SUPPLEMENTARY TEST REPORT

Co-Transmission Specific Absorption Rate Assessment of the
Symbol MC9062 Mobile Computer.

Report Number: WS611528 – 003 Issue 2 **October 2004**

TÜV PRODUCT SERVICE

BABT

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REPORT ON: Co-Transmission Specific Absorption Rate Assessment of the Symbol MC9062 Mobile Computer.

Report No: WS611528 – 003 Issue 2

FCC ID: H9PMC9062B
IC: 1549D–MC9062B

PREPARED FOR:
Symbol Technologies Inc.
One Symbol Plaza
Holtsville
NY 11742-1300
New York
United States of America

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, 1999 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
Senior SAR Test Engineer

APPROVED BY:

M Jenkins
Wireless Group Leader

DATED: 15th October 2004

DISTRIBUTION:

Symbol Technologies Inc.	Copy No:	1
BABT	Copy No.:	2
	Copy No.:	1

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

This report has been up-issued due to minor typographical errors.

CONTENTS

EXECUTIVE SUMMARY

Co-Transmission Specific Absorption Rate Assessment of the Symbol MC9062 Mobile Computer.

PROJECT MANAGER: M. GLASSPOOL

1.1 STATUS

MANUFACTURING DESCRIPTION	Mobile Computer
STATUS OF TEST	Specific Absorption Rate Testing
APPLICANT	Symbol Technologies Inc
MANUFACTURER	Symbol Technologies Inc
TYPE NUMBER	MC9062
PART NUMBER	MC9062-KKBHBEEA7WW
SERIAL NUMBER	ALP75360
HARDWARE VERSION	Build Status Rev 10 (To be released as Rev A)
RADIO LAN	Symbol Main Terminal Module (MTM) with 802.11b embedded Radio.
TYPE	21-64436
POWER	+20dBm
BLUETOOTH MODULE	Symbol Bluetooth Module
TYPE	21-64381
CLASS	Class 1
POWER	+20dBm
GPRS/GSM TRI-BAND RADIO	Siemens AG
TYPE	MC45
GPRS MULTISLOT CLASS	Mutli-slot Class 10
IMEI NUMBER	IMEI 350450410612371
GSM/GPRS POWER CLASS	Class 4 (E-GSM900) Class 1 (DCS1800 & PCS1900)

TEST SPECIFICATIONS:

US Federal Government, Code of Federal Regulations, Title 47 Telecommunication, Chapter I Federal Communications Commission, part 2, section 1093.

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

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:

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

BABT REGISTRATION NUMBER:	WS611528.
RECEIPT OF TEST SAMPLES:	23rd September 2004.
START OF TEST:	24th September 2004
FINISH OF TEST:	24th September 2004.

1.2 DECLARATION OF BUILD STATUS

MAIN EUT			
MANUFACTURING DESCRIPTION	Mobile Computer		
MANUFACTURER	Symbol Technologies Inc.		
COUNTRY OF ORIGIN	USA		
TYPE	MC9062		
PART NUMBER	MC9062-KKBHBEEA7WW		
SERIAL NUMBER	ALP75354, ALP75379, ALP75372, ALP75571, ALP75071, ALP75073, ALP75521, ALP75375, ALP75360, ALP76133		
HARDWARE VERSION	Rev 10 (Manufactured as Rev A)		
FCC ID	H9PMC9062B		
INDUSTRY CANADA ID	1549D-MC9062B		
RADIO MODULES INTEGRATED	RLAN, (21-64436) and Bluetooth, (21-64381), GSM/GPRS 900/1800/1900, (MC45)		
TECHNICAL DESCRIPTION	The unit supplied for testing is a Symbol MC9062 Mobile Computer, which offers Tri-Band GSM/GPRS 900/1800/1900, 2.4GHz 802.11b Wireless LAN and Bluetooth connectivity with the following options: Pico Imager; Colour (touch) display; 64/64 memory option; 53Keyboard; PPC2003; Audio; Bluetooth		
BATTERY/POWER SUPPLY			
MANUFACTURING DESCRIPTION	Lithium Battery		
MANUFACTURER	Symbol Technologies Inc.		
COUNTRY OF ORIGIN	USA		
TYPE	N/A		
PART NUMBER	21-65587-01		
VOLTAGE	7.2V		
RADIO MODULES			
MANUFACTURING DESCRIPTION	Main Terminal Module with Embedded RLAN Radio	Bluetooth Module	GPRS/GSM Tri-Band Radio Module
MANUFACTURER	Symbol Technologies Inc	Symbol Technologies Inc	Siemens AG
COUNTRY OF ORIGIN	USA	USA	Germany
TYPE	21-64436	21-64381	MC45
POWER	7 - 16V	3.3V	3.2 – 4.5V
TRANSMITTER OPERATING BAND	2400 – 2483.5MHz	2400 – 2483.5MHz	880-915 / 1710-1785 / 1850-1910
TRANSMITTER POWER	100mW (+20dBm)	100mW (+20dBm)	2W (GSM900) / 1W (GSM1800/1900)
RECEIVER OPERATING BAND	2400 – 2483.5MHz	2400 – 2483.5MHz	925-960 / 1805-1880 / 1930-1990
INTERMEDIATE FREQUENCIES	374MHz	Direct Conversion	Receiver: 0; Transmitter: 80MHz
EMISSION DESIGNATOR	11M0F1D	1M00F1D	GXW
DHSS/FHSS/COMBINED	DSSS	FHSS	GSM
FCC ID	H9P2164436	H9P2164381	QIPMC45
INDUSTRY CANADA ID	1549D-2164436	1549D-2164381	267W-MC45
ANCILLARIES			
MANUFACTURING DESCRIPTION	Headset		
MANUFACTURER	VXI Corporation		
TYPE	VXI 61-SYB		
PART NUMBER	50-11300-050		
SERIAL NUMBER	Not Serialised		
HARDWARE VERSION	Rev A		

Signature 

Date 9th February 2004
D of B S Serial No OR611528

1.3 SUMMARY

This supplementary report covers additional SAR test requirements for co-transmission with the MC9062 placed abnormally in the MC9062 Mobile Computer Holster.

This report must be read in conjunction with BABT report number WS611528 – 001 Issue 3.01 issued 3rd August 2004 & WS611528 – 002 Issued 2.00 issued 6th August 2004.

The unit supplied for testing is a Symbol MC9062 Mobile Computer in a 'Brick' housing, which offers Tri-Band GSM/GPRS 900/1800/1900, 2.4GHz 802.11b Wireless LAN and Bluetooth connectivity with the following options: Pico Imager; Colour (touch) display; 64/64 memory option; 53Keyboard; PPC2003; Audio; Bluetooth

The Symbol Technologies MC9062 Mobile Computer is capable of co-transmission for the purpose of this assessment the following modes were selected: - GPRS (2up transmit channels) only and GPRS, WLAN; and Bluetooth transmitting simultaneously.

For simultaneous transmission SAR assessment the MC9062 was first placed with the dominant transmitter transmitting only and being placed against the Flat Phantom with the dominant body simulant within. A SAR measurement was obtained with the diode compression settings set to a 20/20/20 (CW), the secondary transmitters were then activated. Another SAR measurement was obtained.

For Body worn assessment SAR testing was performed with the device set in the appropriate Test Mode for the Radio Module under test. The device was then placed in the supplied holster with the LCD facing out from the rear of the Holster. The Holster was then positioned with the belt clip in contact with the 2.0mm sidewall of the Flat Phantom.

Flat Phantom dimensions 220mm x200mm x150mm 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) the frequency under test.

SAR testing was carried out at the following frequency for each of the device operating bands. GPRS – 1880MHz; WLAN – 2412MHz and Bluetooth – 2402MHz. These frequencies were chosen providing maximum SAR during the assessment of the declared normal use position.

For WLAN SAR assessment the device was placed into a test mode using onboard software supplied by the client, which enabled the device to be placed into a CW test mode.

For Bluetooth SAR assessment the device was placed into a test mode using onboard software supplied by the client, which enabled the device to be placed into a CW test mode.

For the GPRS SAR assessment the testing was performed at the maximum power for the PCS1900 band. For GPRS testing a radio communications test set was used to set the device into a two-timeslot transmission with each slot set at 30dBm (PCS1900). The MC9062 had an internal antenna so that the requirement for testing with antenna extended and retracted was not applicable.

1.3 SUMMARY– Continued

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

Symbol Headset – Model Number VXI 61-SYB (p/n 50-11300-050)

MC9062 Mobile Computer Holster – Manufactured by AGORA (p/n 11-65211-01)

The holster in normal operation will be placed on the belt at the side of the body. This position has declared as being the position typical body-worn operation.

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.

The following SAR statement will be included in the Regulatory Guide for the MC9062.

'This device was tested for typical body-worn operations with the holster providing a minimal spacing of 4.0cm from the body to the rear case terminal/antenna. The holster is designed to hold the terminal with the screen facing the body. The holster should be worn on the hip. Use of the terminal/holster in any other position may not comply with FCC RF Exposure requirements and should be avoided.'

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, 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 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).

During the co-transmission assessment it became evident that a small energy field had concentrated around the belt clip of the holster. This energy field was significantly lower than that generated by the main radios and did not add to the overall spatial peak SAR value.

1.4 TEST RESULT SUMMARY

SYSTEM PERFORMANCE / VALIDATION CHECK RESULTS

Prior to formal testing being performed a System Check was performed in accordance with Appendix D IEEE 1528-2003 Standard. The following results were obtained: -

Date	Dipole Used	Frequency (MHz)	Max 1g SAR (W/kg)*	Percentage Drift on 1g Reference	Max 10g SAR (W/kg)*	Percentage Drift on 10g Reference
22/09/04	1900	1833.6	39.67*	-0.08%	21.04*	2.61%
22/09/04	2450	2450	51.73*	-1.29%	24.13	0.55%

*Normalised to a forward power of 1W

CO-TRANSMISSION TEST RESULTS

GPRS 1900 only (CW mode); WLAN 2412MHz only (CW mode), Bluetooth 2402 only (CW mode) + GPRS 1900, RLAN & Bluetooth (CW mode) Specific Absorption Rate (Maximum SAR) 1g & 10g Results for the Symbol Technologies MC9062 Mobile Computer

Position & Mode	Channel Number	Frequency (MHz)	Max Spot SAR (W/kg)	Max 1g SAR (W/kg	Max 10g SAR (W/kg)	SAR Drift dB	Area scan (Figure number)
LCD facing out from Phantom in Holster GPRS (CW Probe Calibration)	661	1880.0	0.57	0.465	0.267	0.000	Figure 2
LCD facing out from Phantom in Holster WLAN (CW Probe Calibration)	1	2412	0.06	0.041	0.020	0.000	Figure 3
LCD facing out from Phantom in Holster Bluetooth (CW Probe Calibration)	0	2402	0.01	0.006	0.004	0.000	Figure 4
LCD facing out from Phantom in Holster GPRS + RLAN+ Bluetooth (CW Probe Calibration)	661, 1 & 0	1880.0, 2412 & 2402	0.60	0.487	0.277	-0.060	Figure 5
Limit for General Population (Uncontrolled Exposure) 1.6 W/kg (1g) & 2.0 W/kg (10g)							

1.3 TEST RESULT SUMMARY

OUTPUT POWER OF TEST DEVICE MEASUREMENT METHOD

For the Symbol Technologies MC9062 Mobile Computer.

The Spectrum Analyser was tuned to the test frequency. The device output power setting was controlled via the 'Test Mode' on each handset being set to the conditions specified in the Summary on page 6 of this document. The device was then rotated through 360 degrees until the highest power level was observed in both planes of polarisation. The device was then replaced with a substitution antenna, the signal to the antenna was adjusted to equal the related level detected from the device.

MAXIMUM POWER
Recorded from the Symbol Technologies MC9062 Mobile Computer

Radio Device	Frequency (MHz)	Raw Result (dBm)	Substitution Level (dBm)	Substitution Antenna Gain (dB)	Result ERP (dBm)	Result ERP (mW)
1900MHz GSM MC45	1850.2	-9.8	22.9	8.8	31.7	1.479
1900MHz GSM MC45	1880.0	-10.8	22.6	8.8	31.4	1.380
1900MHz GSM MC45	1909.8	-13.7	18.8	8.8	28.6	724.43
2.4GHz DSSS WLAN Radio	2412.0	-26.3	7.2	9.1	16.3	42.7
2.4GHz DSSS WLAN Radio	2437.0	-28.3	6.9	9.2	16.1	40.7
2.4GHz DSSS WLAN Radio	2462.0	-28.0	6.8	9.2	16.0	39.8
Symbol Bluetooth Module	2402.0	-27.55	7.2	9.1	16.3	42.7
Symbol Bluetooth Module	2441.0	-28.70	5.4	9.4	14.5	28.2
Symbol Bluetooth Module	2480.0	-30.95	3.9	9.2	13.1	20.4

TEST DETAILS

Co-Transmission Specific Absorption Rate Assessment of the
Symbol MC9062 Mobile Computer.

TEST ENGINEERS: A. MILLER

2.1 TEST EQUIPMENT

The following test equipment was used at BABT:

INSTRUMENT DESCRIPTION	MANUFACTURER	MODEL TYPE	INVENTORY NO.	SERIAL NUMBER	CALIBRATION DATES
Bench-top Robot	Mitsubishi	RV-E2	4691	EA009006	N/A
1900 MHz – Head Tissue Simulant	BABT	Head	N/A	Batch 1	31/08/04*
1900 MHz – Body Tissue Simulant	BABT	Body	N/A	Batch 1	31/08/04*
2450 MHz – Head Tissue Simulant	BABT	Head	N/A	Batch 5	31/08/04*
2450 MHz – Body Tissue Simulant	BABT	Body	N/A	Batch 3	31/08/04*
1900 MHz Calibration Dipole	BABT	IEEE1528	A	N/A	22/09/04*
2450 MHz Calibration Dipole	BABT	IEEE1528	A	N/A	22/09/04*
RF Amplifier	Vectawave	10M-2.5G	4697	N/A	N/A
Directional Coupler	Krytar	1850	4651	N/A	TU
20dB Attenuator	Narda	766F-10	EMC 1791	1791	28/05/05 (due)
Power Meter	Rohde Schwarz	NRV	2472	860327/025	28/05/05 (due)
Hygrometer	Rotronic	I-1000	3230	N/A	04/10/04 (due)
Radio Communications Test Set	Rohde Schwarz	CMU200	4858	N/A	30/06/05 (due)
Digital Thermometer	Fluke	51	4221	N/A	17/03/05 (due)
Thermocouple	BABT	J	4222	N/A	17/03/05 (due)
SAR Probe	IndexSAR	IXP-050	N/A	84	18/03/05 (due)
Flat Phantom box 2mm side(200mm cube)	IndexSAR.	N/A	N/A	N/A	N/A

* Verified at time of test.

2.2 TEST SOFTWARE

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

INSTRUMENT	VERSION NO.	DATE
SARA2 system	v.2.3 VPM	29/02/2003
Mitsubishi robot controller firmware revision	RV-E2 Version C9a	-
IXA-10 Probe amplifier	Version 2.5	-

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2.3 DIELECTRIC PROPERTIES OF SIMULANT LIQUIDS

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 23ºC and also for Dimethylsulphoxide (DMS) at 21ºC.

The fluids were made at BABT under controlled conditions from the following OET(65)c formulae and reference made to Standard IEEE 1528-2003. 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**	**2**	**3**	**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		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		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	50	71.88	71.88	49.75	71.88
Measured dielectric parameters																					
ε_r'	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	41.1	40.3	39.2	37.9
σ (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	1.55	1.88	1.82	2.46
Temp. (°C)	22	22	20	22	22	22	20	22	22	21	22	20	21	21	20	22	22	20	20	20	20
Target dielectric parameters (Table 5-1)																					
ε_r'	45.3	43.5		41.5	41.5			40.5	40								39.8		39.2		38.5
σ (S/m)	0.87	0.87		0.9	0.97			1.2	1.4								1.49		1.8		2.4

2.3 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 AND FREQUENY	RELATIVE PERMITTIVITY εr (ε') TARGET	RELATIVE PERMITTIVITY εr (ε') MEASURED	CONDUCTIVITY σ TARGET	CONDUCTIVITY σ MEASURED
Head 1900MHz	40.0	**39.50**	1.40 S/m	**1.403**
Body 1900MHz	53.3	**51.73**	1.52 S/m	**1.558**
Head 2450MHz	39.2	**36.66**	1.80 S/m	**1.856**
Body 2450MHz	52.7	**50.33**	1.95 S/m	**2.036**

Fluid Mass Density, ρ = 1000 kg/m^3

2.4 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 24.4°C to 25.0°C.
The actual Humidity during the testing ranged from 26.3% to 28.8% RH.

TEST FLUID TEMPERATURE RANGE

TISSUE SIMULATING LIQUID TEMPERATURE: +20°C TO +25°C.				
FREQUENCY (MHz)	1900	1900	2450	2450
BODY / HEAD FLUID	HEAD	BODY	HEAD	BODY
MIN TEMPERATURE	23.0	22.5	23.0	22.4
MAX TEMPERATURE	23.0	22.7	23.0	22.7

SAR DRIFT

SAR Drift during this assessment: The maximum SAR Drift, drift due to the mobile phone electronics, was recorded as -0.06% all of the testing.

2.5 MEASUREMENT UNCERTAINTY

Please refer to report number BABT report number WS611528 – 001 Issue 3.01 issued 3rd August 2004 & WS611528 – 002 Issued 2.00 issued 6th August 2004.

2.6 SAR MEASUREMENT SYSTEM

Please refer to report number BABT report number WS611528 – 001 Issue 3.01 issued 3rd August 2004 & WS611528 – 002 Issued 2.00 issued 6th August 2004.

2.7 TEST POSITIONS

OET65(c) FLAT PHANTOM TEST POSITIONS – GRAPHICAL REPRESENTATION

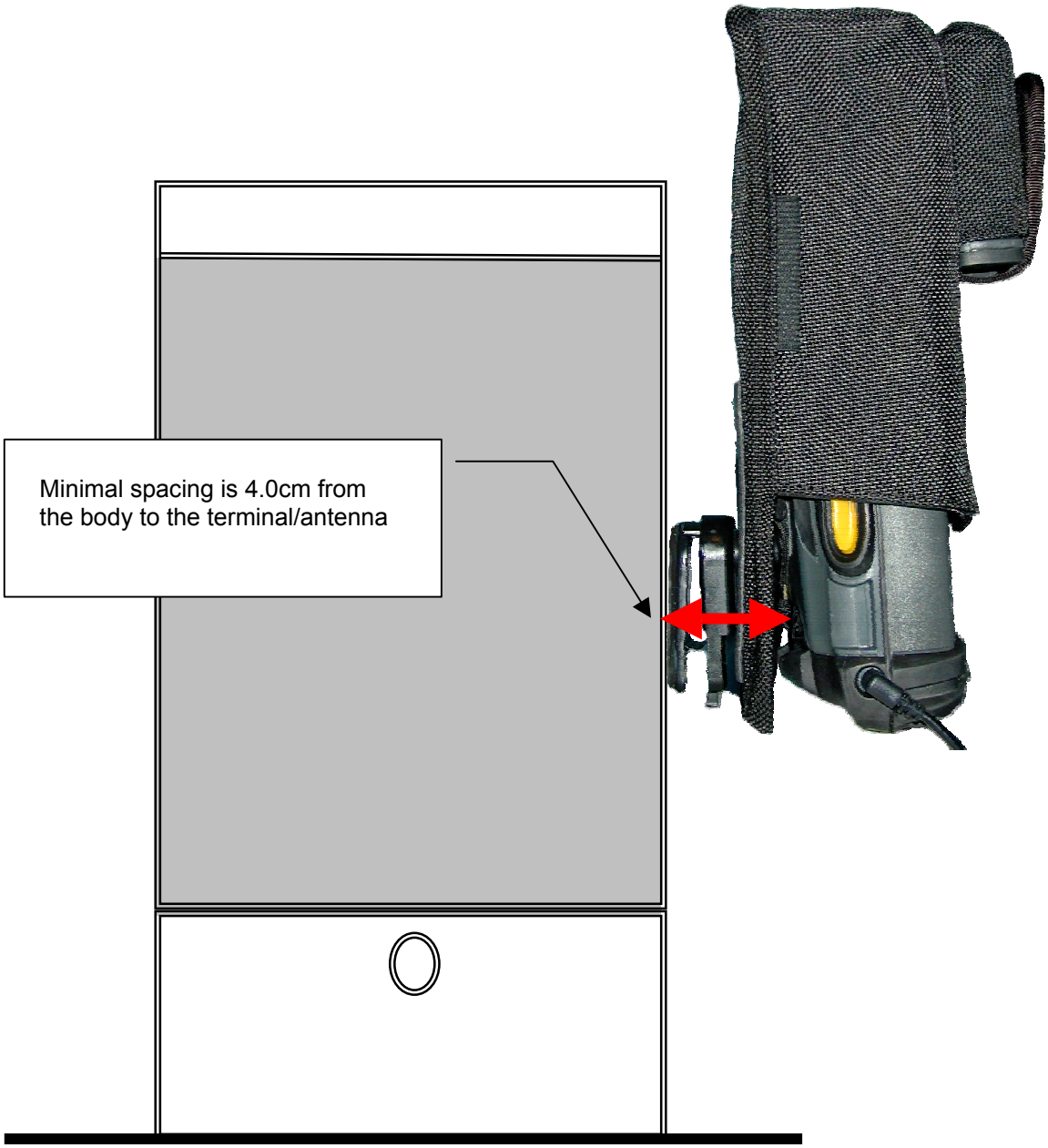

Figure 1. – MC9062 Test position for body assessment in declared ABNORMAL use position; holster belt clip 0.0 cm from phantom side.

2.8 TEST RESULTS INCLUDING SAR DISTRIBUTIONS (AREA SCANS – 2D)

SYSTEM / SOFTWARE:	SARA2 / 2.3 VPM	**INPUT POWER DRIFT:**	0.0 dBm
DATE / TIME:	24/09/2004 13:45:23	**DUT BATTERY MODEL/NO:**	21-62960-01
FILENAME:	612341_611528_001.txt	**PROBE SERIAL NUMBER:**	0084
AMBIENT TEMPERATURE:	24.4°C	**LIQUID SIMULANT:**	1900 Body
DEVICE UNDER TEST:	Symbol MC9062 Brick	**RELATIVE PERMITTIVITY:**	51.73
RELATIVE HUMIDITY:	28.8%	**CONDUCTIVITY:**	1.558
PHANTOM S/NO:	HeadBox01.csv	**LIQUID TEMPERATURE:**	22.5°C
PHANTOM ROTATION:	0°	**MAX SAR Y-AXIS LOCATION:**	0.00 mm
DUT POSITION:	LCD out from phantom	**MAX SAR Z-AXIS LOCATION:**	-140.20 mm
ANTENNA CONFIGURATION:	Fixed Internal	**MAX E FIELD:**	19.17 V/m
TEST FREQUENCY:	1880.0MHz	**SAR 1g:**	0.465 W/kg
AIR FACTORS:	500 / 410 / 385	**SAR 10g:**	0.267 W/kg
CONVERSION FACTORS:	0.405 / 0.405 / 0.405	**SAR START:**	0.173 W/kg
TYPE OF MODULATION:	GMSK	**SAR END:**	0.173 W/kg
MODN. DUTY CYCLE:	25%	**SAR DRIFT DURING SCAN:**	0.00 dB
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	**PROBE BATTERY LAST CHANGED:**	20/09/04
INPUT POWER LEVEL:	Tx 2up 30dBm each	**EXTRAPOLATION:**	poly4

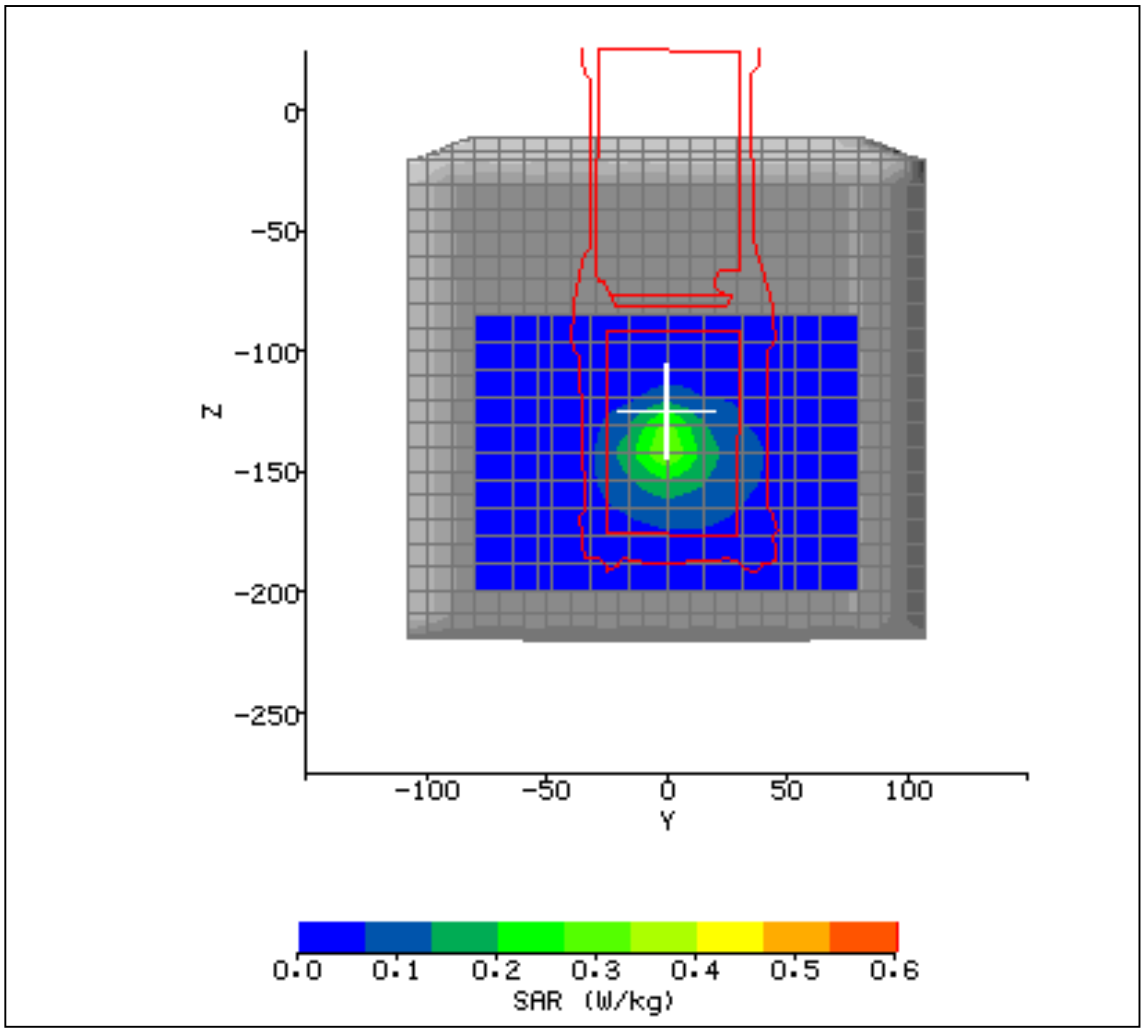

Figure 2

2.8 TEST RESULTS INCLUDING SAR DISTRIBUTIONS (AREA SCANS – 2D)

SYSTEM / SOFTWARE:	SARA2 / 2.3 VPM	**INPUT POWER DRIFT:**	0.0 dBm
DATE / TIME:	24/09/2004 17:32:44	**DUT BATTERY MODEL/NO:**	21-62960-01
FILENAME:	temp.txt	**PROBE SERIAL NUMBER:**	0084
AMBIENT TEMPERATURE:	24.5°C	**LIQUID SIMULANT:**	2450 Body
DEVICE UNDER TEST:	Symbol MC9062 Brick	**RELATIVE PERMITTIVITY:**	50.33
RELATIVE HUMIDITY:	26.3%	**CONDUCTIVITY:**	2.036
PHANTOM S/NO:	HeadBox01.csv	**LIQUID TEMPERATURE:**	22.7°C
PHANTOM ROTATION:	0°	**MAX SAR Y-AXIS LOCATION:**	-1.60 mm
DUT POSITION:	LCD out from phantom	**MAX SAR Z-AXIS LOCATION:**	-139.10 mm
ANTENNA CONFIGURATION:	Fixed Internal	**MAX E FIELD:**	5.22 V/m
TEST FREQUENCY:	2412MHz	**SAR 1g:**	0.041 W/kg
AIR FACTORS:	500 / 410 / 385	**SAR 10g:**	0.020 W/kg
CONVERSION FACTORS:	0.468 / 0.468 / 0.468	**SAR START:**	0.012 W/kg
TYPE OF MODULATION:	CW	**SAR END:**	0.012 W/kg
MODN. DUTY CYCLE:	100%	**SAR DRIFT DURING SCAN:**	0.00 dB
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	**PROBE BATTERY LAST CHANGED:**	20/09/04
INPUT POWER LEVEL:	42.7mW	**EXTRAPOLATION:**	poly4

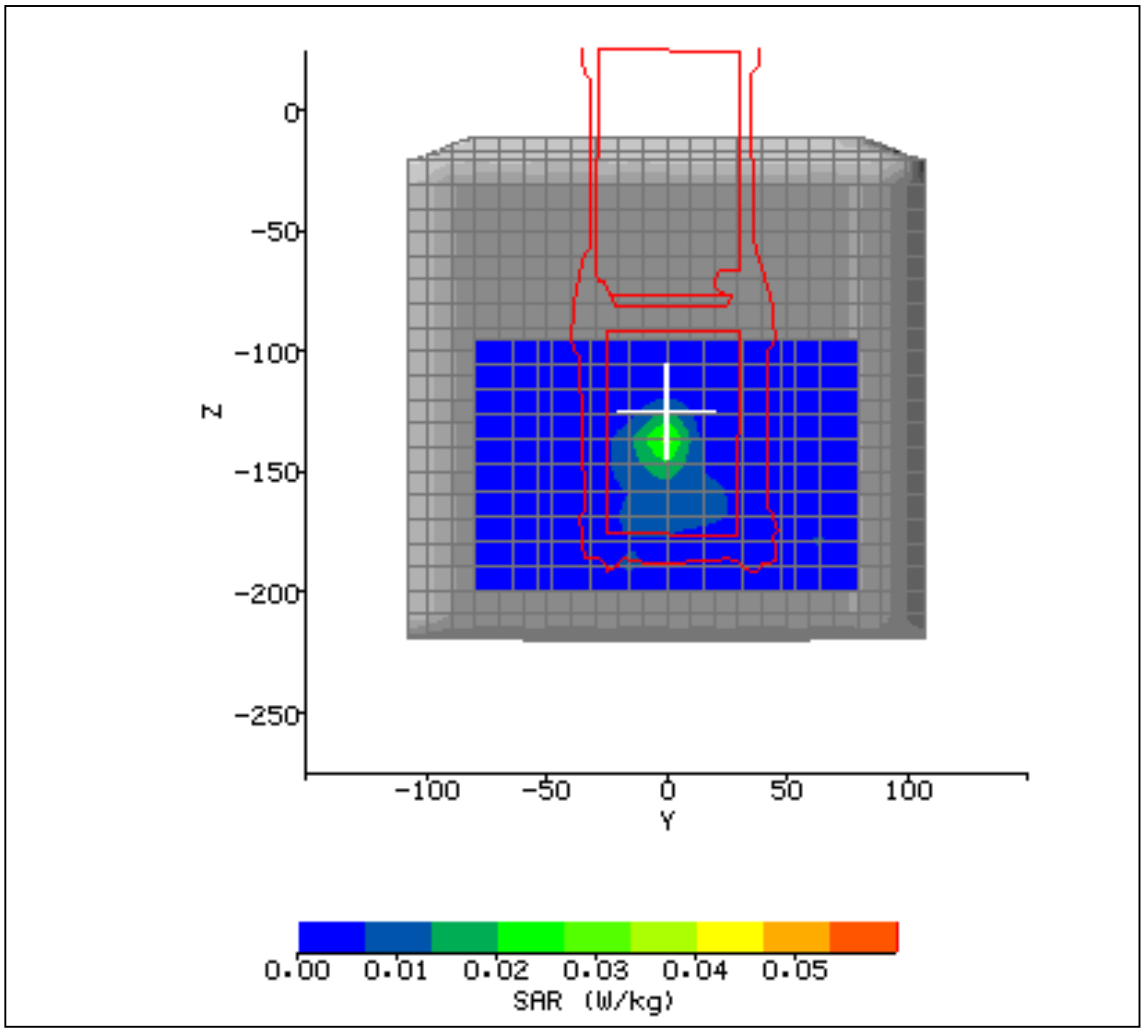

Figure 3

2.8 TEST RESULTS INCLUDING SAR DISTRIBUTIONS (AREA SCANS – 2D)

SYSTEM / SOFTWARE:	SARA2 / 2.3 VPM	**INPUT POWER DRIFT:**	0.0 dBm
DATE / TIME:	24/09/2004 16:53:59	**DUT BATTERY MODEL/NO:**	21-62960-01
FILENAME:	612341_611528_003.txt	**PROBE SERIAL NUMBER:**	0084
AMBIENT TEMPERATURE:	25.0°C	**LIQUID SIMULANT:**	2450 Body
DEVICE UNDER TEST:	Symbol MC9062 Brick	**RELATIVE PERMITTIVITY:**	50.33
RELATIVE HUMIDITY:	26.5%	**CONDUCTIVITY:**	2.036
PHANTOM S/NO:	HeadBox01.csv	**LIQUID TEMPERATURE:**	22.7°C
PHANTOM ROTATION:	0°	**MAX SAR Y-AXIS LOCATION:**	-54.40 mm
DUT POSITION:	LCD out from phantom	**MAX SAR Z-AXIS LOCATION:**	-119.15 mm
ANTENNA CONFIGURATION:	Fixed Internal	**MAX E FIELD:**	1.87 V/m
TEST FREQUENCY:	2402MHz	**SAR 1g:**	0.006 W/kg
AIR FACTORS:	500 / 410 / 385	**SAR 10g:**	0.004 W/kg
CONVERSION FACTORS:	0.468 / 0.468 / 0.468	**SAR START:**	0.002 W/kg
TYPE OF MODULATION:	CW	**SAR END:**	0.002 W/kg
MODN. DUTY CYCLE:	100%	**SAR DRIFT DURING SCAN:**	0.00 dB
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	**PROBE BATTERY LAST CHANGED:**	20/09/04
INPUT POWER LEVEL:	42.7mW	**EXTRAPOLATION:**	poly4

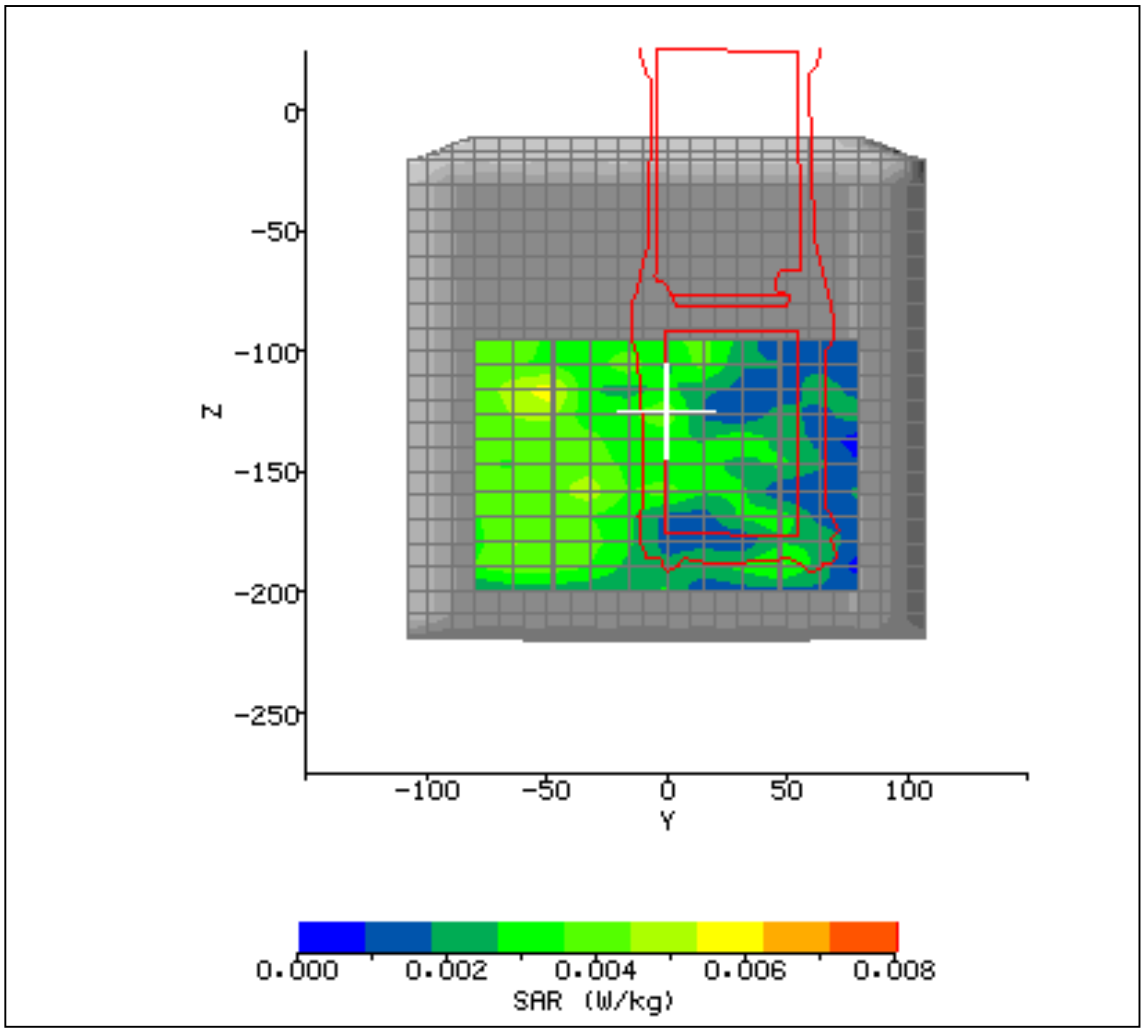

Figure 4

2.8 TEST RESULTS INCLUDING SAR DISTRIBUTIONS (AREA SCANS – 2D)

SYSTEM / SOFTWARE:	SARA2 / 2.3 VPM	**INPUT POWER DRIFT:**	0.0 dBm
DATE / TIME:	24/09/2004 15:43:39	**DUT BATTERY MODEL/NO:**	21-62960-01
FILENAME:	612341_611528_002.txt	**PROBE SERIAL NUMBER:**	0084
AMBIENT TEMPERATURE:	24.7°C	**LIQUID SIMULANT:**	1900 Body
DEVICE UNDER TEST:	Symbol MC9062 Brick	**RELATIVE PERMITTIVITY:**	51.73
RELATIVE HUMIDITY:	27.1%	**CONDUCTIVITY:**	1.558
PHANTOM S/NO:	HeadBox01.csv	**LIQUID TEMPERATURE:**	22.4°C
PHANTOM ROTATION:	0°	**MAX SAR Y-AXIS LOCATION:**	3.20 mm
DUT POSITION:	LCD out from phantom	**MAX SAR Z-AXIS LOCATION:**	-139.05 mm
ANTENNA CONFIGURATION:	Fixed Internal	**MAX E FIELD:**	19.62 V/m
TEST FREQUENCY:	1880.0; 2412 & 2402MHz	**SAR 1g:**	0.487 W/kg
AIR FACTORS:	500 / 410 / 385	**SAR 10g:**	0.277 W/kg
CONVERSION FACTORS:	0.405 / 0.405 / 0.405	**SAR START:**	0.184 W/kg
TYPE OF MODULATION:	GMSK, CW, & CW	**SAR END:**	0.181 W/kg
MODN. DUTY CYCLE:	25%, 100%, 100%	**SAR DRIFT DURING SCAN:**	-0.06 dB
DIODE COMPRESSION FACTORS (V*200):	20 / 20 / 20	**PROBE BATTERY LAST CHANGED:**	20/09/04
INPUT POWER LEVEL:	2x30dBm;42.7mW & 42.7mW	**EXTRAPOLATION:**	poly4

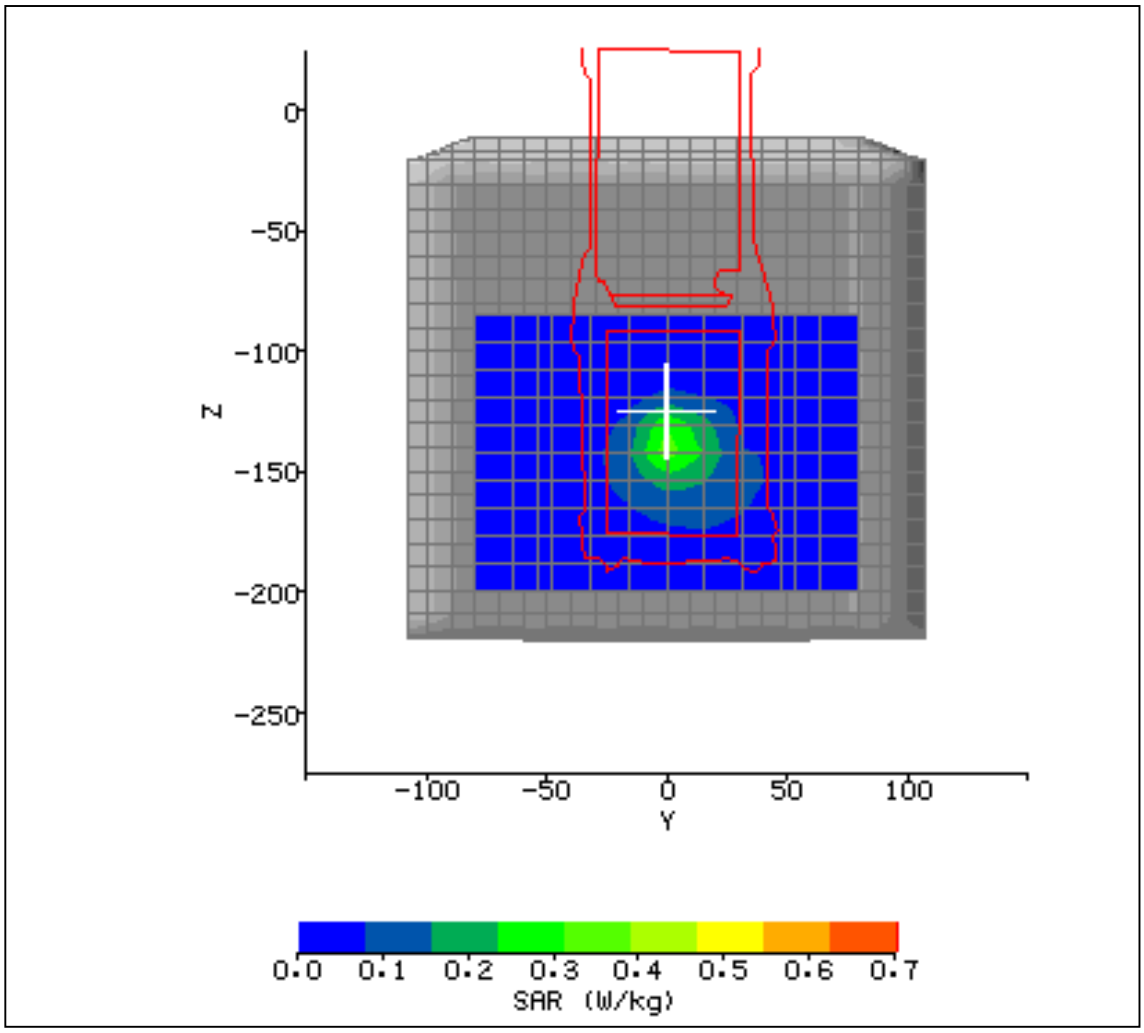

Figure 5

2.9 TEST POSITIONAL PHOTOGRAPHS

Figure 6 – With the device in a Mobile Computer Holster with the LCD facing out from the rear of the Holster and the belt Clip in contact with the flat phantom

2.10 RECORD PHOTOGRAPHS

Figure 7. Front View

2.11 COPYRIGHT STATEMENT