

Prepared (also subject responsible if other) EUS/CV/RF/P Dulce Altabella		No. EUS/CV/R-01:0701/REP	
Approved EUS/CV/RF/P Mark Douglas	Checked MGD	2001-6-28	A E:\FCC Submittals\FCC_413 carmen nicole\XHIBIT11\Source\tr413 sar rpt.doc

Appendix 5: Probe calibration parameters

ET3DV5 SN:1324

DASY3 - Parameters of Probe: ET3DV5 SN:1324

Sensitivity in Free Space

NormX **1.52** $\mu\text{V}/(\text{V}/\text{m})^2$
 NormY **1.75** $\mu\text{V}/(\text{V}/\text{m})^2$
 NormZ **1.54** $\mu\text{V}/(\text{V}/\text{m})^2$

Diode Compression

DCP X **104** mV
 DCP Y **104** mV
 DCP Z **104** mV

Sensitivity in Tissue Simulating Liquid

Brain **450 MHz** $\epsilon_r = 48 \pm 5\%$ $\sigma = 0.50 \pm 10\% \text{ mho/m}$

ConvF X **5.22** extrapolated
 ConvF Y **5.22** extrapolated
 ConvF Z **5.22** extrapolated
 Boundary effect:
 Alpha **0.90**
 Depth **1.33**

Brain **900 MHz** $\epsilon_r = 42.5 \pm 5\%$ $\sigma = 0.86 \pm 10\% \text{ mho/m}$

ConvF X **4.87** $\pm 7\%$ (k=2)
 ConvF Y **4.87** $\pm 7\%$ (k=2)
 ConvF Z **4.87** $\pm 7\%$ (k=2)
 Boundary effect:
 Alpha **0.82**
 Depth **1.56**

Brain **1500 MHz** $\epsilon_r = 41 \pm 5\%$ $\sigma = 1.32 \pm 10\% \text{ mho/m}$

ConvF X **4.40** interpolated
 ConvF Y **4.40** interpolated
 ConvF Z **4.40** interpolated
 Boundary effect:
 Alpha **0.72**
 Depth **1.88**

Brain **1800 MHz** $\epsilon_r = 41 \pm 5\%$ $\sigma = 1.69 \pm 10\% \text{ mho/m}$

ConvF X **4.17** $\pm 7\%$ (k=2)
 ConvF Y **4.17** $\pm 7\%$ (k=2)
 ConvF Z **4.17** $\pm 7\%$ (k=2)
 Boundary effect:
 Alpha **0.67**
 Depth **2.04**

Sensor Offset

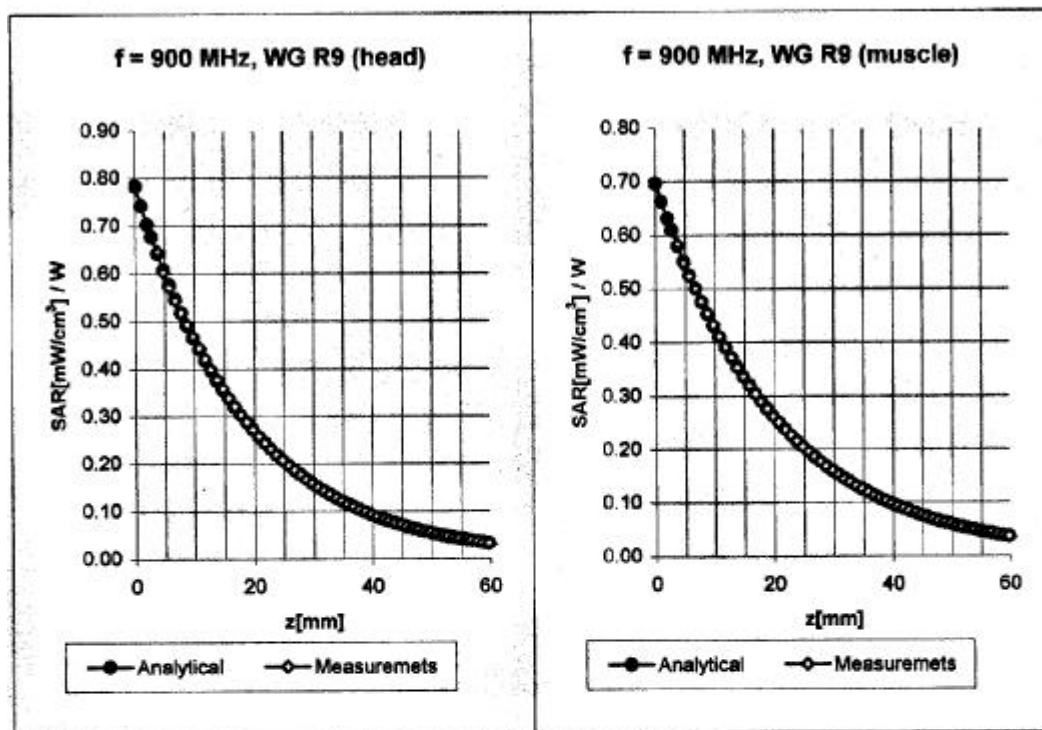
Probe Tip to Sensor Center **2.7** mm
 Optical Surface Detection **1.7 $\pm$ 0.2** mm

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ET3DV5 SN:1324

Conversion Factor Assessment



Head 900 MHz $\epsilon_r = 42 \pm 5\%$ $\sigma = 0.97 \pm 10\%$ mho/m

ConvF X **4.78** $\pm 7\%$ (k=2)
ConvF Y **4.78** $\pm 7\%$ (k=2)
ConvF Z **4.78** $\pm 7\%$ (k=2)

Boundary effect:
Alpha **0.32**
Depth **3.15**

Muscle 900 MHz $\epsilon_r = 56 \pm 5\%$ $\sigma = 0.99 \pm 10\%$ mho/m

ConvF X **4.63** $\pm 7\%$ (k=2)
ConvF Y **4.63** $\pm 7\%$ (k=2)
ConvF Z **4.63** $\pm 7\%$ (k=2)

Boundary effect:
Alpha **0.30**
Depth **3.16**

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ET3DV6 SN:1539

DASY3 - Parameters of Probe: ET3DV6 SN:1539

Sensitivity in Free Space

Diode Compression

NormX	1.36 $\mu\text{V}/(\text{V}/\text{m})^2$	DCP X	96 mV
NormY	1.24 $\mu\text{V}/(\text{V}/\text{m})^2$	DCP Y	96 mV
NormZ	1.36 $\mu\text{V}/(\text{V}/\text{m})^2$	DCP Z	96 mV

Sensitivity in Tissue Simulating Liquid

Brain	450 MHz	$\epsilon_r = 48 \pm 5\%$	$\sigma = 0.50 \pm 10\% \text{ mho/m}$
ConvF X	6.64	extrapolated	Boundary effect:
ConvF Y	6.64	extrapolated	Alpha 0.83
ConvF Z	6.64	extrapolated	Depth 1.52
Brain	900 MHz	$\epsilon_r = 42.5 \pm 5\%$	$\sigma = 0.86 \pm 10\% \text{ mho/m}$
ConvF X	6.27	$\pm 7\%$ (k=2)	Boundary effect:
ConvF Y	6.27	$\pm 7\%$ (k=2)	Alpha 0.78
ConvF Z	6.27	$\pm 7\%$ (k=2)	Depth 1.73
Brain	1500 MHz	$\epsilon_r = 41 \pm 5\%$	$\sigma = 1.32 \pm 10\% \text{ mho/m}$
ConvF X	5.78	interpolated	Boundary effect:
ConvF Y	5.78	interpolated	Alpha 0.70
ConvF Z	5.78	interpolated	Depth 2.01
Brain	1800 MHz	$\epsilon_r = 41 \pm 5\%$	$\sigma = 1.69 \pm 10\% \text{ mho/m}$
ConvF X	5.54	$\pm 7\%$ (k=2)	Boundary effect:
ConvF Y	5.54	$\pm 7\%$ (k=2)	Alpha 0.66
ConvF Z	5.54	$\pm 7\%$ (k=2)	Depth 2.15

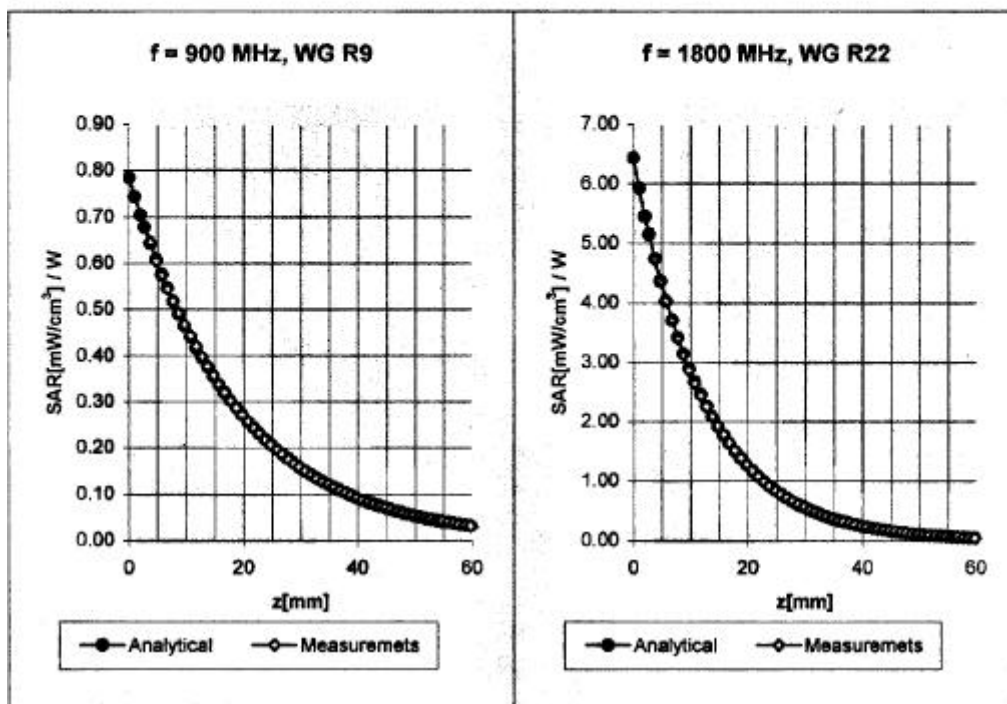
Sensor Offset

Probe Tip to Sensor Center	2.7	mm
Optical Surface Detection	1.3 $\pm$ 0.2	mm

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ET3DV6 SN:1539

Conversion Factor Assessment



Head 900 MHz $\epsilon_r = 42 \pm 5\%$ $\sigma = 0.97 \pm 10\%$ mho/m

ConvF X	6.15 $\pm 7\%$ (k=2)	Boundary effect:
ConvF Y	6.15 $\pm 7\%$ (k=2)	Alpha 0.35
ConvF Z	6.15 $\pm 7\%$ (k=2)	Depth 2.99

Head 1800 MHz $\epsilon_r = 40 \pm 5\%$ $\sigma = 1.40 \pm 10\%$ mho/m

ConvF X	5.26 $\pm 7\%$ (k=2)	Boundary effect:
ConvF Y	5.26 $\pm 7\%$ (k=2)	Alpha 0.67
ConvF Z	5.26 $\pm 7\%$ (k=2)	Depth 2.05