SAR EVALUATION
CERTIFICATE OF COMPLIANCE

FCC ID: QJEWMC63000303
APPLICANT: MeshNetworks Inc.

APPLICANT NAME AND ADDRESS:
MeshNetworks Inc.
Keller Road Suite 250
Maitland, FL 32751

DATE OF TEST: April 18-30, 2003
TEST LOCATION: MET LABORATORIES 485
914 West Patapsco Ave.
Baltimore, Maryland 21230

EUT:	**WMC 6300 PCMCIA card**		
Date of Receipt:	April 12, 2003		
Device Category:	Part 15 C		
RF exposure environment:	Uncontrolled		
RF exposure category:	Portable		
Power supply:	Powered by Battery and AC/DC adaptor		
Antenna:	Detachbale external		
Production/prototype:	Identical Prototype		
Measured Standards:	Oet 65 Supplement C (Edition 01-01)		
Modulation:	DSSS		
Crest Factor:	DSSS = 1		
TX Range:	2.4 12– 2.472 GHz		
RX Range:	2.4 12– 2.472 GHz		
Used TX Channels:	Low: ch. 2412 MHz	Center: ch 2452MHz	High: ch. 2472MHz
Maximum RF Power Output:	0.2W Conducted		
Maximum SAR Measurement (averaged over: 1g)	1.423 W/kg Body		

This wireless portable device has been tested in accordance with the measurement procedures specified in FCC/OET Bulletin 65 Supplement C (2001) and IEEE Std. 1528-200X (July 2001), and has been shown to be capable of compliance for localized specific absorption rate (SAR) for uncontrolled environment/general population exposure limits specified in ANSI/IEEE Std. C95.1 - 1992.

I attest to the accuracy of this data. All reported measurements were performed by me, or were made under my supervision, and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

I also certify that no party to this application has been denied the FCC benefits pursuant to Section 5.301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. 862.

Len Knight
EMC Lab Manager

May 12, 2003

MeshNetworks Inc.
485 Keller Road Suite 250
Maitland, FL 32751

Reference: **WMC 6300 PCMCIA card**
FCC ID: QJEWMC63000303

Dear Ms. Rosalie Bibona:

Enclosed is the EMC SAR Evaluation Report for the **WMC 6300 PCMCIA card** **FCCID:QJEWMC63000303** was tested in accordance with the measurement procedures specified in FCC OET 65 Supplement C:01-01 and shown to be capable to be in compliance for localized specific absorption rate (SAR) for uncontrolled environment/general population exposure limits specified in FCC OET 65 Supplement C:01-01.

Thank you for using the testing services of MET Laboratories. If you have any questions regarding these results or if MET can be of further assistance to you, please feel free to contact me. We appreciate your business and look forward to working with you again soon.

Kindest Regards,
MET LABORATORIES, INC.

Marianne Bosley

Marianne T. Bosley
EMC Administrator

Enclosures:

DOCTEM-23 Jan 02

Dosimetric Assessment

Test Report

for the

MeshNetworks Inc.
WMC 6300 PCMCIA card

Tested and Evaluated
In Accordance With
FCC OET 65 Supplement C:01-01

MET REPORT: EMC13694-SAR

April 18-30, 2003

PREPARED FOR:

MeshNetworks Inc.
485 Keller Road Suite 250
Maitland, FL 32751

PREPARED BY:

MET Laboratories, Inc.
914 West Patapsco Avenue
Baltimore, Maryland 21230-3432

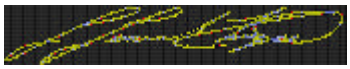
Dosimetric Assessment
TEST REPORT

for the

MeshNetworks Inc.
WMC 6300 PCMCIA card
Tested and Evaluated
In Accordance With
FCC OET Supplement C: 01-01

Prepared for

MeshNetworks Inc.
485 Keller Road Suite 250
Maitland, FL 32751

Report Prepared By	Marianne T. Bosley EMC ADMINISTRATOR	
Report Reviewed By	Liming Xu TEST ENGINEER	
Final Review By	EMC LAB MANAGER	

Engineering Statement: The measurements shown in this report were made in accordance with the procedures specified in Supplement C to OET Bulletin 65 of the Federal Communications Commission (FCC) Guidelines [FCC 2001] for uncontrolled exposure. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them. It is further stated that upon the basis of the measurements made, the equipment evaluated is capable of compliance for localized specific absorption rate (SAR) for uncontrolled environment/general population exposure limits specified in ANSI/IEEE Std. C95.1-1992.

Len Knight
EMC LAB MANAGER

Quick Links

OBJECTIVE

The objective of the procedure was to perform a dosimetric assessment for the multiple hosts (Three PDAs and Laptops). The measurements have been carried out with the dosimetric assessment system "SARA2", and were made according to the Supplement C to OET Bulletin 65 of the Federal Communications Commission (FCC) Guidelines [FCC 2001] for evaluating compliance of mobile and portable devices with FCC limits for human exposure in the general population to radio frequency emissions.

INTRODUCTION

In the United States, the most recent FCC RF exposure criteria is documented in the publication OET 65 Supplement C Edition 01-01 [FCC 2001], which sets limits for human exposure to radio frequency electromagnetic fields in the frequency range 3kHz to 300GHz.

The safety limits used for the environmental evaluation measurements are based on the criteria published by the American National Standards Institute (ANSI) for localized specific absorption rate (SAR) in IEEE/ANSI C95.1-1992 Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz. (c) 1992 by the Institute of Electrical and Electronics Engineers, Inc., New York, New York 10017. The measurement procedure described in IEEE/ANSI C95.3-1992 Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave is used for guidance in measuring SAR due to the RF radiation exposure from the Equipment Under Test (EUT).

SAR DEFINITION

Specific absorption rate (SAR) is the biological relevant parameter describing the effects of electromagnetic fields in the frequency range of interest. It is a measure of the power absorbed per unit mass and may be spatially averaged over the total mass of an exposed body or its parts.

In mathematical terms Specific Absorption Rate (SAR) is defined as the time derivative (rate) of the incremental energy absorbed by (dissipated in) an incremental mass contained in a volume element of a given density. It is also defined as the rate of RF energy absorption per unit mass at a point in an absorbing body as given below**.** The SAR is calculated from the r.m.s. electric field strength E inside the human body, the conductivity σ and the mass density ρ of the biological tissue:

$$SAR = \frac{|E|^2 \sigma}{\rho}$$

SAR is expressed in units of Watts per Kilogram (W/kg)

σ = Conductivity of the tissue-simulant material (S/m)

ρ = Mass density of the tissue-simulant material (kg/m^3)

E = Total RMS electric field strength (V/m)

NOTE: The primary factors that control rate of energy absorption were found to be the wavelength of the incident field in relations to the dimensions and geometry of the irradiated organism, the orientation of the organism in relation to the polarity of field vectors, the presence of reflecting surfaces, and whether conductive contact is made by the organism with a ground plane.

SUMMARY FOR SAR TEST REPORT

EUT	**WMC6300 PCMCIA card**
FCC ID	**QJEWMC63000303**
Date of receipt	April 12, 2003
Date of Test	April 18-30, 2003
RF Exposure Category	Uncontrolled
Measured Standard	FCC Pt.15 C
Measurement done by	Liming Xu

Maximum Results Found during SAR Evaluation

The equipment is deemed to fulfill the requirements if the measured values are less than or equal to the limit.

Head Configuration

Phantom Configuration	Test Position	Channel	Power (dBm)	Frequency (MHz)	Max. 1g SAR (W/kg)
SAM	N/A	-	-	-	-

Table 1:

Body Worn Configuration

Test Configurations	Power (dBm)	Channel	Frequency (GHz)	Max. 1g SAR (W/kg)
Body	**23**	**1**	**2.412**	**1.432**

Table 2: The Max SAR value for Body Testing (The power mentioned above is the Conducted)

DESCRIPTION OF TESTED DEVICE

FCC ID	**QJEWMC63000303**
Modes of Operation	DSSS
Modulation Mode(s)	DSSS
Duty Cycle(s) (=1/ Crest Factor)	Crest Factor=1 ; Time average Duty Cycle = 1/2
Transmitter Frequency Range	2.412 – 2.472 GHz

Picture of EUT

Description of the Antenna

Detachable external Antenna.

Battery or AC/DC adaptor Options

Host Laptops

Following 3 host Laptops were used to verify the SAR compliance to FCC limits.

1		**Dell** INSPIRON 3800 With Two side PCMCIA card Slots
2		**Toshiba** Satellite 1800 SYSTEM UNIT MODEL NO. 1800-S253 With Two side PCMCIA card Slots
3		**Dell** Latitude CSx MODEL NO: PMP With Two side PCMCIA card Slots

Table 4. Host laptops Description

Host PDAs

Following 3 host PDAs were used to verify the SAR compliance to FCC limits.

1		**iPAQ 3650** No of PCMCIA Slots=1
2		**iPAQ 3955** No of PCMCIA Slots=1
3		**iPAQ 3870** No of PCMCIA Slots=1

Table 4. Host PDAs Description

TEST CONDITIONS

Environment

Test Environment	Dedicated test area
Ambient temperature	24.4°C ± 1 °C
Tissue simulating liquid temperature	24.2°C ± 1 °C
Shielded Chamber	Anechoic material strategically positioned to minimize room reflections
Ambient Noise	Very low

Table 3: Summary of Test Environment conditions

Test Signal, Frequencies and Output Power

1. The measurements are first performed at the middle channel of the operating band of the EUT. If the SAR value of the middle channel for each test configuration is at least 3 dB below the SAR limit, testing at the high and low channels is optional for such test configurations.
   During SAR testing , the maximum RF carrier is a simulated DSSS modulated signal with a 50% time average Duty Cycle.

2. The EUT was set to maximum power level during all the tests. Power output was measured before and after each test.
3. T The EUT was equipped with a special software, which allowed the EUT transmitting Maxium RF power with selectable channel

TEST DETAILS

Tissue Recipes

The following recipes are provided in percentage by weight.

2400 MHz, Body: 29.78% DGBE
70.0% De-Ionized Water
0.22% Salt

2400 MHz, Head : 45.75% DGBE
54% De-Ionized Water
0.25% Salt

Material Parameters

Simulant	Freq [MHz]	Room Temp [C]	Liquid Temp [C]	Parameters	Target Value	Measured Value	Deviation [%]	Limit [%]
Body	2400	24.8	24.4	ε_r	**52.7**	52.9	0.4	± 5%
				σ	**1.95**	1.98	1.5	± 5%

Table 5: Parameters of the tissue simulating liquid,.

NOTES:

1 Parameters were measured before and after testing. These values reflect both measurements.

System Validation

Following equipment is used for the system validation:

Signal Generator (Agilent E4432B)
RF Amplifier (Mini Circuits ZHL-42.)
Dual Directional Coupler (HP 778D)
The HP 8564E Spectrum Analyzer (used for RF power measurement)
Cables, Attenuate and Adapters

The recommended (IEEE Std 1528) set-up was used:

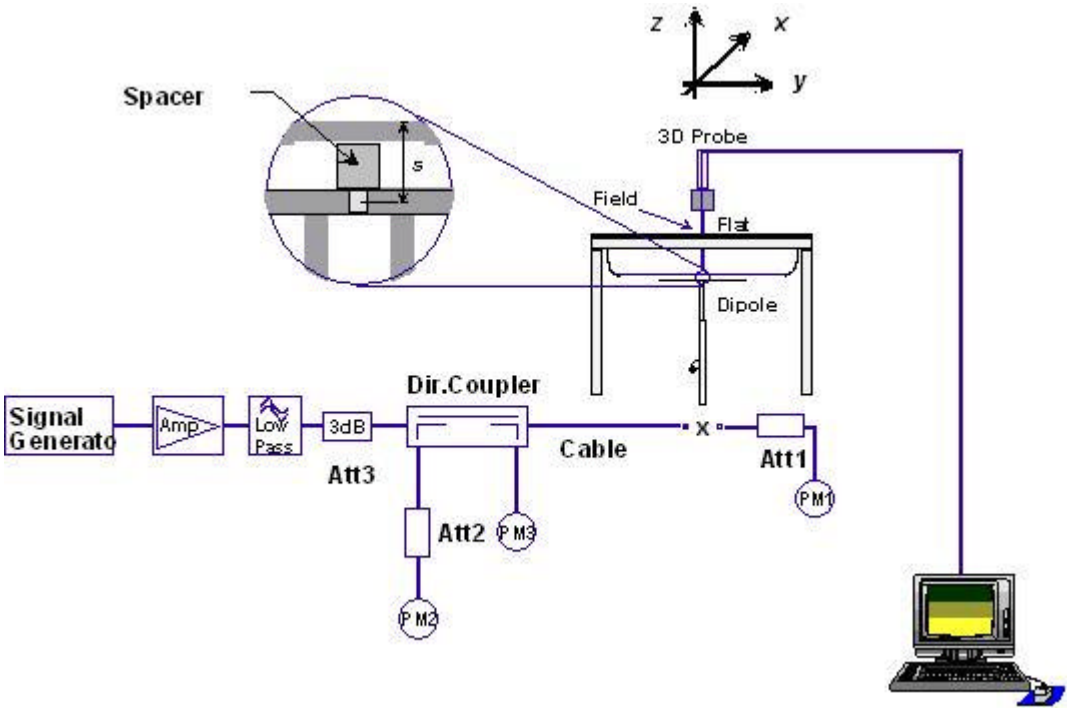
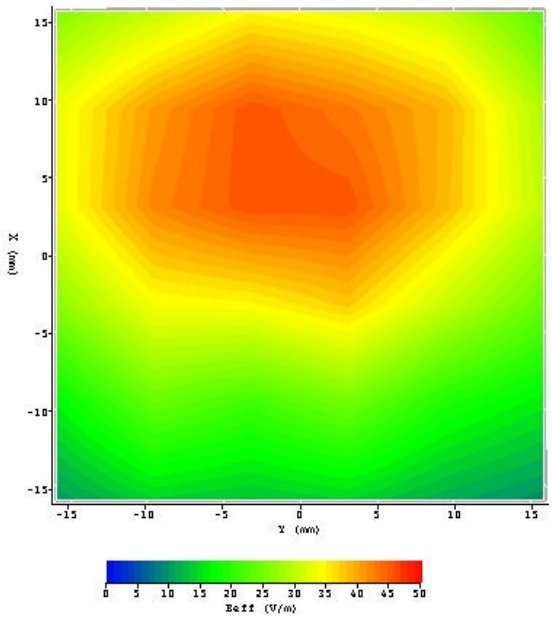


Figure 13. Performance Check Setup Diagram

Performance Checking

Test Position:	Flat Phantom
Test Date:	April 23, 2003
Antenna Position:	Balanced Dipole
Probe:	IXP-050/SN 0122 – SARf (0.889,0.889,0.889) Probe Cal Date 10/10/2002
Med. Parameters:	Head: e_r =39.6 ; s = 1.88
Pre Test Room Temp.	24.0C
Post Test Room Temp.	24.4C
Pre Test Simulant Liquid Temp.	24.0C
Post Test Simulant Liquid Temp.	24.6C
CH	NA
SAR Drift	<5%
SAR (1g):	49.89



Validation Measurement – 2450 MHz in Head tissue

Simulant	Freq [MHz]	Room Temp [C]	Liquid Temp [C]	Parameters	Target Value	Measured Value	Deviation [%]	Limit [%]
Head	2450	24.3	24.5	ε_r	**39.2**	39.6	1.0	± 5%
				σ	**1.80**	1.88	4.4	± 5%
				1g SAR	**52.4**	49.89	-4.79	± 10%

Table 6. System Validation Results

NOTE:
RF Forward power = 0.10W. The results are normalized to 1 Watts (CW) RF forward power
Validation was done within 100MHz of test frequency

System Check Procedure

The *system check* is a complete 1 g or 10 g averaged SAR measurement. The measured 1 g (or 10 g) averaged SAR value is normalized to the target input power of the standard source and compared with the previously recorded target 1 g (or 10 g) value corresponding to the measurement frequency, the Standard Source and specific phantom. The acceptable tolerance must be determined for each *system check* and should be within ± 10 % of previously recorded *system check* target values. Base on the 1g head SAR target values 52.4 @ 2450MHz per IEEE p1528.

The 1g body SAR target values per calculation: **(52.4 x 1.95)/1.80** = **56.77**

* **52.4** is the 1g head SAR target values @ 2450MHz per IEEE p1528
* **1.95** is the conductivity of body liquid @ 2450MHz per IEEE p1528
* **1.80** is the conductivity of head liquid @ 2450MHz per IEEE p1528

Date of system check	1g body SAR (target per calculation)	1g body SAR (measured)	Deviation [%]
April 23, 2003	56.77	56.11	-2.65
April 24, 2003	56.77	59.07	2.48
April 29, 2003	56.77	60.47	4.9
April 30, 2003	56.77	59.26	2.81
May 1 , 2003	56.77	58.39	1.3

System Check Results @ 2.45 GHz

NOTE:

RF Forward power (CW) = 0.10W input to the dipole antenna. The results are normalized to 1 Watts (CW) RF forward power @ 2.45GHz compared with the previously recorded target 1 g (or 10 g) value **System Check** was done within 100MHz of test frequency with Figure 13. Performance Check Setup Diagram

SAR Results Summary

MEASUREMENT RESULTS .(Low Channel) iPAQ 3650

	Description (Configurations)	Power dBm	Channel	Frequency (MHz)	Max. 1g SAR (W/kg)	2nd spot (W/kg)
1	Antenna Vertical to PCMCIA Card and the card parallel to Phantom	23	1	2412	1.039	Na
2	Same as above with Handset	-	-	-		
3	Antenna Horizontal to PCMCIA Card and parallel to Phantom (0mm spacing to PDA bottom)	23	1	2412	1.248	0.65
4	Same as above with Handset	-	-	-		
5	Antenna vertical to PCMCIA Card and the card Perpendicular to Phantom (15mm spacing to vertical antenna)	23	1	2412	0.864	Na
6	Same as above with Handset	-	-	-		

Table 1. Measured Body SAR results for MESH iPAQ 3650

NOTES:

1 The measurements are first performed at the middle channel of the operating band of the EUT. If the SAR value of the middle channel for each test configuration is at least 3 dB below the SAR limit, testing at the high and low channels is optional for such test configurations.
During SAR testing , the maximum RF carrier is a simulated DSSS modulated signal with a 50% time average Duty Cycle.

2 The test data reported are the worst-case SAR values with the antenna-head position set in a typical configuration.

3 All modes of operation are investigated and worst cases are reported.

4	Multiple Hot Spots	T None	SAR was less than 2 dB of the highest peak	Reported
5	Battery Type	Standard	Extended	Both
6	Power Measured	T Conducted	EIRP	ERP
7	SAR Measurement System	SARA2		
8	SAR Configuration	Head	T Body	

9 Before the measurements, the test site ambient conditions were checked performing SAR measurements with the EUT powered off.

MEASUREMENT RESULTS .(Middle Channel) iPAQ 3650

	Description (Configurations)	Power dBm	Channel	Frequency (MHz)	Max. 1g SAR (W/kg)	2nd spot (W/kg)
1	Antenna Vertical to PCMCIA Card and the card parallel to Phantom	23	3	2452.2	0.703	Na
2	Same as above with Handset	-	-	-		
3	Antenna Horizontal to PCMCIA Card and parallel to Phantom (0mm spacing to PDA bottom)	23	3	2452.2	1.118	Na
4	Same as above with Handset	-	-	-		
5	Antenna vertical to PCMCIA Card and the card Perpendicular to Phantom (15mm spacing to vertical antenna)	23	3	2452.2	0.487	Na
6	Same as above with Handset	-	-	-		

Table 2. Measured Body SAR results for MESH iPAQ 3650

NOTES:

1 The measurements are first performed at the middle channel of the operating band of the EUT. If the SAR value of the middle channel for each test configuration is at least 3 dB below the SAR limit, testing at the high and low channels is optional for such test configurations.
During SAR testing , the maximum RF carrier is a simulated DSSS modulated signal with a 50% time average Duty Cycle.

2 The test data reported are the worst-case SAR values with the antenna-head position set in a typical configuration.

3 All modes of operation are investigated and worst cases are reported.

4	Multiple Hot Spots	T None	SAR was less than 2 dB of the highest peak	Reported
5	Battery Type	Standard	Extended	Both
6	Power Measured	T Conducted	EIRP	ERP
7	SAR Measurement System	SARA2		
8	SAR Configuration	Head	T Body	

9 Before the measurements, the test site ambient conditions were checked performing SAR measurements with the EUT powered off.

MEASUREMENT RESULTS .(High Channel) iPAQ 3650

	Description (Configurations)	Power dBm	Channel	Frequency (MHz)	Max. 1g SAR (W/kg)	2nd spot (W/kg)
1	Antenna Vertical to PCMCIA Card and the card parallel to Phantom	23	4	2472.4	0.213	Na
2	Same as above with Handset	-	-	-		
3	Antenna Horizontal to PCMCIA Card and parallel to Phantom (0mm spacing to PDA bottom)	23	4	2472.4	1.380	0.32
4	Same as above with Handset	-	-	-		
5	Antenna vertical to PCMCIA Card and the card Perpendicular to Phantom (15mm spacing to vertical antenna)	23	4	2472.4	0.128	Na
6	Same as above with Handset	-	-	-		

Table 3. Measured Body SAR results for MESH iPAQ 3650

NOTES:

1 The measurements are first performed at the middle channel of the operating band of the EUT. If the SAR value of the middle channel for each test configuration is at least 3 dB below the SAR limit, testing at the high and low channels is optional for such test configurations.
During SAR testing , the maximum RF carrier is a simulated DSSS modulated signal with a 50% time average Duty Cycle.

2 The test data reported are the worst-case SAR values with the antenna-head position set in a typical configuration.

3 All modes of operation are investigated and worst cases are reported.

4	Multiple Hot Spots	T None	SAR was less than 2 dB of the highest peak	Reported
5	Battery Type	Standard	Extended	Both
6	Power Measured	T Conducted	EIRP	ERP
7	SAR Measurement System	SARA2		
8	SAR Configuration	Head	T Body	

9 Before the measurements, the test site ambient conditions were checked performing SAR measurements with the EUT powered off.

MEASUREMENT RESULTS .(Low Channel) iPAQ 3870

	Description (Configurations)	Power dBm	Channel	Frequency (MHz)	Max. 1g SAR (W/kg)	2nd spot (W/kg)
1	Antenna Vertical to PCMCIA Card and the card parallel to Phantom	23	1	2412	0.626	Na
2	Same as above with Handset	-	-	-		
3	Antenna Horizontal to PCMCIA Card and parallel to Phantom (0mm spacing to PDA bottom)	23	1	2412	1.423	Na
4	Same as above with Handset	-	-	-		
5	Antenna vertical to PCMCIA Card and the card Perpendicular to Phantom (15mm spacing to vertical antenna)	23	1	2412	0.750	Na
6	Same as above with Handset	-	-	-		

Table 4. Measured Body SAR results for MESH iPAQ 3870

NOTES:

1 The measurements are first performed at the middle channel of the operating band of the EUT. If the SAR value of the middle channel for each test configuration is at least 3 dB below the SAR limit, testing at the high and low channels is optional for such test configurations.
During SAR testing , the maximum RF carrier is a simulated DSSS modulated signal with a 50% time average Duty Cycle.

2 The test data reported are the worst-case SAR values with the antenna-head position set in a typical configuration.

3 All modes of operation are investigated and worst cases are reported.

4	Multiple Hot Spots	T None	SAR was less than 2 dB of the highest peak	Reported
5	Battery Type	Standard	Extended	Both
6	Power Measured	T Conducted	EIRP	ERP
7	SAR Measurement System	SARA2		
8	SAR Configuration	Head	T Body	

9 Before the measurements, the test site ambient conditions were checked performing SAR measurements with the EUT powered off.

MEASUREMENT RESULTS .(Middle Channel) iPAQ 3870

	Description (Configurations)	Power dBm	Channel	Frequency (MHz)	Max. 1g SAR (W/kg)	2nd spot (W/kg)
1	Antenna Vertical to PCMCIA Card and the card parallel to Phantom	23	3	2452.2	0.731	Na
2	Same as above with Handset	-	-	-		
3	Antenna Horizontal to PCMCIA Card and parallel to Phantom (0mm spacing to PDA bottom)	23	3	2452.2	0.978	Na
4	Same as above with Handset	-	-	-		
5	Antenna vertical to PCMCIA Card and the card Perpendicular to Phantom (15mm spacing to vertical antenna)	23	3	2452.2	0.44	Na
6	Same as above with Handset	-	-	-		

Table 5. Measured Body SAR results for MESH iPAQ 3870

NOTES:

1 The measurements are first performed at the middle channel of the operating band of the EUT. If the SAR value of the middle channel for each test configuration is at least 3 dB below the SAR limit, testing at the high and low channels is optional for such test configurations.
During SAR testing , the maximum RF carrier is a simulated DSSS modulated signal with a 50% time average Duty Cycle.

2 The test data reported are the worst-case SAR values with the antenna-head position set in a typical configuration.

3 All modes of operation are investigated and worst cases are reported.

4	Multiple Hot Spots	T None	SAR was less than 2 dB of the highest peak	Reported
5	Battery Type	Standard	Extended	Both
6	Power Measured	T Conducted	EIRP	ERP
7	SAR Measurement System	SARA2		
8	SAR Configuration	Head	T Body	

9 Before the measurements, the test site ambient conditions were checked performing SAR measurements with the EUT powered off.

MEASUREMENT RESULTS .(High Channel) iPAQ 3870

	Description (Configurations)	Power dBm	Channel	Frequency (MHz)	Max. 1g SAR (W/kg)	2nd spot (W/kg)
1	Antenna Vertical to PCMCIA Card and the card parallel to Phantom	23	4	2472.4	0.792	Na
2	Same as above with Handset	-	-	-		
3	Antenna Horizontal to PCMCIA Card and parallel to Phantom (0mm spacing to PDA bottom)	23	4	2472.4	0.73	0.3
4	Same as above with Handset	-	-	-		
5	Antenna vertical to PCMCIA Card and the card Perpendicular to Phantom (15mm spacing to vertical antenna)	23	4	2472.4	0.532	Na
6	Same as above with Handset	-	-	-		

Table 6. Measured Body SAR results for MESH iPAQ 3870

NOTES:

1 The measurements are first performed at the middle channel of the operating band of the EUT. If the SAR value of the middle channel for each test configuration is at least 3 dB below the SAR limit, testing at the high and low channels is optional for such test configurations.
During SAR testing , the maximum RF carrier is a simulated DSSS modulated signal with a 50% time average Duty Cycle.

2 The test data reported are the worst-case SAR values with the antenna-head position set in a typical configuration.

3 All modes of operation are investigated and worst cases are reported.

4	Multiple Hot Spots	T None	SAR was less than 2 dB of the highest peak	Reported
5	Battery Type	Standard	Extended	Both
6	Power Measured	T Conducted	EIRP	ERP
7	SAR Measurement System	SARA2		
8	SAR Configuration	Head	T Body	

9 Before the measurements, the test site ambient conditions were checked performing SAR measurements with the EUT powered off.

MEASUREMENT RESULTS .(Low Channel) iPAQ 3955

	Description (Configurations)	Power dBm	Channel	Frequency (MHz)	Max. 1g SAR (W/kg)	2nd spot (W/kg)
1	Antenna Vertical to PCMCIA Card and the card parallel to Phantom	23	1	2412	0.962	Na
2	Same as above with Handset	-	-	-		
3	Antenna Horizontal to PCMCIA Card and parallel to Phantom (0mm spacing to PDA bottom)	23	1	2412	1.328	Na
4	Same as above with Handset	-	-	-		
5	Antenna vertical to PCMCIA Card and the card Perpendicular to Phantom (15mm spacing to vertical antenna)	23	1	2412	0.542	Na
6	Same as above with Handset	-	-	-		

Table 7. Measured Body SAR results for MESH iPAQ 3955

NOTES:

1 The measurements are first performed at the middle channel of the operating band of the EUT. If the SAR value of the middle channel for each test configuration is at least 3 dB below the SAR limit, testing at the high and low channels is optional for such test configurations.
During SAR testing , the maximum RF carrier is a simulated DSSS modulated signal with a 50% time average Duty Cycle.

2 The test data reported are the worst-case SAR values with the antenna-head position set in a typical configuration.

3 All modes of operation are investigated and worst cases are reported.

4	Multiple Hot Spots	T None	SAR was less than 2 dB of the highest peak	Reported
5	Battery Type	Standard	Extended	Both
6	Power Measured	T Conducted	EIRP	ERP
7	SAR Measurement System	SARA2		
8	SAR Configuration	Head	T Body	

9 Before the measurements, the test site ambient conditions were checked performing SAR measurements with the EUT powered off.

MEASUREMENT RESULTS .(Middle Channel) iPAQ 3955

	Description (Configurations)	Power dBm	Channel	Frequency (MHz)	Max. 1g SAR (W/kg)	2nd spot (W/kg)
1	Antenna Vertical to PCMCIA Card and the card parallel to Phantom	23	3	2452.2	0.687	Na
2	Same as above with Handset	-	-	-		
3	Antenna Horizontal to PCMCIA Card and parallel to Phantom (0mm spacing to PDA bottom)	23	3	2452.2	1.095	Na
4	Same as above with Handset	-	-	-		
5	Antenna vertical to PCMCIA Card and the card Perpendicular to Phantom (15mm spacing to vertical antenna)	23	3	2452.2	0.219	Na
6	Same as above with Handset	-	-	-		

Table 8. Measured Body SAR results for MESH iPAQ 3955

NOTES:

1 The measurements are first performed at the middle channel of the operating band of the EUT. If the SAR value of the middle channel for each test configuration is at least 3 dB below the SAR limit, testing at the high and low channels is optional for such test configurations.
During SAR testing , the maximum RF carrier is a simulated DSSS modulated signal with a 50% time average Duty Cycle.

2 The test data reported are the worst-case SAR values with the antenna-head position set in a typical configuration.

3 All modes of operation are investigated and worst cases are reported.

4	Multiple Hot Spots	T None	SAR was less than 2 dB of the highest peak	Reported
5	Battery Type	Standard	Extended	Both
6	Power Measured	T Conducted	EIRP	ERP
7	SAR Measurement System	SARA2		
8	SAR Configuration	Head	T Body	

9 Before the measurements, the test site ambient conditions were checked performing SAR measurements with the EUT powered off.

MEASUREMENT RESULTS .(High Channel) iPAQ 3955

	Description (Configurations)	Power dBm	Channel	Frequency (MHz)	Max. 1g SAR (W/kg)	2nd spot (W/kg)
1	Antenna Vertical to PCMCIA Card and the card parallel to Phantom	23	4	2472.4	0.266	Na
2	Same as above with Handset	-	-	-		
3	Antenna Horizontal to PCMCIA Card and parallel to Phantom (0mm spacing to PDA bottom)	23	4	2472.4	0.276	0.12
4	Same as above with Handset	-	-	-		
5	Antenna vertical to PCMCIA Card and the card Perpendicular to Phantom (15mm spacing to vertical antenna)	23	4	2472.4	0.136	Na
6	Same as above with Handset	-	-	-		

Table 9. Measured Body SAR results for MESH iPAQ 3955

NOTES:

1 The measurements are first performed at the middle channel of the operating band of the EUT. If the SAR value of the middle channel for each test configuration is at least 3 dB below the SAR limit, testing at the high and low channels is optional for such test configurations.
During SAR testing , the maximum RF carrier is a simulated DSSS modulated signal with a 50% time average Duty Cycle.

2 The test data reported are the worst-case SAR values with the antenna-head position set in a typical configuration.

3 All modes of operation are investigated and worst cases are reported.

4	Multiple Hot Spots	T None	SAR was less than 2 dB of the highest peak	Reported
5	Battery Type	Standard	Extended	Both
6	Power Measured	T Conducted	EIRP	ERP
7	SAR Measurement System	SARA2		
8	SAR Configuration	Head	T Body	

9 Before the measurements, the test site ambient conditions were checked performing SAR measurements with the EUT powered off.

MEASUREMENT RESULTS (Low Channel) DELL 3800

	Description (Configurations)	Power dBm	Channel	Frequency (MHz)	Max. 1g SAR (W/kg)	2nd spot (W/kg)
1	Antenna Vertical to PCMCIA Card and the card parallel to Phantom	23	1	2412	0.374	Na
2	Same as above with Handset	-	-	-		
3	Antenna Horizontal to PCMCIA Card and parallel to Phantom (0mm spacing to PDA bottom)	23	1	2412	1.203	0.72
4	Same as above with Handset	-	-	-		
5	Antenna vertical to PCMCIA Card and the card Perpendicular to Phantom (15mm spacing to vertical antenna)	23	1	2412	1.115	Na
6	Same as above with Handset	-	-	-		

Table 10. Measured Body SAR results for MESH DELL 3800

NOTES:

1 The measurements are first performed at the middle channel of the operating band of the EUT. If the SAR value of the middle channel for each test configuration is at least 3 dB below the SAR limit, testing at the high and low channels is optional for such test configurations.
During SAR testing , the maximum RF carrier is a simulated DSSS modulated signal with a 50% time average Duty Cycle.

2 The test data reported are the worst-case SAR values with the antenna-head position set in a typical configuration.

3 All modes of operation are investigated and worst cases are reported.

4	Multiple Hot Spots	T None	SAR was less than 2 dB of the highest peak	Reported
5	Battery Type	Standard	Extended	Both
6	Power Measured	T Conducted	EIRP	ERP
7	SAR Measurement System	SARA2		
8	SAR Configuration	Head	T Body	

9 Before the measurements, the test site ambient conditions were checked performing SAR measurements with the EUT powered off.

MEASUREMENT RESULTS .(Middle Channel) DELL 3800

	Description (Configurations)	Power dBm	Channel	Frequency (MHz)	Max. 1g SAR (W/kg)	2nd spot (W/kg)
1	Antenna Vertical to PCMCIA Card and the card parallel to Phantom	23	3	2452.2	0.553	Na
2	Same as above with Handset	-	-	-		
3	Antenna Horizontal to PCMCIA Card and parallel to Phantom (0mm spacing to PDA bottom)	23	3	2452.2	0.871	0.35
4	Same as above with Handset	-	-	-		
5	Antenna vertical to PCMCIA Card and the card Perpendicular to Phantom (15mm spacing to vertical antenna)	23	3	2452.2	0.812	Na
6	Same as above with Handset	-	-	-		

Table 11. Measured Body SAR results for MESH DELL 3800

NOTES:

1 The measurements are first performed at the middle channel of the operating band of the EUT. If the SAR value of the middle channel for each test configuration is at least 3 dB below the SAR limit, testing at the high and low channels is optional for such test configurations.
During SAR testing , the maximum RF carrier is a simulated DSSS modulated signal with a 50% time average Duty Cycle.

2 The test data reported are the worst-case SAR values with the antenna-head position set in a typical configuration.

3 All modes of operation are investigated and worst cases are reported.

4	Multiple Hot Spots	T None	SAR was less than 2 dB of the highest peak	Reported
5	Battery Type	Standard	Extended	Both
6	Power Measured	T Conducted	EIRP	ERP
7	SAR Measurement System	SARA2		
8	SAR Configuration	Head	T Body	

9 Before the measurements, the test site ambient conditions were checked performing SAR measurements with the EUT powered off.

MEASUREMENT RESULTS .(High Channel) DELL 3800

	Description (Configurations)	Power dBm	Channel	Frequency (MHz)	Max. 1g SAR (W/kg)	2nd spot (W/kg)
1	Antenna Vertical to PCMCIA Card and the card parallel to Phantom	23	4	2472.4	0.517	Na
2	Same as above with Handset	-	-	-		
3	Antenna Horizontal to PCMCIA Card and parallel to Phantom (0mm spacing to PDA bottom)	23	4	2472.4	0.790	0.3
4	Same as above with Handset	-	-	-		
5	Antenna vertical to PCMCIA Card and the card Perpendicular to Phantom (15mm spacing to vertical antenna)	23	4	2472.4	0.695	Na
6	Same as above with Handset	-	-	-		

Table 12. Measured Body SAR results for MESH DELL 3800

NOTES:

1 The measurements are first performed at the middle channel of the operating band of the EUT. If the SAR value of the middle channel for each test configuration is at least 3 dB below the SAR limit, testing at the high and low channels is optional for such test configurations.
During SAR testing , the maximum RF carrier is a simulated DSSS modulated signal with a 50% time average Duty Cycle.

2 The test data reported are the worst-case SAR values with the antenna-head position set in a typical configuration.

3 All modes of operation are investigated and worst cases are reported.

4	Multiple Hot Spots	TNone	SAR was less than 2 dB of the highest peak	Reported
5	Battery Type	Standard	Extended	Both
6	Power Measured	TConducted	EIRP	ERP
7	SAR Measurement System	SARA2		
8	SAR Configuration	Head	TBody	

9 Before the measurements, the test site ambient conditions were checked performing SAR measurements with the EUT powered off.

MEASUREMENT RESULTS .(Low Channel) DELL C500

	Description (Configurations)	Power dBm	Channel	Frequency (MHz)	Max. 1g SAR (W/kg)	2nd spot (W/kg)
1	Antenna Vertical to PCMCIA Card and the card parallel to Phantom	23	1	2412	1.032	Na
2	Same as above with Handset	-	-	-		
3	Antenna Horizontal to PCMCIA Card and parallel to Phantom (0mm spacing to PDA bottom)	23	1	2412	1.003	Na
4	Same as above with Handset	-	-	-		
5	Antenna vertical to PCMCIA Card and the card Perpendicular to Phantom (15mm spacing to vertical antenna)	23	1	2412	0.696	Na
6	Same as above with Handset	-	-	-		

Table 13. Measured Body SAR results for MESH DELL C500

NOTES:

1 The measurements are first performed at the middle channel of the operating band of the EUT. If the SAR value of the middle channel for each test configuration is at least 3 dB below the SAR limit, testing at the high and low channels is optional for such test configurations.
During SAR testing , the maximum RF carrier is a simulated DSSS modulated signal with a 50% time average Duty Cycle.

2 The test data reported are the worst-case SAR values with the antenna-head position set in a typical configuration.

3 All modes of operation are investigated and worst cases are reported.

4	Multiple Hot Spots	T None	SAR was less than 2 dB of the highest peak	Reported
5	Battery Type	Standard	Extended	Both
6	Power Measured	T Conducted	EIRP	ERP
7	SAR Measurement System	SARA2		
8	SAR Configuration	Head	T Body	

9 Before the measurements, the test site ambient conditions were checked performing SAR measurements with the EUT powered off.

MEASUREMENT RESULTS .(Middle Channel) DELL C500

	Description (Configurations)	Power dBm	Channel	Frequency (MHz)	Max. 1g SAR (W/kg)	2nd spot (W/kg)
1	Antenna Vertical to PCMCIA Card and the card parallel to Phantom	23	3	2452.2	0.810	Na
2	Same as above with Handset	-	-	-		
3	Antenna Horizontal to PCMCIA Card and parallel to Phantom (0mm spacing to PDA bottom)	23	3	2452.2	0.759	Na
4	Same as above with Handset	-	-	-		
5	Antenna vertical to PCMCIA Card and the card Perpendicular to Phantom (15mm spacing to vertical antenna)	23	3	2452.2	0.485	Na
6	Same as above with Handset	-	-	-		

Table 14. Measured Body SAR results for MESH DELL C500

NOTES:

1 The measurements are first performed at the middle channel of the operating band of the EUT. If the SAR value of the middle channel for each test configuration is at least 3 dB below the SAR limit, testing at the high and low channels is optional for such test configurations.
During SAR testing , the maximum RF carrier is a simulated DSSS modulated signal with a 50% time average Duty Cycle.

2 The test data reported are the worst-case SAR values with the antenna-head position set in a typical configuration.

3 All modes of operation are investigated and worst cases are reported.

4	Multiple Hot Spots	TNone	SAR was less than 2 dB of the highest peak	Reported
5	Battery Type	Standard	Extended	Both
6	Power Measured	TConducted	EIRP	ERP
7	SAR Measurement System	SARA2		
8	SAR Configuration	Head	TBody	

9 Before the measurements, the test site ambient conditions were checked performing SAR measurements with the EUT powered off.

MEASUREMENT RESULTS .(High Channel) DELL C500

	Description (Configurations)	Power dBm	Channel	Frequency (MHz)	Max. 1g SAR (W/kg)	2nd spot (W/kg)
1	Antenna Vertical to PCMCIA Card and the card parallel to Phantom	23	4	2472.4	0.680	Na
2	Same as above with Handset	-	-	-		
3	Antenna Horizontal to PCMCIA Card and parallel to Phantom (0mm spacing to PDA bottom)	23	4	2472.4	0.612	0.34
4	Same as above with Handset	-	-	-		
5	Antenna vertical to PCMCIA Card and the card Perpendicular to Phantom (15mm spacing to vertical antenna)	23	4	2472.4	0.353	Na
6	Same as above with Handset	-	-	-		

Table 15. Measured Body SAR results for MESH DELL C500

NOTES:

1 The measurements are first performed at the middle channel of the operating band of the EUT. If the SAR value of the middle channel for each test configuration is at least 3 dB below the SAR limit, testing at the high and low channels is optional for such test configurations.
During SAR testing , the maximum RF carrier is a simulated DSSS modulated signal with a 50% time average Duty Cycle.

2 The test data reported are the worst-case SAR values with the antenna-head position set in a typical configuration.

3 All modes of operation are investigated and worst cases are reported.

4	Multiple Hot Spots	T None	SAR was less than 2 dB of the highest peak	Reported
5	Battery Type	Standard	Extended	Both
6	Power Measured	T Conducted	EIRP	ERP
7	SAR Measurement System	SARA2		
8	SAR Configuration	Head	T Body	

9 Before the measurements, the test site ambient conditions were checked performing SAR measurements with the EUT powered off.

MEASUREMENT RESULTS .(Low Channel) Toshiba 1800

	Description (Configurations)	Power dBm	Channel	Frequency (MHz)	Max. 1g SAR (W/kg)	2nd spot (W/kg)
1	Antenna Vertical to PCMCIA Card and the card parallel to Phantom	23	1	2412	0.470	Na
2	Same as above with Handset	-	-	-		
3	Antenna Horizontal to PCMCIA Card and parallel to Phantom (0mm spacing to PDA bottom)	23	1	2412	1.128	0.72
4	Same as above with Handset	-	-	-		
5	Antenna vertical to PCMCIA Card and the card Perpendicular to Phantom (15mm spacing to vertical antenna)	23	1	2412	0.743	Na
6	Same as above with Handset	-	-	-		

Table 16. Measured Body SAR results for MESH Toshiba

NOTES:

1 The measurements are first performed at the middle channel of the operating band of the EUT. If the SAR value of the middle channel for each test configuration is at least 3 dB below the SAR limit, testing at the high and low channels is optional for such test configurations.
During SAR testing , the maximum RF carrier is a simulated DSSS modulated signal with a 50% time average Duty Cycle.

2 The test data reported are the worst-case SAR values with the antenna-head position set in a typical configuration.

3 All modes of operation are investigated and worst cases are reported.

4	Multiple Hot Spots	T None	SAR was less than 2 dB of the highest peak	Reported
5	Battery Type	Standard	Extended	Both
6	Power Measured	T Conducted	EIRP	ERP
7	SAR Measurement System	SARA2		
8	SAR Configuration	Head	T Body	

9 Before the measurements, the test site ambient conditions were checked performing SAR measurements with the EUT powered off.

MEASUREMENT RESULTS .(Middle Channel) Toshiba 1800

	Description (Configurations)	Power dBm	Channel	Frequency (MHz)	Max. 1g SAR (W/kg)	2nd spot (W/kg)
1	Antenna Vertical to PCMCIA Card and the card parallel to Phantom	23	3	2452.2	0.437	Na
2	Same as above with Handset	-	-	-		
3	Antenna Horizontal to PCMCIA Card and parallel to Phantom (0mm spacing to PDA bottom)	23	3	2452.2	1.117	0.55
4	Same as above with Handset	-	-	-		
5	Antenna vertical to PCMCIA Card and the card Perpendicular to Phantom (15mm spacing to vertical antenna)	23	3	2452.2	0.942	Na
6	Same as above with Handset	-	-	-		

Table 17. Measured Body SAR results for MESH Toshiba

NOTES:

1 The measurements are first performed at the middle channel of the operating band of the EUT. If the SAR value of the middle channel for each test configuration is at least 3 dB below the SAR limit, testing at the high and low channels is optional for such test configurations.
During SAR testing , the maximum RF carrier is a simulated DSSS modulated signal with a 50% time average Duty Cycle.

2 The test data reported are the worst-case SAR values with the antenna-head position set in a typical configuration.

3 All modes of operation are investigated and worst cases are reported.

4	Multiple Hot Spots	T None	SAR was less than 2 dB of the highest peak	Reported
5	Battery Type	Standard	Extended	Both
6	Power Measured	T Conducted	EIRP	ERP
7	SAR Measurement System	SARA2		
8	SAR Configuration	Head	T Body	

9 Before the measurements, the test site ambient conditions were checked performing SAR measurements with the EUT powered off.

MEASUREMENT RESULTS .(High Channel) Toshiba 1800

	Description (Configurations)	Power dBm	Channel	Frequency (MHz)	Max. 1g SAR (W/kg)	2nd spot (W/kg)
1	Antenna Vertical to PCMCIA Card and the card parallel to Phantom	23	4	2472.4	0.400	Na
2	Same as above with Handset	-	-	-		
3	Antenna Horizontal to PCMCIA Card and parallel to Phantom (0mm spacing to PDA bottom)	23	4	2472.4	0.813	0.35
4	Same as above with Handset	-	-	-		
5	Antenna vertical to PCMCIA Card and the card Perpendicular to Phantom (15mm spacing to vertical antenna)	23	4	2472.4	0.677	Na
6	Same as above with Handset	-	-	-		

Table 18. Measured Body SAR results for MESH Toshiba

NOTES:

1 The measurements are first performed at the middle channel of the operating band of the EUT. If the SAR value of the middle channel for each test configuration is at least 3 dB below the SAR limit, testing at the high and low channels is optional for such test configurations.
During SAR testing , the maximum RF carrier is a simulated DSSS modulated signal with a 50% time average Duty Cycle.

2 The test data reported are the worst-case SAR values with the antenna-head position set in a typical configuration.

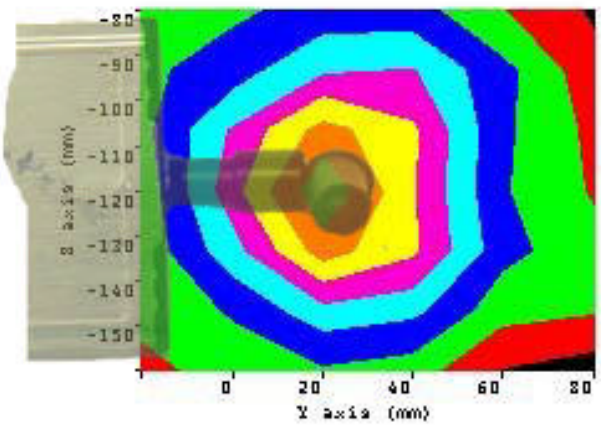
3 All modes of operation are investigated and worst cases are reported.

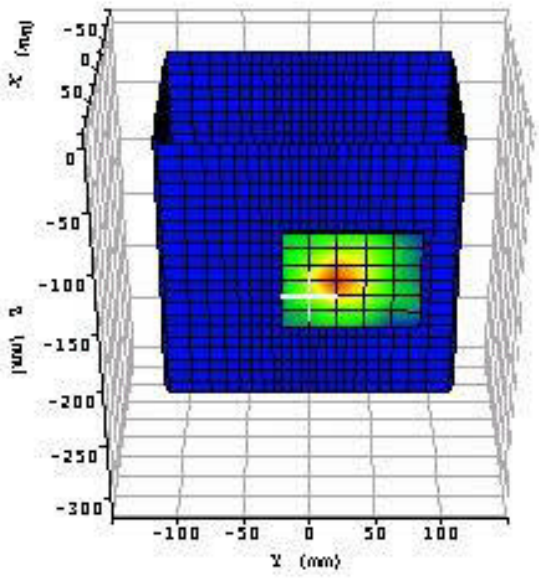
4	Multiple Hot Spots	T None	SAR was less than 2 dB of the highest peak	Reported
5	Battery Type	Standard	Extended	Both
6	Power Measured	T Conducted	EIRP	ERP
7	SAR Measurement System	SARA2		
8	SAR Configuration	Head	T Body	

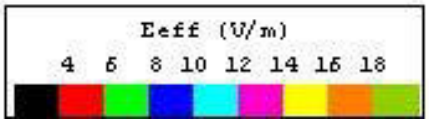
9 Before the measurements, the test site ambient conditions were checked performing SAR measurements with the EUT powered off.

SAR DISTRIBUTIONS (AREA SCANS)

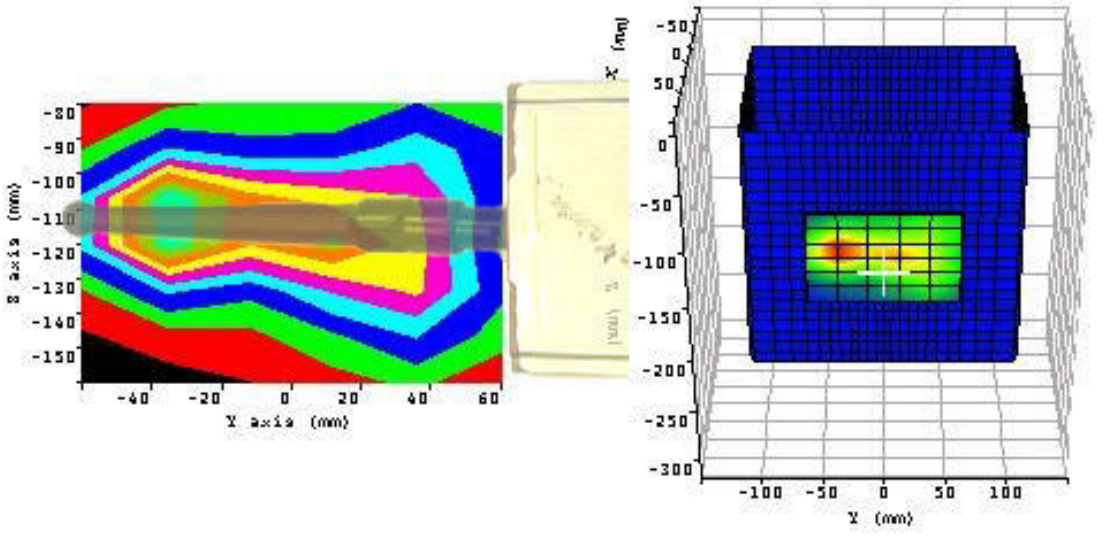
Test Position:	Configuration 1 Per Test process Table 1
Test Date:	April 23, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.0C
Post Test Room Temp.	24.6C
Pre Test Simulant Liquid Temp.	24.2C
Post Test Simulant Liquid	24.7C
CH 1	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	1.039

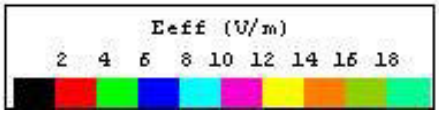




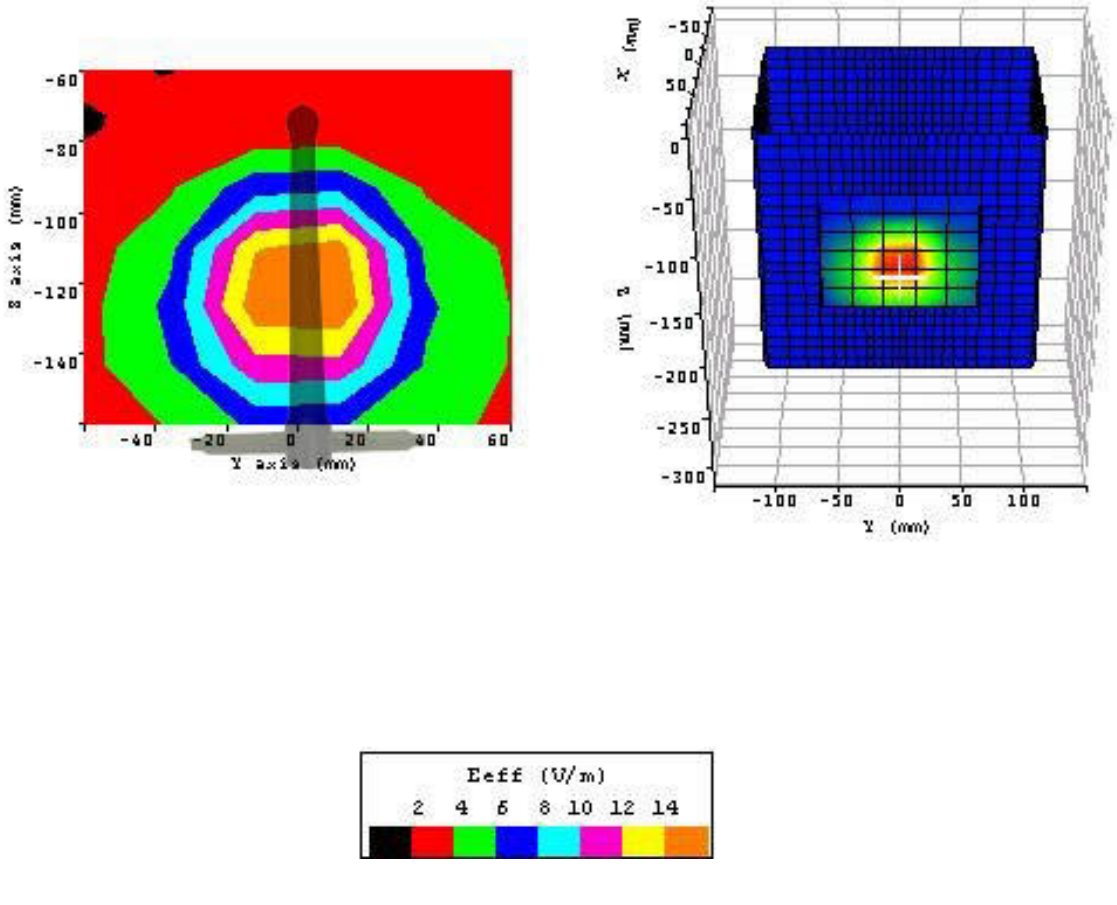


Test Position:	Configuration 3 Per Test process Table 1
Test Date:	April 23, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.0C
Post Test Room Temp.	24.6C
Pre Test Simulant Liquid Temp.	24.2C
Post Test Simulant Liquid	24.7C
CH 1	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	1.248

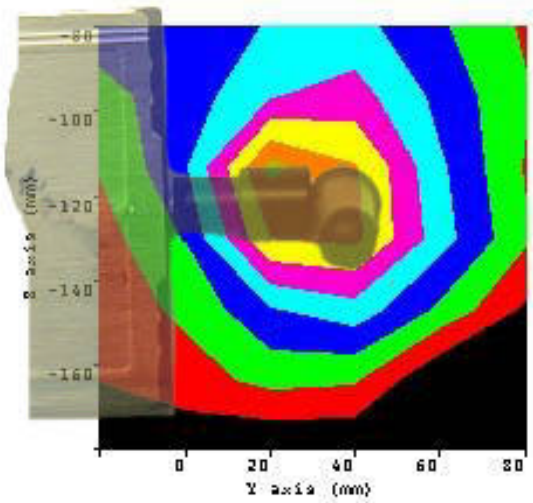


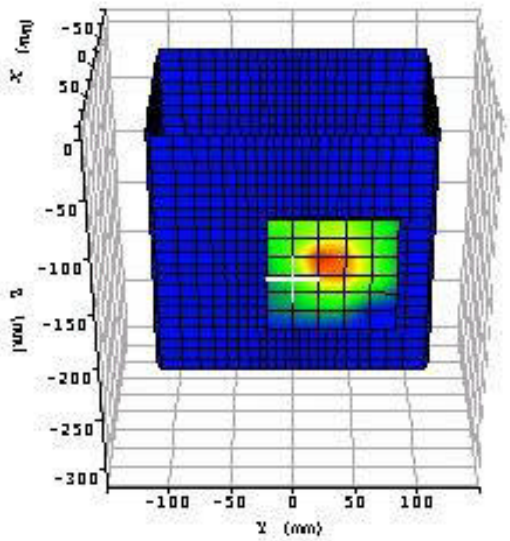


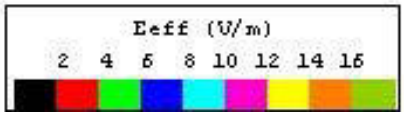
Test Position:	Configuration 5 Per Test process Table 1
Test Date:	April 23, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.0C
Post Test Room Temp.	24.6C
Pre Test Simulant Liquid Temp.	24.2C
Post Test Simulant Liquid	24.7C
CH 1	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	0.864



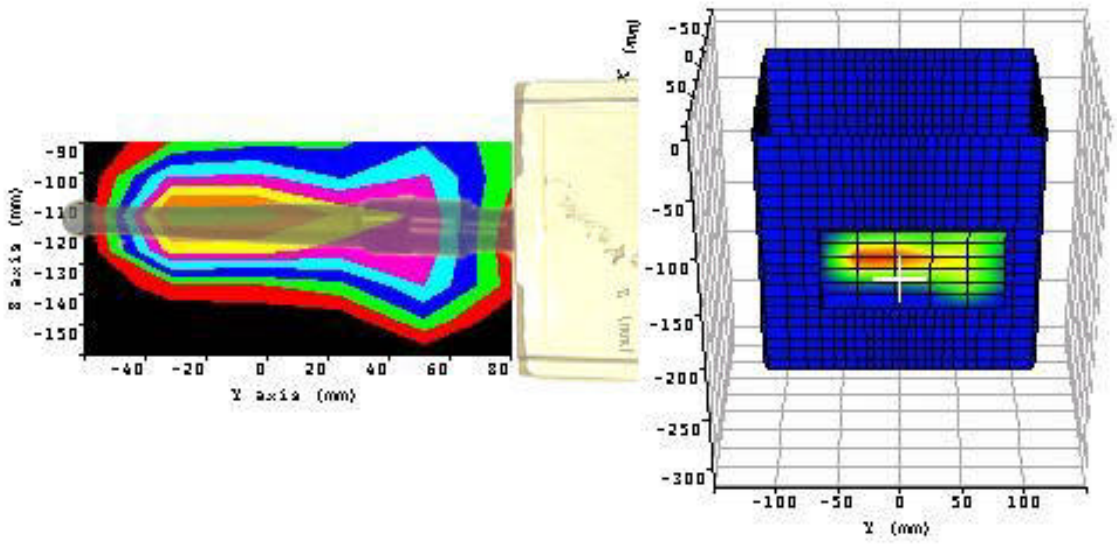
Test Position:	Configuration 1 Per Test process Table 2
Test Date:	April 23, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.0C
Post Test Room Temp.	24.6C
Pre Test Simulant Liquid Temp.	24.2C
Post Test Simulant Liquid	24.7C
CH 3	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	0.703

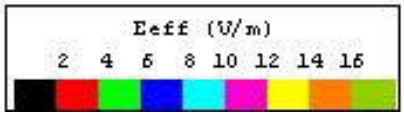




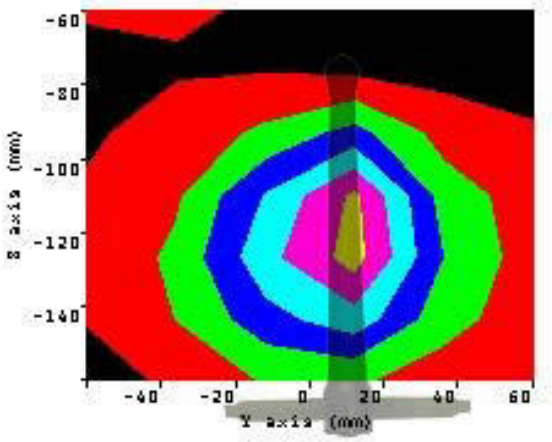


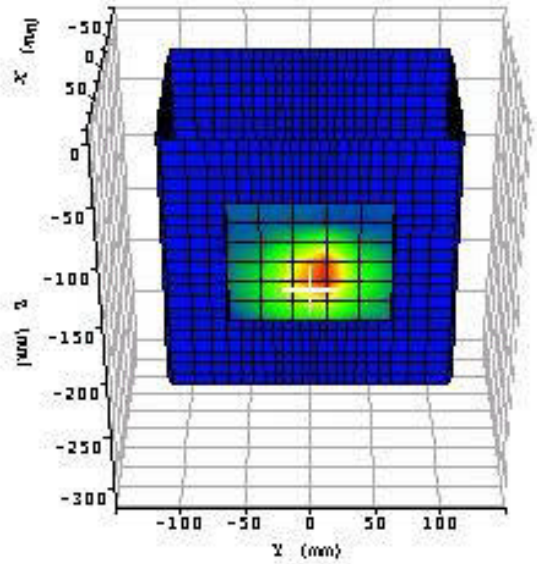
Test Position:	Configuration 3 Per Test process Table 2
Test Date:	April 23, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.0C
Post Test Room Temp.	24.6C
Pre Test Simulant Liquid Temp.	24.2C
Post Test Simulant Liquid	24.7C
CH 3	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	1.118

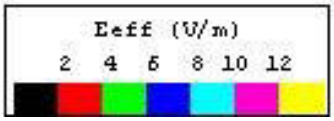




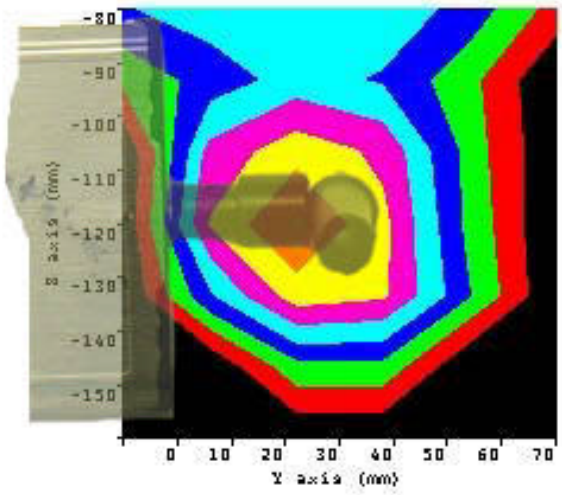
Test Position:	Configuration 5 Per Test process Table 2
Test Date:	April 23, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.0C
Post Test Room Temp.	24.6C
Pre Test Simulant Liquid Temp.	24.2C
Post Test Simulant Liquid	24.7C
CH 3	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	0.487

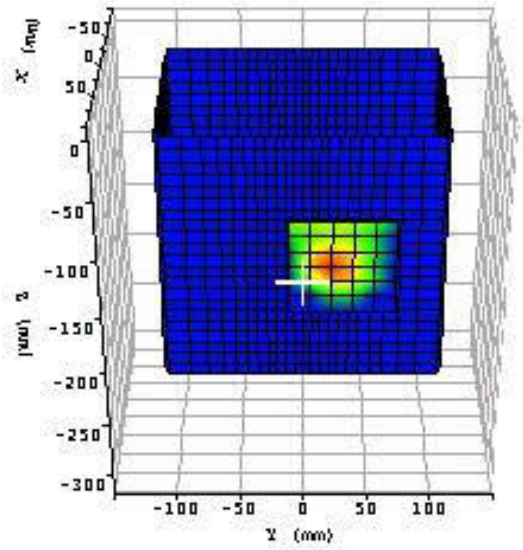


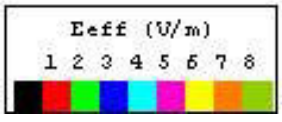




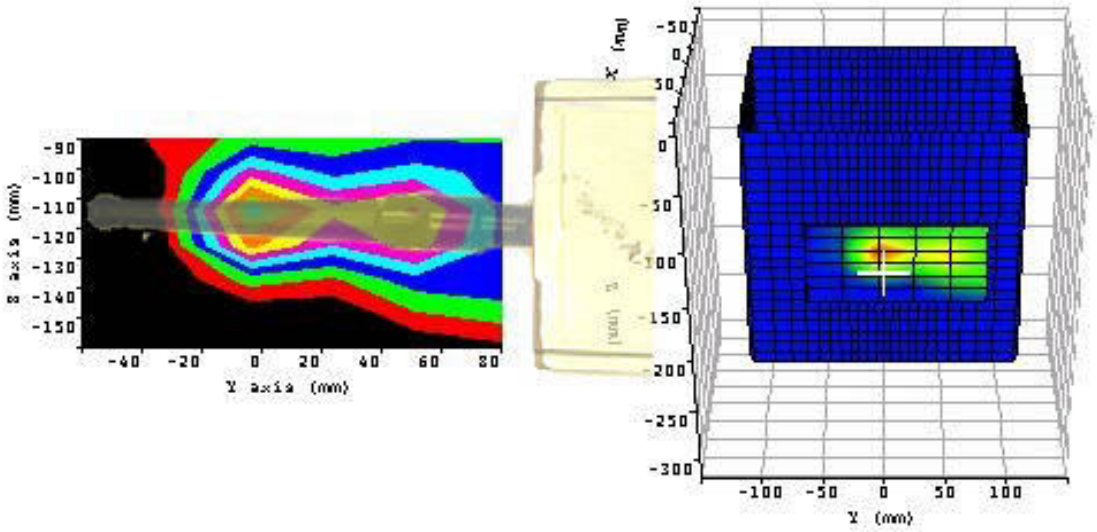
Test Position:	Configuration 1 Per Test process Table 3
Test Date:	April 23, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.0C
Post Test Room Temp.	24.6C
Pre Test Simulant Liquid Temp.	24.2C
Post Test Simulant Liquid	24.7C
CH 4	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	0.213

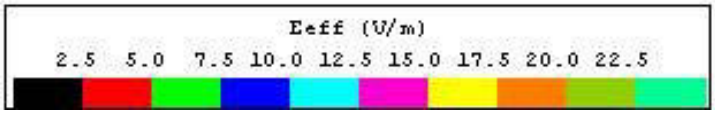




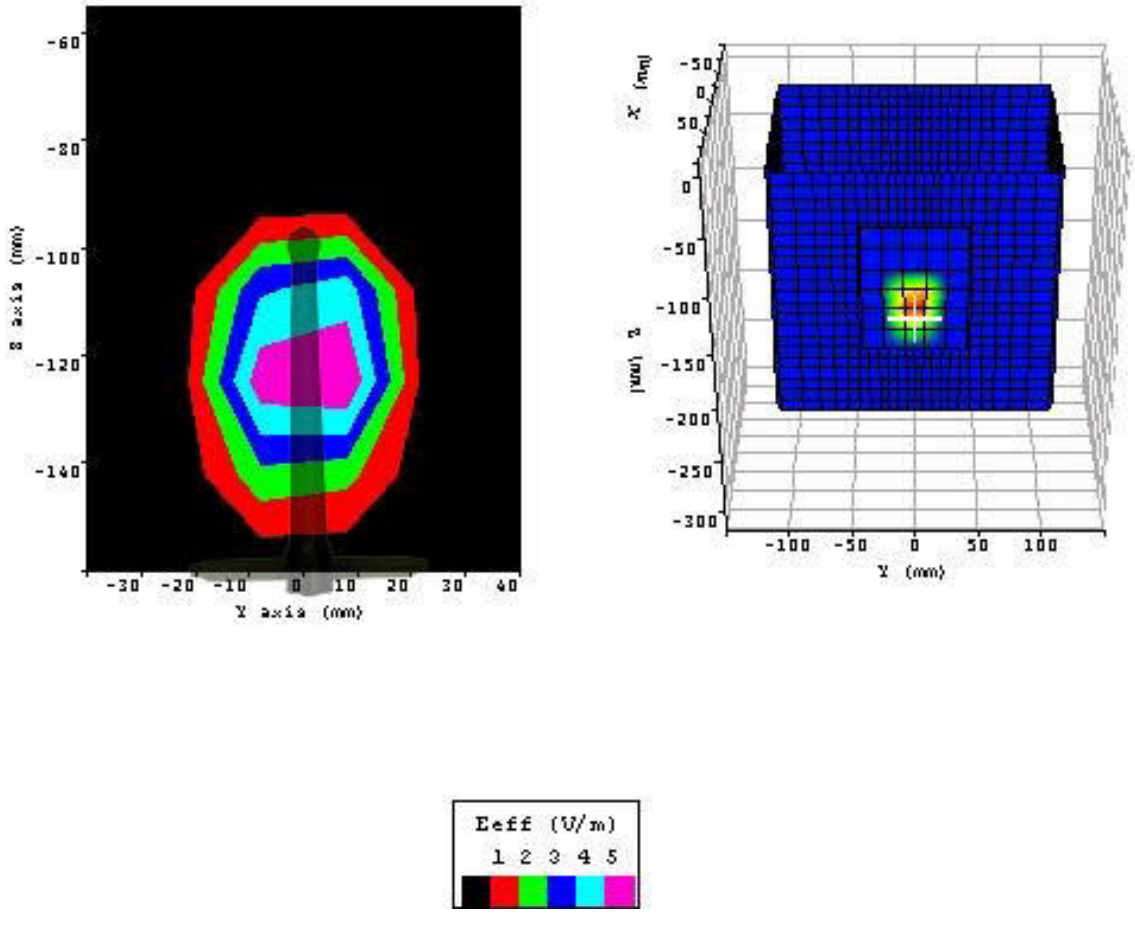


Test Position:	Configuration 3 Per Test process Table 3
Test Date:	April 23, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.0C
Post Test Room Temp.	24.6C
Pre Test Simulant Liquid Temp.	24.0C
Post Test Simulant Liquid	24.7C
CH 4	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	1.380

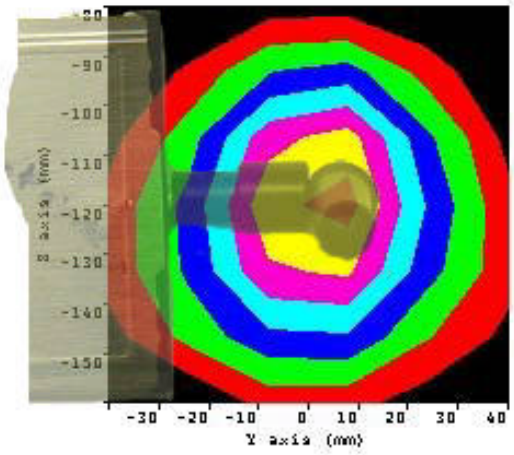


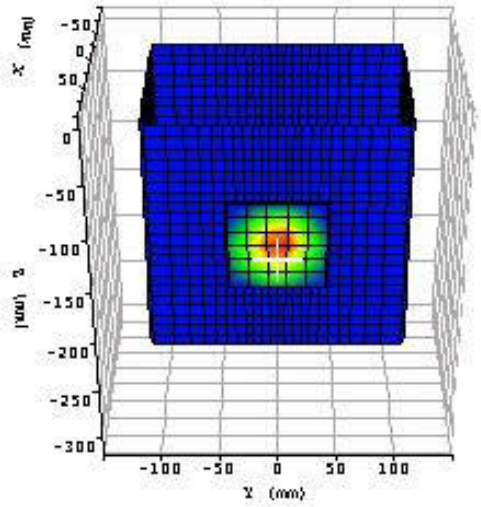


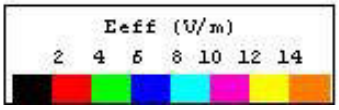
Test Position:	Configuration 5 Per Test process Table 3
Test Date:	April 23, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.0C
Post Test Room Temp.	24.6C
Pre Test Simulant Liquid Temp.	24.2C
Post Test Simulant Liquid	24.7C
CH 4	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	0.128



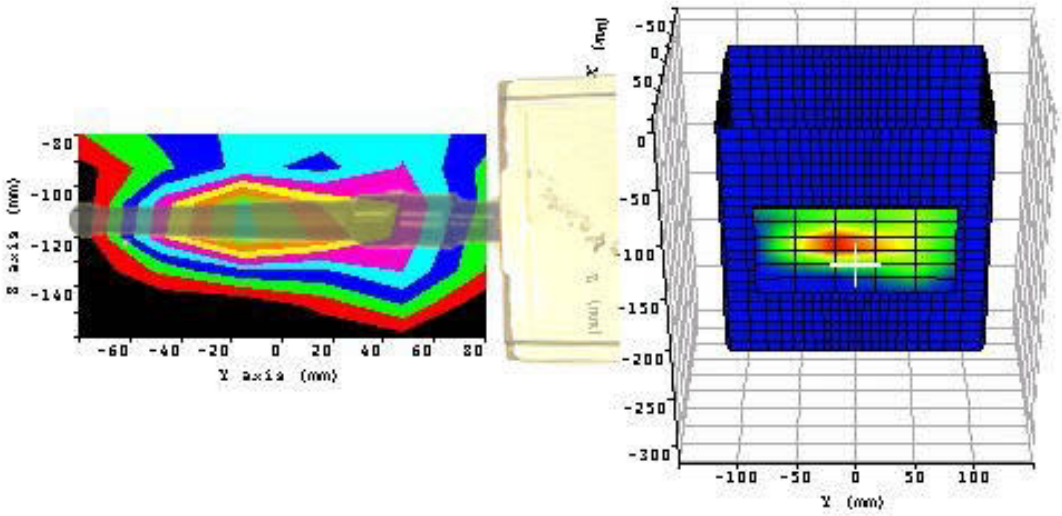
Test Position:	Configuration 1 Per Test process Table 4
Test Date:	April 23, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.0C
Post Test Room Temp.	24.6C
Pre Test Simulant Liquid Temp.	24.0C
Post Test Simulant Liquid	24.7C
CH 1	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	0.626



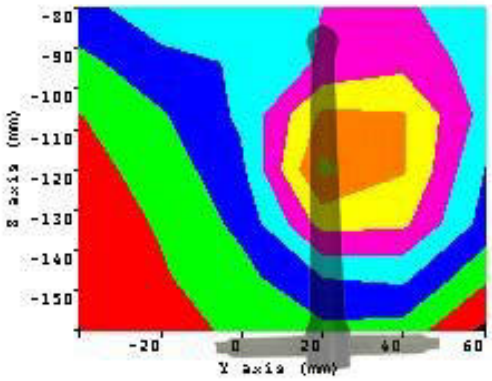


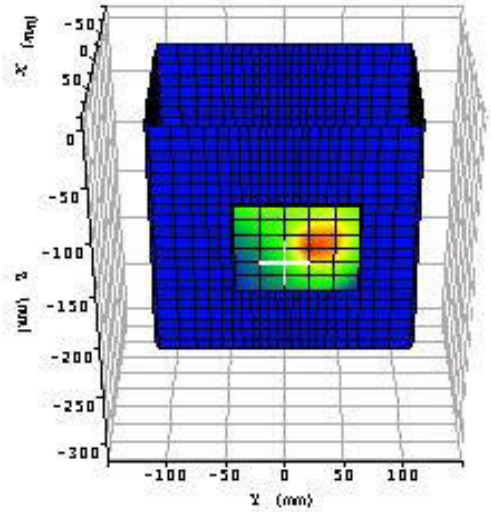


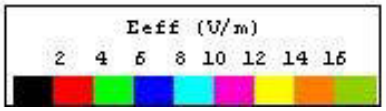
Test Position:	Configuration 3 Per Test process Table 4
Test Date:	April 23, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.0C
Post Test Room Temp.	24.6C
Pre Test Simulant Liquid Temp.	24.2C
Post Test Simulant Liquid	24.7C
CH 1	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	1.423



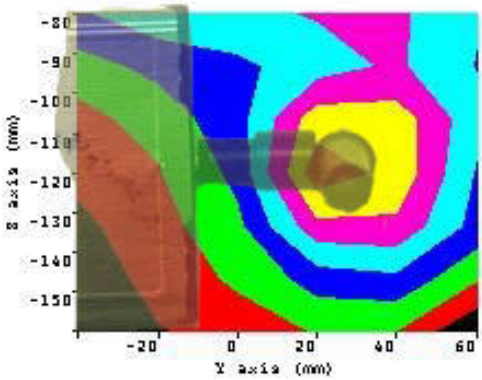
Test Position:	Configuration 5 Per Test process Table 4
Test Date:	April 23, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.0C
Post Test Room Temp.	24.6C
Pre Test Simulant Liquid Temp.	24.0C
Post Test Simulant Liquid	24.7C
CH 1	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	0.750

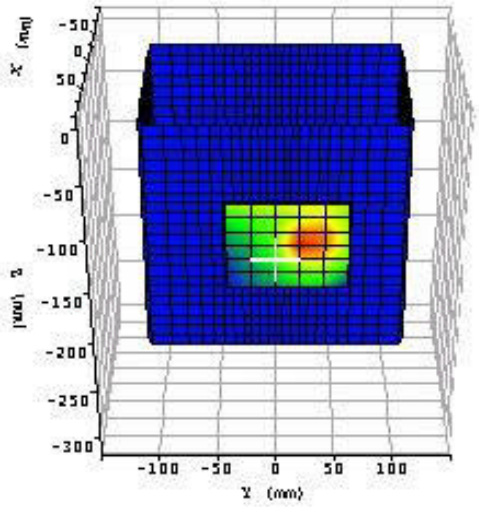


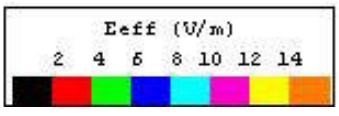




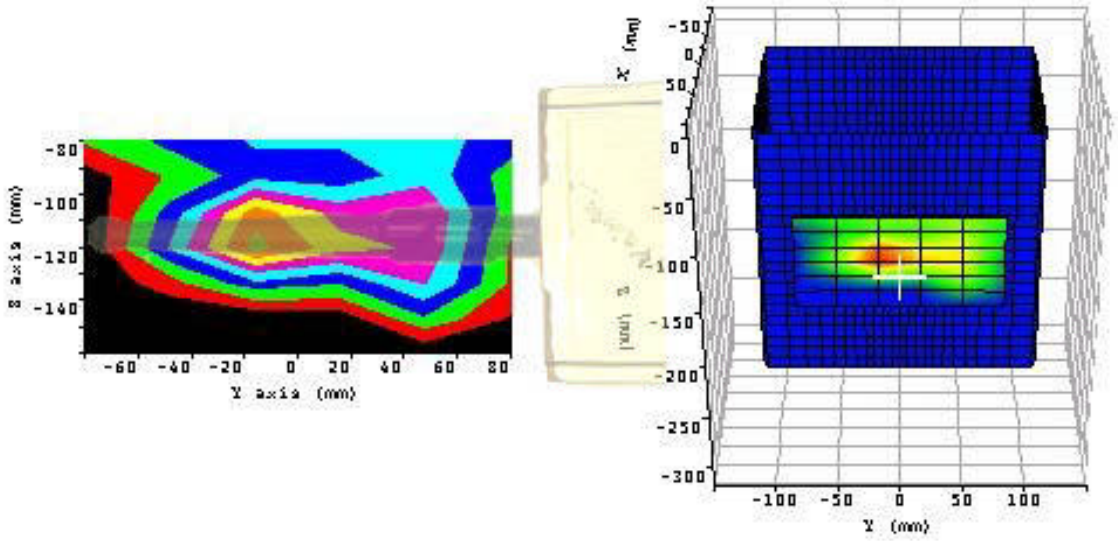
Test Position:	Configuration 1 Per Test process Table 5
Test Date:	April 23, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.0C
Post Test Room Temp.	24.6C
Pre Test Simulant Liquid Temp.	24.0C
Post Test Simulant Liquid	24.7C
CH 3	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	0.731

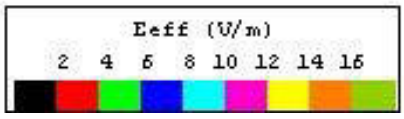




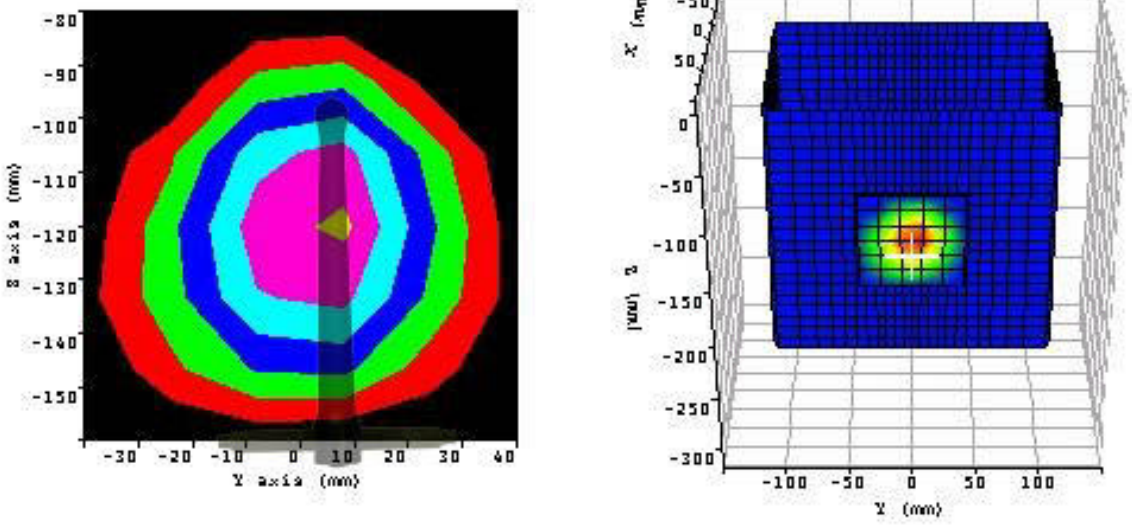


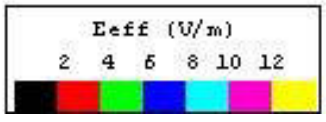
Test Position:	Configuration 3 Per Test process Table 5
Test Date:	April 23, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.0C
Post Test Room Temp.	24.6C
Pre Test Simulant Liquid Temp.	24.0C
Post Test Simulant Liquid	24.7C
CH 3	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	0.978



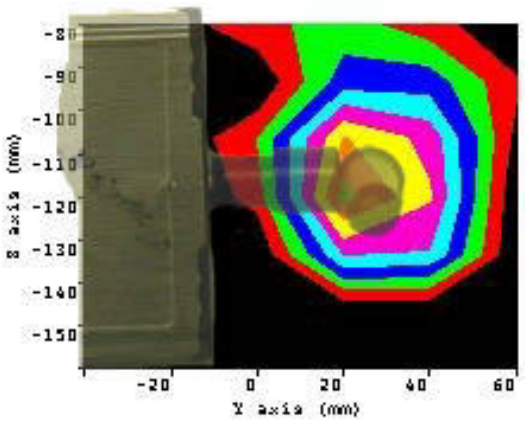


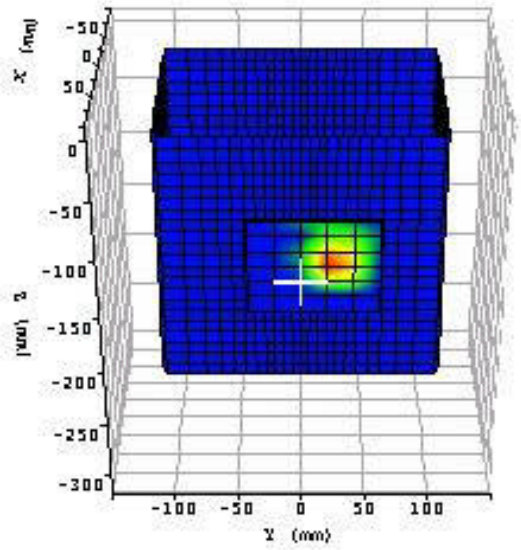
Test Position:	Configuration 5 Per Test process Table 5
Test Date:	April 23, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.0C
Post Test Room Temp.	24.6C
Pre Test Simulant Liquid Temp.	24.0C
Post Test Simulant Liquid	24.7C
CH 3	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	0.440

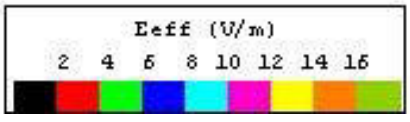




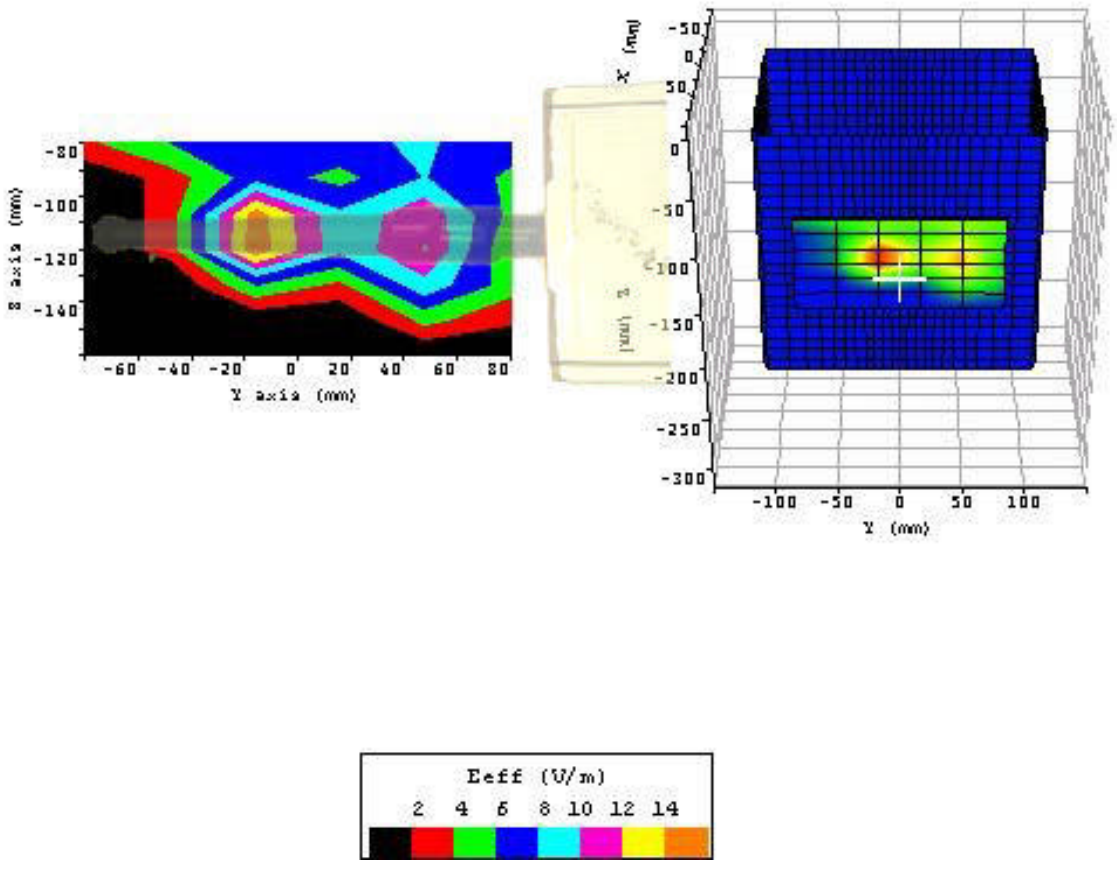
Test Position:	Configuration 1 Per Test process Table 6
Test Date:	April 23, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.0C
Post Test Room Temp.	24.6C
Pre Test Simulant Liquid Temp.	24.0C
Post Test Simulant Liquid	24.7C
CH 4	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	0.792



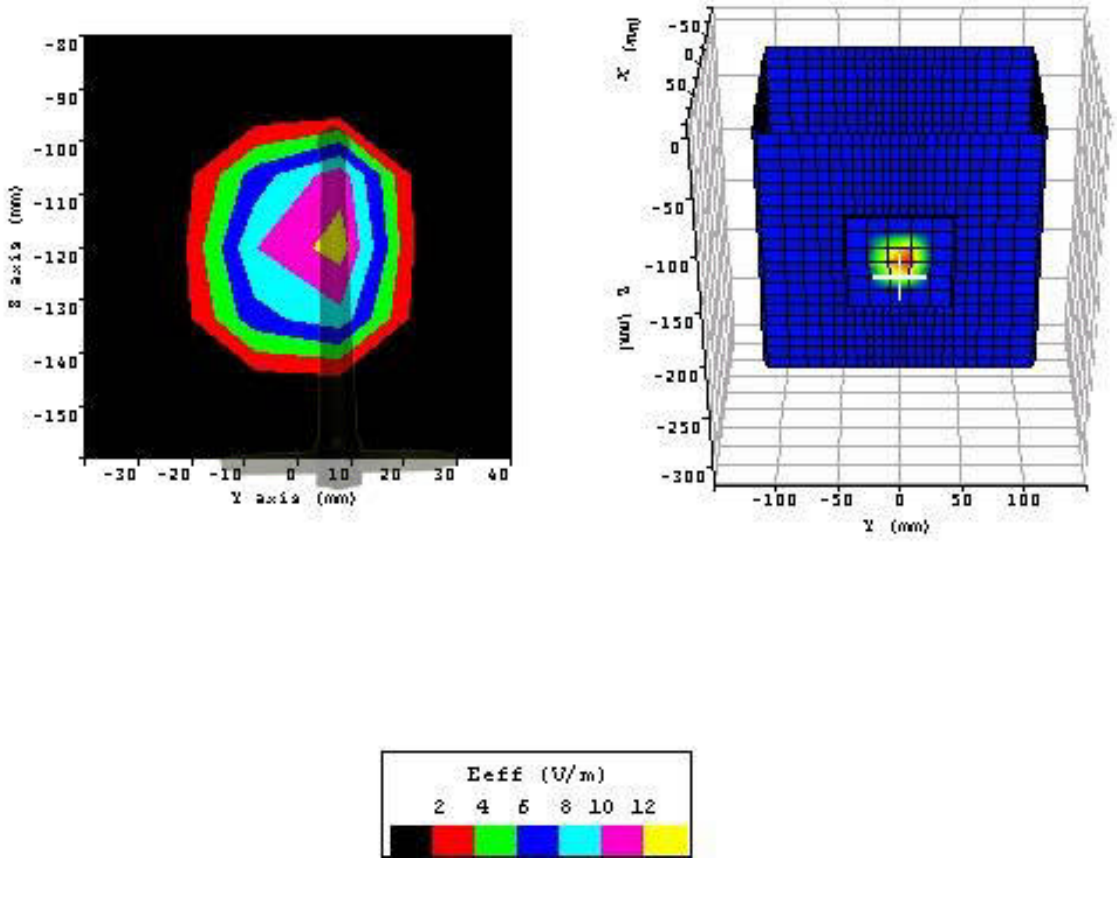




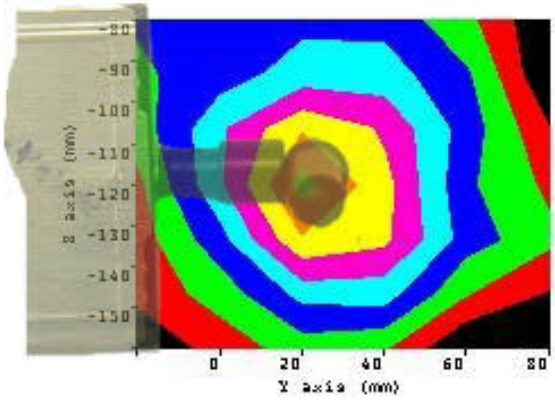
Test Position:	Configuration 3 Per Test process Table 6
Test Date:	April 23, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.0C
Post Test Room Temp.	24.6C
Pre Test Simulant Liquid Temp.	24.0C
Post Test Simulant Liquid	24.7C
CH 4	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	0.730

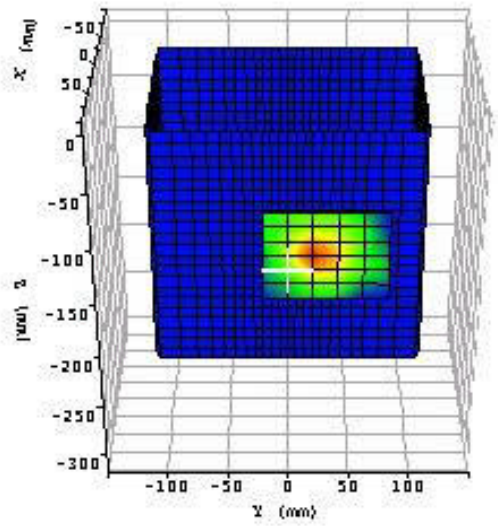


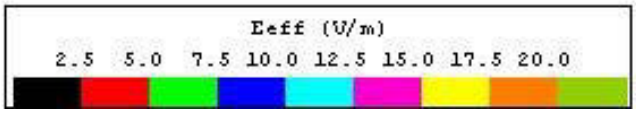
Test Position:	Configuration 5 Per Test process Table 6
Test Date:	April 23, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.0C
Post Test Room Temp.	24.6C
Pre Test Simulant Liquid Temp.	24.0C
Post Test Simulant Liquid	24.7C
CH 4	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	0.532



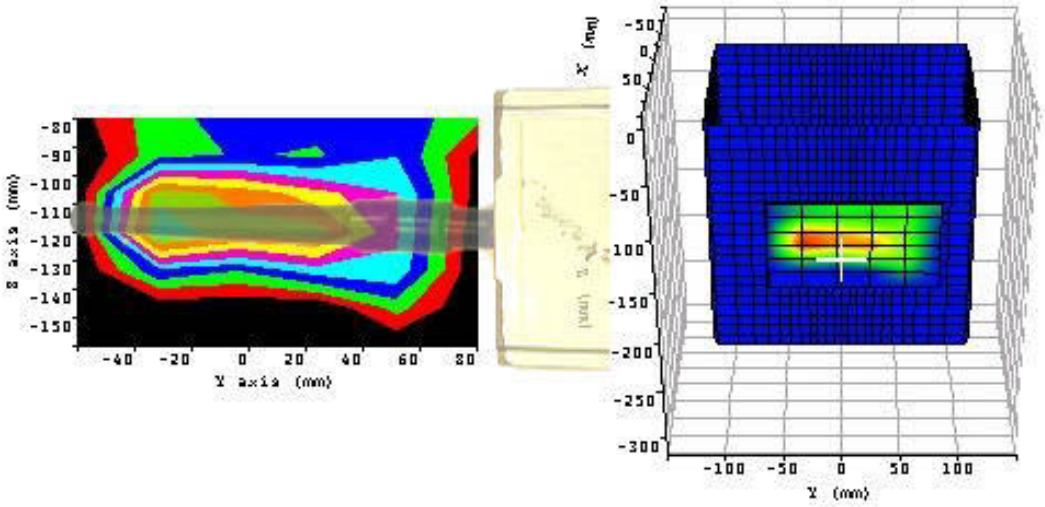
Test Position:	Configuration 1 Per Test process Table 7
Test Date:	April 29, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.0C
Post Test Room Temp.	24.6C
Pre Test Simulant Liquid Temp.	24.0C
Post Test Simulant Liquid	24.7C
CH 1	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	0.962

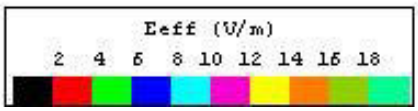




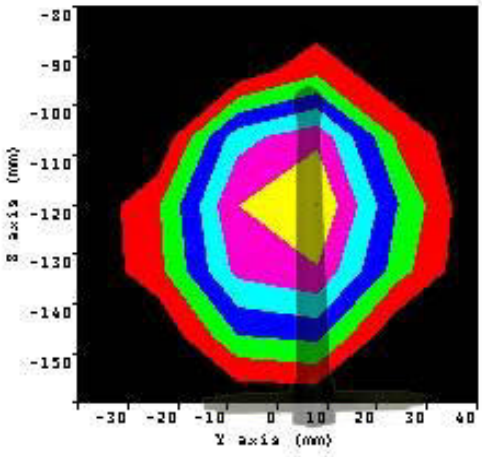


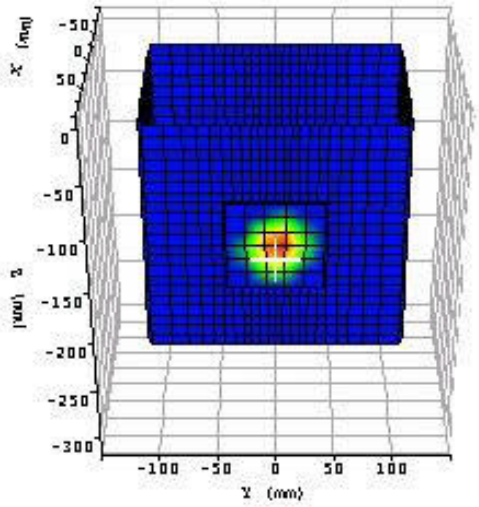
Test Position:	Configuration 3 Per Test process Table 7
Test Date:	April 29, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.0C
Post Test Room Temp.	24.6C
Pre Test Simulant Liquid Temp.	24.0C
Post Test Simulant Liquid	24.7C
CH 1	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	1.328

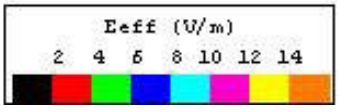




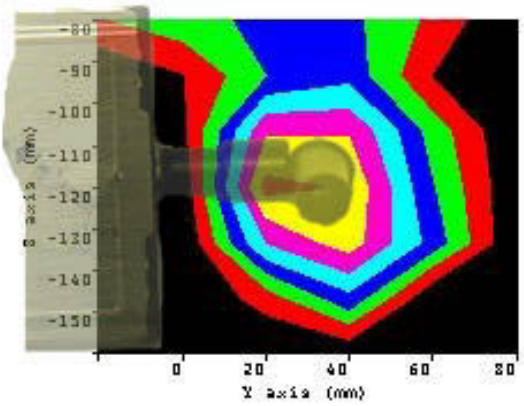
Test Position:	Configuration 5 Per Test process Table 7
Test Date:	April 29, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.0C
Post Test Room Temp.	24.6C
Pre Test Simulant Liquid Temp.	24.0C
Post Test Simulant Liquid	24.7C
CH 1	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	0.542

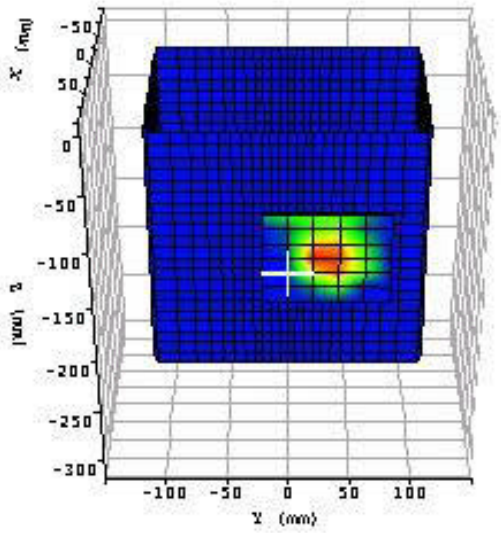


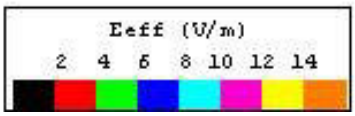




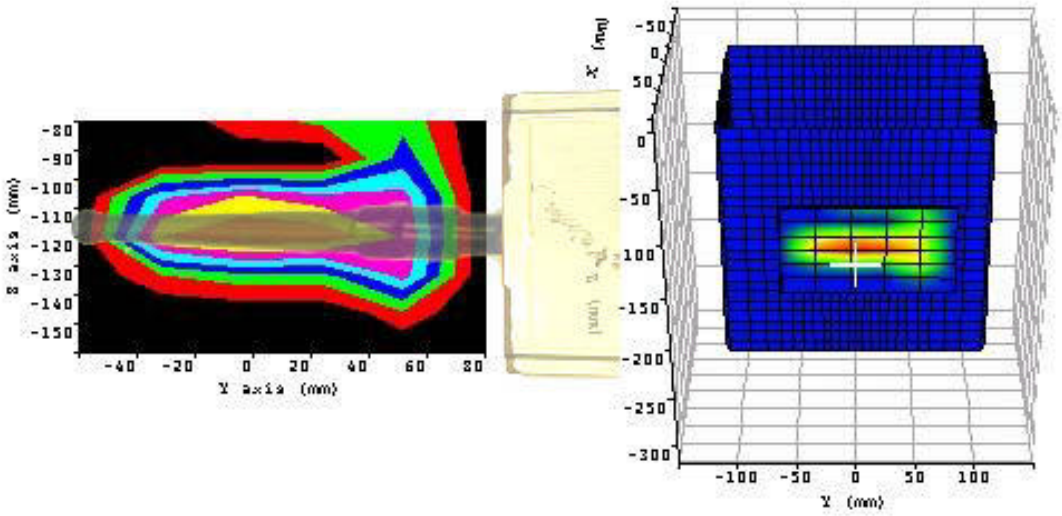
Test Position:	Configuration 1 Per Test process Table 8
Test Date:	April 29, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.3C
Post Test Room Temp.	24.6C
Pre Test Simulant Liquid Temp.	24.5C
Post Test Simulant Liquid	24.7C
CH 3	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	0.687

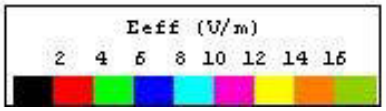




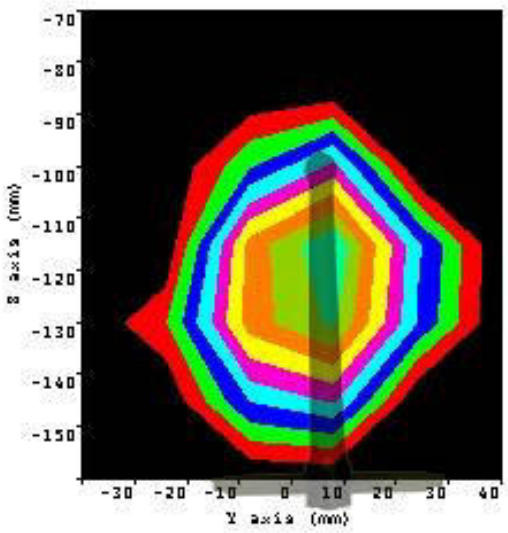


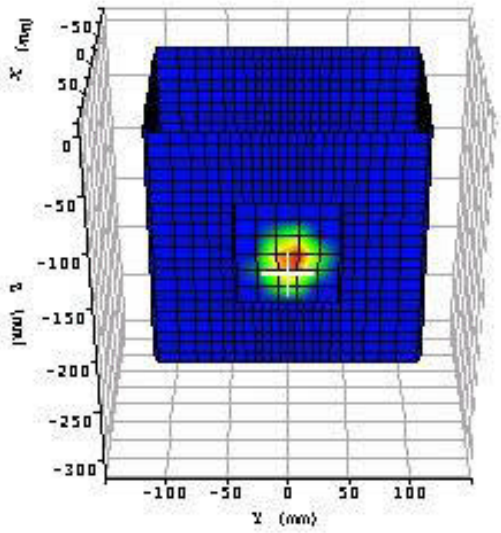
Test Position:	Configuration 3 Per Test process Table 8
Test Date:	April 29, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.3C
Post Test Room Temp.	24.6C
Pre Test Simulant Liquid Temp.	24.5C
Post Test Simulant Liquid	24.7C
CH 3	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	1.095

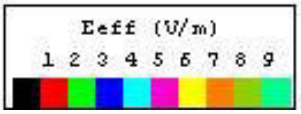




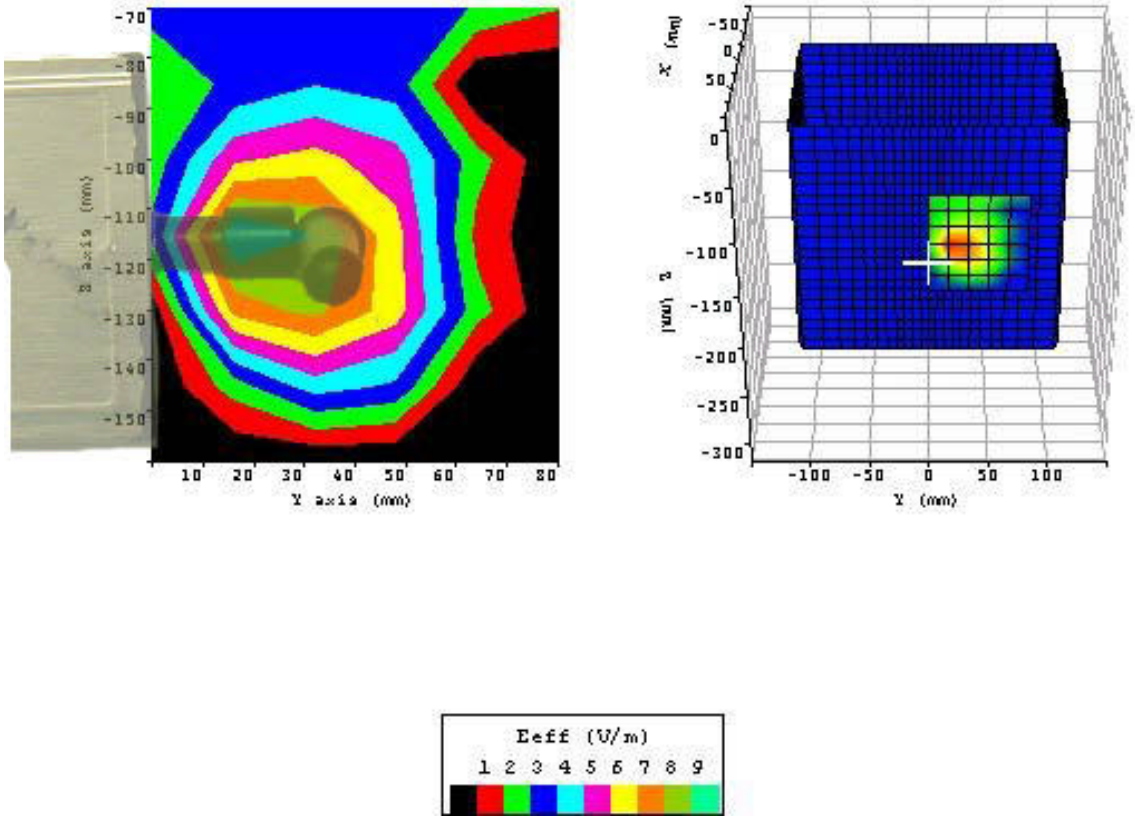
Test Position:	Configuration 5 Per Test process Table 8
Test Date:	April 29, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.3C
Post Test Room Temp.	24.6C
Pre Test Simulant Liquid Temp.	24.5C
Post Test Simulant Liquid	24.7C
CH 3	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	0.219



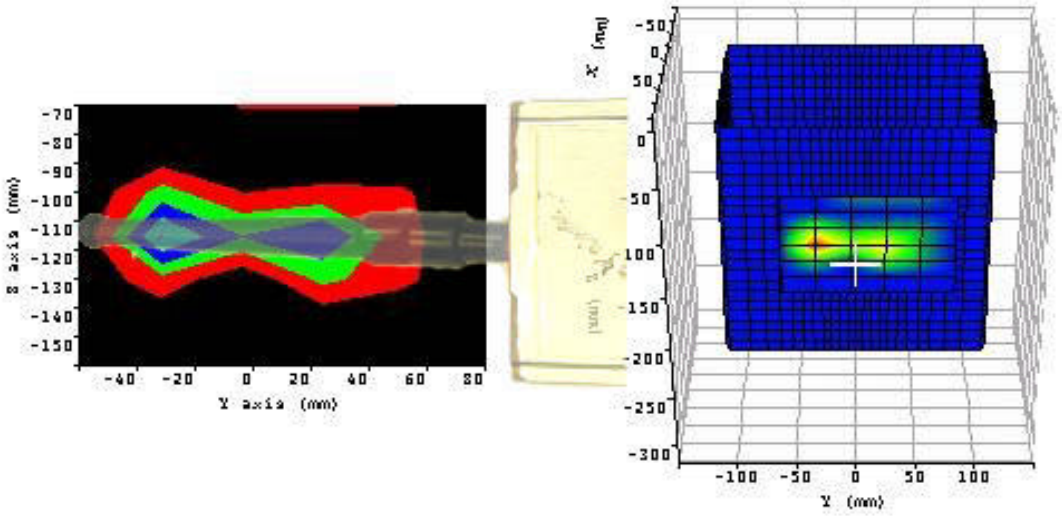


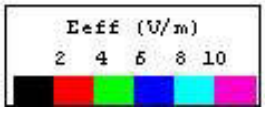


Test Position:	Configuration 1 Per Test process Table 9
Test Date:	April 29, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.3C
Post Test Room Temp.	24.6C
Pre Test Simulant Liquid Temp.	24.5C
Post Test Simulant Liquid	24.7C
CH 4	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	0.266

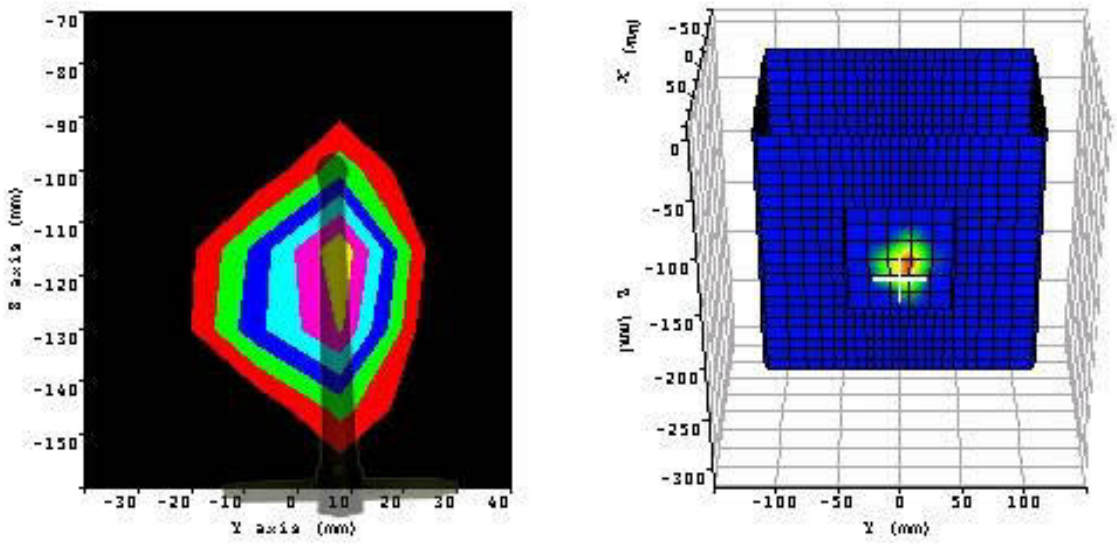


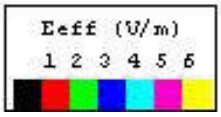
Test Position:	Configuration 3 Per Test process Table 9
Test Date:	April 29, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.3C
Post Test Room Temp.	24.6C
Pre Test Simulant Liquid Temp.	24.5C
Post Test Simulant Liquid	24.7C
CH 4	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	0.276



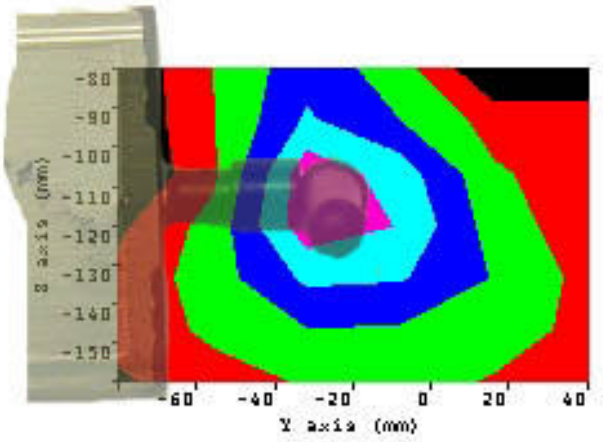


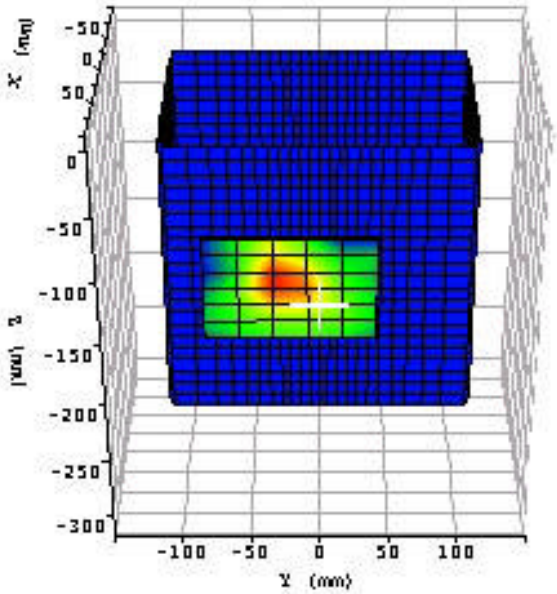
Test Position:	Configuration 5 Per Test process Table 9
Test Date:	April 29, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.3C
Post Test Room Temp.	24.6C
Pre Test Simulant Liquid Temp.	24.5C
Post Test Simulant Liquid	24.7C
CH 4	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	0.136

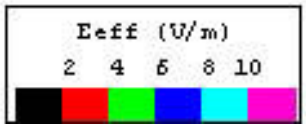




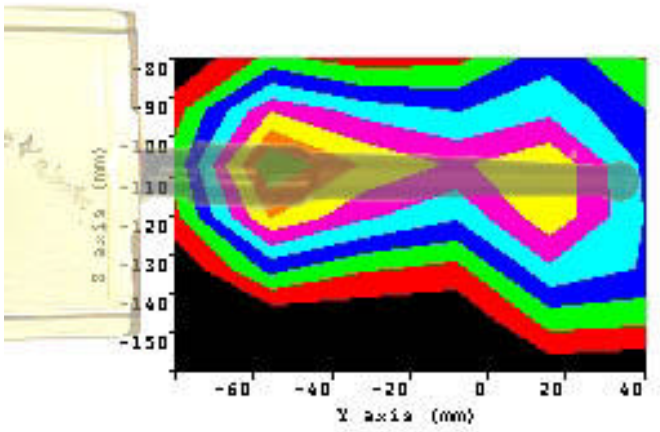
Test Position:	Configuration 1 Per Test process Table 10
Test Date:	April 24, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.2C
Post Test Room Temp.	24.4C
Pre Test Simulant Liquid Temp.	24.0C
Post Test Simulant Liquid	24.6C
CH 1	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	0.374

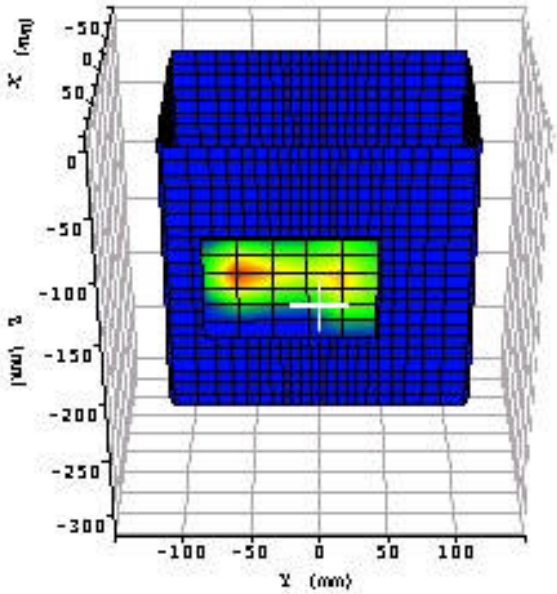


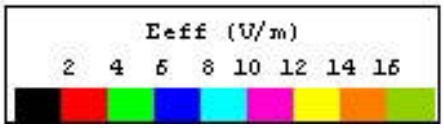




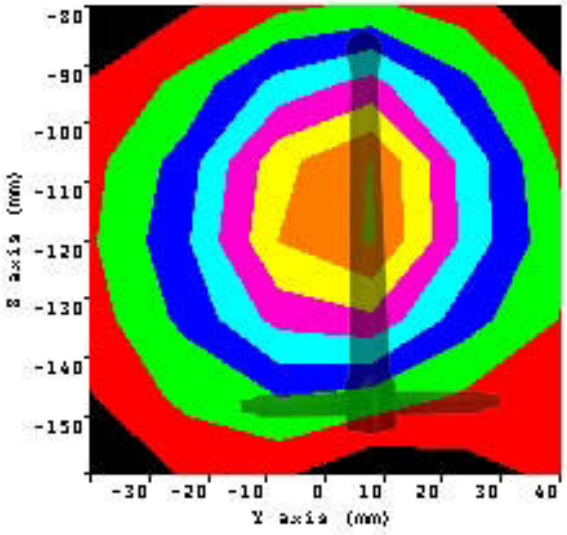
Test Position:	Configuration 3 Per Test process Table 10
Test Date:	April 24, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.2C
Post Test Room Temp.	24.4C
Pre Test Simulant Liquid Temp.	24.0C
Post Test Simulant Liquid	24.6C
CH 1	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	1.203

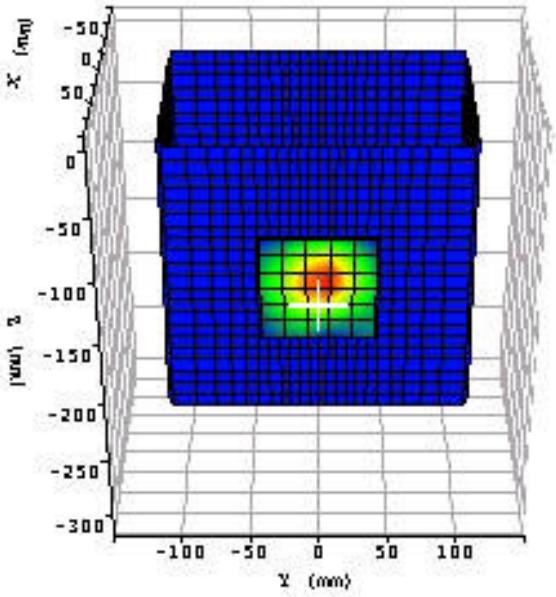


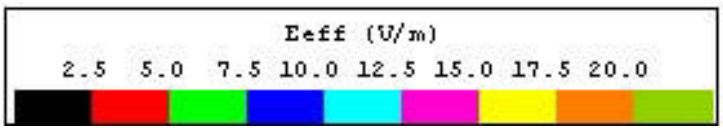




Test Position:	Configuration 5 Per Test process Table 10
Test Date:	April 24, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.2C
Post Test Room Temp.	24.4C
Pre Test Simulant Liquid Temp.	24.0C
Post Test Simulant Liquid	24.6C
CH 1	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	1.115







Test Position:	Configuration 1 Per Test process Table 11
Test Date:	April 24, 2003
Antenna Position:	Attached
Probe:	IXP-050/SN 0122 – SARf (0.946,0.946,0.946) Probe Cal Date 10/10/2002
Med. Parameters:	Body: e_r =52.9; s = 1.98
Pre Test Room Temp.	24.2C
Post Test Room Temp.	24.4C
Pre Test Simulant Liquid Temp.	24.0C
Post Test Simulant Liquid	24.6C
CH 3	Crest Factor=1
SAR Drift	<5%
SAR (1g) W/Kg	0.553