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Probe ET3DV6

SN:1618

Manufactured:	January 25, 2002
Last calibration:	March 24, 2003
Repaired:	September 26, 2003
Recalibrated:	October 10, 2003

Calibrated for DASy Systems

(Note: non-compatible with DASy2 system!)

DASY - Parameters of Probe: ET3DV6 SN:1618

Sensitivity in Free Space

Diode Compression

NormX	1.59 $\mu\text{V}/(\text{V}/\text{m})^2$	DCP X	95	mV
NormY	1.77 $\mu\text{V}/(\text{V}/\text{m})^2$	DCP Y	95	mV
NormZ	1.85 $\mu\text{V}/(\text{V}/\text{m})^2$	DCP Z	95	mV

Sensitivity in Tissue Simulating Liquid

Head 900 MHz $\epsilon_r = 41.5 \pm 5\%$ $\sigma = 0.97 \pm 5\%$ mho/m

Valid for $f=800\text{-}1000$ MHz with Head Tissue Simulating Liquid according to EN 50361, P1528-200X

ConvF X	6.9 $\pm 9.5\%$ (k=2)	Boundary effect:		
ConvF Y	6.9 $\pm 9.5\%$ (k=2)	Alpha	0.25	
ConvF Z	6.9 $\pm 9.5\%$ (k=2)	Depth	3.72	

Head 1800 MHz $\epsilon_r = 40.0 \pm 5\%$ $\sigma = 1.40 \pm 5\%$ mho/m

Valid for $f=1710\text{-}1910$ MHz with Head Tissue Simulating Liquid according to EN 50361, P1528-200X

ConvF X	5.3 $\pm 9.5\%$ (k=2)	Boundary effect:		
ConvF Y	5.3 $\pm 9.5\%$ (k=2)	Alpha	0.45	
ConvF Z	5.3 $\pm 9.5\%$ (k=2)	Depth	2.81	

Boundary Effect

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

Probe Tip to Boundary		1 mm	2 mm
SAR _{be} [%]	Without Correction Algorithm	11.1	7.0
SAR _{be} [%]	With Correction Algorithm	0.7	0.7

Head 1800 MHz Typical SAR gradient: **10 %** per mm

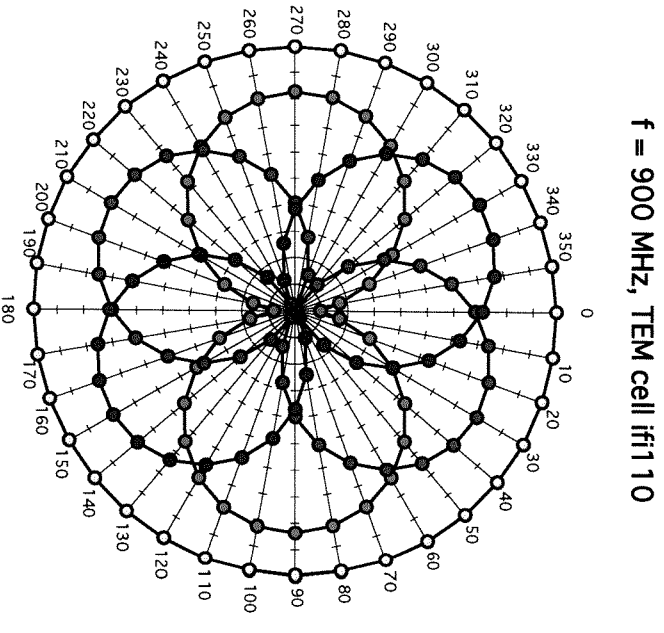
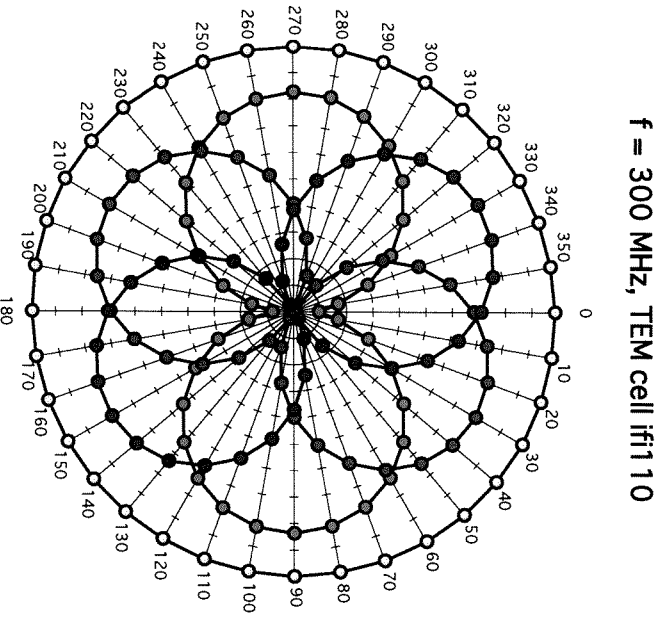
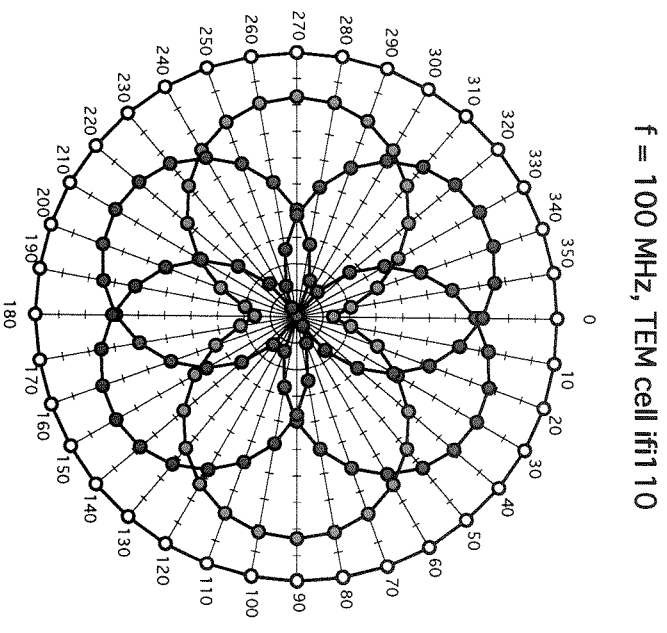
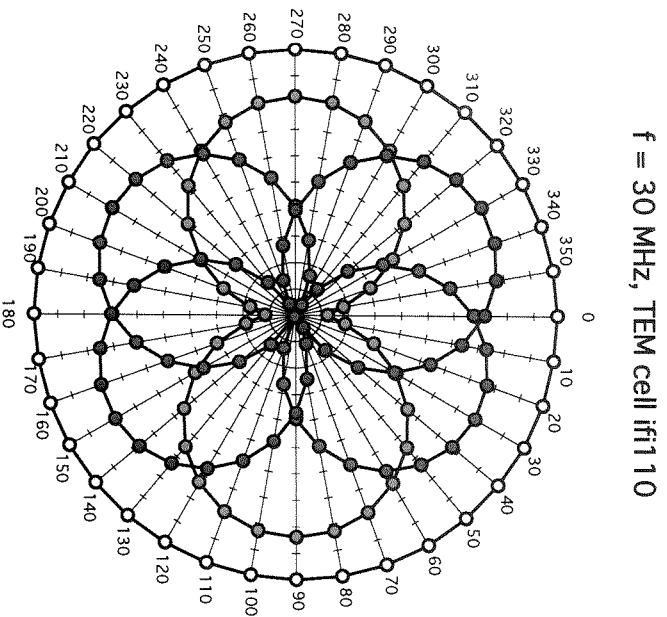
Probe Tip to Boundary		1 mm	2 mm
SAR _{be} [%]	Without Correction Algorithm	13.3	9.3
SAR _{be} [%]	With Correction Algorithm	0.2	0.2

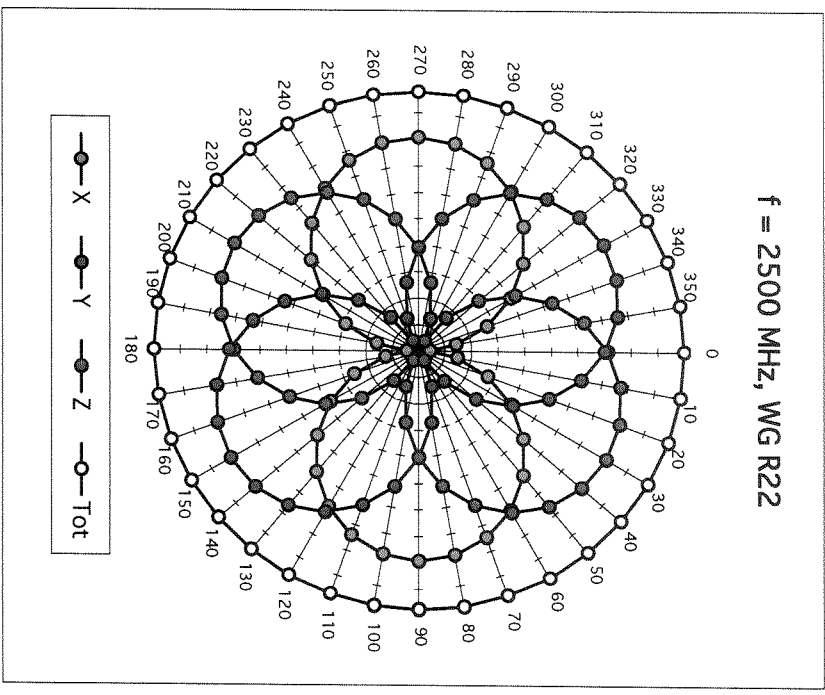
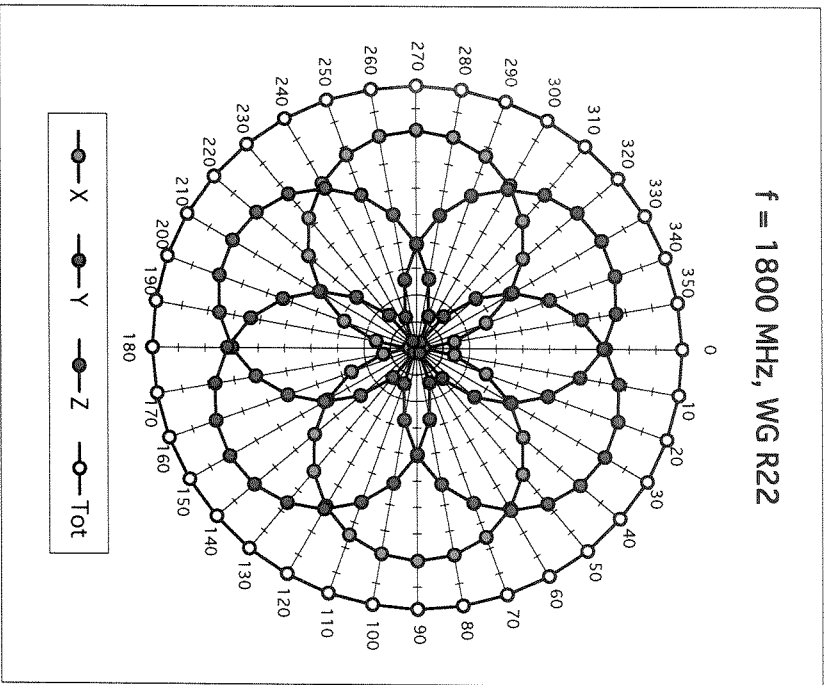
Sensor Offset

Probe Tip to Sensor Center **2.7** mm

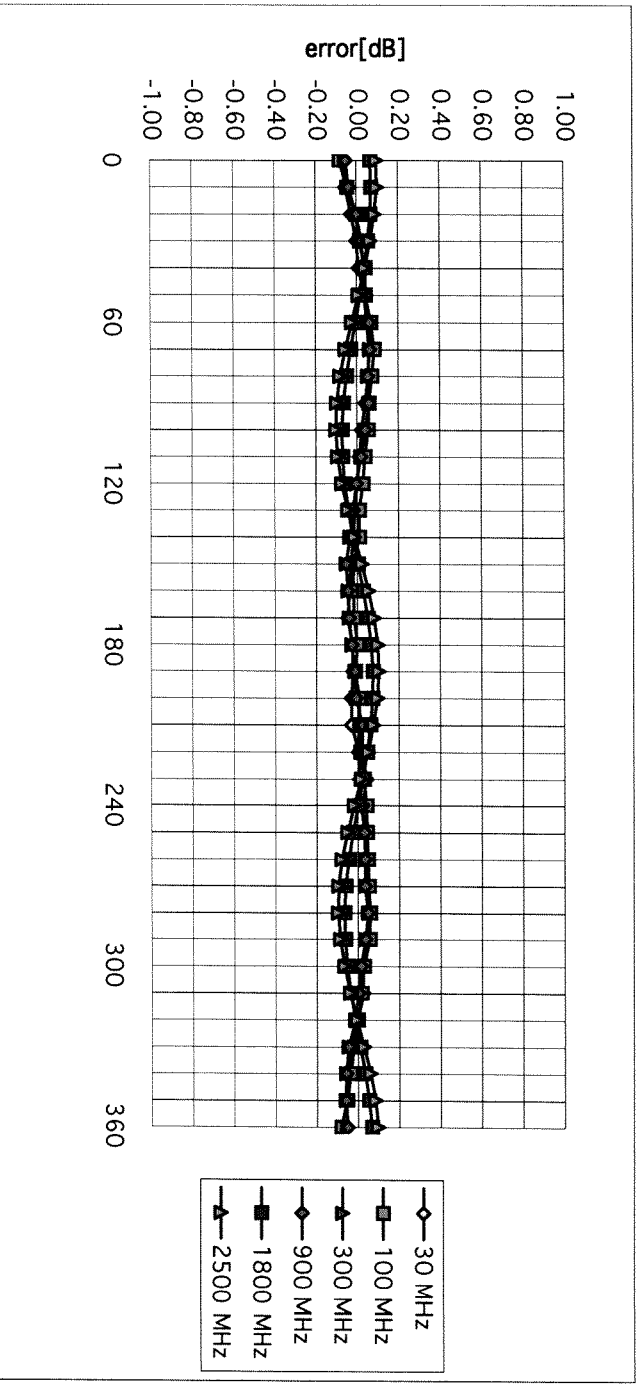
Optical Surface Detection **1.6 ± 0.2** mm

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



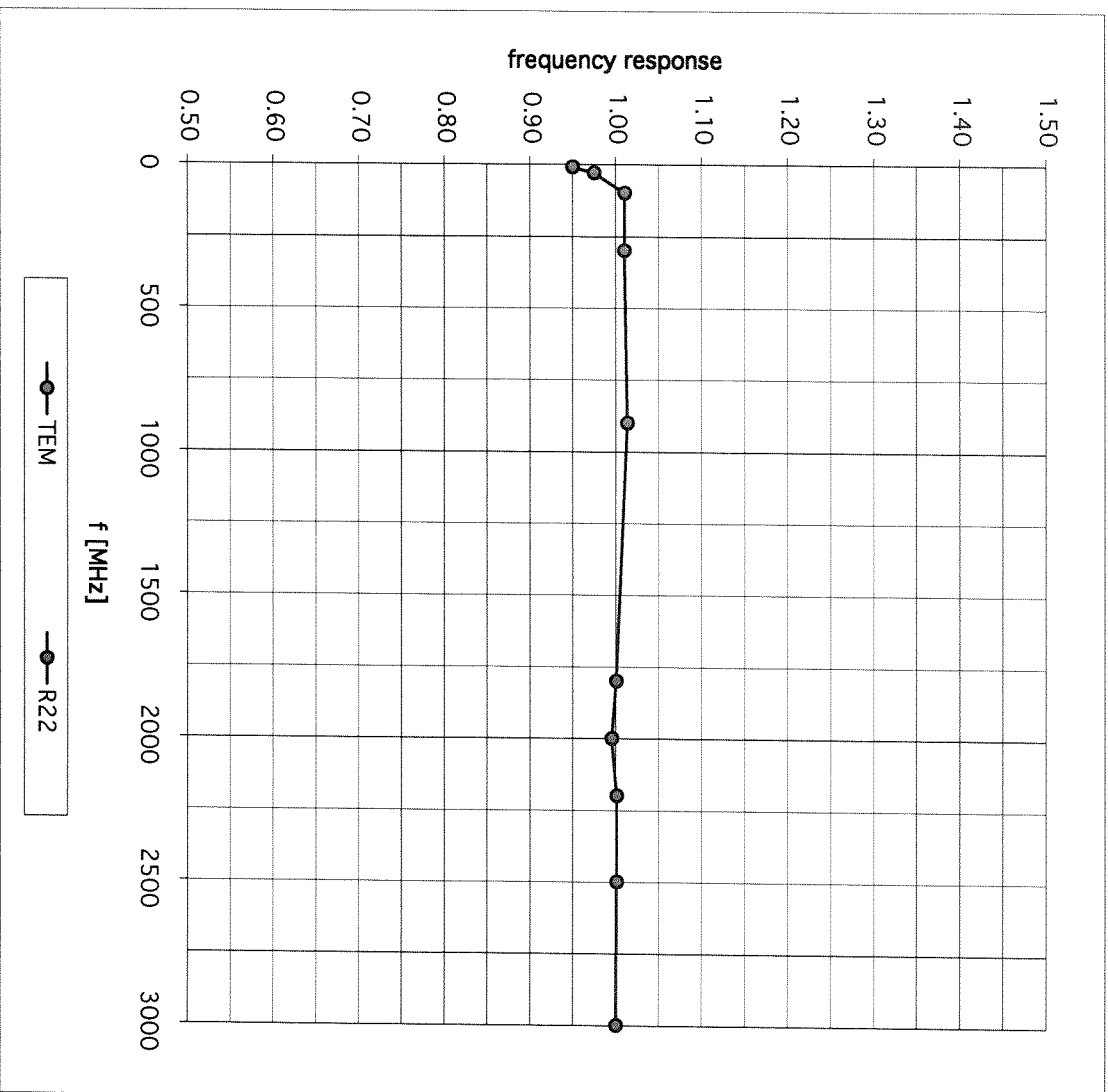


Isotropy Error (ϕ), $\theta = 0^\circ$



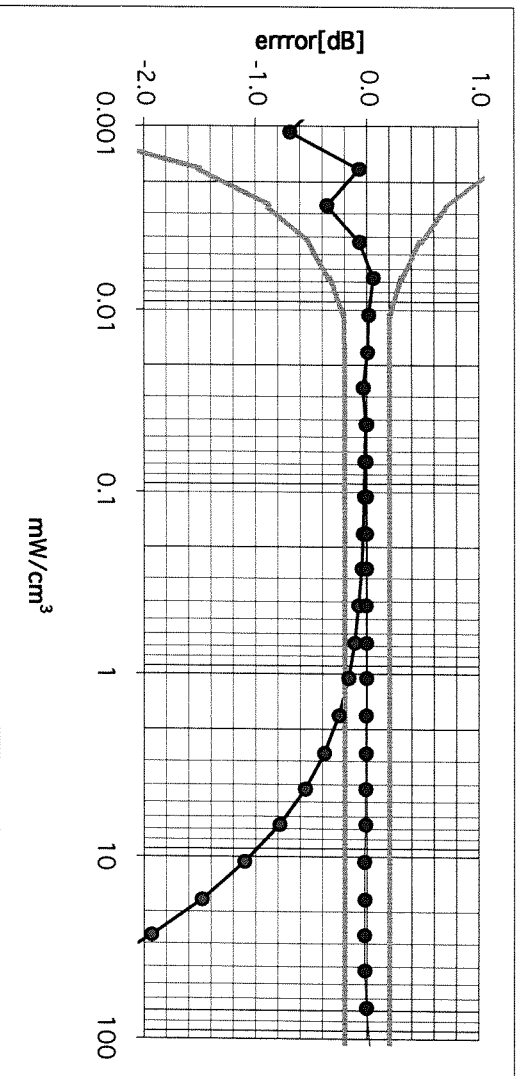
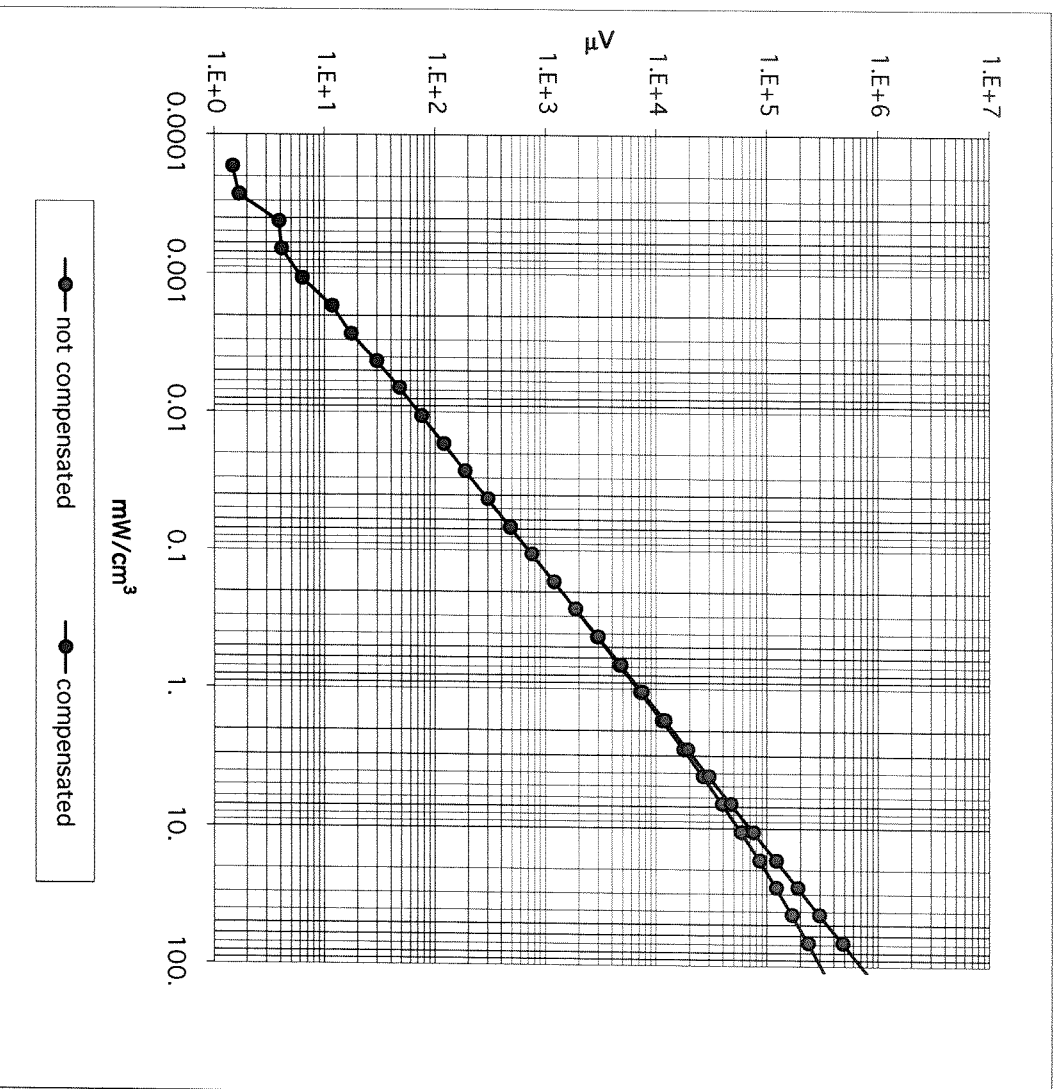
Frequency Response of E-Field

(TEM-Cell:ff110, Waveguide R22)

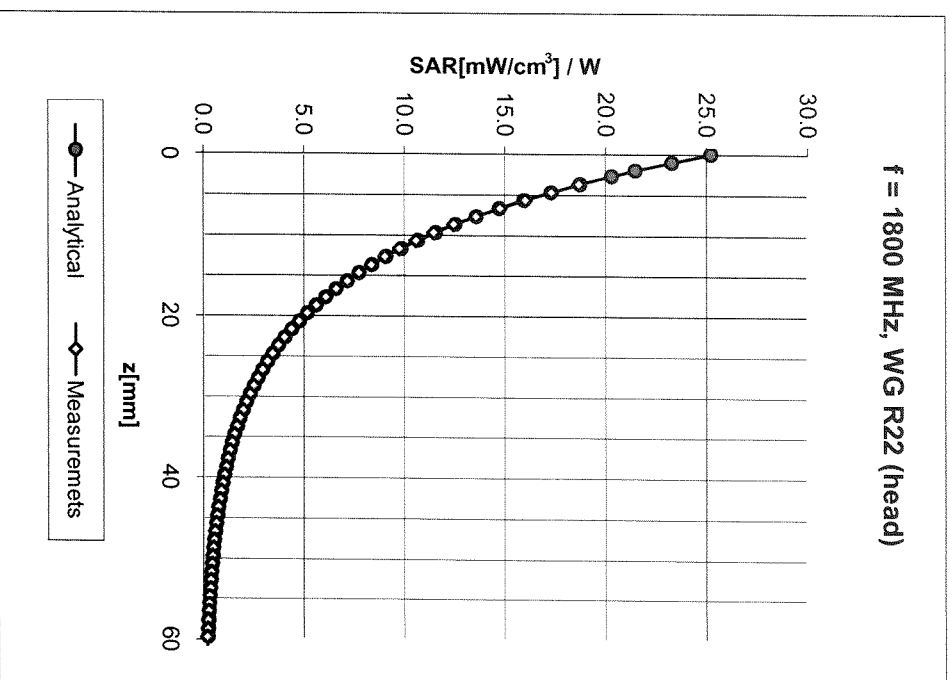
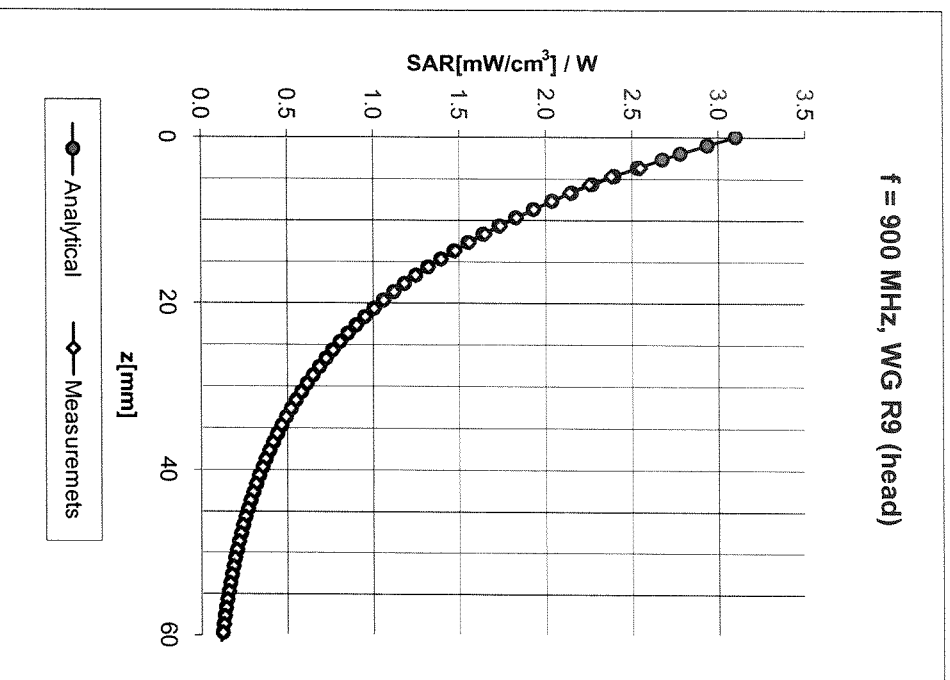


Dynamic Range f(SARhead)

(Waveguide R22)



Conversion Factor Assessment



Head

900 MHz

$\epsilon_r = 41.5 \pm 5\%$

$\sigma = 0.97 \pm 5\%$ mho/m

Valid for f=800-1000 MHz with Head Tissue Simulating Liquid according to EN 50361, P1 528-200X

ConvF X	6.9 $\pm 9.5\%$ (K=2)	Boundary effect:
ConvF Y	6.9 $\pm 9.5\%$ (K=2)	Alpha
ConvF Z	6.9 $\pm 9.5\%$ (K=2)	Depth
		3.72

Head

1800 MHz

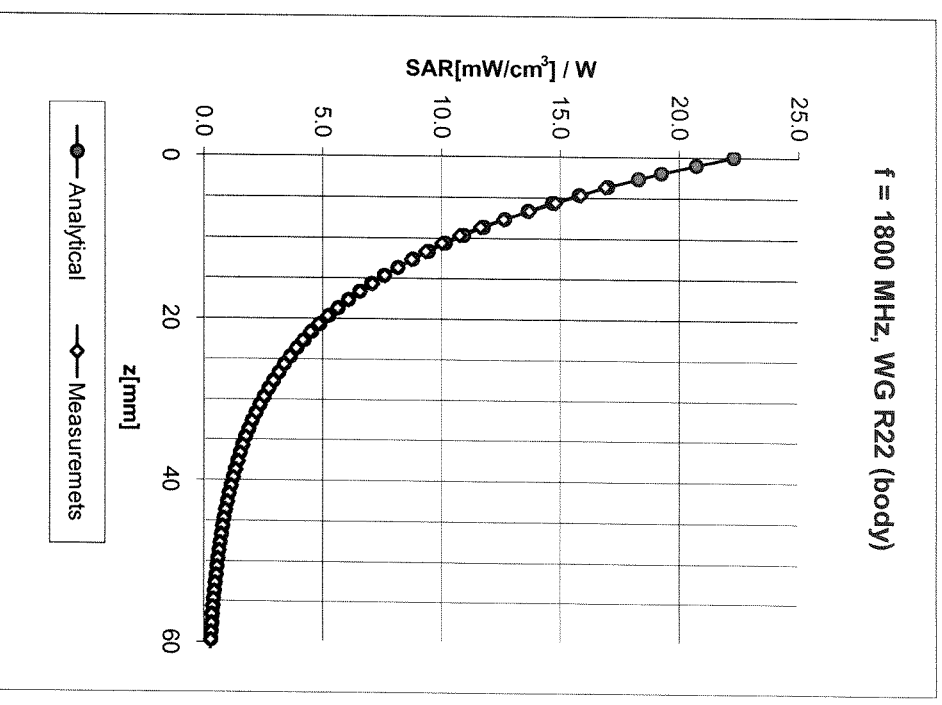
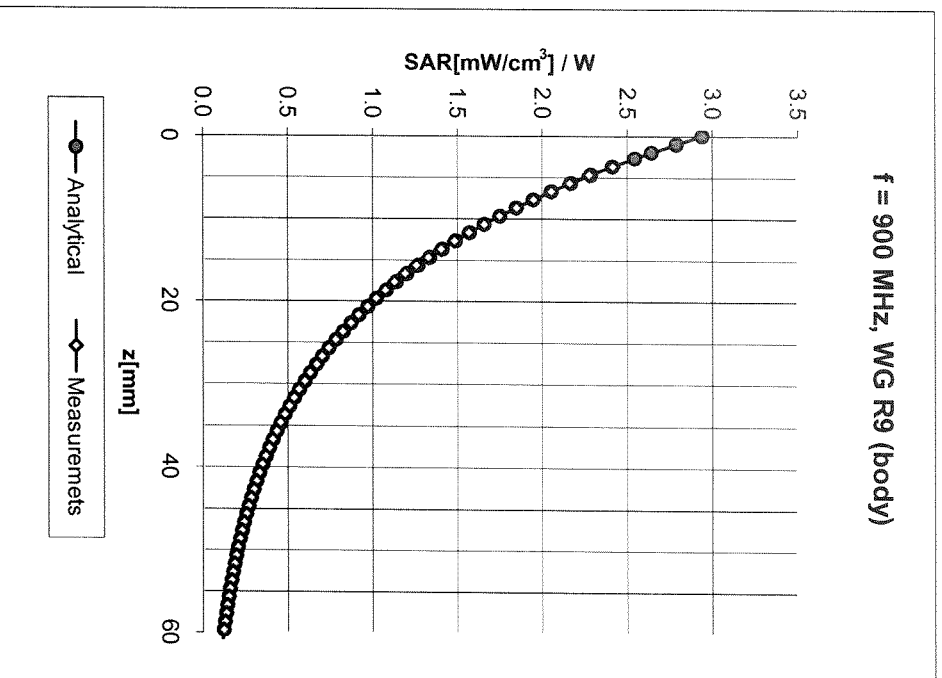
$\epsilon_r = 40.0 \pm 5\%$

$\sigma = 1.40 \pm 5\%$ mho/m

Valid for f=1710-1910 MHz with Head Tissue Simulating Liquid according to EN 50361, P1 528-200X

ConvF X	5.3 $\pm 9.5\%$ (K=2)	Boundary effect:
ConvF Y	5.3 $\pm 9.5\%$ (K=2)	Alpha
ConvF Z	5.3 $\pm 9.5\%$ (K=2)	Depth
		2.81

Conversion Factor Assessment



Body

900 MHz

$\epsilon_r = 55.0 \pm 5\%$

$\sigma = 1.05 \pm 5\%$ mho/m

Valid for f=800-1000 MHz with Body Tissue Simulating Liquid according to OET 65 Suppl. C

ConvF X 6.6 \pm 9.5% (k=2)

Boundary effect:

ConvF Y 6.6 \pm 9.5% (k=2)

Alpha **0.38**

ConvF Z 6.6 \pm 9.5% (k=2)

Depth **2.52**

Body

1800 MHz

$\epsilon_r = 53.3 \pm 5\%$

$\sigma = 1.52 \pm 5\%$ mho/m

Valid for f=1710-1910 MHz with Body Tissue Simulating Liquid according to OET 65 Suppl. C

ConvF X 4.9 \pm 9.5% (k=2)

Boundary effect:

ConvF Y 4.9 \pm 9.5% (k=2)

Alpha **0.52**

ConvF Z 4.9 \pm 9.5% (k=2)

Depth **2.76**

Deviation from Isotropy in HSL

Error (θ, ϕ), $f = 900$ MHz

