This document was generated in response to a request for additional technical information by Martin Perrine in regards to the approval of the Permissive Class II application of the KWC-2255. The information included in related to the three specific topics discussed in the following email received by Lin Lu on Feb. 4, 2002:

From: oetech@fccsun34w.fcc.gov
Date: Mon, 4 Feb 2002 13:31:15 -0500 (EST)
To: LLu@qcpi.com
Subject: Request for additional information

To: Lin Lu, Kyocera Wireless Corp.
From: Martin Perrine
mperrine@fcc.gov
FCC Application Processing Branch
Re: FCC ID OVFKWC-2255
Applicant: Kyocera Wireless Corp
Correspondence Reference Number: 21913
731 Confirmation Number: EA937655

In regards to your recent application we kindly request that you provide the following information.

1) Probe calibration certificates and data.
2) Full manufacturer's and on-site validation information and test data.
3) Crest factor used.

1) Probe calibration certificates and data.

The probe calibration certificate and data are attached in the proceeding pages.

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:	**ET3DV5**
Serial Number:	**1353**
Place of Calibration:	**Zurich**
Date of Calibration:	**July 26, 2000**
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:	Nikolos E. Nevjana
Approved by:	Thomas Schmid

Schmid & Partner
Engineering AG

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

Probe ET3DV5

SN:1353

Manufactured:	August 14, 1998
Last calibration:	August 28, 1998
Recalibrated:	July 26, 2000

Calibrated for System DASY3

DASY3 - Parameters of Probe: ET3DV5 SN:1353

Sensitivity in Free Space

NormX	**1.59** $\mu V/(V/m)^2$
NormY	**1.47** $\mu V/(V/m)^2$
NormZ	**1.75** $\mu V/(V/m)^2$

Diode Compression

DCP X	**102** mV
DCP Y	**102** mV
DCP Z	**102** mV

Sensitivity in Tissue Simulating Liquid

Brain **450 MHz** ε_r **= 48 ± 5%** σ **= 0.50 ± 10% mho/m**

ConvF X	**6.08**	extrapolated	Boundary effect:	
ConvF Y	**6.08**	extrapolated	Alpha	**0.07**
ConvF Z	**6.08**	extrapolated	Depth	**3.39**

Brain **900 MHz** ε_r **= 42.5 ± 5%** σ **= 0.86 ± 10% mho/m**

ConvF X	**5.70**	± 7% (k=2)	Boundary effect:	
ConvF Y	**5.70**	± 7% (k=2)	Alpha	**0.33**
ConvF Z	**5.70**	± 7% (k=2)	Depth	**2.82**

Brain **1500 MHz** ε_r **= 41 ± 5%** σ **= 1.32 ± 10% mho/m**

ConvF X	**5.20**	interpolated	Boundary effect:	
ConvF Y	**5.20**	interpolated	Alpha	**0.68**
ConvF Z	**5.20**	interpolated	Depth	**2.06**

Brain **1800 MHz** ε_r **= 41 ± 5%** σ **= 1.69 ± 10% mho/m**

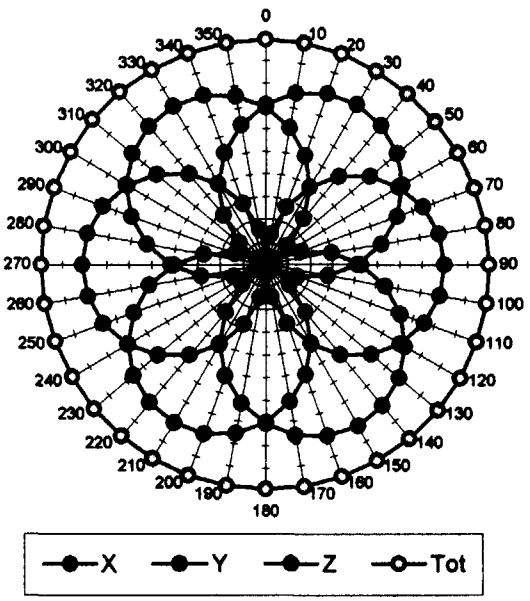
ConvF X	**4.94**	± 7% (k=2)	Boundary effect:	
ConvF Y	**4.94**	± 7% (k=2)	Alpha	**0.86**
ConvF Z	**4.94**	± 7% (k=2)	Depth	**1.68**

Sensor Offset

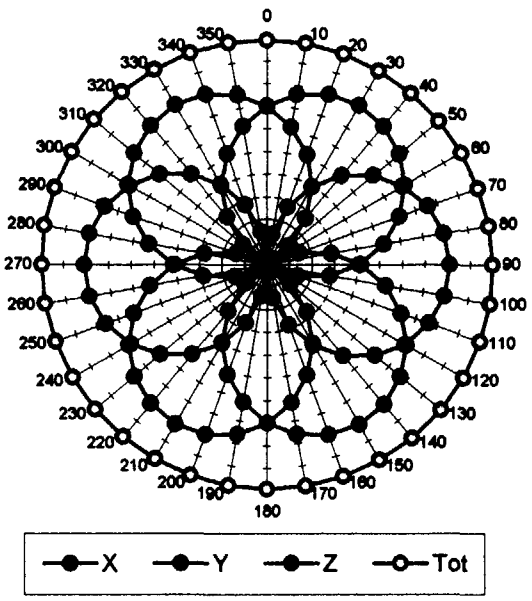
Probe Tip to Sensor Center	**2.7**	mm
Optical Surface Detection	**1.8 ± 0.2**	mm

Receiving Pattern (ϕ), θ = 0°

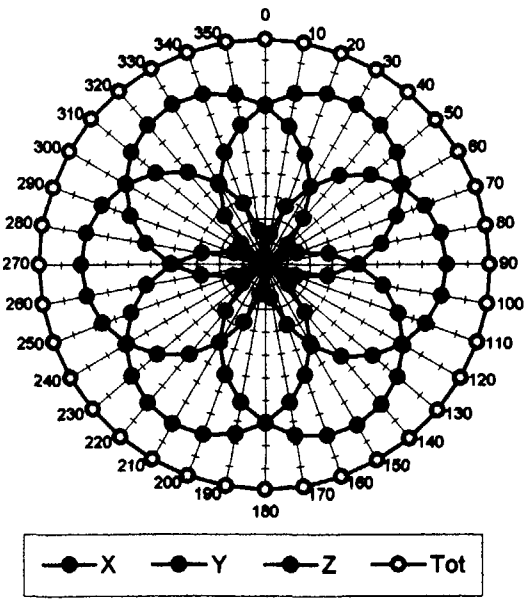
f = 30 MHz, TEM cell ifi110



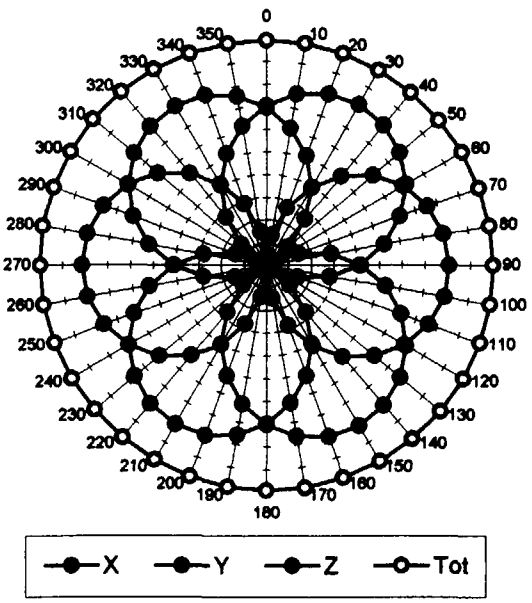
f = 100 MHz, TEM cell ifi110

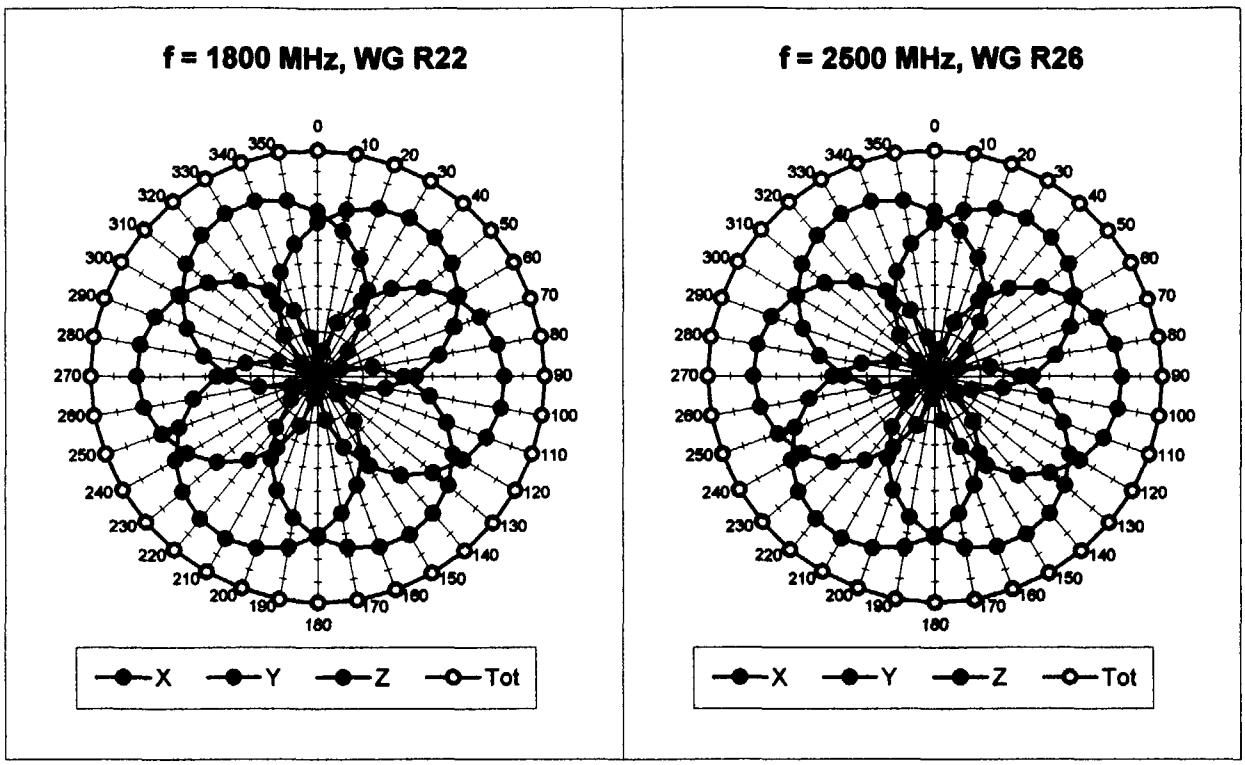


f = 300 MHz, TEM cell ifi110

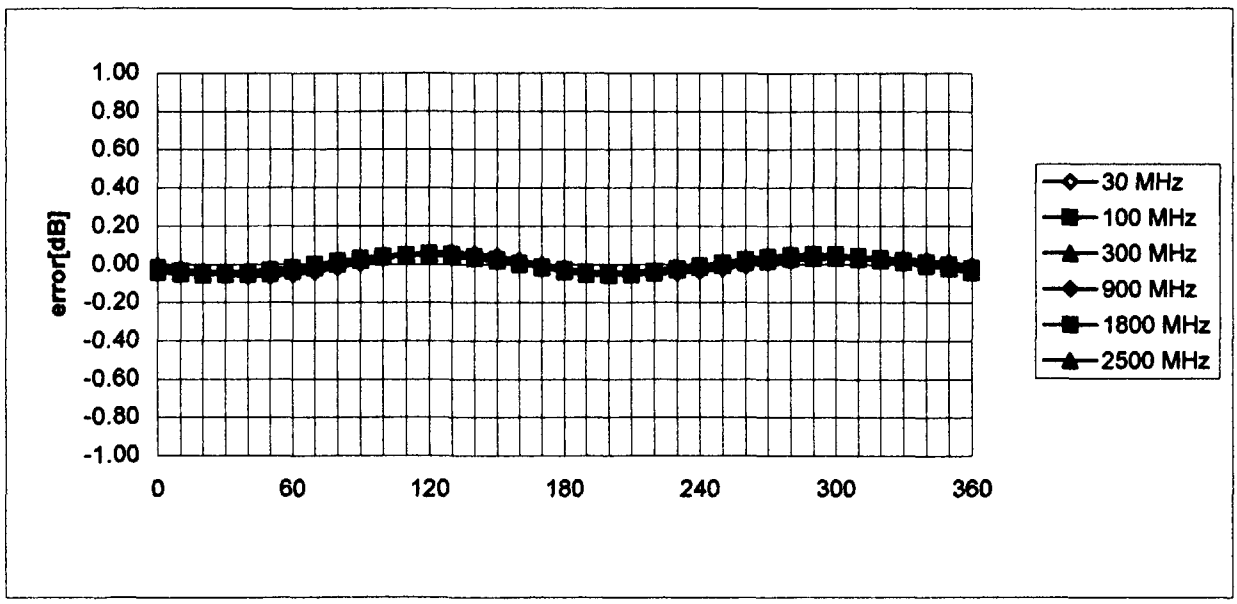


f = 900 MHz, TEM cell ifi110



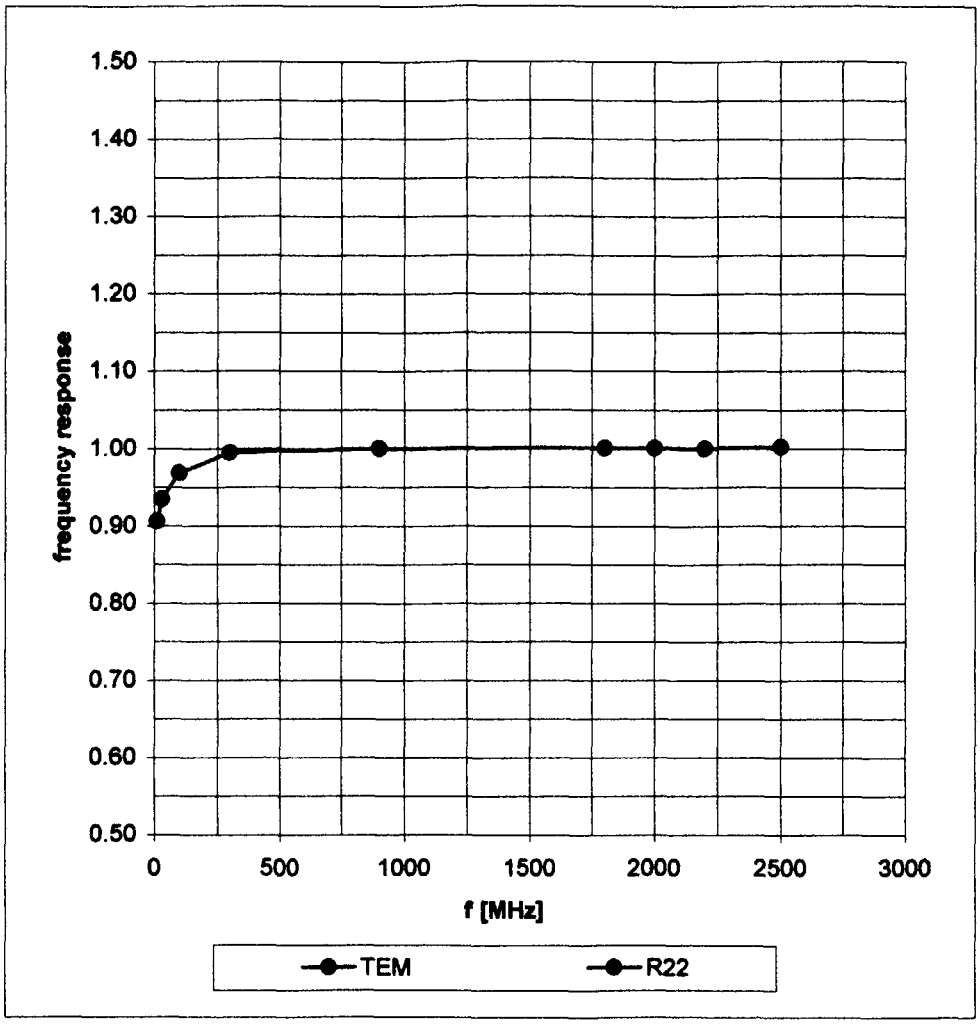


Isotropy Error (ϕ), θ = 0°



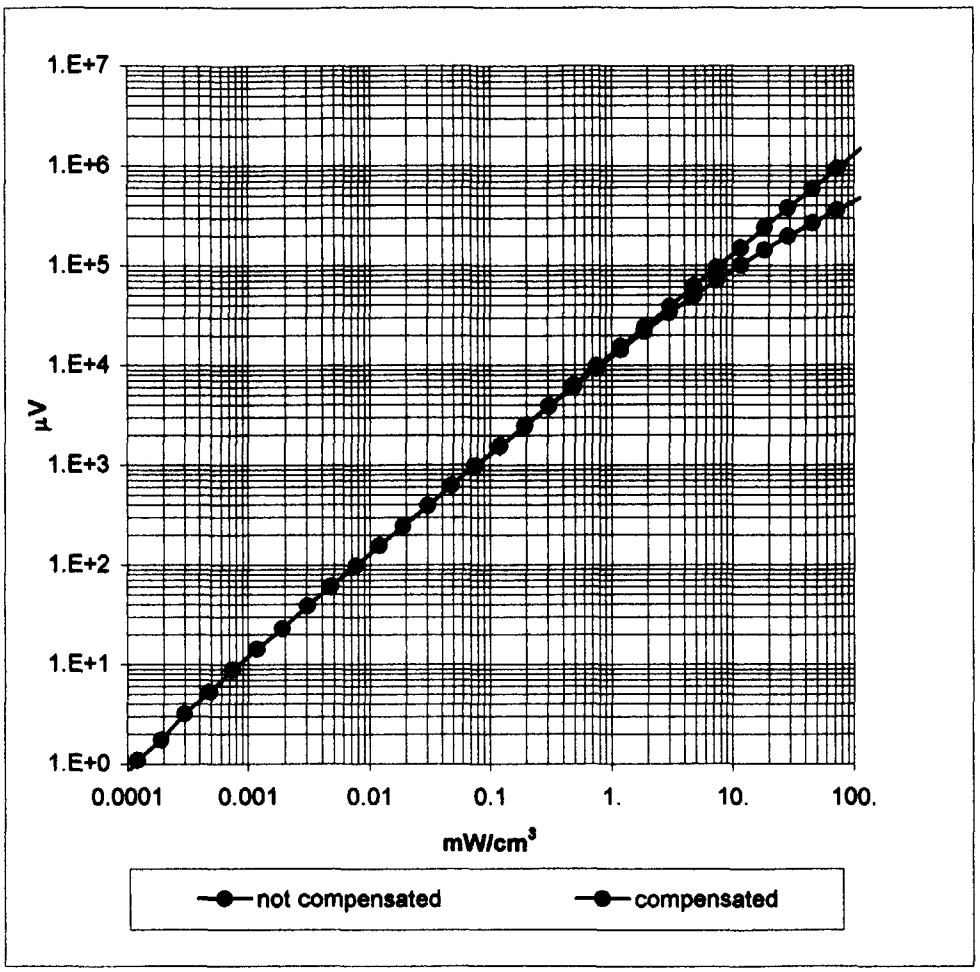
Frequency Response of E-Field

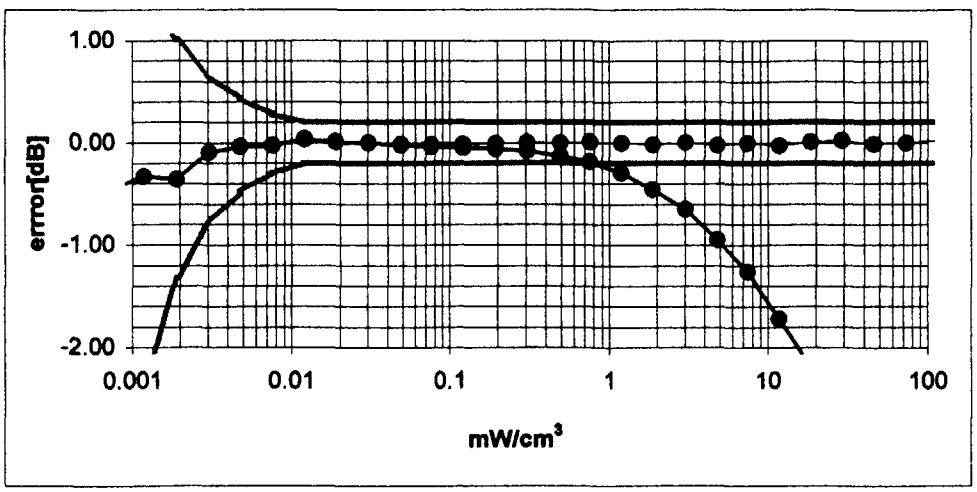
(TEM-Cell:ifi110, Waveguide R22, R26)



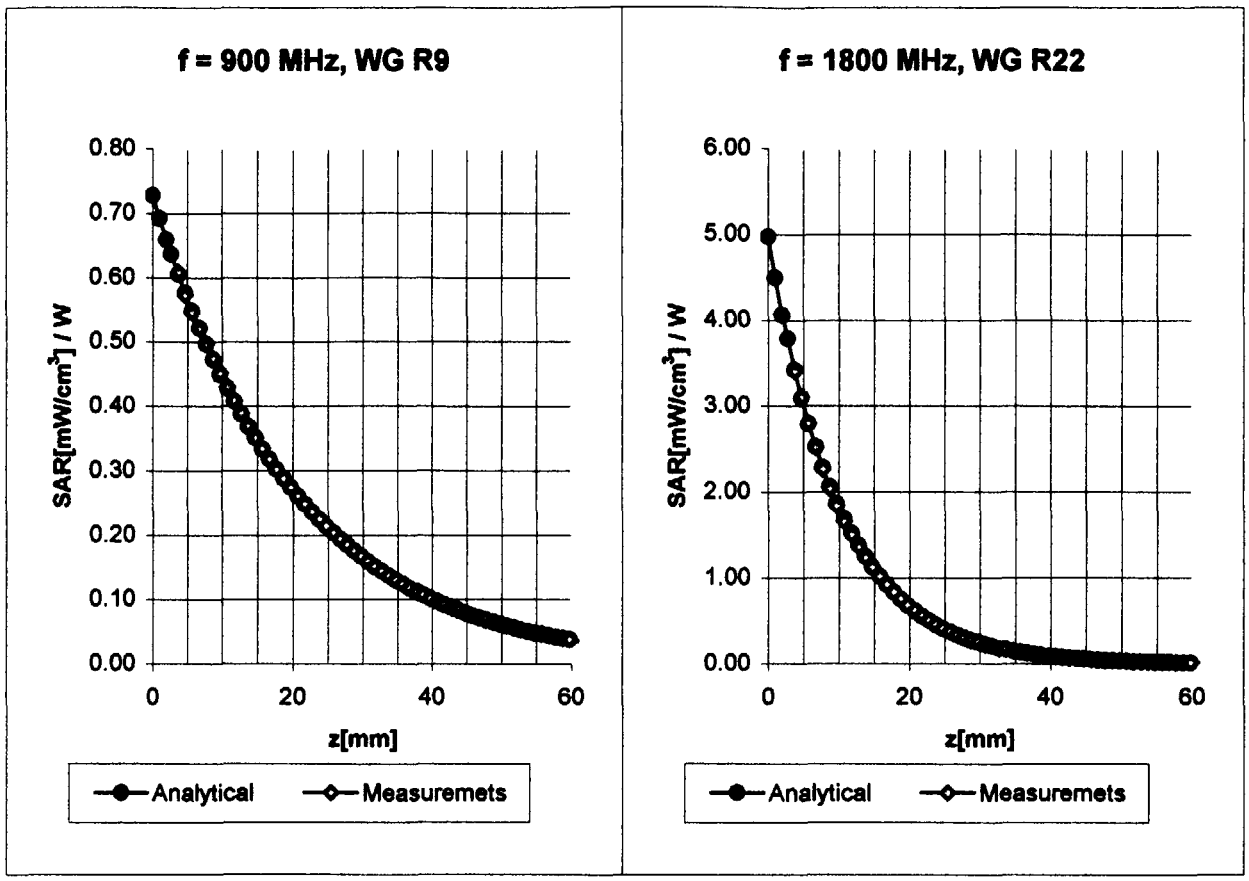
Dynamic Range f(SAR_{brain})

(TEM-Cell:ifi110)



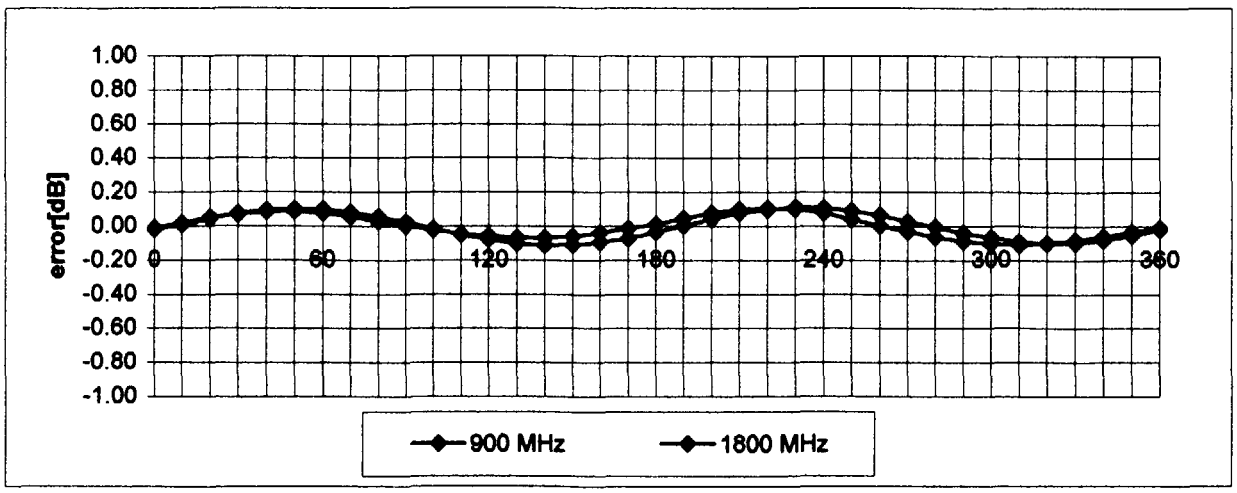


Conversion Factor Assessment



Receiving Pattern (ϕ)

(in brain tissue, z = 5 mm)



2) Full manufacturer's and on-site validation information and test data

The manufacturer (Schmid & Partner Engineering AG) only provides the validation data for brain material. As of today they have not provide the validation data for the muscle liquid.

To calibrate the muscle tissues we used for the waist level SAR testing, HP85070B dielectric measurement system was used to measure the parameters of the muscle liquid. The data was listed in the Class II change test report, Section 6. They were within +/- 5% of the parameters specified by OET Bulletin 65, Supplement C.

The dielectric data sheets from HP85070B were attached to the Class II change report, Section 10, Appendix B.

3) Crest factor used

The Crest factor used was 1.