CALIBRATION DATA – PART 1
FOR RFI TEST REPORT SERIAL NO:
RFI/SARB1/RP43987JD02C

Test Of: Sendo Ltd.
Z100 Tri-Band Mobile Phone

To: OET Bulletin 65 Supplement C: (2001-01)

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Calibration Data

This section contains the calibration data and certificates.

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:	**1529**
Place of Calibration:	**Zurich**
Date of Calibration:	**June 13, 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:	
Approved by:	

Schmid & Partner
Engineering AG

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

Probe ET3DV6

SN:1529

Manufactured:	March 21, 2000
Last calibration:	May 23, 2001
Repaired:	June 6, 2002
Recalibrated:	June 13, 2002

Calibrated for System DASY3

DASY3 - Parameters of Probe: ET3DV6 SN:1529

Sensitivity in Free Space

NormX	**1.66**	$\mu V/(V/m)^2$
NormY	**1.95**	$\mu V/(V/m)^2$
NormZ	**1.71**	$\mu V/(V/m)^2$

Diode Compression

DCP X	**96**	mV
DCP Y	**96**	mV
DCP Z	**96**	mV

Sensitivity in Tissue Simulating Liquid

Head **900 MHz** ε_r **= 41.5 ± 5%** σ **= 0.97 ± 5% mho/m**
Head **835 MHz** ε_r **= 41.5 ± 5%** σ **= 0.90 ± 5% mho/m**

ConvF X	**6.3**	± 9.5% (k=2)	Boundary effect:	
ConvF Y	**6.3**	± 9.5% (k=2)	Alpha	**0.28**
ConvF Z	**6.3**	± 9.5% (k=2)	Depth	**3.32**

Head **1800 MHz** ε_r **= 40.0 ± 5%** σ **= 1.40 ± 5% mho/m**
Head **1900 MHz** ε_r **= 40.0 ± 5%** σ **= 1.40 ± 5% mho/m**

ConvF X	**5.2**	± 9.5% (k=2)	Boundary effect:	
ConvF Y	**5.2**	± 9.5% (k=2)	Alpha	**0.54**
ConvF Z	**5.2**	± 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	10.7	6.6
SAR_{be} [%]	With Correction Algorithm	0.6	0.6

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

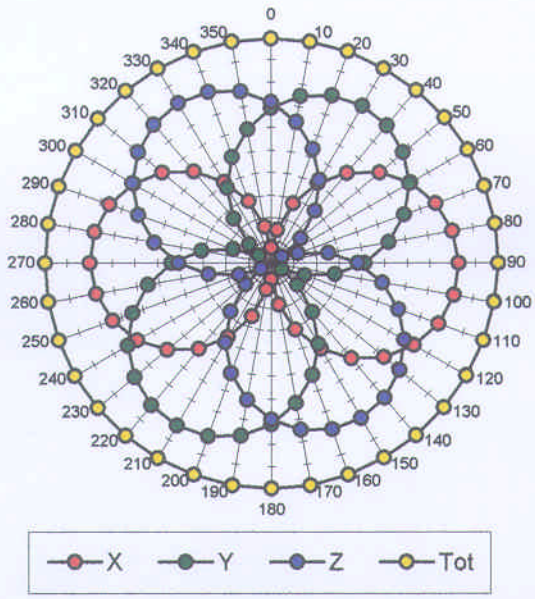
Probe Tip to Boundary		**1 mm**	**2 mm**
SAR_{be} [%]	Without Correction Algorithm	12.2	8.0
SAR_{be} [%]	With Correction Algorithm	0.2	0.2

Sensor Offset

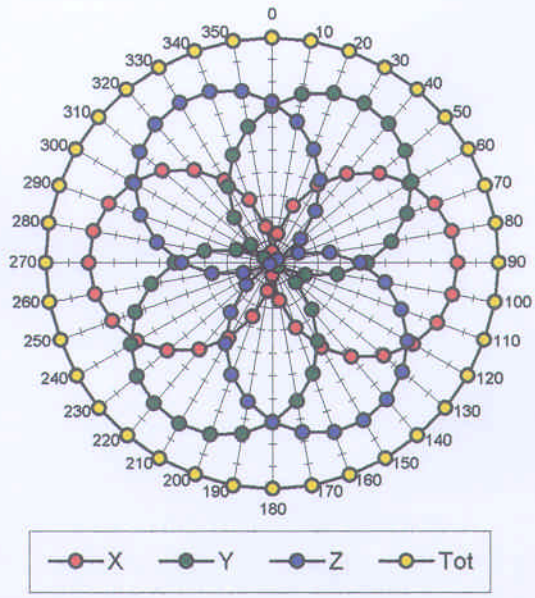
Probe Tip to Sensor Center	**2.7**	mm
Optical Surface Detection	**1.3 ± 0.2**	mm

Receiving Pattern (ϕ), θ = 0°

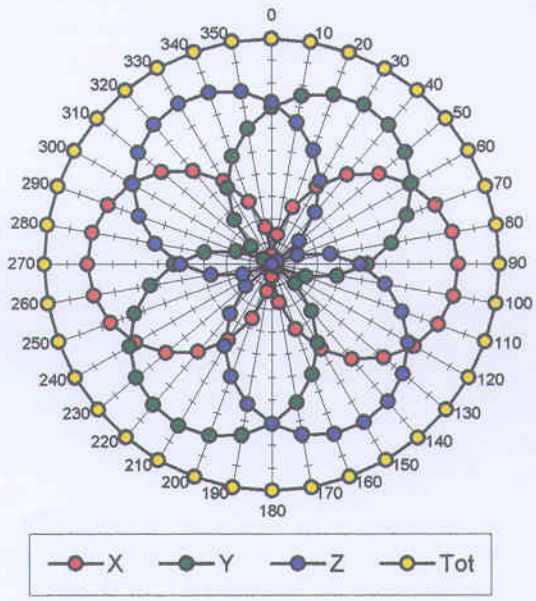
f = 30 MHz, TEM cell ifi110



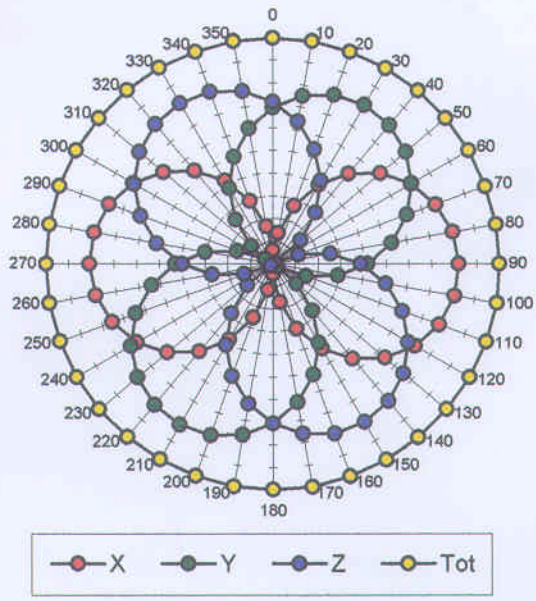
f = 100 MHz, TEM cell ifi110

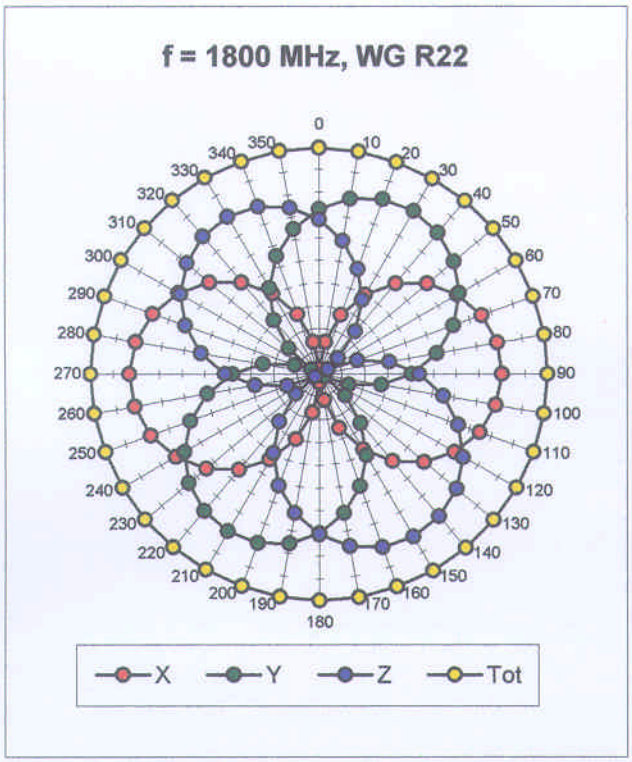


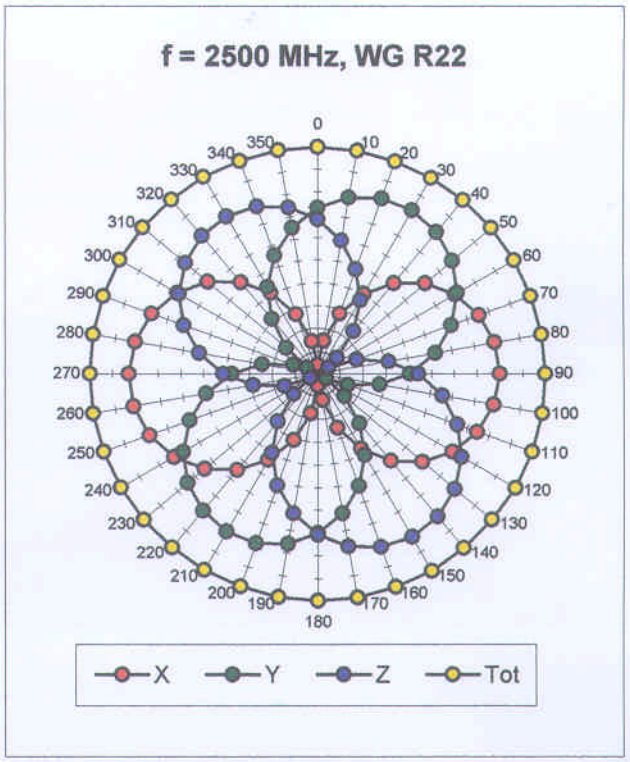
f = 300 MHz, TEM cell ifi110



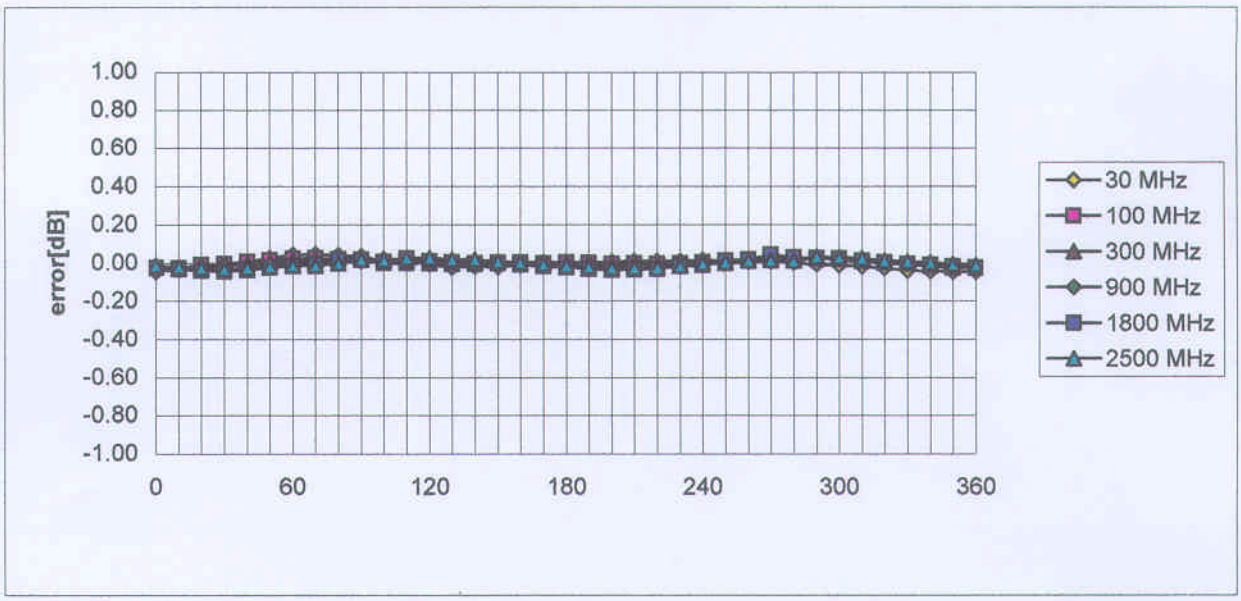
f = 900 MHz, TEM cell ifi110





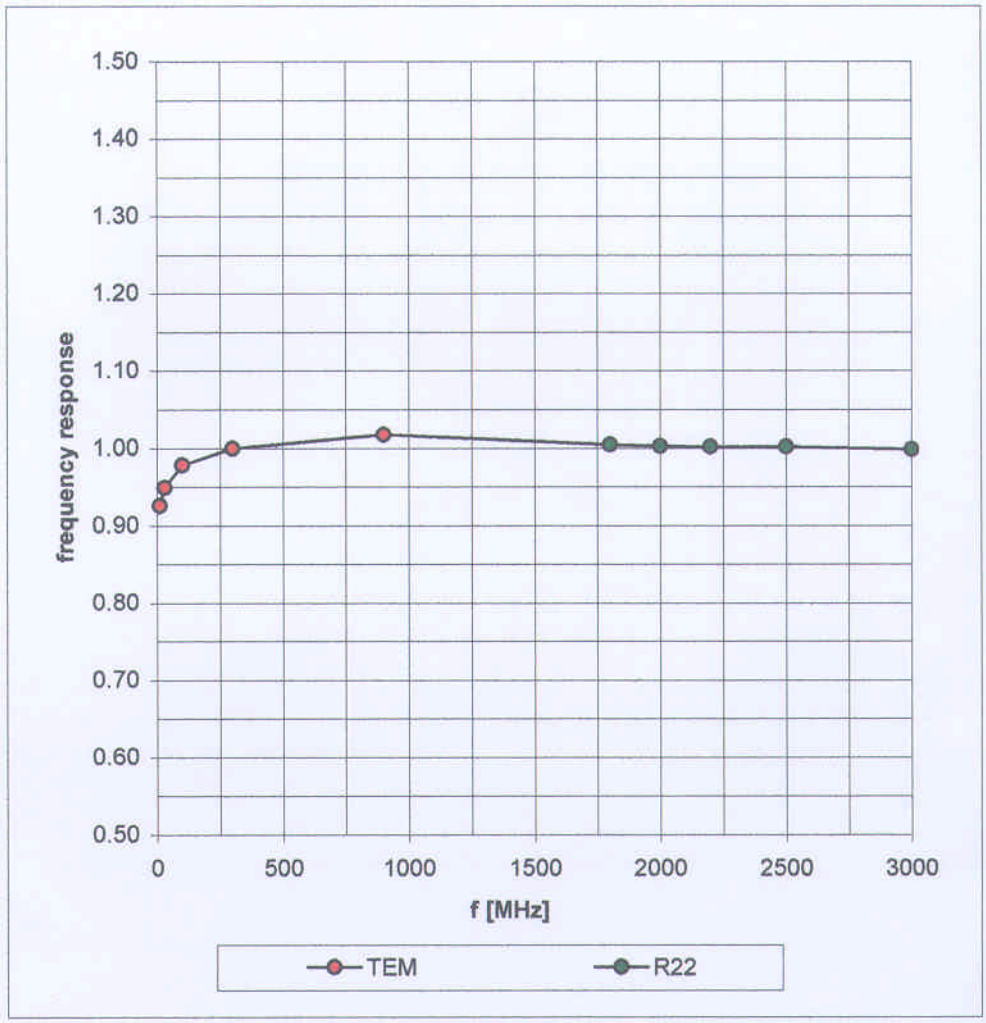


Isotropy Error (ϕ), θ = 0°



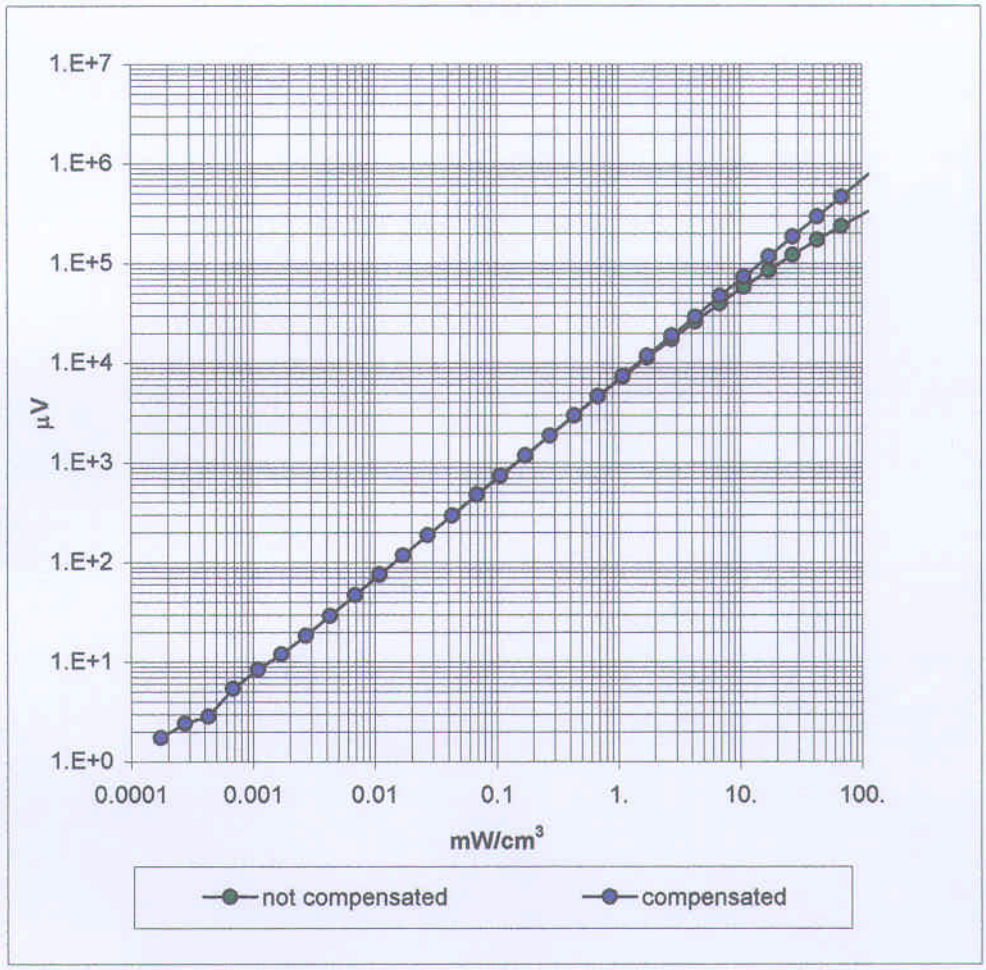
Frequency Response of E-Field

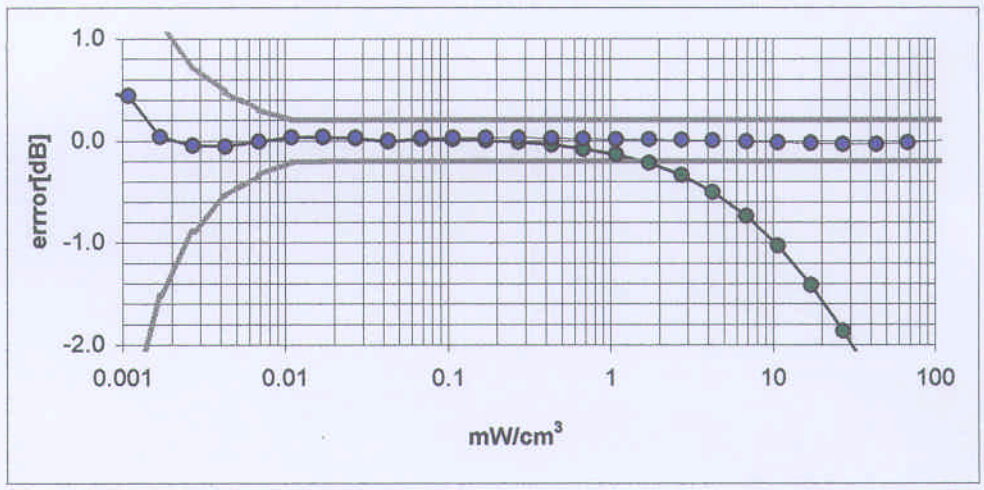
(TEM-Cell:ifi110, Waveguide R22)



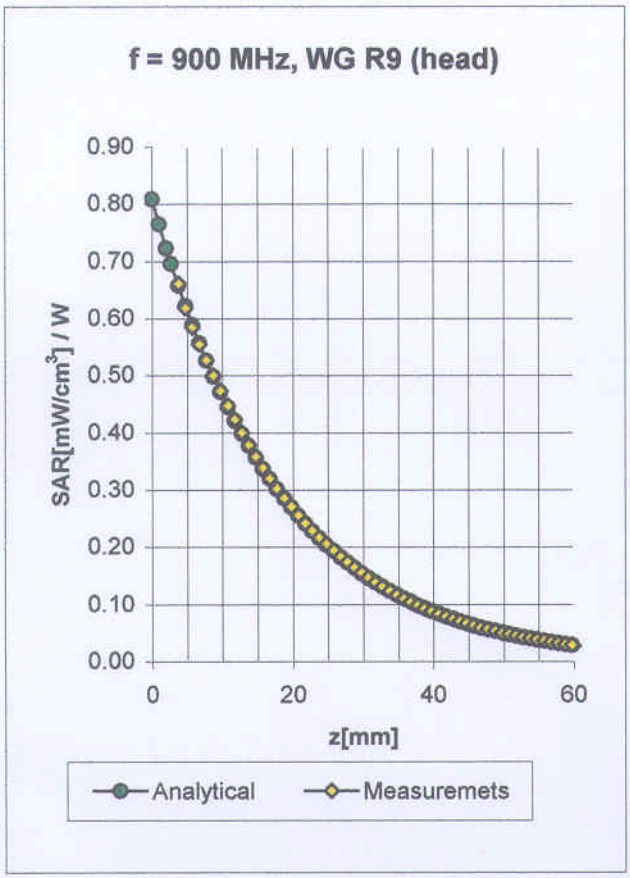
Dynamic Range f(SAR_{brain})

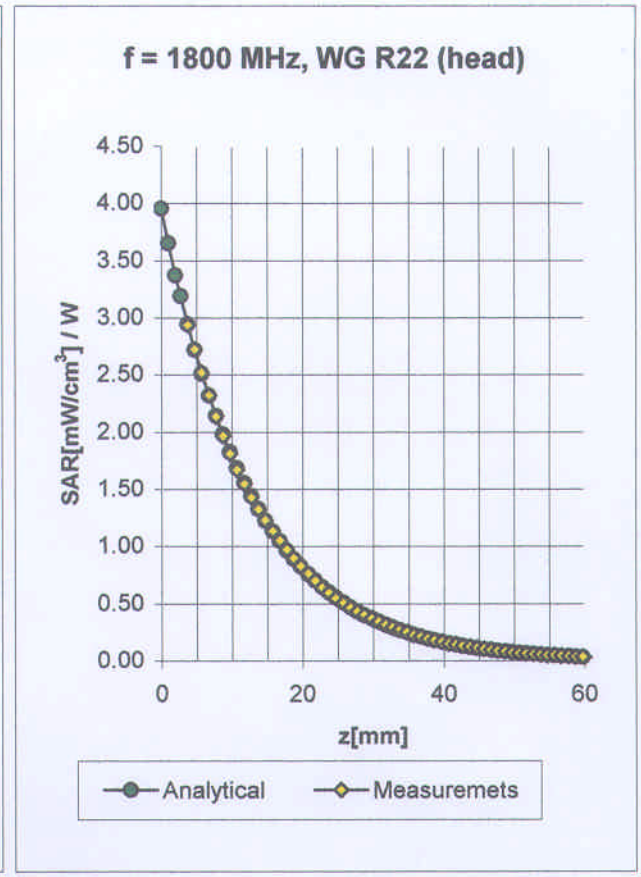
(Waveguide R22)





Conversion Factor Assessment

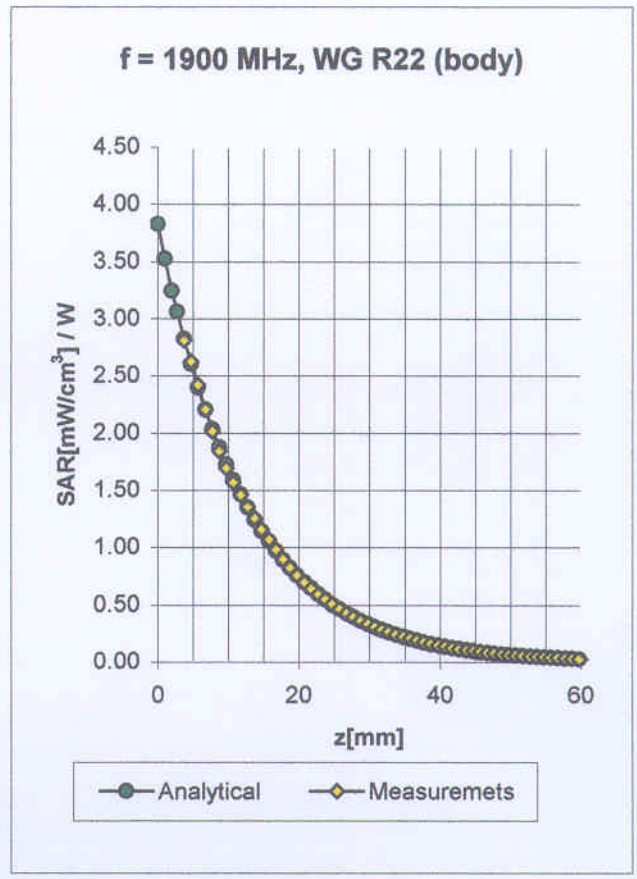




Head	**900 MHz**		ε_r = **41.5 ± 5%**	σ = **0.97 ± 5% mho/m**
Head	**835 MHz**		ε_r = **41.5 ± 5%**	σ = **0.90 ± 5% mho/m**
	ConvF X	**6.3** ± 9.5% (k=2)		Boundary effect:
	ConvF Y	**6.3** ± 9.5% (k=2)		Alpha **0.28**
	ConvF Z	**6.3** ± 9.5% (k=2)		Depth **3.32**

Head	**1800 MHz**		ε_r = **40.0 ± 5%**	σ = **1.40 ± 5% mho/m**
Head	**1900 MHz**		ε_r = **40.0 ± 5%**	σ = **1.40 ± 5% mho/m**
	ConvF X	**5.2** ± 9.5% (k=2)		Boundary effect:
	ConvF Y	**5.2** ± 9.5% (k=2)		Alpha **0.54**
	ConvF Z	**5.2** ± 9.5% (k=2)		Depth **2.34**

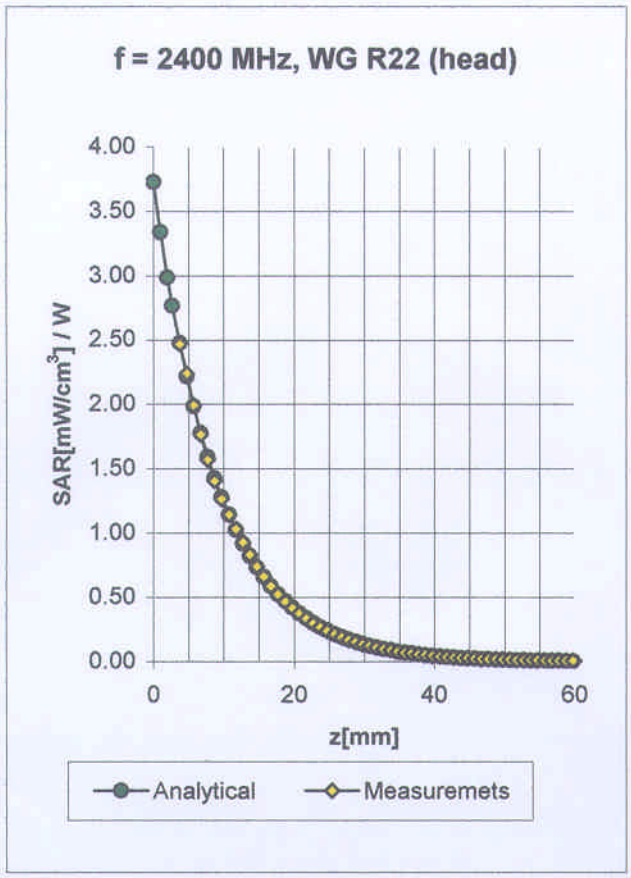
Conversion Factor Assessment

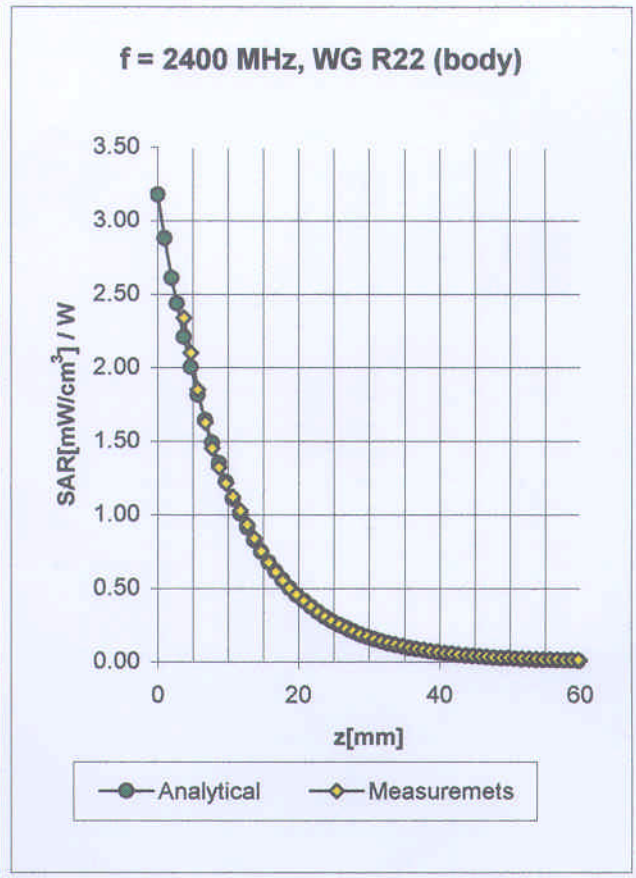


Body **1900 MHz** ε_r = 53.3 ± 5% σ = 1.52 ± 5% mho/m

ConvF X	**4.7** ± 8.9% (k=2)	Boundary effect:	
ConvF Y	**4.7** ± 8.9% (k=2)	Alpha	**0.80**
ConvF Z	**4.7** ± 8.9% (k=2)	Depth	**2.04**

Conversion Factor Assessment





Head **2400 MHz** ε_r **= 39.2 ± 5%** σ **= 1.80 ± 10% mho/m**

ConvF X	**4.9** ± 8.9% (k=2)	Boundary effect:	
ConvF Y	**4.9** ± 8.9% (k=2)	Alpha	**0.94**
ConvF Z	**4.9** ± 8.9% (k=2)	Depth	**1.96**

Body **2400 MHz** ε_r **= 52.7 ± 5%** σ **= 1.95 ± 10% mho/m**

ConvF X	**4.3** ± 8.9% (k=2)	Boundary effect:	
ConvF Y	**4.3** ± 8.9% (k=2)	Alpha	**1.00**
ConvF Z	**4.3** ± 8.9% (k=2)	Depth	**1.57**

Deviation from Isotropy in HSL

Error (θ,ϕ), f = 900 MHz