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## REPORT ON

Specific Absorption Rate Testing of the Intermec Technologies Corporation  
700C Mobile Computer

**Report No WS615078/01 Issue 1**

**May 2006**

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**REPORT ON** Specific Absorption Rate Testing of the Intermec Technologies Corporation  
700C Mobile Computer

Report No: WS615078/01 Issue 1

May 2006

**PREPARED FOR** Intermec Technologies Corporation  
550 Second Street. SE  
CEDAR RAPIDS  
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USA

**ATTESTATION** The wireless portable device described within this report has been shown  
to be capable of compliance for localised specific absorption rate (SAR) for  
General Population/Uncontrolled Exposure Limits as defined in the FCC  
standard Supplement C (Edition 01-01) to OET Bulletin 65 (Edition 97-  
01) and RSS-102 Issue 1 (Provisional) September 25, 1999 of 1.6 W/kg.

The measurements shown in this report were made in accordance with  
the procedures specified in Supplement C (Edition 01-01) to OET  
Bulletin 65 (Edition 97-01), RSS-102 Issue 1 (Provisional) September 25  
and IEEE 1528-2003

All reported testing was carried out on a sample of equipment to  
demonstrate compliance with the above standards. The sample tested  
was found to comply with the requirements in the applied rules.

A Miller  
SAR Test Engineer

M J Hardy  
Authorised Signatory

**APPROVED BY**

**DATED**

15<sup>th</sup> May 2006

*Note: The test results reported herein relate only to the item tested  
as identified above and on the Status Page.*

## CONTENTS

<b>Section</b>		<b>Page No</b>
<b>1</b>	<b>REPORT SUMMARY</b>	
1.1	Status .....	4
1.2	Summary .....	5
1.3	Test Results Summary .....	7
1.4	Output Power Measurements.....	13
<b>2</b>	<b>TEST DETAILS</b>	
2.1	SAR Measurement System .....	15
	2.1.1    Robot System Specification	
	2.1.2    Probe and Amplifier Specification	
	2.1.3    SAR Measurement Procedure	
2.2	Test Positions .....	20
2.3	SAR Distributions (Area Scans – 2D).....	21
<b>3</b>	<b>TEST EQUIPMENT</b>	
3.1	Test Equipment .....	74
3.2	Test Software .....	74
3.3	Dielectric Properties of Simulant Liquids.....	75
3.4	Test Conditions.....	76
3.5	Measurement Uncertainty .....	77
<b>4</b>	<b>PHOTOGRAPHS</b>	
4.1	Test Positional Photographs.....	79
4.2	Photographs of Equipment Under Test (EUT)....	82
<b>5</b>	<b>ACCREDITATION, DISCLAIMERS AND COPYRIGHT</b>	
5.1	Accreditation, Disclaimers and Copyright.....	86
<b>ANNEX A</b>	Probe Calibration Information.....	<b>A.2</b>

## SECTION 1

### REPORT SUMMARY

#### Specific Absorption Rate Testing of the Intermec Technologies Corporation 700C Mobile Computer

<b>Max 1g SAR (W/kg)</b>	0.689
The maximum 1g volume averaged SAR level measured for all the tests performed did not exceed the limits for General Population/Uncontrolled Exposure (W/kg) Partial Body of 1.6 W/kg. Level defined in Supplement C (Edition 01-01) to OET Bulletin 65 (97-01).	

<b>Max 10g SAR (W/kg)</b>	0.460
The maximum 10g volume averaged SAR level measured for all the tests performed did not exceed the 2 W/kg level defined for limiting the exposure of the general population to time-varying electric and magnetic fields by ICNIRP (1998), which is the relevant Standard for testing according to the CENELEC EN50361:2001 test method.	

## 1.1 STATUS

<b>MANUFACTURING DESCRIPTION</b>	Mobile Computer
<b>STATUS OF TEST</b>	Specific Absorption Rate Testing
<b>APPLICANT</b>	Intermec Technologies Corporation
<b>POWER CLASS</b>	GSM 850 / GSM 900 Class 4 GSM DCS 1800 / PCS 1900 Class 1 EGPRS GSM 850 / EGSM 900 Class E2
<b>GPRS CLASS</b>	Class B
<b>MULTI-SLOT CLASS</b>	12 (4Dn;4Up;Sum5)
<b>EGPRS CLASS</b>	Class B
<b>MULTI-SLOT CLASS</b>	10 (4Dn;2Up;Sum5)
<b>MANUFACTURER</b>	Intermec Technologies Corporation
<b>TYPE OR MODEL NUMBER</b>	Intermec 700C
<b>HARDWARE VERSION</b>	-
<b>SOFTWARE VERSION</b>	-
<b>IMEI NUMBER</b>	355634000427887
<b>BATTERY MODEL</b>	P/N: 318-013-004 (Li-ion 7.2V / 14.4WH)
<b>BATTERY MANUFACTURER</b>	Intermec Technologies Corporation

## TEST SPECIFICATIONS:

1. EN50361: Basic standard for the measurement of Specific Absorption Rate related to human exposure to electromagnetic fields from mobile phones (300 MHz - 3 GHz). CENELEC, July 2001.
2. Federal Communications Commission (FCC) OET Bulletin 65c, Edition 01-01, Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields – Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions.
3. RSS-102 Issue 1 (Provisional) September 25, 1999: Evaluation Procedure for Mobile and Portable Radio Transmitters with respect to Health Canada's Safety Code 6 for Exposure of Humans to radio Frequency Fields

## REFERENCES:

4. EN50360: Product standard to demonstrate the compliance of mobile phones with the basic restrictions related to human exposure to electromagnetic fields (300 MHz - 3 GHz). CENELEC, July 2001.
5. US Federal Government, Code of Federal Regulations, Title 47 Telecommunication, Chapter I Federal Communications Commission, part 2, section 1093.
6. IEEE 1528 – 2003: Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Body Due to Wireless Communications Devices: Experimental Techniques.

<b>BABT REGISTRATION NUMBER:</b>	WS615078
<b>RECEIPT OF TEST SAMPLES:</b>	13 <sup>th</sup> March 2006
<b>START OF TEST:</b>	13 <sup>th</sup> March 2006
<b>FINISH OF TEST:</b>	12 <sup>th</sup> April 2006

## 1.2 SUMMARY

The unit supplied for testing is an Intermec 700C Mobile Computer, which offers Quad-Band EDGE (GSM/GPRS 850/900/1800/1900) connectivity.

The following accessories were supplied for assessment with the device, these were: -

- Belt Clip – Manufactured by The Clip Company (Part/No 805-612-001)
- 700C Holster#1 – Manufactured by Koszegi Industries Inc (Part/No 815-047-001)
- 700C Holster #2 – Manufactured by Koszegi Industries Inc (Part/No 815-047-002)

For Head SAR assessment, testing was performed with the device in GSM mode only using a Specific Anthropomorphic Mannequin (SAM) phantom, as specified in IEEE 1528-2003. The phantom was filled with different simulant liquid appropriate to each frequency band. The dielectric properties were measured and found to be in accordance with the requirements for the dielectric properties specified in IEEE 1528-2003. The Intermec 700C Mobile Computer had a fixed external antenna so that the requirement for testing with antenna extended and retracted was not applicable

SAR testing was performed at both the left and right ear of the phantom at both handset positions stated in the above specification. Testing was performed at the middle frequency of each band and at the top and the bottom frequencies for the position giving maximum SAR. The sequence used accorded with the block diagram of tests given in EN 50361. Testing was performed at the maximum power for both the GSM850 and GSM1900 bands testing. This was achieved using a GSM test set, which controlled the handset at power level 5 and power level 0 respectively.

It is acknowledged that the device can be positioned in both Holsters #1 & #2 in various positions. Therefore prior to Body SAR assessment, the device was placed into the appropriate test position and worst case antenna positions (judged by separation distance) were established to reduce the number of SAR scans required.

Scans were performed at each position pertaining to the minimum separation distance to ascertain the maximum SAR for the device. The device was placed into the appropriate test mode and an area scan was performed on each face of the device to ascertain the location of the transmitter to enable the SAR testing to be performed on the appropriate face. This was performed for each Radio Module fitted. This was carried out with and without the Headset in position for the body assessment, this showed that there was no difference in SAR values and therefore nearly all testing was carried out without the headset being used. A headset was used, and the effect was found to be negligible.

For Body SAR assessment, the device was tested for typical body-worn operation. Flat Phantom dimensions 220mmx200mmx150mm and with a sidewall thickness of 2.0mm. The phantom was filled to a depth of 150mm with the appropriate Body simulant liquid. The dielectric properties were in accordance with the requirements for the dielectric properties specified in Supplement C (Edition 01-01) to OET Bulletin 65 (Edition 97-01).

For Body SAR assessment the device was placed into a GPRS Multislot Class 10 configuration, with 2 timeslots transmitting at maximum power for both the GSM850 and GSM1900. This was achieved using a Universal Radio Communication Tester (CMU200), which controlled the number of transmit slots and the handset power at level 5 (GSM850), and power level 0 (GSM1900) respectively. The 700C Mobile Computer was first placed into Holster #1 with the rear of the Holster placed to the 'side to phantom' (body). The device was then positioned in its intended user position whilst SAR assessment was carried out in the bottom, middle and top channel for each band assessed. This approach identified the channel giving the maximum SAR for the device. The Device was then positioned in the one alternative position which gave the minimum distance relating to antenna phantom distance. A single SAR assessment was carried in this position for each band at channel 189 (GSM850) and channel 512 (GSM1900).

## 1.2 SUMMARY - Continued

The 700C Mobile Computer was then placed into Holster #2 the device was first positioned in its intended user position whilst a single SAR assessment was carried in this position. The Device was then positioned in the one alternative position which gave the minimum distance relating to antenna phantom distance and another single SAR assessment was carried in this position. The following channels were adjudged to give the maximum SAR for the device, Channel 189 (GSM850) and channel 512 (GSM1900).

The device was configured with a belt – clip attachment. The device was then placed in its intended user position whilst a single SAR assessment was carried out in this position for each band assessed. The following channels were adjudged to give the maximum SAR for the device, Channel 189 (GSM850) and channel 512 (GSM1900).

The belt clip of the Mobile Computer Holster contains a metal spring enclosed within a plastic housing, with nominal dimensions: Overall length 80mm (formed into a semi-closed U shape); width 25mm and thickness 0.5mm. For each band channel 189 (GSM850) and channel 512 (GSM1900) were adjudged to give the maximum SAR for the device.

Included in this report are descriptions of the test method; the equipment used and an analysis of the test uncertainties applicable and diagrams indicating the locations of maximum SAR for each test position along with photographs indicating the positioning of the handset against either the right or left ear, and/or distance and from the body as appropriate.

The maximum 10g volume averaged SAR level measured for all the tests performed did not exceed the 2 W/kg level defined for limiting the exposure of the general population to time-varying electric and magnetic fields by ICNIRP (1998), which is the relevant Standard for testing according to the CENELEC EN50361 test method.

The following scans show a limited scan area. These are Figures 33/34/35/36/39/40/41/42/43. This indicates a more defined area showing the area of RF concentration at extreme regions of a normal scan.

The maximum 1g volume averaged SAR level measured for all the tests performed did not exceed the limits for General Population/Uncontrolled Exposure (W/kg) Partial Body of 1.6 W/kg. Level defined in Supplement C (Edition 01-01) to OET Bulletin 65 (97-01).

### WORST CASE SAR VALUE / POSITION / MODE

POSITION:	The 700C in Holster #1 LCD panel facing to phantom (inverted unit)*
ANTENNA DISTANCE:	0.0cm from terminal case to phantom
MODE:	GPRS 850 Upper frequency – 848.8MHz (Body)
SAR Value:	0.689 / 0.460 W/kg (1g Limit & 10g W/kg)

\* Note: Not designated as normal use position. Information provided as device can be stored in various positions with the holster.

### 1.3 TEST RESULT SUMMARY

#### SYSTEM PERFORMANCE / VALIDATION CHECK RESULTS

Prior to formal testing being performed a System Check was performed in accordance with OET 65 Supplement C (Edition 01-01) [5] and the results were compared against published data in Standard IEEE 1528-2003 [4]. The following results were obtained: -

Date	Dipole Used	Frequency (MHz)	Max 1g SAR (W/kg)*	Percentage Drift on Reference (%)	Max 10g SAR (W/kg)*	Percentage Drift on Reference (%)
21/03/2006	900	907.5	10.72	-0.77	6.91	0.22
30/03/2006	900	907.5	10.95	1.40	7.05	2.18
05/04/2006	900	907.5	10.86	0.56	7.05	2.18
23/03/2006	1800	1812	35.58	-6.61	19.14	-3.33
24/03/2006	1800	1812	35.06	-7.99	18.87	-4.68
27/03/2006	1800	1812	36.83	-3.34	19.83	0.15
28/03/2006	1900	1929	41.45	4.40	21.56	5.18
07/04/2006	1900	1929	40.03	0.84	21.08	2.81
11/04/2006	2450	2450	47.25	-9.83	22.37	-6.79

\*Normalised to a forward power of 1W

#### GSM 850MHz HEAD Specific Absorption Rate (Maximum SAR) 1g & 10g Results for the Intermec 700C Mobile Computer.

Position		Channel Number	Frequency (MHz)	Max Spot SAR (W/kg)	Max 1g SAR (W/kg)	Max 10g SAR (W/kg)	SAR Drift (%)	Area scan (Figure number)
Left or Right Hand Ear	Mobile Position							
LH	Cheek	189	836.4	0.150	0.150	0.110	-0.770	Figure 7
LH	15°	189	836.4	0.230	0.201	0.147	-0.570	Figure 8
RH	Cheek	189	836.4	0.250	0.228	0.159	-0.570	Figure 9
RH	15°	189	836.4	0.350	0.319	0.231	-1.850	Figure 10
RH	15°	128	824.2	0.400	0.373	0.266	1.480	Figure 11
RH	15°	251	848.8	0.410	0.375	0.260	0.420	Figure 12
Limit for General Population (Uncontrolled Exposure) 1.6 W/kg (1g) & 2.0 W/kg (10g)								

#### GPRS 850MHz BODY Specific Absorption Rate (Maximum SAR) 1g & 10g Results for the Intermec 700C Mobile Computer Inserted into Holster #1.

Position		Channel Number	Frequency (MHz)	Max Spot SAR (W/kg)	Max 1g SAR (W/kg)	Max 10g SAR (W/kg)	SAR Drift (%)	Area scan (Figure number)
Spacing From Phantom	Mobile Position							
0.0mm	Front facing-Normal	128	824.2	0.560	0.675	0.451	2.130	Figure 13
0.0mm	Front facing-Normal	189	836.4	0.550	0.669	0.443	0.380	Figure 14
0.0mm	Front facing-Normal	251	848.8	0.560	0.661	0.446	-2.580	Figure 15
0.0mm	Front facing-Inverted	251	848.8	0.600	0.689	0.460	0.000	Figure 16
Limit for General Population (Uncontrolled Exposure) 1.6 W/kg (1g) & 2.0 W/kg (10g)								

### 1.3 TEST RESULT SUMMARY - Continued

#### EGPRS 850MHz BODY Specific Absorption Rate (Maximum SAR) 1g & 10g Results for the Intermec 700C Mobile Computer Inserted into Holster #1.

Position		Channel Number	Frequency (MHz)	Max Spot SAR (W/kg)	Max 1g SAR (W/kg)	Max 10g SAR (W/kg)	SAR Drift (%)	Area scan (Figure number)
Spacing From Phantom	Mobile Position							
0.0mm	Front Facing-Inverted	251	848.8	0.230	0.234	0.147	2.520	Figure 17
Limit for General Population (Uncontrolled Exposure) 1.6 W/kg (1g) & 2.0 W/kg (10g)								

#### GRPS 850MHz BODY Specific Absorption Rate (Maximum SAR) 1g & 10g Results for the Intermec 700C Mobile Computer Inserted into Holster #2.

Position		Channel Number	Frequency (MHz)	Max Spot SAR (W/kg)	Max 1g SAR (W/kg)	Max 10g SAR (W/kg)	SAR Drift (%)	Area scan (Figure number)
Spacing From Phantom	Mobile Position							
0.0mm	Front facing-Normal	128	824.2	0.300	0.369	0.242	4.550	Figure 18
0.0mm	Front facing-Normal	189	836.4	0.300	0.370	0.247	-1.360	Figure 19
0.0mm	Front facing-Normal	251	848.8	0.280	0.345	0.227	-3.810	Figure 20
0.0mm	Front facing-Inverted	189	836.4	0.260	0.309	0.205	0.280	Figure 21
0.0mm	LH-Side facing	189	836.4	0.140	0.154	0.106	-6.100	Figure 22
0.0mm	RH-Side facing	189	836.4	0.280	0.341	0.220	-0.930	Figure 23
Limit for General Population (Uncontrolled Exposure) 1.6 W/kg (1g) & 2.0 W/kg (10g)								

#### EGPRS 850MHz BODY Specific Absorption Rate (Maximum SAR) 1g & 10g Results for the Intermec 700C Mobile Computer Inserted into Holster #2.

Position		Channel Number	Frequency (MHz)	Max Spot SAR (W/kg)	Max 1g SAR (W/kg)	Max 10g SAR (W/kg)	SAR Drift (%)	Area scan (Figure number)
Spacing From Phantom	Mobile Position							
0.0mm	Front facing-Inverted	189	836.4	0.100	0.117	0.075	-3.080	Figure 24
Limit for General Population (Uncontrolled Exposure) 1.6 W/kg (1g) & 2.0 W/kg (10g)								

### 1.3 TEST RESULT SUMMARY - Continued

**GPRS 850MHz BODY Specific Absorption Rate (Maximum SAR) 1g & 10g Results for the Intermec 700C Mobile Computer Configured with Belt Clip Part No: 805-612-001.**

Position		Channel Number	Frequency (MHz)	Max Spot SAR (W/kg)	Max 1g SAR (W/kg)	Max 10g SAR (W/kg)	SAR Drift (%)	Area scan (Figure number)
Spacing From Phantom	Mobile Position							
0.0mm	Rear facing - Normal	189	836.4	0.070	0.075	0.053	1.120	Figure 25
Limit for General Population (Uncontrolled Exposure) 1.6 W/kg (1g) & 2.0 W/kg (10g)								

**EGPRS 850MHz BODY Specific Absorption Rate (Maximum SAR) 1g & 10g Results for the Intermec 700C Mobile Computer Configured with Belt Clip Part No: 805-612-001.**

Position		Channel Number	Frequency (MHz)	Max Spot SAR (W/kg)	Max 1g SAR (W/kg)	Max 10g SAR (W/kg)	SAR Drift (%)	Area scan (Figure number)
Spacing From Phantom	Mobile Position							
0.0mm	Rear facing - Normal	189	836.4	0.020	0.025	0.016	-2.840	Figure 26
Limit for General Population (Uncontrolled Exposure) 1.6 W/kg (1g) & 2.0 W/kg (10g)								

**GSM 900MHz HEAD Specific Absorption Rate (Maximum SAR) 1g & 10g Results for the Intermec 700C Mobile Computer.**

Position		Channel Number	Frequency (MHz)	Max Spot SAR (W/kg)	Max 1g SAR (W/kg)	Max 10g SAR (W/kg)	SAR Drift (%)	Area scan (Figure number)
Left or Right Hand Ear	Mobile Position							
LH	Cheek	37	897.4	0.140	0.132	0.097	-0.900	Figure 27
LH	15°	37	897.4	0.200	0.180	0.129	-0.640	Figure 28
RH	Cheek	37	897.4	0.260	0.229	0.155	3.040	Figure 29
RH	15°	37	897.4	0.330	0.303	0.212	2.040	Figure 30
RH	15°	975	880.2	0.400	0.361	0.248	0.970	Figure 31
RH	15°	124	914.8	0.280	0.273	0.189	1.940	Figure 32
Limit for General Population (Uncontrolled Exposure) 1.6 W/kg (1g) & 2.0 W/kg (10g)								

### 1.3 TEST RESULT SUMMARY - Continued

#### GSM 1800MHz HEAD Specific Absorption Rate (Maximum SAR) 1g & 10g Results for the Intermec 700C Mobile Computer.

Position		Channel Number	Frequency (MHz)	Max Spot SAR (W/kg)	Max 1g SAR (W/kg)	Max 10g SAR (W/kg)	SAR Drift (%)	Area scan (Figure number)
Left or Right Hand Ear	Mobile Position							
LH	Cheek	698	1747.4	0.040	0.041	0.027	0.000	Figure 33
LH	15°	698	1747.4	0.070	0.065	0.043	3.330	Figure 34
RH	Cheek	698	1747.4	0.080	0.072	0.045	-6.930	Figure 35
RH	15°	698	1747.4	0.130	0.117	0.074	-2.960	Figure 36
RH	15°	512	1710.2	0.140	0.131	0.083	2.710	Figure 37
RH	15°	885	1784.8	0.170	0.146	0.092	3.330	Figure 38
Limit for General Population (Uncontrolled Exposure) 1.6 W/kg (1g) & 2.0 W/kg (10g)								

#### GSM 1900MHz HEAD Specific Absorption Rate (Maximum SAR) 1g & 10g Results for the Intermec 700C Mobile Computer.

Position		Channel Number	Frequency (MHz)	Max Spot SAR (W/kg)	Max 1g SAR (W/kg)	Max 10g SAR (W/kg)	SAR Drift (%)	Area scan (Figure number)
Left or Right Hand Ear	Mobile Position							
LH	Cheek	661	1880.0	0.070	0.055	0.036	-0.140	Figure 39
LH	15°	661	1880.0	0.090	0.082	0.051	-0.470	Figure 40
RH	Cheek	661	1880.0	0.080	0.072	0.046	-2.030	Figure 41
RH	15°	661	1880.0	0.120	0.117	0.074	-4.830	Figure 42
RH	15°	512	1850.2	0.180	0.138	0.087	2.660	Figure 43
RH	15°	810	1909.8	0.110	0.094	0.058	2.190	Figure 44
Limit for General Population (Uncontrolled Exposure) 1.6 W/kg (1g) & 2.0 W/kg (10g)								

#### GPRS 1900MHz BODY Specific Absorption Rate (Maximum SAR) 1g & 10g Results for the Intermec 700C Mobile Computer Inserted into Holster #1.

Position		Channel Number	Frequency (MHz)	Max Spot SAR (W/kg)	Max 1g SAR (W/kg)	Max 10g SAR (W/kg)	SAR Drift (%)	Area scan (Figure number)
Spacing From Phantom	Mobile Position							
0.0mm	Front facing-Normal	512	1850.2	0.170	0.211	0.133	-0.390	Figure 45
0.0mm	Front facing-Normal	661	1880.0	0.190	0.238	0.144	-0.430	Figure 46
0.0mm	Front facing-Normal	810	1909.8	0.170	0.216	0.134	0.560	Figure 47
0.0mm	Front facing-Inverted	661	1880.0	0.310	0.401	0.235	-1.720	Figure 48
Limit for General Population (Uncontrolled Exposure) 1.6 W/kg (1g) & 2.0 W/kg (10g)								

### 1.3 TEST RESULT SUMMARY - Continued

#### EGPRS 1900MHz BODY Specific Absorption Rate (Maximum SAR) 1g & 10g Results for the Intermec 700C Mobile Computer Inserted into Holster #1.

Position		Channel Number	Frequency (MHz)	Max Spot SAR (W/kg)	Max 1g SAR (W/kg)	Max 10g SAR (W/kg)	SAR Drift (%)	Area scan (Figure number)
Spacing From Phantom	Mobile Position							
0.0mm	Front facing-Inverted	661	1880.0	0.140	0.170	0.103	3.700	Figure 49
Limit for General Population (Uncontrolled Exposure) 1.6 W/kg (1g) & 2.0 W/kg (10g)								

#### GPRS 1900MHz BODY Specific Absorption Rate (Maximum SAR) 1g & 10g Results for the Intermec 700C Mobile Computer Inserted into Holster #2.

Position		Channel Number	Frequency (MHz)	Max Spot SAR (W/kg)	Max 1g SAR (W/kg)	Max 10g SAR (W/kg)	SAR Drift (%)	Area scan (Figure number)
Spacing From Phantom	Mobile Position							
0.0mm	Front facing-Normal	512	1850.2	0.150	0.186	0.118	-0.770	Figure 50
0.0mm	Front facing-Normal	661	1880.0	0.170	0.210	0.131	-0.300	Figure 51
0.0mm	Front facing-Normal	810	1909.8	0.170	0.208	0.129	-2.440	Figure 52
0.0mm	Front facing-Inverted	661	1880.0	0.110	0.135	0.086	-0.840	Figure 53
0.0mm	LH-Side facing	661	1880.0	0.030	0.035	0.024	0.000	Figure 54
0.0mm	RH-Side facing	661	1880.0	0.110	0.135	0.083	0.000	Figure 55
Limit for General Population (Uncontrolled Exposure) 1.6 W/kg (1g) & 2.0 W/kg (10g)								

#### EGPRS 1900MHz BODY Specific Absorption Rate (Maximum SAR) 1g & 10g Results for the Intermec 700C Mobile Computer Inserted into Holster #2.

Position		Channel Number	Frequency (MHz)	Max Spot SAR (W/kg)	Max 1g SAR (W/kg)	Max 10g SAR (W/kg)	SAR Drift (%)	Area scan (Figure number)
Spacing From Phantom	Mobile Position							
0.0mm	Front facing-Normal	661	1880.0	0.060	0.077	0.048	4.420	Figure 56
Limit for General Population (Uncontrolled Exposure) 1.6 W/kg (1g) & 2.0 W/kg (10g)								

### 1.3 TEST RESULT SUMMARY - Continued

**GPRS 1900MHz BODY Specific Absorption Rate (Maximum SAR) 1g & 10g Results for the Intermec 700C Mobile Computer Configured with Belt Clip Part No: 805-612-001.**

Position		Channel Number	Frequency (MHz)	Max Spot SAR (W/kg)	Max 1g SAR (W/kg)	Max 10g SAR (W/kg)	SAR Drift (%)	Area scan (Figure number)
Spacing From Phantom	Mobile Position							
0.0mm	Rear facing - Normal	661	1880.0	0.050	0.058	0.035	0.000	Figure 57
Limit for General Population (Uncontrolled Exposure) 1.6 W/kg (1g) & 2.0 W/kg (10g)								

**EGPRS 1900MHz BODY Specific Absorption Rate (Maximum SAR) 1g & 10g Results for the Intermec 700C Mobile Computer Configured with Belt Clip Part No: 805-612-001.**

Position		Channel Number	Frequency (MHz)	Max Spot SAR (W/kg)	Max 1g SAR (W/kg)	Max 10g SAR (W/kg)	SAR Drift (%)	Area scan (Figure number)
Spacing From Phantom	Mobile Position							
0.0mm	Rear facing - Normal	661	1880.0	0.020	0.022	0.012	0.000	Figure 58
Limit for General Population (Uncontrolled Exposure) 1.6 W/kg (1g) & 2.0 W/kg (10g)								

#### 1.4 OUTPUT POWER OF TEST DEVICE MEASUREMENT METHOD

The EUT was set up to Transmit on all of the following frequencies (See Table Below).

A peak measurement of the carrier frequency was recorded with the EUT in its worse case orientation using a RES B/W of 1MHz and Vid B/W of 1MHz at a distance of 3m.

A signal generator was then connected to horn antenna at 1.5m fixed height, at the 3m position in place of the EUT. The measuring receive horn and the substituting transmit horn were then electronically aligned (height search at the received frequency until maximum correlation is achieved).

The signal generator level was adjusted until the recorded peak level (raw peak) was reproduced. The cable was then removed from the substitution transmit horn and attached to the measurement receiver input. The measured level into the substitution transmit horn and its isotropic gain was used to calculate the maximum radiated peak output power (EIRP).

Channel	Output Power (dBm)		Output Power (mW)	
	GPRS	EGPRS	GPRS	EGPRS
128	22.4	22.5	173.8	177.8
189	22.3	22.2	169.8	165.96
251	22.4	22.3	173.8	169.8
512	26.8	26.8	478.6	478.6
661	28.1	28.0	645.7	630.9
810	27.1	26.4	512.9	436.5

## **SECTION 2**

### **TEST DETAILS**

Specific Absorption Rate Testing of the Intermec Technologies Corporation  
700C Mobile Computer

## 2.1 SAR MEASUREMENT SYSTEM

### 2.1.1 ROBOT SYSTEM SPECIFICATION

The SAR measurement system being used is the IndexSAR SARA2 system, which consists of a Mitsubishi RV-E2 6-axis robot arm and controller, IndexSAR probe and amplifier and SAM phantom Head Shape. The robot is used to articulate the probe to programmed positions inside the phantom head to obtain the SAR readings from the DUT.

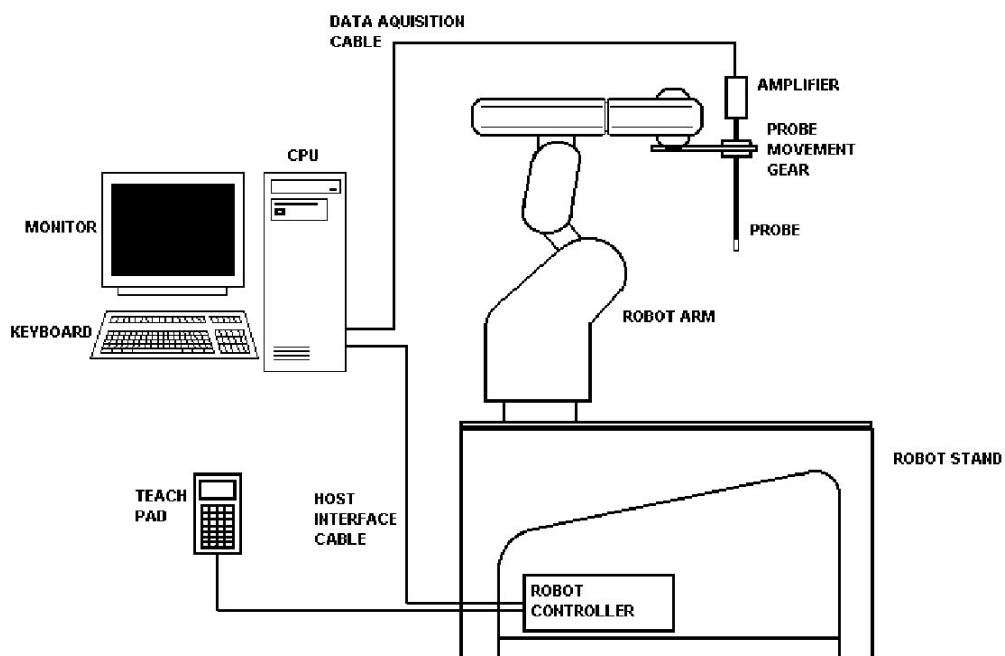


Figure 1: Schematic diagram of the SAR measurement system

The system is controlled remotely from a PC, which contains the software to control the robot and data acquisition equipment. The software also displays the data obtained from test scans.

The position and digitised shape of the phantom heads are made available to the software for accurate positioning of the probe and reduction of set-up time.

The SAM phantom heads are individually digitised using a Mitutoyo CMM machine to a precision of 0.001mm. The data is then converted into a shape format for the software, providing an accurate description of the phantom shell.

In operation, the system first does an area (2D) scan at a fixed depth within the liquid from the inside wall of the phantom. When the maximum SAR point has been found, the system will then carry out a 3D scan centred at that point to determine volume averaged SAR level.

## 2.1 SAR MEASUREMENT SYSTEM - Continued

### 2.1.2 PROBE AND AMPLIFIER SPECIFICATION

#### IXP-050 IndexSAR Isotropic Immersible SAR probe

The probes are constructed using three orthogonal dipole sensors arranged on an interlocking, triangular prism core. The probes have built-in shielding against static charges and are contained within a PEEK cylindrical enclosure material at the tip. Probe calibration is described in the following section.

#### IFA-010 Fast Amplifier

Technical description of IndexSAR IFA-010 Fast probe amplifier

A block diagram of the fast probe amplifier electronics is shown below.

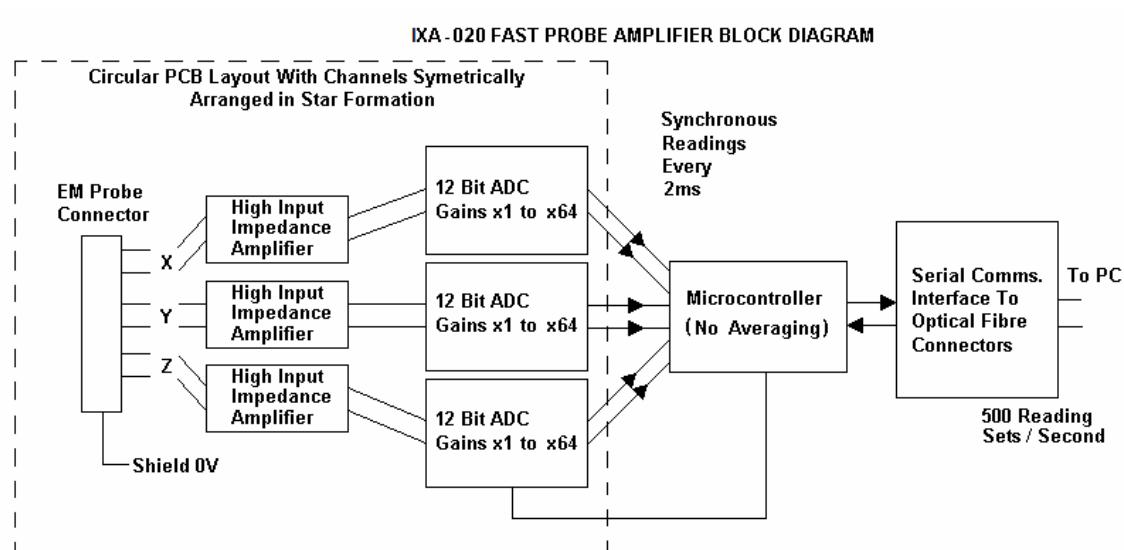


Figure 2: Block diagram of the fast probe amplifier electronic

This amplifier has a time constant of approx. 50 $\mu$ s, which is much faster than the SAR probe response time. The overall system time constant is therefore that of the probe (<1ms) and reading sets for all three channels (simultaneously) are returned every 2ms to the PC. The conversion period is approx. 1  $\mu$ s at the start of each 2ms period. This enables the probe to follow pulse modulated signals of periods >>2ms. The PC software applies the linearization procedure separately to each reading, so no linearization corrections for the averaging of modulated signals are needed in this case. It is important to ensure that the probe reading frequency and the pulse period are not synchronised and the behaviour with pulses of short duration in comparison with the measurement interval need additional consideration.

#### Phantoms

The Cube phantom used is a Perspex Box IndexSAR item IXB-070. Dimensions of 200w x 200d x 200h (mm). This phantom is used with IndexSAR side bench IXM-030.

The Flat phantom used is a Rectangular Perspex Box IndexSAR item. Dimensions of 210w x 150d x 200h (mm). This phantom is used with IndexSAR upright bench. The phantom and robot alignment is assured by both mechanical and laser registration systems.

## 2.1 SAR MEASUREMENT SYSTEM - Continued

### 2.1.3 SAR MEASUREMENT PROCEDURE

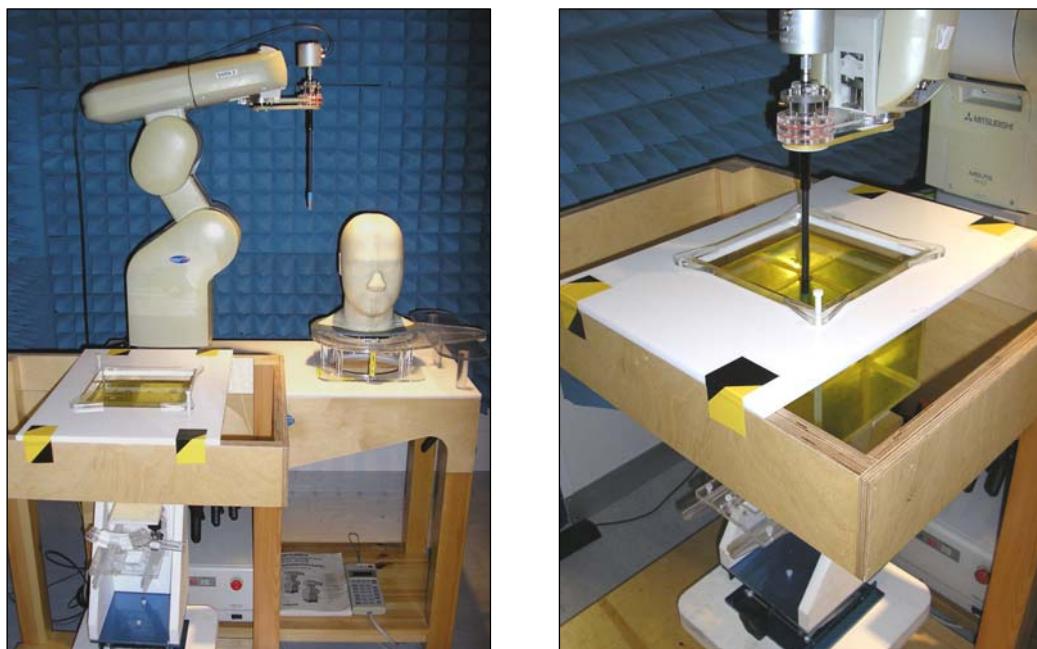


Figure 3: Principal components of the SAR measurement test bench

The major components of the test bench are shown in the picture above. A test set and dipole antenna control the handset via an air link and a low-mass phone holder can position the phone at either ear. Graduated scales are provided to set the phone in the 15 degree position. The upright phantom head holds approx. 7 litres of simulant liquid. The phantom is filled and emptied through a 45mm diameter penetration hole in the top of the head.

After an area scan has been done at a fixed distance of 8mm from the surface of the phantom on the source side, a 3D scan is set up around the location of the maximum spot SAR. First, a point within the scan area is visited by the probe and a SAR reading taken at the start of testing. At the end of testing, the probe is returned to the same point and a second reading is taken. Comparison between these start and end readings enables the power drift during measurement to be assessed.

#### SARA2 Interpolation and Extrapolation schemes

SARA2 software contains support for both 2D cubic B-spline interpolation as well as 3D cubic B-spline interpolation. In addition, for extrapolation purposes, a general  $n^{\text{th}}$  order polynomial fitting routine is implemented following a singular value decomposition algorithm presented in [4]. A 4<sup>th</sup> order polynomial fit is used by default for data extrapolation, but a linear-logarithmic fitting function can be selected as an option. The polynomial fitting procedures have been tested by comparing the fitting coefficients generated by the SARA2 procedures with those obtained using the polynomial fit functions of Microsoft Excel when applied to the same test input data.

#### Interpolation of 2D area scan

The 2D cubic B-spline interpolation is used after the initial area scan at fixed distance from the phantom shell wall. The initial scan data are collected with approx. 115mm spatial resolution and spline interpolation is used to find the location of the local maximum to within a 1mm resolution for positioning the subsequent 3D scanning.

## 2.1 SAR MEASUREMENT SYSTEM - Continued

### 2.1.3 SAR MEASUREMENT PROCEDURE

#### Extrapolation of 3D scan

For the 3D scan, data are collected on a spatially regular 3D grid having (by default) 6.4 mm steps in the lateral dimensions and 3.5 mm steps in the depth direction (away from the source). SARA2 enables full control over the selection of alternative step sizes in all directions.

The digitised shape of the head is available to the SARA2 software, which decides which points in the 3D array are sufficiently well within the shell wall to be 'visited' by the SAR probe. After the data collection, the data are extrapolated in the depth direction to assign values to points in the 3D array closer to the shell wall. A notional extrapolation value is also assigned to the first point outside the shell wall so that subsequent interpolation schemes will be applicable right up to the shell wall boundary.

#### Interpolation of 3D scan and volume averaging

The procedure used for defining the shape of the volumes used for SAR averaging in the SARA2 software follow the method of adapting the surface of the 'cube' to conform with the curved inner surface of the phantom (see Appendix C.2.2.1 in EN 50361:2001). This is called, here, the conformal scheme.

For each row of data in the depth direction, the data are extrapolated and interpolated to less than 1mm spacing and average values are calculated from the phantom surface for the row of data over distances corresponding to the requisite depth for 10g and 1g cubes. This results in two 2D arrays of data, which are then cubic B-spline interpolated to sub mm lateral resolution. A search routine then moves an averaging square around through the 2D array and records the maximum value of the corresponding 1g and 10g volume averages. For the definition of the surface in this procedure, the digitised position of the headshell surface is used for measurement in head-shaped phantoms. For measurements in rectangular, box phantoms, the distance between the phantom wall and the closest set of gridded data points is entered into the software.

For measurements in box-shaped phantoms, this distance is under the control of the user. The effective distance must be greater than 2.5mm as this is the tip-sensor distance and to avoid interface proximity effects, it should be at least 5mm. A value of 6 or 8mm is recommended. This distance is called **dbe** in EN 50361:2001.

For automated measurements inside the head, the distance cannot be less than 2.5mm, which is the radius of the probe tip and to avoid interface proximity effects, a minimum clearance distance of  $x$  mm is retained. The actual value of **dbe** will vary from point to point depending upon how the spatially-regular 3D grid points fit within the shell. The greatest separation is when a grid point is just not visited due to the probe tip dimensions. In this case the distance could be as large as the step-size plus the minimum clearance distance (i.e with  $x=5$  and a step size of 3.5, **dbe** will be between 3.5 and 8.5mm).

The default step size (**dstep** in EN 50361:2001) used is 3.5mm, but this is under user-control. The compromise is with time of scan, so it is not practical to make it much smaller or scan times become long and power-drop influences become larger.

The robot positioning system specification for the repeatability of the positioning (**dss** in EN50361:2001) is +/- 0.04mm.

## 2.1 SAR MEASUREMENT SYSTEM - Continued

### 2.1.3 SAR MEASUREMENT PROCEDURE

The phantom shell is made by an industrial moulding process from the CAD files of the SAM shape, with both internal and external moulds. For the upright phantoms, the external shape is subsequently digitised on a Mitutoyo CMM machine (Euro C574) to a precision of 0.001mm. Wall thickness measurements made non-destructively with an ultrasonic sensor indicate that the shell thickness (**dph**) away from the ear is 2.0 +/- 0.1mm. The ultrasonic measurements were calibrated using additional mechanical measurements on available cut surfaces of the phantom shells.

For the upright phantom, the alignment is based upon registration of the rotation axis of the phantom on its 253mm-diameter baseplate bearing and the position of the probe axis when commanded to go to the axial position. A laser alignment tool is provided (procedure detailed elsewhere). This enables the registration of the phantom tip (**dmis**) to be assured to within approx. 0.2mm. This alignment is done with reference to the actual probe tip after installation and probe alignment. The rotational positioning of the phantom is variable – offering advantages for special studies, but locating pins ensure accurate repositioning at the principal positions (LH and RH ears).

## 2.2 TEST POSITIONS

This recommended practice specifies exactly two test positions for the handset against the head phantom, the "cheek" position and the "tilted" position. These two test positions are defined in the following sub-clauses. The handset should be tested in both positions on the left and right sides of the SAM phantom. In each test position the centre of the earpiece of the device is placed directly at the entrance of the auditory canal. The angles mentioned in the test positions used are referenced to the line connecting both auditory canal openings. The plane this line is on is known as the reference plane. Testing is performed on the right and left-hand sides of the generic phantom head.

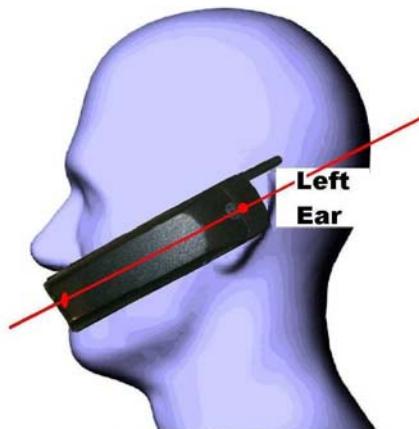


Figure 4. – Side View of Mobile next to head showing alignment.

### The Cheek Position

The Cheek Position is where the mobile is in the reference plane and the line between the mobile and the line connecting both auditory canal openings is reduced until any part of the mobile touches any part of the generic twin phantom head.

### The 15° Position

The 15° Position is where the mobile is in the reference cheek position and the phone is kept in contact with the auditory canal at the earpiece, the bottom of the phone is then tilted away from the phantom mouth by 15°.

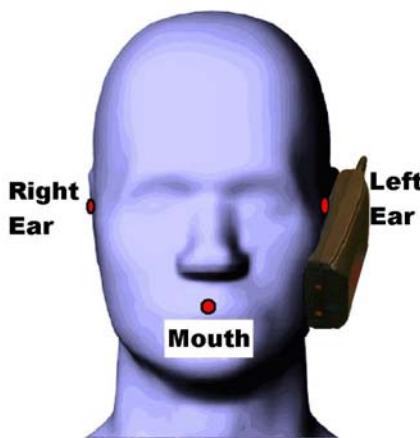


Figure 5. – Cheek Position.

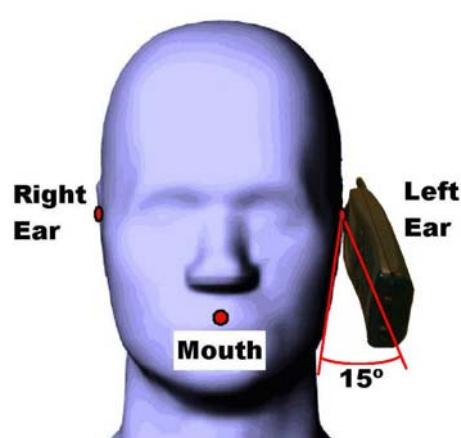


Figure 6. – 15° Tilt Position.

### 2.3 850MHz GSM HEAD SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	22/03/2006 09:01:50	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_01.txt	PROBE SERIAL NUMBER:	0170
AMBIENT TEMPERATURE:	22.7°C	LIQUID SIMULANT:	835 Head
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	42.17
RELATIVE HUMIDITY:	30.1%	CONDUCTIVITY:	0.911
PHANTOM S/NO:	HeadFT04.csv	LIQUID TEMPERATURE:	22.7°C
PHANTOM ROTATION:	0°	MAX SAR Y-AXIS LOCATION:	28.00 mm
DUT POSITION:	LH Cheek	MAX SAR Z-AXIS LOCATION:	-112.50 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	13.04 V/m
TEST FREQUENCY:	836.4MHz	SAR 1g:	0.150 W/kg
AIR FACTORS:	433 / 367 / 399	SAR 10g:	0.110 W/kg
CONVERSION FACTORS:	0.260 / 0.260 / 0.260	SAR START:	0.090 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.090 W/kg
MODN. DUTY CYCLE:	12.5%	SAR DRIFT DURING SCAN:	-0.77 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	21/03/06
INPUT POWER LEVEL:	5	EXTRAPOLATION:	poly4

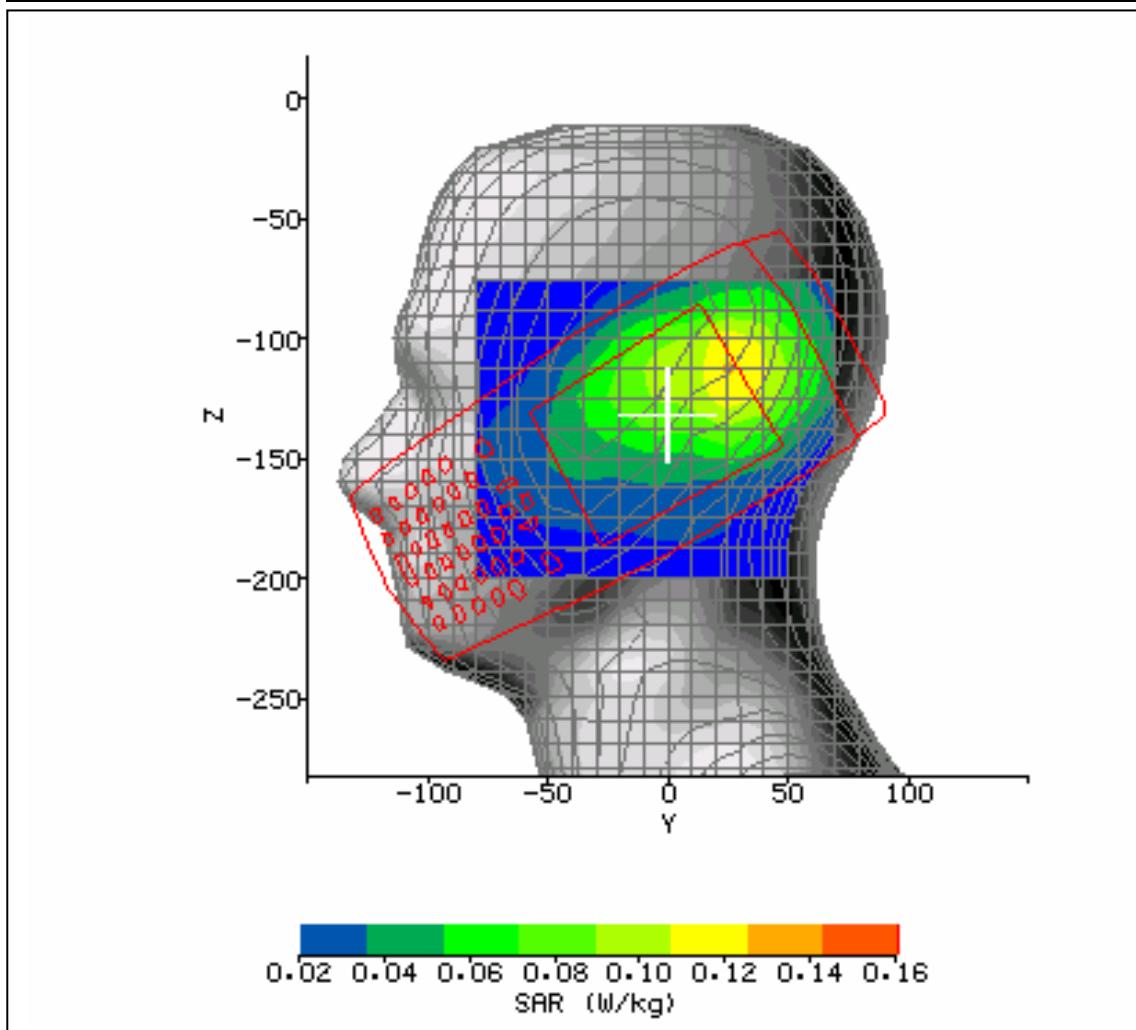


Figure 7: SAR Head Testing Results for the Intermec 700C Mobile Computer in Left Hand Cheek Position; Tested at 836.4MHz (850MHz GSM Middle Channel).

### 2.3 850MHz GSM HEAD SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 Db
DATE / TIME:	22/03/2006 09:48:05	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_02.txt	PROBE SERIAL NUMBER:	0170
AMBIENT TEMPERATURE:	22.9°C	LIQUID SIMULANT:	835 Head
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	42.17
RELATIVE HUMIDITY:	31.1%	CONDUCTIVITY:	0.911
PHANTOM S/NO:	HeadFT04.csv	LIQUID TEMPERATURE:	22.7°C
PHANTOM ROTATION:	0°	MAX SAR Y-AXIS LOCATION:	37.00 mm
DUT POSITION:	LH Cheek 15°	MAX SAR Z-AXIS LOCATION:	-117.50 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	15.82 V/m
TEST FREQUENCY:	836.4MHz	SAR 1g:	0.201 W/kg
AIR FACTORS:	433 / 367 / 399	SAR 10g:	0.147 W/kg
CONVERSION FACTORS:	0.260 / 0.260 / 0.260	SAR START:	0.123 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.122 W/kg
MODN. DUTY CYCLE:	12.5%	SAR DRIFT DURING SCAN:	-0.57 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	21/03/06
INPUT POWER LEVEL:	5	EXTRAPOLATION:	poly4

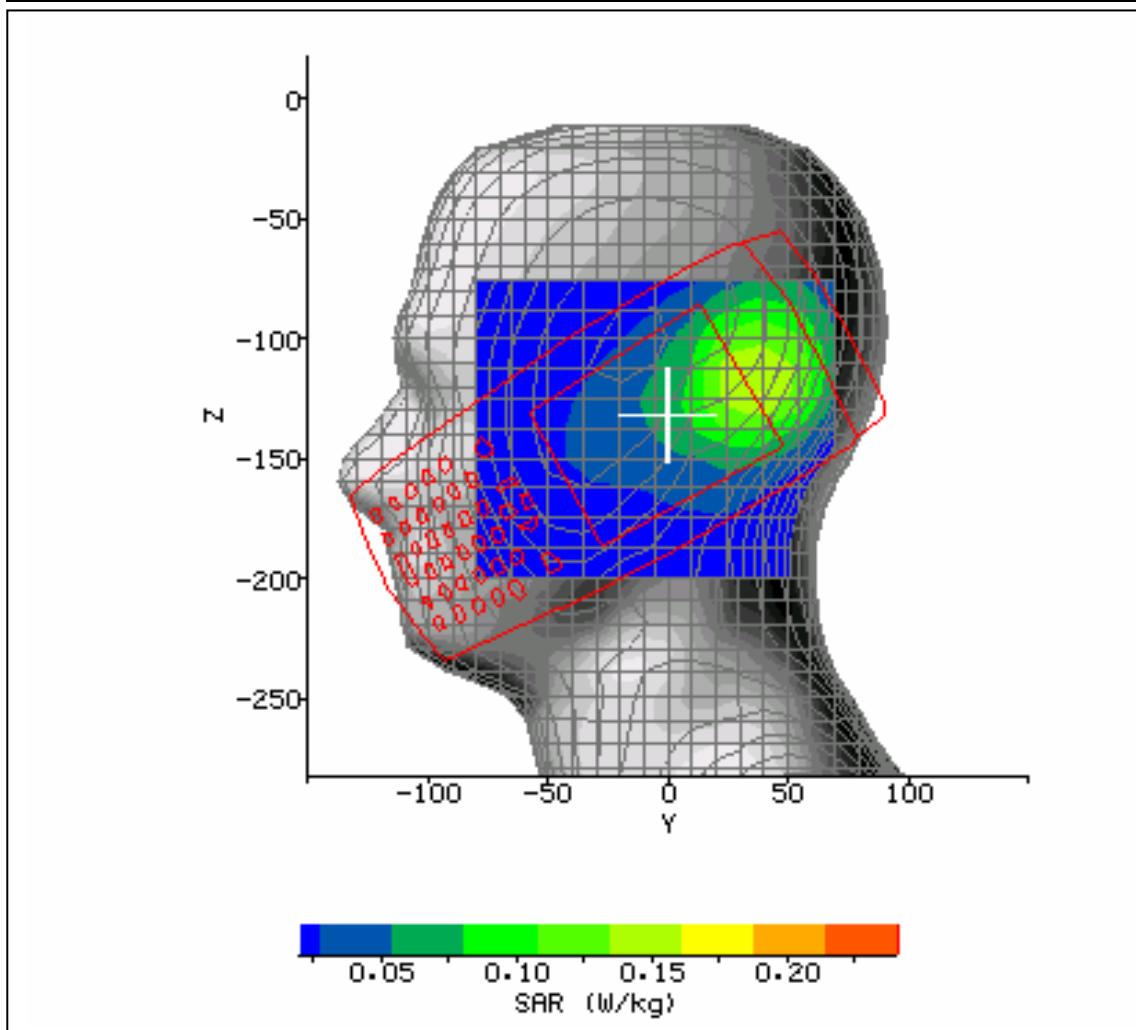


Figure 8: SAR Head Testing Results for the Intermec 700C Mobile Computer in Left Hand Cheek 15° Position; Tested at 836.4MHz (850MHz GSM Middle Channel).

### 2.3 850MHz GSM HEAD SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	22/03/2006 10:20:31	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_03.txt	PROBE SERIAL NUMBER:	0170
AMBIENT TEMPERATURE:	22.2°C	LIQUID SIMULANT:	835 Head
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	42.17
RELATIVE HUMIDITY:	39.7%	CONDUCTIVITY:	0.911
PHANTOM S/NO:	HeadFT04.csv	LIQUID TEMPERATURE:	22.7°C
PHANTOM ROTATION:	180°	MAX SAR Y-AXIS LOCATION:	-22.00 mm
DUT POSITION:	RH Cheek	MAX SAR Z-AXIS LOCATION:	-101.25 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	16.67 V/m
TEST FREQUENCY:	836.4MHz	SAR 1g:	0.228 W/kg
AIR FACTORS:	433 / 367 / 399	SAR 10g:	0.159 W/kg
CONVERSION FACTORS:	0.260 / 0.260 / 0.260	SAR START:	0.118 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.118 W/kg
MODN. DUTY CYCLE:	12.5%	SAR DRIFT DURING SCAN:	-0.57 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	21/03/06
INPUT POWER LEVEL:	5	EXTRAPOLATION:	poly4

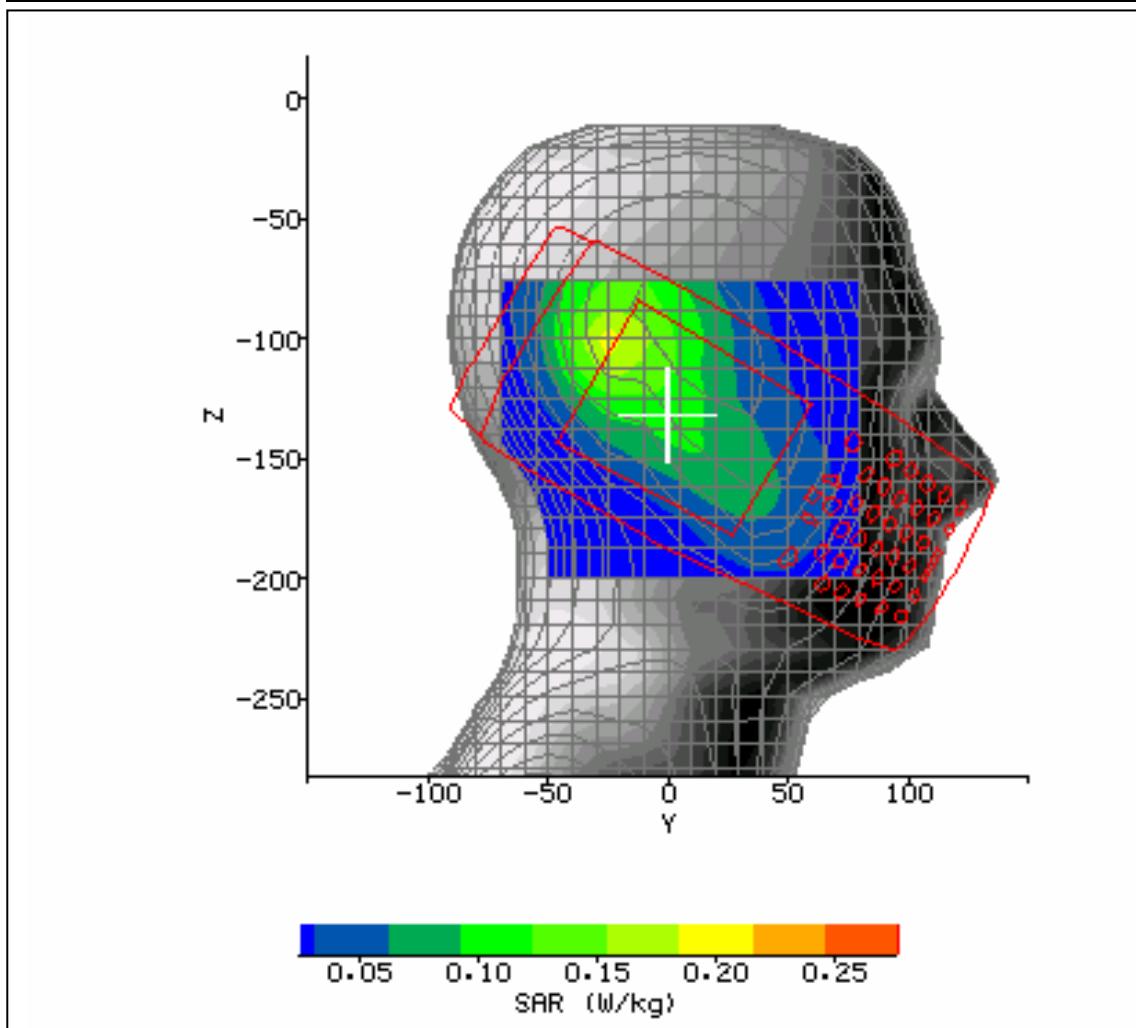


Figure 9: SAR Head Testing Results for the Intermec 700C Mobile Computer in Right Hand Cheek Position; Tested at 836.4MHz (850MHz GSM Middle Channel).

### 2.3 850MHz GSM HEAD SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	22/03/2006 10:53:50	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_04.txt	PROBE SERIAL NUMBER:	0170
AMBIENT TEMPERATURE:	22.6°C	LIQUID SIMULANT:	835 Head
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	42.17
RELATIVE HUMIDITY:	39.8%	CONDUCTIVITY:	0.911
PHANTOM S/NO:	HeadFT04.csv	LIQUID TEMPERATURE:	22.7°C
PHANTOM ROTATION:	180°	MAX SAR Y-AXIS LOCATION:	-30.33 mm
DUT POSITION:	RH Cheek 15°	MAX SAR Z-AXIS LOCATION:	-98.75 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	19.64 V/m
TEST FREQUENCY:	836.4MHz	SAR 1g:	0.319 W/kg
AIR FACTORS:	433 / 367 / 399	SAR 10g:	0.231 W/kg
CONVERSION FACTORS:	0.260 / 0.260 / 0.260	SAR START:	0.178 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.174 W/kg
MODN. DUTY CYCLE:	12.5%	SAR DRIFT DURING SCAN:	-1.85 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	21/03/06
INPUT POWER LEVEL:	5	EXTRAPOLATION:	poly4

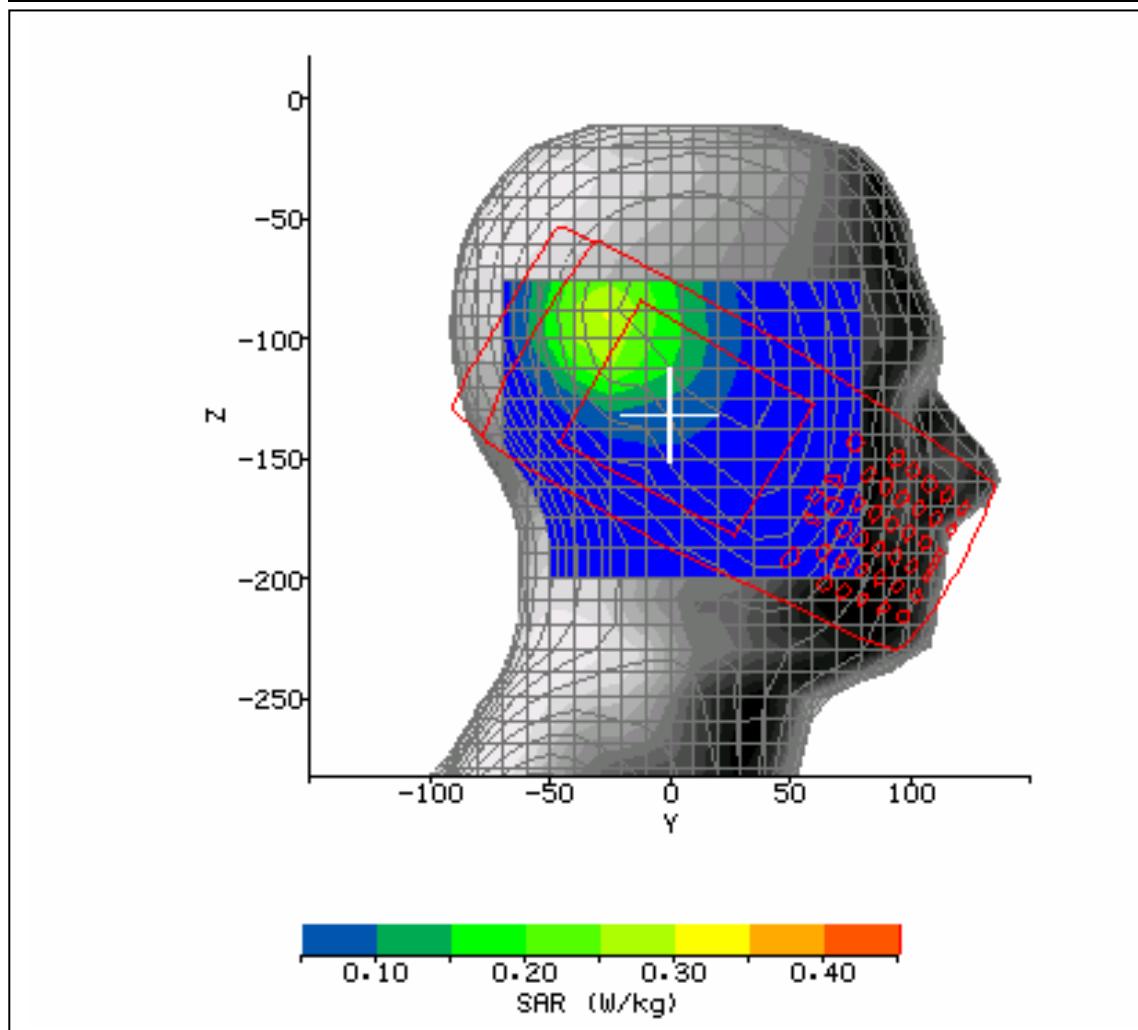


Figure 10: SAR Head Testing Results for the Intermec 700C Mobile Computer in Right Hand 15° Cheek Position; Tested at 836.4MHz (850MHz GSM Middle Channel).

### 2.3 850MHz GSM HEAD SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	22/03/2006 11:33:04	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_05.txt	PROBE SERIAL NUMBER:	0170
AMBIENT TEMPERATURE:	23.3°C	LIQUID SIMULANT:	835 Head
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	42.17
RELATIVE HUMIDITY:	34.5%	CONDUCTIVITY:	0.911
PHANTOM S/NO:	HeadFT04.csv	LIQUID TEMPERATURE:	22.8°C
PHANTOM ROTATION:	180°	MAX SAR Y-AXIS LOCATION:	-26.50 mm
DUT POSITION:	RH Cheek 15°	MAX SAR Z-AXIS LOCATION:	-92.50 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	21.08 V/m
TEST FREQUENCY:	824.2MHz	SAR 1g:	0.373 W/kg
AIR FACTORS:	433 / 367 / 399	SAR 10g:	0.266 W/kg
CONVERSION FACTORS:	0.260 / 0.260 / 0.260	SAR START:	0.192 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.195 W/kg
MODN. DUTY CYCLE:	12.5%	SAR DRIFT DURING SCAN:	1.48 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	21/03/06
INPUT POWER LEVEL:	5	EXTRAPOLATION:	poly4

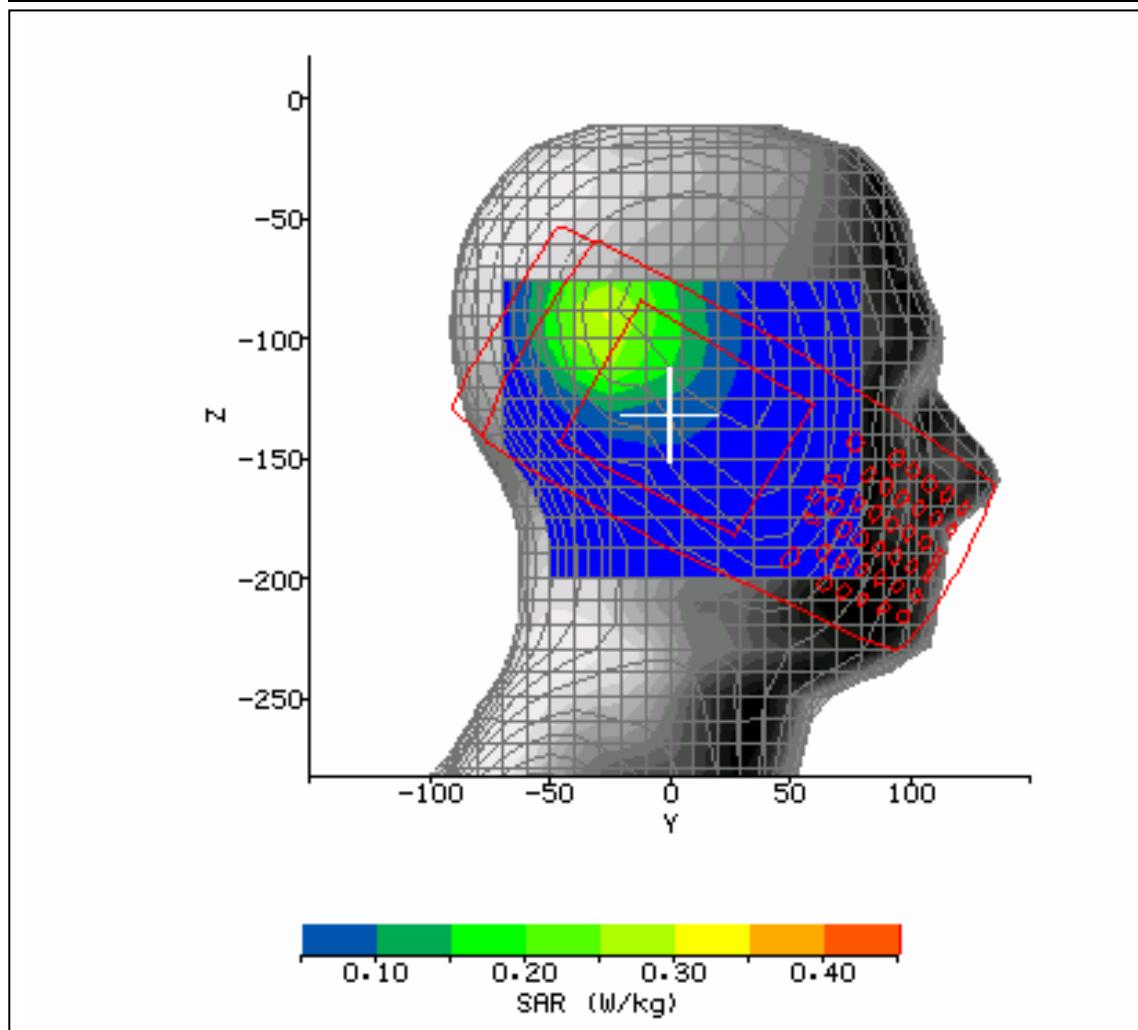


Figure 11: SAR Head Testing Results for the Intermec 700C Mobile Computer in Right Hand 15° Cheek Position; Tested at 824.2MHz (850MHz GSM Low Channel).

### 2.3 850MHz GSM HEAD SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	22/03/2006 12:30:57	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_06.txt	PROBE SERIAL NUMBER:	0170
AMBIENT TEMPERATURE:	21.7°C	LIQUID SIMULANT:	835 Head
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	42.17
RELATIVE HUMIDITY:	33.5%	CONDUCTIVITY:	0.911
PHANTOM S/NO:	HeadFT04.csv	LIQUID TEMPERATURE:	22.8°C
PHANTOM ROTATION:	180°	MAX SAR Y-AXIS LOCATION:	-26.50 mm
DUT POSITION:	RH Cheek 15°	MAX SAR Z-AXIS LOCATION:	-97.50 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	21.23 V/m
TEST FREQUENCY:	848.8MHz	SAR 1g:	0.375 W/kg
AIR FACTORS:	433 / 367 / 399	SAR 10g:	0.260 W/kg
CONVERSION FACTORS:	0.260 / 0.260 / 0.260	SAR START:	0.190 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.191 W/kg
MODN. DUTY CYCLE:	12.5%	SAR DRIFT DURING SCAN:	0.42 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	21/03/06
INPUT POWER LEVEL:	5	EXTRAPOLATION:	poly4

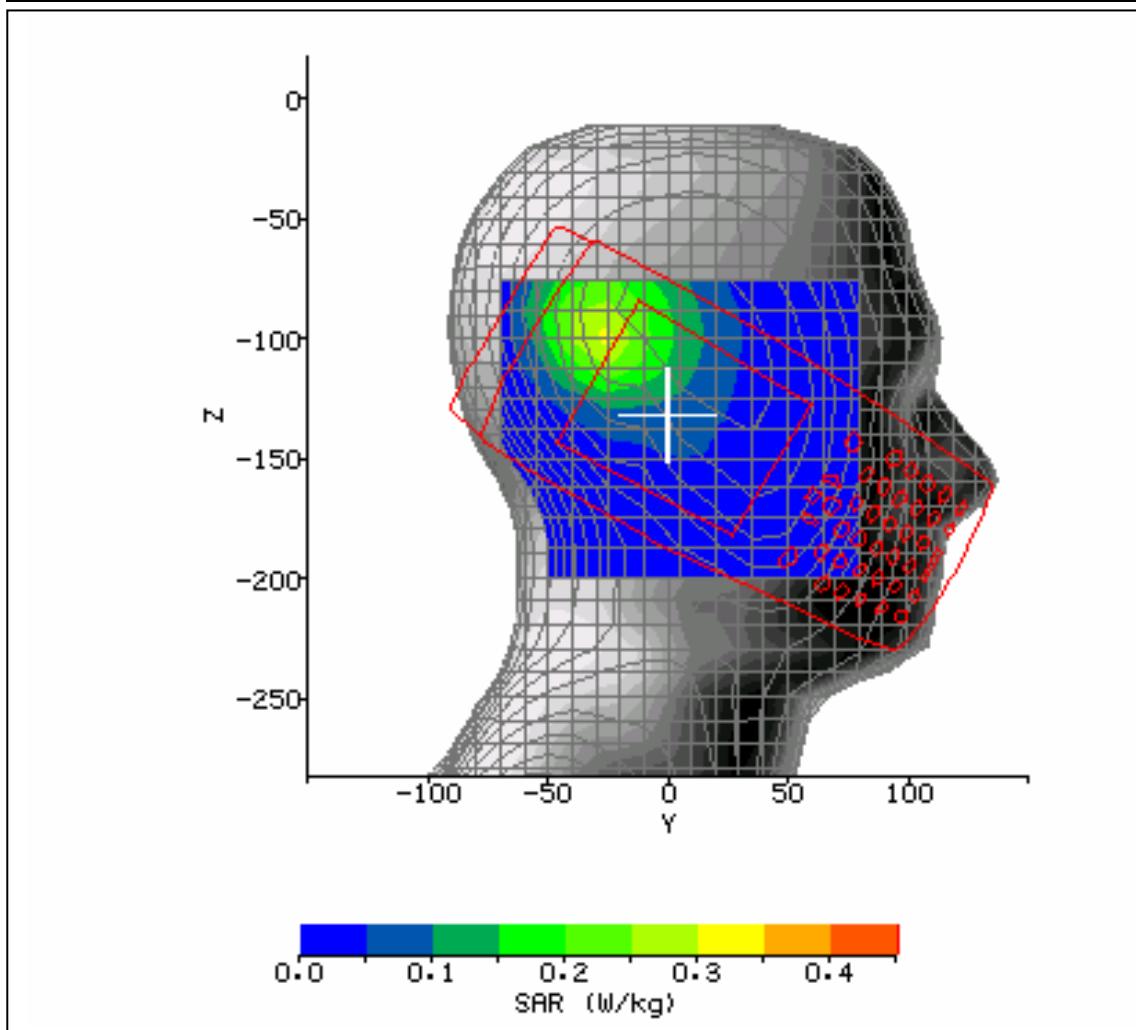


Figure 12: SAR Head Testing Results for the Intermec 700C Mobile Computer in Right Hand 15° Cheek Position; Tested at 848.8MHz (850MHz GSM High Channel).

### 2.3 850MHz GPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	30/03/2006 16:29:34	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_31.txt	PROBE SERIAL NUMBER:	170
AMBIENT TEMPERATURE:	23.2°C	LIQUID SIMULANT:	850 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	57.61
RELATIVE HUMIDITY:	44.5%	CONDUCTIVITY:	0.987
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	21.6°C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	17.00 mm
DUT POSITION:	Front facing holster #1	MAX SAR Y-AXIS LOCATION:	-21.00 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	23.84 V/m
TEST FREQUENCY:	824.2MHz	SAR 1g:	0.675 W/kg
AIR FACTORS:	433 / 367 / 399	SAR 10g:	0.451 W/kg
CONVERSION FACTORS:	0.276 / 0.276 / 0.276	SAR START:	0.149 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.152 W/kg
MODN. DUTY CYCLE:	50%	SAR DRIFT DURING SCAN:	2.13 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	28/03/06
INPUT POWER LEVEL:	4x33dBm	EXTRAPOLATION:	poly4

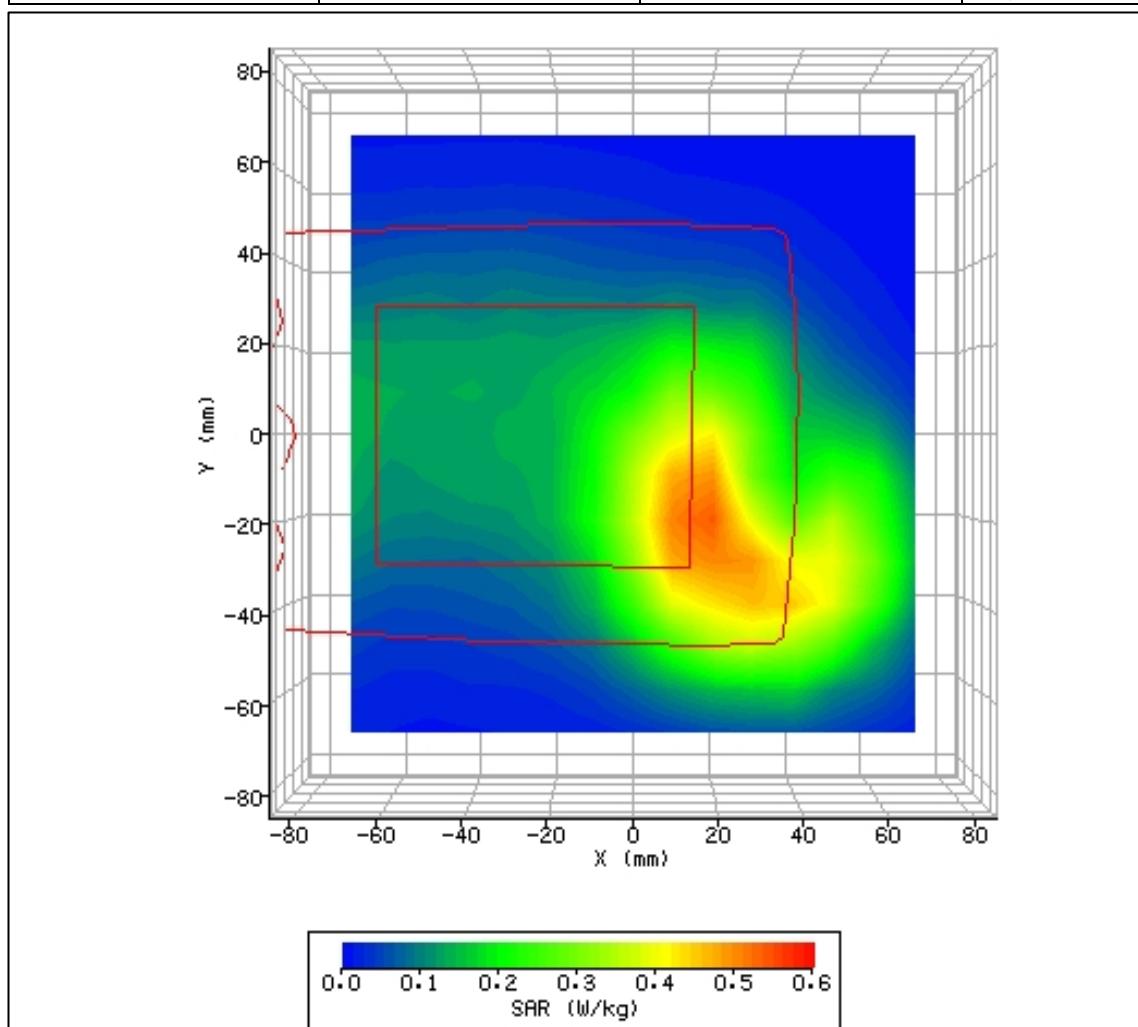


Figure 13: SAR Body Testing Results for the Intermec 700C Mobile Computer in Front Facing Phantom Position in holster #1; Tested at 824.2MHz (850MHz GSM Low Channel) with 0.0mm Separation.

### 2.3 850MHz GPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	05/04/2006 12:54:15	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_32.txt	PROBE SERIAL NUMBER:	170
AMBIENT TEMPERATURE:	22.1°C	LIQUID SIMULANT:	850 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	56.8
RELATIVE HUMIDITY:	47.9%	CONDUCTIVITY:	0.973
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	21.6°C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	28.00 mm
DUT POSITION:	Front facing holster #1	MAX SAR Y-AXIS LOCATION:	-29.0 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	23.70 V/m
TEST FREQUENCY:	836.4MHz	SAR 1g:	0.669 W/kg
AIR FACTORS:	433 / 367 / 399	SAR 10g:	0.443 W/kg
CONVERSION FACTORS:	0.276 / 0.276 / 0.276	SAR START:	0.142 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.143 W/kg
MODN. DUTY CYCLE:	50%	SAR DRIFT DURING SCAN:	0.38 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	28/03/06
INPUT POWER LEVEL:	4x33dBm	EXTRAPOLATION:	poly4

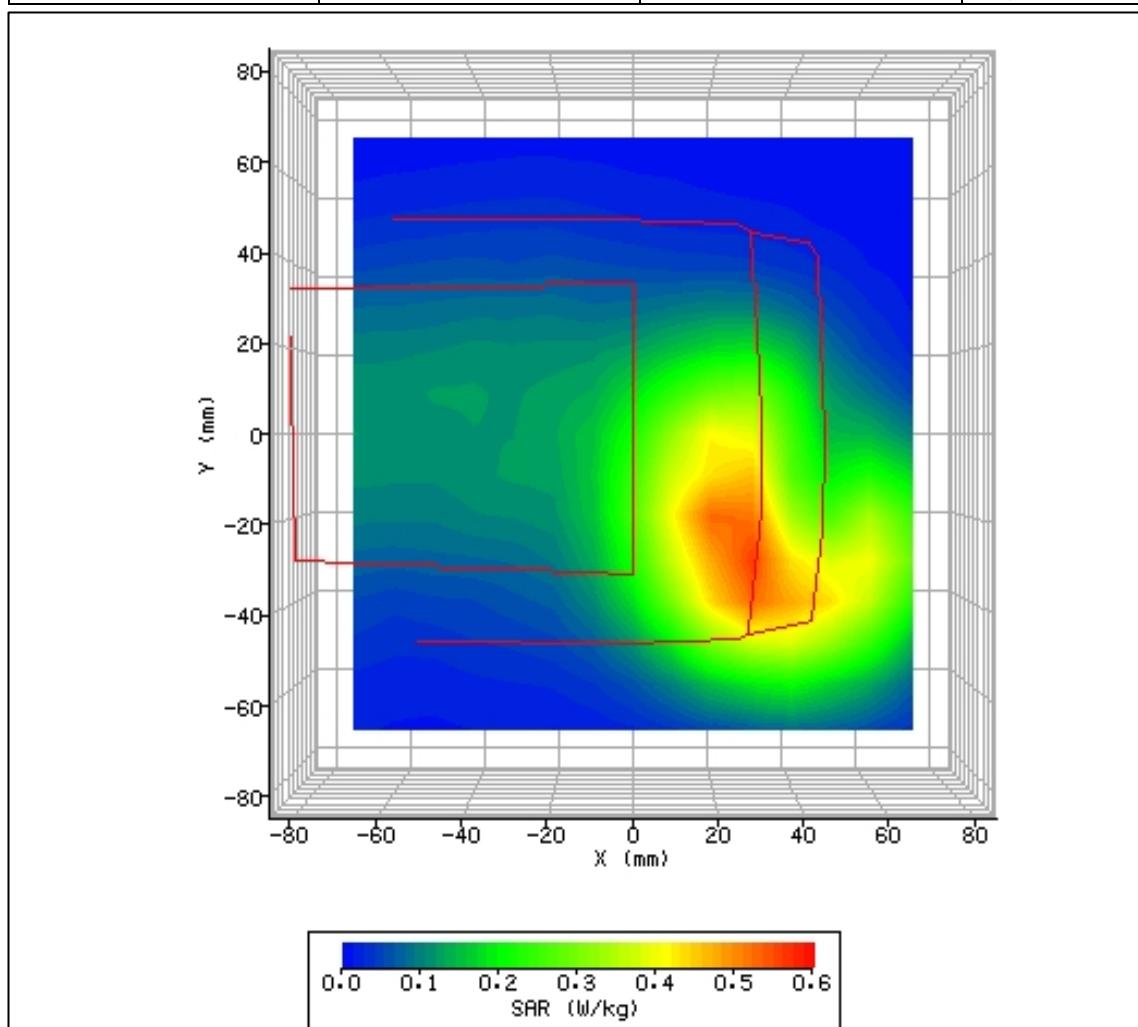


Figure 14: SAR Body Testing Results for the Intermec 700C Mobile Computer in Front Facing Phantom Position in holster #1; Tested at 836.4MHz (850MHz GSM Middle Channel) with 0.0mm Separation.

### 2.3 850MHz GPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	05/04/2006 13:27:54	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_33.txt	PROBE SERIAL NUMBER:	170
AMBIENT TEMPERATURE:	22.1°C	LIQUID SIMULANT:	850 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	56.8
RELATIVE HUMIDITY:	26.5%	CONDUCTIVITY:	0.973
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	22.1°C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	31.00 mm
DUT POSITION:	Front facing holster #1	MAX SAR Y-AXIS LOCATION:	-24.0 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	24.05 V/m
TEST FREQUENCY:	848.8MHz	SAR 1g:	0.661 W/kg
AIR FACTORS:	433 / 367 / 399	SAR 10g:	0.446 W/kg
CONVERSION FACTORS:	0.276 / 0.276 / 0.276	SAR START:	0.153 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.149 W/kg
MODN. DUTY CYCLE:	50%	SAR DRIFT DURING SCAN:	-2.58 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	28/03/06
INPUT POWER LEVEL:	4x33dBm	EXTRAPOLATION:	poly4

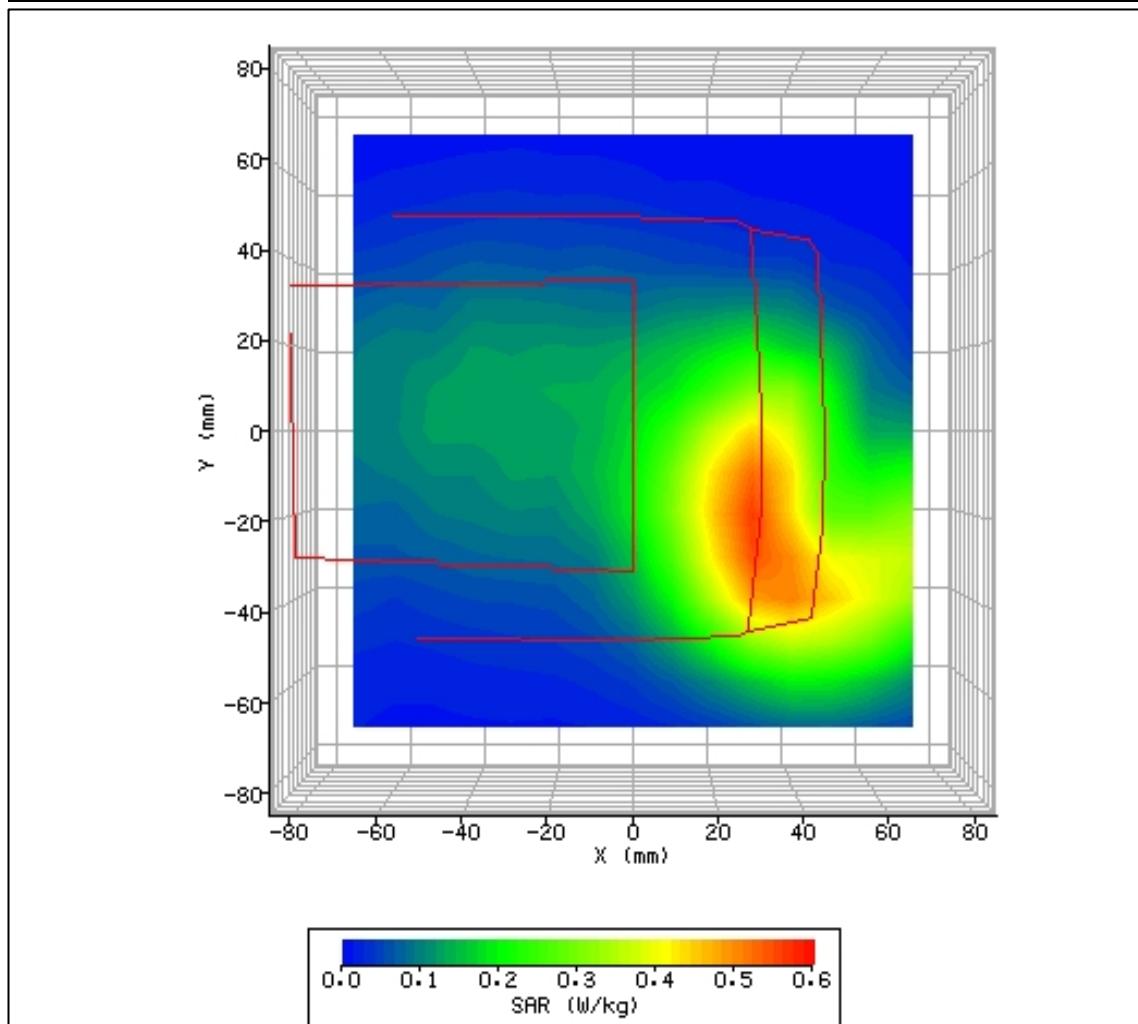


Figure 15: SAR Body Testing Results for the Intermec 700C Mobile Computer in Front Facing Phantom Position in holster #1; Tested at 848.8MHz (850MHz GSM High Channel) with 0.0mm Separation.

### 2.3 850MHz GPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	05/04/2006 14:13:17	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_34.txt	PROBE SERIAL NUMBER:	170
AMBIENT TEMPERATURE:	22.6°C	LIQUID SIMULANT:	850 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	56.8
RELATIVE HUMIDITY:	34.6%	CONDUCTIVITY:	0.973
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	22.2°C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	34.00 mm
DUT POSITION:	Front facing Inverted in holster #1	MAX SAR Y-AXIS LOCATION:	-19.0 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	24.85 V/m
TEST FREQUENCY:	848.8MHz	SAR 1g:	0.689 W/kg
AIR FACTORS:	433 / 367 / 399	SAR 10g:	0.460 W/kg
CONVERSION FACTORS:	0.276 / 0.276 / 0.276	SAR START:	0.144 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.144 W/kg
MODN. DUTY CYCLE:	50%	SAR DRIFT DURING SCAN:	0.00 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	28/03/06
INPUT POWER LEVEL:	4x33dBm	EXTRAPOLATION:	poly4

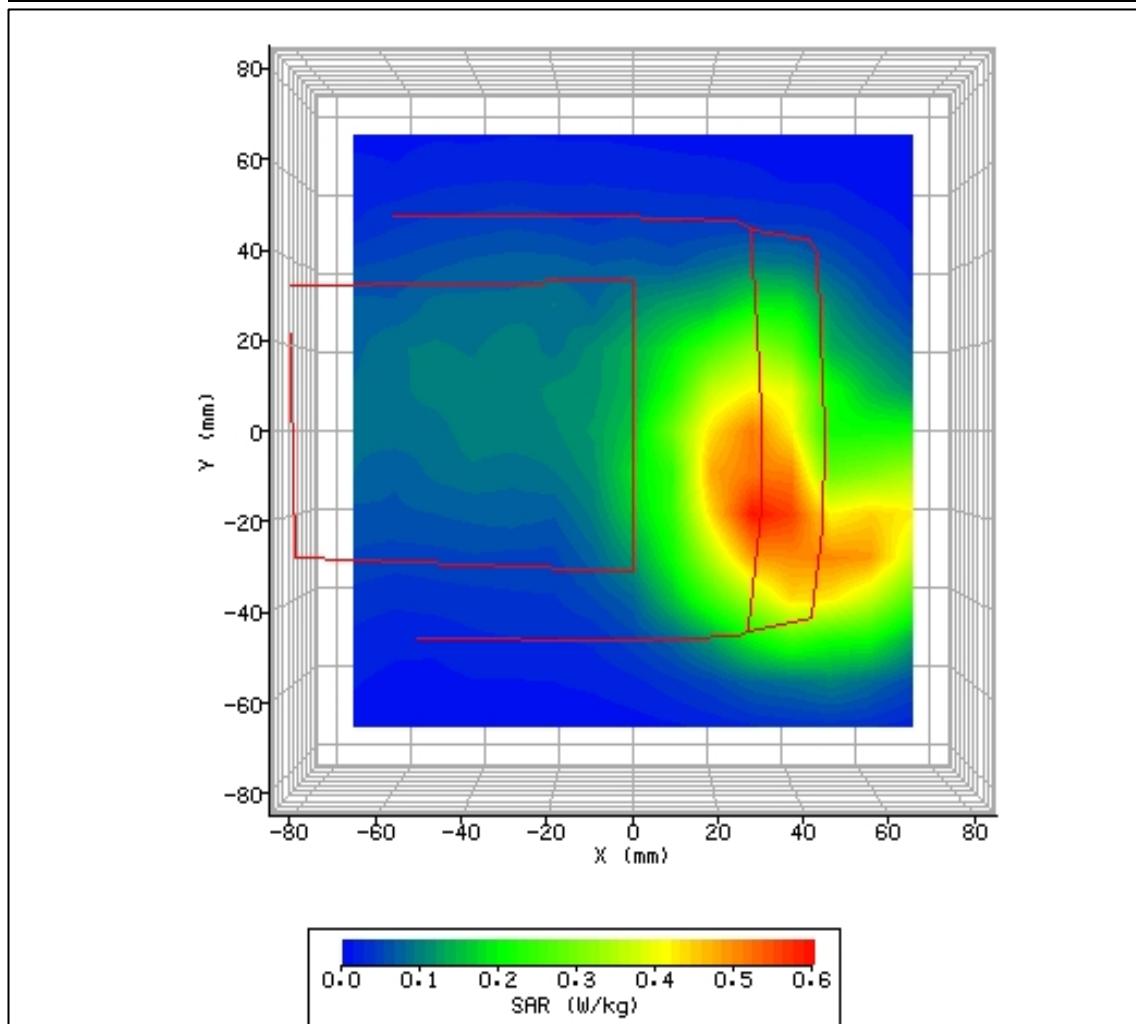


Figure 16: SAR Body Testing Results for the Intermec 700C Mobile Computer in Front Facing Phantom Position inverted in holster #1; Tested at 848.8MHz (850MHz GSM High Channel) with 0.0mm Separation.

### 2.3 850MHz EGPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	05/04/2006 14:59:15	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_35.txt	PROBE SERIAL NUMBER:	170
AMBIENT TEMPERATURE:	23.2°C	LIQUID SIMULANT:	850 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	56.8
RELATIVE HUMIDITY:	42.0%	CONDUCTIVITY:	0.973
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	22.2°C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	48.0 mm
DUT POSITION:	Front facing Inverted in holster #1	MAX SAR Y-AXIS LOCATION:	-30.0 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	15.50 V/m
TEST FREQUENCY:	848.8MHz	SAR 1g:	0.234 W/kg
AIR FACTORS:	433 / 367 / 399	SAR 10g:	0.147 W/kg
CONVERSION FACTORS:	0.276 / 0.276 / 0.276	SAR START:	0.039 W/kg
TYPE OF MODULATION:	8PSK	SAR END:	0.040 W/kg
MODN. DUTY CYCLE:	25%	SAR DRIFT DURING SCAN:	2.52 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	28/03/06
INPUT POWER LEVEL:	2x27dBm	EXTRAPOLATION:	poly4

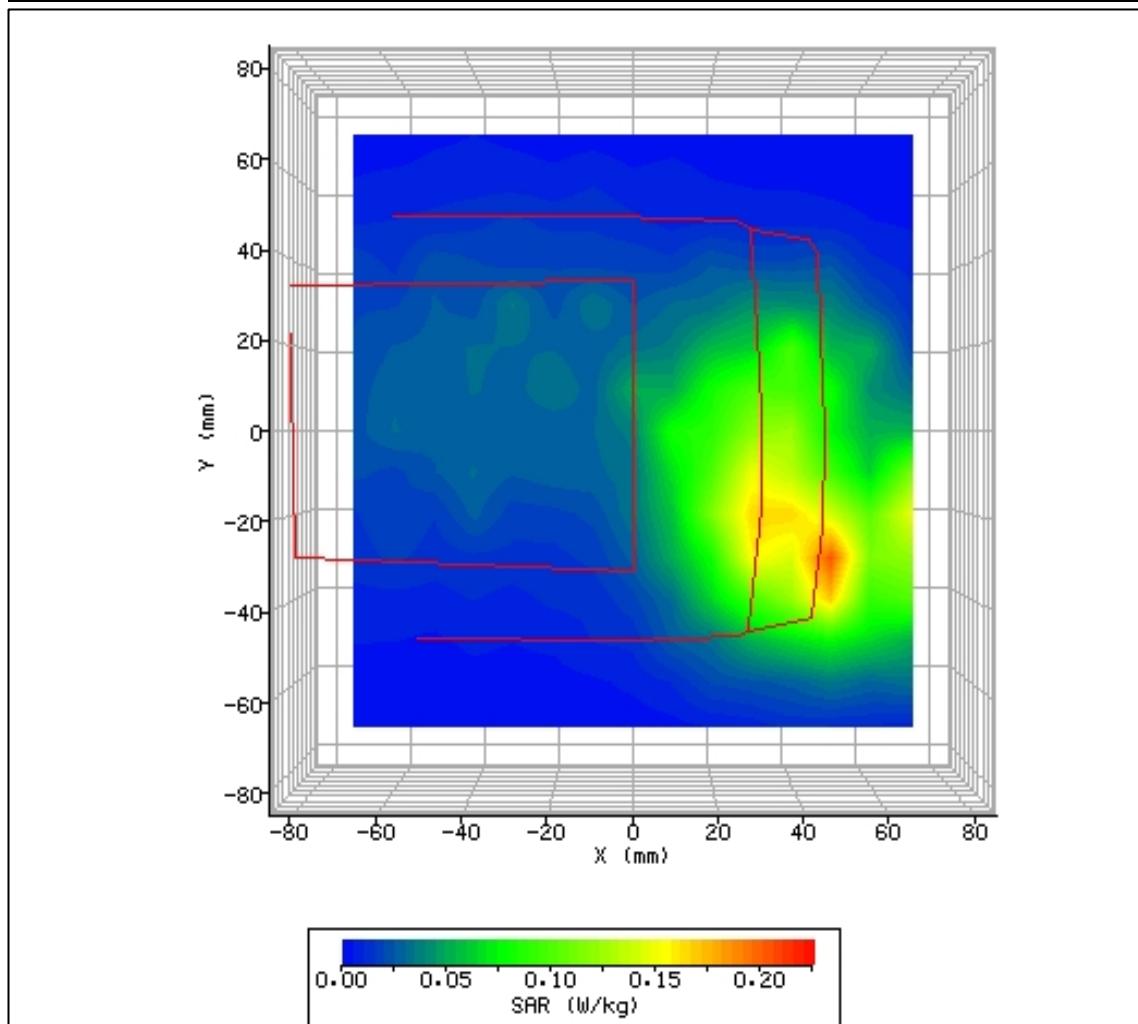


Figure 17: SAR Body Testing Results for the Intermec 700C Mobile Computer in Front Facing Phantom Position in holster #1; Tested at 848.8MHz (850MHz GSM High Channel) with 0.0mm Separation.

### 2.3 850MHz GPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	06/04/2006 10:40:19	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_36.txt	PROBE SERIAL NUMBER:	170
AMBIENT TEMPERATURE:	22.6°C	LIQUID SIMULANT:	850 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	56.8
RELATIVE HUMIDITY:	27.0%	CONDUCTIVITY:	0.973
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	21.9°C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	25.0 mm
DUT POSITION:	Front facing in holster #2	MAX SAR Y-AXIS LOCATION:	-12.0 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	17.48 V/m
TEST FREQUENCY:	824.2MHz	SAR 1g:	0.369 W/kg
AIR FACTORS:	433 / 367 / 399	SAR 10g:	0.242 W/kg
CONVERSION FACTORS:	0.276 / 0.276 / 0.276	SAR START:	0.084 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.088 W/kg
MODN. DUTY CYCLE:	50%	SAR DRIFT DURING SCAN:	4.55 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	04/04/06
INPUT POWER LEVEL:	4x33dBm	EXTRAPOLATION:	poly4

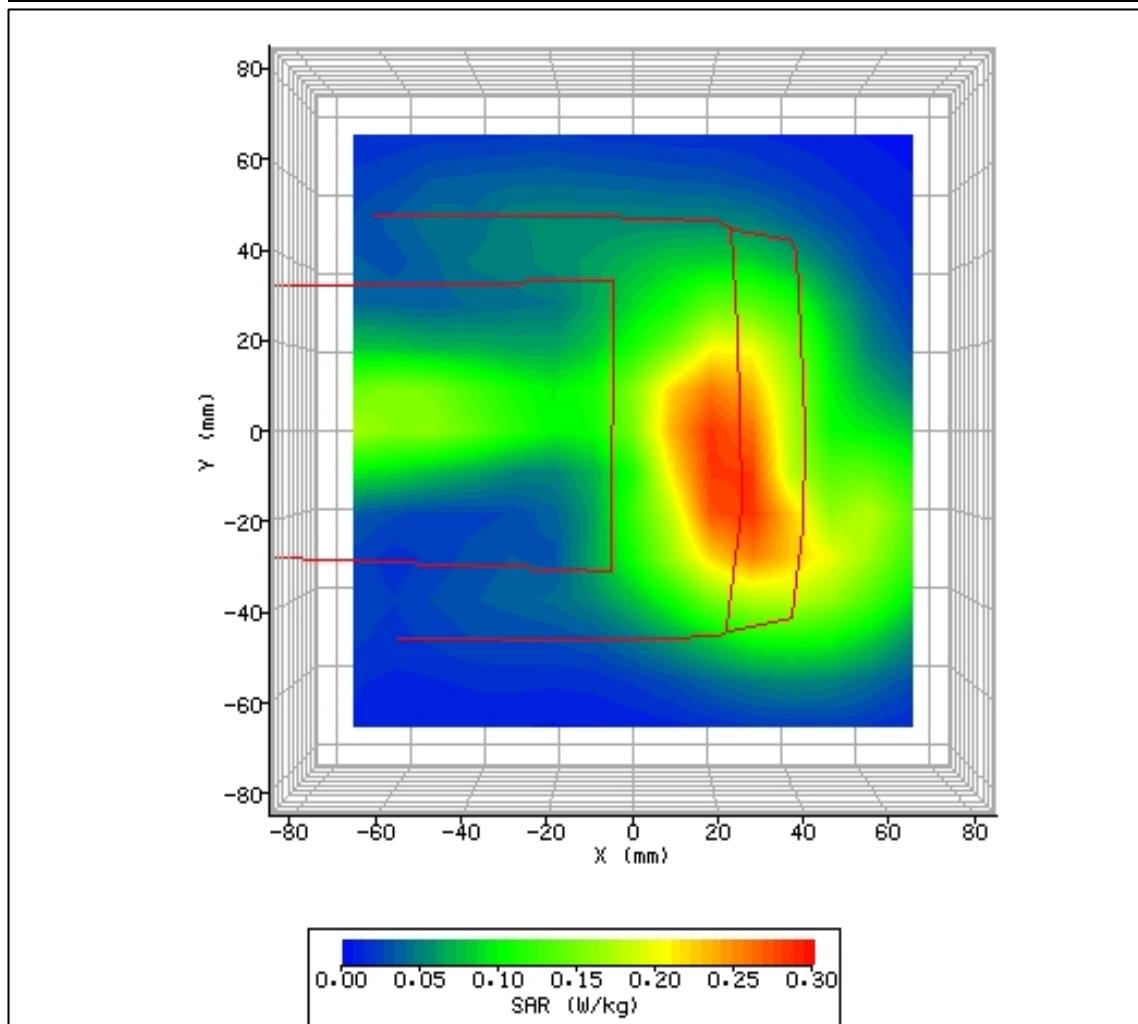


Figure 18: SAR Body Testing Results for the Intermec 700C Mobile Computer in Front Facing Phantom Position in holster #2; Tested at 824.2MHz (850MHz GSM Low Channel) with 0.0mm Separation.

### 2.3 850MHz GPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	06/04/2006 11:55:59	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_37.txt	PROBE SERIAL NUMBER:	170
AMBIENT TEMPERATURE:	22.5°C	LIQUID SIMULANT:	850 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	56.8
RELATIVE HUMIDITY:	32.1%	CONDUCTIVITY:	0.973
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	21.7°C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	25.0 mm
DUT POSITION:	Front facing in holster #2	MAX SAR Y-AXIS LOCATION:	-7.00 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	17.60 V/m
TEST FREQUENCY:	836.4MHz	SAR 1g:	0.370 W/kg
AIR FACTORS:	433 / 367 / 399	SAR 10g:	0.247 W/kg
CONVERSION FACTORS:	0.276 / 0.276 / 0.276	SAR START:	0.092 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.090 W/kg
MODN. DUTY CYCLE:	50%	SAR DRIFT DURING SCAN:	-1.36 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	04/04/06
INPUT POWER LEVEL:	4x33dBm	EXTRAPOLATION:	poly4

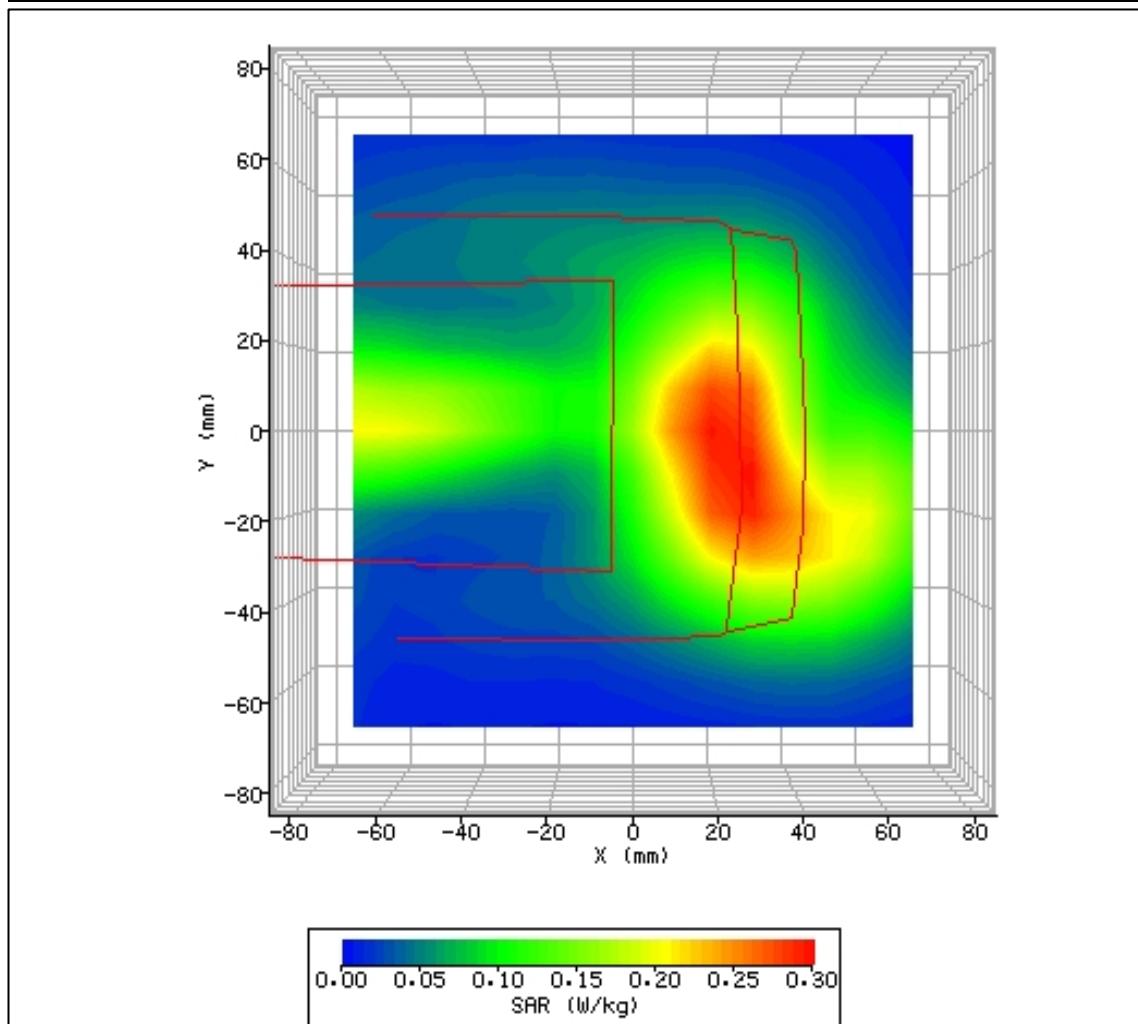


Figure 19: SAR Body Testing Results for the Intermec 700C Mobile Computer in Front Facing Phantom Position in holster #2; Tested at 836.4MHz (850MHz GSM Middle Channel) with 0.0mm Separation.

### 2.3 850MHz GPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	06/04/2006 14:21:00	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_38.txt	PROBE SERIAL NUMBER:	170
AMBIENT TEMPERATURE:	22.4°C	LIQUID SIMULANT:	850 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	56.8
RELATIVE HUMIDITY:	41.4%	CONDUCTIVITY:	0.973
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	21.8°C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	20.0 mm
DUT POSITION:	Front facing in holster #2	MAX SAR Y-AXIS LOCATION:	-23.0 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	17.07 V/m
TEST FREQUENCY:	848.8MHz	SAR 1g:	0.345 W/kg
AIR FACTORS:	433 / 367 / 399	SAR 10g:	0.227 W/kg
CONVERSION FACTORS:	0.276 / 0.276 / 0.276	SAR START:	0.082 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.079 W/kg
MODN. DUTY CYCLE:	50%	SAR DRIFT DURING SCAN:	-3.81 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	04/04/06
INPUT POWER LEVEL:	4x33dBm	EXTRAPOLATION:	poly4

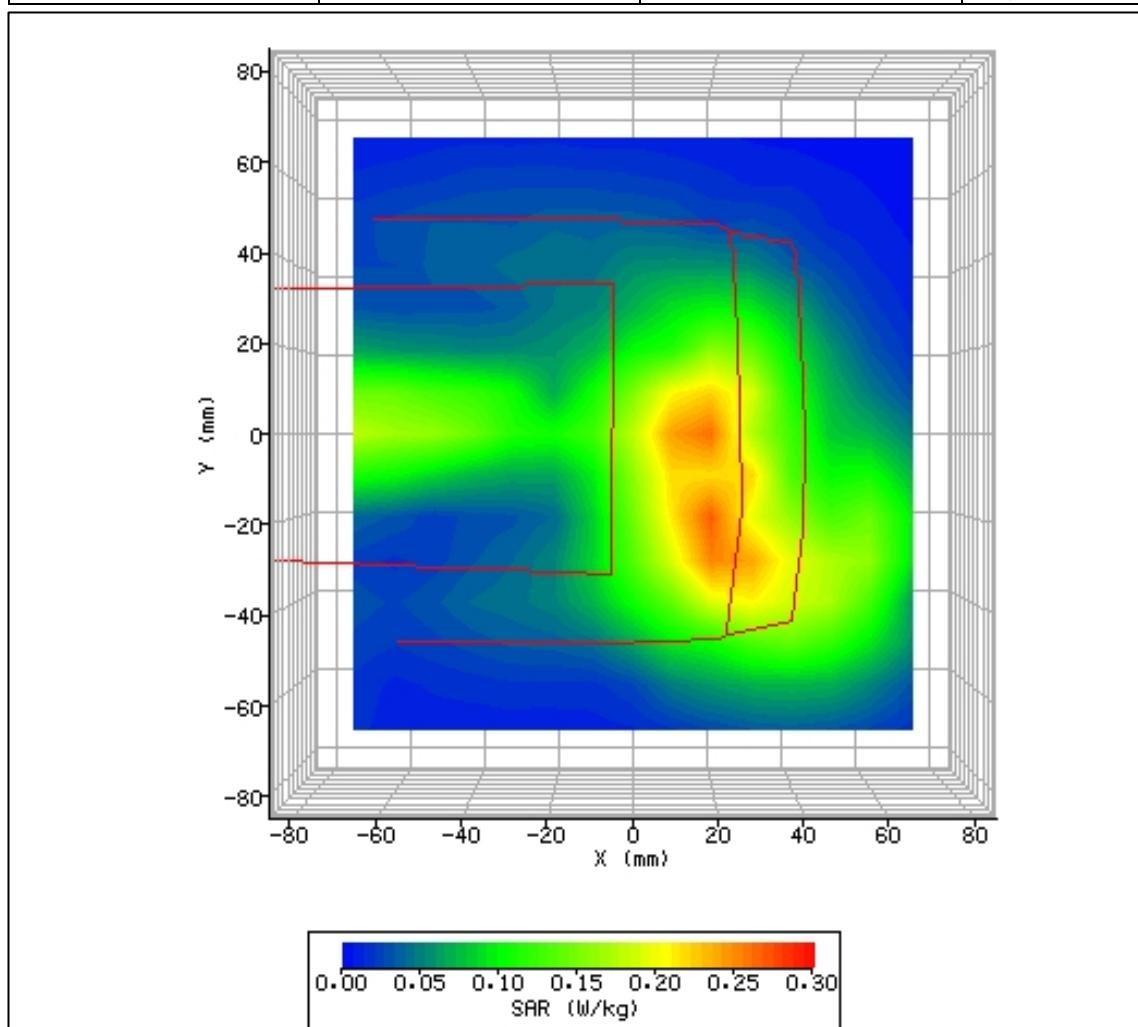


Figure 20: SAR Body Testing Results for the Intermec 700C Mobile Computer in Front Facing Phantom Position in holster #2; Tested at 848.8MHz (850MHz GSM Middle Channel) with 0.0mm Separation.

### 2.3 850MHz GPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	06/04/2006 15:30:45	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_39.txt	PROBE SERIAL NUMBER:	170
AMBIENT TEMPERATURE:	22.8°C	LIQUID SIMULANT:	850 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	56.8
RELATIVE HUMIDITY:	27.7%	CONDUCTIVITY:	0.973
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	21.5°C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	20.00 mm
DUT POSITION:	Front facing Inverted in holster #2	MAX SAR Y-AXIS LOCATION:	-80.0 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	16.26 V/m
TEST FREQUENCY:	836.4MHz	SAR 1g:	0.309 W/kg
AIR FACTORS:	433 / 367 / 399	SAR 10g:	0.205 W/kg
CONVERSION FACTORS:	0.276 / 0.276 / 0.276	SAR START:	0.078 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.079 W/kg
MODN. DUTY CYCLE:	50%	SAR DRIFT DURING SCAN:	0.28 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	04/04/06
INPUT POWER LEVEL:	4x33dBm	EXTRAPOLATION:	poly4

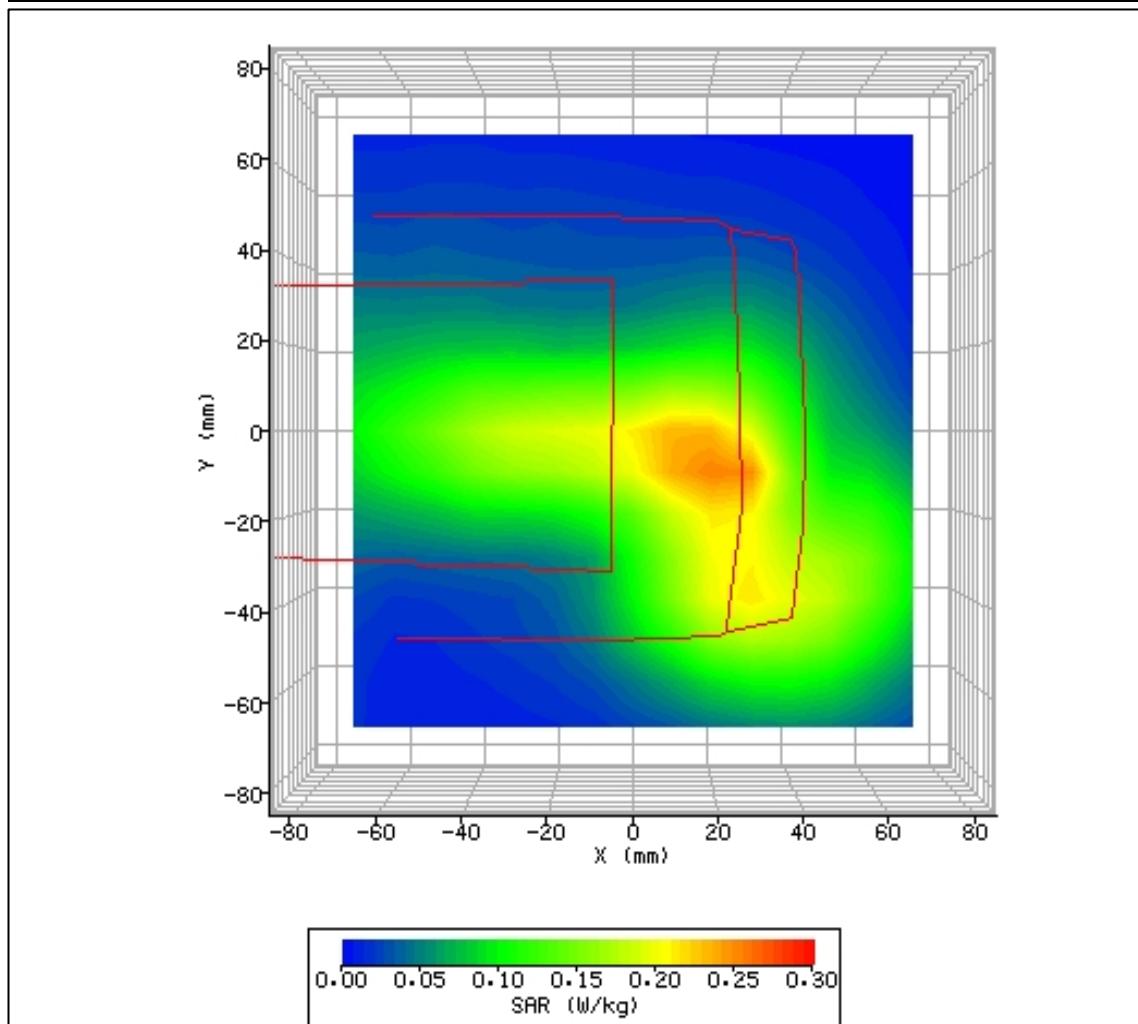


Figure 21: SAR Body Testing Results for the Intermec 700C Mobile Computer in Front Facing Phantom Position inverted in holster #2; Tested at 836.4MHz (850MHz GSM Middle Channel) with 0.0mm Separation.

### 2.3 850MHz GPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	06/04/2006 16:09:16	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_40.txt	PROBE SERIAL NUMBER:	170
AMBIENT TEMPERATURE:	23.5°C	LIQUID SIMULANT:	850 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	56.8
RELATIVE HUMIDITY:	30.1%	CONDUCTIVITY:	0.973
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	21.6°C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	-26.00 mm
DUT POSITION:	LH-Side facing in holster #2	MAX SAR Y-AXIS LOCATION:	-10.00 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	11.99 V/m
TEST FREQUENCY:	836.4MHz	SAR 1g:	0.154 W/kg
AIR FACTORS:	433 / 367 / 399	SAR 10g:	0.106 W/kg
CONVERSION FACTORS:	0.276 / 0.276 / 0.276	SAR START:	0.044 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.041 W/kg
MODN. DUTY CYCLE:	50%	SAR DRIFT DURING SCAN:	-6.10 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	04/04/06
INPUT POWER LEVEL:	4x33dBm	EXTRAPOLATION:	poly4

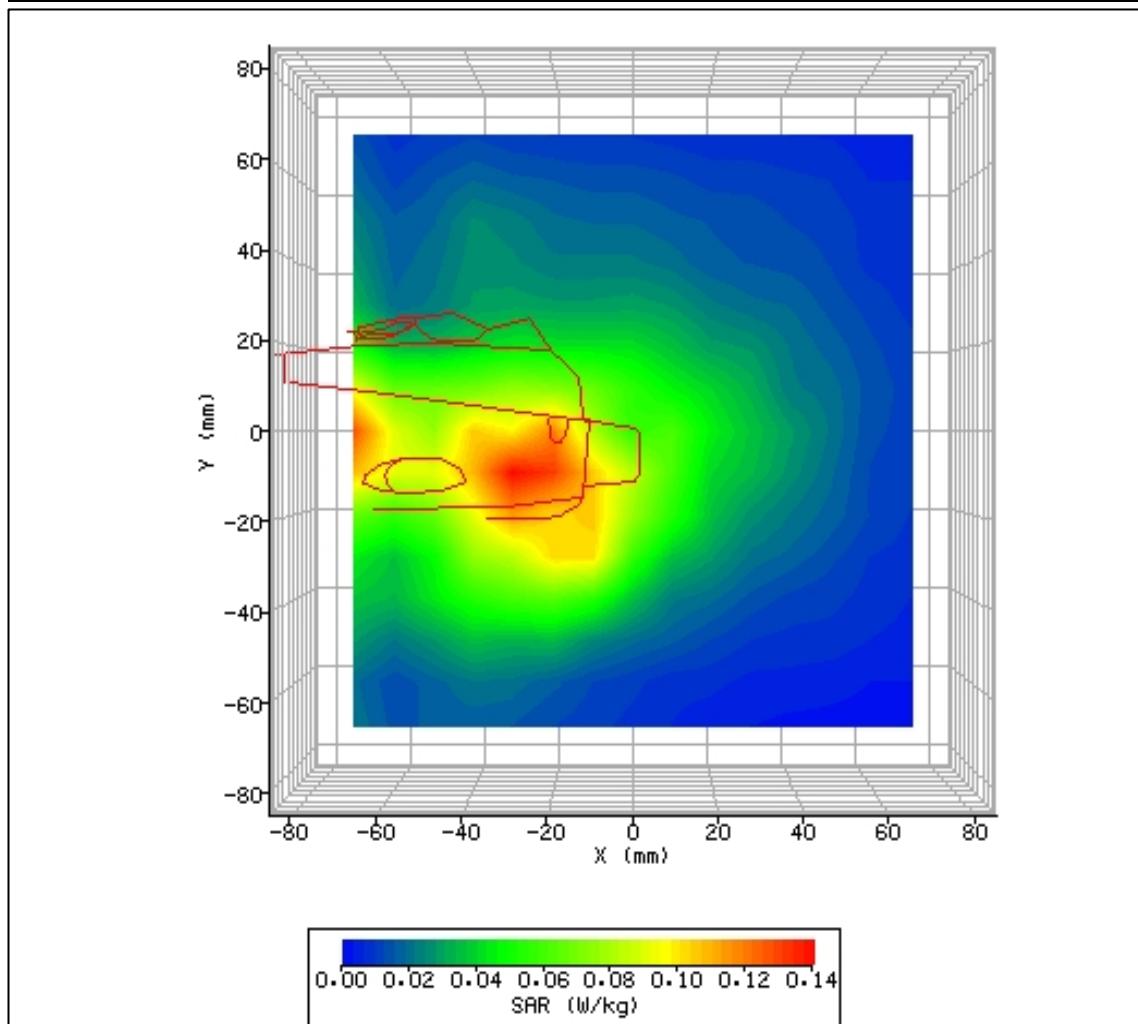


Figure 22: SAR Body Testing Results for the Intermec 700C Mobile Computer in LH-Side Facing Phantom Position in holster #2; Holster #2 in LH configuration; Tested at 836.4MHz (850MHz GSM Middle Channel) with 0.0mm Separation.

### 2.3 850MHz GPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	06/04/2006 16:46:14	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_41.txt	PROBE SERIAL NUMBER:	170
AMBIENT TEMPERATURE:	23.0°C	LIQUID SIMULANT:	850 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	56.8
RELATIVE HUMIDITY:	39.2%	CONDUCTIVITY:	0.973
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	21.6°C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	40.00 mm
DUT POSITION:	RH-Side facing in holster #2	MAX SAR Y-AXIS LOCATION:	2.00 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	17.03 V/m
TEST FREQUENCY:	836.4MHz	SAR 1g:	0.341 W/kg
AIR FACTORS:	433 / 367 / 399	SAR 10g:	0.220 W/kg
CONVERSION FACTORS:	0.276 / 0.276 / 0.276	SAR START:	0.085 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.084 W/kg
MODN. DUTY CYCLE:	50%	SAR DRIFT DURING SCAN:	-0.93 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	04/04/06
INPUT POWER LEVEL:	4x33dBm	EXTRAPOLATION:	poly4

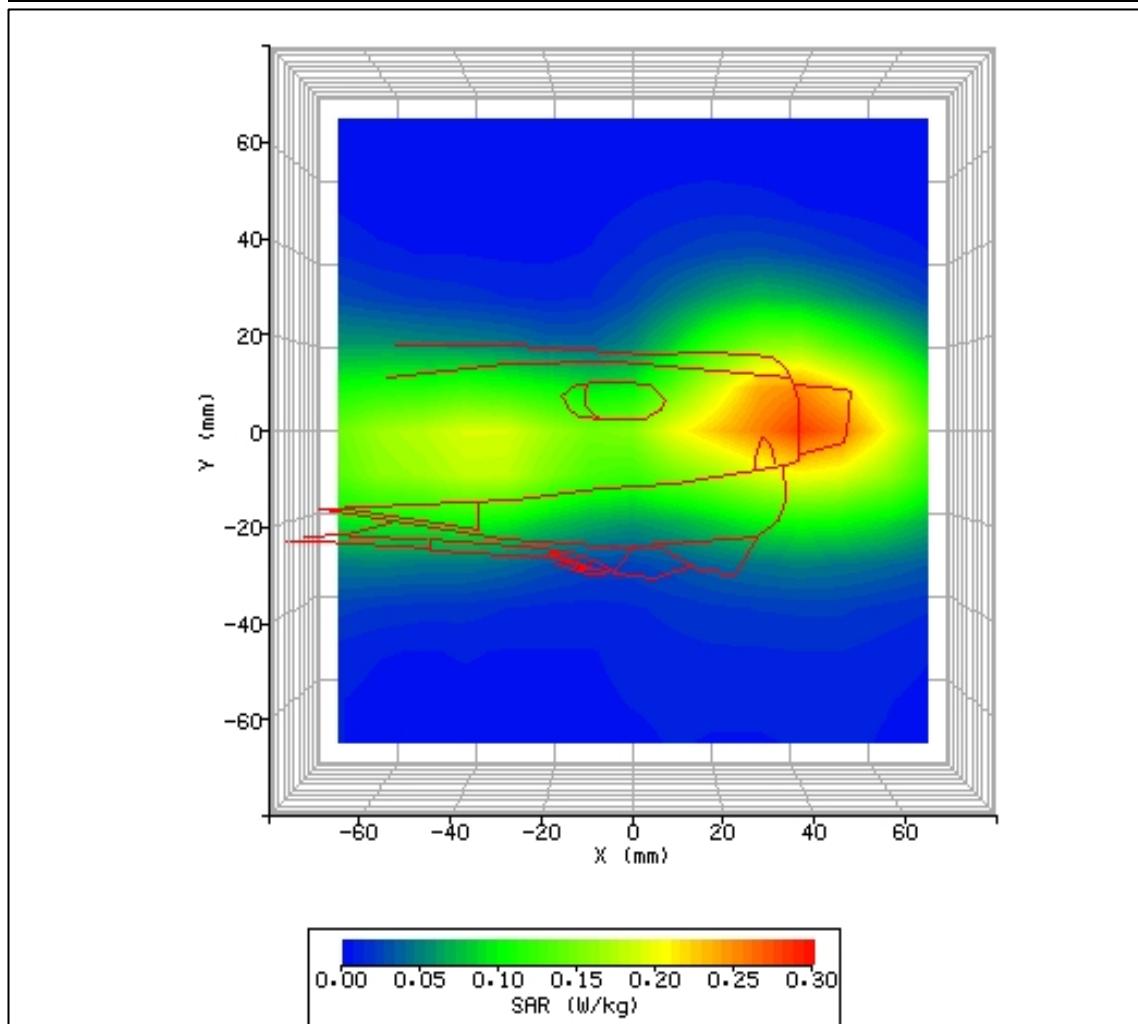


Figure 23: SAR Body Testing Results for the Intermec 700C Mobile Computer in RH-Side Facing Phantom Position in holster #2; Holster #2 in RH configuration; Tested at 836.4MHz (850MHz GSM Middle Channel) with 0.0mm Separation.

### 2.3 850MHz EGPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	06/04/2006 17:39:41	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_42.txt	PROBE SERIAL NUMBER:	170
AMBIENT TEMPERATURE:	21.5°C	LIQUID SIMULANT:	850 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	56.8
RELATIVE HUMIDITY:	41.2%	CONDUCTIVITY:	0.973
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	21.6°C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	18.0 mm
DUT POSITION:	Front facing inverted in holster #1	MAX SAR Y-AXIS LOCATION:	-26.00 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	10.02 V/m
TEST FREQUENCY:	836.4MHz	SAR 1g:	0.117 W/kg
AIR FACTORS:	433 / 367 / 399	SAR 10g:	0.075 W/kg
CONVERSION FACTORS:	0.276 / 0.276 / 0.276	SAR START:	0.027 W/kg
TYPE OF MODULATION:	8PSK	SAR END:	0.026 W/kg
MODN. DUTY CYCLE:	25%	SAR DRIFT DURING SCAN:	-3.08 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	04/04/06
INPUT POWER LEVEL:	2x27dBm	EXTRAPOLATION:	poly4

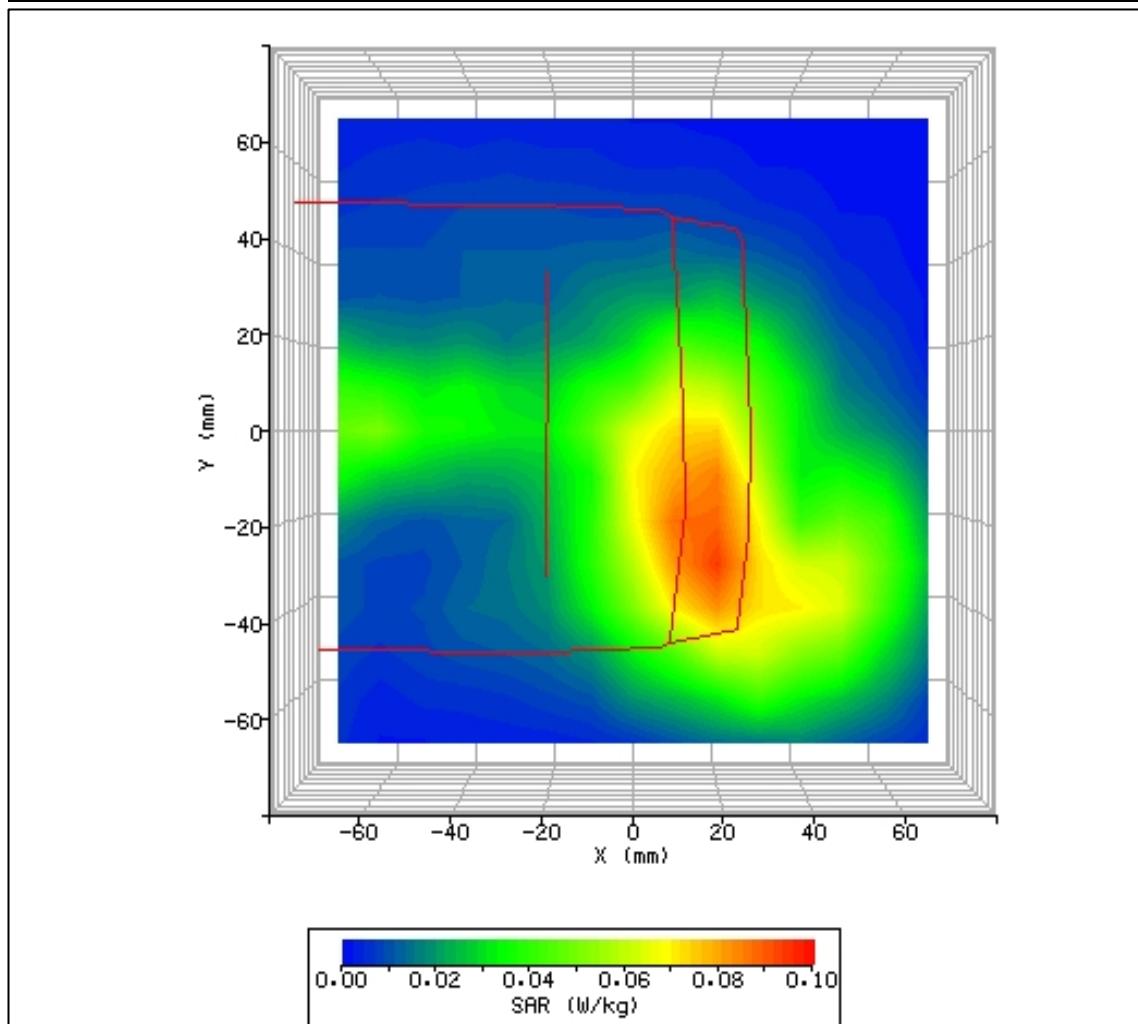


Figure 24: SAR Body Testing Results for the Intermec 700C Mobile Computer in Front Facing Phantom Position inverted in holster #2; Tested at 836.4MHz (850MHz GSM Middle Channel) with 0.0mm Separation.

### 2.3 850MHz GPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	07/04/2006 11:19:34	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_43.txt	PROBE SERIAL NUMBER:	170
AMBIENT TEMPERATURE:	23.2°C	LIQUID SIMULANT:	850 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	56.8
RELATIVE HUMIDITY:	30.6%	CONDUCTIVITY:	0.973
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	21.6°C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	11.00 mm
DUT POSITION:	Rear facing with belt clip	MAX SAR Y-AXIS LOCATION:	8.00 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	8.20 V/m
TEST FREQUENCY:	836.4MHz	SAR 1g:	0.075 W/kg
AIR FACTORS:	433 / 367 / 399	SAR 10g:	0.053 W/kg
CONVERSION FACTORS:	0.276 / 0.276 / 0.276	SAR START:	0.022 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.023 W/kg
MODN. DUTY CYCLE:	50%	SAR DRIFT DURING SCAN:	1.12 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	04/04/06
INPUT POWER LEVEL:	4x33dBm	EXTRAPOLATION:	poly4

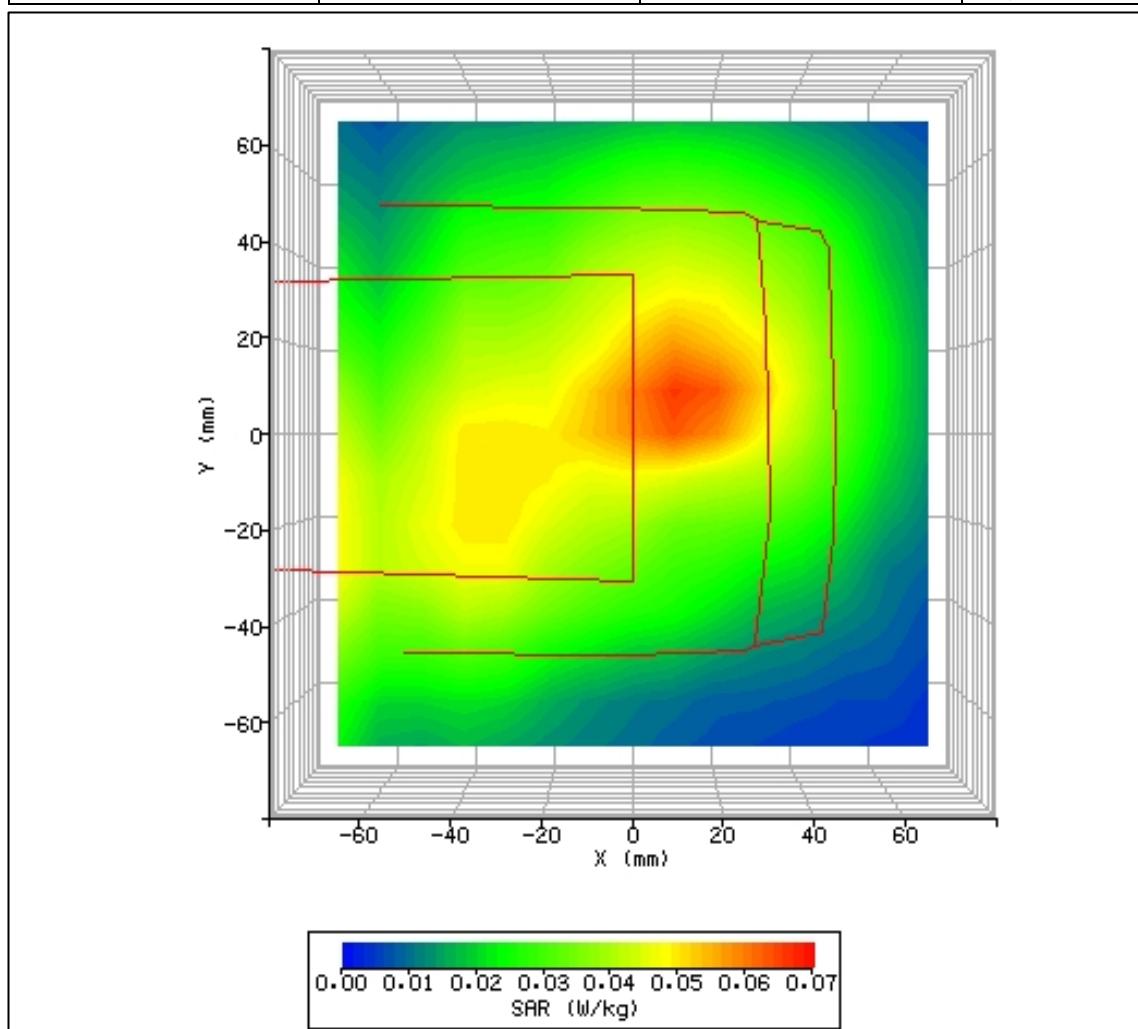


Figure 25: SAR Body Testing Results for the Intermec 700C Mobile Computer in Rear Facing Phantom Position with Belt Clip; Tested at 836.4MHz (850MHz GSM Middle Channel) with 0.0mm Separation.

### 2.3 850MHz EGPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	07/04/2006 10:34:05	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_44.txt	PROBE SERIAL NUMBER:	170
AMBIENT TEMPERATURE:	22.6°C	LIQUID SIMULANT:	850 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	56.8
RELATIVE HUMIDITY:	29.3%	CONDUCTIVITY:	0.973
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	21.8°C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	14.00 mm
DUT POSITION:	Rear facing with belt clip	MAX SAR Y-AXIS LOCATION:	7.00 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	4.71 V/m
TEST FREQUENCY:	836.4MHz	SAR 1g:	0.025 W/kg
AIR FACTORS:	433 / 367 / 399	SAR 10g:	0.016 W/kg
CONVERSION FACTORS:	0.276 / 0.276 / 0.276	SAR START:	0.007 W/kg
TYPE OF MODULATION:	8PSK	SAR END:	0.007 W/kg
MODN. DUTY CYCLE:	25%	SAR DRIFT DURING SCAN:	-2.84 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	04/04/06
INPUT POWER LEVEL:	2x27dBm	EXTRAPOLATION:	poly4

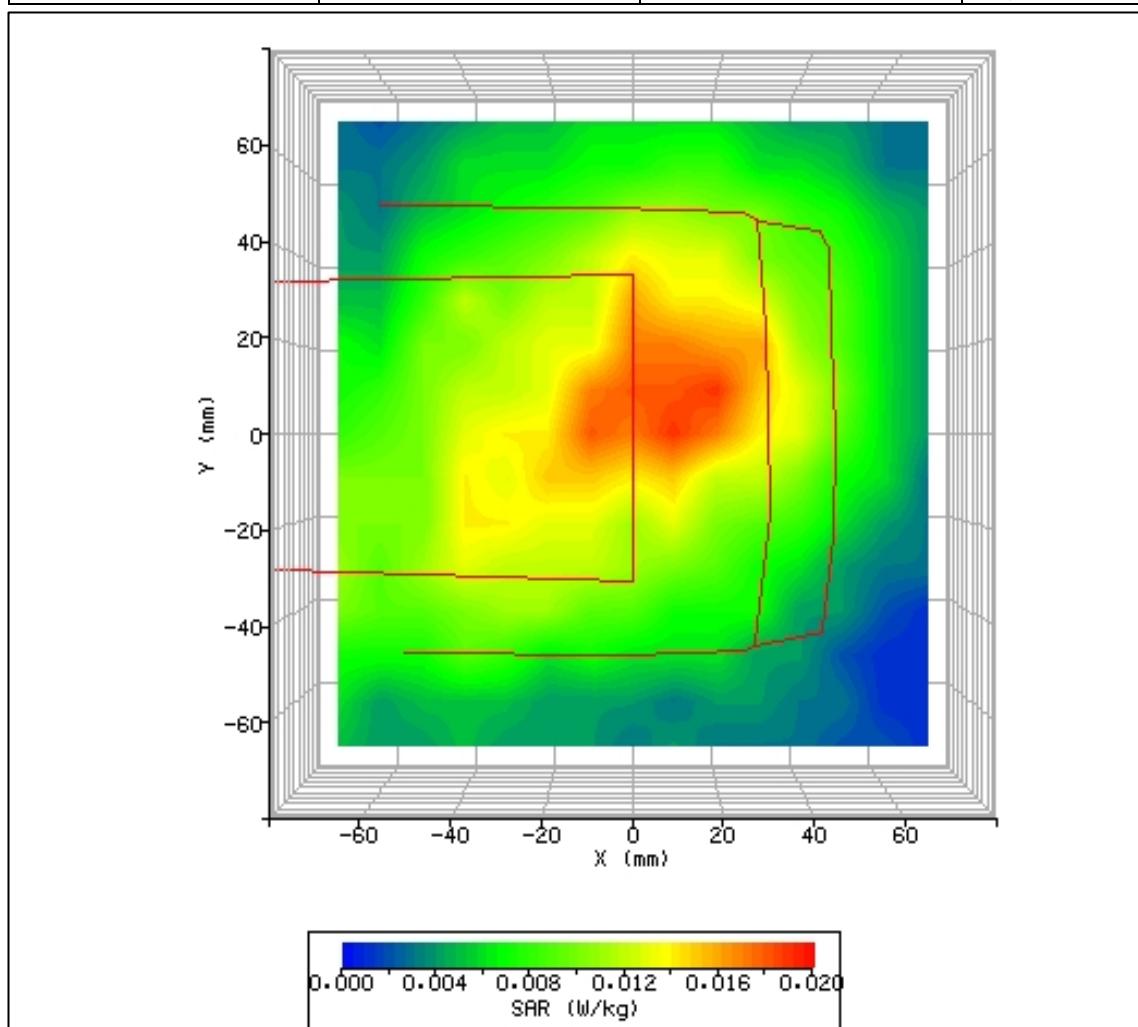


Figure 26: SAR Body Testing Results for the Intermec 700C Mobile Computer in Rear Facing Phantom Position with Belt Clip; Tested at 836.4MHz (850MHz GSM Middle Channel) with 0.0mm Separation.

### 2.3.1 900MHz GSM HEAD SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	22/03/2006 14:16:22	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_07.txt	PROBE SERIAL NUMBER:	0170
AMBIENT TEMPERATURE:	23.4°C	LIQUID SIMULANT:	900 Head
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	41.48
RELATIVE HUMIDITY:	30.0%	CONDUCTIVITY:	0.974
PHANTOM S/NO:	HeadFT04.csv	LIQUID TEMPERATURE:	22.8°C
PHANTOM ROTATION:	0°	MAX SAR Y-AXIS LOCATION:	-5.00 mm
DUT POSITION:	LH Cheek	MAX SAR Z-AXIS LOCATION:	-117.50 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	11.95 V/m
TEST FREQUENCY:	897.4MHz	SAR 1g:	0.132 W/kg
AIR FACTORS:	433 / 367 / 399	SAR 10g:	0.097 W/kg
CONVERSION FACTORS:	0.264 / 0.264 / 0.264	SAR START:	0.072 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.071 W/kg
MODN. DUTY CYCLE:	12.5%	SAR DRIFT DURING SCAN:	-0.90 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	21/03/06
INPUT POWER LEVEL:	5	EXTRAPOLATION:	poly4

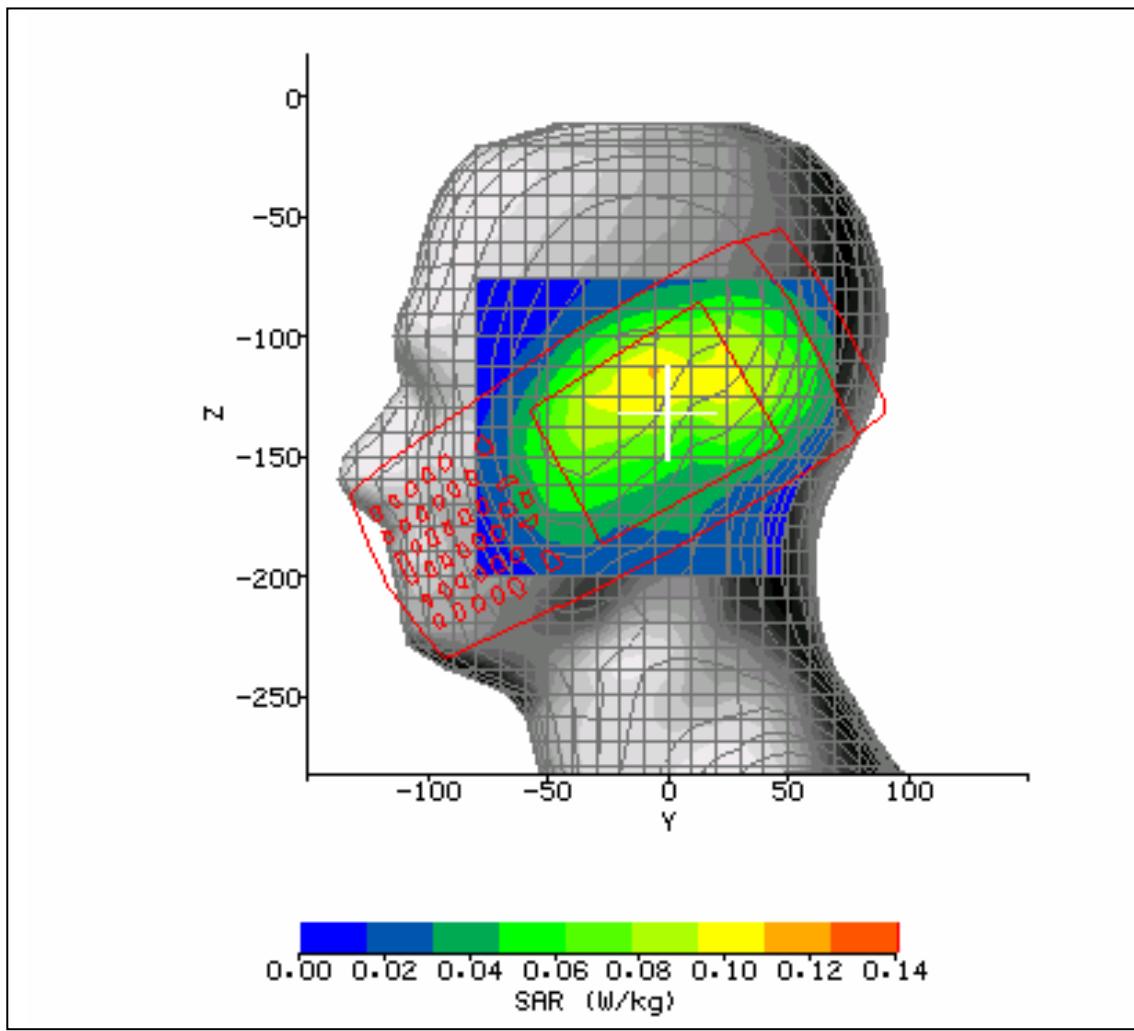


Figure 27: SAR Head Testing Results for the Intermec 700C Mobile Computer in Left Hand Cheek Position; Tested at 897.4MHz (900MHz GSM Middle Channel).

### 2.3.1 900MHz GSM HEAD SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	22/03/2006 15:17:51	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_08.txt	PROBE SERIAL NUMBER:	0170
AMBIENT TEMPERATURE:	22.9°C	LIQUID SIMULANT:	900 Head
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	41.48
RELATIVE HUMIDITY:	36.9%	CONDUCTIVITY:	0.974
PHANTOM S/NO:	HeadFT04.csv	LIQUID TEMPERATURE:	22.7°C
PHANTOM ROTATION:	0°	MAX SAR Y-AXIS LOCATION:	37.00 mm
DUT POSITION:	LH Cheek 15°	MAX SAR Z-AXIS LOCATION:	-115.00 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	14.36 V/m
TEST FREQUENCY:	897.4MHz	SAR 1g:	0.180 W/kg
AIR FACTORS:	433 / 367 / 399	SAR 10g:	0.129 W/kg
CONVERSION FACTORS:	0.264 / 0.264 / 0.264	SAR START:	0.103 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.103 W/kg
MODN. DUTY CYCLE:	12.5%	SAR DRIFT DURING SCAN:	-0.64 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	21/03/06
INPUT POWER LEVEL:	5	EXTRAPOLATION:	poly4

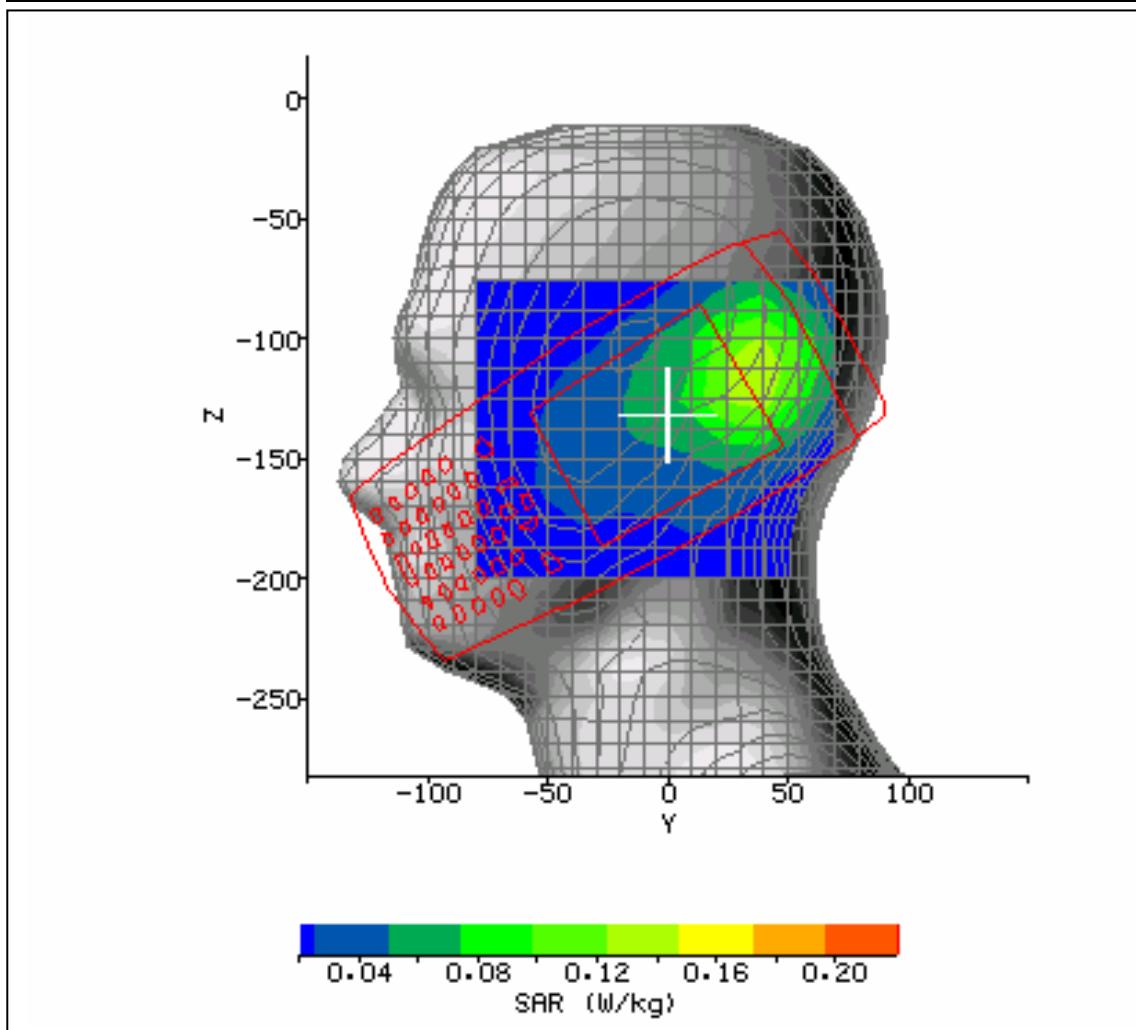


Figure 28 SAR Head Testing Results for the Intermec 700C Mobile Computer in Left Hand Cheek 15° Position; Tested at 897.4MHz (900MHz GSM Middle Channel).

### 2.3.1 900MHz GSM HEAD SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	22/03/2006 16:32:57	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_09.txt	PROBE SERIAL NUMBER:	0170
AMBIENT TEMPERATURE:	23.8°C	LIQUID SIMULANT:	900 Head
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	41.48
RELATIVE HUMIDITY:	30.9%	CONDUCTIVITY:	0.974
PHANTOM S/NO:	HeadFT04.csv	LIQUID TEMPERATURE:	22.8°C
PHANTOM ROTATION:	180°	MAX SAR Y-AXIS LOCATION:	-20.50 mm
DUT POSITION:	RH Cheek	MAX SAR Z-AXIS LOCATION:	-105.00 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	16.39 V/m
TEST FREQUENCY:	897.4MHz	SAR 1g:	0.229 W/kg
AIR FACTORS:	433 / 367 / 399	SAR 10g:	0.155 W/kg
CONVERSION FACTORS:	0.264 / 0.264 / 0.264	SAR START:	0.106 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.109 W/kg
MODN. DUTY CYCLE:	12.5%	SAR DRIFT DURING SCAN:	3.04 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	21/03/06
INPUT POWER LEVEL:	5	EXTRAPOLATION:	poly4

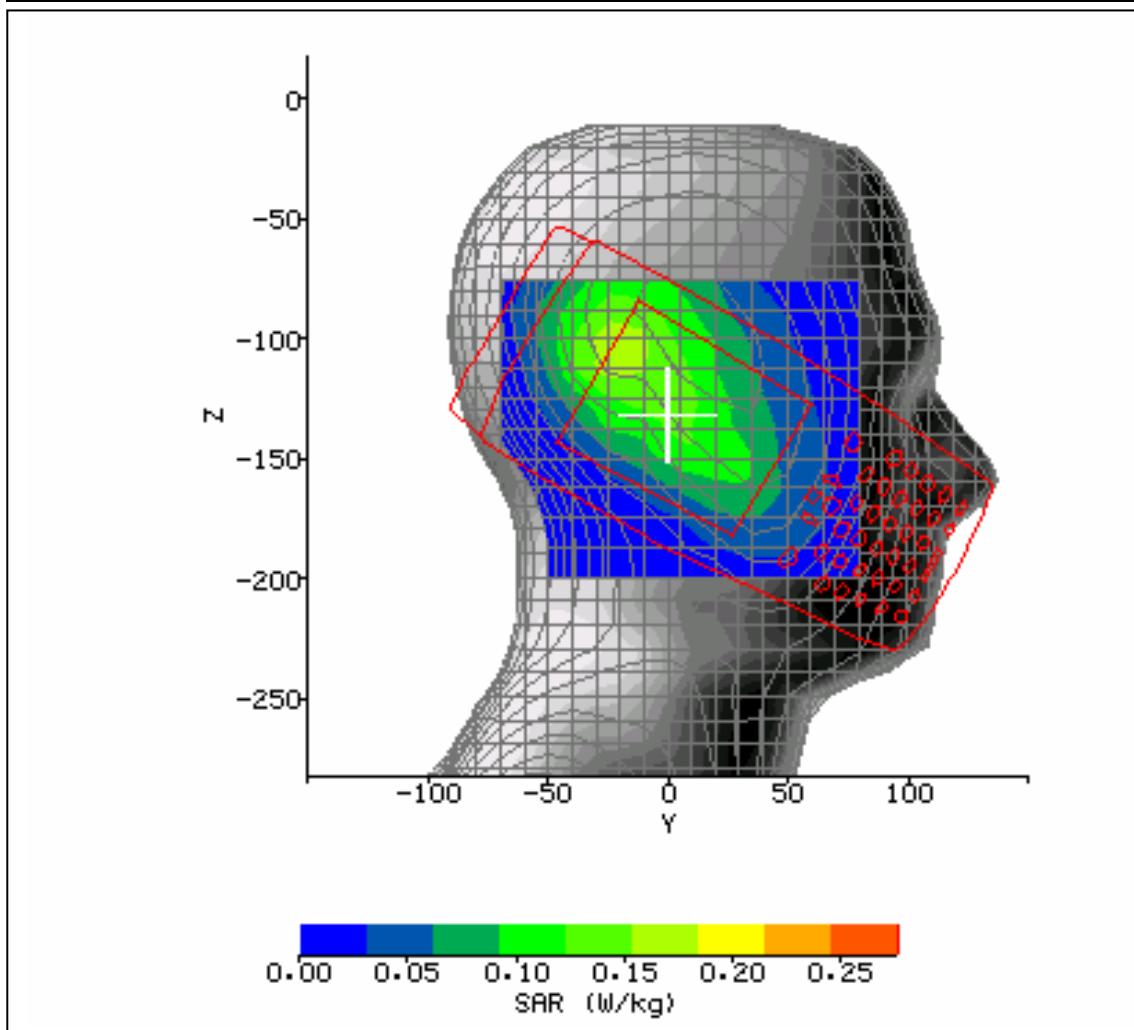


Figure 29: SAR Head Testing Results for the Intermec 700C Mobile Computer in Right Hand Cheek Position; Tested at 897.4MHz (900MHz GSM Middle Channel).

### 2.3.1 900MHz GSM HEAD SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	22/03/2006 17:12:29	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_10.txt	PROBE SERIAL NUMBER:	0170
AMBIENT TEMPERATURE:	23.7°C	LIQUID SIMULANT:	900 Head
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	41.48
RELATIVE HUMIDITY:	31.5%	CONDUCTIVITY:	0.974
PHANTOM S/NO:	HeadFT04.csv	LIQUID TEMPERATURE:	22.9°C
PHANTOM ROTATION:	180°	MAX SAR Y-AXIS LOCATION:	-26.50 mm
DUT POSITION:	RH Cheek 15°	MAX SAR Z-AXIS LOCATION:	-96.25 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	18.39 V/m
TEST FREQUENCY:	897.4MHz	SAR 1g:	0.303 W/kg
AIR FACTORS:	433 / 367 / 399	SAR 10g:	0.212 W/kg
CONVERSION FACTORS:	0.264 / 0.264 / 0.264	SAR START:	0.152 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.155 W/kg
MODN. DUTY CYCLE:	12.5%	SAR DRIFT DURING SCAN:	2.04 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	21/03/06
INPUT POWER LEVEL:	5	EXTRAPOLATION:	poly4

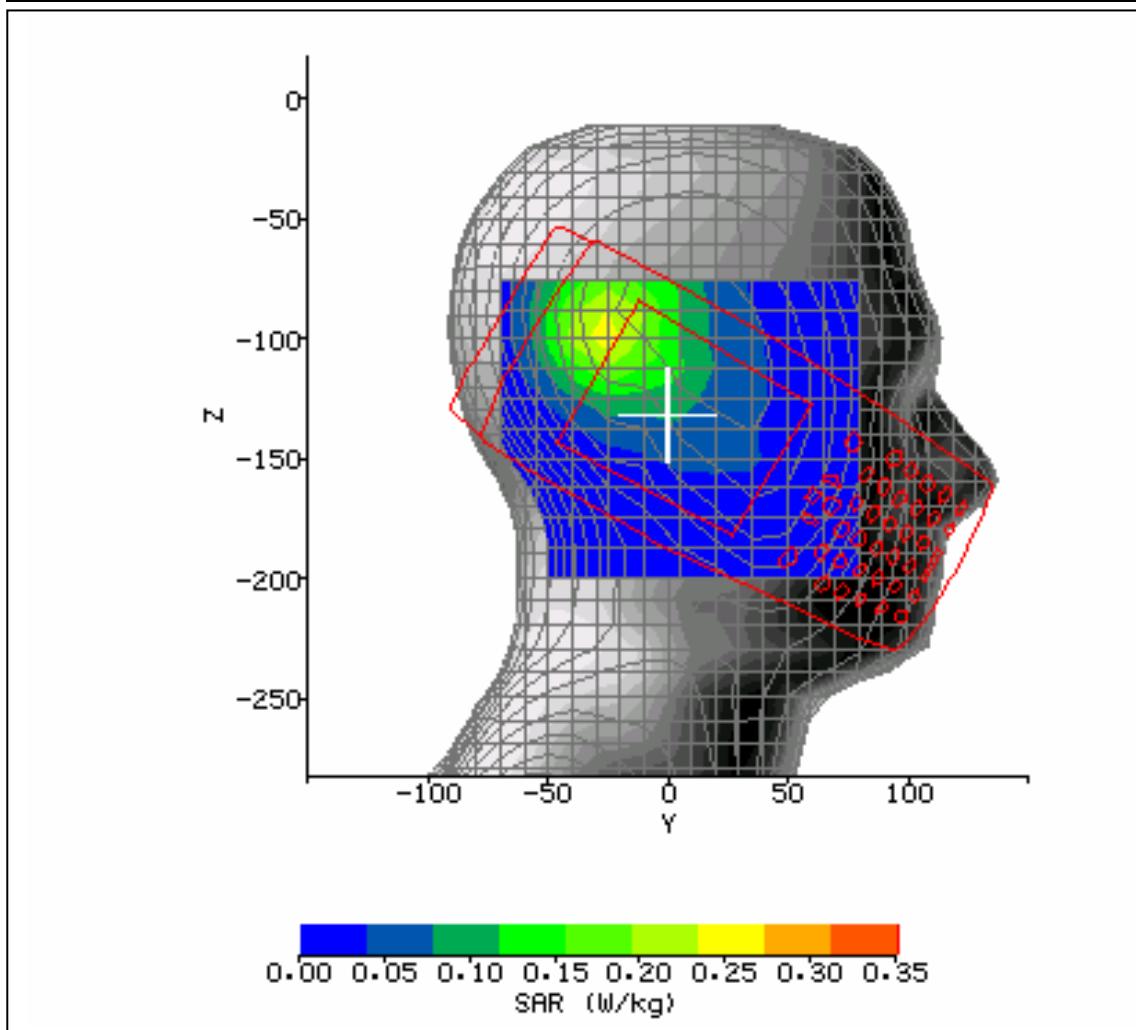


Figure 30: SAR Head Testing Results for the Intermec 700C Mobile Computer in Right Hand 15° Cheek Position; Tested at 897.4MHz (900MHz GSM Middle Channel).

### 2.3.1 900MHz GSM HEAD SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	23/03/2006 09:11:20	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_11.txt	PROBE SERIAL NUMBER:	0170
AMBIENT TEMPERATURE:	22.2°C	LIQUID SIMULANT:	900 Head
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	41.48
RELATIVE HUMIDITY:	25.1%	CONDUCTIVITY:	0.974
PHANTOM S/NO:	HeadFT04.csv	LIQUID TEMPERATURE:	22.9°C
PHANTOM ROTATION:	180°	MAX SAR Y-AXIS LOCATION:	-26.50 mm
DUT POSITION:	RH Cheek 15°	MAX SAR Z-AXIS LOCATION:	-97.50 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	20.38 V/m
TEST FREQUENCY:	880.2MHz	SAR 1g:	0.361 W/kg
AIR FACTORS:	433 / 367 / 399	SAR 10g:	0.248 W/kg
CONVERSION FACTORS:	0.264 / 0.264 / 0.264	SAR START:	0.186 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.187 W/kg
MODN. DUTY CYCLE:	12.5%	SAR DRIFT DURING SCAN:	0.97 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	21/03/06
INPUT POWER LEVEL:	5	EXTRAPOLATION:	poly4

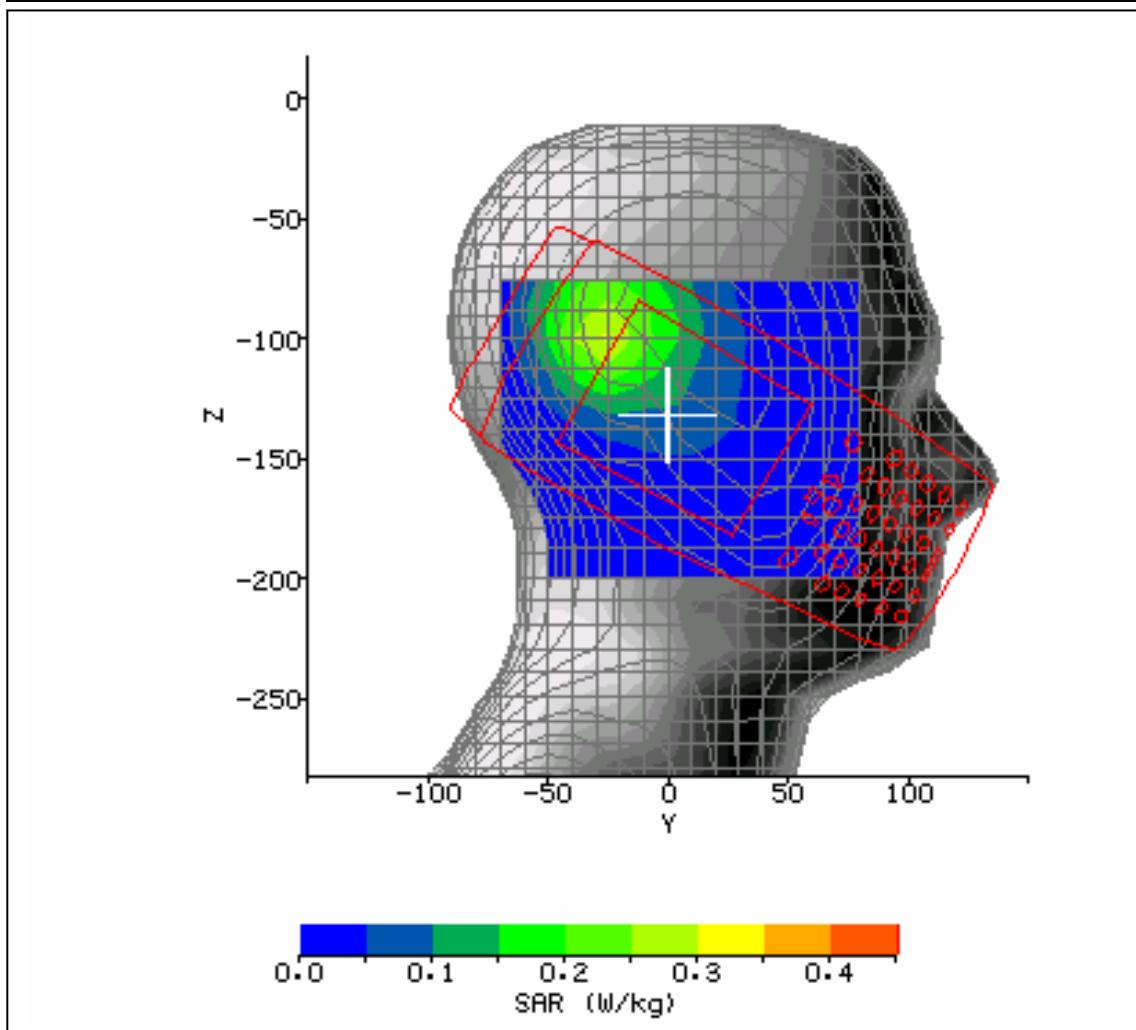


Figure 31: SAR Head Testing Results for the Intermec 700C Mobile Computer in Right Hand 15° Cheek Position; Tested at 880.2MHz (900MHz GSM Low Channel).

### 2.3.1 900MHz GSM HEAD SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	23/03/2006 09:39:56	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_12.txt	PROBE SERIAL NUMBER:	0170
AMBIENT TEMPERATURE:	22.8°C	LIQUID SIMULANT:	900 Head
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	41.48
RELATIVE HUMIDITY:	39.1%	CONDUCTIVITY:	0.974
PHANTOM S/NO:	HeadFT04.csv	LIQUID TEMPERATURE:	22.9°C
PHANTOM ROTATION:	180°	MAX SAR Y-AXIS LOCATION:	-26.50 mm
DUT POSITION:	RH Cheek 15°	MAX SAR Z-AXIS LOCATION:	-97.50 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	17.10 V/m
TEST FREQUENCY:	914.8MHz	SAR 1g:	0.273 W/kg
AIR FACTORS:	433 / 367 / 399	SAR 10g:	0.189 W/kg
CONVERSION FACTORS:	0.264 / 0.264 / 0.264	SAR START:	0.136 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.138 W/kg
MODN. DUTY CYCLE:	12.5%	SAR DRIFT DURING SCAN:	1.94 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	21/03/06
INPUT POWER LEVEL:	5	EXTRAPOLATION:	poly4

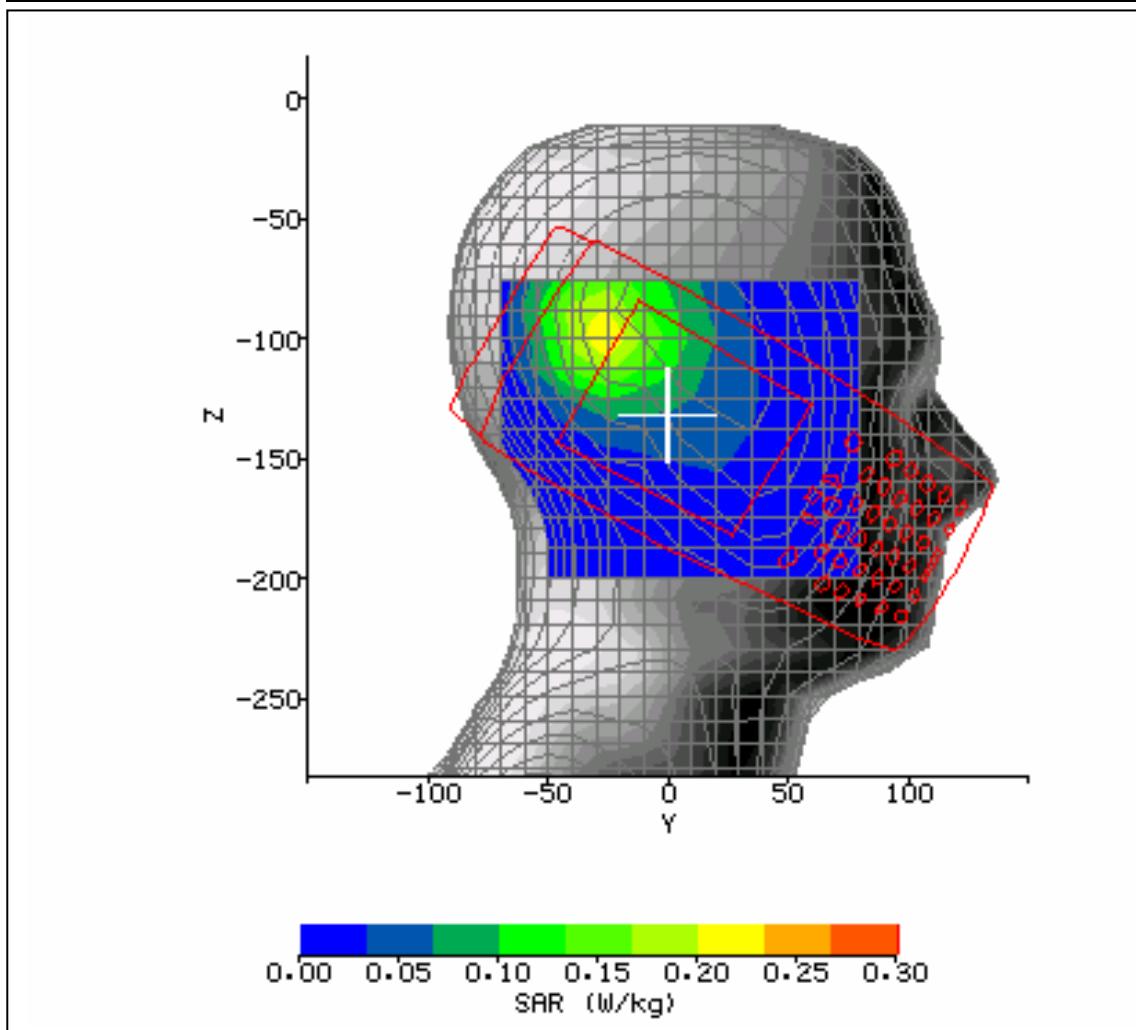


Figure 32: SAR Head Testing Results for the Intermec 700C Mobile Computer in Right Hand 15° Cheek Position; Tested at 914.8MHz (900MHz GSM High Channel).

### 2.3.2 1800MHz GSM HEAD SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	27/03/2006 11:34:00	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_13.txt	PROBE SERIAL NUMBER:	0190
AMBIENT TEMPERATURE:	21.6°C	LIQUID SIMULANT:	1800 Head
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	40.74
RELATIVE HUMIDITY:	54.2%	CONDUCTIVITY:	1.353
PHANTOM S/NO:	HeadFT04.csv	LIQUID TEMPERATURE:	21.8°C
PHANTOM ROTATION:	0°	MAX SAR Y-AXIS LOCATION:	37.00 mm
DUT POSITION:	LH Cheek	MAX SAR Z-AXIS LOCATION:	-116.25 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	5.73 V/m
TEST FREQUENCY:	1747.4MHz	SAR 1g:	0.041 W/kg
AIR FACTORS:	346 / 425 / 429	SAR 10g:	0.027 W/kg
CONVERSION FACTORS:	0.400 / 0.34 / 0.39	SAR START:	0.020 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.022 W/kg
MODN. DUTY CYCLE:	12.5%	SAR DRIFT DURING SCAN:	0.00 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	24/03/06
INPUT POWER LEVEL:	0	EXTRAPOLATION:	poly4

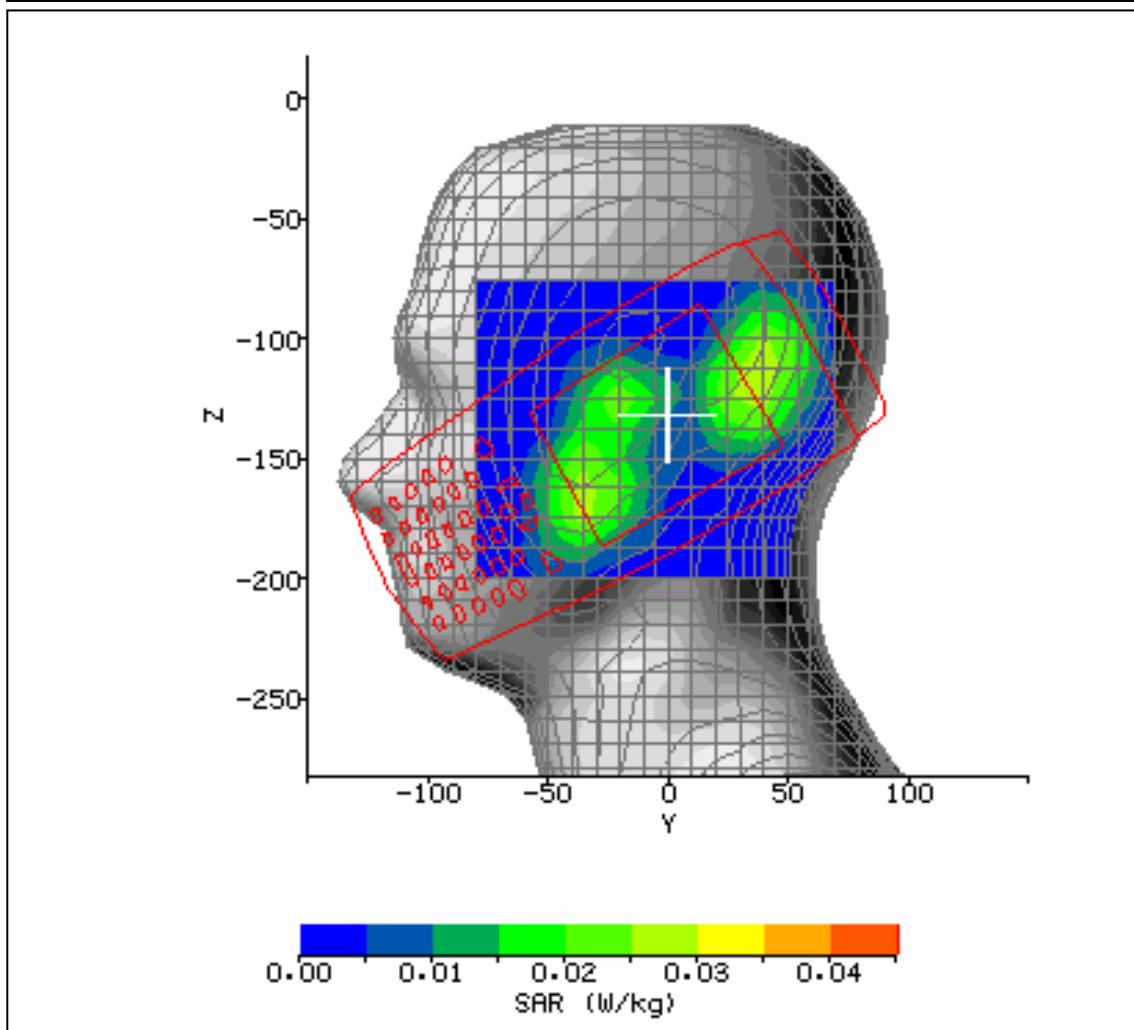


Figure 33: SAR Head Testing Results for the Intermec 700C Mobile Computer in Left Hand Cheek Position; Tested at 1747.4MHz (1800MHz GSM Middle Channel).

### 2.3.2 1800MHz GSM HEAD SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	27/03/2006 12:07:18	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_14.txt	PROBE SERIAL NUMBER:	0190
AMBIENT TEMPERATURE:	23°C	LIQUID SIMULANT:	1800 Head
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	40.74
RELATIVE HUMIDITY:	42.8%	CONDUCTIVITY:	1.353
PHANTOM S/NO:	HeadFT04.csv	LIQUID TEMPERATURE:	21.8°C
PHANTOM ROTATION:	0°	MAX SAR Y-AXIS LOCATION:	41.50 mm
DUT POSITION:	LH Cheek 15°	MAX SAR Z-AXIS LOCATION:	-106.25 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	7.18 V/m
TEST FREQUENCY:	1747.4MHz	SAR 1g:	0.065 W/kg
AIR FACTORS:	346 / 425 / 429	SAR 10g:	0.043 W/kg
CONVERSION FACTORS:	0.400 / 0.34 / 0.39	SAR START:	0.035 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.037 W/kg
MODN. DUTY CYCLE:	12.5%	SAR DRIFT DURING SCAN:	3.33 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	24/03/06
INPUT POWER LEVEL:	0	EXTRAPOLATION:	poly4

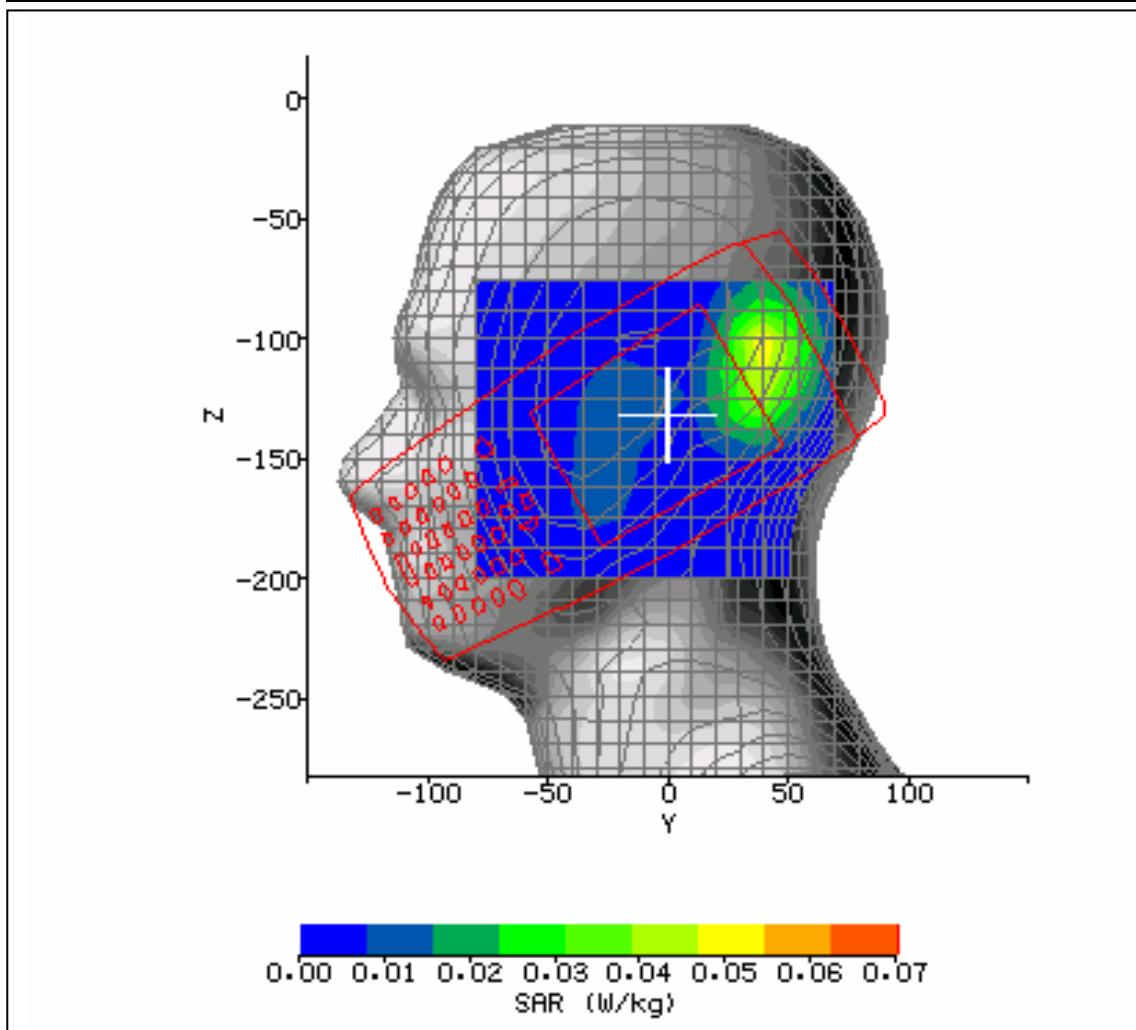


Figure 34: SAR Head Testing Results for the Intermec 700C Mobile Computer in Left Hand Cheek 15° Position; Tested at 1747.4MHz (1800MHz GSM Middle Channel).

### 2.3.2 1800MHz GSM HEAD SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	27/03/2006 13:46:52	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_15.txt	PROBE SERIAL NUMBER:	0190
AMBIENT TEMPERATURE:	21.7°C	LIQUID SIMULANT:	1800 Head
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	40.74
RELATIVE HUMIDITY:	39.7%	CONDUCTIVITY:	1.353
PHANTOM S/NO:	HeadFT04.csv	LIQUID TEMPERATURE:	21.8°C
PHANTOM ROTATION:	180°	MAX SAR Y-AXIS LOCATION:	-25.00 mm
DUT POSITION:	RH Cheek	MAX SAR Z-AXIS LOCATION:	-96.25 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	7.63 V/m
TEST FREQUENCY:	1747.4MHz	SAR 1g:	0.072 W/kg
AIR FACTORS:	346 / 425 / 429	SAR 10g:	0.045 W/kg
CONVERSION FACTORS:	0.400 / 0.34 / 0.39	SAR START:	0.030 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.028 W/kg
MODN. DUTY CYCLE:	12.5%	SAR DRIFT DURING SCAN:	-6.93 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	24/03/06
INPUT POWER LEVEL:	0	EXTRAPOLATION:	poly4

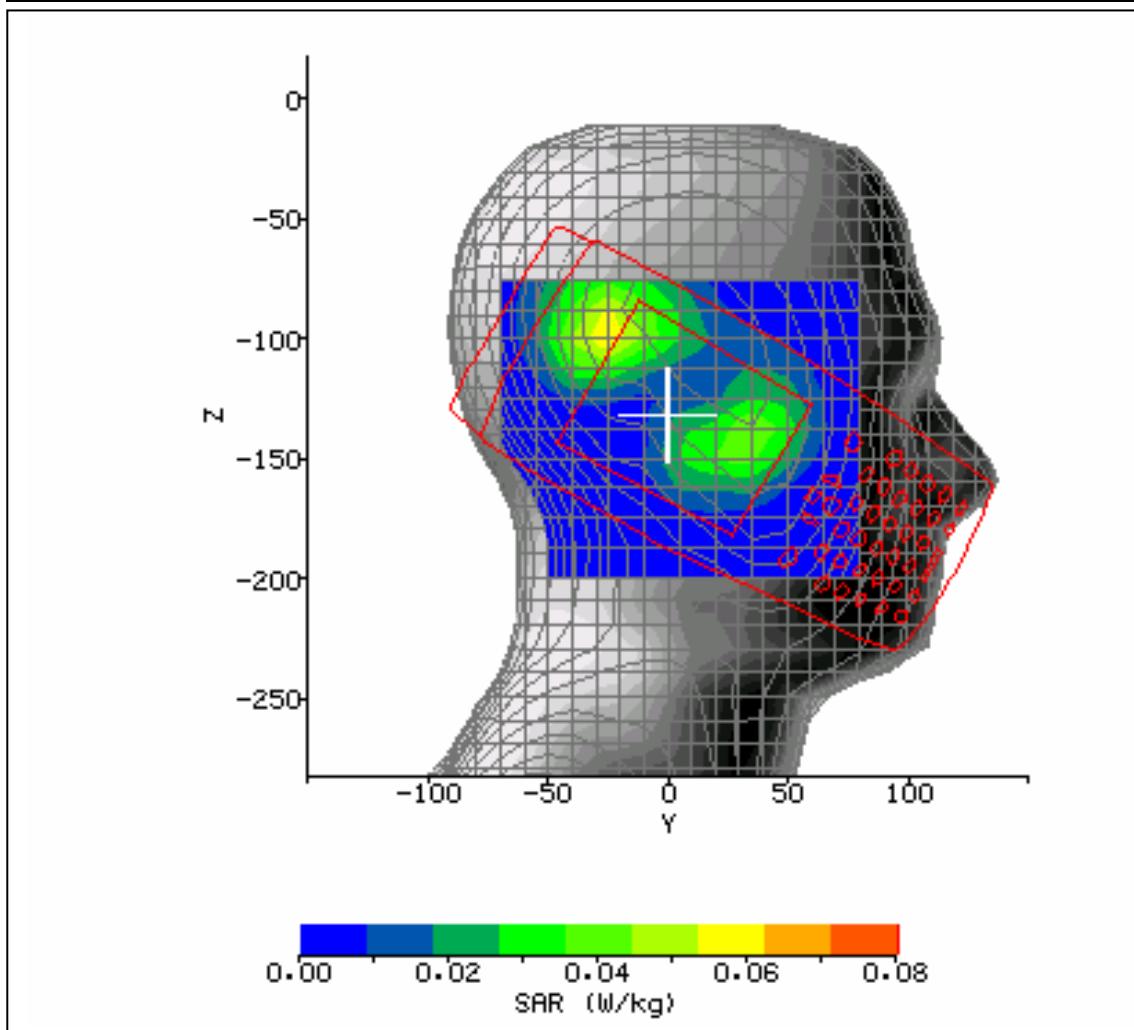


Figure 35: SAR Head Testing Results for the Intermec 700C Mobile Computer in Right Hand Cheek Position; Tested at 1747.4MHz (1800MHz GSM Middle Channel).

### 2.3.2 1800MHz GSM HEAD SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	27/03/2006 14:21:48	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_16.txt	PROBE SERIAL NUMBER:	0190
AMBIENT TEMPERATURE:	24.4°C	LIQUID SIMULANT:	1800 Head
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	40.74
RELATIVE HUMIDITY:	37.4%	CONDUCTIVITY:	1.353
PHANTOM S/NO:	HeadFT04.csv	LIQUID TEMPERATURE:	21.8°C
PHANTOM ROTATION:	180°	MAX SAR Y-AXIS LOCATION:	-32.50 mm
DUT POSITION:	RH Cheek 15°	MAX SAR Z-AXIS LOCATION:	-97.50 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	9.63 V/m
TEST FREQUENCY:	1747.4MHz	SAR 1g:	0.117 W/kg
AIR FACTORS:	346 / 425 / 429	SAR 10g:	0.074 W/kg
CONVERSION FACTORS:	0.400 / 0.34 / 0.39	SAR START:	0.051 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.050 W/kg
MODN. DUTY CYCLE:	12.5%	SAR DRIFT DURING SCAN:	-2.96 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	24/03/06
INPUT POWER LEVEL:	0	EXTRAPOLATION:	poly4

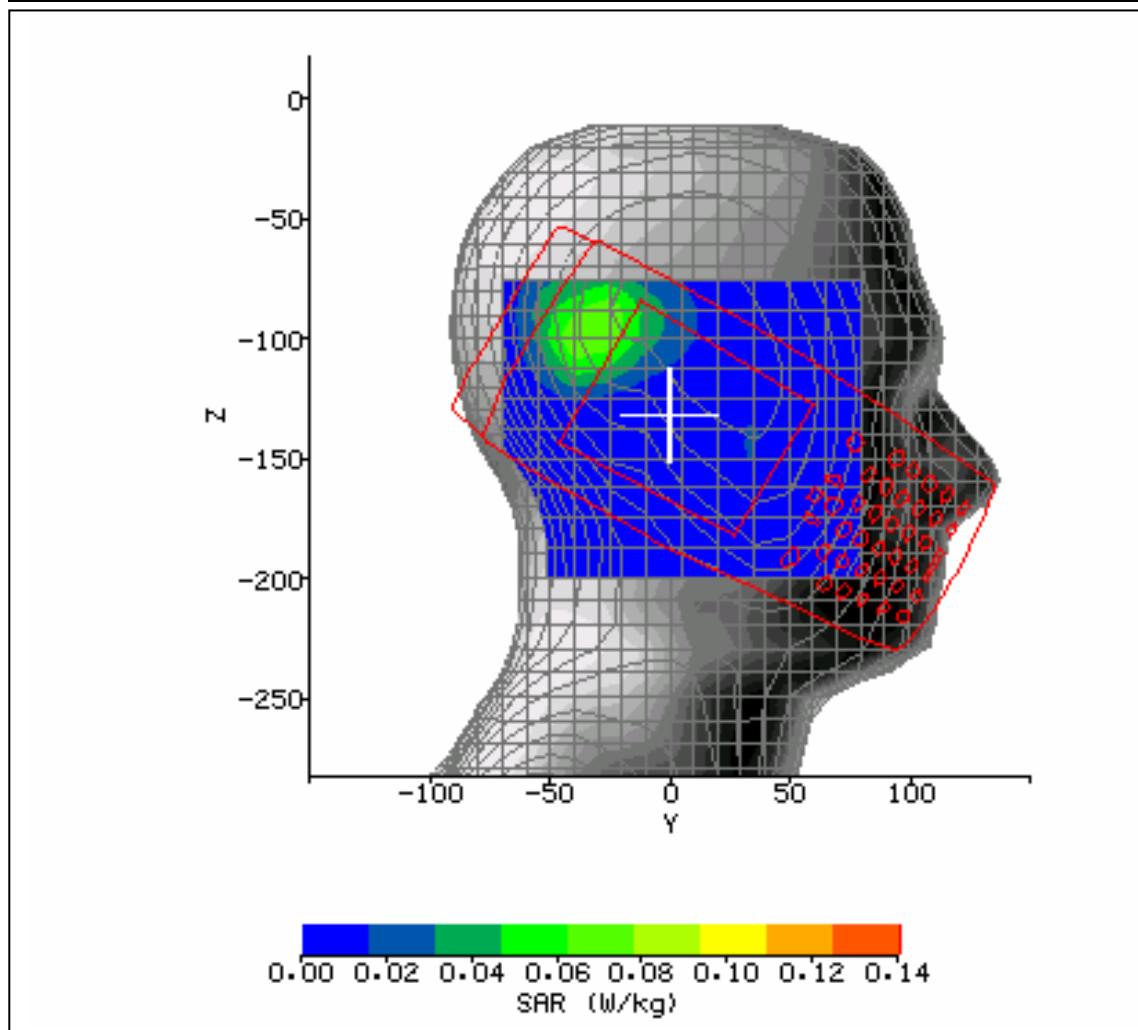


Figure 36: SAR Head Testing Results for the Intermec 700C Mobile Computer in Right Hand 15° Cheek Position; Tested at 1747.4MHz (1800MHz GSM Middle Channel).

### 2.3.2 1800MHz GSM HEAD SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	27/03/2006 15:15:18	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_17.txt	PROBE SERIAL NUMBER:	0190
AMBIENT TEMPERATURE:	23.6°C	LIQUID SIMULANT:	1800 Head
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	40.74
RELATIVE HUMIDITY:	39.5%	CONDUCTIVITY:	1.353
PHANTOM S/NO:	HeadFT04.csv	LIQUID TEMPERATURE:	21.9°C
PHANTOM ROTATION:	180°	MAX SAR Y-AXIS LOCATION:	-31.00 mm
DUT POSITION:	RH Cheek 15°	MAX SAR Z-AXIS LOCATION:	-98.75 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	10.32 V/m
TEST FREQUENCY:	1710.2MHz	SAR 1g:	0.131 W/kg
AIR FACTORS:	346 / 425 / 429	SAR 10g:	0.083 W/kg
CONVERSION FACTORS:	0.400 / 0.34 / 0.39	SAR START:	0.060 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.061 W/kg
MODN. DUTY CYCLE:	12.5%	SAR DRIFT DURING SCAN:	2.71 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	24/03/06
INPUT POWER LEVEL:	0	EXTRAPOLATION:	poly4

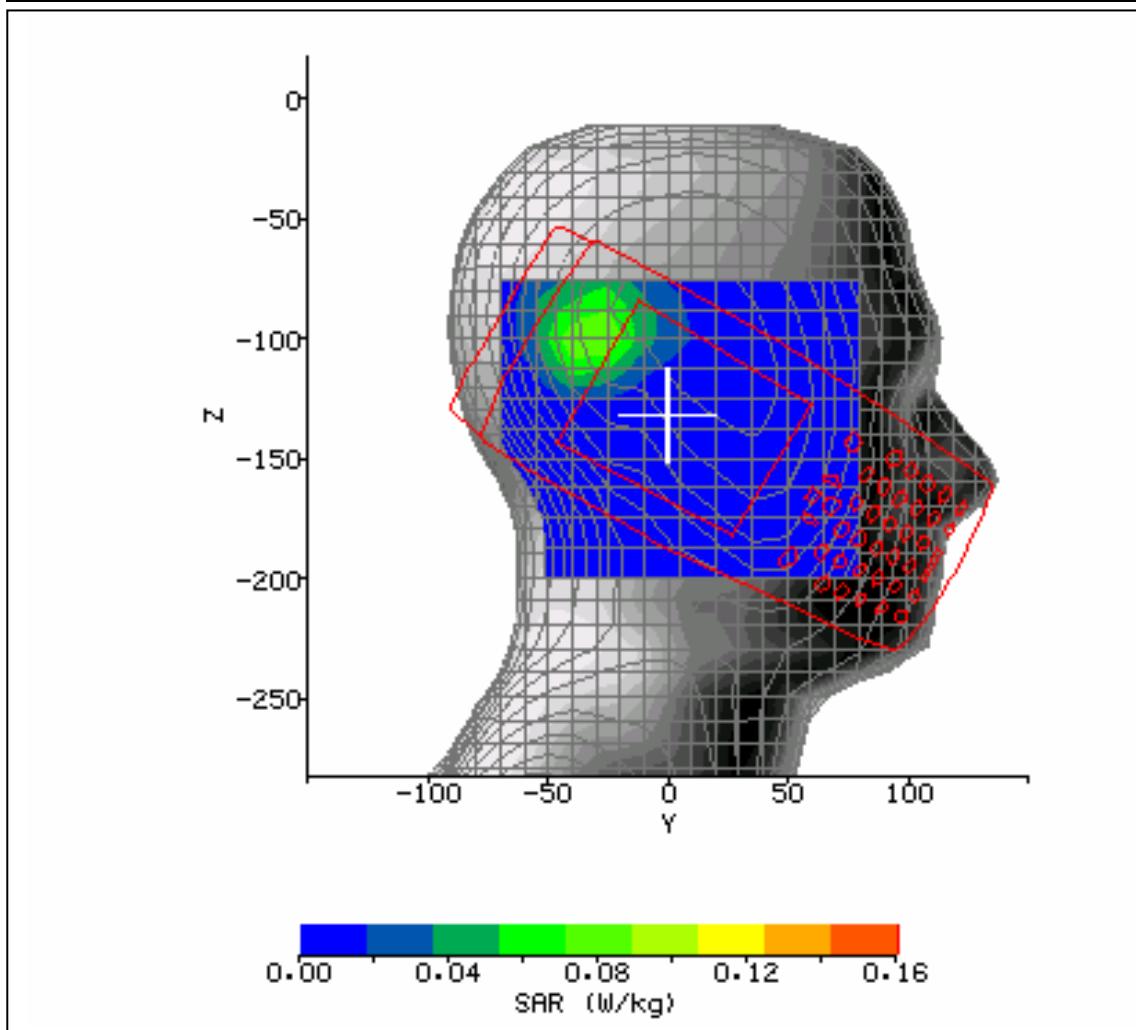


Figure 37: SAR Head Testing Results for the Intermec 700C Mobile Computer in Right Hand 15° Cheek Position; Tested at 1710.2MHz (1800MHz GSM Low Channel).

### 2.3.2 1800MHz GSM HEAD SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	27/03/2006 16:49:52	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_18.txt	PROBE SERIAL NUMBER:	0190
AMBIENT TEMPERATURE:	22.1°C	LIQUID SIMULANT:	1800 Head
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	40.74
RELATIVE HUMIDITY:	47.9%	CONDUCTIVITY:	1.353
PHANTOM S/NO:	HeadFT04.csv	LIQUID TEMPERATURE:	22.2°C
PHANTOM ROTATION:	180°	MAX SAR Y-AXIS LOCATION:	-31.00 mm
DUT POSITION:	RH Cheek 15°	MAX SAR Z-AXIS LOCATION:	-101.25 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	11.13 V/m
TEST FREQUENCY:	1784.8MHz	SAR 1g:	0.146 W/kg
AIR FACTORS:	346 / 425 / 429	SAR 10g:	0.092 W/kg
CONVERSION FACTORS:	0.400 / 0.34 / 0.39	SAR START:	0.065 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.067 W/kg
MODN. DUTY CYCLE:	12.5%	SAR DRIFT DURING SCAN:	3.33 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	24/03/06
INPUT POWER LEVEL:	0	EXTRAPOLATION:	poly4

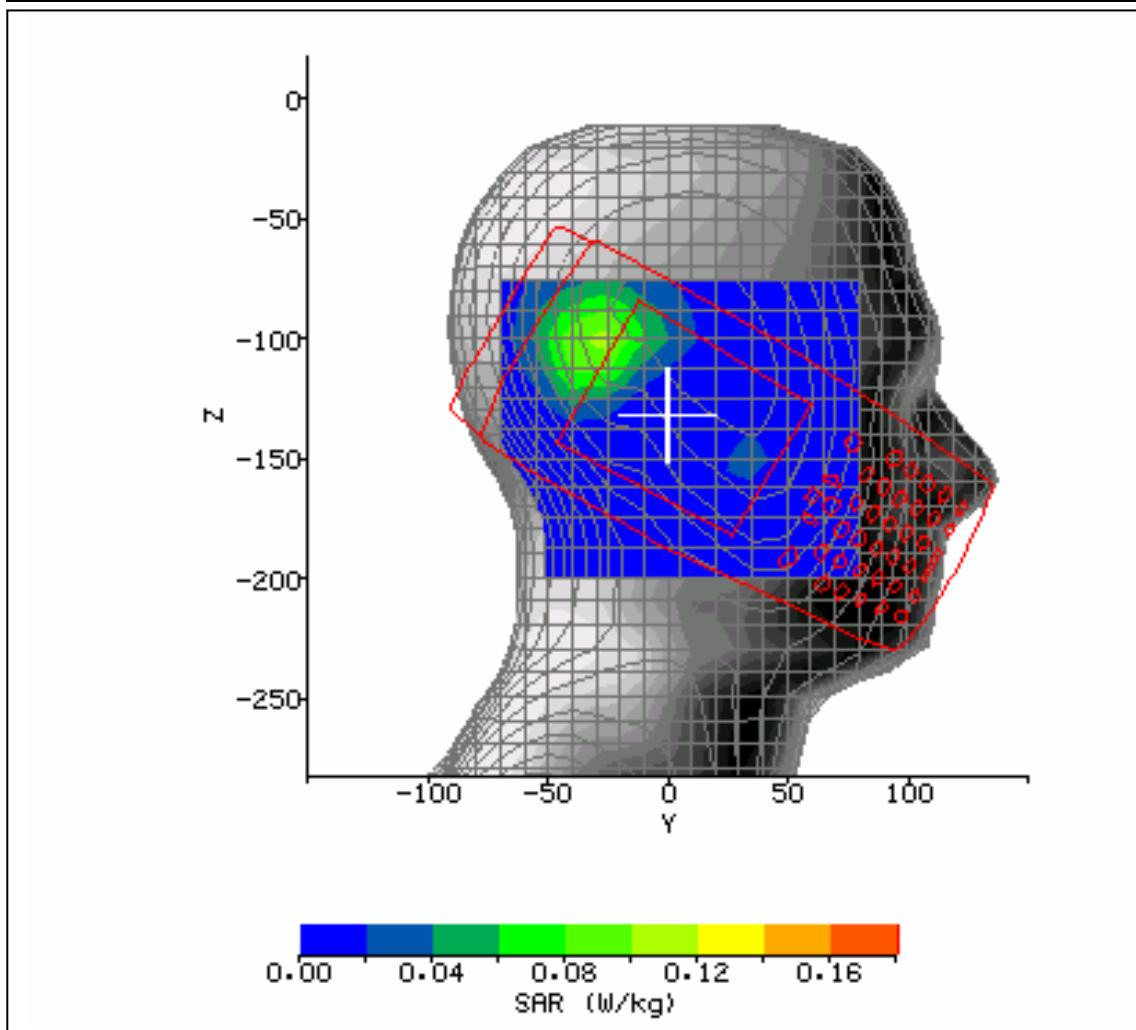


Figure 38: SAR Head Testing Results for the Intermec 700C Mobile Computer in Right Hand 15° Cheek Position; Tested at 1784.8MHz (1800MHz GSM High Channel).

### 2.3.3 1900MHz GSM HEAD SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	28/03/2006 09:54:32	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_19.txt	PROBE SERIAL NUMBER:	0190
AMBIENT TEMPERATURE:	22.4°C	LIQUID SIMULANT:	1900 Head
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	40.17
RELATIVE HUMIDITY:	32.5%	CONDUCTIVITY:	1.425
PHANTOM S/NO:	HeadFT04.csv	LIQUID TEMPERATURE:	21.8°C
PHANTOM ROTATION:	0°	MAX SAR Y-AXIS LOCATION:	32.50 mm
DUT POSITION:	LH Cheek	MAX SAR Z-AXIS LOCATION:	-113.75 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	6.87 V/m
TEST FREQUENCY:	1880.0MHz	SAR 1g:	0.055 W/kg
AIR FACTORS:	346 / 425 / 429	SAR 10g:	0.036 W/kg
CONVERSION FACTORS:	0.400 / 0.34 / 0.39	SAR START:	0.026 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.026 W/kg
MODN. DUTY CYCLE:	12.5%	SAR DRIFT DURING SCAN:	-0.14 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	28/03/06
INPUT POWER LEVEL:	0	EXTRAPOLATION:	poly4

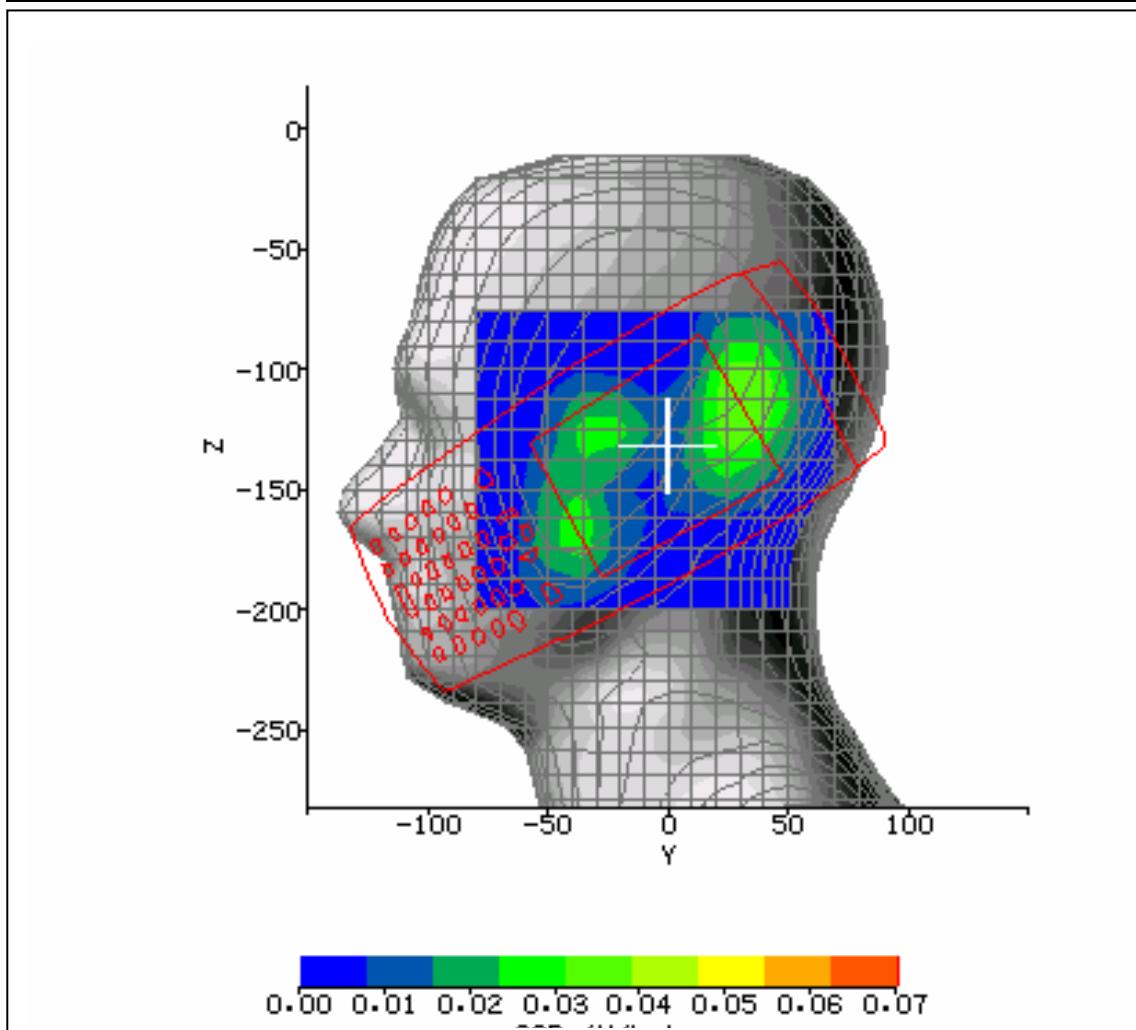


Figure 39: SAR Head Testing Results for the Intermec 700C Mobile Computer in Left Hand Cheek Position; Tested at 1880.0Hz (1900MHz GSM Middle Channel).

### 2.3.3 1900MHz GSM HEAD SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	28/03/2006 10:32:26	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_20.txt	PROBE SERIAL NUMBER:	0190
AMBIENT TEMPERATURE:	22.3°C	LIQUID SIMULANT:	1900 Head
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	40.17
RELATIVE HUMIDITY:	33.4%	CONDUCTIVITY:	1.425
PHANTOM S/NO:	HeadFT04.csv	LIQUID TEMPERATURE:	21.8°C
PHANTOM ROTATION:	0°	MAX SAR Y-AXIS LOCATION:	34.00 mm
DUT POSITION:	LH Cheek 15°	MAX SAR Z-AXIS LOCATION:	-103.75 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	7.89 V/m
TEST FREQUENCY:	1880.0MHz	SAR 1g:	0.082 W/kg
AIR FACTORS:	346 / 425 / 429	SAR 10g:	0.051 W/kg
CONVERSION FACTORS:	0.400 / 0.34 / 0.39	SAR START:	0.038 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.038 W/kg
MODN. DUTY CYCLE:	12.5%	SAR DRIFT DURING SCAN:	-0.47 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	28/03/06
INPUT POWER LEVEL:	0	EXTRAPOLATION:	poly4

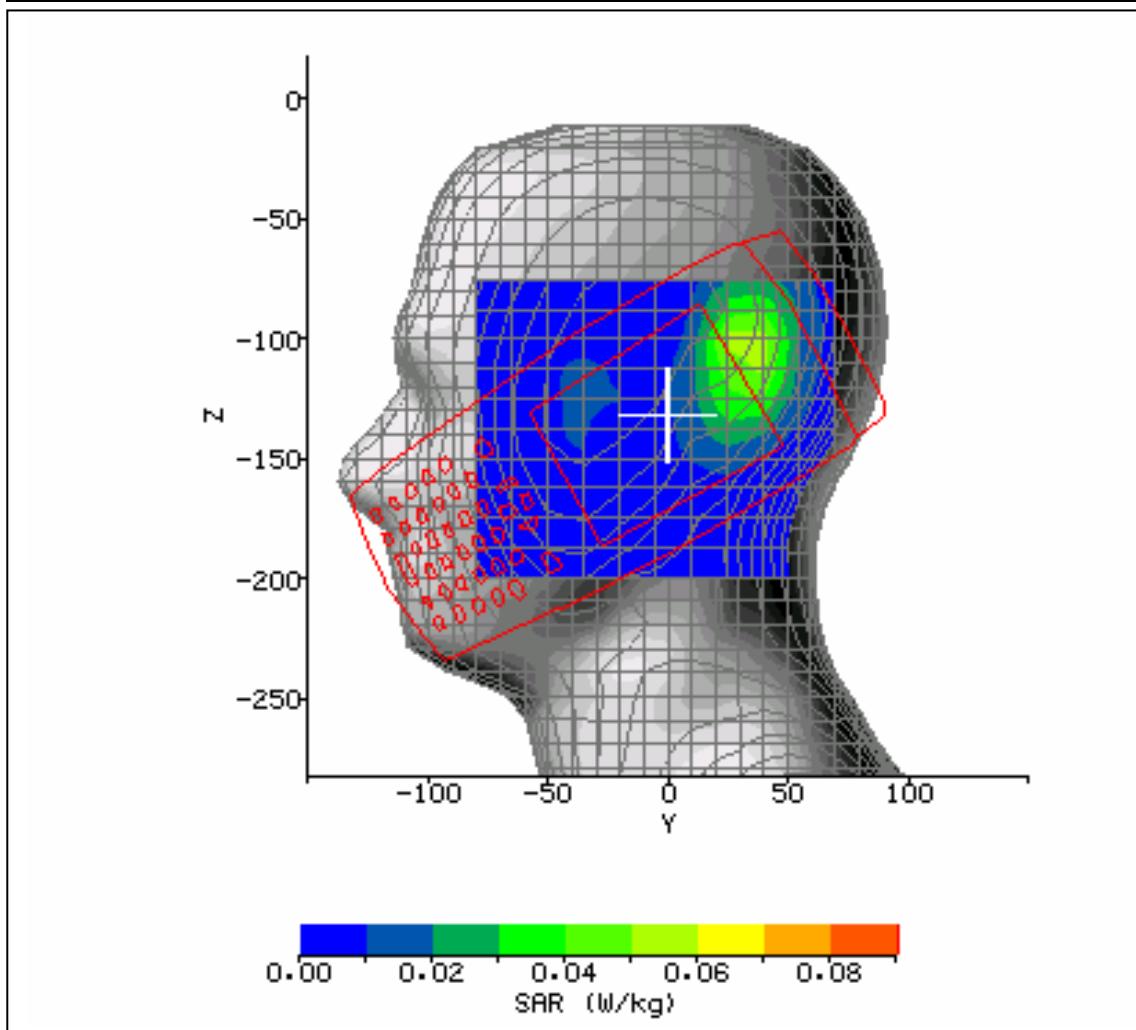


Figure 40: SAR Head Testing Results for the Intermec 700C Mobile Computer in Left Hand Cheek 15° Position; Tested at 1880.0MHz (1900MHz GSM Middle Channel).

### 2.3.3 1900MHz GSM HEAD SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	28/03/2006 11:14:59	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_21.txt	PROBE SERIAL NUMBER:	0190
AMBIENT TEMPERATURE:	21.7°C	LIQUID SIMULANT:	1900 Head
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	40.17
RELATIVE HUMIDITY:	39.2%	CONDUCTIVITY:	1.425
PHANTOM S/NO:	HeadFT04.csv	LIQUID TEMPERATURE:	21.7°C
PHANTOM ROTATION:	180°	MAX SAR Y-AXIS LOCATION:	-25.00 mm
DUT POSITION:	RH Cheek	MAX SAR Z-AXIS LOCATION:	-103.75 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	7.61 V/m
TEST FREQUENCY:	1880.0MHz	SAR 1g:	0.072 W/kg
AIR FACTORS:	346 / 425 / 429	SAR 10g:	0.046 W/kg
CONVERSION FACTORS:	0.400 / 0.34 / 0.39	SAR START:	0.032 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.031 W/kg
MODN. DUTY CYCLE:	12.5%	SAR DRIFT DURING SCAN:	-2.03 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	28/03/06
INPUT POWER LEVEL:	0	EXTRAPOLATION:	poly4

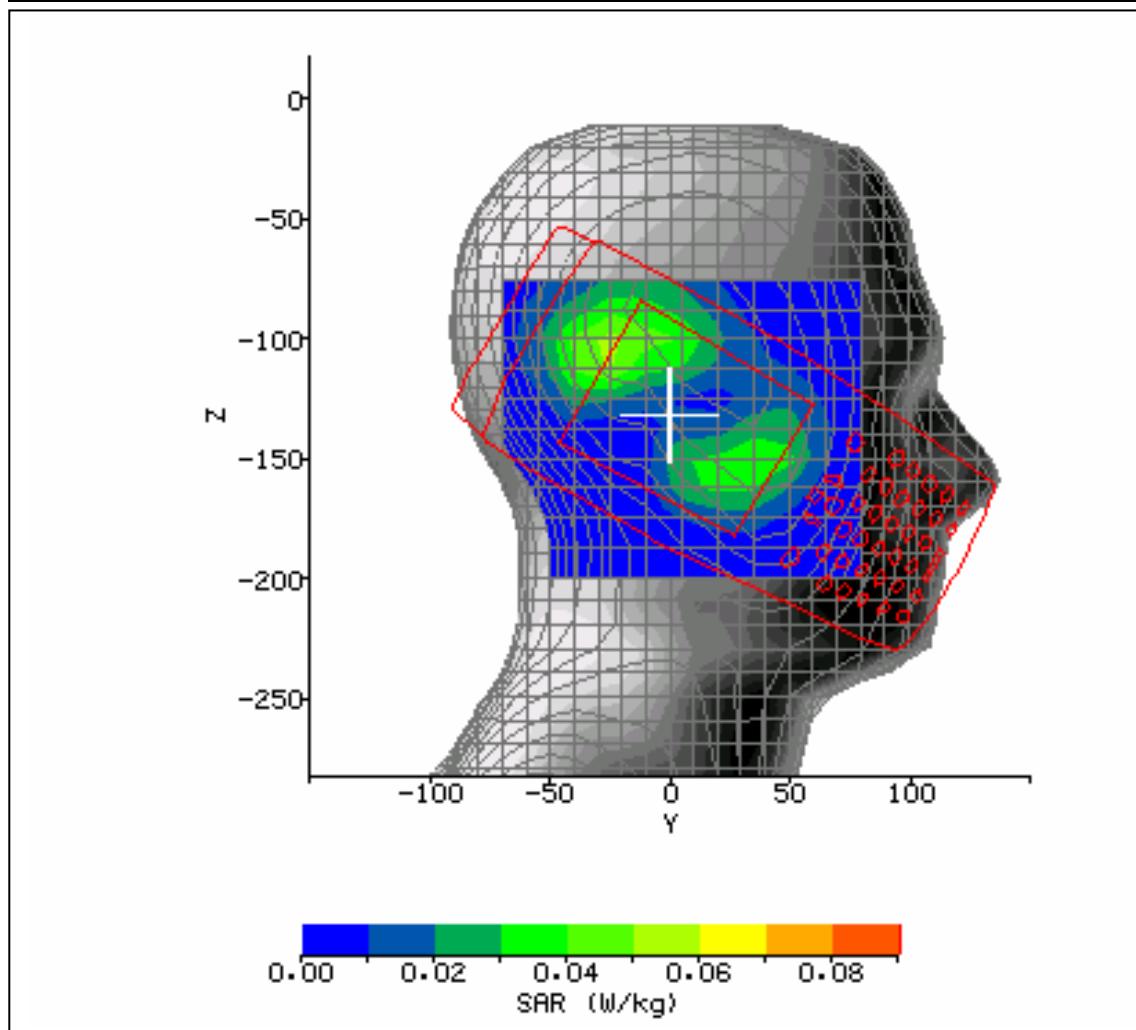


Figure 41: SAR Head Testing Results for the Intermec 700C Mobile Computer in Right Hand Cheek Position; Tested at 1880.0Hz (1900MHz GSM Middle Channel).

### 2.3.3 1900MHz GSM HEAD SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	28/03/2006 11:46:56	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_21.txt	PROBE SERIAL NUMBER:	0190
AMBIENT TEMPERATURE:	21.7°C	LIQUID SIMULANT:	1900 Head
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	40.17
RELATIVE HUMIDITY:	40.3%	CONDUCTIVITY:	1.425
PHANTOM S/NO:	HeadFT04.csv	LIQUID TEMPERATURE:	21.7°C
PHANTOM ROTATION:	180°	MAX SAR Y-AXIS LOCATION:	-32.50 mm
DUT POSITION:	RH Cheek 15°	MAX SAR Z-AXIS LOCATION:	-103.75 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	9.19 V/m
TEST FREQUENCY:	1880.0MHz	SAR 1g:	0.117 W/kg
AIR FACTORS:	346 / 425 / 429	SAR 10g:	0.074 W/kg
CONVERSION FACTORS:	0.400 / 0.34 / 0.39	SAR START:	0.055 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.053 W/kg
MODN. DUTY CYCLE:	12.5%	SAR DRIFT DURING SCAN:	-4.83 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	28/03/06
INPUT POWER LEVEL:	0	EXTRAPOLATION:	poly4

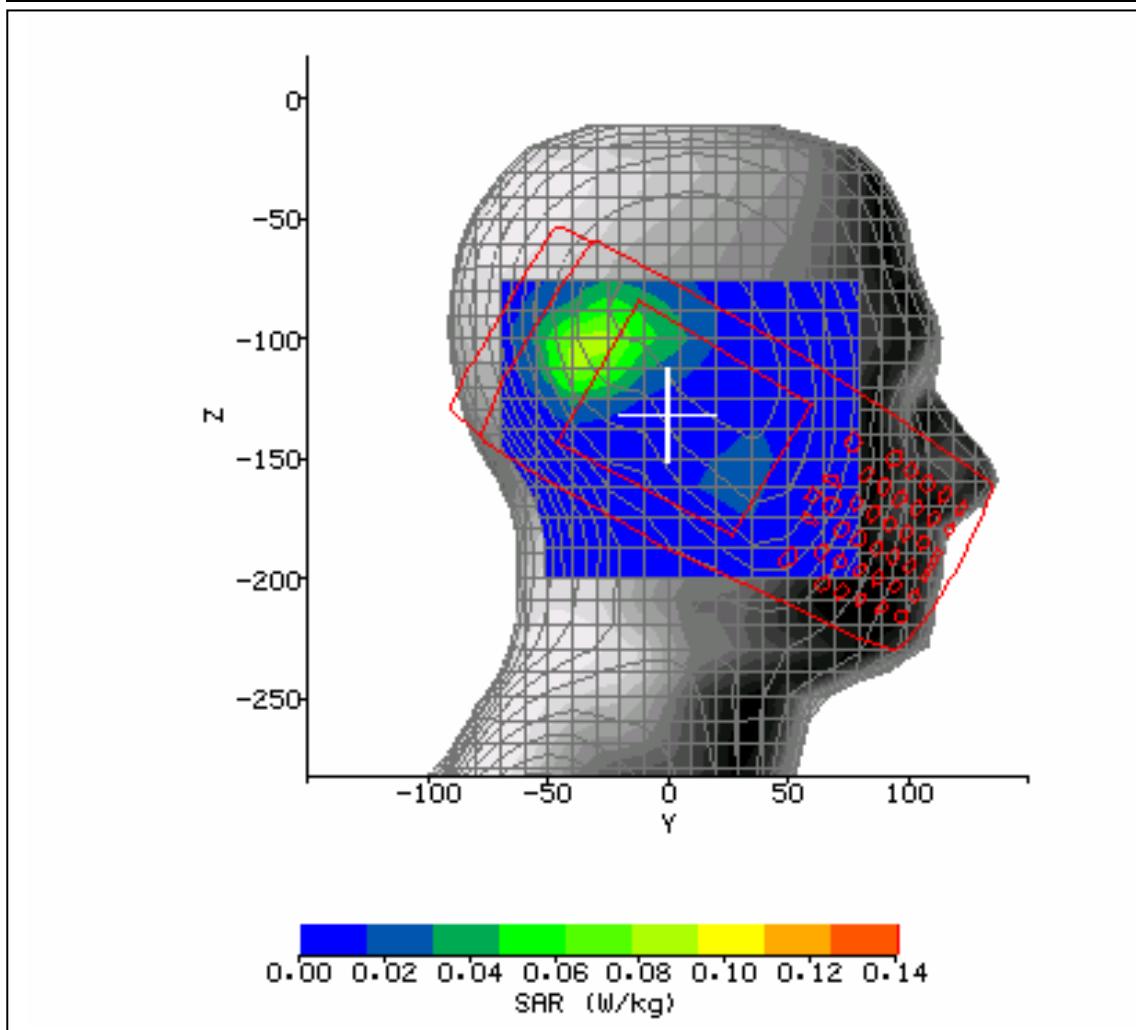


Figure 42: SAR Head Testing Results for the Intermec 700C Mobile Computer in Right Hand 15° Cheek Position; Tested at 1880.0MHz (1900MHz GSM Middle Channel).

### 2.3.3 1900MHz GSM HEAD SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	28/03/2006 12:58:43	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_23.txt	PROBE SERIAL NUMBER:	0190
AMBIENT TEMPERATURE:	23.0°C	LIQUID SIMULANT:	1900 Head
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	40.17
RELATIVE HUMIDITY:	36.2%	CONDUCTIVITY:	1.425
PHANTOM S/NO:	HeadFT04.csv	LIQUID TEMPERATURE:	21.8°C
PHANTOM ROTATION:	180°	MAX SAR Y-AXIS LOCATION:	-32.50 mm
DUT POSITION:	RH Cheek 15°	MAX SAR Z-AXIS LOCATION:	-103.75 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	11.23 V/m
TEST FREQUENCY:	1850.2MHz	SAR 1g:	0.138 W/kg
AIR FACTORS:	346 / 425 / 429	SAR 10g:	0.087 W/kg
CONVERSION FACTORS:	0.400 / 0.34 / 0.39	SAR START:	0.070 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.072 W/kg
MODN. DUTY CYCLE:	12.5%	SAR DRIFT DURING SCAN:	2.66 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	28/03/06
INPUT POWER LEVEL:	0	EXTRAPOLATION:	poly4

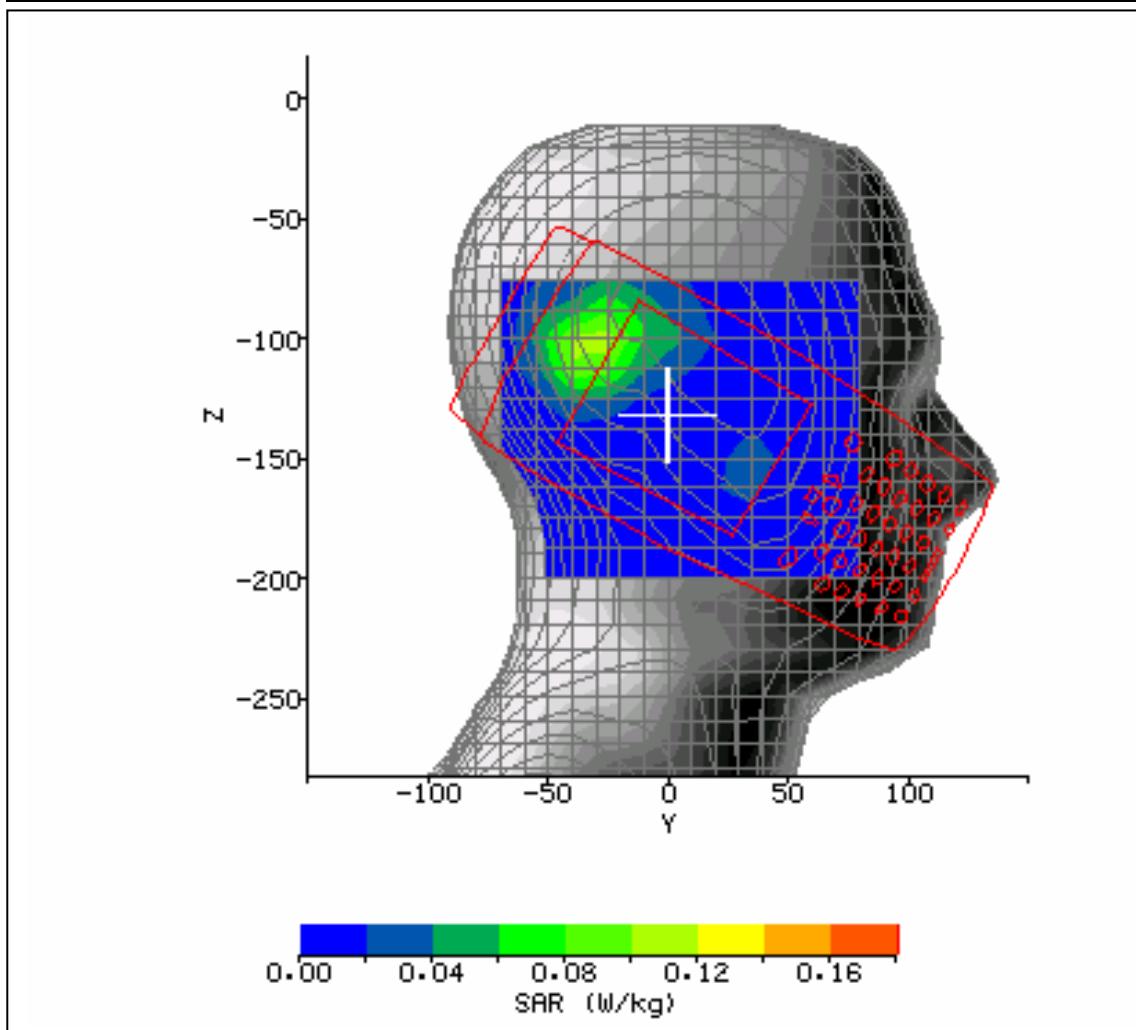


Figure 43: SAR Head Testing Results for the Intermec 700C Mobile Computer in Right Hand 15° Cheek Position; Tested at 1850.2MHz (1900MHz GSM Low Channel).

### 2.3.3 1900MHz GSM HEAD SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	28/03/2006 13:25:42	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_23.txt	PROBE SERIAL NUMBER:	0190
AMBIENT TEMPERATURE:	22.1°C	LIQUID SIMULANT:	1900 Head
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	40.17
RELATIVE HUMIDITY:	33.6%	CONDUCTIVITY:	1.425
PHANTOM S/NO:	HeadFT04.csv	LIQUID TEMPERATURE:	22.2°C
PHANTOM ROTATION:	180°	MAX SAR Y-AXIS LOCATION:	-31.00 mm
DUT POSITION:	RH Cheek 15°	MAX SAR Z-AXIS LOCATION:	-106.25 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	8.74 V/m
TEST FREQUENCY:	1909.8MHz	SAR 1g:	0.094 W/kg
AIR FACTORS:	346 / 425 / 429	SAR 10g:	0.058 W/kg
CONVERSION FACTORS:	0.400 / 0.34 / 0.39	SAR START:	0.042 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.042 W/kg
MODN. DUTY CYCLE:	12.5%	SAR DRIFT DURING SCAN:	2.19 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	28/03/06
INPUT POWER LEVEL:	0	EXTRAPOLATION:	poly4

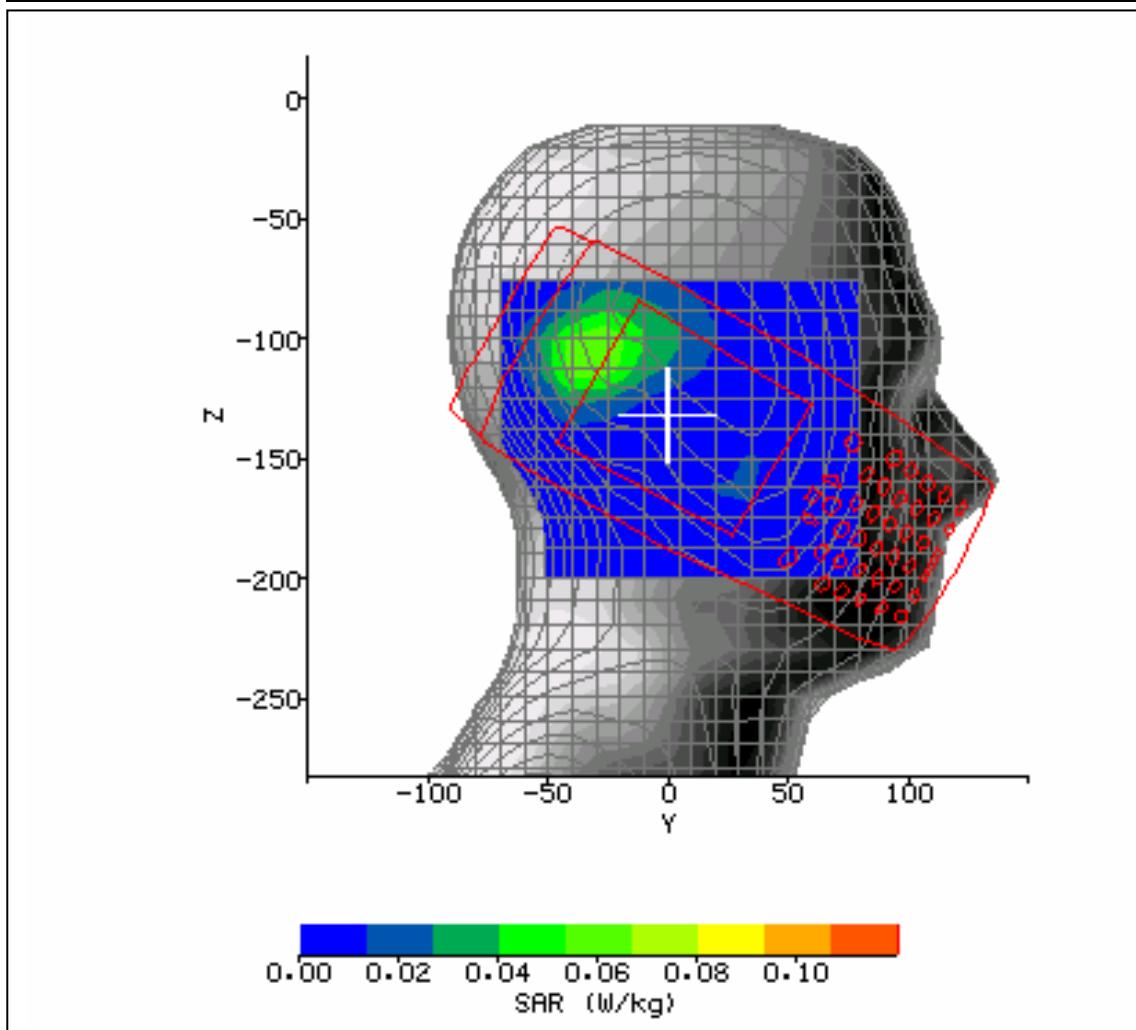


Figure 44: SAR Head Testing Results for the Intermec 700C Mobile Computer in Right Hand 15° Cheek Position; Tested at 1909.8MHz (1900MHz GSM High Channel).

### 2.3.3 1900MHz GPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	07/04/2006 14:44:11	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_45.txt	PROBE SERIAL NUMBER:	190
AMBIENT TEMPERATURE:	22.6°C	LIQUID SIMULANT:	1900 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	52.97
RELATIVE HUMIDITY:	36.8%	CONDUCTIVITY:	1.478
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	21.1°C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	32.00 mm
DUT POSITION:	Front Facing in holster #1	MAX SAR Y-AXIS LOCATION:	-31.00 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	10.77 V/m
TEST FREQUENCY:	1850.2MHz	SAR 1g:	0.211 W/kg
AIR FACTORS:	346 / 425 / 429	SAR 10g:	0.133 W/kg
CONVERSION FACTORS:	0.4 / 0.34 / 0.40	SAR START:	0.038 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.038 W/kg
MODN. DUTY CYCLE:	25%	SAR DRIFT DURING SCAN:	-0.39 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	07/04/06
INPUT POWER LEVEL:	4x30dBm	EXTRAPOLATION:	poly4

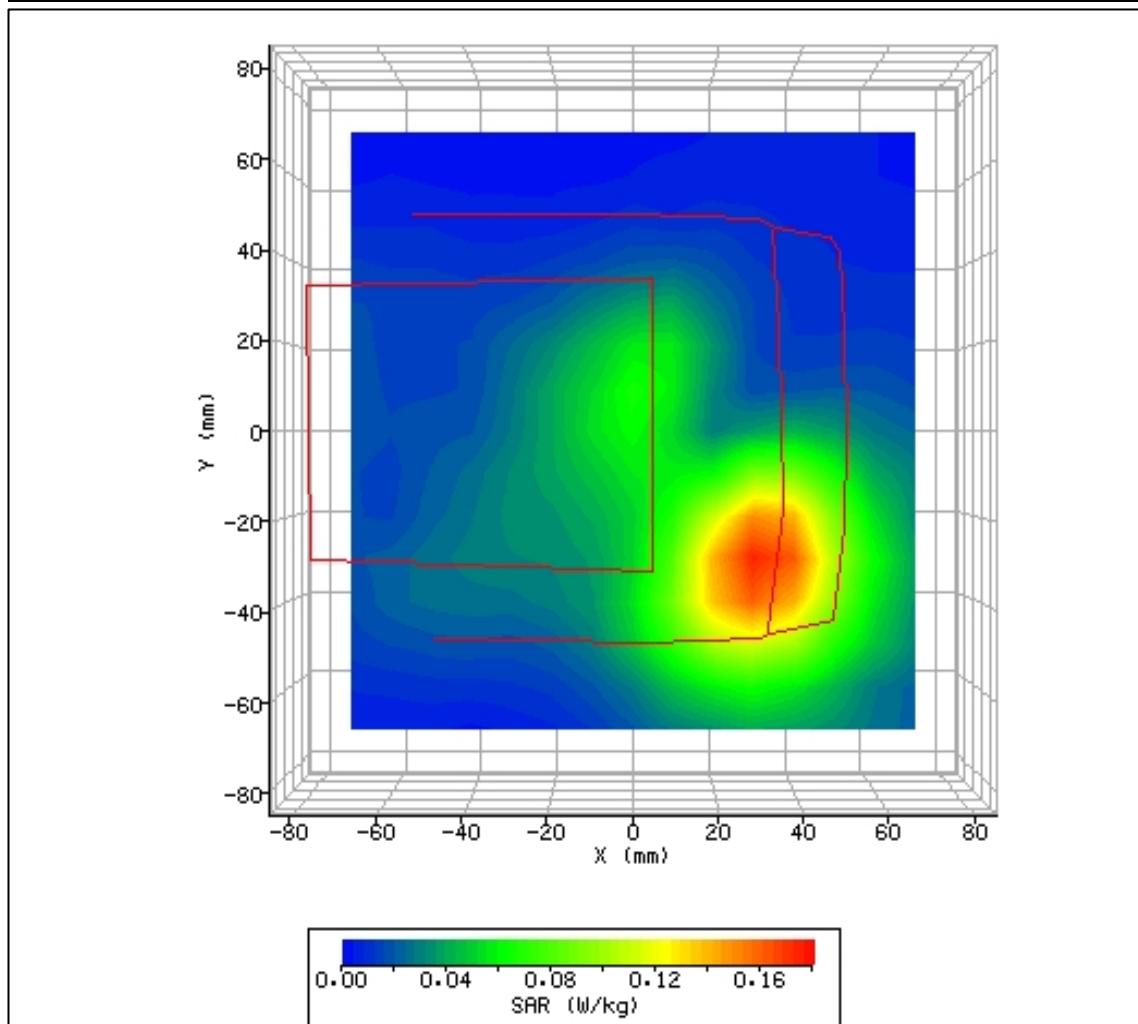


Figure 45: SAR Body Testing Results for the Intermec 700C Mobile Computer in Front Facing Phantom Position in holster #1; Tested at 1850.2MHz (1900MHz GSM Low Channel) with 0.0mm Separation.

### 2.3.3 1900MHz GPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	07/04/2006 15:10:13	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_46.txt	PROBE SERIAL NUMBER:	190
AMBIENT TEMPERATURE:	23.1 °C	LIQUID SIMULANT:	1900 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	52.97
RELATIVE HUMIDITY:	35.3%	CONDUCTIVITY:	1.478
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	21.1 °C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	34.00 mm
DUT POSITION:	Front facing in holster #1	MAX SAR Y-AXIS LOCATION:	-29.00 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	11.37 V/m
TEST FREQUENCY:	1880.0MHz	SAR 1g:	0.238 W/kg
AIR FACTORS:	346 / 425 / 429	SAR 10g:	0.144 W/kg
CONVERSION FACTORS:	0.4 / 0.34 / 0.40	SAR START:	0.041 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.040 W/kg
MODN. DUTY CYCLE:	25%	SAR DRIFT DURING SCAN:	-0.43 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	07/04/06
INPUT POWER LEVEL:	4x30dBm	EXTRAPOLATION:	poly4

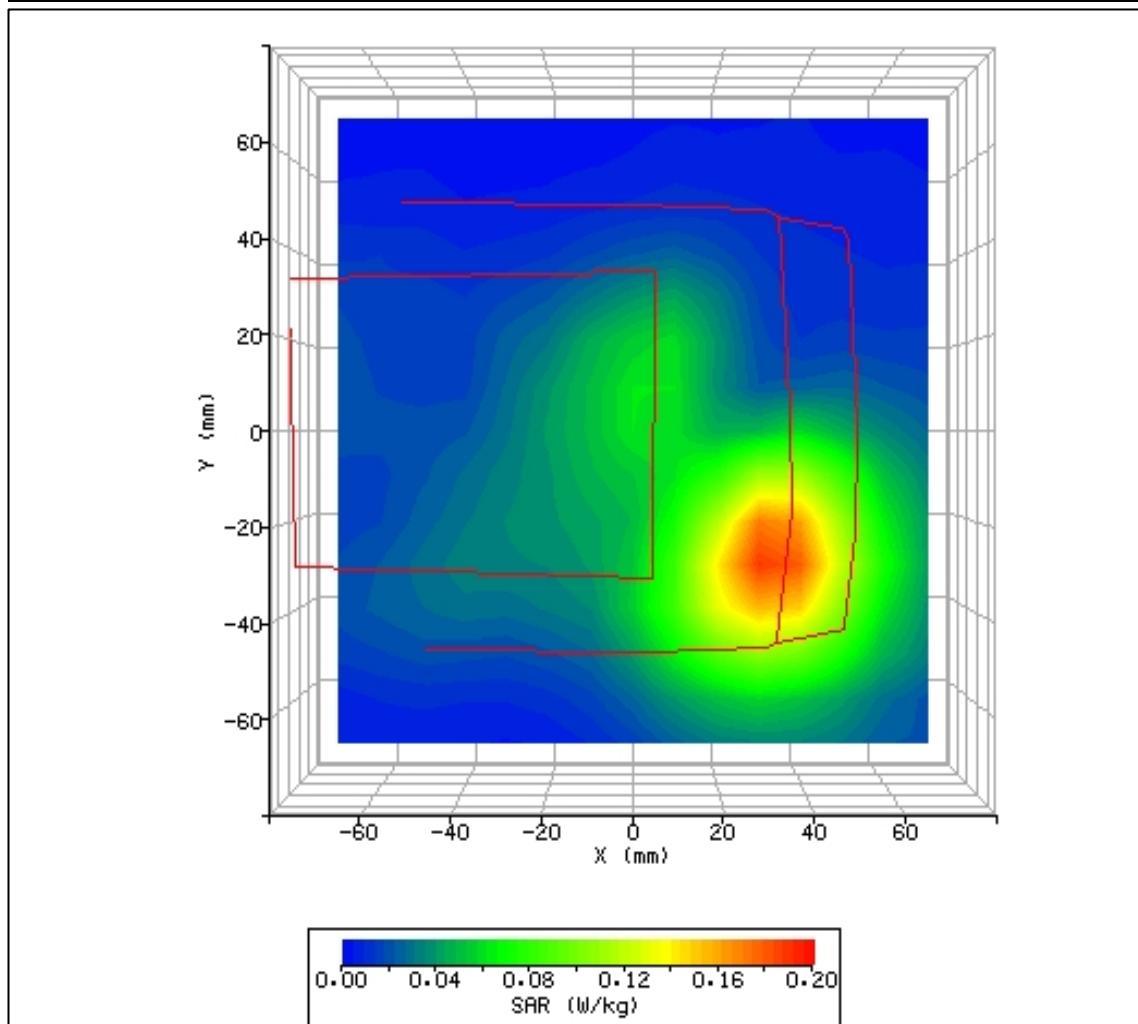


Figure 46: SAR Body Testing Results for the Intermec 700C Mobile Computer in Front Facing Phantom Position in holster #1; Tested at 1880.0MHz (1900MHz GSM Middle Channel) with 0.0mm Separation.

### 2.3.3 1900MHz GPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	07/04/2006 15:40:34	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_47.txt	PROBE SERIAL NUMBER:	190
AMBIENT TEMPERATURE:	23.2°C	LIQUID SIMULANT:	1900 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	52.97
RELATIVE HUMIDITY:	35.1%	CONDUCTIVITY:	1.478
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	21.1°C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	33.00 mm
DUT POSITION:	Front facing in holster #1	MAX SAR Y-AXIS LOCATION:	-32.00 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	10.83 V/m
TEST FREQUENCY:	1909.8MHz	SAR 1g:	0.216 W/kg
AIR FACTORS:	346 / 425 / 429	SAR 10g:	0.134 W/kg
CONVERSION FACTORS:	0.4 / 0.34 / 0.40	SAR START:	0.038 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.038 W/kg
MODN. DUTY CYCLE:	25%	SAR DRIFT DURING SCAN:	0.56 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	07/04/06
INPUT POWER LEVEL:	4x30dBm	EXTRAPOLATION:	poly4

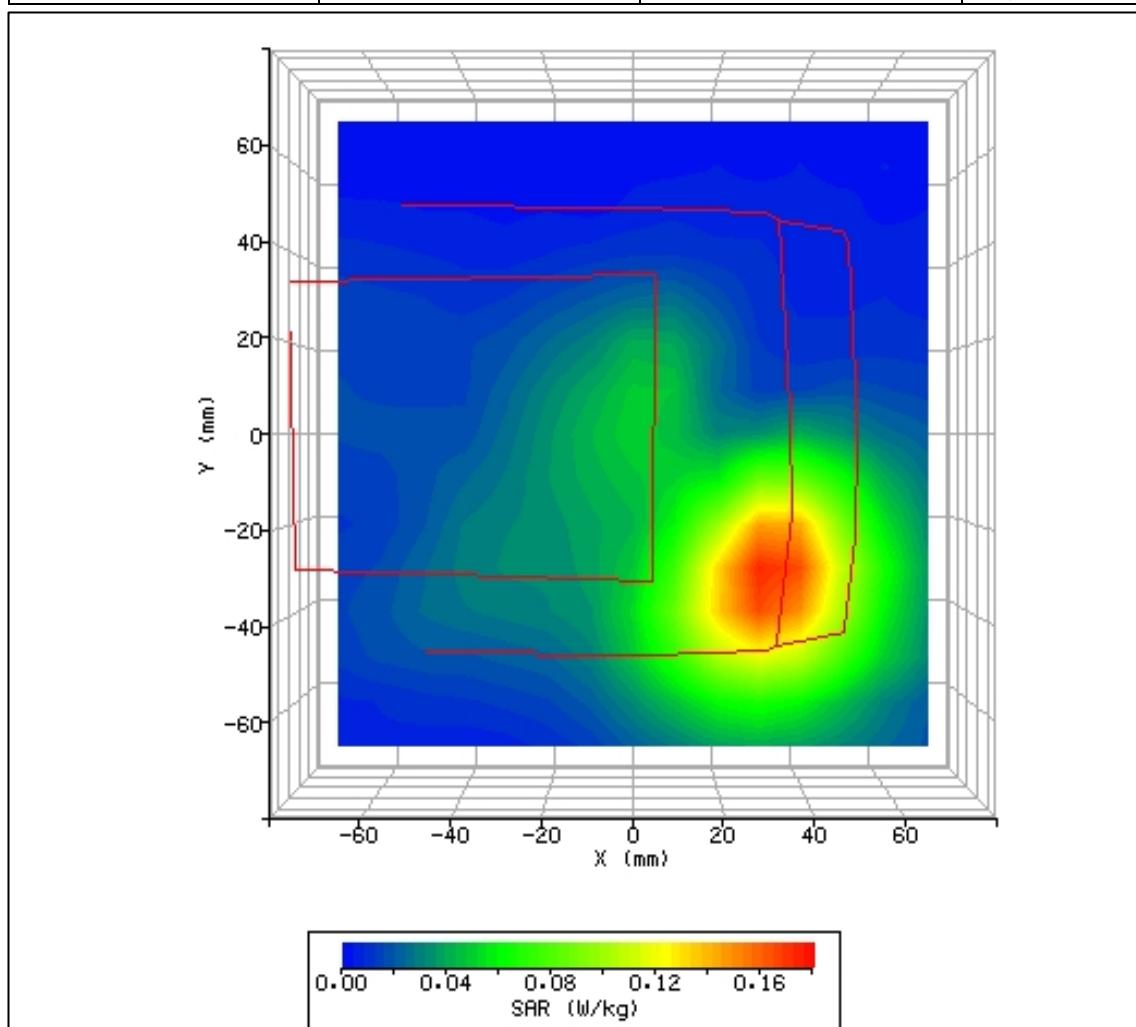


Figure 47: SAR Body Testing Results for the Intermec 700C Mobile Computer in Front Facing Phantom Position in holster #1; Tested at 1909.8MHz (1900MHz GSM High Channel) with 0.0mm Separation.

### 2.3.3 1900MHz GPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	07/04/2006 16:14:32	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_48.txt	PROBE SERIAL NUMBER:	190
AMBIENT TEMPERATURE:	23.2°C	LIQUID SIMULANT:	1900 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	52.97
RELATIVE HUMIDITY:	35.1%	CONDUCTIVITY:	1.478
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	21.2°C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	46.00 mm
DUT POSITION:	Front facing inverted in holster #1	MAX SAR Y-AXIS LOCATION:	-34.00 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	14.55 V/m
TEST FREQUENCY:	1880MHz	SAR 1g:	0.401 W/kg
AIR FACTORS:	346 / 425 / 429	SAR 10g:	0.235 W/kg
CONVERSION FACTORS:	0.4 / 0.34 / 0.40	SAR START:	0.067 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.066 W/kg
MODN. DUTY CYCLE:	25%	SAR DRIFT DURING SCAN:	-1.72 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	07/04/06
INPUT POWER LEVEL:	4x30dBm	EXTRAPOLATION:	poly4

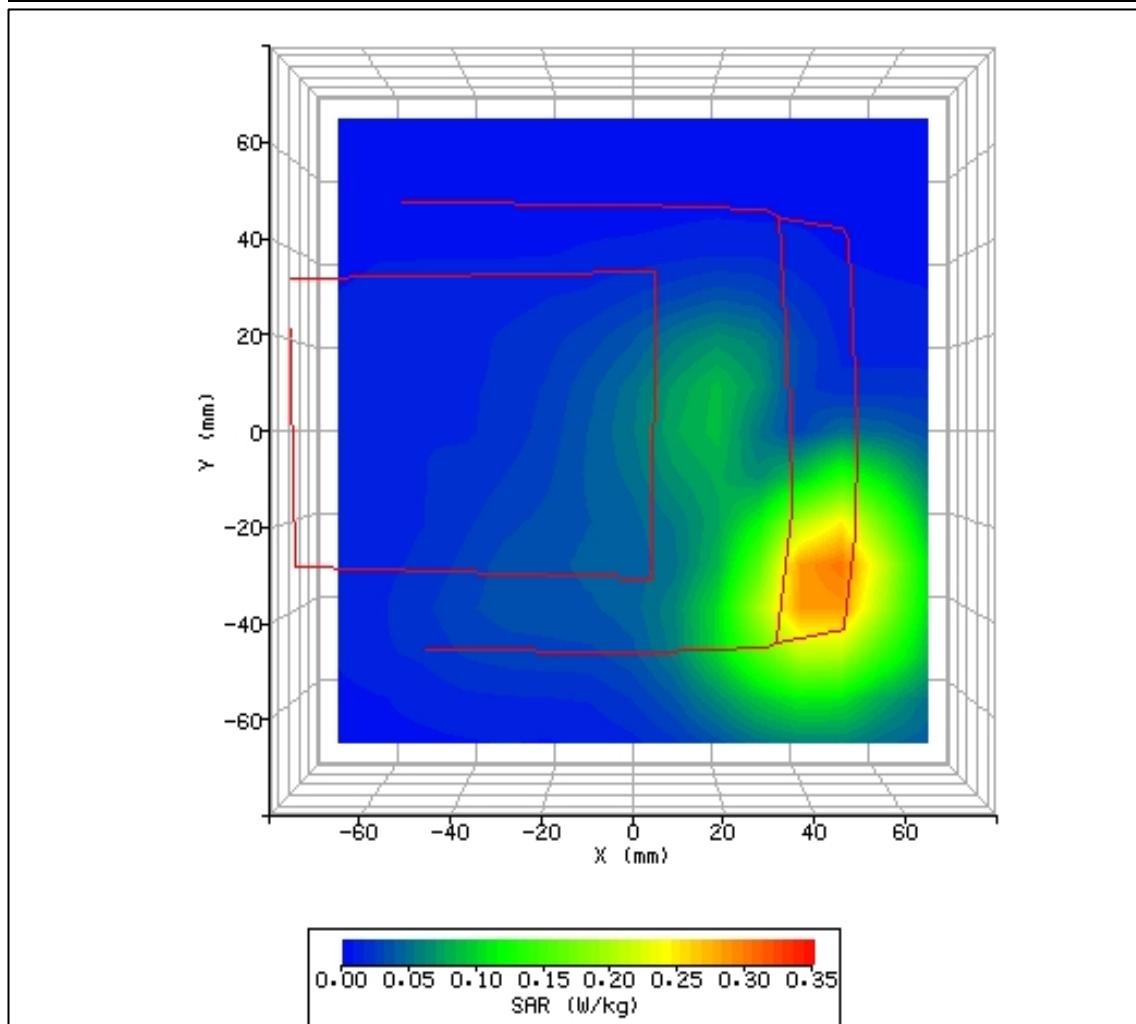


Figure 48: SAR Body Testing Results for the Intermec 700C Mobile Computer in Front Facing Phantom Position inverted in holster #1; Tested at 1880.0MHz (1900MHz GSM Middle Channel) with 0.0mm Separation.

### 2.3.3 1900MHz EGPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	07/04/2006 17:02:17	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_49.txt	PROBE SERIAL NUMBER:	190
AMBIENT TEMPERATURE:	22.0°C	LIQUID SIMULANT:	1900 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	52.97
RELATIVE HUMIDITY:	36.3%	CONDUCTIVITY:	1.478
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	21.0°C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	49.00 mm
DUT POSITION:	Front facing inverted in holster #1	MAX SAR Y-AXIS LOCATION:	-40.0 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	9.90 V/m
TEST FREQUENCY:	1880MHz	SAR 1g:	0.170 W/kg
AIR FACTORS:	346 / 425 / 429	SAR 10g:	0.103 W/kg
CONVERSION FACTORS:	0.4 / 0.34 / 0.40	SAR START:	0.028 W/kg
TYPE OF MODULATION:	8PSK	SAR END:	0.029 W/kg
MODN. DUTY CYCLE:	25%	SAR DRIFT DURING SCAN:	3.70 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	11/04/06
INPUT POWER LEVEL:	4x30dBm	EXTRAPOLATION:	poly4

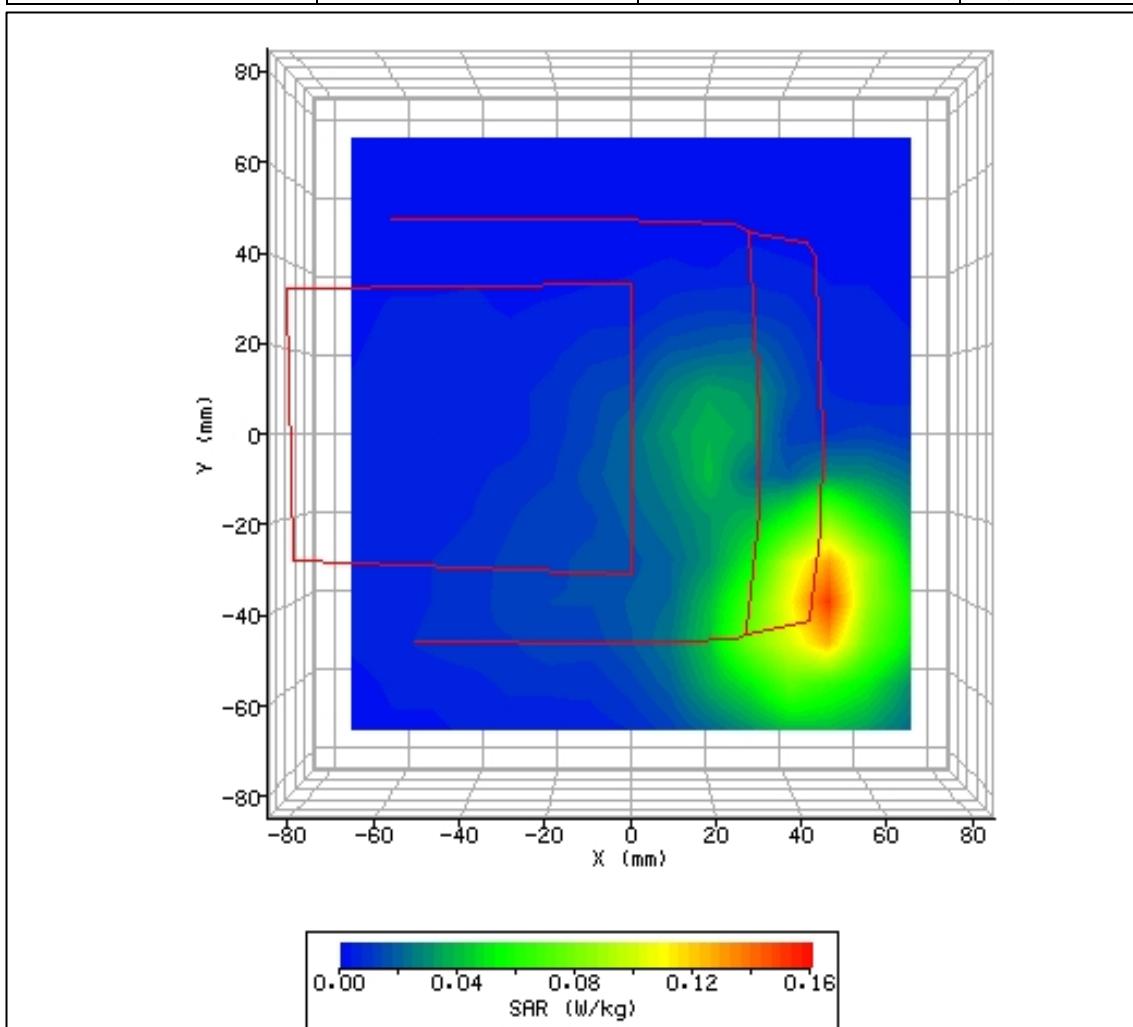


Figure 49: SAR Body Testing Results for the Intermec 700C Mobile Computer in Front Facing Phantom Position in holster #1; Tested at 1880.0MHz (1900MHz GSM Middle Channel) with 0.0mm Separation.

### 2.3.3 1900MHz GPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	10/04/2006 10:50:06	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_50.txt	PROBE SERIAL NUMBER:	190
AMBIENT TEMPERATURE:	23.2°C	LIQUID SIMULANT:	1900 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	52.97
RELATIVE HUMIDITY:	23.4%	CONDUCTIVITY:	1.478
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	22.4°C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	44.00 mm
DUT POSITION:	Front facing in holster #1	MAX SAR Y-AXIS LOCATION:	-30.00 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	10.15 V/m
TEST FREQUENCY:	1850.2MHz	SAR 1g:	0.186 W/kg
AIR FACTORS:	346 / 425 / 429	SAR 10g:	0.118 W/kg
CONVERSION FACTORS:	0.4 / 0.34 / 0.40	SAR START:	0.037 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.037 W/kg
MODN. DUTY CYCLE:	25%	SAR DRIFT DURING SCAN:	-0.77 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	11/04/06
INPUT POWER LEVEL:	4x30dBm	EXTRAPOLATION:	poly4

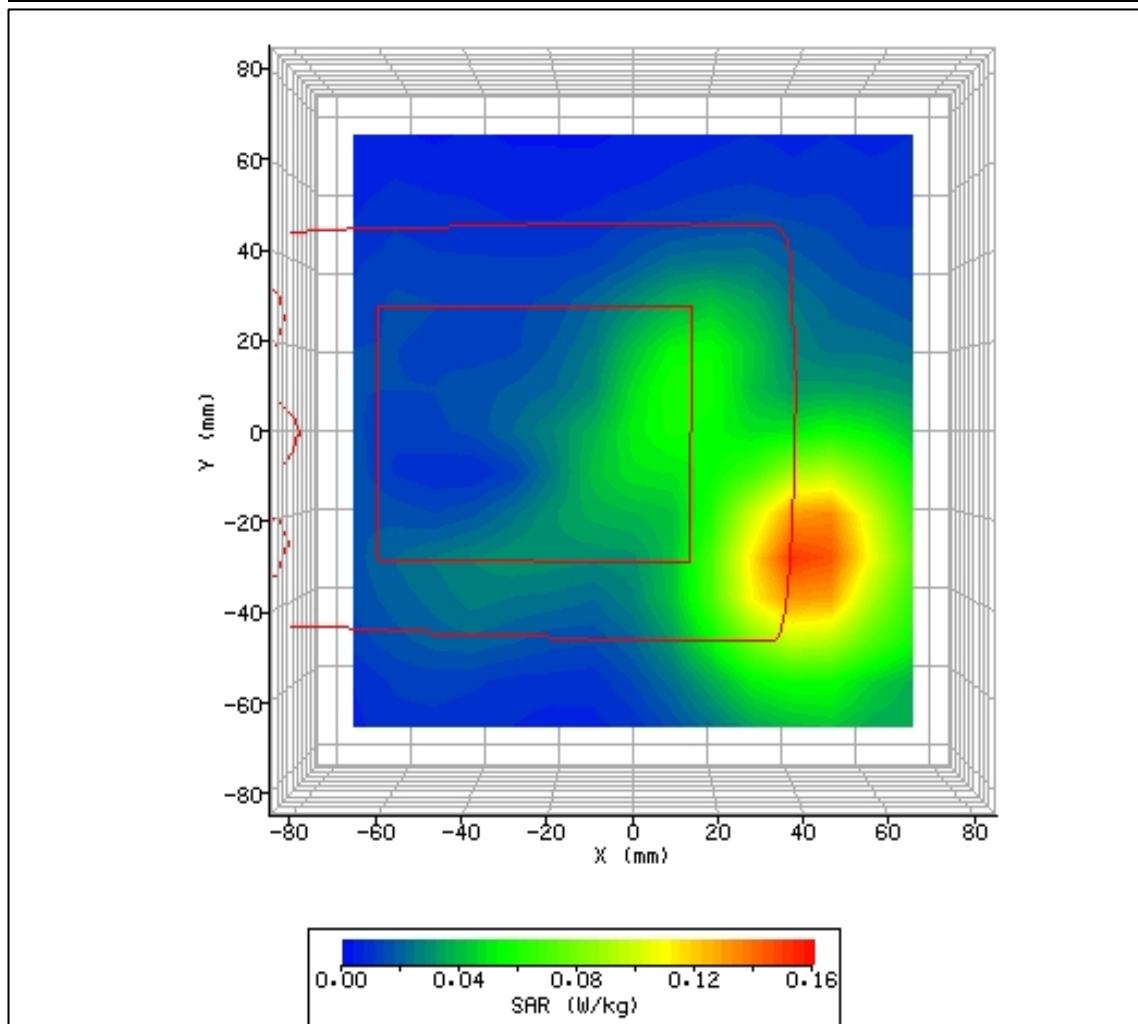


Figure 50: SAR Body Testing Results for the Intermec 700C Mobile Computer in Front Facing Phantom Position in holster #2; Tested at 1850.2MHz (1900MHz GSM Low Channel) with 0.0mm Separation.

### 2.3.3 1900MHz GPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	10/04/2006 10:16:43	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_51.txt	PROBE SERIAL NUMBER:	190
AMBIENT TEMPERATURE:	23.7°C	LIQUID SIMULANT:	1900 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	52.97
RELATIVE HUMIDITY:	22.9%	CONDUCTIVITY:	1.478
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	22.4°C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	35.00 mm
DUT POSITION:	Front facing in holster #2	MAX SAR Y-AXIS LOCATION:	-31.0 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	10.73 V/m
TEST FREQUENCY:	1880.0MHz	SAR 1g:	0.210 W/kg
AIR FACTORS:	346 / 425 / 429	SAR 10g:	0.131 W/kg
CONVERSION FACTORS:	0.4 / 0.34 / 0.40	SAR START:	0.040 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.040 W/kg
MODN. DUTY CYCLE:	25%	SAR DRIFT DURING SCAN:	-0.30 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	11/04/06
INPUT POWER LEVEL:	4x30dBm	EXTRAPOLATION:	poly4

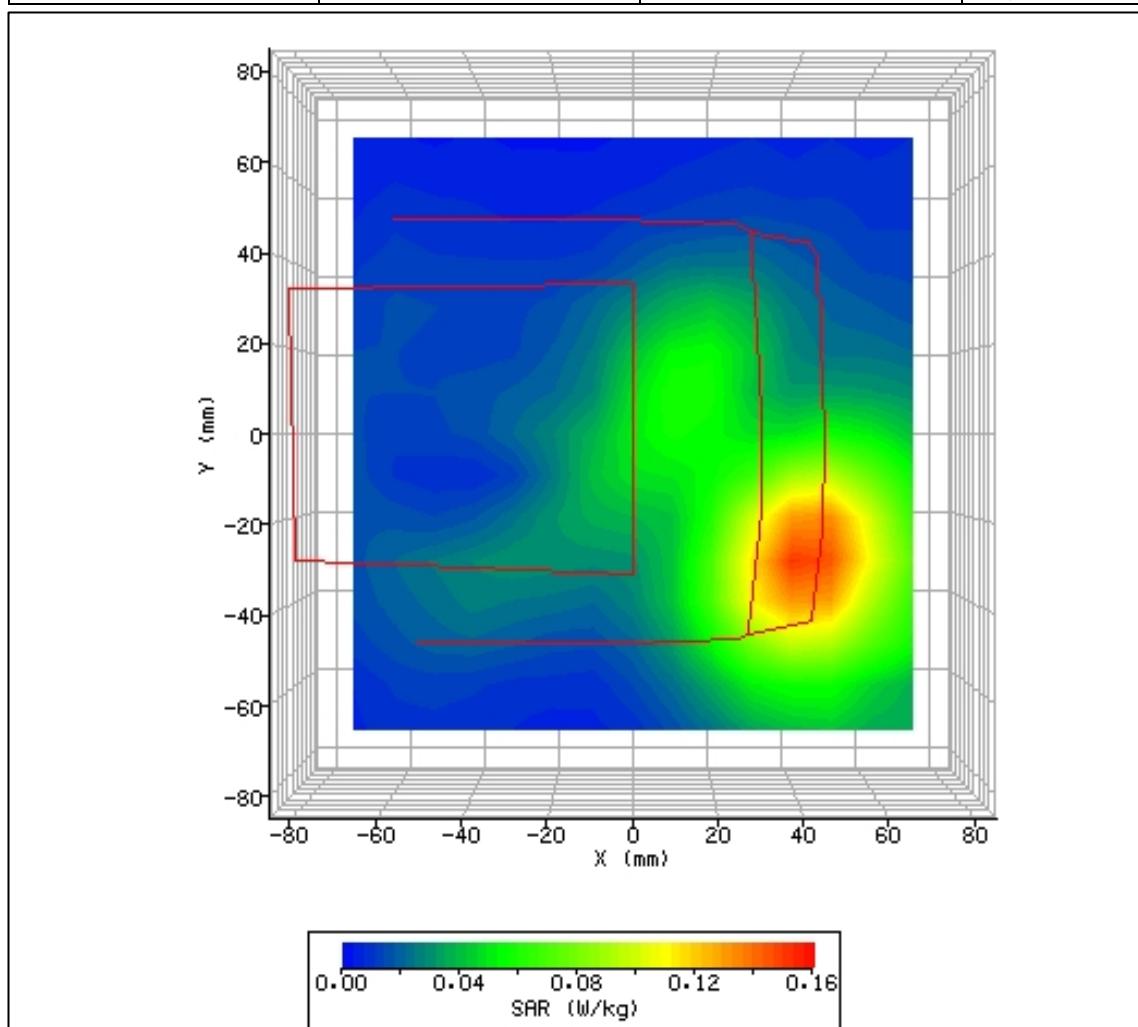


Figure 51: SAR Body Testing Results for the Intermec 700C Mobile Computer in Front Facing Phantom Position in holster #2; Tested at 1880.0MHz (1900MHz GSM Middle Channel) with 0.0mm Separation.

### 2.3.3 1900MHz GPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	10/04/2006 12:43:14	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_52.txt	PROBE SERIAL NUMBER:	190
AMBIENT TEMPERATURE:	22.8°C	LIQUID SIMULANT:	1900 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	52.97
RELATIVE HUMIDITY:	23.0%	CONDUCTIVITY:	1.478
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	21.8°C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	36.00 mm
DUT POSITION:	Front facing in holster #2	MAX SAR Y-AXIS LOCATION:	-29.0 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	10.73 V/m
TEST FREQUENCY:	1909.8MHz	SAR 1g:	0.208 W/kg
AIR FACTORS:	346 / 425 / 429	SAR 10g:	0.129 W/kg
CONVERSION FACTORS:	0.4 / 0.34 / 0.40	SAR START:	0.039 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.038 W/kg
MODN. DUTY CYCLE:	25%	SAR DRIFT DURING SCAN:	-2.44 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	11/04/06
INPUT POWER LEVEL:	4x30dBm	EXTRAPOLATION:	poly4

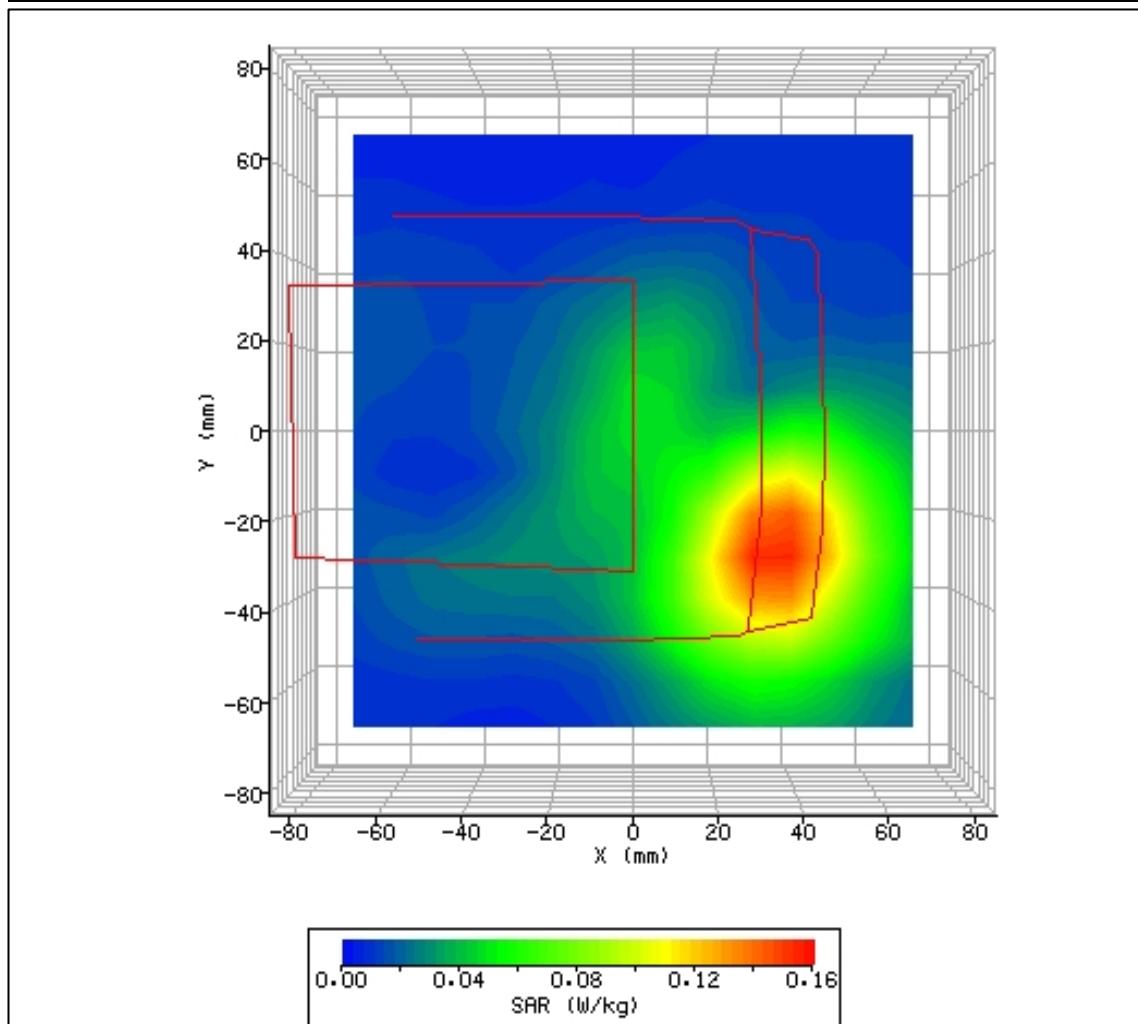


Figure 52: SAR Body Testing Results for the Intermec 700C Mobile Computer in Front Facing Phantom Position in holster #2; Tested at 1909.8MHz (1900MHz GSM High Channel) with 0.0mm Separation.

### 2.3.3 1900MHz GPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	10/04/2006 13:29:51	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_53.txt	PROBE SERIAL NUMBER:	190
AMBIENT TEMPERATURE:	22.9°C	LIQUID SIMULANT:	1900 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	52.97
RELATIVE HUMIDITY:	22.8%	CONDUCTIVITY:	1.478
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	21.5°C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	31.00 mm
DUT POSITION:	Front facing inverted in holster #2	MAX SAR Y-AXIS LOCATION:	-31.00 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	8.56 V/m
TEST FREQUENCY:	1880.0MHz	SAR 1g:	0.135 W/kg
AIR FACTORS:	346 / 425 / 429	SAR 10g:	0.086 W/kg
CONVERSION FACTORS:	0.4 / 0.34 / 0.40	SAR START:	0.025 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.025 W/kg
MODN. DUTY CYCLE:	25%	SAR DRIFT DURING SCAN:	-0.84 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	11/04/06
INPUT POWER LEVEL:	4x30dBm	EXTRAPOLATION:	poly4

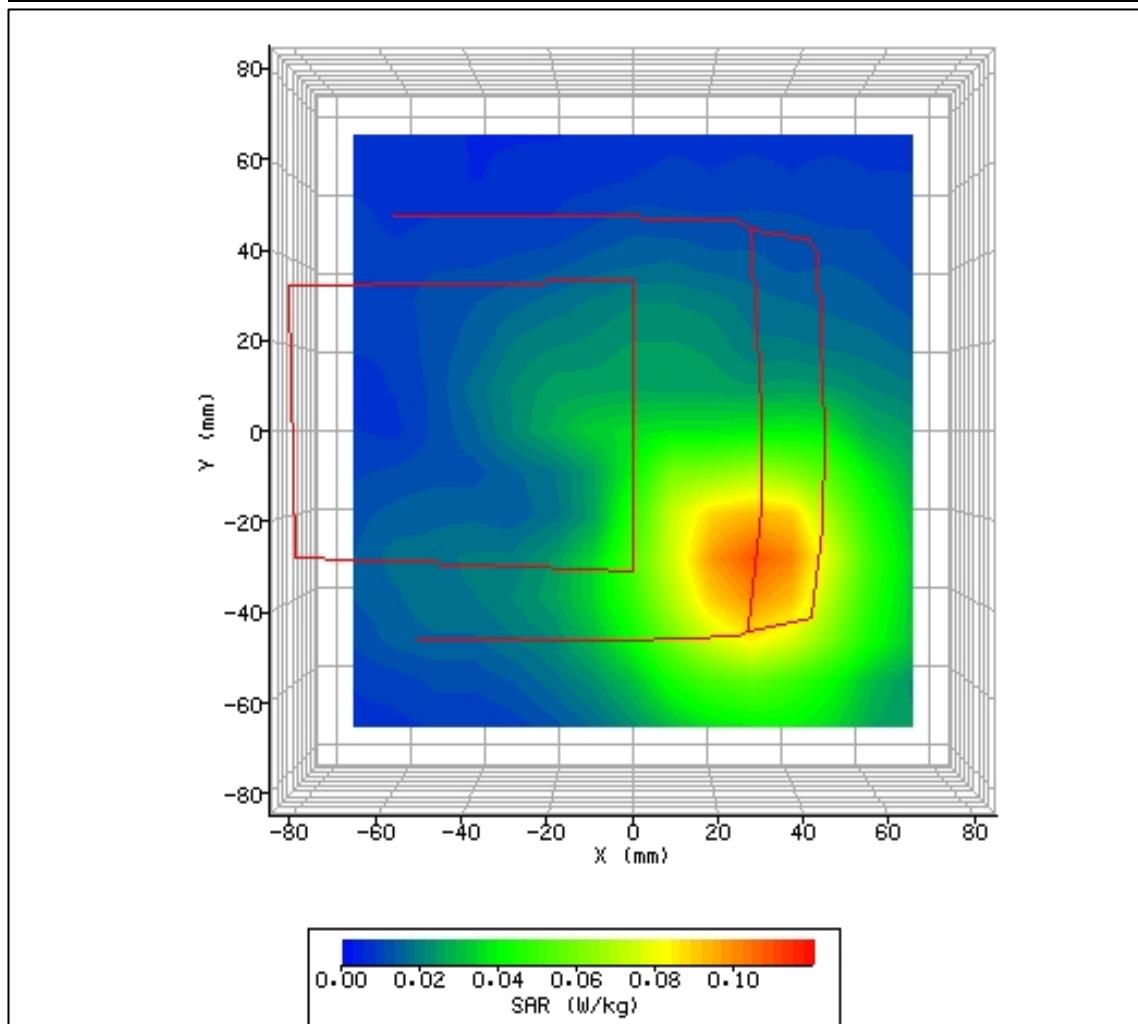


Figure 53: SAR Body Testing Results for the Intermec 700C Mobile Computer in Front Facing Phantom Position inverted in holster #2; Tested at 1880.0MHz (1900MHz GSM High Channel) with 0.0mm Separation.

### 2.3.3 1900MHz GPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	10/04/2006 14:27:40	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_54.txt	PROBE SERIAL NUMBER:	190
AMBIENT TEMPERATURE:	23.2°C	LIQUID SIMULANT:	1900 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	52.97
RELATIVE HUMIDITY:	21.0%	CONDUCTIVITY:	1.478
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	21.4°C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	34.0 mm
DUT POSITION:	LH Side facing in holster #2	MAX SAR Y-AXIS LOCATION:	-10.0 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	4.38 V/m
TEST FREQUENCY:	1880.0MHz	SAR 1g:	0.035 W/kg
AIR FACTORS:	346 / 425 / 429	SAR 10g:	0.024 W/kg
CONVERSION FACTORS:	0.4 / 0.34 / 0.40	SAR START:	0.008 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.008 W/kg
MODN. DUTY CYCLE:	25%	SAR DRIFT DURING SCAN:	0.00 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	11/04/06
INPUT POWER LEVEL:	4x30dBm	EXTRAPOLATION:	poly4

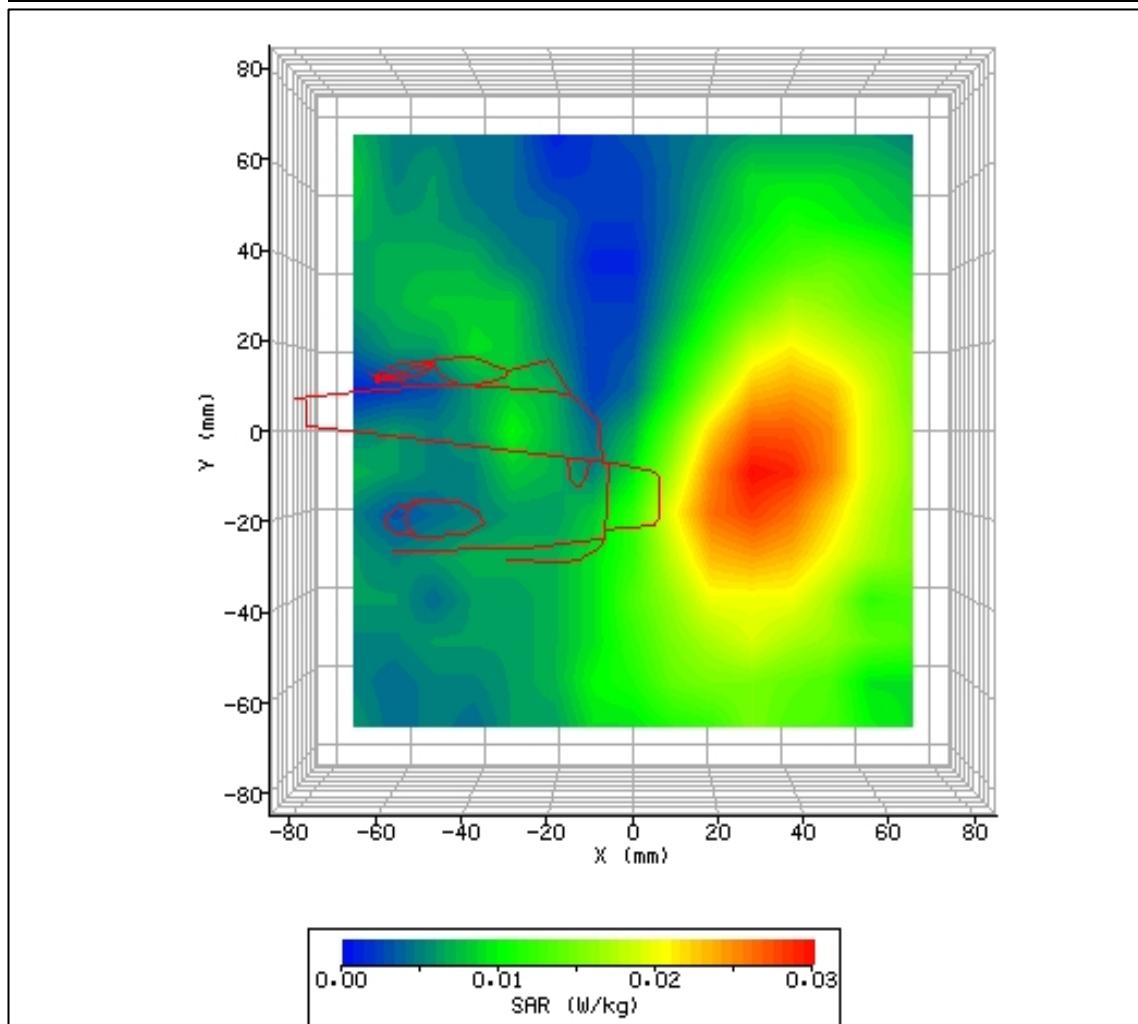


Figure 54: SAR Body Testing Results for the Intermec 700C Mobile Computer in LH-Side Facing Phantom Position in holster #2; Holster #2 in LH configuration; Tested at 1880.0MHz (1900MHz GSM High Channel) with 0.0mm Separation.

### 2.3.3 1900MHz EGPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	10/04/2006 15:27:29	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_55.txt	PROBE SERIAL NUMBER:	190
AMBIENT TEMPERATURE:	22.1°C	LIQUID SIMULANT:	1900 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	52.97
RELATIVE HUMIDITY:	22.2%	CONDUCTIVITY:	1.478
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	21.0°C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	23.00 mm
DUT POSITION:	RH Side facing in holster #2	MAX SAR Y-AXIS LOCATION:	-1.00 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	8.63 V/m
TEST FREQUENCY:	1880.0MHz	SAR 1g:	0.135 W/kg
AIR FACTORS:	346 / 425 / 429	SAR 10g:	0.083 W/kg
CONVERSION FACTORS:	0.4 / 0.34 / 0.40	SAR START:	0.024 W/kg
TYPE OF MODULATION:	8PSK	SAR END:	0.024 W/kg
MODN. DUTY CYCLE:	25%	SAR DRIFT DURING SCAN:	-0.02 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	11/04/06
INPUT POWER LEVEL:	4x30dBm	EXTRAPOLATION:	poly4

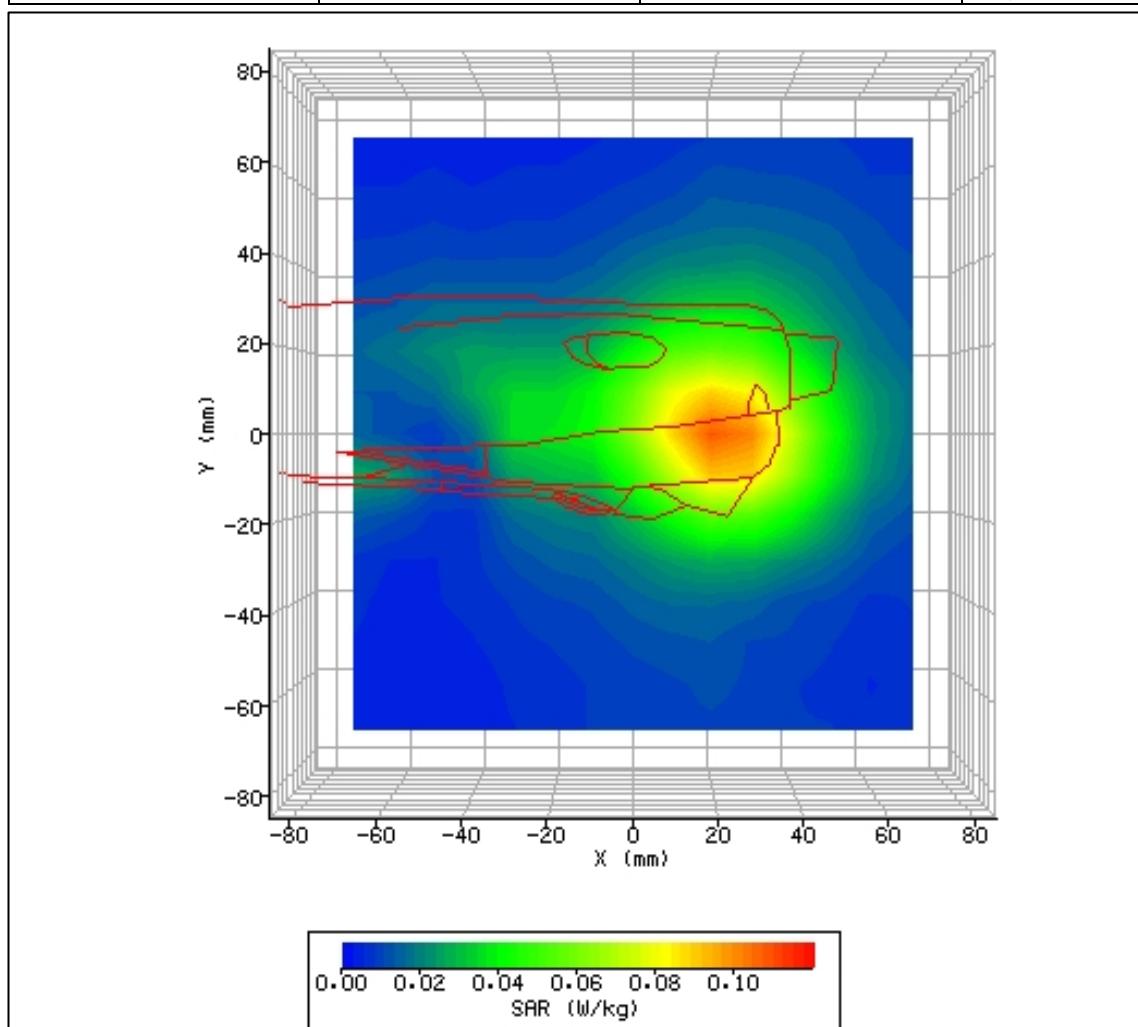


Figure 55: SAR Body Testing Results for the Intermec 700C Mobile Computer in RH-Side Facing Phantom Position in holster #2; Holster #2 in RH configuration; Tested at 1880.0MHz (1900MHz GSM High Channel) with 0.0mm Separation.

### 2.3.3 1900MHz GPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	10/04/2006 16:13:05	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_56.txt	PROBE SERIAL NUMBER:	190
AMBIENT TEMPERATURE:	23.7°C	LIQUID SIMULANT:	1900 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	52.97
RELATIVE HUMIDITY:	38.4%	CONDUCTIVITY:	1.478
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	21.0°C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	40.00 mm
DUT POSITION:	Front facing in holster #2	MAX SAR Y-AXIS LOCATION:	-30.0 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	6.59 V/m
TEST FREQUENCY:	1880.0MHz	SAR 1g:	0.077 W/kg
AIR FACTORS:	346 / 425 / 429	SAR 10g:	0.048 W/kg
CONVERSION FACTORS:	0.4 / 0.34 / 0.40	SAR START:	0.014 W/kg
TYPE OF MODULATION:	GMSK	SAR END:	0.015 W/kg
MODN. DUTY CYCLE:	25%	SAR DRIFT DURING SCAN:	4.42 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	11/04/06
INPUT POWER LEVEL:	4x30dBm	EXTRAPOLATION:	poly4

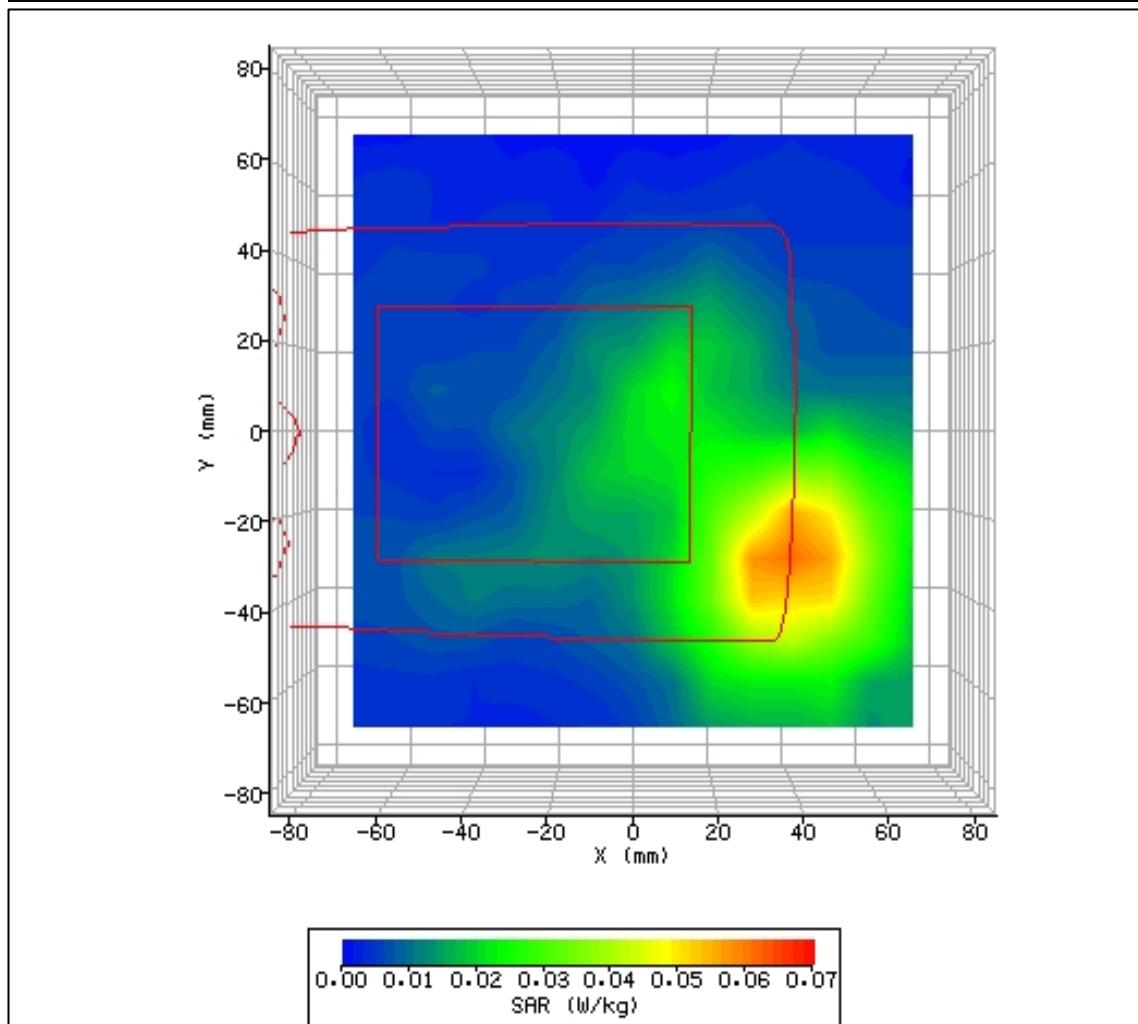


Figure 56: SAR Body Testing Results for the Intermec 700C Mobile Computer in Front Facing Phantom Position in holster #2; Tested at 1880.0MHz (1900MHz GSM High Channel) with 0.0mm Separation.

### 2.3.3 1900MHz EGPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	10/04/2006 16:54:02	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_57.txt	PROBE SERIAL NUMBER:	190
AMBIENT TEMPERATURE:	23.3°C	LIQUID SIMULANT:	1900 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	52.97
RELATIVE HUMIDITY:	42.2%	CONDUCTIVITY:	1.478
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	21.1°C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	9.00 mm
DUT POSITION:	Rear facing with belt clip	MAX SAR Y-AXIS LOCATION:	1.0 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	5.83 V/m
TEST FREQUENCY:	1880.0MHz	SAR 1g:	0.058 W/kg
AIR FACTORS:	346 / 425 / 429	SAR 10g:	0.035 W/kg
CONVERSION FACTORS:	0.4 / 0.34 / 0.40	SAR START:	0.011 W/kg
TYPE OF MODULATION:	8PSK	SAR END:	0.011 W/kg
MODN. DUTY CYCLE:	25%	SAR DRIFT DURING SCAN:	0.00 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	11/04/06
INPUT POWER LEVEL:	4x30dBm	EXTRAPOLATION:	poly4

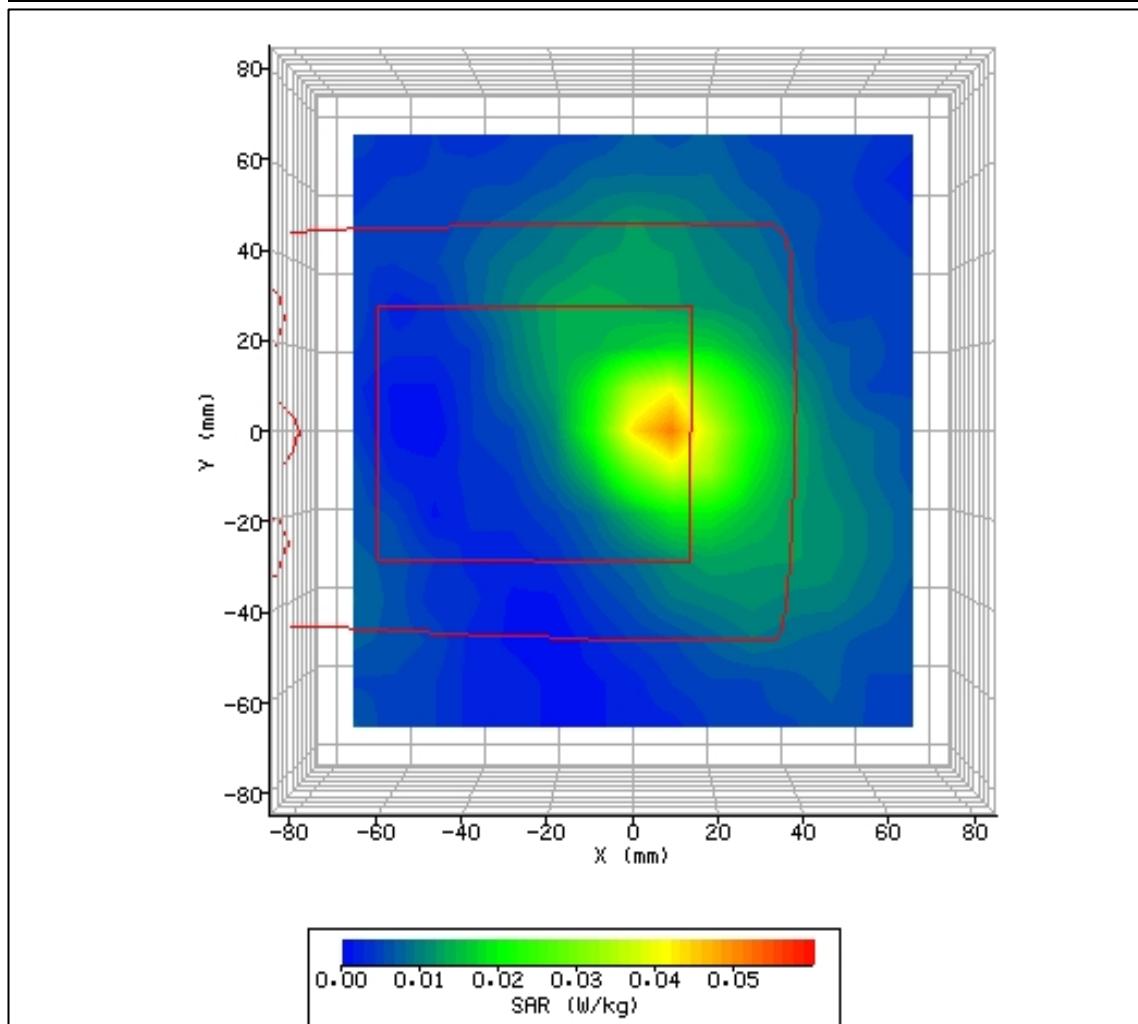


Figure 57 SAR Body Testing Results for the Intermec 700C Mobile Computer in Rear Facing Phantom Position with Belt Clip; Tested at 1880.0MHz (1900MHz GSM High Channel) with 0.0mm Separation.

### 2.3.3 1900MHz EGPRS BODY SAR TEST RESULT INCLUDING COURSE AREA SCAN – 2D

SYSTEM / SOFTWARE:	SARA2 / 2.39 VPM	INPUT POWER DRIFT:	0.0 dB
DATE / TIME:	10/04/2006 16:54:02	DUT BATTERY MODEL/NO:	318-013-002
FILENAME:	WS615078_58.txt	PROBE SERIAL NUMBER:	190
AMBIENT TEMPERATURE:	23.3°C	LIQUID SIMULANT:	1900 Body
DEVICE UNDER TEST:	Intermec 700C	RELATIVE PERMITTIVITY:	52.97
RELATIVE HUMIDITY:	37.5%	CONDUCTIVITY:	1.478
PHANTOM S/NO:	HeadBox01.csv	LIQUID TEMPERATURE:	21.0°C
PHANTOM ROTATION:	0°	MAX SAR X-AXIS LOCATION:	2.00 mm
DUT POSITION:	Rear facing with belt clip	MAX SAR Y-AXIS LOCATION:	1.00 mm
ANTENNA CONFIGURATION:	Integral	MAX E FIELD:	3.63 V/m
TEST FREQUENCY:	1880.0MHz	SAR 1g:	0.022 W/kg
AIR FACTORS:	346 / 425 / 429	SAR 10g:	0.012 W/kg
CONVERSION FACTORS:	0.4 / 0.34 / 0.40	SAR START:	0.003 W/kg
TYPE OF MODULATION:	8PSK	SAR END:	0.003 W/kg
MODN. DUTY CYCLE:	25%	SAR DRIFT DURING SCAN:	0.00 %
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	PROBE BATTERY LAST CHANGED:	11/04/06
INPUT POWER LEVEL:	4x30dBm	EXTRAPOLATION:	poly4

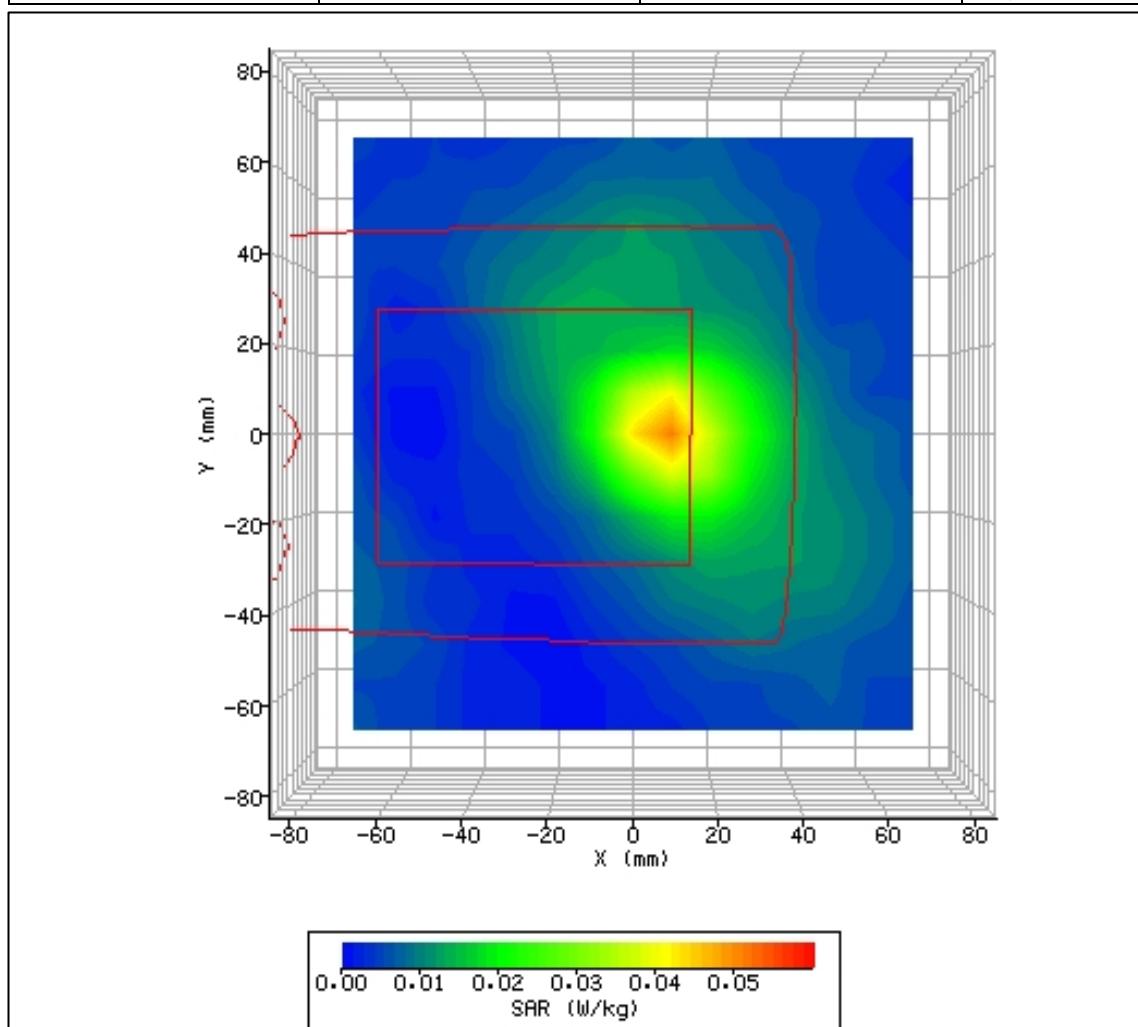


Figure 58: SAR Body Testing Results for the Intermec 700C Mobile Computer in Rear Facing Phantom Position with Belt Clip; Tested at 1880.0MHz (1900MHz GSM High Channel) with 0.0mm Separation.

## **SECTION 3**

### **TEST EQUIPMENT**

### 3.1 TEST EQUIPMENT

The following test equipment was used at BABT:

INSTRUMENT DESCRIPTION	MANUFACTURER	MODEL TYPE	TEST EQUIPMENT NO.	CALIBRATION DATES	
Bench-top Robot	Mitsubishi	RV-E2	156	N/A	N/A
Fast Probe Amplifier	IndexSAR Ltd.	IFA-010	1557	N/A	N/A
Side Bench 2	IndexSAR Ltd.	IXM-030	1571	N/A	N/A
Upright Bench 1	IndexSAR Ltd.	SARA2 system	1568	N/A	N/A
SAR Probe	IndexSAR Ltd.	IXP-050	1555	15/01/2006	15/01/2007
SAR Probe	IndexSAR Ltd.	IXP-050	2872	22/07/2005	22/07/2006
Radio Communication Tester	Rohde & Schwarz	CMU 200	3035	N/A	N/A
Radio Communication Tester	Rohde & Schwarz	CMU 200	39	07/07/2005	07/07/2006
Signal Generator	Hewlett Packard	E4422A	61	15/02/2006	22/02/2007
Power Meter	Rohde & Schwarz	NRV	52	02/06/2005	02/06/2006
RF Pre-Amplifier	IndexSAR Ltd.	0.8-3G	2415	11/05/2005	11/05/2006
Bi-Directional Coupler	Krytar	1850	58	N/A	N/A
20dB Attenuator	Narda	766F-10	483	31/05/2005	31/05/2006
Hygrometer	Rotronic	I-1000	2783	01/06/2005	01/06/2006
Digital Thermometer	Digitron	T208	64	18/10/2005	18/10/2006
Thermocouple	Rohde & Schwarz	K	65	18/10/2005	18/10/2006
835MHz Body TEM	BABT	Batch 5	N/A	20/03/2006	03/04/2006
835MHz Body TEM	BABT	Batch 5	N/A	04/04/2006	18/04/2006
835MHz Head TEM	BABT	Batch 10	N/A	20/03/2006	03/04/2006
835MHz Head TEM	BABT	Batch 10	N/A	04/04/2006	18/04/2006
900MHz Head TEM	BABT	Batch 10	N/A	21/03/2006	04/04/2006
1800MHz Head TEM	BABT	Batch 8	N/A	21/03/2006	03/04/2006
1900MHz Head TEM	BABT	Batch 2	N/A	21/03/2006	03/04/2006
1900MHz Body TEM	BABT	Batch 3	N/A	04/04/2006	18/04/2006
907.5 MHz Dipole	IndexSAR Ltd.	IEEE1528	N/A	21/03/2006	13/04/2006
1812 MHz Dipole	IndexSAR Ltd.	IEEE1528	N/A	05/04/2006	13/04/2006
1929 MHz Dipole	IndexSAR Ltd.	IEEE1528	N/A	28/03/2006	13/04/2006
Flat Phantom 2mm Side	IndexSAR Ltd.	HeadBox01	1563	N/A	N/A
200mm Cube Box Phantom	IndexSAR Ltd.	IXB-070	1565	N/A	N/A

### 3.2 TEST SOFTWARE

The following software was used to control the BABT SARA2 System:

INSTRUMENT	VERSION NO.	DATE
SARA2 system	v.2.39 VPM	06/07/2005
Mitsubishi robot controller firmware revision	RV-E2 Version C9a	-
IFA-10 Probe amplifier	Version 2.5	-

### 3.3 DIELECTRIC PROPERTIES OF SIMULANT LIQUIDS

The fluid properties of the simulant fluids used during routine SAR evaluation meet the dielectric properties required by EN50361:2001 & OET Bulletin 65 (Edition 97-01).

The fluids were calibrated in our Laboratory and re-checked prior to any measurements being made against reference fluids stated in IEEE 1528-2003 of 0.9% NaCl (Salt Solution) at 23°C and also for Dimethylsulphoxide (DMS) at 21°C.

The fluids were made at BABT under controlled conditions from the following OET(65)c formulae and IEEE1528-2003. The composition of ingredients may have been modified accordingly to achieve the desired target tissue parameters required for routine SAR evaluation:

#### OET 65(c) Recipes

Ingredients (% by weight)	Frequency (MHz)									
	450		835		915		1900		2450	
Tissue Type	Head	Body	Head	Body	Head	Body	Head	Body	Head	Body
Water	38.56	51.16	41.45	52.4	41.05	56.0	54.9	40.4	62.7	73.2
Salt (NaCl)	3.95	1.49	1.45	1.4	1.35	0.76	0.18	0.5	0.5	0.04
Sugar	56.32	46.78	56.0	45.0	56.5	41.76	0.0	58.0	0.0	0.0
HEC	0.98	0.52	1.0	1.0	1.0	1.21	0.0	1.0	0.0	0.0
Bactericide	0.19	0.05	0.1	0.1	0.1	0.27	0.0	0.1	0.0	0.0
Triton X-100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.8	0.0
DGBE	0.0	0.0	0.0	0.0	0.0	0.0	44.92	0.0	0.0	26.7
Dielectric Constant	43.42	58.0	42.54	56.1	42.0	56.8	39.9	54.0	39.8	52.5
Conductivity (S/m)	0.85	0.83	0.91	0.95	1.0	1.07	1.42	1.45	1.88	1.78

#### IEEE 1528 Recipes

Frequency (MHz)	300	450	835	900	1450	1800	1900	1950	2000	2100	2450	3000					
Recipe #	1	1	3	1	1	2	3	1	1	2	4	1	1	2	2	3	1
Ingredients (% by weight)																	
1,2-Propanediol					64.81												
Bactericide	0.19	0.19	0.5	0.1	0.1		0.5			0.5							0.5
Diacetin			48.9			49.2				49.43							49.75
DGBE						45.41	47	13.84	44.92		44.92	13.84	45	50	50	7.99	7.99
HEC	0.98	0.98		1	1												
NaCl	5.95	3.95	1.7	1.45	1.48	0.79	1.1	0.67	0.36	0.35	0.18	0.64	0.18	0.35		0.16	0.16
Sucrose	55.32	56.32		57	56.5												
Triton X-100								30.45			30.45				19.97	19.97	19.97
Water	37.56	38.56	48.9	40.45	40.92	34.4	49.2	53.82	52.64	55.36	54.9	49.43	54.9	55.36	55	50	71.88
Measured dielectric parameters																	
$\epsilon'$	46	43.4	44.3	41.6	41.2	41.8	42.7	40.9	39.3	41	40.4	39.2	39.9	41	40.1	37	36.8
$\sigma(\text{S/m})$	0.86	0.85	0.9	0.9	0.98	0.97	0.99	1.21	1.39	1.38	1.4	1.4	1.42	1.38	1.41	1.4	1.51
Temp. (°C)	22	22	20	22	22	22	20	22	22	21	22	20	21	21	20	22	20
Target dielectric parameters (Table 5-1)																	
$\epsilon'$	45.3	43.5	41.5	41.5	40.5					40					39.8	39.2	38.5
$\sigma(\text{S/m})$	0.87	0.87	0.9	0.9	0.97	1.2				1.4					1.49	1.8	2.4

### 3.3 DIELECTRIC PROPERTIES OF SIMULANT LIQUIDS

The dielectric properties of the tissue simulant liquids used for the SAR testing at BABT are as follows:-

FLUID TYPE	FREQUENCY	RELATIVE PERMITTIVITY $\epsilon_r$ ( $\epsilon'$ ) TARGET	RELATIVE PERMITTIVITY $\epsilon_r$ ( $\epsilon'$ ) MEASURED	CONDUCTIVITY $\sigma$ TARGET	CONDUCTIVITY $\sigma$ MEASURED
HEAD	900 MHz	<b>42.0</b>	42.61	<b>0.99</b>	0.98
BODY	835 MHz	<b>55.0</b>	58.02	<b>1.05</b>	1.038
BODY	900 MHz	<b>55.0</b>	58.16	<b>0.97</b>	0.976
HEAD	1800 MHz	<b>40.0</b>	38.66	<b>1.40</b>	1.367
BODY	1800 MHz	<b>53.3</b>	52.57	<b>1.52</b>	1.511
HEAD	1900 MHz	<b>40.0</b>	40.89	<b>1.40</b>	1.386
BODY	1900 MHz	<b>53.3</b>	53.96	<b>1.52</b>	1.504

### 3.4 TEST CONDITIONS

#### TEST LABORATORY CONDITIONS

Ambient Temperature: Within +15°C to +35°C at 20% RH to 75% RH.

The actual Temperature during the testing ranged from 21.5°C to 24.4 °C.

The actual Humidity during the testing ranged from 21.0% to 54.2% RH.

#### TEST FLUID TEMPERATURE RANGE

FREQUENCY (MHZ)	850	900	835/900	1800	1900	1900
BODY / HEAD FLUID	HEAD	HEAD	BODY	HEAD	HEAD	BODY
MIN TEMPERATURE (°C)	22.7	22.7	21.5	21.8	21.7	21.0
MAX TEMPERATURE (°C)	22.8	23.8	22.2	22.2	22.2	22.4

#### SAR DRIFT

The SAR Drift was within acceptable limits during scans. The maximum SAR Drift, drift due to the handset electronics, was recorded as -6.93% (-0.310dB) for all of the testing. The value of 6.56% has been included in the measurement uncertainty budget.

### 3.5 MEASUREMENT UNCERTAINTY

ERROR SOURCES	EN 50361 Description (Subclause)	Uncertainty (%)	Probability Distribution	Divisor	ci	ci <sup>2</sup>	Standard Uncertainty (%)	Stand Uncert <sup>2</sup>	(Stand Uncert <sup>2</sup> ) X (ci <sup>2</sup> )
<b>Measurement Equipment</b>									
Calibration	7.2.1.1	10	Normal	2.00	1	1	5.00	25.00	25.00
Isotropy	7.2.1.2	10.6	Rectangular	1.73	1	1	6.12	37.45	37.45
Linearity	7.2.1.3	2.92	Rectangular	1.73	1	1	1.69	2.84	2.84
Probe Stability	-	2.46	Rectangular	1.73	1	1	1.42	2.02	2.02
Detection limits	7.2.1.4	0	Rectangular	1.73	1	1	0.00	0.00	0.00
Boundary effect	7.2.1.5	1.7	Rectangular	1.73	1	1	0.98	0.96	0.96
Measurement device	7.2.1.6	0	Normal	1.00	1	1	0.00	0.00	0.00
Response time	7.2.1.7	0	Normal	1.00	1	1	0.00	0.00	0.00
Noise	7.2.1.8	0	Normal	1.00	1	1	0.00	0.00	0.00
Integration time	7.2.1.9	2.3	Normal	1.00	1	1	2.30	5.29	5.29
<b>Mechanical constraints</b>									
Scanning system	7.2.2.1	0.57	Rectangular	1.73	1	1	0.33	0.11	0.11
Phantom shell	7.2.2.2	1.43	Rectangular	1.73	1	1	0.83	0.68	0.68
Matching between probe and phantom	7.2.2.3	2.86	Rectangular	1.73	1	1	1.65	2.73	2.73
Positioning of the phone 'Y' Co-ordinate	7.2.2.4	1.5	Normal	1.00	1	1	1.50	2.25	2.25
Positioning of the phone 'Z' Co-ordinate	7.2.2.4	1.73	Normal	1.00	1	1	1.73	2.99	2.99
<b>Physical Parameters</b>									
Liquid conductivity (deviation from target)	7.2.3.2	5	Rectangular	1.73	0.5	0.25	2.89	8.33	2.08
Liquid conductivity (measurement error)	7.2.3.2	15.3	Rectangular	1.73	0.5	0.25	8.83	78.03	19.51
Liquid permittivity (deviation from target)	7.2.3.3	5	Rectangular	1.73	0.5	0.25	2.89	8.33	2.08
Liquid permittivity (measurement error)	7.2.3.3	5	Rectangular	1.73	0.5	0.25	2.89	8.33	2.08
Drifts in output power of the phone, probe, temperature and humidity	7.2.3.4	6.93	Rectangular	1.73	1	1	4.00	16.01	16.01
Perturbation by the environment	7.2.3.5	3	Rectangular	1.73	1	1	1.73	3.00	3.00
<b>Post-Processing</b>									
SAR interpolation and extrapolation	7.2.4.1	2.4	Rectangular	1.73	1	1	1.39	1.92	1.92
Maximum SAR evaluation	7.2.4.2	2.4	Rectangular	1.73	1	1	1.39	1.92	1.92
<b>Combined standard uncertainty</b>	11.44						<b>Total</b>		<b>130.93</b>
<b>Expanded uncertainty = 22.89 % (Using a Coverage Factor of K=2) (confidence interval of 95 %)</b>									