ITS Intertek Testing Services
ETL SEMKO

Specific Absorption Rate (SAR) Test Report

for

Chi Mei Communications Systems, Inc

on the

Pocket PC

Model Number: EDS01

Test Report: 30223681
Date of Report: March 26, 2002

Job #: 3022368
Date of Test: March 21 to 22, 2002

Total No of Pages Contained in this Report: 43

Tested by:	Suresh Kondapalli, Test Engineer
Reviewed by: David Chernomordik	David Chernomordik, Ph.D., EMC Technical Manager

Review Date: 03/28/02

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1.0 JOB DESCRIPTION

1.1 Client Information

The EDS01 has been tested at the request of:

Company: Chi Mei Communications Systems, Inc
11 F, No. 39, Chung Hua Road Sec. 1
Taipei, Taiwan 100
China

Name of contact: Mr. Eric You
Telephone: +886-2-2370-8699, Ext 2513
Fax: +886-2-2370-8399

1.2 Equipment under test (EUT)

Product Descriptions:

Equipment	Pocket PC		
Trade Name	CMCS Edison	P/N.	EDS01
FCC ID	Not Labeled	S/N No.	Not Labeled
Category		RF Exposure	Uncontrolled Environment
Frequency Band	PCS: 1850 - 1990MHz	System	GSM

EUT Antenna Description			
Type	Monopole	Configuration	Fixed, 360° Rotation
Dimensions	35.5 mm (L),	Gain	0 dBi
Location	N/A		

Use of Product :

Manufacturer: Chi Mei Communications Systems, Inc

Production is planned: [X] Yes, [ ] No

EUT receive date: March 21, 2002

EUT received condition: Good working condition prototype

Test start date: March 21, 2002

Test end date: March 22, 2002

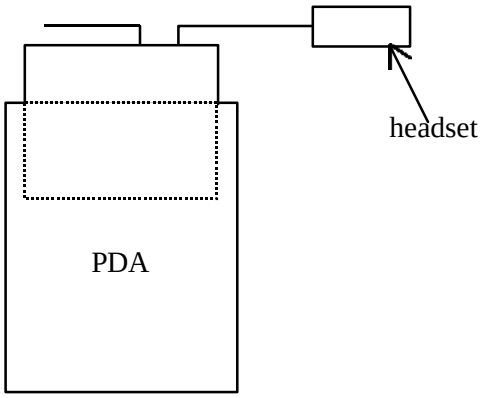
1.1 Test Plan Reference

FCC rule part 2.1093, Supplement C to OET Bulletin 65 (Edition 01-01)

1.2 System Test Configuration

1.2.1 System Block Diagram & Support equipment

The diagram shown below details test configuration of the equipment under test.



EUT was tested with PDA HP Jornada, Model 735

No Support Equipment was used. The test sample was operated in a test mode that allows control of the transmitter without the need to place actual phone calls. For the purposes of this test the device is commanded to test mode and manually set to the proper channel, transmitter power levels and transmit mode of operation. The device was then placed in the SAR measurement system with a fully charged battery.

1.2.1 Test Position

Three test configurations were used to show compliance with the FCC RF human exposure requirements. In all configurations, the EDS01 was configured for testing in a typical fashion (as a customer would normally use it). Due to the application and usage of the product, SAR measurements with the human head region are not necessary. Table 1 below describes the setup and condition:

Table 1, Equipment Setup	
Configuration	**Description**
A	Antenna in horizontal position, PDA is touching the Phantom, distance from antenna to the Phantom = 2 mm
B	Antenna in horizontal position, PDA is 5 mm from the Phantom, distance from antenna to Phantom = 7 mm

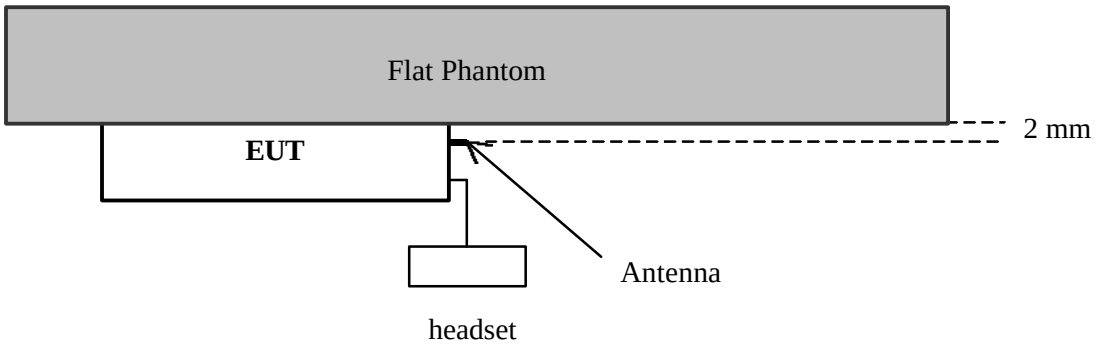


Figure 1: Configuration A

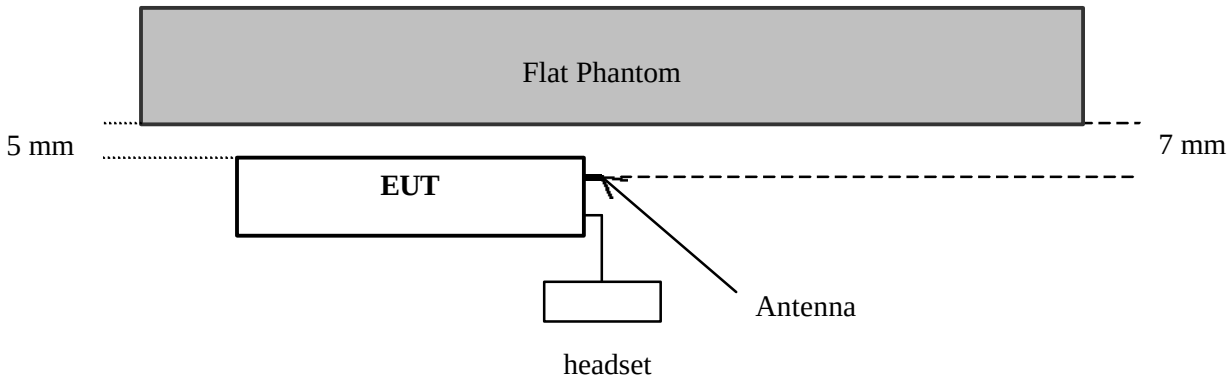


Figure 1: Configuration B

1.4.3 Test Condition

During tests, the worst case data (max. RF coupling) was determined with following conditions:

EUT Antenna	Fixed length	**Orientation**	N/A
Usage	Operates with a PDA	**Distance between antenna axis at the joint and the phantom:**	7 nm
Simulating human Body/hand	Yes	**EUT Battery**	Fully charged
Frequency	PCS band: Low: 1850.2 MHz, Mid: 1879.8 MHz, High: 1909.8 MHz		
Conducted output Power (peak)	1850.2 MHz 28.12 dBm	1880.0 MHz 28.00 dBm	1909.8 MHz 28.25 dBm

* Power output level was provided by customer.

The spatial peak SAR values were accessed for lowest, middle and highest operating channels defined by the manufacturer.

EUT was tested with PDA HP Jornada, Model 735

1.1 Modifications required for compliance

No modifications were implemented by Intertek Testing Services.

1.2 Additions, deviations and exclusions from standards

No additions, deviations or exclusions have been made from standard.

2.0 SAR EVALUATION

2.1 SAR Limits

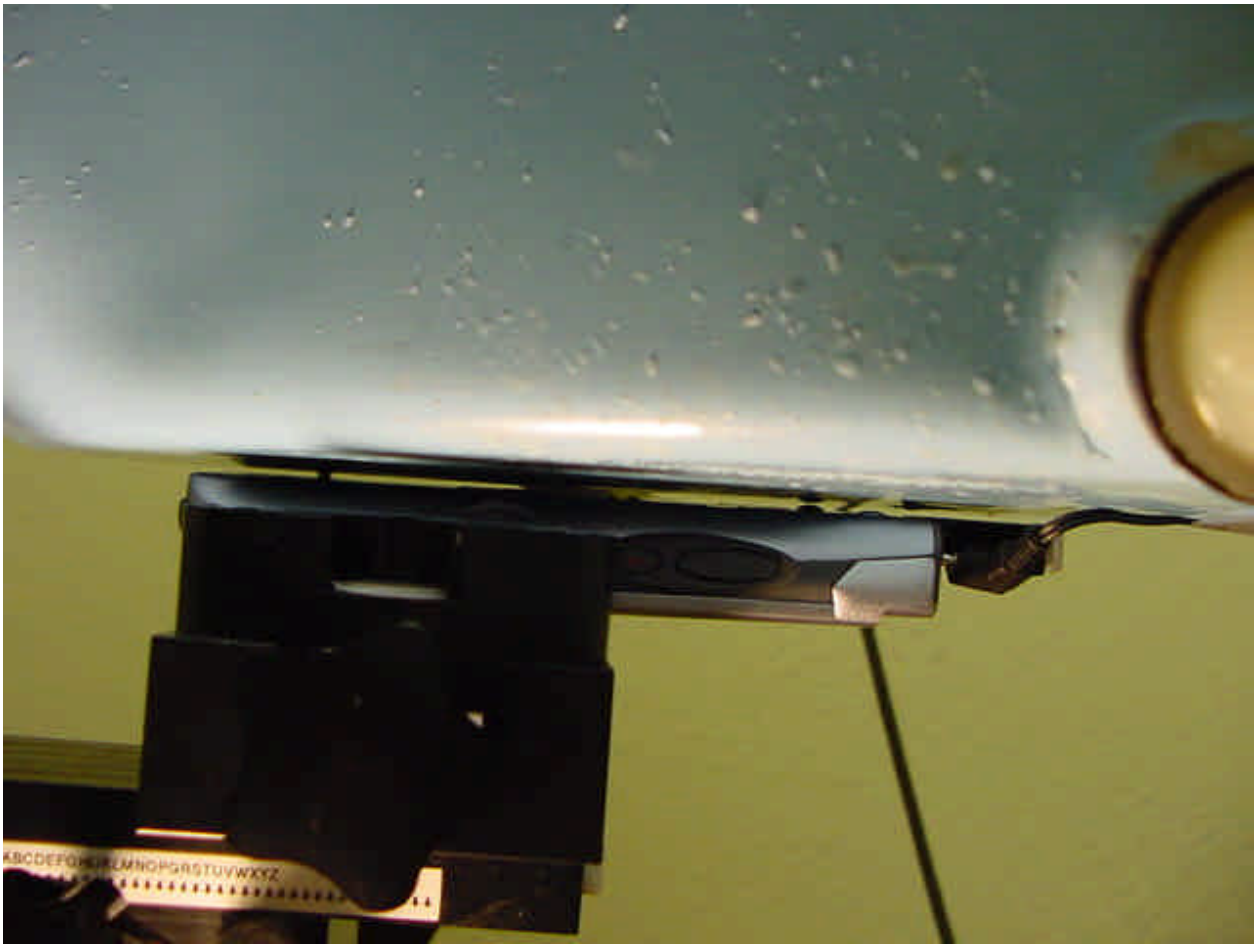
The following FCC limits for SAR apply to devices operate in General Population/Uncontrolled Exposure environment:

EXPOSURE (General Population/Uncontrolled Exposure environment)	**SAR (W/kg)**
Average over the whole body	0.08
Spatial Peak (1g)	1.60
Spatial Peak for hands, wrists, feet and ankles (10g)	4.00

2.2 Configuration Photographs

SAR Measurement Test Setup

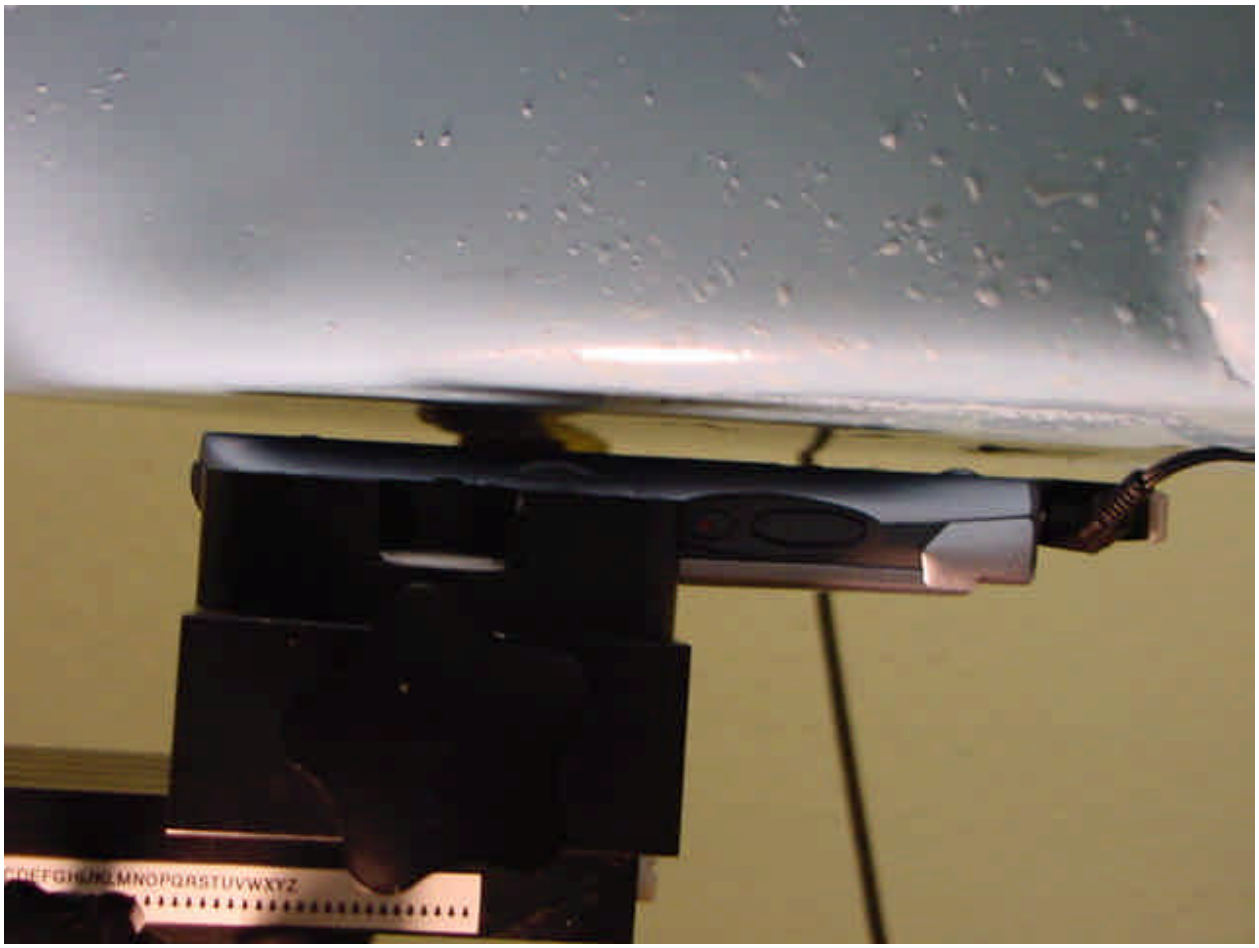
(configuration A)



2.2 Configuration Photographs (Continued)

SAR measurement Test Setup

(configuration B)



2.2 Configuration Photographs (Continued)

SAR measurement Test Setup

EUT Photo

2.2 Configuration Photographs (Continued)

SAR measurement Test Setup

EUT Photo

2.2 Configuration Photographs (Continued)

SAR measurement Test Setup

EUT Photo

2.2 Configuration Photographs (Continued)

SAR measurement Test Setup

EUT Photo

2.3 System Verification

Prior to the assessment, the system was verified to the ±10% of the specifications by using the system validation kit. The validation was performed at 1800 MHz.

Validation kit	Targeted SAR_{1g} (mW/g)	Measured SAR_{1g} (mW/g)
#: 0013	9.76	9.17 *

* see plot #7

2.4 Evaluation Procedures

The SAR evaluation was performed with the following procedures:

a. SAR was measured at a fixed location above the reference point and used as a reference value for the assessing the power drop.

b. The SAR distribution at the exposed side of the flat Phantom was measured at a distance of 30 mm from the inner surface of the shell. The area covered the entire dimension of the head and the horizontal grid spacing was 20 mm x 20 mm. Based on this data, the area of the maximum absorption was determined by spline interpolation.

c. Around this point, a volume of 32 mm x 32 mm x 34 mm was assessed by measuring 5 x 5 x 7 points. On the basis of this data set, the spatial peak SAR value was evaluated with the following procedure:

   i) The data at the surface were extrapolated, since the center of the dipoles is 2.7 mm away from the tip of the probe and the distance between the surface and the lowest measurement point is 1.6 mm. The extrapolation was based on a least square algorithm. A polynomial of the fourth order was calculated through the points in Z-axes. This polynomial was then used to evaluate the points between the surface and the probe tip.

   ii) The maximum interpolated value was searched with a straightforward algorithm. Around this maximum, the SAR values averaged over the spatial volumes (1g or 10g) were computed using the 3-D spline interpolation algorithm. The 3-D spline is composed of three one-dimensional splines with the "Not a knot" condition (in x, y and z directions). The volume was integrated with the trapezoidal algorithm. 1000 points (10 x 10 x 10) were interpolated to calculate the average.

   iii) All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.

d. Re-measurements of the SAR value at the same location as in step a. above. If the value changed by more than 5 %, the evaluation was repeated.

Chi Mei Communications Systems, Inc, Model No: EDS01 Date of Test: March 21 to 22, 2002
FCC ID: Not Labeled

2.5 Test Results

The results on the following page(s) were obtained when the device was tested in the condition described in this report. Detail measurement data and plots, which reveal information about the location of the maximum SAR with respect to the device, are reported in Appendix A.

Chi Mei Communications Systems, Inc, Model No: EDS01 Date of Test: March 21 to 22, 2002
FCC ID: Not Labeled

Measurement Results

Trade Name:	CMCS Edison	**Model No.:**	EDS01
Serial No.:	Not Labeled	**Test Engineer:**	Suresh Kondapalli

TEST CONDITIONS			
Ambient Temperature	23.5 °C	Relative Humidity	55 %
Test Signal Source	Test Mode	Signal Modulation	GSM
Output Power Before SAR Test	See page 6	Output Power After SAR Test	No change
Test Duration	23 Min. each scan	Number of Battery Change	Each scan

Configuration A PDA is touching the Phantom					
Channel	**Operating Mode**	**Crest Factor**	**Measured SAR_{1g} (mW/g)**	**Measured SAR_{10g} (mW/g)**	**Plot Number**
1850	GSM	8	2.90	1.41	1
1880	GSM	8	2.17	1.06	2
1910	GSM	8	2.90	1.41	3

Configuration B PDA is 5 mm from the Phantom					
Channel	**Operating Mode**	**Crest Factor**	**Measured SAR_{1g} (mW/g)**	**Measured SAR_{10g} (mW/g)**	**Plot Number**
1880	GSM	8	0.917	0.454	4
1850	GSM	8	0.663	0.348	5
1910	GSM	8	0.906	0.453	6

Dipole					
Channel	**Operating Mode**	**Crest Factor**	**Measured SAR_{1g} (mW/g)**	**Measured SAR_{10g} (mW/g)**	**Plot Number**
1800	CW	1	9.17	4.90	7

Note: a) Worst case data were reported
b) Duty cycle factor included in the measured SAR data
c) Uncertainty of the system is not included
d) * w.r.t. Notebook computer base

3.0 TEST EQUIPMENT

3.1 Equipment List

The Specific Absorption Rate (SAR) tests were performed with the SPEAG model DASY 3 automated near-field scanning system, which is a package, optimized for dosimetric evaluation of mobile radios [3].

The following major equipment/components were used for the SAR evaluations:

SAR Measurement System			
EQUIPMENT	SPECIFICATIONS	S/N #	LAST CAL. DATE
Robot	**Stäubli RX60L**	597412-01	N/A
	Repeatability: ± 0.025mm Accuracy: 0.806×10^{-3} degree Number of Axes: 6		
E-Field Probe	**ET3DV6**	1576	02/27/02
	Frequency Range: 10 MHz to 6 GHz Linearity: ± 0.2 dB Directivity: ± 0.1 dB in brain tissue		
Data Acquisition	**DAE3**	317	N/A
	Measurement Range: 1µV to >200mV Input offset Voltage: < 1µV (with auto zero) Input Resistance: 200 M		
Phantom	**Generic Twin V3.0**	N/A	N/A
	Type: Generic Twin, Homogenous Shell Material: Fiberglass Thickness: 2 ± 0.1 mm Capacity: 20 liter Ear spacer: 4 mm (between EUT ear piece and tissue simulating liquid)		
Simulated Tissue	**Mixture**	N/A	03/21/02
	Please see section 3.2 for details		
Power Meter	**HP 8900D** w/ 84811A sensor	3607U00673	08/08/01
	Frequency Range: 100kHz to 18 GHz Power Range: 300µW to 3W		

3.2 Muscle Tissue Simulating Liquid

Ingredient	
DGBE Dilethylene Glycol	44.92%
Toniton X-100 (Polyethylene Glycol Mono) Ether	0.1%
Salt	0.18%
Water	54.8%

The dielectric parameters were verified prior to assessment using the HP 85070A dielectric probe kit and the HP 8753C network Analyzer. The dielectric parameters were:

Frequency (MHz)	ε_r *	σ *(mho/m)	ρ **(kg/m^3)
1880	55.8	1.49	1000

* *Worst case uncertainty of the HP 85070A dielectric probe kit*
** *Worst case assumption*

3.3 E-Field Probe Calibration

Probes were calibrated by the manufacturer in the TEM cell ifi 110. To ensure consistency, a strict protocol was followed. The conversion factor (ConF) between this calibration and the measurement in the tissue simulation solution was performed by comparison with temperature measurement and computer simulations. Probe calibration factors are included in Appendix C.

3.4 Measurement Uncertainty

The uncertainty budget has been determined for the DASY3 measurement system according to the NIS81 [5] and the NIST 1297 [6] documents and is given in the following table. The extended uncertainty (K=2) was assessed to be 23.5 %

UNCERTAINTY BUDGET				
Uncertainty Description	**Error**	**Distrib.**	**Weight**	**Std.Dev.**
Probe Uncertainty				
Axial isotropy	±0.2 dB	U-shape	0.5	±2.4 %
Spherical isotropy	±0.4 dB	U-shape	0.5	±4.8 %
Isotropy from gradient	±0.5 dB	U-shape	0	
Spatial resolution	±0.5 %	Normal	1	±0.5 %
Linearity error	±0.2 dB	Rectang.	1	±2.7 %
Calibration error	±3.3 %	Normal	1	±3.3 %
SAR Evaluation Uncertainty				
Data acquisition error	±1 %	Rectang.	1	±0.6 %
ELF and RF disturbances	±0.25 %	Normal	1	±0.25 %
Conductivity assessment	±10 %	Rectang.	1	±5.8 %
Spatial Peak SAR Evaluation Uncertainty				
Extrapol boundary effect	±3 %	Normal	1	±3 %
Probe positioning error	±0.1 mm	Normal	1	±1 %
Integrat. and cube orient	±3 %	Normal	1	±3 %
Cube shape inaccuracies	±2 %	Rectang.	1	±1.2 %
Device positioning	±6 %	Normal	1	±6 %
Combined Uncertainties				**±11.7 %**

3.5 Measurement Tractability

All measurements described in this report are traceable to National Institute of Standards and Technology (NIST) standards or appropriate national standards.

4.0 WARNING LABEL INFORMATION - USA

For body worn operation, this device has been tested and meets FCC RF exposure guidelines when used with an accessory that contains no metal and that positions the device a minimum of 5 mm from the body. Use of other accessories may not ensure compliance with FCC RF exposure duidelines.

5.0 REFERENCES

1] ANSI, *ANSI/IEEE C95.1-1991: IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3kHz to 300 GHz*, The Institute of electrical and Electronics Engineers, Inc., New York, NY 10017, 1992

[2] Federal Communications Commission, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields", OET Bulletin 65, FCC, Washington, D.C. 20554, 1997

[3] Thomas Schmid, Oliver Egger, and Niels Kuster, "Automated E-field scanning system for dosimetric assessments", *IEEE Transaction on Microwave Theory and Techniques*, vol. 44, pp. 105-113, Jan. 1996.

[4] Niels Kuster, Ralph Kastle, and Thomas Schmid, "Dosimetic evaluation of mobile communications equipment with know precision", IEICE Transactions on Communications, vol. E80-B, no. 5, pp.645-652, May 1997.

5] NIS81, NAMAS, "The treatment of uncertainty in EMC measurement", Tech. Rep., NAMAS Executive, National Physical Laboratory, Teddinton, Middlesex, England, 1994.

6] Barry N. Tayor and Chris E. Kuyatt, "Guidelines for evaluating and expressing the uncertainty of NIST measurement results", Tech. Rep., National Institute of Standards and Technology, 1994.

5.0 DOCUMENT HISTORY

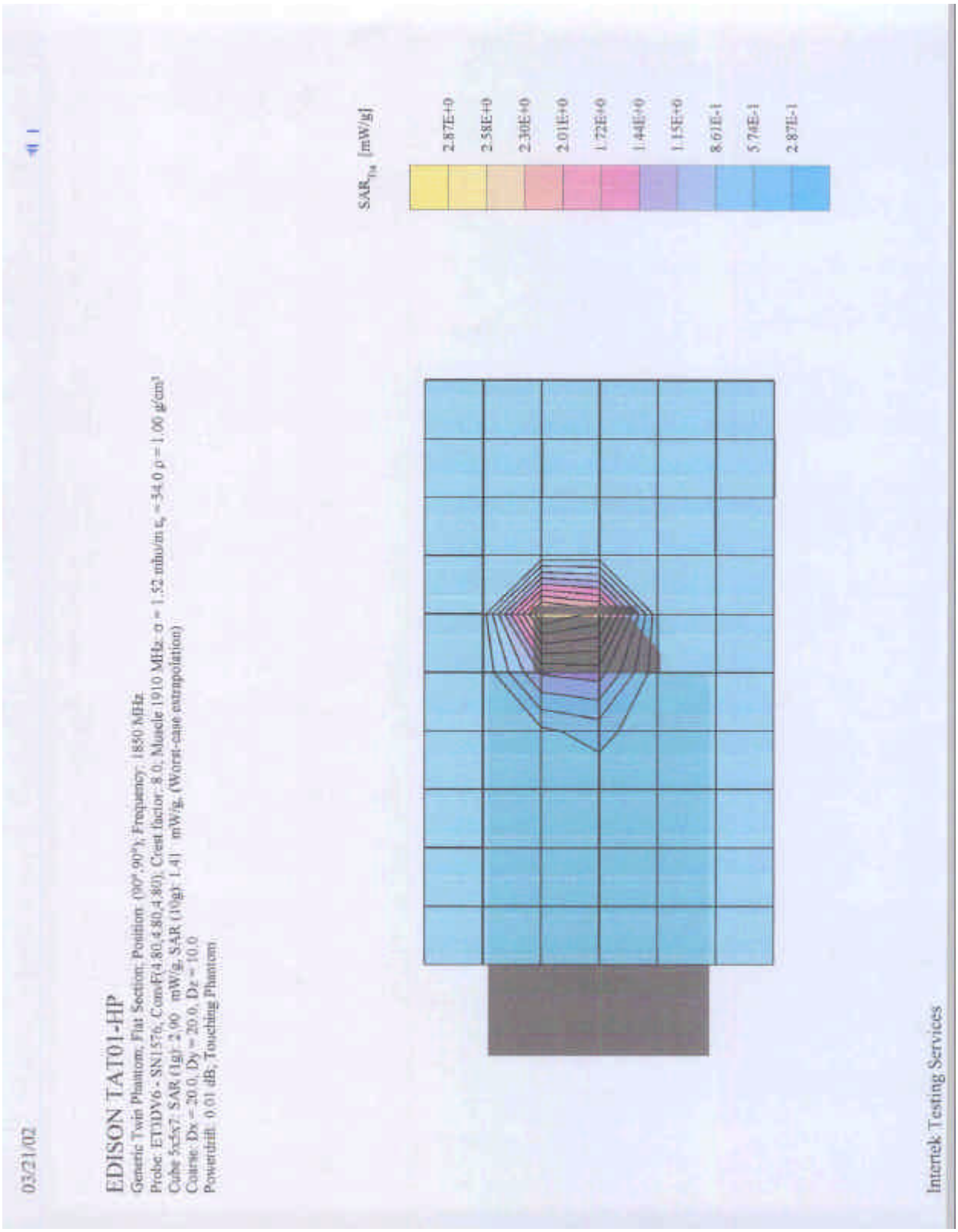
Revision/ Job Number	Writer Initials	Date	Change
1.0 /3022368	SS	March 26, 2002	Original document

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.

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

Chi Mei Communications Systems, Inc, Model No: EDS01 Date of Test: March 21 to 22, 2002
FCC ID: Not Labeled



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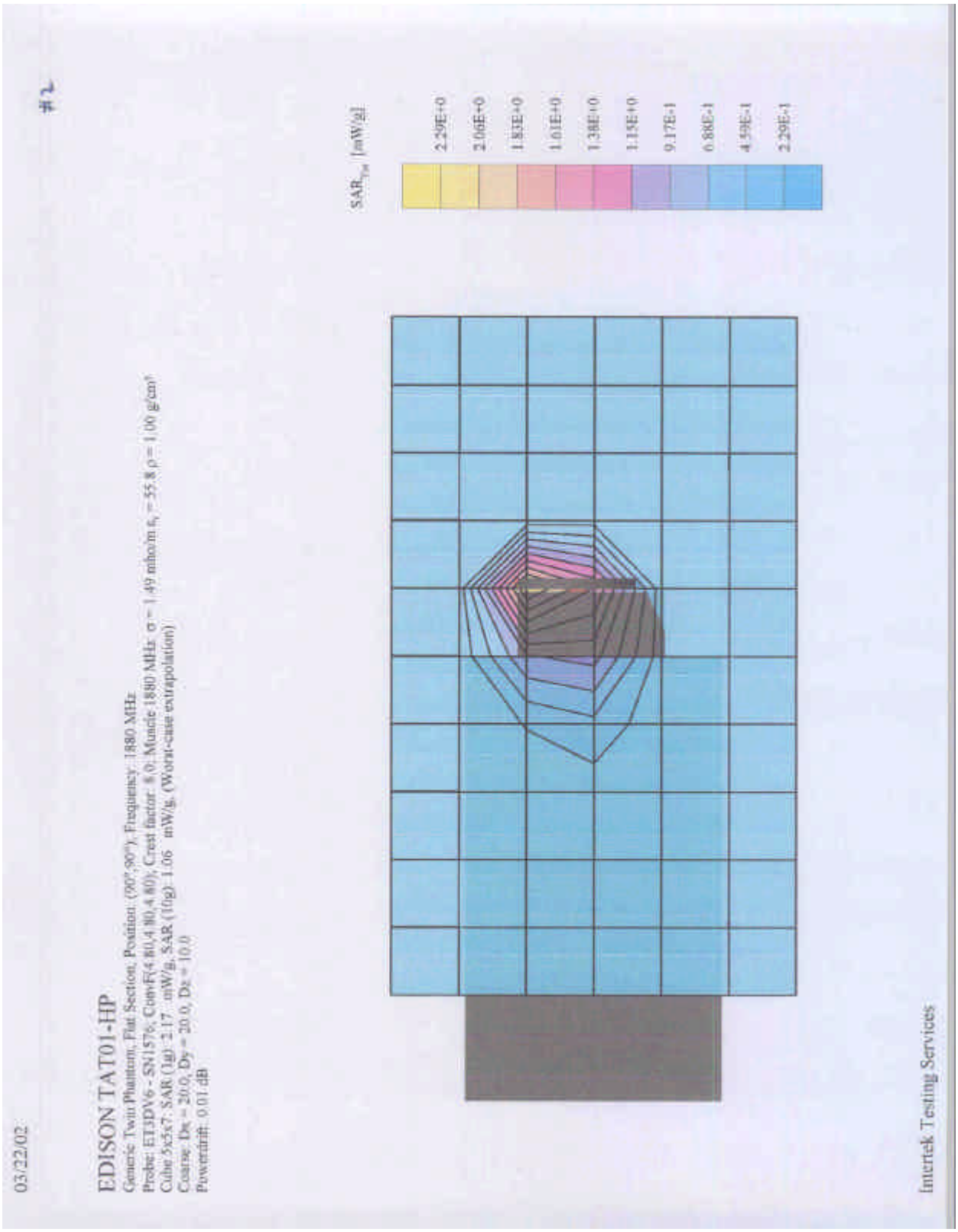
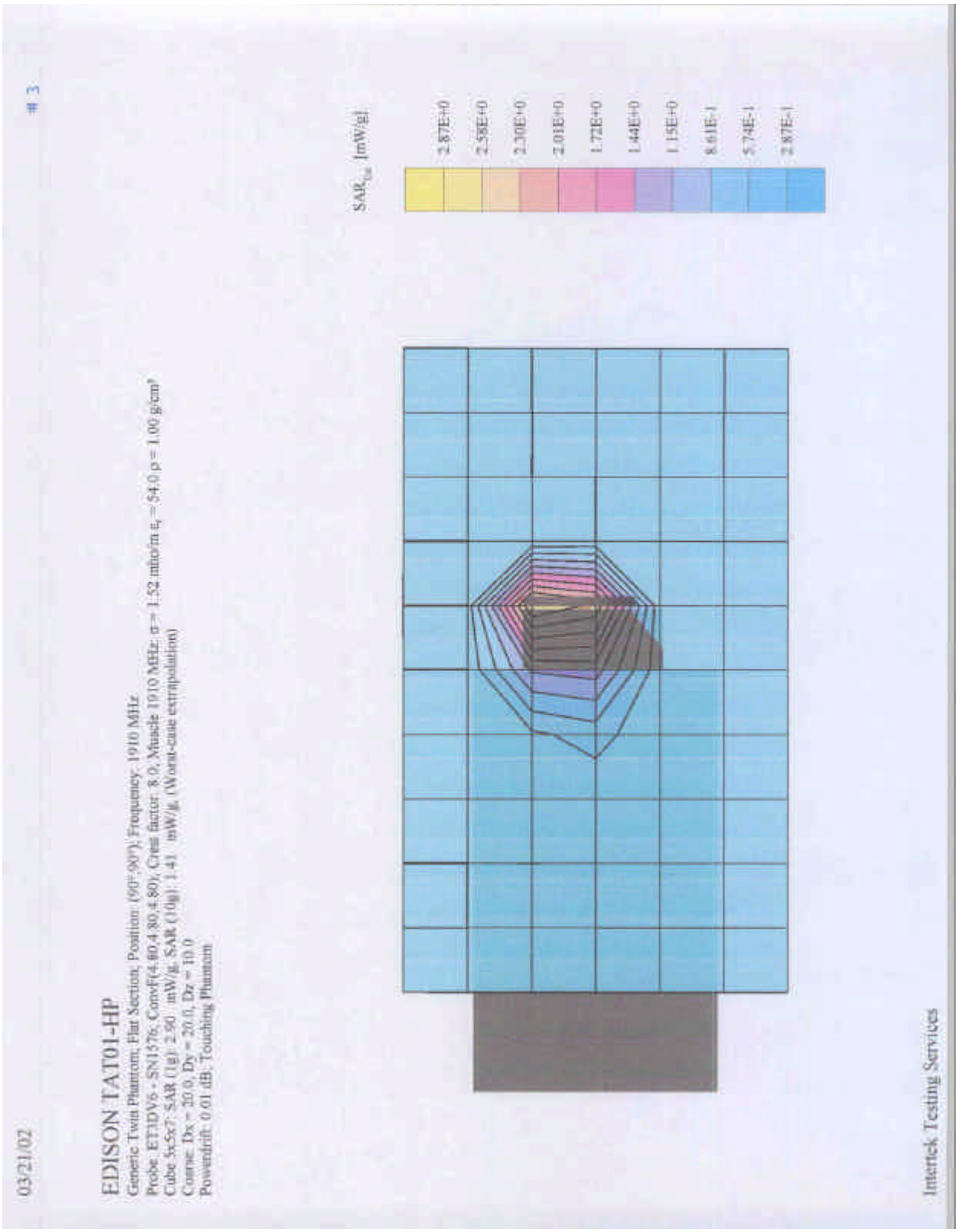
FCC ID: Not Labeled




#3
SAR1g [mW/g]
2.87E+0
2.58E+0
2.30E+0
2.01E+0
1.72E+0
1.44E+0
1.15E+0
8.61E-1
5.74E-1
2.87E-1
EDISON TAT01-HP
Generic Twin Phantom; Flat Section; Position: (90°,90°); Frequency: 1910 MHz
Probe: ET3DV6 - SN1576; ConvF(4.80,4.80,4.80); Crest factor: 8.0; Muscle 1910 MHz: σ = 1.52 mho/m εr = 54.0 ρ = 1.00 g/cm³
Cube 5x5x7: SAR (1g): 2.90 mW/g, SAR (10g): 1.41 mW/g, (Worst-case extrapolation)
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: 0.01 dB; Touching Phantom
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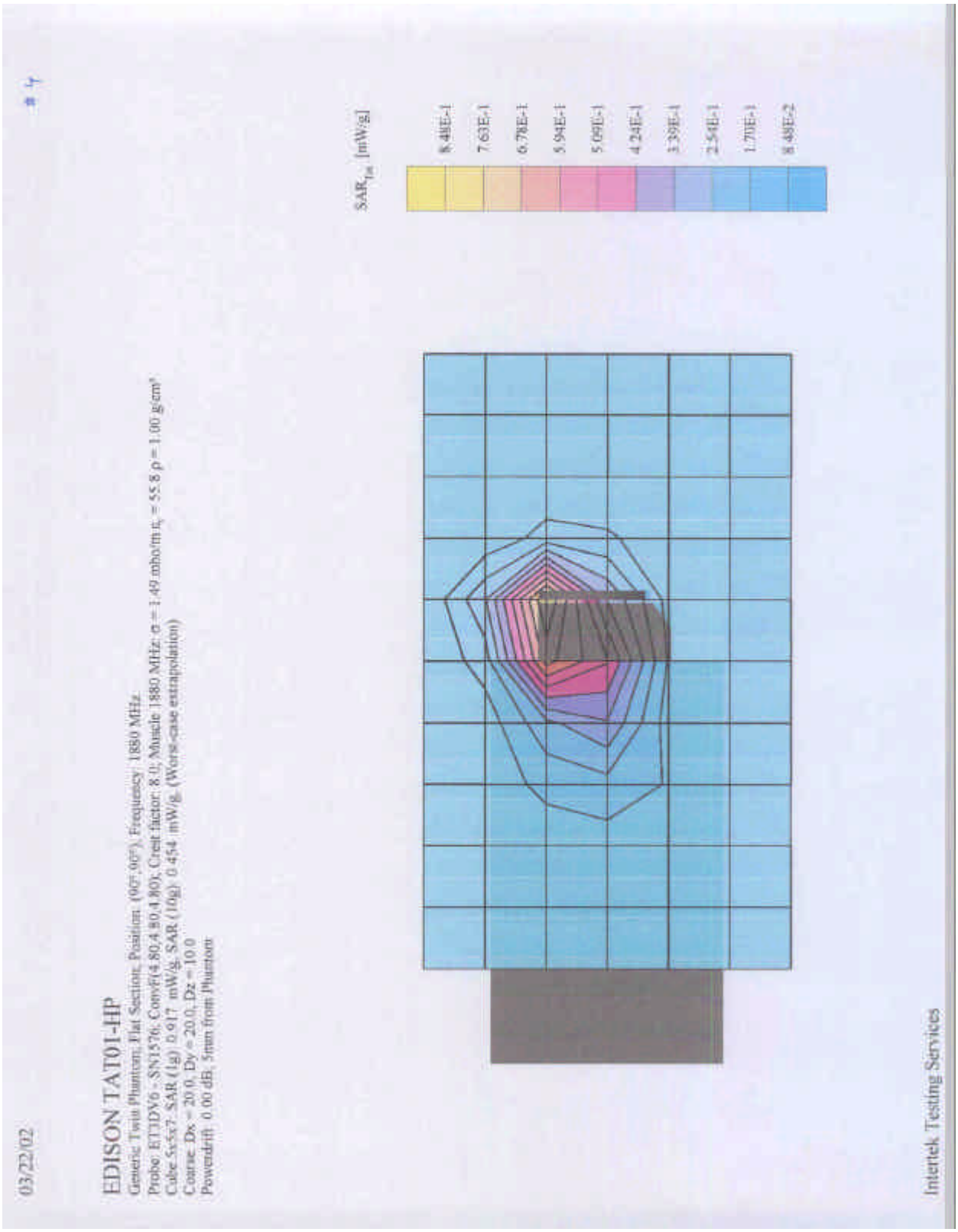
#4
SAR1g [mW/g]
8.48E-1
7.63E-1
6.78E-1
5.94E-1
5.09E-1
4.24E-1
3.39E-1
2.54E-1
1.70E-1
8.48E-2
03/22/02
EDISON TAT01-HP
Generic Twin Phantom; Flat Section; Position: (90°,90°); Frequency: 1880 MHz
Probe: ET3DV6 - SN1576; ConvF(4.80,4.80,4.80); Crest factor: 8.0; Muscle 1880 MHz: σ = 1.49 mho/m εr = 55.8 ρ = 1.00 g/cm³
Cube 5x5x7: SAR (1g): 0.917 mW/g; SAR (10g): 0.454 mW/g (Worst-case extrapolation)
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: 0.00 dB; 5mm from Phantom
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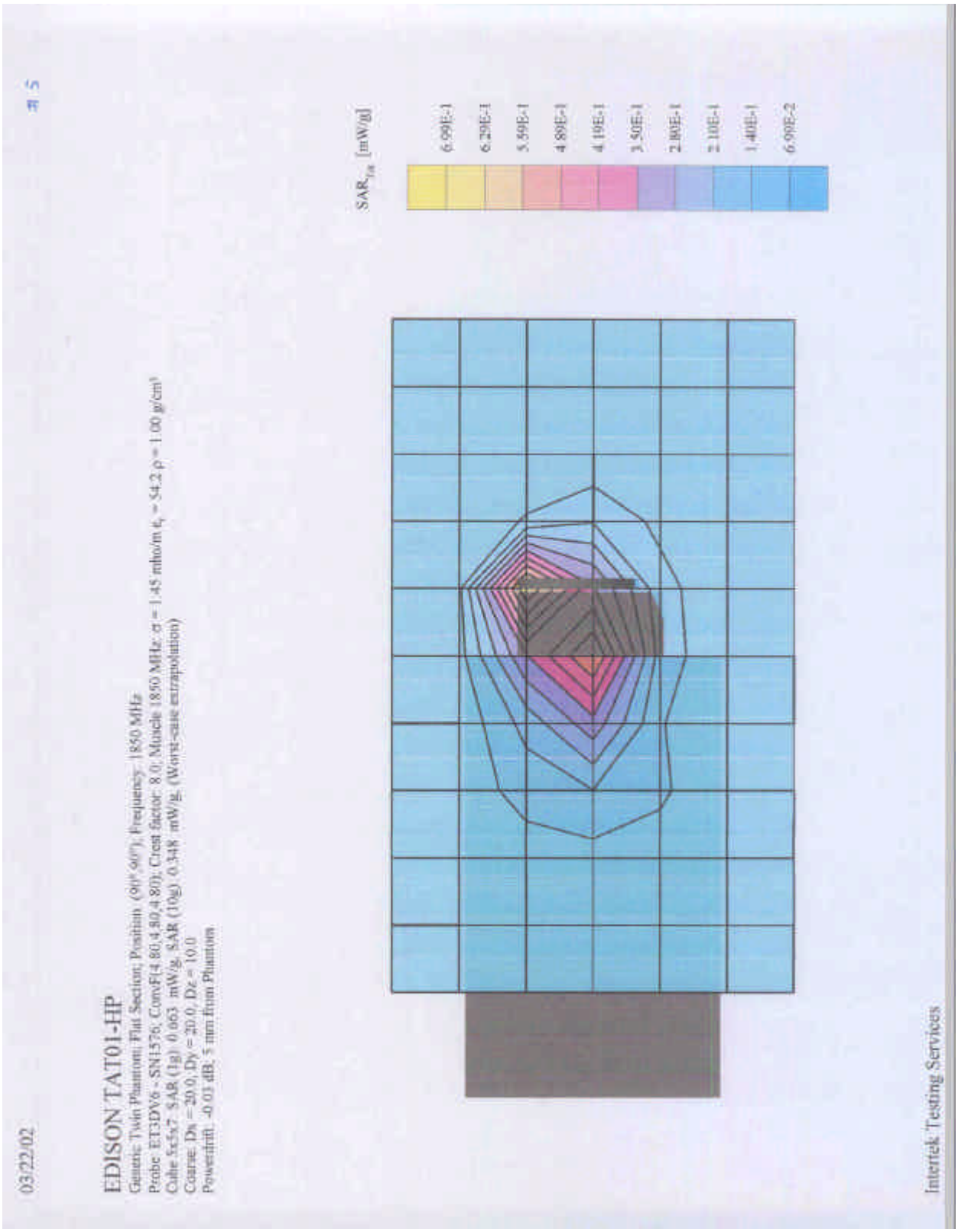
EDISON TAT01-HP
Generic Twin Phantom; Flat Section; Position: (90°,90°); Frequency: 1850 MHz
Probe: ET3DV6 - SN1576; ConvF(4.80,4.80,4.80); Crest factor: 8.0; Muscle 1850 MHz: σ = 1.45 mho/m ε_r = 54.2 ρ = 1.00 g/cm³
Cube 5x5x7: SAR (1g): 0.663 mW/g, SAR (10g): 0.348 mW/g, (Worst-case extrapolation)
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: -0.03 dB; 5 mm from Phantom
SAR_1g [mW/g]
6.99E-1
6.29E-1
5.59E-1
4.89E-1
4.19E-1
3.50E-1
2.80E-1
2.10E-1
1.40E-1
6.99E-2
03/22/02
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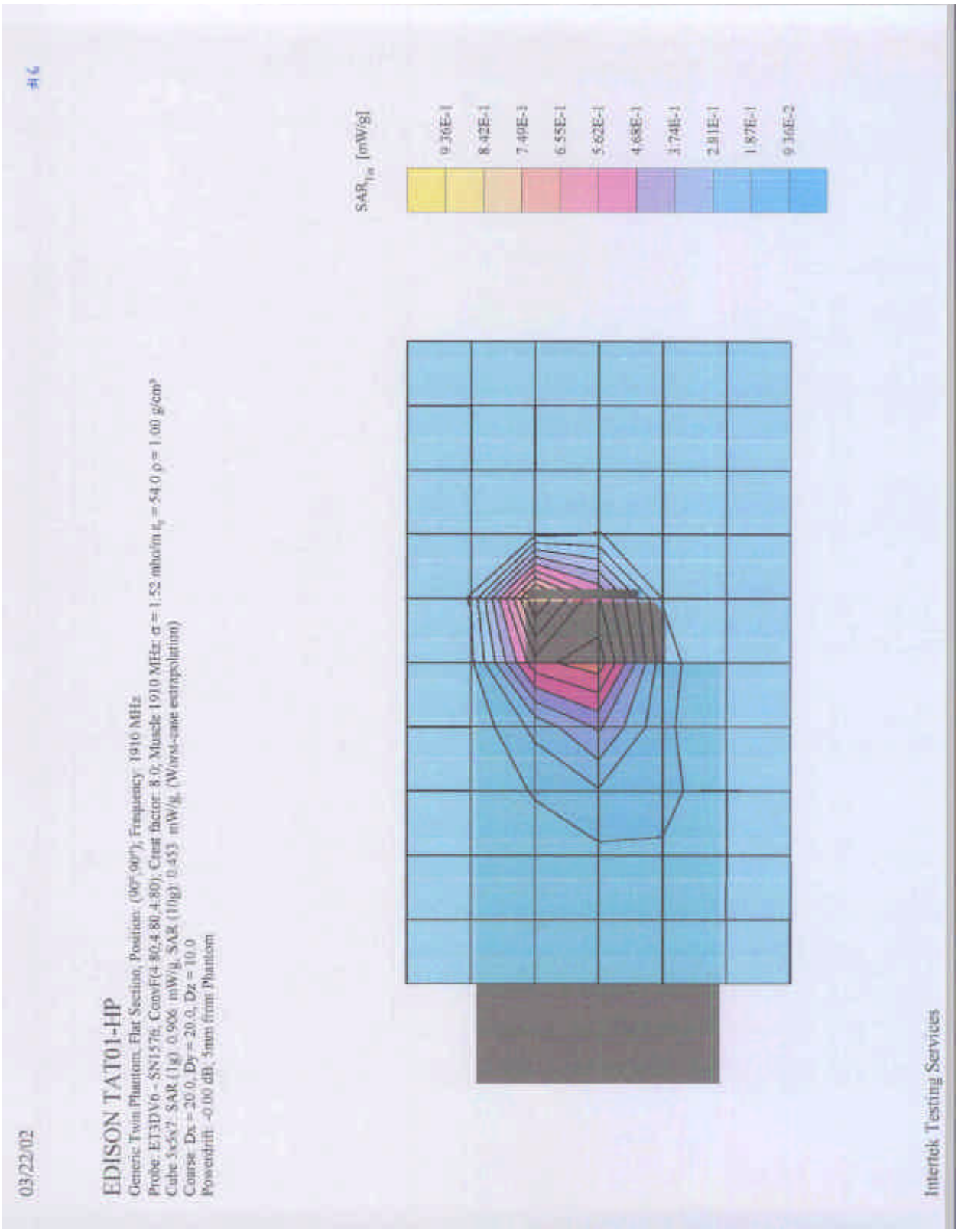
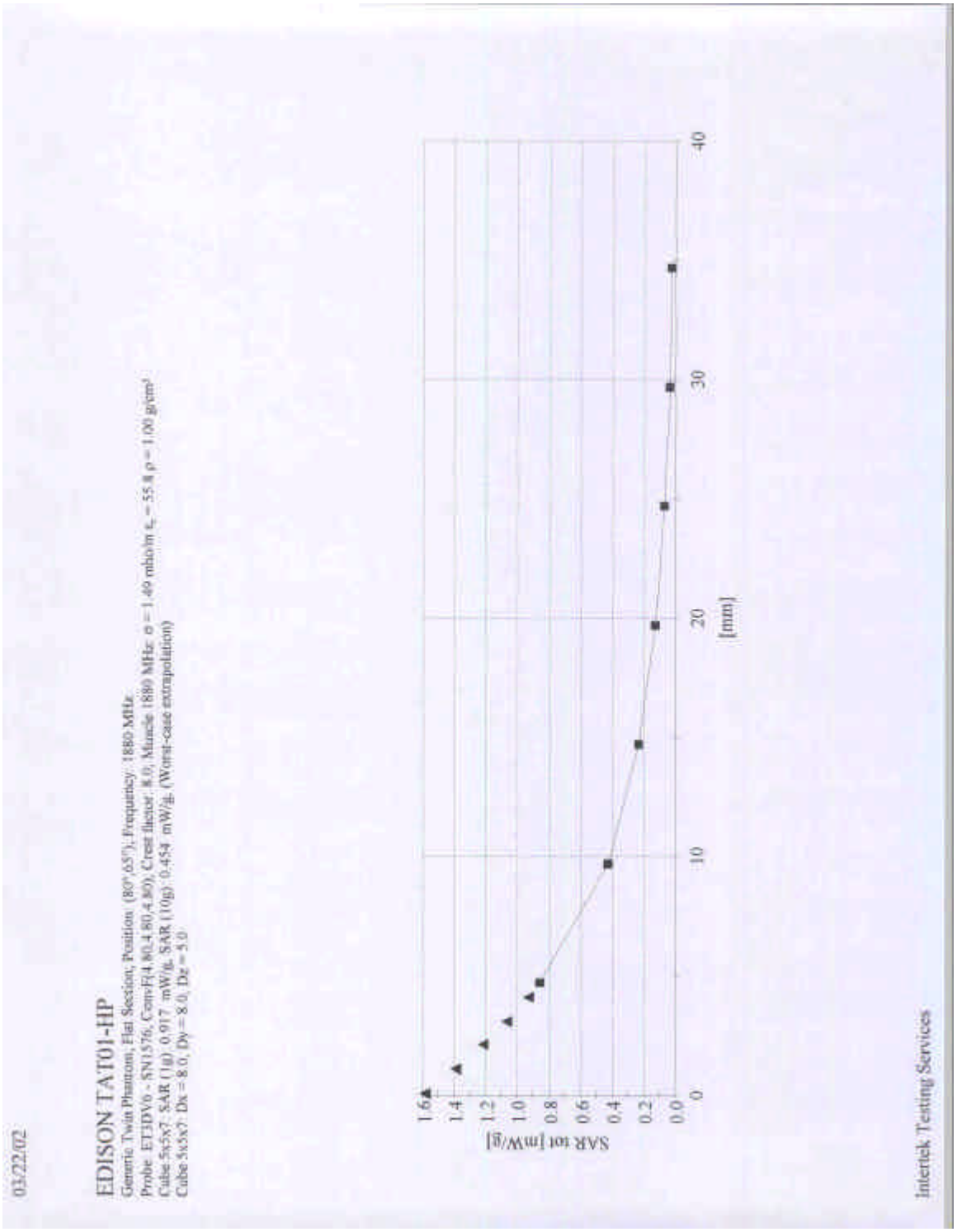
Chi Mei Communications Systems, Inc, Model No: EDS01 Date of Test: March 21 to 22, 2002
FCC ID: Not Labeled




03/22/02
EDISON TAT01-HP
Generic Twin Phantom; Flat Section; Position: (80°,65°); Frequency: 1880 MHz
Probe: ET3DV6 - SN1576; ConvF(4.80,4.80,4.80); Crest factor: 8.0; Muscle 1880 MHz: σ = 1.49 mho/m ε_r = 55.8 ρ = 1.00 g/cm³
Cube 5x5x7: SAR (1g): 0.917 mW/g, SAR (10g): 0.454 mW/g, (Worst-case extrapolation)
Cube 5x5x7: Dx = 8.0, Dy = 8.0, Dz = 5.0
SAR tot [mW/g]
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0
10
20
30
40
[mm]
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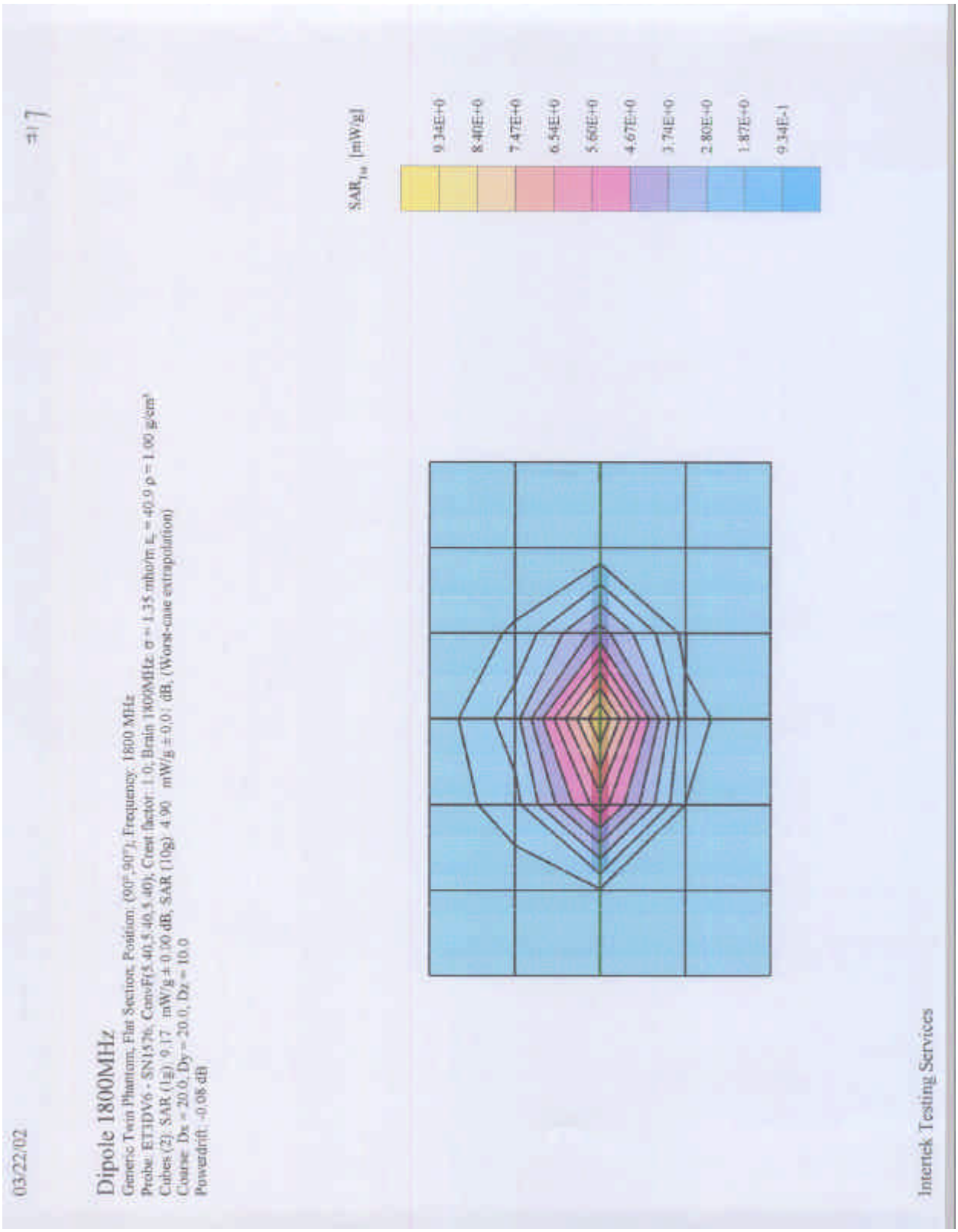
Z-scan Plot


03/22/02
#17
Dipole 1800MHz
Generic Twin Phantom; Flat Section; Position: (90°,90°); Frequency: 1800 MHz
Probe: ET3DV6 - SN1576; ConvF(5.40,5.40,5.40); Crest factor: 1.0; Brain 1800MHz: σ = 1.35 mho/m ε_r = 40.9 ρ = 1.00 g/cm³
Cubes (2): SAR (1g): 9.17 mW/g ± 0.00 dB; SAR (10g): 4.90 mW/g ± 0.0 dB, (Worst-case extrapolation)
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Powerdrift: -0.08 dB
SAR_1g [mW/g]
9.34E+0
8.40E+0
7.47E+0
6.54E+0
5.60E+0
4.67E+0
3.74E+0
2.80E+0
1.87E+0
9.34E-1
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APPENDIX B - E-Field Probe Calibration Data

See attached.

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:

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:1576

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

Calibrated for System DASY3

ET3DV6 SN:1576 **February 27, 2002**

DASY3 - Parameters of Probe: ET3DV6 SN:1576

Sensitivity in Free Space

Diode Compression

NormX	1.77 $\mu V/(V/m)^2$	DCP X	98	mV
NormY	1.81 $\mu V/(V/m)^2$	DCP Y	98	mV
NormZ	1.76 $\mu V/(V/m)^2$	DCP Z	98	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	7.0 ± 9.5% (k=2)	Boundary effect:	
ConvF Y	7.0 ± 9.5% (k=2)	Alpha	0.30
ConvF Z	7.0 ± 9.5% (k=2)	Depth	2.51

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	5.4 ± 9.5% (k=2)	Boundary effect:	
ConvF Y	5.4 ± 9.5% (k=2)	Alpha	0.45
ConvF Z	5.4 ± 9.5% (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_{be} [%]	Without Correction Algorithm	7.6	4.3
SAR_{lc} [%]	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_{be} [%]	Without Correction Algorithm	9.7	6.6
SAR_{lc} [%]	With Correction Algorithm	0.2	0.3

Sensor Offset

Probe Tip to Sensor Center	2.7	mm
Optical Surface Detection	1.9 ± 0.2	mm

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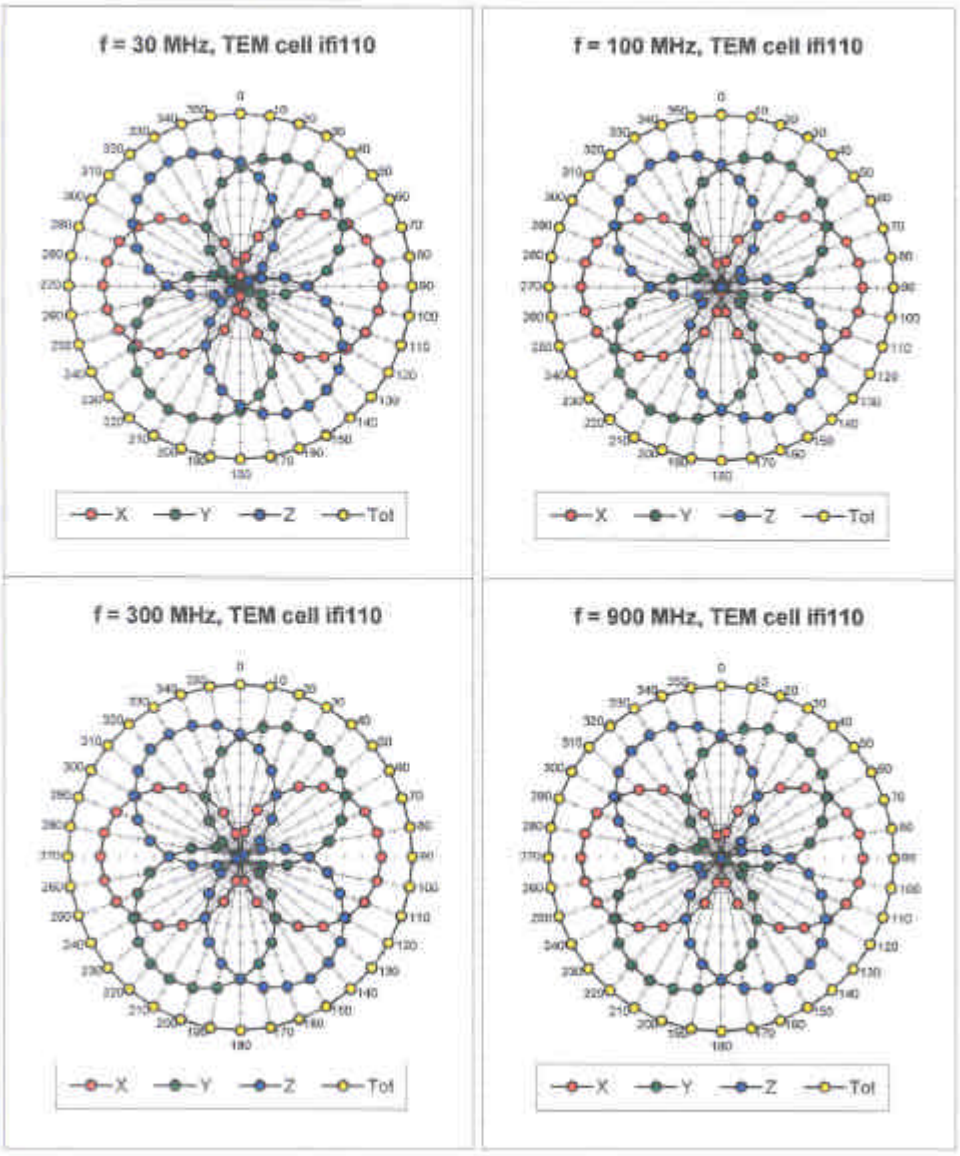
Receiving Pattern (ϕ), θ = 0°



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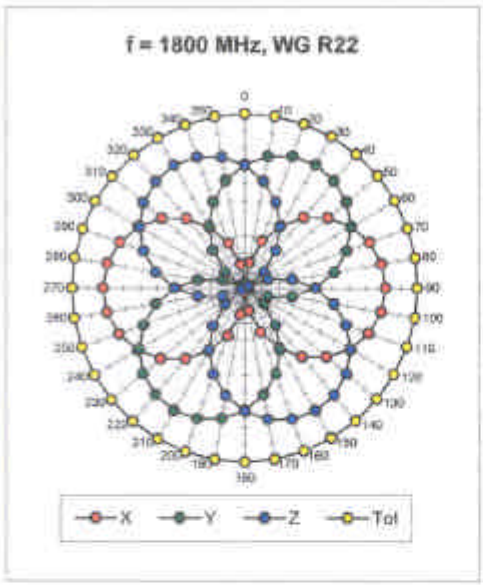
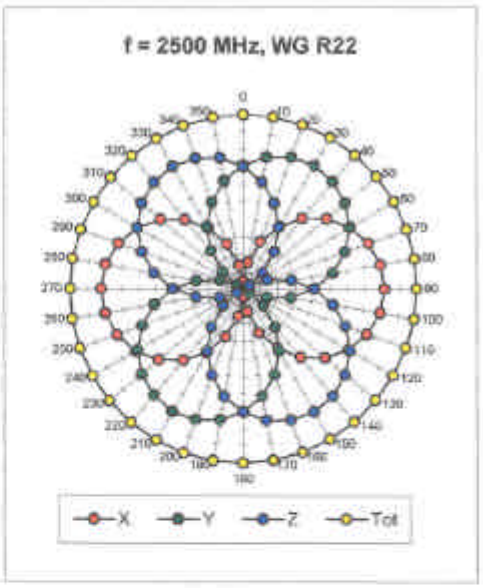
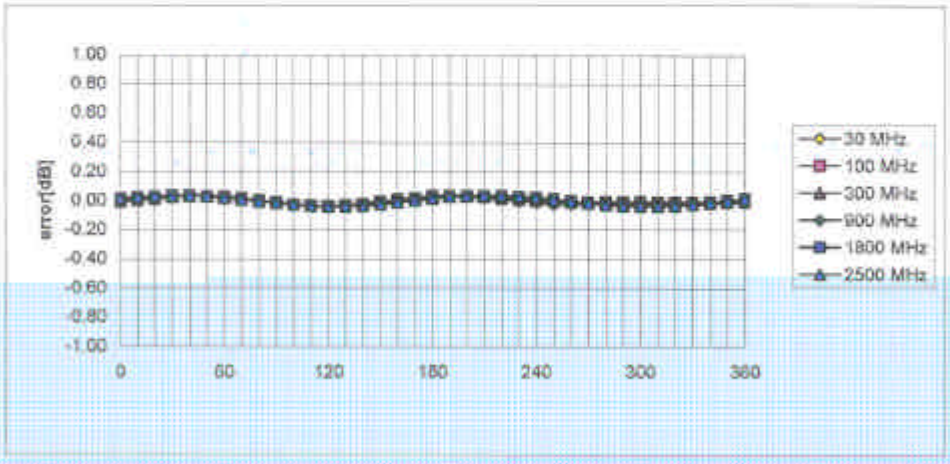




Isotropy Error (ϕ), θ = 0°



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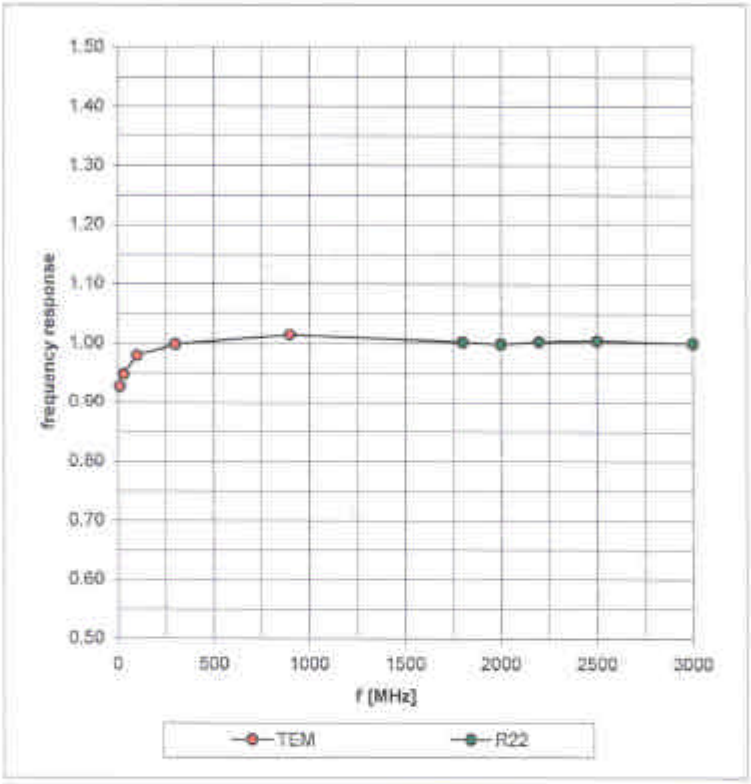
Frequency Response of E-Field

(TEM-Cell:ifi110, Waveguide R22)



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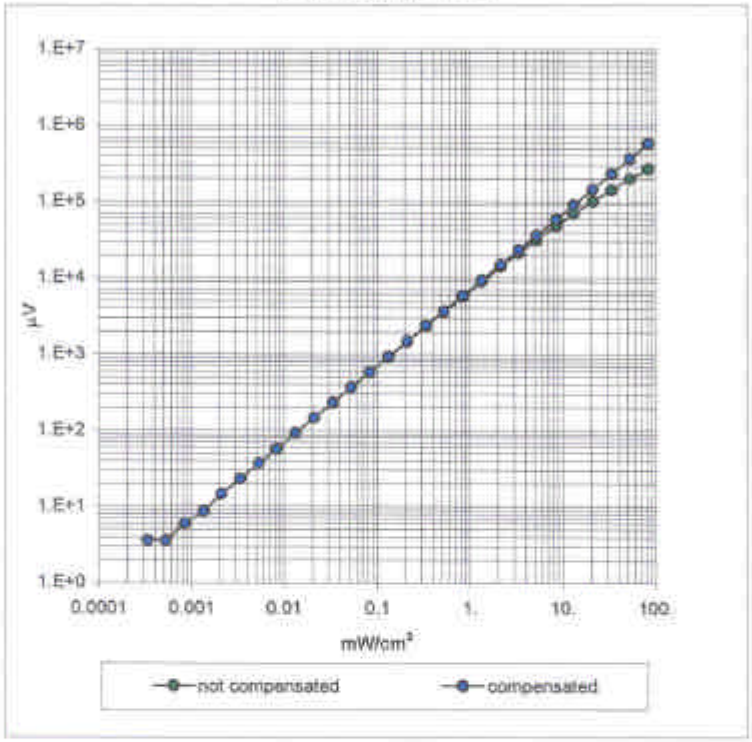
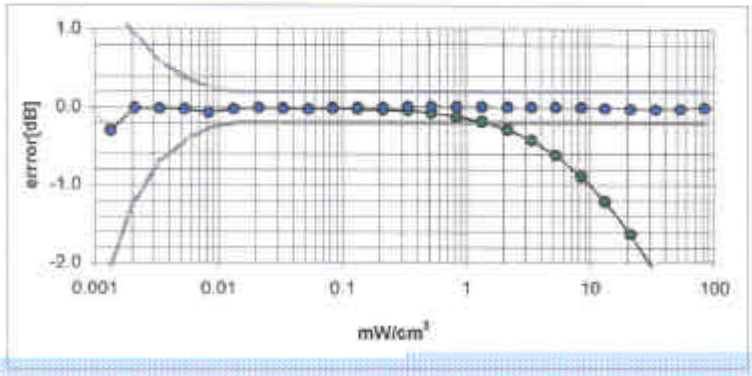
Dynamic Range f(SAR_{brain})

(Waveguide R22)





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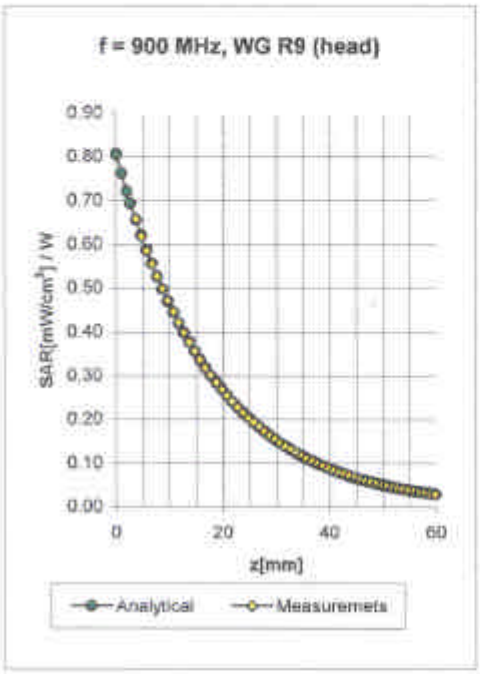
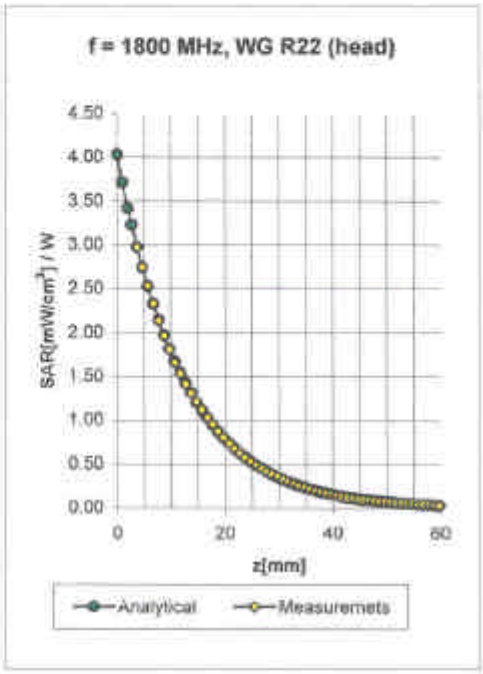
Conversion Factor Assessment





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	7.0 ± 9.5% (k=2)	Boundary effect:	
	ConvF Y	7.0 ± 9.5% (k=2)	Alpha	0.30
	ConvF Z	7.0 ± 9.5% (k=2)	Depth	2.51

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	5.4 ± 9.5% (k=2)	Boundary effect:	
	ConvF Y	5.4 ± 9.5% (k=2)	Alpha	0.45
	ConvF Z	5.4 ± 9.5% (k=2)	Depth	2.30

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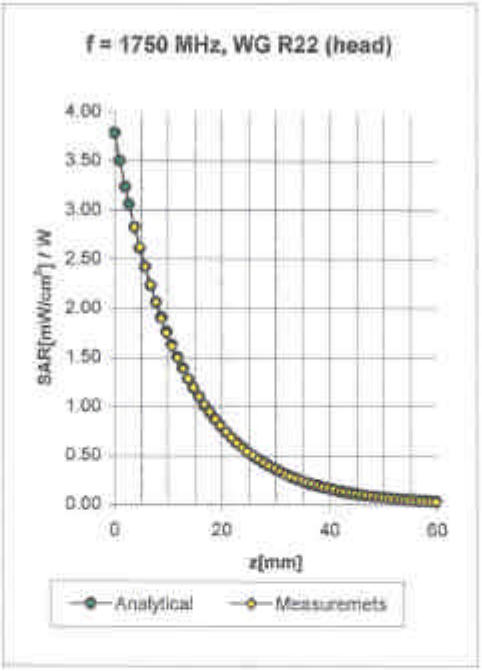
Conversion Factor Assessment



Head 1750 MHz ε_r = 40.0 ± 5% σ = 1.40 ± 5% mho/m

ConvF X	5.4 ± 8.9% (k=2)	Boundary effect:	
ConvF Y	5.4 ± 8.9% (k=2)	Alpha	0.45
ConvF Z	5.4 ± 8.9% (k=2)	Depth	2.27

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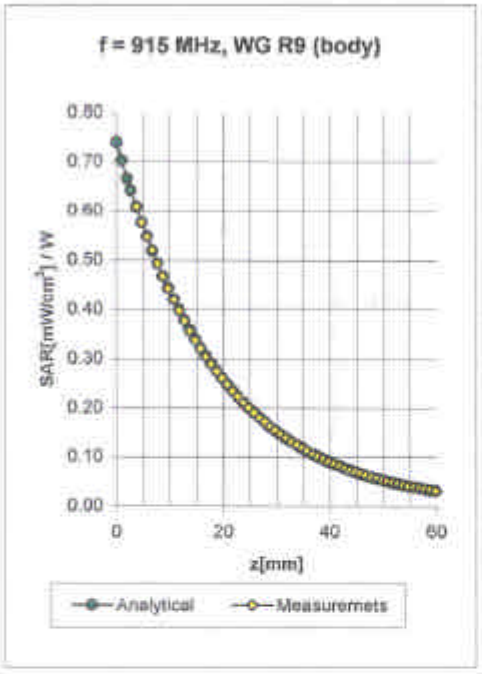
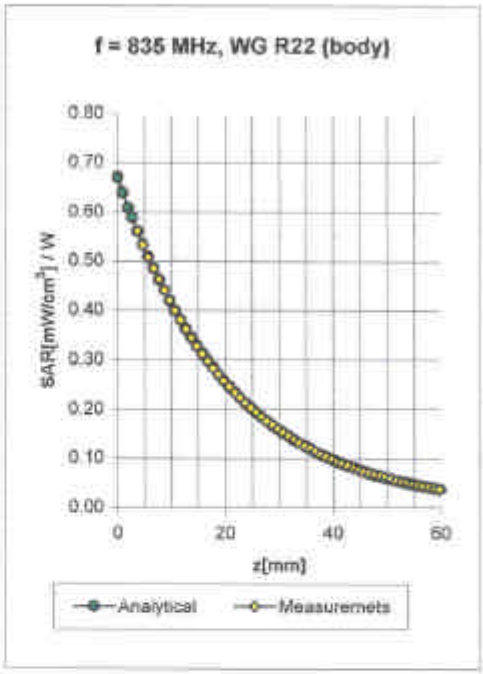
Conversion Factor Assessment





Body	915 MHz	ε_r = 55.0 ± 5%	σ = 1.06 ± 5% mho/m
ConvF X	6.7 ± 8.9% (k=2)	Boundary effect:	
ConvF Y	6.7 ± 8.9% (k=2)	Alpha	0.45
ConvF Z	6.7 ± 8.9% (k=2)	Depth	2.01

Body	835 MHz	ε_r = 55.2 ± 5%	σ = 0.97 ± 5% mho/m
ConvF X	6.7 ± 8.9% (k=2)	Boundary effect:	
ConvF Y	6.7 ± 8.9% (k=2)	Alpha	0.34
ConvF Z	6.7 ± 8.9% (k=2)	Depth	2.37

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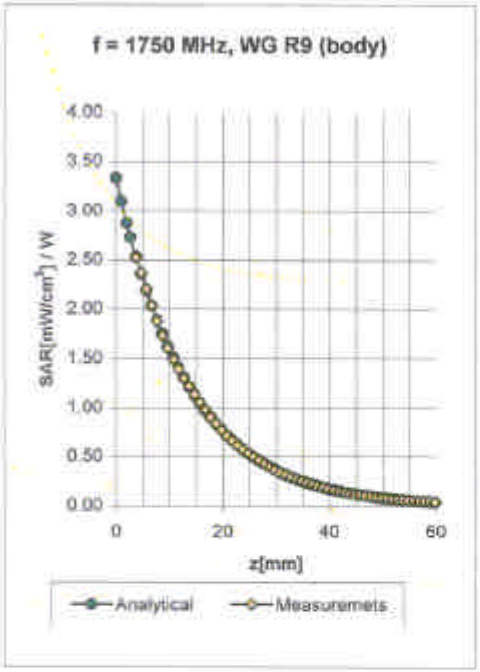
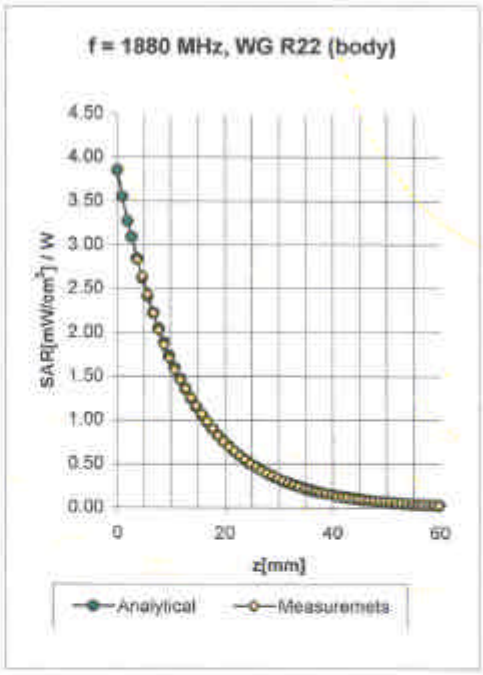
Conversion Factor Assessment





Body	1750 MHz	ε_r = 53.3 ± 5%	σ = 1.52 ± 5% mho/m
ConvF X	5.1 ± 8.9% (k=2)	Boundary effect:	
ConvF Y	5.1 ± 8.9% (k=2)	Alpha	0.51
ConvF Z	5.1 ± 8.9% (k=2)	Depth	2.31

Body	1880 MHz	ε_r = 53.3 ± 5%	σ = 1.52 ± 5% mho/m
ConvF X	4.8 ± 8.9% (k=2)	Boundary effect:	
ConvF Y	4.8 ± 8.9% (k=2)	Alpha	0.63
ConvF Z	4.8 ± 8.9% (k=2)	Depth	2.10

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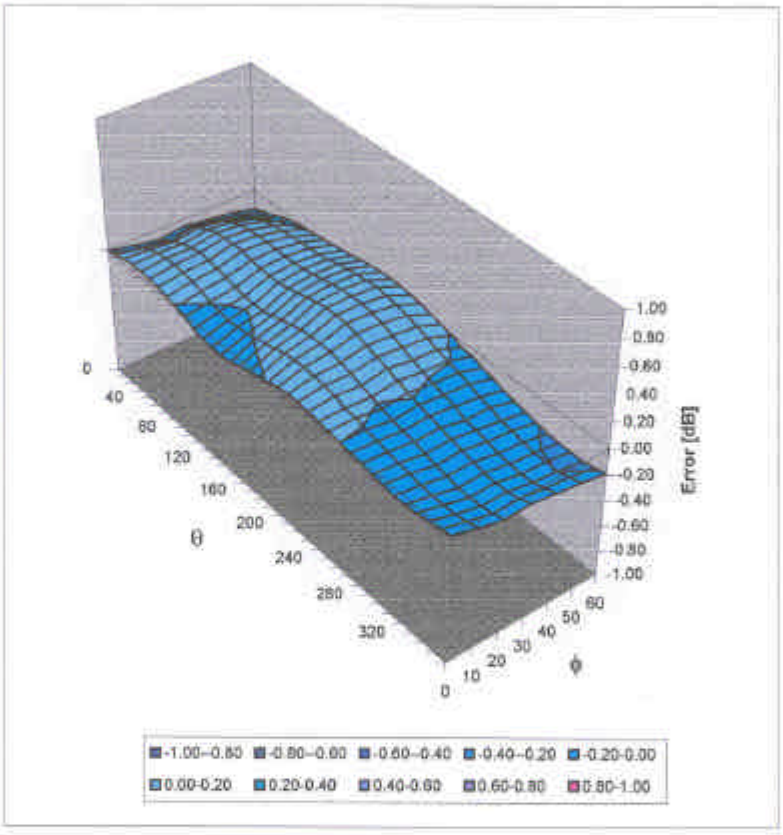
Deviation from Isotropy in HSL

Error (θ,φ), f = 900 MHz



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