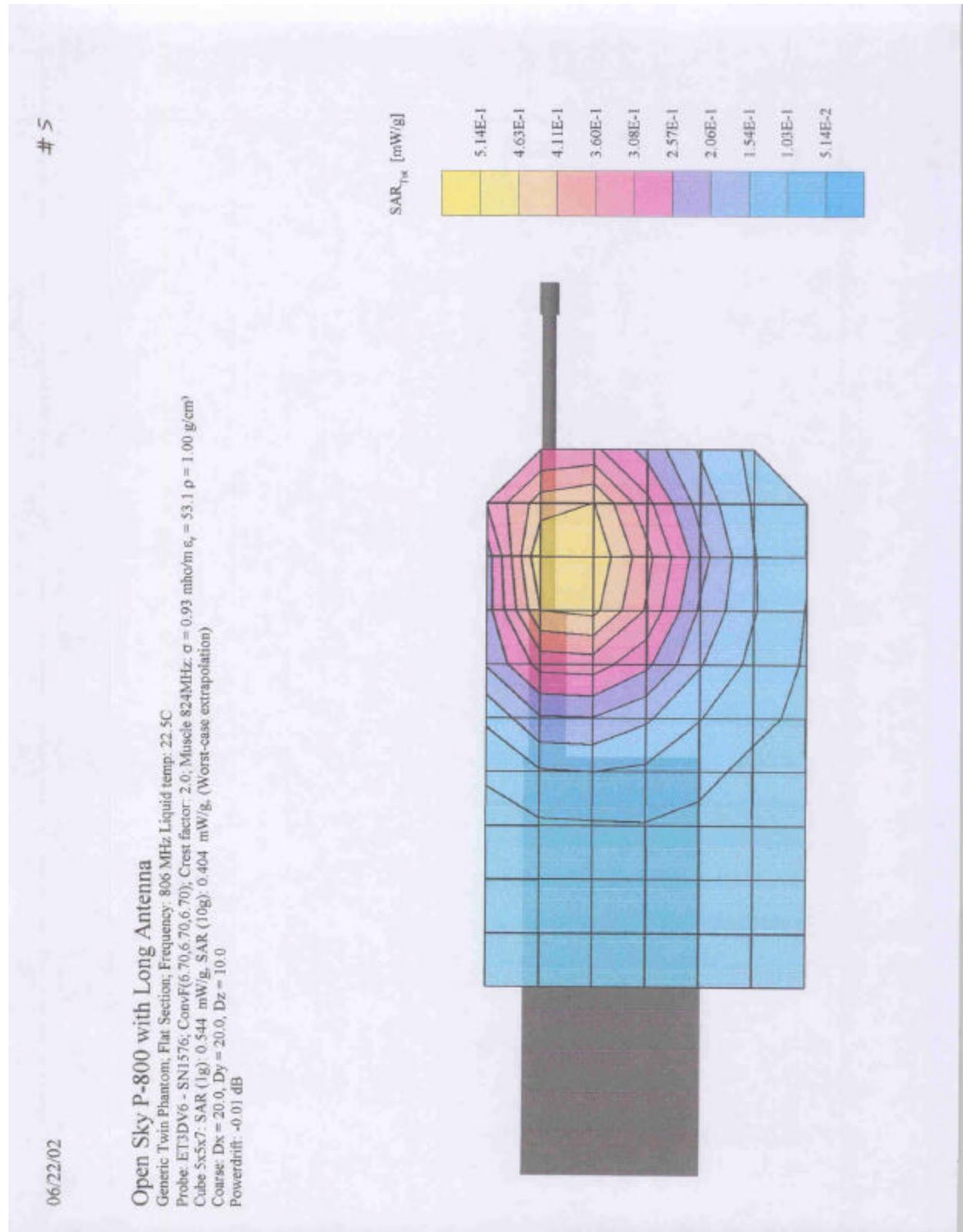
Probe: E13DV6 - SN1576, Conv/F(7.00,7.00,7.00), Crest factor: 2.0, Brain 824MHz:  $\alpha = 0.90$  mho/m  $\rho_s = 41.5$   $\rho = 1.00$  g/cm<sup>3</sup>  
Cube 5x5x7: SAR (1g): 0.623 mW/g, SAR (10g): 0.452 mW/g, (Worst-case extrapolation)  
Cube 5x5x7: D<sub>x</sub> = 8.0, D<sub>y</sub> = 8.0, D<sub>z</sub> = 5.0



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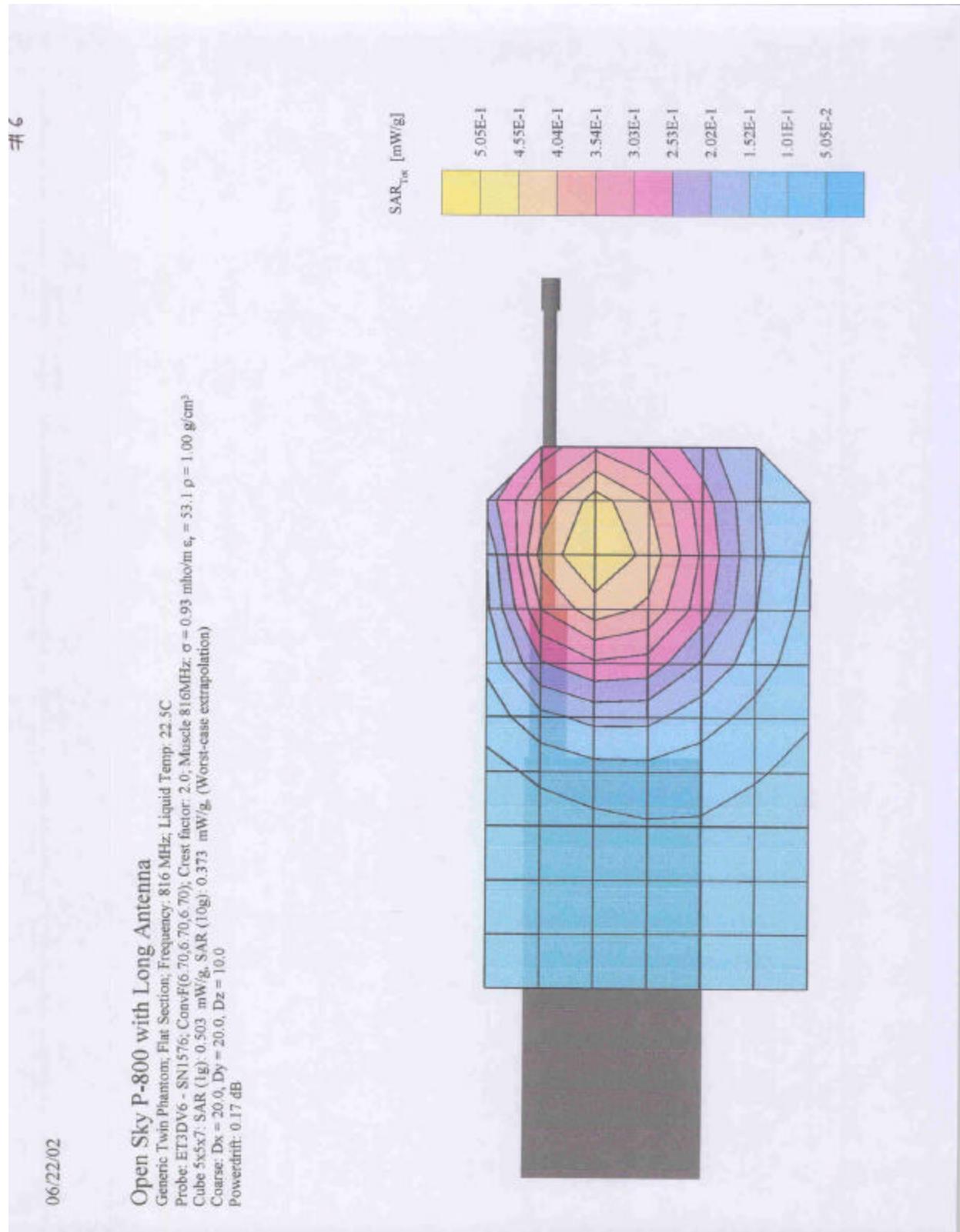
#5



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#6

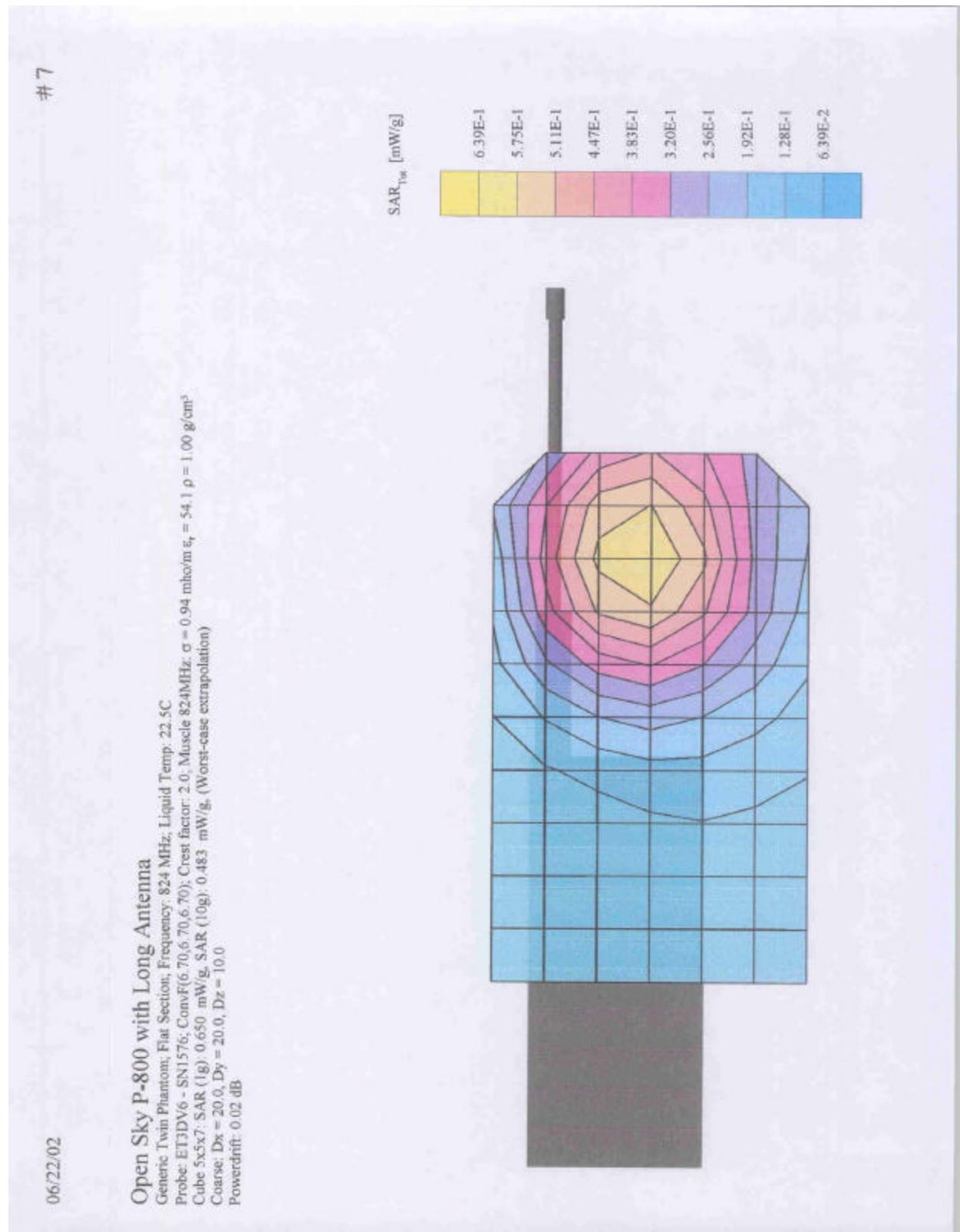


06/22/02

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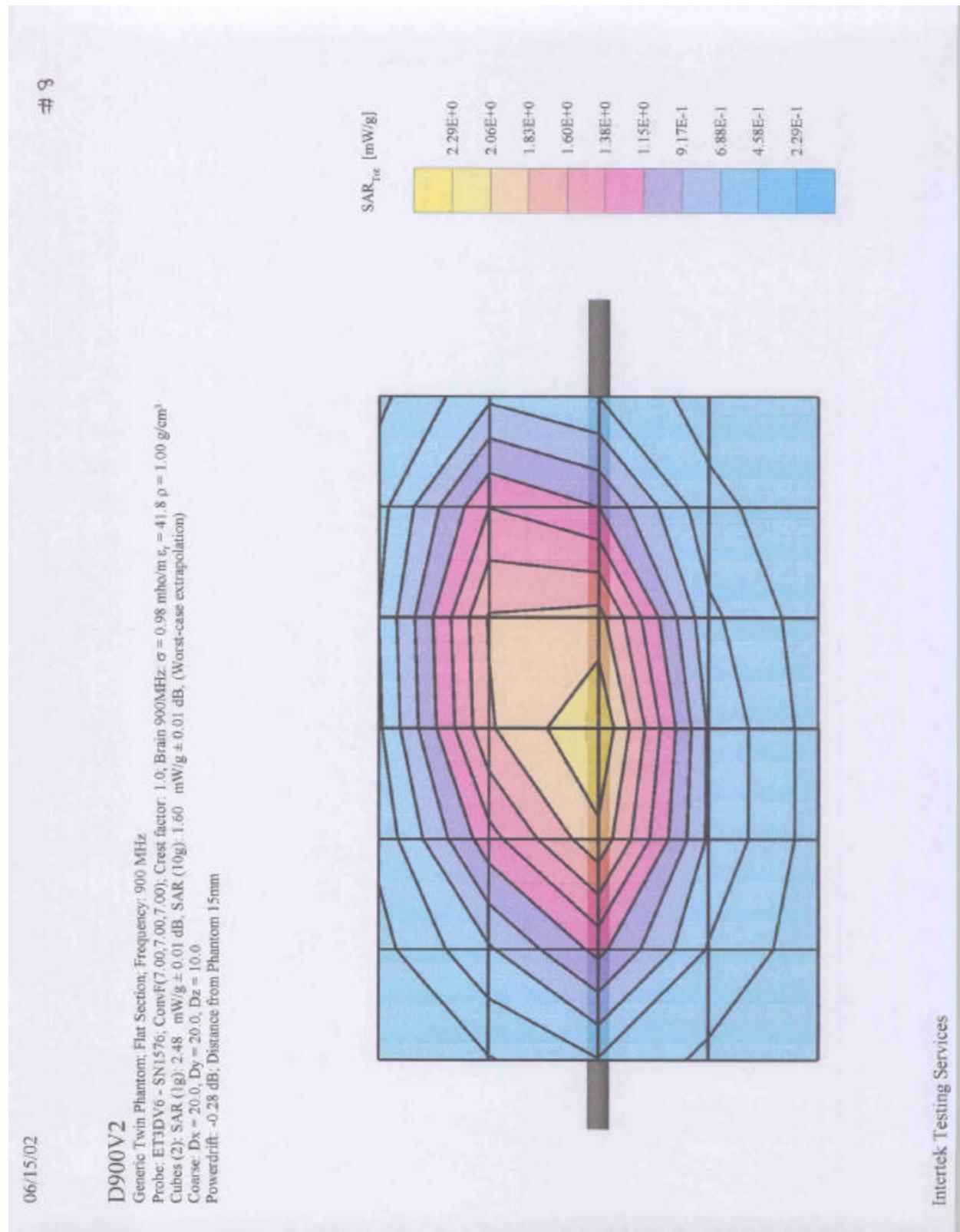
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**APPENDIX B - E-Field Probe Calibration Data**

See attached.

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Date of Test: June 15, 2002

**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:

**1576**

Place of Calibration:

**Zurich**

Date of Calibration:

**February 27, 2002**

Calibration Interval:

**12 months**

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:

*Ulrich Kötter*

Approved by:

*N. Vels*

M/A-COM, Inc., Model No: P800  
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**Schmid & Partner  
Engineering AG**

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

# Probe ET3DV6

**SN:1576**

Manufactured:	April 6, 2001
Last calibration:	April 20, 2001
Recalibrated:	February 27, 2002

Calibrated for System DASY3

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ET3DV6 SN:1576

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## DASY3 - Parameters of Probe: ET3DV6 SN:1576

## Sensitivity in Free Space

NormX	1.77 $\mu\text{V}/(\text{V}/\text{m})^2$
NormY	1.81 $\mu\text{V}/(\text{V}/\text{m})^2$
NormZ	1.76 $\mu\text{V}/(\text{V}/\text{m})^2$

## Diode Compression

DCP X	98	mV
DCP Y	98	mV
DCP Z	98	mV

## Sensitivity in Tissue Simulating Liquid

Head	900 MHz	$\sigma_r = 41.5 \pm 5\%$	$\sigma = 0.97 \pm 5\% \text{ mho/m}$
Head	835 MHz	$\sigma_r = 41.5 \pm 5\%$	$\sigma = 0.90 \pm 5\% \text{ mho/m}$
ConvF X	7.0 $\pm 9.5\% (\text{k}=2)$	Boundary effect:	
ConvF Y	7.0 $\pm 9.5\% (\text{k}=2)$	Alpha	0.30
ConvF Z	7.0 $\pm 9.5\% (\text{k}=2)$	Depth	2.51
Head	1800 MHz	$\sigma_r = 40.0 \pm 5\%$	$\sigma = 1.40 \pm 5\% \text{ mho/m}$
Head	1900 MHz	$\sigma_r = 40.0 \pm 5\%$	$\sigma = 1.40 \pm 5\% \text{ mho/m}$
ConvF X	5.4 $\pm 9.5\% (\text{k}=2)$	Boundary effect:	
ConvF Y	5.4 $\pm 9.5\% (\text{k}=2)$	Alpha	0.45
ConvF Z	5.4 $\pm 9.5\% (\text{k}=2)$	Depth	2.30

## Boundary Effect

## Head 900 MHz Typical SAR gradient: 5 % per mm

Probe Tip to Boundary	1 mm	2 mm
SAR <sub>be</sub> [%] Without Correction Algorithm	7.6	4.3
SAR <sub>be</sub> [%] 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 <sub>be</sub> [%] Without Correction Algorithm	9.7	6.6
SAR <sub>be</sub> [%] With Correction Algorithm	0.2	0.3

## Sensor Offset

Probe Tip to Sensor Center	2.7	mm
Optical Surface Detection	1.9 $\pm 0.2$	mm

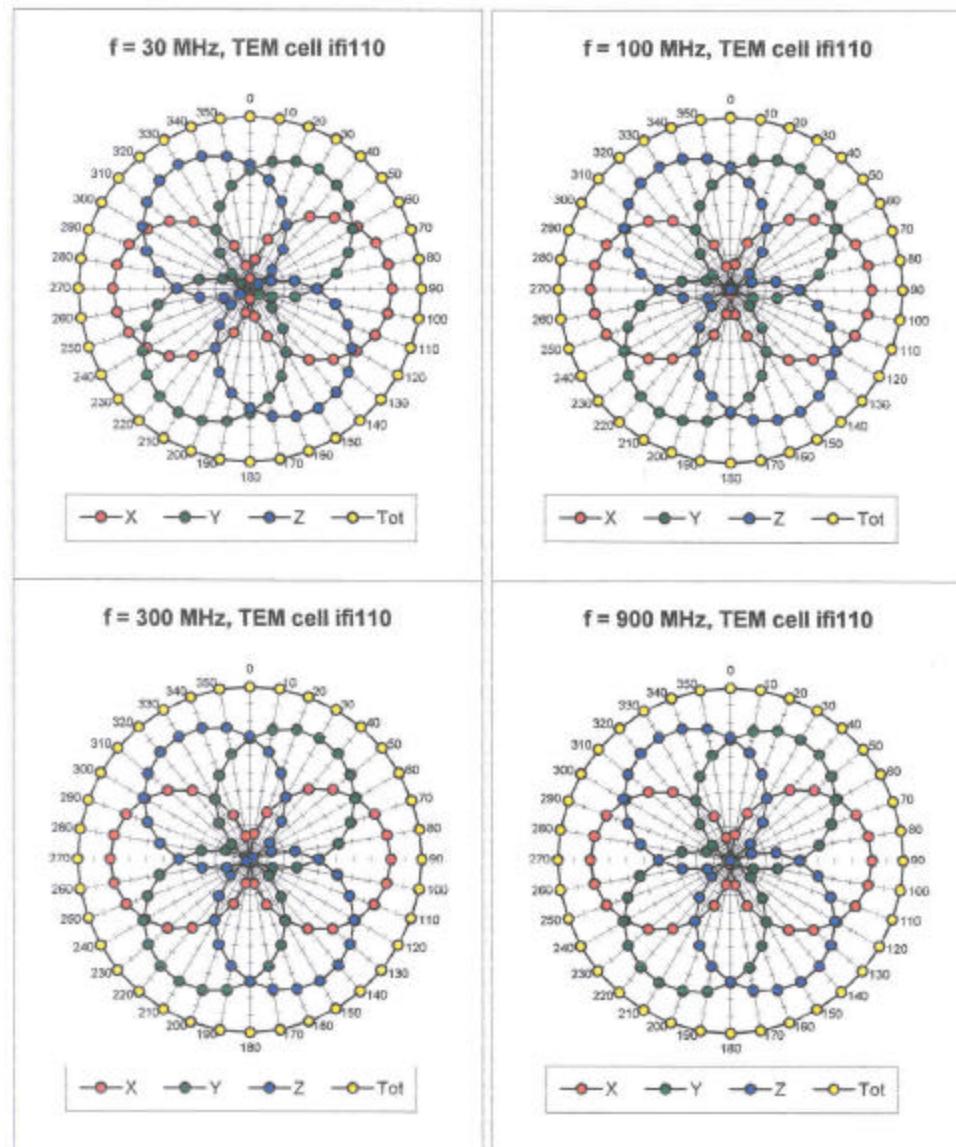
M/A-COM, Inc., Model No: P800  
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### Receiving Pattern ( $\phi$ ), $\theta = 0^\circ$

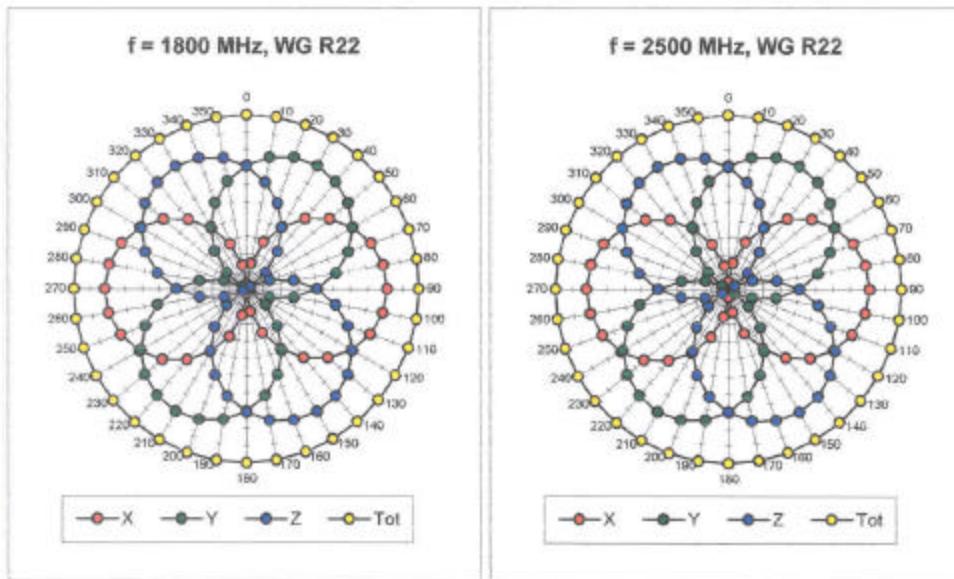


M/A-COM, Inc., Model No: P800  
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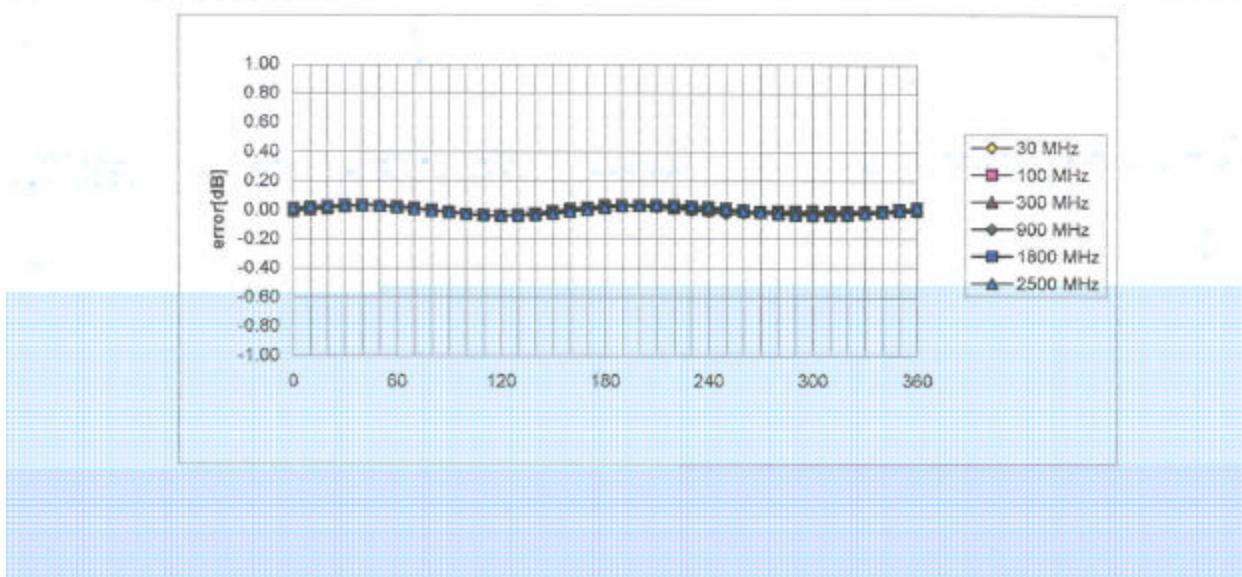
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### Isotropy Error ( $\phi$ ), $\theta = 0^\circ$



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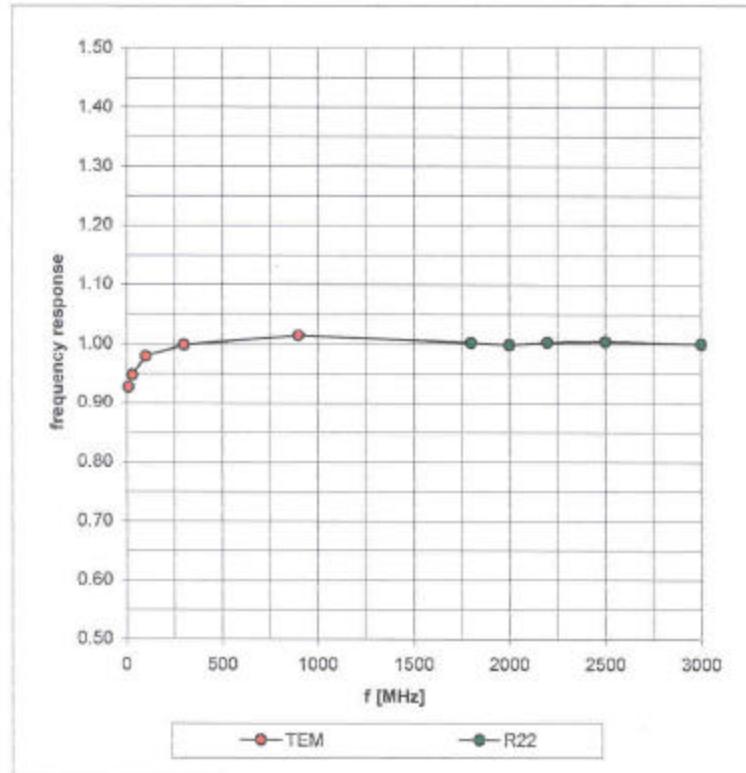
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### Frequency Response of E-Field

( TEM-Cell:ifi110, Waveguide R22)



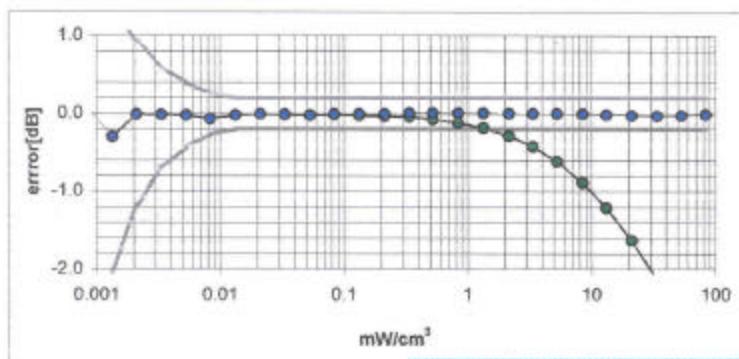
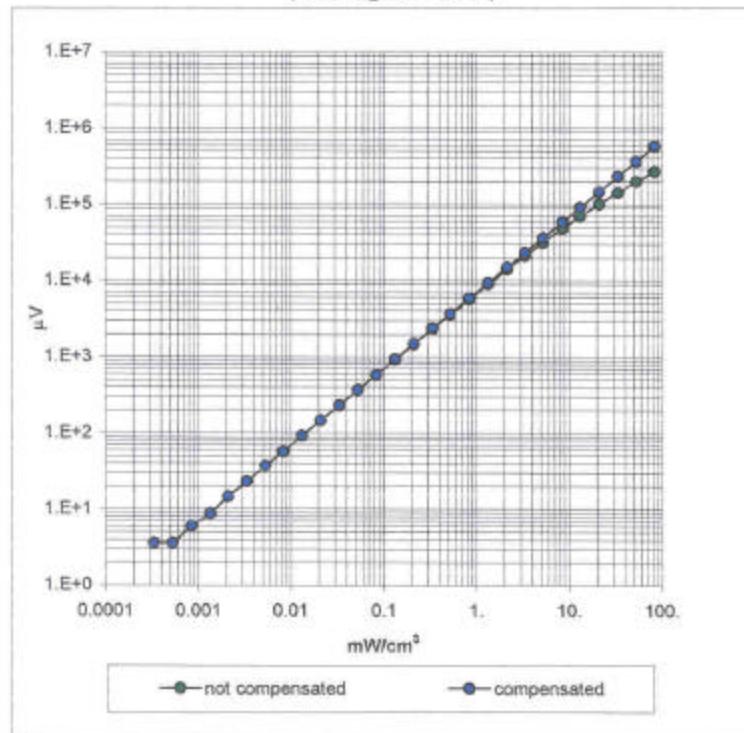
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**Dynamic Range  $f(\text{SAR}_{\text{brain}})$**   
( Waveguide R22 )



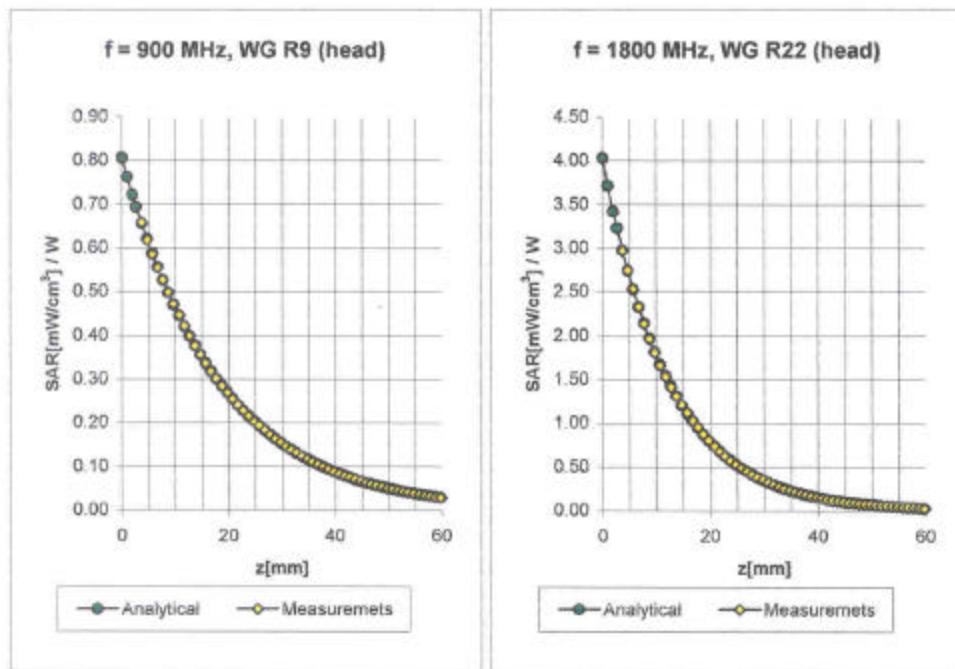
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## Conversion Factor Assessment



Head	900 MHz	$\epsilon_r = 41.5 \pm 5\%$	$\sigma = 0.97 \pm 5\% \text{ mho/m}$
Head	835 MHz	$\epsilon_r = 41.5 \pm 5\%$	$\sigma = 0.90 \pm 5\% \text{ mho/m}$
ConvF X	7.0 $\pm 9.5\%$ (k=2)		Boundary effect:
ConvF Y	7.0 $\pm 9.5\%$ (k=2)		Alpha <b>0.30</b>
ConvF Z	7.0 $\pm 9.5\%$ (k=2)		Depth <b>2.51</b>

Head	1800 MHz	$\epsilon_r = 40.0 \pm 5\%$	$\sigma = 1.40 \pm 5\% \text{ mho/m}$
Head	1900 MHz	$\epsilon_r = 40.0 \pm 5\%$	$\sigma = 1.40 \pm 5\% \text{ mho/m}$
ConvF X	5.4 $\pm 9.5\%$ (k=2)		Boundary effect:
ConvF Y	5.4 $\pm 9.5\%$ (k=2)		Alpha <b>0.45</b>
ConvF Z	5.4 $\pm 9.5\%$ (k=2)		Depth <b>2.30</b>

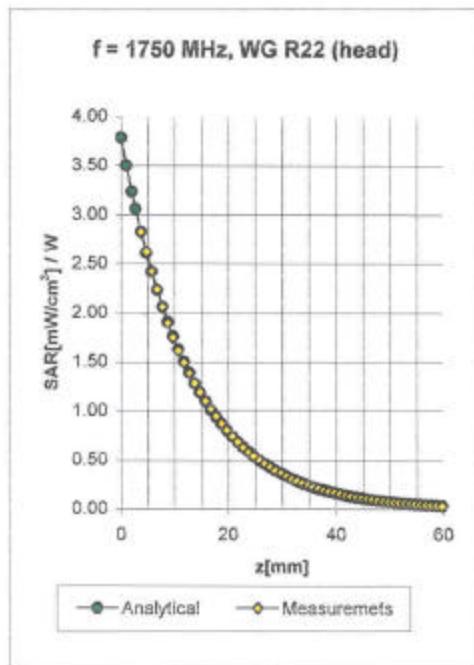
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## Conversion Factor Assessment



Head                    1750 MHz                     $\epsilon_r = 40.0 \pm 5\%$                      $\sigma = 1.40 \pm 5\% \text{ mho/m}$

ConvF X	$5.4 \pm 8.9\% \text{ (k=2)}$	Boundary effect:
ConvF Y	$5.4 \pm 8.9\% \text{ (k=2)}$	Alpha <b>0.45</b>
ConvF Z	$5.4 \pm 8.9\% \text{ (k=2)}$	Depth <b>2.27</b>

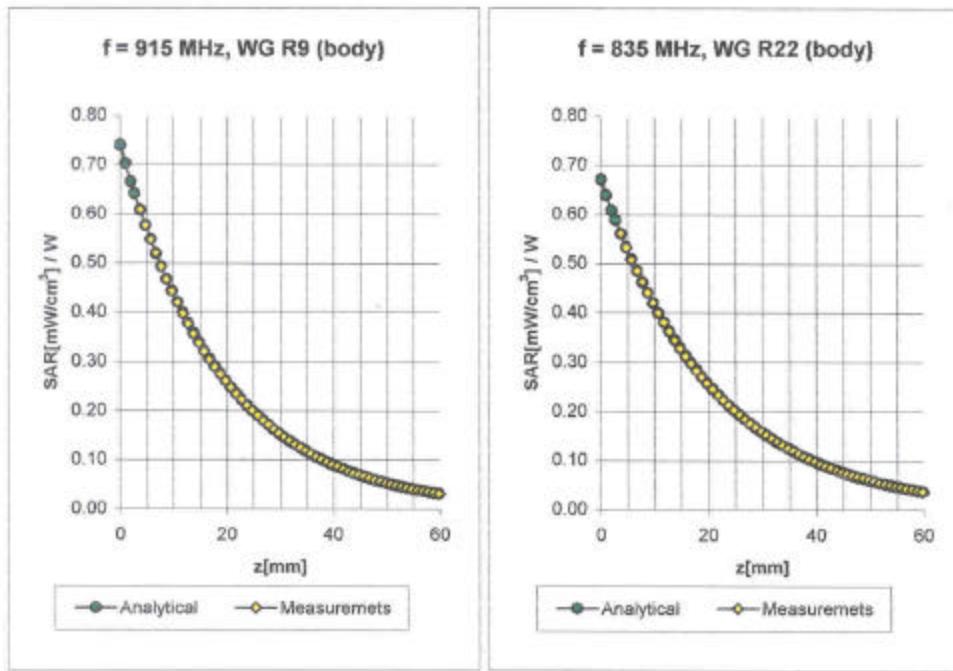
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## Conversion Factor Assessment



Body 915 MHz  $\epsilon_r = 55.0 \pm 5\%$   $\sigma = 1.06 \pm 5\% \text{ mho/m}$

ConvF X	<b>6.7</b> $\pm$ 8.9% (k=2)	Boundary effect:	
ConvF Y	<b>6.7</b> $\pm$ 8.9% (k=2)	Alpha	<b>0.45</b>
ConvF Z	<b>6.7</b> $\pm$ 8.9% (k=2)	Depth	<b>2.01</b>

Body 835 MHz  $\epsilon_r = 55.2 \pm 5\%$   $\sigma = 0.97 \pm 5\% \text{ mho/m}$

ConvF X	<b>6.7</b> $\pm$ 8.9% (k=2)	Boundary effect:	
ConvF Y	<b>6.7</b> $\pm$ 8.9% (k=2)	Alpha	<b>0.34</b>
ConvF Z	<b>6.7</b> $\pm$ 8.9% (k=2)	Depth	<b>2.37</b>

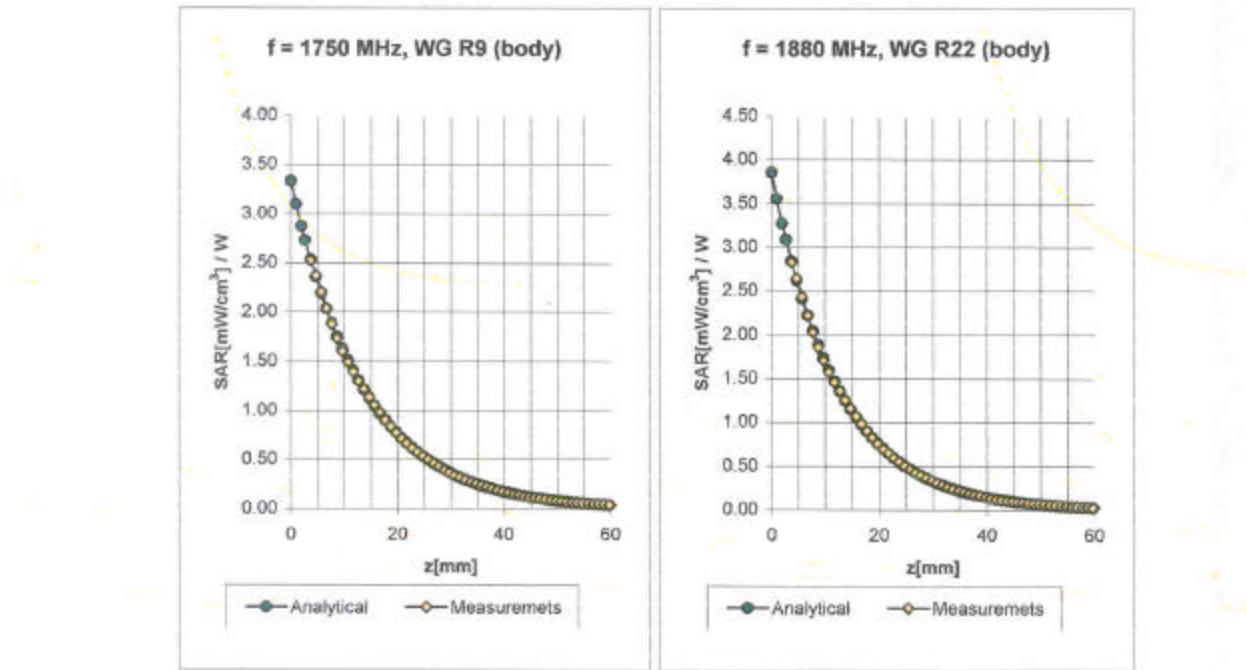
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## Conversion Factor Assessment



Body                    1750 MHz                     $\epsilon_r = 53.3 \pm 5\%$                      $\sigma = 1.52 \pm 5\% \text{ mho/m}$

ConvF X	$5.1 \pm 8.9\% \text{ (k=2)}$	Boundary effect:
ConvF Y	$5.1 \pm 8.9\% \text{ (k=2)}$	Alpha <b>0.51</b>
ConvF Z	$5.1 \pm 8.9\% \text{ (k=2)}$	Depth <b>2.31</b>

Body                    1880 MHz                     $\epsilon_r = 53.3 \pm 5\%$                      $\sigma = 1.52 \pm 5\% \text{ mho/m}$

ConvF X	$4.8 \pm 8.9\% \text{ (k=2)}$	Boundary effect:
ConvF Y	$4.8 \pm 8.9\% \text{ (k=2)}$	Alpha <b>0.63</b>
ConvF Z	$4.8 \pm 8.9\% \text{ (k=2)}$	Depth <b>2.10</b>

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### Deviation from Isotropy in HSL

Error ( $\theta, \phi$ ),  $f = 900$  MHz

