
	<u>Date(s) of Evaluation</u> June 26-27, 2007	<u>Test Report Serial No.</u> 050707KBC-T830-S15W	<u>Test Report Revision No.</u> Revision 1.1	 Certificate No. 2470.01
	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	

RF EXPOSURE EVALUATION
SPECIFIC ABSORPTION RATE

SAR TEST REPORT

FOR

GENERAL DYNAMICS ITRONIX CORPORATION

IX750 FOOTPRINT PC

WITH

INTEL PRO 3945ABG 802.11abg WLAN

IDENTIFIER(S)	FCC ID: KBCIX-WL3945	IC: 1943A-WL3945
Test Standard(s) and Procedure(s)	FCC OET Bulletin 65, Supplement C (01-01)	
	FCC OET SAR Measurement Procedures for 802.11a/b/g	
	FCC OET SAR Measurement Requirements for 3 - 6 GHz	
	Industry Canada RSS-102 Issue 2	

Test Report Serial No.

050707KBC-T830-S15W

Test Report Revision No.

Revision 1.1 (2nd Release - 07/12/07)

Revision 1.0 (1st Release - 07/06/07)


Test Lab and Location



Celltech Compliance Testing & Engineering Lab
(Celltech Labs Inc.)
21-364 Lougheed Rd.
Kelowna, BC V1X 7R8
Canada



Certificate No. 2470.01

<u>Testing and Report By:</u> Cheri Frangiadakis Celltech Labs Inc.	<u>Test Report Reviewed By:</u> Jonathan Hughes Celltech Labs Inc.
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Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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DECLARATION OF COMPLIANCE SAR RF EXPOSURE EVALUATION

<u>Test Lab and Location</u>		<u>Company Information</u>	
CELLTECH LABS INCORPORATED Testing and Engineering Services 21-364 Lougheed Road Kelowna, BC V1X 7R8 Canada Tel.: 1-250-765-7650 Fax: 1-250-765-7645 e-mail: info@celltechlabs.com Web site: www.celltechlabs.com		GENERAL DYNAMICS ITRONIX CORPORATION 12825 E. Mirabeau Parkway Spokane Valley, WA 99216 United States	
FCC IDENTIFIER:	KBCIX-WL3945		
IC IDENTIFIER:	1943A-WL3945		
Standard(s) Applied:	FCC 47 CFR §2.1093; Health Canada Safety Code 6		
Procedure(s) Applied:	FCC OET Bulletin 65, Supplement C (Edition 01-01) FCC OET SAR Measurement Procedures for 802.11a/b/g FCC OET SAR Measurement Requirements for 3 - 6 GHz Industry Canada RSS-102 Issue 2		
FCC Device Classification(s):	Digital Transmission System (DTS) - §15C Unlicensed National Information Infrastructure TX (NII) - §15E		
IC Device Classification(s):	Low Power License-Exempt Radiocommunication Device (RSS-210)		
Device Model & Description:	IX750 Footprint PC		
Internal Transmitter Type:	Intel PRO 3945ABG 802.11abg WLAN Mini-PCI Express Card		
Mode(s) of Operation:	802.11b: DSSS (Direct Sequence Spread Spectrum) 802.11a/g: OFDM (Orthogonal Frequency Division Multiplexing)		
Transmit Frequency Range(s):	2412 - 2462 MHz 802.11b/g (ISM Band) 5180 - 5240 MHz 802.11a (UNII-1) 5260 - 5320 MHz 802.11a (UNII-2) 5745 - 5825 MHz 802.11a (UNII-3)		
Max. RF Output Power Tested:	18.0 dBm (63.1 mW) Average Conducted (ISM: 802.11b - 2442 MHz - 1 Mbps) 15.9 dBm (38.9 mW) Average Conducted (UNII-1: 802.11a - 5180 MHz - 6 Mbps) 17.2 dBm (52.5 mW) Average Conducted (UNII-2: 802.11a - 5260 MHz - 6 Mbps) 17.2 dBm (52.5 mW) Average Conducted (UNII-3: 802.11a - 5825 MHz - 6 Mbps)		
Max. Duty Cycle(s) Tested:	802.11a: 90%; 802.11b: 98% (Source-Based Time-Averaged)		
802.11abg Data Rates:	802.11b: 1 / 2 / 5.5 / 11 Mbps; 802.11a/g: 6 / 9 / 12 / 18 / 24 / 36 / 48 / 54 Mbps		
Battery Type(s) Tested:	Lithium-ion 7.4V, 7.6Ah (Model: IX750-59WHR)		
Antenna Type(s) Tested:	Internal Switched Diversity (MAIN & AUX)		
Max. SAR Level(s) Evaluated:	Body: 0.0184 W/kg (1g average) ISM (802.11b) Body: 0.0142 W/kg (1g average) UNII-1 (802.11a) Body: 0.0681 W/kg (1g average) UNII-2 (802.11a) Body: 0.0900 W/kg (1g average) UNII-3 (802.11a)		


Celltech Labs Inc. declares under its sole responsibility that this wireless portable device was compliant with the Specific Absorption Rate (SAR) RF exposure requirements specified in FCC 47 CFR §2.1093 and Health Canada's Safety Code 6. The device was tested in accordance with the measurement standards and procedures specified in FCC OET Bulletin 65, Supplement C (Edition 01-01) and Industry Canada RSS-102 Issue 2 for the General Population / Uncontrolled Exposure environment. All measurements were performed in accordance with the SAR system manufacturer recommendations.

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

This test report shall not be reproduced partially, or in full, without the prior written approval of Celltech Labs Inc. The results and statements contained in this report pertain only to the device(s) evaluated.

Test Report Approved By: Sean Johnston Celltech Labs Inc.
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Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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1.0 INTRODUCTION

This measurement report demonstrates that GENERAL DYNAMICS ITRONIX CORPORATION Model: IX750 Footprint PC incorporating the Intel PRO 3945ABG 802.11abg WLAN Mini-PCI Express Card complies with the SAR (Specific Absorption Rate) RF exposure requirements specified in FCC 47 CFR §2.1093 (see reference [1]) and Health Canada's Safety Code 6 (see reference [2]) for the General Population / Uncontrolled Exposure environment. The test procedures described in FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]) and IC RSS-102 Issue 2 (see reference [4]) were employed. A description of the product and operating configuration, detailed summary of the test results, methodology and procedures used in the evaluation, equipment used, and the various provisions of the rules are included within this test report.

2.0 DESCRIPTION of DEVICE UNDER TEST (DUT)

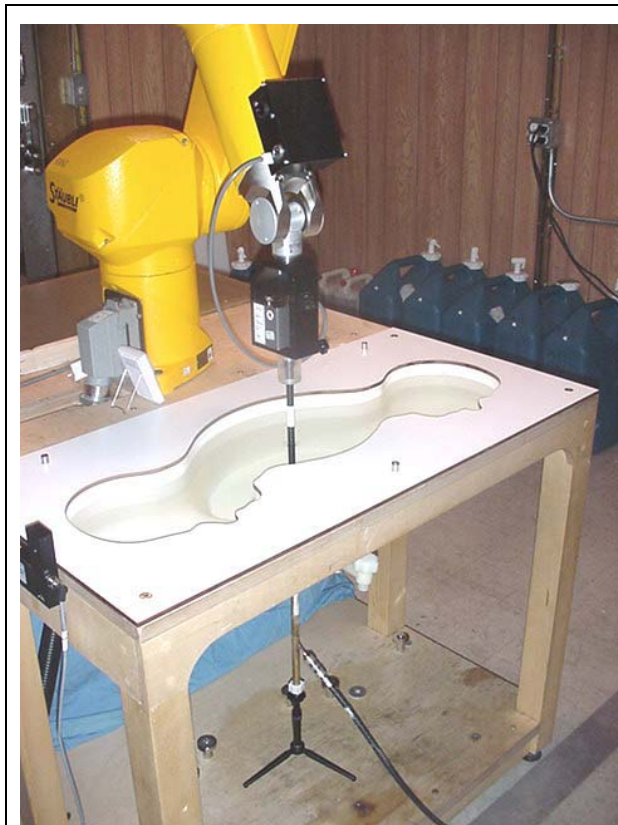
Standard(s) Applied	FCC 47 CFR §2.1093			Health Canada Safety Code 6			
Procedure(s) Applied	FCC OET Bulletin 65, Supplement C (01-01)			Industry Canada RSS-102 Issue 2			
	FCC OET SAR Measurement Requirements for 3 - 6 GHz			FCC OET SAR Measurement Procedures for 802.11abg			
FCC Device Classification(s)	Digital Transmission System (DTS)			§15C	2412 - 2462 MHz	5745 - 5825 MHz	
	Unlicensed National Information Infrastructure TX (NII)			§15E	5180 - 5320 MHz		
IC Device Classification(s)	Low Power License-Exempt Radiocommunication Device: Category I Equipment				RSS-210		
RF Exposure Category	Uncontrolled Environment / General Population						
Device Model & Description	IX750 Footprint PC						
Internal Transmitter Type(s)	Intel PRO 3945ABG 802.11abg WLAN Mini-PCI Express Card						
FCC IDENTIFIER	KBCIX-WL3945		IC IDENTIFIER	1943A-WL3945			
Test Sample Serial No.(s)	F10140071N00067			Production Unit			
Mode(s) of Operation	802.11a/g	OFDM		Orthogonal Frequency Division Multiplexing			
	802.11b	DSSS		Direct Sequence Spread Spectrum			
802.11abg Data Rates	802.11a/g	6 / 9 / 12 / 18 / 24 / 36 / 48 / 54 Mbps		802.11b	1 / 2 / 5.5 / 11 Mbps		
Transmit Frequency Range(s)	5180 - 5240 MHz	802.11a	UNII-1	5260 - 5320 MHz	802.11a	UNII-2	
	5745 - 5825 MHz	802.11a	UNII-3	2412 - 2462 MHz	802.11b/g	ISM Band	
Max. RF Output Power Levels Measured	Transmit Mode		Frequency (MHz)	Data Rate (Mbps)	Average Conducted Power		
					dBm	mW	
	802.11b	ISM	2412	1	17.2	52.5	
	802.11b	ISM	2442	1	18.0	63.1	
	802.11b	ISM	2462	1	17.9	61.7	
	802.11g	ISM	2442	6	17.3	53.7	
	802.11a	UNII-1	5180	6	15.9	38.9	
	802.11a	UNII-1	5240	6	15.8	38.0	
	802.11a	UNII-2	5260	6	17.2	52.5	
	802.11a	UNII-2	5320	6	17.2	52.5	
	802.11a	UNII-3	5745	6	16.8	47.9	
	802.11a	UNII-3	5785	6	17.0	50.1	
802.11a	UNII-3	5825	6	17.2	52.5		
Max. Duty Cycle(s) Tested	802.11b	98%	Crest Factor 1:1.02	802.11a	90%	Crest Factor 1:1.1	
Antenna Type(s) Tested	Internal	Switched Diversity	MAIN - Top Side of LCD Display		AUX - Left Side of LCD Display		
Power Source(s) Tested	Battery	Lithium-ion	7.4V	7.6Ah	Model: IX750-59WHR		

Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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3.0 SAR MEASUREMENT SYSTEM


Celltech Labs Inc. SAR measurement facility utilizes the Dosimetric Assessment System (DASY™) manufactured by Schmid & Partner Engineering AG (SPEAG™) of Zurich, Switzerland. The DASY4 measurement system is comprised of the measurement server, robot controller, computer, near-field probe, probe alignment sensor, specific anthropomorphic mannequin (SAM) phantom, and various planar phantoms for brain and/or body SAR evaluations. The robot is a six-axis industrial robot performing precise movements to position the probe to the location (points) of maximum electromagnetic field (EMF). A cell controller system contains the power supply, robot controller, teach pendant (Joystick), and remote control, is used to drive the robot motors. The Staubli robot is connected to the cell controller to allow software manipulation of the robot. A data acquisition electronic (DAE) circuit performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. is connected to the Electro-optical coupler (EOC). The EOC performs the conversion from the optical into digital electric signal of the DAE and transfers data to the DASY4 measurement server. The DAE4 utilizes a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16-bit AD-converter and a command decoder and control logic unit. Transmission to the DASY4 measurement server is accomplished through an optical downlink for data and status information and an optical uplink for commands and clock lines. The mechanical probe-mounting device includes two different sensor systems for frontal and sidewise probe contacts. The sensor systems are also used for mechanical surface detection and probe collision detection. The robot uses its own controller with a built in VME-bus computer.





DASY4 Measurement System with SAM Phantom and validation dipole




DASY4 Measurement System with SAM Phantom and device holder



Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
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4.0 MEASUREMENT SUMMARY

BODY SAR MEASUREMENT RESULTS (802.11b: 2.4 GHz)											
Transmit Mode	Test Mode	Freq.	Chan.	Data Rate	Battery Type	Antenna Type	DUT Position To Planar Phantom	Antenna Distance to Planar Phantom	Cond. Power Before Test	SAR Drift During Test	Measured SAR 1g
		MHz		Mbps				cm	dBm	dB	W/kg
802.11b	DSSS	2442	7	1	Li-ion	MAIN	Bottom Touch (LCD Open)	4.7	18.0	-0.040	0.00550
802.11b	DSSS	2442	7	1	Li-ion	AUX	Bottom Touch (LCD Open)	4.3	18.0	-0.050	0.0184
ANSI / IEEE C95.1: 2005 - SAFETY LIMIT				BODY: 1.6 W/kg (averaged over 1 gram)				Spatial Peak Uncontrolled Exposure / General Population			
Test Date(s)		June 27, 2007				Relative Humidity		30	%		
Measured Fluid Type		2450 MHz Body				Atmospheric Pressure		101.1	kPa		
Dielectric Constant ϵ		IEEE Target		Measured	Deviation	Ambient Temperature		24.7	°C		
		52.7	±5%	50.3	-4.5%	Fluid Temperature		22.2	°C		
Conductivity σ (mho/m)		IEEE Target		Measured	Deviation	Fluid Depth		≥ 15	cm		
		1.95	±5%	1.98	+1.6%	ρ (Kg/m³)		1000			
Note(s)		1.	The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.								
		2.	If the SAR levels measured at the highest output channel were ≥ 3 dB below the SAR limit, SAR evaluation for the remaining channels was optional (per FCC OET "SAR Measurement Procedures for 802.11a/b/g Transmitters" - see reference [7]).								
		3.	Higher data rates (and 802.11g mode) were not evaluated based on the average output power levels were not 0.25 dB > the output power level measured at the lowest data rate in 802.11b mode (per FCC OET "SAR Measurement Procedures for 802.11a/b/g Transmitters" - see reference [7]).								
		4.	The power drift of the DUT measured by the DASY4 system during the SAR evaluations was <5% from the start power.								
		5.	The DUT battery was fully charged prior to the SAR evaluations.								
		6.	The fluid temperature was measured prior to and after the SAR evaluations to ensure the temperature remained within +/-2°C of the fluid temperature reported during the dielectric parameter measurements.								
		7.	The dielectric parameters of the simulated tissue mixtures were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C).								
		8.	The SAR evaluations were performed within 24 hours of the system performance check.								

Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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MEASUREMENT SUMMARY (Cont.)

BODY SAR MEASUREMENT RESULTS (802.11a: 5.2 GHz)

Transmit Mode	Test Mode	Freq. MHz	Chan.	Data Rate Mbps	Battery Type	Antenna Type	DUT Position to Planar Phantom	Antenna Spacing to Planar Phantom	Cond. Power Before Test	SAR Drift During Test	Measured SAR 1g	
								cm	dBm	dB	W/kg	
802.11a	UNII-1	OFDM	5180	36	6	Li-ion	MAIN	Bottom Touch (LCD Open)	4.7	15.9	-0.175	0.00465
802.11a	UNII-1	OFDM	5180	36	6	Li-ion	AUX	Bottom Touch (LCD Open)	4.3	15.9	-0.050	0.0142
802.11a	UNII-2	OFDM	5260	52	6	Li-ion	MAIN	Bottom Touch (LCD Open)	4.7	17.2	-0.124	0.0131
802.11a	UNII-2	OFDM	5260	52	6	Li-ion	AUX	Bottom Touch (LCD Open)	4.3	17.2	-0.100	0.0681


ANSI / IEEE C95.1: 2005 - SAFETY LIMIT



BODY: 1.6 W/kg (averaged over 1 gram)

Spatial Peak
Uncontrolled Exposure / General Population

Test Date(s)	June 26, 2007			June 26, 2007			Measured Fluid Type	5180 MHz	5260 MHz	Unit	
Dielectric Constant ϵ_r	5180 MHz Body			5260 MHz Body			Relative Humidity	33	33	%	
	IEEE Target	Meas.	Dev.	IEEE Target	Meas.	Dev.	Atmospheric Pressure	101.0	101.0	kPa	
	49.0	±10%	44.4	-9.3%	48.9	±10%	44.0	-10.0%	Ambient Temperature	23.3	23.3
Conductivity σ (mho/m)	5180 MHz Body			5260 MHz Body			Fluid Temperature	22.0	22.0	°C	
	IEEE Target	Meas.	Dev.	IEEE Target	Meas.	Dev.	Fluid Depth	≥ 15	≥ 15	cm	
	5.28	±5%	5.46	+3.4%	5.37	±5%	5.53	+3.0%	ρ (Kg/m ³)	1000	

Note(s)	
1.	The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2.	If the SAR levels measured at the highest output channel were ≥ 3 dB below the SAR limit, SAR evaluation for the remaining channels was optional (per FCC OET "SAR Measurement Procedures for 802.11a/b/g Transmitters" - see reference [7]).
3.	Higher data rates were not evaluated based on the average output power levels were not 0.25 dB > the output power level measured at the lowest data rate (per FCC OET "SAR Measurement Procedures for 802.11a/b/g Transmitters" - see reference [7]).
4.	The power drift of the DUT measured by the DASY4 system during the SAR evaluations was <5% from the start power.
5.	The DUT battery was fully charged prior to the SAR evaluations.
6.	The fluid temperature was measured prior to and after the SAR evaluations to ensure the temperature remained within +/-2°C of the fluid temperature reported during the dielectric parameter measurements.
7.	The dielectric parameters of the simulated tissue mixtures were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C).
8.	The SAR evaluations were performed within 24 hours of the system performance check.


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MEASUREMENT SUMMARY (Cont.)

BODY SAR MEASUREMENT RESULTS (802.11a: 5.8 GHz)

Transmit Mode	Test Mode	Freq.	Chan.	Data Rate	Battery Type	Antenna Type	DUT Position to Planar Phantom	Antenna Spacing to Planar Phantom	Cond. Power Before Test	SAR Drift During Test	Measured SAR 1g
		MHz		Mbps				cm	dBm	dB	W/kg
802.11a UNII-3	OFDM	5825	165	6	Li-ion	MAIN	Bottom Touch (LCD Open)	4.7	17.2	0.210	0.0139
802.11a UNII-3	OFDM	5825	165	6	Li-ion	AUX	Bottom Touch (LCD Open)	4.3	17.2	0.205	0.0900
ANSI / IEEE C95.1: 2005 - SAFETY LIMIT				BODY: 1.6 W/kg (averaged over 1 gram)				Spatial Peak Uncontrolled Exposure / General Population			
Test Date(s)	June 27, 2007						Relative Humidity	30			%
Measured Fluid Type	5800 MHz Body						Atmospheric Pressure	101.2			kPa
Dielectric Constant ϵ_r	IEEE Target		Measured	Deviation	Ambient Temperature		24.7			°C	
	48.2	±10%	45.3	-6.0%	Fluid Temperature		22.5			°C	
Conductivity σ (mho/m)	IEEE Target		Measured	Deviation	Fluid Depth		≥ 15			cm	
	6.00	±5%	6.28	+4.7%	ρ (Kg/m³)		1000				
Note(s)	1.	The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.									
	2.	If the SAR levels measured at the highest output channel were ≥ 3 dB below the SAR limit, SAR evaluation for the remaining channels was optional (per FCC OET "SAR Measurement Procedures for 802.11a/b/g Transmitters" - see reference [7]).									
	3.	Higher data rates were not evaluated based on the average output power levels were not 0.25 dB > the output power level measured at the lowest data rate (per FCC OET "SAR Measurement Procedures for 802.11a/b/g Transmitters" - see reference [7]).									
	4.	The power drift of the DUT measured by the DASY4 system during the SAR evaluations was <5% from the start power.									
	5.	The DUT battery was fully charged prior to the SAR evaluations.									
	6.	The fluid temperature was measured prior to and after the SAR evaluations to ensure the temperature remained within +/-2°C of the fluid temperature reported during the dielectric parameter measurements.									
	7.	The dielectric parameters of the simulated tissue mixtures were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C).									
	8.	The SAR evaluations were performed within 24 hours of the system performance check.									

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5.0 DETAILS OF SAR EVALUATION

The GENERAL DYNAMICS ITRONIX CORPORATION Model: IX750 Footprint PC with Intel PRO 3945ABG 802.11abg WLAN Mini-PCI Express Card was compliant for localized Specific Absorption Rate (Uncontrolled Exposure) based on the test provisions and conditions described below. The SAR test setup photographs are shown in Appendix E.

Test Configuration(s)

- The DUT was evaluated for body SAR (lap-held) with the bottom side of the DUT placed parallel to the outer surface of the SAM phantom (planar section). The bottom side of the DUT was touching the SAM phantom (planar section) and the LCD display was open with a distance of 4.7 cm from the MAIN antenna to the SAM phantom (planar section) and a distance of 4.3 cm from the AUX antenna to the SAM phantom (planar section). The DUT was evaluated for body SAR (lap-held) with both the MAIN and AUX switched diversity antennas tested individually.

Test Mode(s) & Power Setting(s)

- The DUT was tested using proprietary internal test software provided by the WLAN Mini-PCI card manufacturer.
- The DUT was transmitting continuously at maximum power and duty cycle with a modulated DSSS signal in 802.11b mode and a modulated OFDM signal in 802.11a/g modes.
- The average conducted output power levels were measured prior to the SAR evaluations using a spectrum analyzer according to 15.247(b) (KDB Publication #558074 - Power Output Option 2, Method 1). The RBW was set to 1 MHz and the VBW was set to 3 MHz.
- The power drift of the DUT was measured by the DASY4 system during the SAR evaluations.
- The DUT battery was fully charged prior to the SAR evaluations.

6.0 EVALUATION PROCEDURES


- (i) The SAR evaluations were performed in the applicable area of the phantom depending on the type of device being tested. For devices held to the ear during normal operation, both the left and right ear positions were evaluated using the SAM phantom.
(ii) For body-worn and face-held devices a planar phantom was used.
- The SAR was determined by a pre-defined procedure within the DASY4 software. Upon completion of a reference and optical surface check, the exposed region of the phantom was scanned near the inner surface with a grid spacing of 15mm x 15mm.



An area scan was determined as follows:

- Based on the defined area scan grid, a more detailed grid is created to increase the points by a factor of 10. The interpolation function then evaluates all field values between corresponding measurement points.
- A linear search is applied to find all the candidate maxima. Subsequently, all maxima are removed that are >2 dB from the global maximum. The remaining maxima are then used to position the cube scans.

A 1g and 10g spatial peak SAR was determined as follows:

- Extrapolation is used to determine the values between the dipole center of the probe and the surface of the phantom. This data cannot be measured because the center of the dipole sensors is 1.0 mm away from the probe tip and the distance between the probe and the boundary must be larger than 25% of the probe diameter. The probe diameter is 2.4 mm. In the DASY4 software, the distance between the sensor center and phantom surface is set to 2.0 mm. This provides a distance of 1.0 mm between the probe tip and the surface. The extrapolation of the values between the dipole center and the surface of the phantom was based on trivariate quadratics computed from the previously calculated 3D interpolated points nearest the phantom surface.
- Interpolated data is used to calculate the average SAR over 1g and 10g cubes by spatially discretizing the entire measured cube. The volume used to determine the averaged SAR is a 1mm grid (42875 interpolated points).
- For frequencies < 3 GHz a zoom scan volume of 24 mm x 24 mm x 24 mm (7x7x7 points) centered at the peak SAR location determined from the area scan was used and a zoom scan resolution of 5 mm x 5 mm x 5 mm was used.
- For frequencies > 3 GHz a zoom scan volume of 24 mm x 24 mm x 20 mm (7x7x9 points) centered at the peak SAR location determined from the area scan was used and a zoom scan resolution of 4 mm x 4 mm x 2.5 mm was used.

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Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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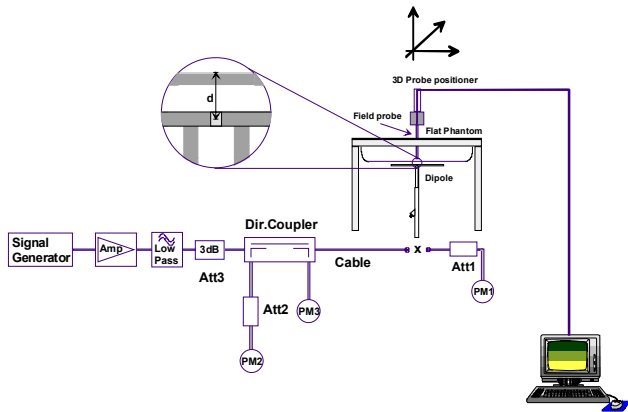
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7.0 SYSTEM PERFORMANCE CHECK

Prior to the SAR evaluations, system checks were performed using the planar section of the SAM phantom with 2450 MHz and 5GHz validation dipoles (see Appendix F for system validation procedures). The dielectric parameters of the simulated tissue mixtures were measured prior to the system performance checks using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C). A forward power of 250 mW was applied to the dipole and the system was verified to a tolerance of $\pm 10\%$ (see Appendix B for system performance check test plots). Please refer to the tables at the bottom of this page for system manufacturer's reference SAR values from the DASY4 Manual (see reference [6]).

SYSTEM PERFORMANCE CHECK EVALUATIONS

Test Date	Equiv. Body Tissue	SAR 1g (W/kg)			PEAK SAR (W/kg)			Dielectric Constant ϵ_r			Conductivity σ (mho/m)			Amb. Temp. (°C)	Fluid Temp. (°C)	Humid %	Barom. Press. (kPa)
		SPEAG Target	Meas.	Dev.	SPEAG Target	Meas.	Dev.	IEEE Target	Meas.	Dev.	IEEE Target	Meas.	Dev.				
Jun 26	5200	18.0 $\pm 10\%$	17.6	-2.2%	71.2 $\pm 15\%$	69.5	-2.4%	49.0 $\pm 10\%$	44.4	-9.3%	5.30 $\pm 5\%$	5.50	+3.8%	23.3	22.0	33	101.0
Jun 27	5800	18.5 $\pm 10\%$	20.1	+8.7%	81.2 $\pm 15\%$	93.3	+14.9%	48.2 $\pm 10\%$	45.3	-6.0%	6.00 $\pm 5\%$	6.28	+4.7%	24.7	22.5	30	101.2
Jun 27	2450	12.8 $\pm 10\%$	13.6	+6.3%	--	--	--	52.7 $\pm 5\%$	50.3	-4.5%	1.95 $\pm 5\%$	1.98	+1.6%	24.8	22.6	31	101.1
Fluid Depth		≥ 15 cm		Note(s)	The fluid temperature was measured prior to and after each of the system performance check evaluations to ensure the temperature remained within $\pm 2^\circ\text{C}$ of the fluid temperature reported during the dielectric parameter measurements.												
ρ (Kg/m³)		1000															



Dipole Type	Distance [mm]	Frequency [MHz]	SAR (1g) [W/kg]	SAR (10g) [W/kg]	SAR (peak) [W/kg]
D300V2	15	300	3.02	2.06	4.36
D450V2	15	450	5.01	3.36	7.22
D835V2	15	835	9.71	6.38	14.1
D900V2	15	900	11.1	7.17	16.3
D1450V2	10	1450	29.6	16.6	49.8
D1500V2	10	1500	30.8	17.1	52.1
D1640V2	10	1640	34.4	18.7	59.4
D1800V2	10	1800	38.5	20.3	67.5
D1900V2	10	1900	39.8	20.8	69.6
D2000V2	10	2000	40.9	21.2	71.5
D2450V2	10	2450	51.2	23.7	97.6
D3000V2	10	3000	61.9	24.8	136.7

Table 32.1: Numerical reference SAR values for SPEAG dipoles and flat phantom filled with body-tissue simulating liquid. Note: All SAR values normalized to 1 W forward power.

Figure 1. System Performance Check Measurement Setup

Table 1. SAR system manufacturer's reference body SAR values (< 5 GHz)

Reference SAR values

The reference SAR values were calculated using finite-difference time-domain FDTD method (feed-point impedance set to 50 Ω) and the mechanical dimensions of the D5GHzV2 dipole (manufactured by SPEAG).

f (GHz)	Head Tissue			Body Tissue		
	SAR_{1g}	SAR_{10g}	SAR_{peak}	SAR_{1g}	SAR_{10g}	SAR_{peak}
5.0	72.9	20.7	285.6	68.1	19.2	260.3
5.1	74.6	21.1	297.5	78.8	19.6	272.3
5.2	76.5	21.6	310.3	71.8	20.1	284.7
5.5	83.3	23.4	349.4	79.1	22.0	326.3
5.8	78.0	21.9	340.9	74.1	20.5	324.7

Table 27.2: Numerical reference SAR values for D5GHzV2 dipole and flat phantom.






2450 MHz Dipole Setup



5 GHz Dipole Setup

Table 2. SAR system manufacturer's reference body SAR values (≥ 5 GHz)

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Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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8.0 SIMULATED EQUIVALENT TISSUES



The 2450MHz body simulated tissue mixture consisted of Glycol-monobutyl, water, and salt. The 5.2GHz and 5.8GHz simulated tissue mixtures provided by SPEAG are listed below. The dielectric parameters of the fluid (permittivity and conductivity) were measured prior to the SAR evaluations. See Appendix D for manufacturer's fluid data sheet.

SIMULATED TISSUE MIXTURES								
INGREDIENT			2450 MHz Body			2450 MHz Body		
			System Performance Check			DUT Evaluation		
Water			69.98 %			69.98 %		
Glycol Monobutyl			30.00 %			30.00 %		
Salt			0.02 %			0.02 %		
INGREDIENT			5.2 / 5.8 GHz Body			5.2 / 5.8 GHz Body		
			System Performance Check			DUT Evaluation		
Water			64 - 78%			64 - 78%		
Mineral Oil			11 - 18%			11 - 18%		
Emulsifiers			9 - 15%			9 - 15%		
Additives and Salt			2 - 3%			2 - 3%		
TISSUE TEMPERATURE SENSITIVITY (5 GHz)								
Date	Tissue Type	Temp. (°C)	Dielectric Constant ϵ_r			Conductivity σ (mho/m)		
			IEEE Target	Meas.	Dev.	IEEE Target	Meas.	Dev.
May 10	Body	20	48.2 \pm 10%	44.7	-7.2%	6.00 \pm 5%	5.86	-2.3%
May 10	Body	22		44.6	-7.4%		5.97	-0.5%
May 10	Body	24		45.1	-6.4%		5.98	-0.3%
Note(s)	1. The fluid temperature during the SAR evaluations remained within \pm 2°C from the temperature reported during the dielectric parameter measurements. The fluid temperature sensitivity data is reported to show that the tissue dielectric parameters remained within the required tolerance during the SAR evaluations.							

9.0 SAR SAFETY LIMITS


EXPOSURE LIMITS	SAR (W/kg)	
	(General Population / Uncontrolled Exposure Environment)	(Occupational / Controlled Exposure Environment)
Spatial Average (averaged over the whole body)	0.08	0.4
Spatial Peak (averaged over any 1 g of tissue)	1.60	8.0
Spatial Peak (hands/wrists/feet/ankles averaged over 10 g)	4.0	20.0
The Spatial Average value of the SAR averaged over the whole body.		
The Spatial Peak value of the SAR averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.		
The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.		
Uncontrolled environments are defined as locations where there is potential exposure of individuals who have no knowledge or control of their potential exposure.		
Controlled environments are defined as locations where there is potential exposure of individuals who have knowledge of their potential exposure and can exercise control over their exposure.		



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10.0 ROBOT SYSTEM SPECIFICATIONS

<u>Specifications</u>	
Positioner	Stäubli Unimation Corp. Robot Model: RX60L
Repeatability	0.02 mm
No. of axis	6
<u>Data Acquisition Electronic (DAE) System</u>	
<u>Cell Controller</u>	
Processor	AMD Athlon XP 2400+
Clock Speed	2.0 GHz
Operating System	Windows XP Professional
<u>Data Converter</u>	
Features	Signal Amplifier, multiplexer, A/D converter, and control logic
Software	Measurement Software: DASY4, V4.7 Build 44
	Postprocessing Software: SEMCAD, V1.8 Build 171
Connecting Lines	Optical downlink for data and status info.; Optical uplink for commands and clock
<u>DASY4 Measurement Server</u>	
Function	Real-time data evaluation for field measurements and surface detection
Hardware	PC/104 166MHz Pentium CPU; 32 MB chipdisk; 64 MB RAM
Connections	COM1, COM2, DAE, Robot, Ethernet, Service Interface
<u>E-Field Probe</u>	
Model	EX3DV4
Serial No.	3600
Construction	Symmetrical design with triangular core
Frequency	10 MHz to 6 GHz
Linearity	±0.2 dB (30 MHz to 3 GHz)
<u>Phantom(s)</u>	
Type	Planar Phantom
Shell Material	Fiberglass
Thickness	2.0 ±0.1 mm
Volume	Approx. 70 liters


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11.0 PROBE SPECIFICATION (EX3DV4)


<p>Construction: Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g. DGBE)</p> <p>Calibration: Basic Broadband Calibration in air: 10-3000 MHz Conversion Factors (CF) for HSL 900 and HSL 1750</p> <p>Frequency: 10 MHz to >6 GHz; Linearity: ± 0.2 dB (30 MHz to 3 GHz)</p> <p>Directivity: ± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)</p> <p>Dynamic Range: 10 μW/g to >100 mW/g; Linearity: ± 0.2 dB (noise: typically < 1 μW/g)</p> <p>Dimensions: Overall length: 330 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1.0 mm</p> <p>Application: High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6 GHz with precision of better than 30%.</p>	
	EX3DV4 E-Field Probe



12.0 SAM PHANTOM V4.0C

<p>The SAM phantom V4.0C is a fiberglass shell phantom with a 2.0 mm (+/-0.2 mm) shell thickness for left and right head and flat planar area integrated in a wooden table. The shape of the fiberglass shell corresponds to the phantom defined by SCC34-SC2. The device holder positions are adjusted to the standard measurement positions in the three sections (see Appendix H for specifications of the SAM phantom V4.0C).</p>	
	SAM Phantom V4.0C

13.0 DEVICE HOLDER


<p>The DASY4 device holder has two scales for device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear openings). The plane between the ear openings and the mouth tip has a rotation angle of 65°. The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. For evaluations of larger devices a Plexiglas platform is attached to the device holder.</p>	
	Device Holder



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14.0 TEST EQUIPMENT LIST

TEST EQUIPMENT		ASSET NO.	SERIAL NO.	DATE CALIBRATED		CALIBRATION DUE DATE
USED	DESCRIPTION			Brain	Body	
x	Schmid & Partner DASY4 System	-	-	-	-	-
x	-DASY4 Measurement Server	00158	1078	N/A	N/A	N/A
x	-Robot	00046	599396-01	N/A	N/A	N/A
x	-DAE3	00018	370	13Mar07	13Mar08	13Mar08
	-ET3DV6 E-Field Probe	00016	1387	16Mar07	16Mar08	16Mar08
x	-EX3DV4 E-Field Probe	00213	3600	24Jan07	24Jan08	24Jan08
	-300 MHz Validation Dipole	00023	135	08Jun07	08Jun08	08Jun08
	-450 MHz Validation Dipole	00024	136	07Jun07	07Jun08	07Jun08
	-835 MHz Validation Dipole	00022	411	Brain	07Jun07	07Jun08
				Body	07Jun07	07Jun08
	-900 MHz Validation Dipole	00020	054	Brain	07Jun07	07Jun08
				Body	07Jun07	07Jun08
	-1800 MHz Validation Dipole	00021	247	Brain	06Jun07	06Jun08
				Body	06Jun07	06Jun08
	-1900 MHz Validation Dipole	00032	151	Brain	06Jun07	06Jun08
				Body	06Jun07	06Jun08
	-2450 MHz Validation Dipole	00025	150	Brain	08Jun07	08Jun08
x				Body	08Jun07	08Jun08
x	5 GHz Validation Dipole	00126	1031	Body	18May07	18May08
				Body	22May07	22May08
				Brain	09May07	09May08
x				Body	10May07	10May08
x	-SAM Phantom V4.0C	00154	1033	N/A	N/A	N/A
	-Barski Planar Phantom	00155	03-01	N/A	N/A	N/A
	-Plexiglas Side Planar Phantom	00156	161	N/A	N/A	N/A
	-Plexiglas Validation Planar Phantom	00157	137	N/A	N/A	N/A
x	ALS-PR-DIEL Dielectric Probe Kit	00160	260-00953	N/A	N/A	N/A
x	Gigatronics 8652A Power Meter	00007	1835272	26Mar07	26Mar08	26Mar08
	Gigatronics 8652A Power Meter	00008	1835267	22Jan07	22Jan08	22Jan08
	Gigatronics 80701A Power Sensor	00012	1834350	22Jan07	22Jan08	22Jan08
x	Gigatronics 80701A Power Sensor	00014	1833699	22Jan07	22Jan08	22Jan08
x	Gigatronics 80701A Power Sensor	00109	1834366	26Mar07	26Mar08	26Mar08
x	HP 8753ET Network Analyzer	00134	US39170292	20Apr07	20Apr08	20Apr08
x	HP 8648D Signal Generator	00005	3847A00611	NCR	NCR	NCR
x	Rohde & Schwarz SMR20 Signal Generator	00006	100104	NCR	NCR	NCR
x	Amplifier Research 5S1G4 Power Amplifier	00106	26235	NCR	NCR	NCR
	Amplifier Research 10W1000C Power Amplifier	00041	27887	NCR	NCR	NCR
x	Nextec NB00383 Microwave Amplifier	00151	0535	NCR	NCR	NCR
x	HP E4408B Spectrum Analyzer	00015	US39240170	05Feb07	05Feb08	05Feb08


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15.0 MEASUREMENT UNCERTAINTIES

UNCERTAINTY BUDGET FOR DEVICE EVALUATION (5 GHz)						
Error Description	Uncertainty Value ±%	Probability Distribution	Divisor	ci 1g	Uncertainty Value ±% (1g)	V _i or V _{eff}
Measurement System						
Probe calibration (5 GHz)	6.6	Normal	1	1	6.6	∞
Axial isotropy of the probe	4.7	Rectangular	1.732050808	0.7	1.9	∞
Spherical isotropy of the probe	9.6	Rectangular	1.732050808	0.7	3.9	∞
Spatial resolution	0	Rectangular	1.732050808	1	0.0	∞
Boundary effects	2	Rectangular	1.732050808	1	1.2	∞
Probe linearity	4.7	Rectangular	1.732050808	1	2.7	∞
Detection limit	1	Rectangular	1.732050808	1	0.6	∞
Readout electronics	0.3	Normal	1	1	0.3	∞
Response time	0.8	Rectangular	1.732050808	1	0.5	∞
Integration time	2.6	Rectangular	1.732050808	1	1.5	∞
RF ambient conditions	3	Rectangular	1.732050808	1	1.7	∞
Mech. constraints of robot	0.8	Rectangular	1.732050808	1	0.5	∞
Probe positioning	5.7	Rectangular	1.732050808	1	3.3	∞
Extrapolation & integration	4	Rectangular	1.732050808	1	2.3	∞
Test Sample Related						
Device positioning	2.9	Normal	1	1	2.9	12
Device holder uncertainty	3.6	Normal	1	1	3.6	8
Power drift	5	Rectangular	1.732050808	1	2.9	∞
Phantom and Setup						
Phantom uncertainty	4	Rectangular	1.732050808	1	2.3	∞
Liquid conductivity (target)	5	Rectangular	1.732050808	0.64	1.8	∞
Liquid conductivity (measured)	5	Normal	1	0.64	3.2	∞
Liquid permittivity (target)	10	Rectangular	1.732050808	0.6	3.5	∞
Liquid permittivity (measured)	5	Normal	1	0.6	3.0	∞
Combined Standard Uncertainty					12.74	
Expanded Uncertainty (k=2)					25.47	

Measurement Uncertainty Table in accordance with IEEE Standard 1528-2003 (see reference [5])


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MEASUREMENT UNCERTAINTIES (Cont.)

UNCERTAINTY BUDGET FOR SYSTEM VALIDATION (5 GHz)						
Error Description	Uncertainty Value ±%	Probability Distribution	Divisor	ci 1g	Uncertainty Value ±% (1g)	V _i or V _{eff}
Measurement System						
Probe calibration (5 GHz)	6.6	Normal	1	1	6.6	∞
Axial isotropy of the probe	4.7	Rectangular	1.732050808	1	2.7	∞
Spherical isotropy of the probe	9.6	Rectangular	1.732050808	1	5.5	∞
Spatial resolution	0	Rectangular	1.732050808	1	0.0	∞
Boundary effects	2	Rectangular	1.732050808	1	1.2	∞
Probe linearity	4.7	Rectangular	1.732050808	1	2.7	∞
Detection limit	1	Rectangular	1.732050808	1	0.6	∞
Readout electronics	0.3	Normal	1	1	0.3	∞
Response time	0	Rectangular	1.732050808	1	0.0	∞
Integration time	0	Rectangular	1.732050808	1	0.0	∞
RF ambient conditions	3	Rectangular	1.732050808	1	1.7	∞
Mech. constraints of robot	0.8	Rectangular	1.732050808	1	0.5	∞
Probe positioning	5.7	Rectangular	1.732050808	1	3.3	∞
Extrapolation & integration	4	Rectangular	1.732050808	1	2.3	∞
Dipole						
Dipole positioning	2	Rectangular	1.732050808	1	1.2	∞
Power & Power Drift	4.7	Rectangular	1.732050808	1	2.7	∞
Phantom and Setup						
Phantom uncertainty	4	Rectangular	1.732050808	1	2.3	∞
Liquid conductivity (target)	5	Rectangular	1.732050808	0.64	1.8	∞
Liquid conductivity (measured)	5	Normal	1	0.64	3.2	∞
Liquid permittivity (target)	10	Rectangular	1.732050808	0.6	3.5	∞
Liquid permittivity (measured)	5	Normal	1	0.6	3.0	∞
Combined Standard Uncertainty					12.58	
Expanded Uncertainty (k=2)					25.15	

Measurement Uncertainty Table in accordance with IEEE Standard 1528-2003 (see reference [5])


Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Date(s) of Evaluation</u> June 26-27, 2007	<u>Test Report Serial No.</u> 050707KBC-T830-S15W	<u>Test Report Revision No.</u> Revision 1.1	 Certificate No. 2470.01
	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	

MEASUREMENT UNCERTAINTIES (Cont.)

UNCERTAINTY BUDGET FOR DEVICE EVALUATION (2.4 GHz)						
Error Description	Uncertainty Value ±%	Probability Distribution	Divisor	ci 1g	Uncertainty Value ±% (1g)	V _i or V _{eff}
Measurement System						
Probe calibration (2.4 GHz)	5.9	Normal	1	1	5.9	∞
Axial isotropy of the probe	4.7	Rectangular	1.732050808	0.7	1.9	∞
Spherical isotropy of the probe	9.6	Rectangular	1.732050808	0.7	3.9	∞
Spatial resolution	0	Rectangular	1.732050808	1	0.0	∞
Boundary effects	1	Rectangular	1.732050808	1	0.6	∞
Probe linearity	4.7	Rectangular	1.732050808	1	2.7	∞
Detection limit	1	Rectangular	1.732050808	1	0.6	∞
Readout electronics	0.3	Normal	1	1	0.3	∞
Response time	0.8	Rectangular	1.732050808	1	0.5	∞
Integration time	2.6	Rectangular	1.732050808	1	1.5	∞
RF ambient conditions	3	Rectangular	1.732050808	1	1.7	∞
Mech. constraints of robot	0.4	Rectangular	1.732050808	1	0.2	∞
Probe positioning	2.9	Rectangular	1.732050808	1	1.7	∞
Extrapolation & integration	1	Rectangular	1.732050808	1	0.6	∞
Test Sample Related						
Device positioning	2.9	Normal	1	1	2.9	12
Device holder uncertainty	3.6	Normal	1	1	3.6	8
Power drift	5	Rectangular	1.732050808	1	2.9	∞
Phantom and Setup						
Phantom uncertainty	4	Rectangular	1.732050808	1	2.3	∞
Liquid conductivity (target)	5	Rectangular	1.732050808	0.64	1.8	∞
Liquid conductivity (measured)	5	Normal	1	0.64	3.2	∞
Liquid permittivity (target)	5	Rectangular	1.732050808	0.6	1.7	∞
Liquid permittivity (measured)	5	Normal	1	0.6	3.0	∞
Combined Standard Uncertainty					11.44	
Expanded Uncertainty (k=2)					22.89	

Measurement Uncertainty Table in accordance with IEEE Standard 1528-2003 (see reference [5])


Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	

MEASUREMENT UNCERTAINTIES (Cont.)

UNCERTAINTY BUDGET FOR SYSTEM VALIDATION (2.4 GHz)						
Error Description	Uncertainty Value ±%	Probability Distribution	Divisor	ci 1g	Uncertainty Value ±% (1g)	V _i or V _{eff}
Measurement System						
Probe calibration (2.4 GHz)	5.9	Normal	1	1	5.9	∞
Axial isotropy of the probe	4.7	Rectangular	1.732050808	1	2.7	∞
Spherical isotropy of the probe	0	Rectangular	1.732050808	1	0.0	∞
Spatial resolution	0	Rectangular	1.732050808	1	0.0	∞
Boundary effects	1	Rectangular	1.732050808	1	0.6	∞
Probe linearity	4.7	Rectangular	1.732050808	1	2.7	∞
Detection limit	1	Rectangular	1.732050808	1	0.6	∞
Readout electronics	0.3	Normal	1	1	0.3	∞
Response time	0	Rectangular	1.732050808	1	0.0	∞
Integration time	0	Rectangular	1.732050808	1	0.0	∞
RF ambient conditions	3	Rectangular	1.732050808	1	1.7	∞
Mech. constraints of robot	0.4	Rectangular	1.732050808	1	0.2	∞
Probe positioning	2.9	Rectangular	1.732050808	1	1.7	∞
Extrapolation & integration	1	Rectangular	1.732050808	1	0.6	∞
Dipole						
Dipole Positioning	2	Normal	1.732050808	1	1.2	∞
Power & Power Drift	4.7	Normal	1.732050808	1	2.7	∞
Phantom and Setup						
Phantom uncertainty	4	Rectangular	1.732050808	1	2.3	∞
Liquid conductivity (target)	5	Rectangular	1.732050808	0.64	1.8	∞
Liquid conductivity (measured)	5	Normal	1	0.64	3.2	∞
Liquid permittivity (target)	5	Rectangular	1.732050808	0.6	1.7	∞
Liquid permittivity (measured)	5	Normal	1	0.6	3.0	∞
Combined Standard Uncertainty					9.81	
Expanded Uncertainty (k=2)					19.61	


Measurement Uncertainty Table in accordance with IEEE Standard 1528-2003 (see reference [5])



Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	


16.0 REFERENCES



- [1] Federal Communications Commission - "Radiofrequency radiation exposure evaluation: portable devices", Rule Part 47 CFR §2.1093: 1999.
- [2] Health Canada - "Limits of Human Exposure to Radiofrequency Electromagnetic Fields in the Frequency Range from 3 kHz to 300 GHz", Safety Code 6: 1999.
- [3] Federal Communications Commission - "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields", OET Bulletin 65, Supplement C (Edition 01-01), FCC, Washington, D.C.: June 2001.
- [4] Industry Canada - "Radio Frequency Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands)", Radio Standards Specification RSS-102 Issue 2: November 2005.
- [5] IEEE Standard 1528-2003 - "Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques": December 2003.
- [6] Schmid & Partner Engineering AG - "DASY4 Manual", V4.5: March 2005.
- [7] Federal Communications Commission - "SAR Measurement Procedures for 802.11a/b/g Transmitters": May 2007 (Rev. 1.2).
- [8] Federal Communications Commission - "SAR Measurement Requirements for 3 - 6 GHz": October 2006 (Rev. 1.1).

Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	

APPENDIX A - SAR MEASUREMENT DATA

Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	

Date Tested: 06/27/2007

Body SAR - 802.11b - 1 Mbps - 2442 MHz - Channel 7 - Bottom Side of DUT (LCD Open) - MAIN Antenna

DUT: General Dynamics Itronix Corporation; Type: IX750 Footprint PC with Intel 802.11abg; Serial: F10140071N00067

Ambient Temp: 24.7°C; Fluid Temp: 22.2°C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Power: 7.4V, 7.6Ah Li-ion Battery

Communication System: DSSS WLAN

Frequency: 2442 MHz; Duty Cycle: 1:1.02

RF Output Power: 18.0 dBm (Conducted)

Medium: M2450 Medium parameters used: $f = 2442 \text{ MHz}$; $\sigma = 1.98 \text{ mho/m}$; $\epsilon_r = 50.3$; $\rho = 1000 \text{ kg/m}^3$

- Probe: EX3DV4 - SN3600; ConvF(6.31, 6.31, 6.31); Calibrated: 24/01/2007
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 13/03/2007
- Phantom: SAM 4.0; Type: Fiberglass; Serial: 1033
- Measurement SW: DASy4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - Bottom Side Touch - 4.7 cm Spacing from MAIN Antenna to SAM Phantom (Planar Section) - 2442 MHz

Area Scan (14x18x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (measured) = 0.010 mW/g

Body SAR - Bottom Side Touch - 4.7 cm Spacing from MAIN Antenna to SAM Phantom (Planar Section) - 2442 MHz

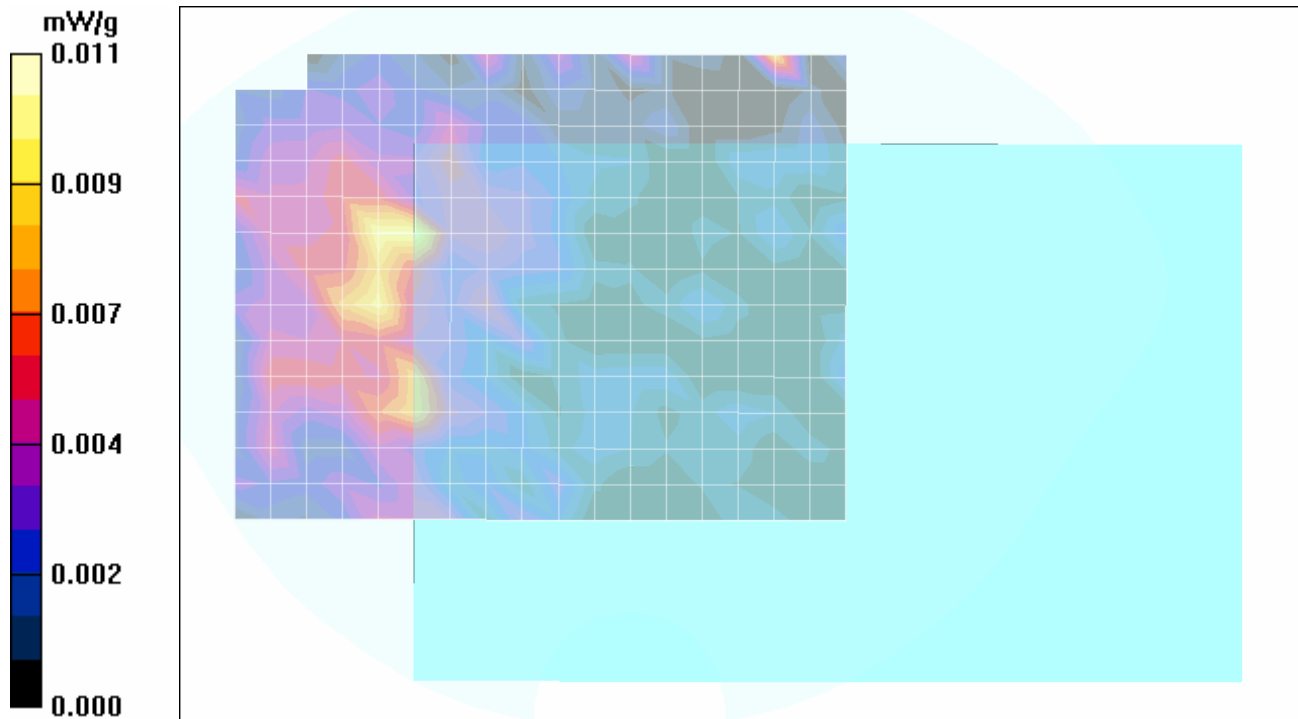
Zoom Scan (7x7x9)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2.5\text{mm}$


Reference Value = 0.787 V/m; Power Drift = -0.040 dB



Peak SAR (extrapolated) = 0.013 W/kg

SAR(1 g) = 0.00550 mW/g; SAR(10 g) = 0.00311 mW/g

Maximum value of SAR (measured) = 0.011 mW/g



Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	

Date Tested: 06/27/2007

Body SAR - 802.11b - 1 Mbps - 2442 MHz - Channel 7 - Bottom Side of DUT (LCD Open) - AUX Antenna

DUT: General Dynamics Itronix Corporation; Type: IX750 Footprint PC with Intel 802.11abg; Serial: F10140071N00067

Ambient Temp: 24.7°C; Fluid Temp: 22.2°C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Power: 7.4V, 7.6Ah Li-ion Battery

Communication System: DSSS WLAN

Frequency: 2442 MHz; Duty Cycle: 1:1.02

RF Output Power: 18.0 dBm (Conducted)

Medium: M2450 Medium parameters used: $f = 2442 \text{ MHz}$; $\sigma = 1.98 \text{ mho/m}$; $\epsilon_r = 50.3$; $\rho = 1000 \text{ kg/m}^3$

- Probe: EX3DV4 - SN3600; ConvF(6.31, 6.31, 6.31); Calibrated: 24/01/2007
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 13/03/2007
- Phantom: SAM 4.0; Type: Fiberglass; Serial: 1033
- Measurement SW: DASy4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - Bottom Side Touch - 4.3 cm Spacing from AUX Antenna to SAM Phantom (Planar Section) - 2442 MHz

Area Scan (14x14x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$

Maximum value of SAR (measured) = 0.027 mW/g

Body SAR - Bottom Side Touch - 4.3 cm Spacing from AUX Antenna to SAM Phantom (Planar Section) - 2442 MHz

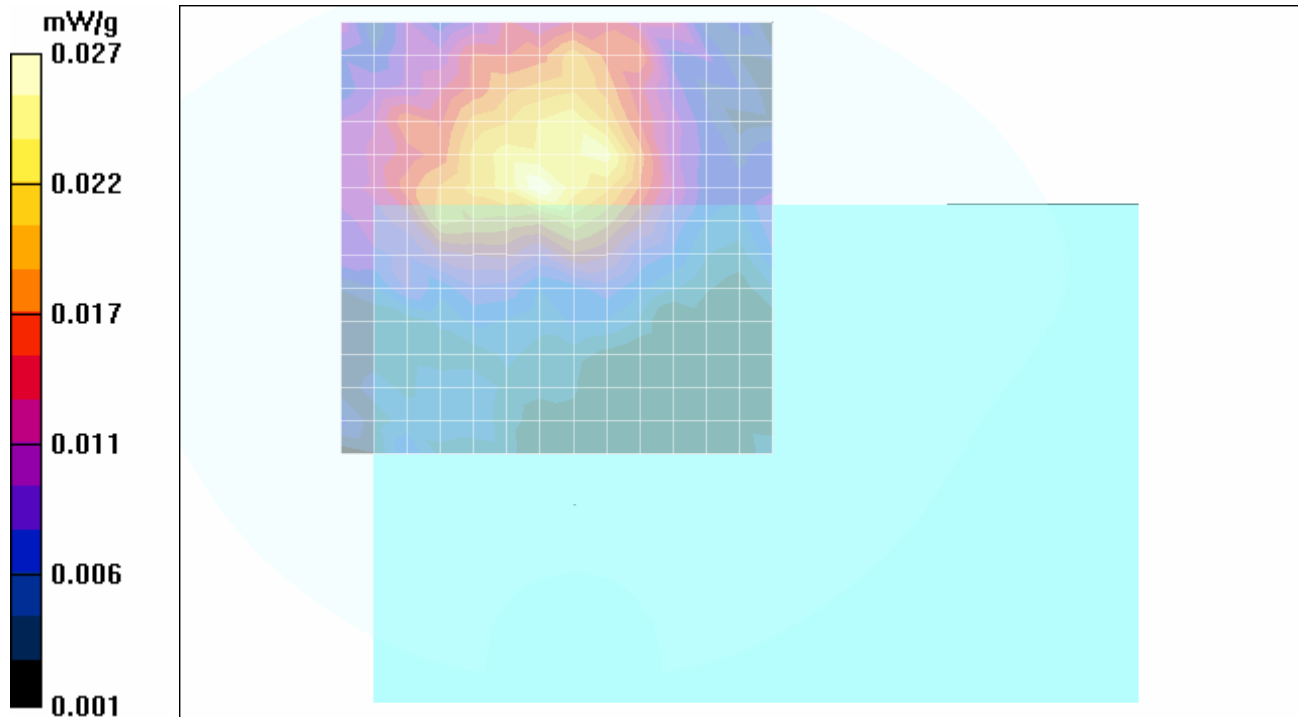
Zoom Scan (7x7x9)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2.5\text{mm}$


Reference Value = 1.12 V/m; Power Drift = -0.050 dB



Peak SAR (extrapolated) = 0.036 W/kg

SAR(1 g) = 0.0184 mW/g; SAR(10 g) = 0.011 mW/g

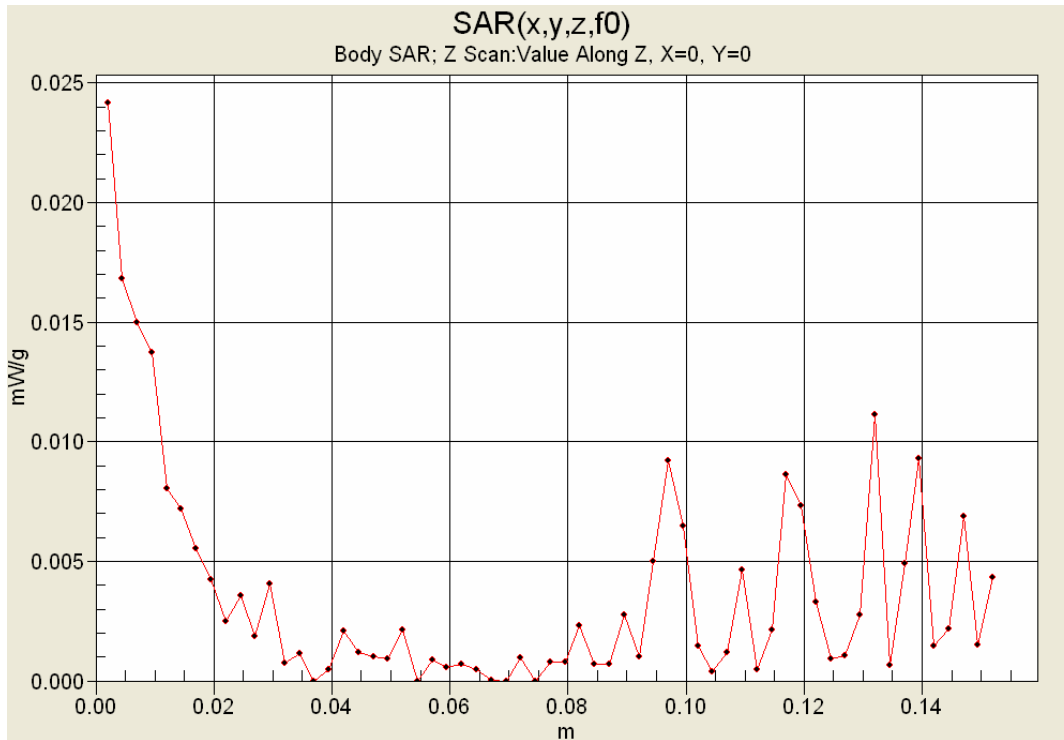
Maximum value of SAR (measured) = 0.027 mW/g



Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	


Z-Axis Scan





Due to the very low SAR level measured in this configuration the Z-axis scan is only reporting noise. The DASY4 software adjusts the scale according to the measured SAR level, which for this evaluation is close to the measurement noise floor.

Fluid Depth (≥ 15cm)



Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	

Date Tested: 06/26/2007

Body SAR - 802.11a - 6 Mbps - 5180 MHz - Channel 36 - Bottom Side of DUT (LCD Open) - MAIN Antenna

DUT: General Dynamics Itronix Corporation; Type: IX750 Footprint PC with Intel 802.11abg; Serial: F10140071N00067

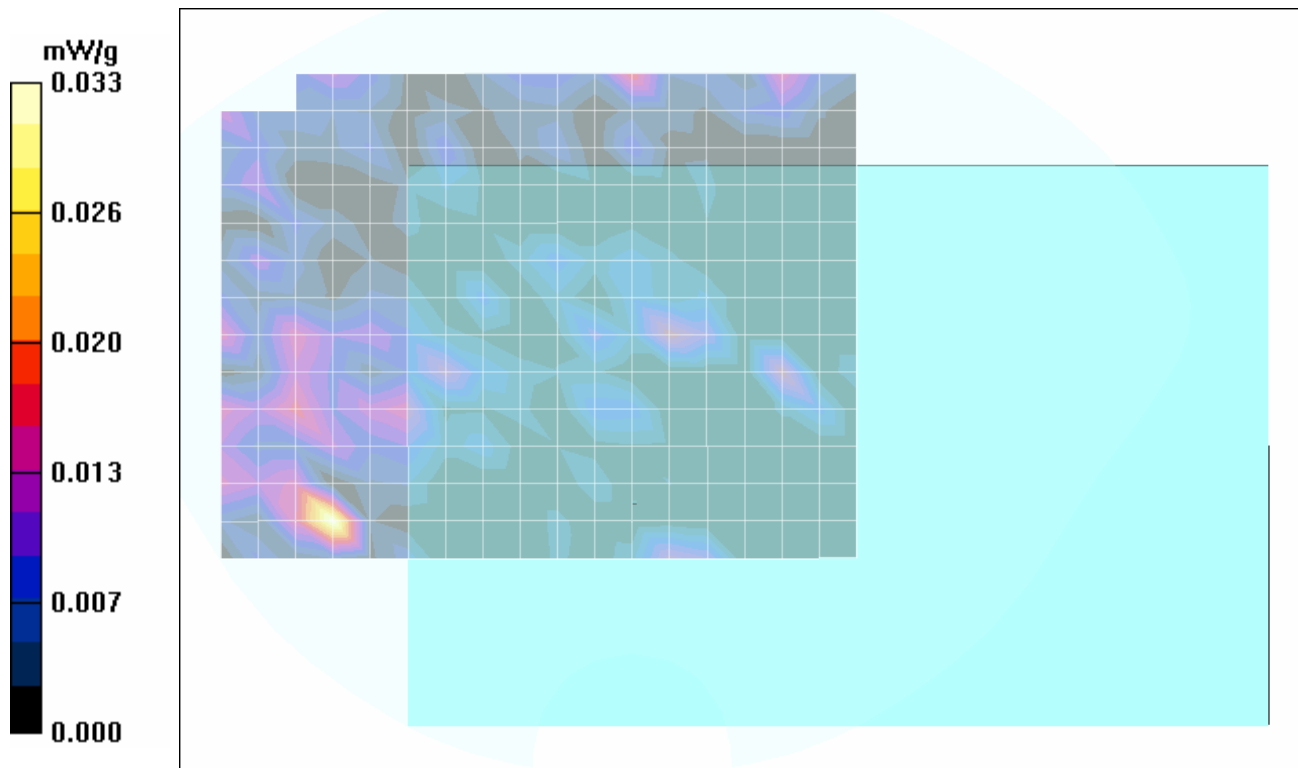
Ambient Temp: 23.3°C; Fluid Temp: 22.0°C; Barometric Pressure: 101.0 kPa; Humidity: 33%


Power: 7.4V, 7.6Ah Li-ion Battery
 Communication System: OFDM WLAN
 Frequency: 5180 MHz; Duty Cycle: 1:1.1
 RF Output Power: 15.9 dBm (Conducted)
 Medium: M5200-5800 Medium parameters used: $f = 5180 \text{ MHz}$; $\sigma = 5.46 \text{ mho/m}$; $\epsilon_r = 44.4$; $\rho = 1000 \text{ kg/m}^3$



- Probe: EX3DV4 - SN3600; ConvF(4.1, 4.1, 4.1); Calibrated: 24/01/2007
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 13/03/2007
- Phantom: SAM 4.0; Type: Fiberglas; Serial: 1033
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - Bottom Side Touch - 4.7 cm Spacing from MAIN Antenna to SAM Phantom (Planar Section) - 5180 MHz Area Scan (14x18x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$
 Maximum value of SAR (measured) = 0.024 mW/g

Body SAR - Bottom Side Touch - 4.7 cm Spacing from MAIN Antenna to SAM Phantom (Planar Section) - 5180 MHz Zoom Scan (7x7x9)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2.5\text{mm}$
 Reference Value = 0.328 V/m; Power Drift = -0.175 dB
 Peak SAR (extrapolated) = 0.037 W/kg
SAR(1 g) = 0.00465 mW/g; SAR(10 g) = 0.00261 mW/g
 Maximum value of SAR (measured) = 0.033 mW/g



Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	

Date Tested: 06/26/2007

Body SAR - 802.11a - 6 Mbps - 5180 MHz - Channel 36 - Bottom Side of DUT (LCD Open) - AUX Antenna

DUT: General Dynamics Itronix Corporation; Type: IX750 Footprint PC with Intel 802.11abg; Serial: F10140071N00067

Ambient Temp: 23.3°C; Fluid Temp: 22.0°C; Barometric Pressure: 101.0 kPa; Humidity: 33%

Power: 7.4V, 7.6Ah Li-ion Battery
 Communication System: OFDM WLAN
 Frequency: 5180 MHz; Duty Cycle: 1:1.1
 RF Output Power: 15.9 dBm (Conducted)
 Medium: M5200-5800 Medium parameters used: $f = 5180 \text{ MHz}$; $\sigma = 5.46 \text{ mho/m}$; $\epsilon_r = 44.4$; $\rho = 1000 \text{ kg/m}^3$

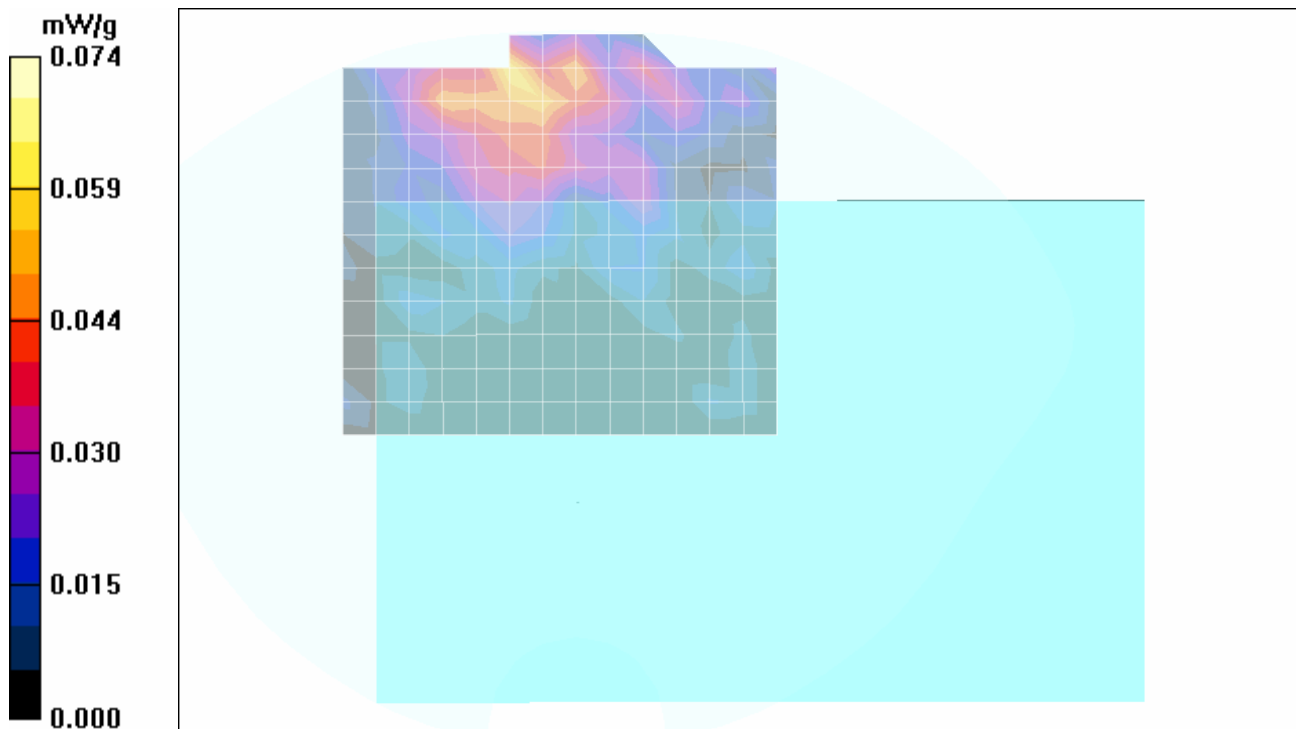
- Probe: EX3DV4 - SN3600; ConvF(4.1, 4.1, 4.1); Calibrated: 24/01/2007
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 13/03/2007
- Phantom: SAM 4.0; Type: Fiberglass; Serial: 1033
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171


Body SAR - Bottom Side Touch - 4.3 cm Spacing from AUX Antenna to SAM Phantom (Planar Section) - 5180 MHz



Area Scan (13x14x1): Measurement grid: dx=10mm, dy=10mm
 Maximum value of SAR (measured) = 0.059 mW/g

Body SAR - Bottom Side Touch - 4.3 cm Spacing from AUX Antenna to SAM Phantom (Planar Section) - 5180 MHz

Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
 Reference Value = 0.250 V/m; Power Drift = -0.050 dB
 Peak SAR (extrapolated) = 0.136 W/kg
SAR(1 g) = 0.0142 mW/g; SAR(10 g) = 0.005 mW/g
 Maximum value of SAR (measured) = 0.074 mW/g



Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	

Date Tested: 06/26/2007

Body SAR - 802.11a - 6 Mbps - 5260 MHz - Channel 52 - Bottom Side of DUT (LCD Open) - MAIN Antenna

DUT: General Dynamics Itronix Corporation; Type: IX750 Footprint PC with Intel 802.11abg; Serial: F10140071N00067

Ambient Temp: 23.3°C; Fluid Temp: 22.0°C; Barometric Pressure: 101.0 kPa; Humidity: 33%

Power: 7.4V, 7.6Ah Li-ion Battery

Communication System: OFDM WLAN

Frequency: 5260 MHz; Duty Cycle: 1:1.1

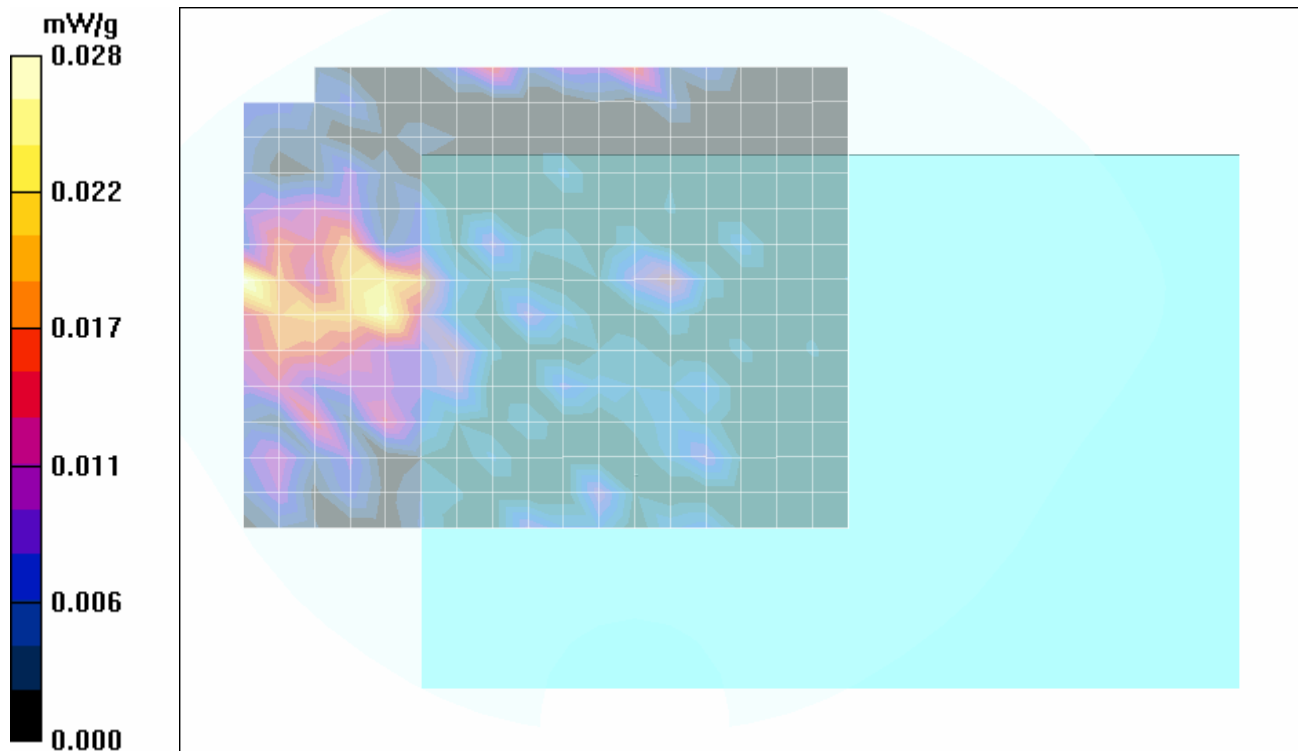
RF Output Power: 17.2 dBm (Conducted)


Medium: M5200-5800 Medium parameters used: $f = 5260 \text{ MHz}$; $\sigma = 5.53 \text{ mho/m}$; $\epsilon_r = 44.0$; $\rho = 1000 \text{ kg/m}^3$



- Probe: EX3DV4 - SN3600; ConvF(4.1, 4.1, 4.1); Calibrated: 24/01/2007
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 13/03/2007
- Phantom: SAM 4.0; Type: Fiberglass; Serial: 1033
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - Bottom Side Touch - 4.7 cm Spacing from MAIN Antenna to SAM Phantom (Planar Section) - 5260 MHz Area Scan (14x18x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$
Maximum value of SAR (measured) = 0.027 mW/g

Body SAR - Bottom Side Touch - 4.7 cm Spacing from MAIN Antenna to SAM Phantom (Planar Section) - 5260 MHz Zoom Scan (7x7x9)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2.5\text{mm}$
Reference Value = 0.000 V/m; Power Drift = -0.124 dB
Peak SAR (extrapolated) = 0.113 W/kg
SAR(1 g) = 0.0131 mW/g; SAR(10 g) = 0.00434 mW/g
Maximum value of SAR (measured) = 0.028 mW/g



Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	

Date Tested: 06/26/2007

Body SAR - 802.11a - 6 Mbps - 5260 MHz - Channel 52 - Bottom Side of DUT (LCD Open) - AUX Antenna

DUT: General Dynamics Itronix Corporation; Type: IX750 Footprint PC with Intel 802.11abg; Serial: F10140071N00067

Ambient Temp: 23.3°C; Fluid Temp: 22.0°C; Barometric Pressure: 101.0 kPa; Humidity: 33%

Power: 7.4V, 7.6Ah Li-ion Battery
 Communication System: OFDM WLAN
 Frequency: 5260 MHz; Duty Cycle: 1:1.1
 RF Output Power: 17.2 dBm (Conducted)
 Medium: M5200-5800 Medium parameters used: $f = 5260 \text{ MHz}$; $\sigma = 5.53 \text{ mho/m}$; $\epsilon_r = 44.0$; $\rho = 1000 \text{ kg/m}^3$

- Probe: EX3DV4 - SN3600; ConvF(4.1, 4.1, 4.1); Calibrated: 24/01/2007
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 13/03/2007
- Phantom: SAM 4.0; Type: Fiberglass; Serial: 1033
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - Bottom Side Touch - 4.3 cm Spacing from AUX Antenna to SAM Phantom (Planar Section) - 5260 MHz

Area Scan (12x14x1): Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 0.130 mW/g

Body SAR - Bottom Side Touch - 4.3 cm Spacing from AUX Antenna to SAM Phantom (Planar Section) - 5260 MHz

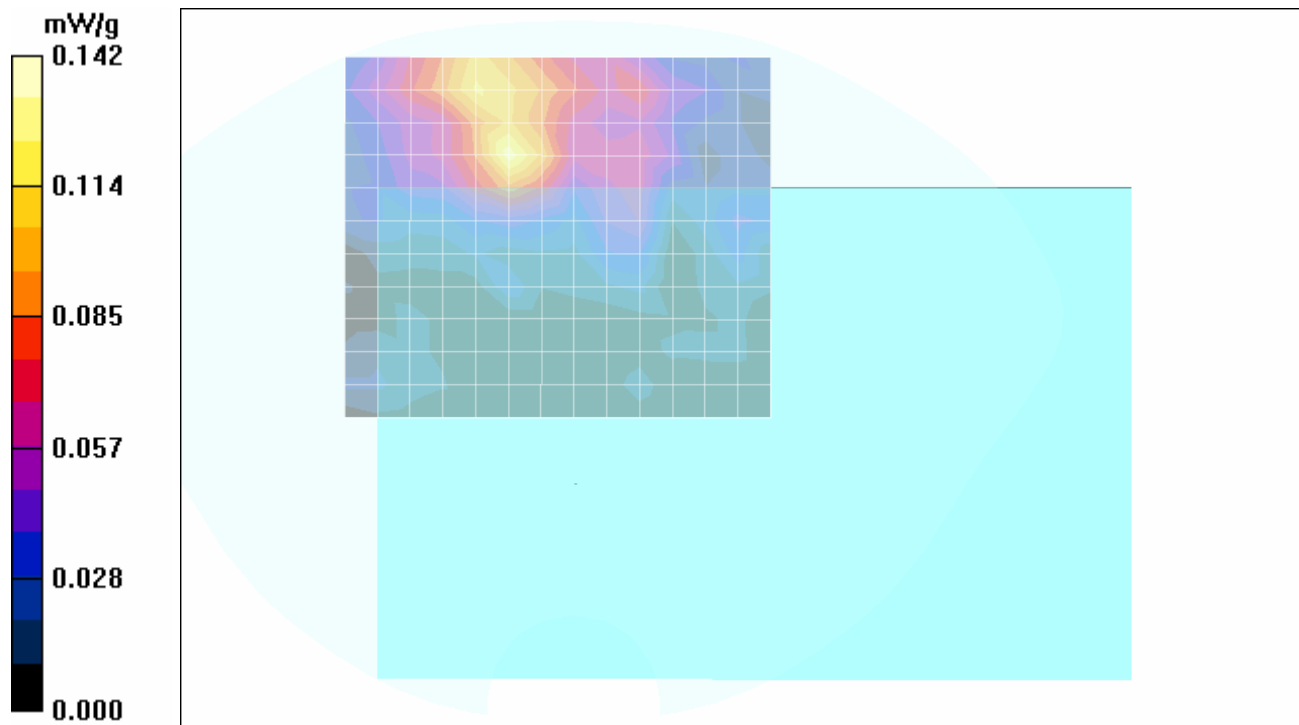
Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm


Reference Value = 0.342 V/m; Power Drift = -0.100 dB



Peak SAR (extrapolated) = 0.249 W/kg

SAR(1 g) = 0.0681 mW/g; SAR(10 g) = 0.030 mW/g

Maximum value of SAR (measured) = 0.142 mW/g



Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Date(s) of Evaluation</u> June 26-27, 2007	<u>Test Report Serial No.</u> 050707KBC-T830-S15W	<u>Test Report Revision No.</u> Revision 1.1	 Certificate No. 2470.01
	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	

Date Tested: 06/27/2007

Body SAR - 802.11a - 6 Mbps - 5825 MHz - Channel 165 - Bottom Side of DUT (LCD Open) - MAIN Antenna

DUT: General Dynamics Itronix Corporation; Type: IX750 Footprint PC with Intel 802.11abg; Serial: F10140071N00067

Ambient Temp: 24.7°C; Fluid Temp: 22.5°C; Barometric Pressure: 101.2 kPa; Humidity: 30%

Power: 7.4V, 7.6Ah Li-ion Battery
 Communication System: OFDM WLAN
 Frequency: 5825 MHz; Duty Cycle: 1:1.1
 RF Output Power: 17.2 dBm (Conducted)
 Medium: M5200-5800 Medium parameters used: $f = 5825 \text{ MHz}$; $\sigma = 6.28 \text{ mho/m}$; $\epsilon_r = 45.3$; $\rho = 1000 \text{ kg/m}^3$

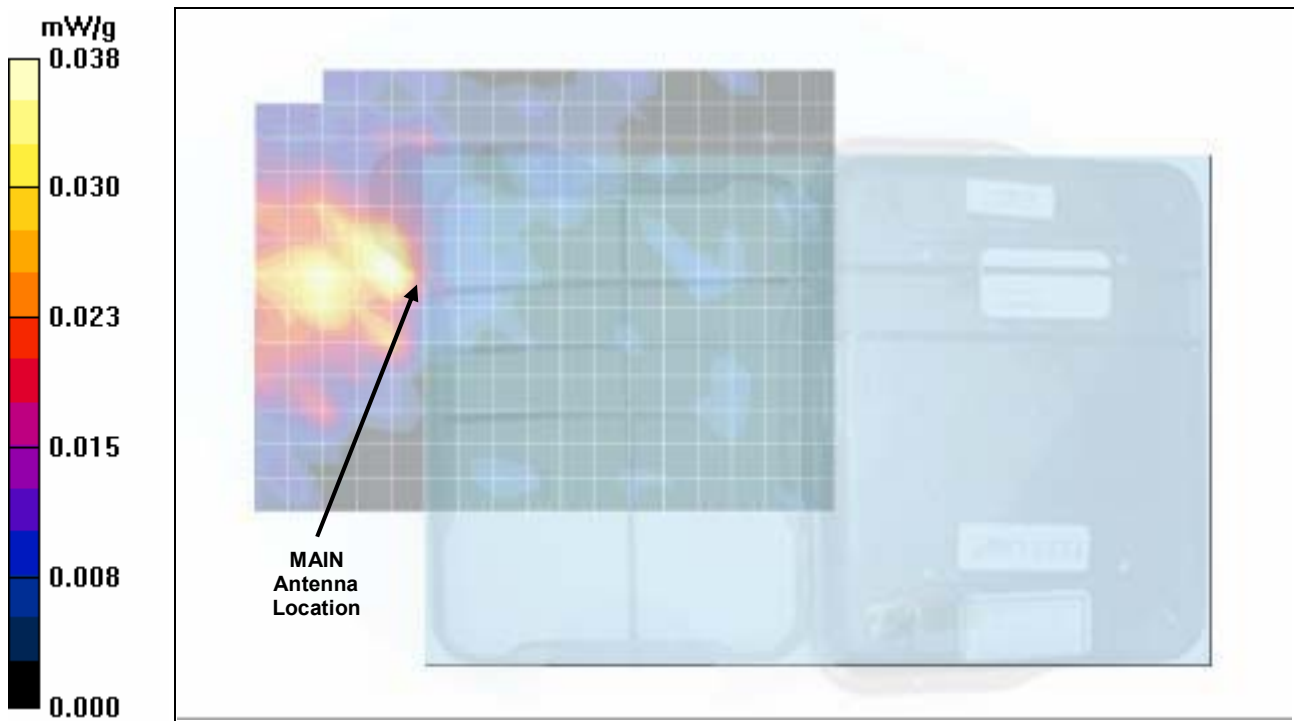
- Probe: EX3DV4 - SN3600; ConvF(4.14, 4.14, 4.14); Calibrated: 24/01/2007
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 13/03/2007
- Phantom: SAM 4.0; Type: Fiberglass; Serial: 1033
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171


Body SAR - Bottom Side Touch - 4.7 cm Spacing from MAIN Antenna to SAM Phantom (Planar Section) - 5825 MHz



Area Scan (14x18x1): Measurement grid: $dx=10\text{mm}$, $dy=10\text{mm}$
 Maximum value of SAR (measured) = 0.040 mW/g

Body SAR - Bottom Side Touch - 4.7 cm Spacing from MAIN Antenna to SAM Phantom (Planar Section) - 5825 MHz

Zoom Scan (7x7x9)/Cube 0: Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2.5\text{mm}$
 Reference Value = 1.25 V/m; Power Drift = 0.210 dB
 Peak SAR (extrapolated) = 0.165 W/kg
SAR(1 g) = 0.0139 mW/g; SAR(10 g) = 0.00463 mW/g
 Maximum value of SAR (measured) = 0.038 mW/g



Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Date(s) of Evaluation</u> June 26-27, 2007	<u>Test Report Serial No.</u> 050707KBC-T830-S15W	<u>Test Report Revision No.</u> Revision 1.1	 Certificate No. 2470.01
	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	

Date Tested: 06/27/2007

Body SAR - 802.11a - 6 Mbps - 5825 MHz - Channel 165 - Bottom Side of DUT (LCD Open) - AUX Antenna

DUT: General Dynamics Itronix Corporation; Type: IX750 Footprint PC with Intel 802.11abg; Serial: F10140071N00067

Ambient Temp: 24.7°C; Fluid Temp: 22.5°C; Barometric Pressure: 101.2 kPa; Humidity: 30%

Power: 7.4V, 7.6Ah Li-ion Battery
 Communication System: OFDM WLAN
 Frequency: 5825 MHz; Duty Cycle: 1:1.1
 RF Output Power: 17.2 dBm (Conducted)
 Medium: M5200-5800 Medium parameters used: $f = 5825 \text{ MHz}$; $\sigma = 6.28 \text{ mho/m}$; $\epsilon_r = 45.3$; $\rho = 1000 \text{ kg/m}^3$

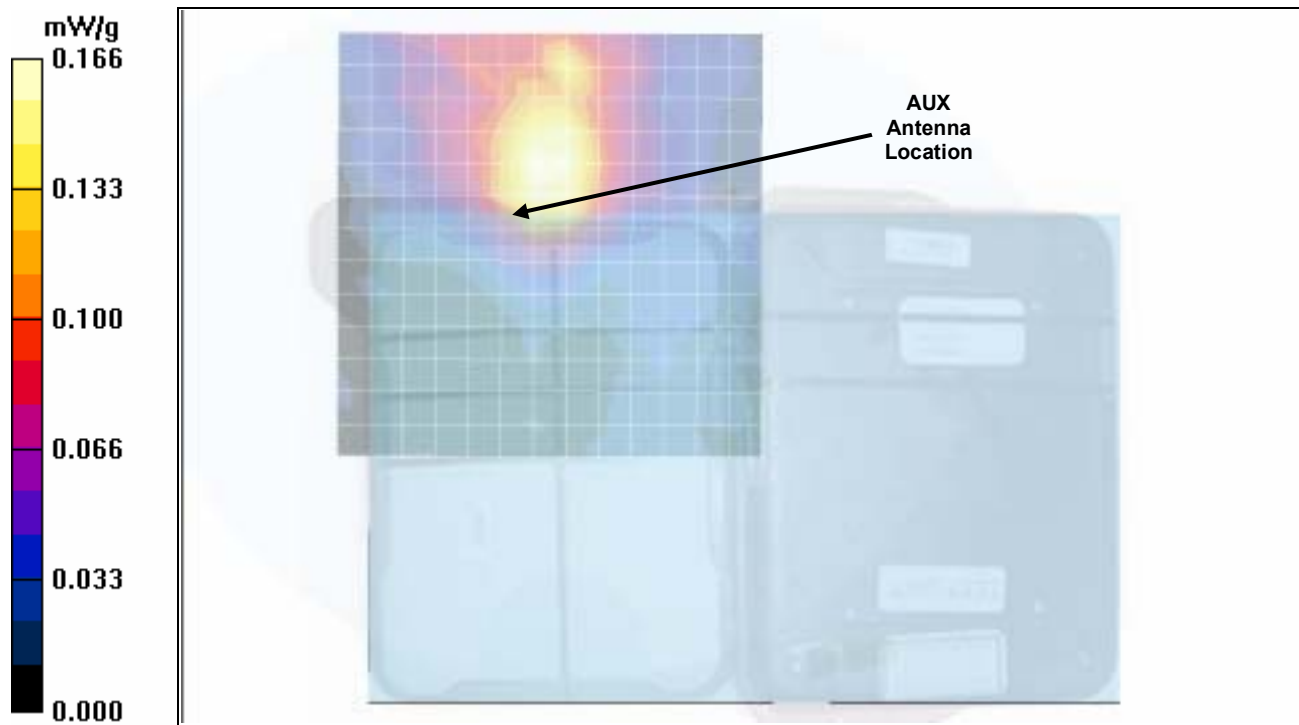
- Probe: EX3DV4 - SN3600; ConvF(4.14, 4.14, 4.14); Calibrated: 24/01/2007
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 13/03/2007
- Phantom: SAM 4.0; Type: Fiberglass; Serial: 1033
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171


Body SAR - Bottom Side Touch - 4.3 cm Spacing from AUX Antenna to SAM Phantom (Planar Section) - 5825 MHz



Area Scan (14x14x1): Measurement grid: dx=10mm, dy=10mm
 Maximum value of SAR (measured) = 0.164 mW/g

Body SAR - Bottom Side Touch - 4.3 cm Spacing from AUX Antenna to SAM Phantom (Planar Section) - 5825 MHz

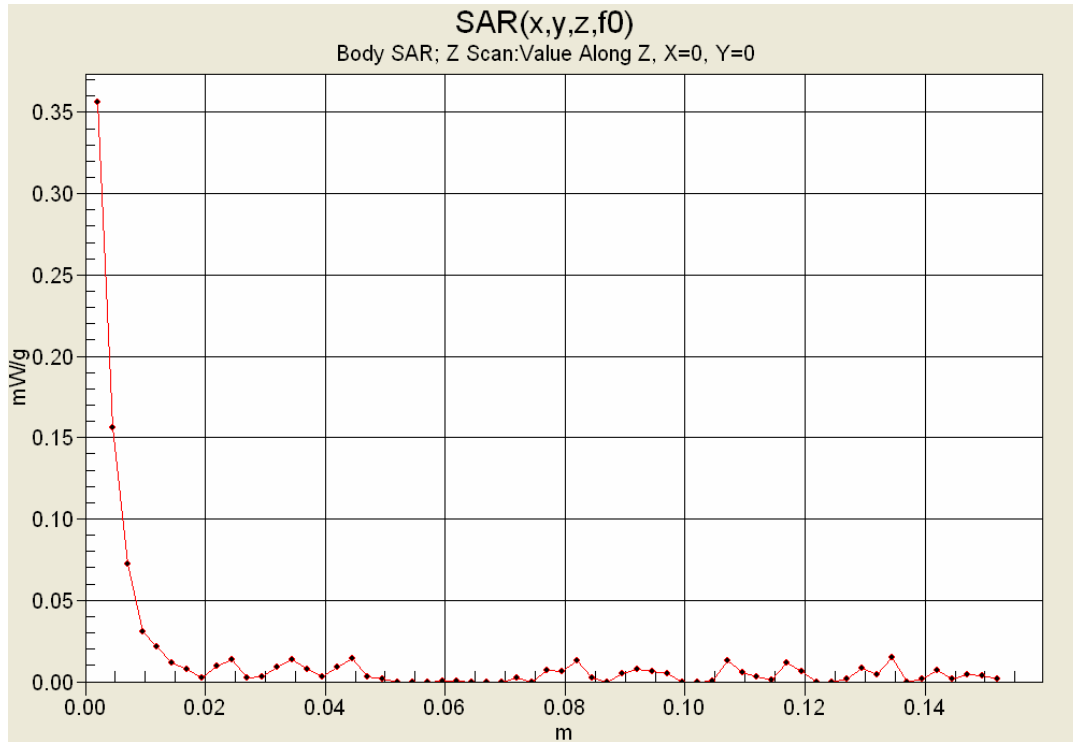
Zoom Scan (7x7x9)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
 Reference Value = 4.07 V/m; Power Drift = 0.205 dB
 Peak SAR (extrapolated) = 0.401 W/kg
SAR(1 g) = 0.0900 mW/g; SAR(10 g) = 0.036 mW/g
 Maximum value of SAR (measured) = 0.166 mW/g



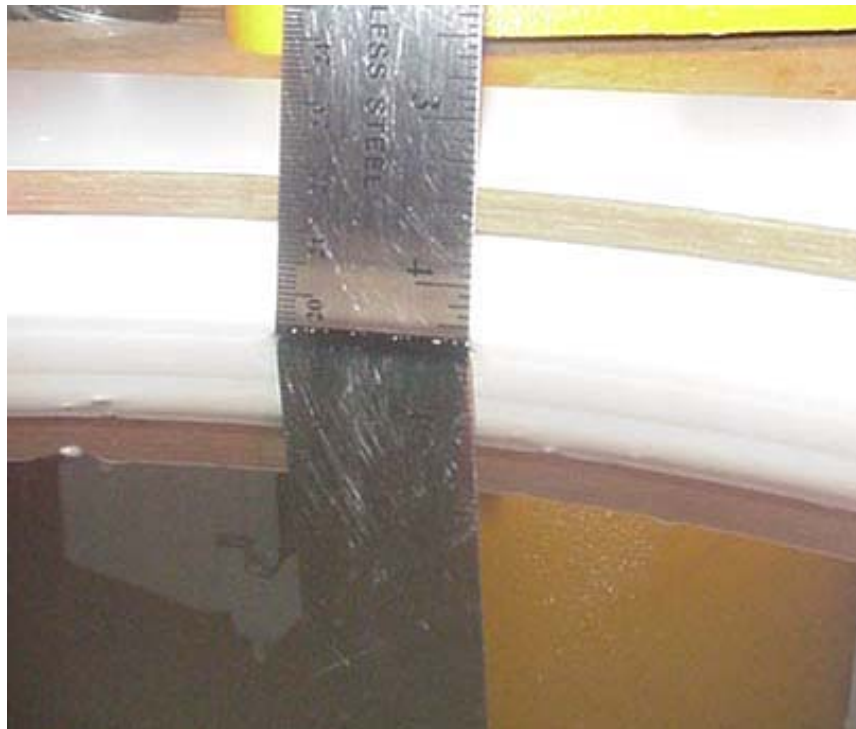
Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Date(s) of Evaluation</u> June 26-27, 2007	<u>Test Report Serial No.</u> 050707KBC-T830-S15W	<u>Test Report Revision No.</u> Revision 1.1	 Certificate No. 2470.01
	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	



Z-Axis Scan




Fluid Depth (>15cm)





Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Date(s) of Evaluation</u> June 26-27, 2007	<u>Test Report Serial No.</u> 050707KBC-T830-S15W	<u>Test Report Revision No.</u> Revision 1.1	 Certificate No. 2470.01
	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	

APPENDIX B - SYSTEM PERFORMANCE CHECK DATA

Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Date(s) of Evaluation</u> June 26-27, 2007	<u>Test Report Serial No.</u> 050707KBC-T830-S15W	<u>Test Report Revision No.</u> Revision 1.1	 Certificate No. 2470.01
	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	

Date Tested: 06/26/2007

System Performance Check - 5200 MHz Dipole - MSL

DUT: Dipole 5GHz; Type: D5GHzV2; Serial: 1031; Validation: 05/18/2007

Ambient Temp: 23.3°C; Fluid Temp: 22.0°C; Barometric Pressure: 101.0 kPa; Humidity: 33%

Communication System: CW

Forward Conducted Power: 250 mW

Frequency: 5200 MHz; Duty Cycle: 1:1

Medium: M5200-5800 Medium parameters used: $f = 5200$ MHz; $\sigma = 5.50$ mho/m; $\epsilon_r = 44.4$; $\rho = 1000$ kg/m³

- Probe: EX3DV4 - SN3600; ConvF(4.1, 4.1, 4.1); Calibrated: 24/01/2007
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 13/03/2007
- Phantom: SAM 4.0; Type: Fiberglass; Serial: 1033
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

5200 MHz Dipole - System Performance Check/Area Scan (9x13x1):

Measurement grid: dx=5mm, dy=5mm

Maximum value of SAR (measured) = 48.3 mW/g

5200 MHz Dipole - System Performance Check/Zoom Scan (7x7x9)/Cube 0:

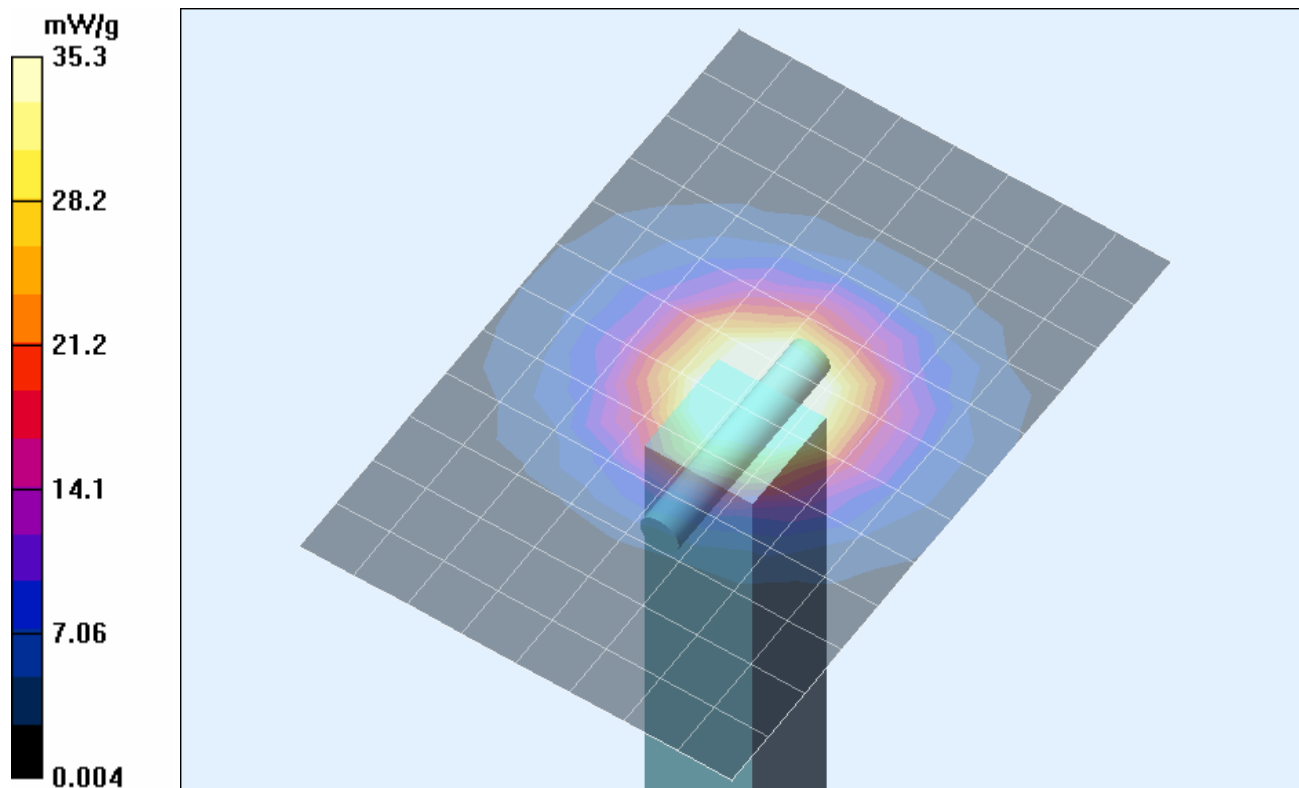
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm


Reference Value = 83.6 V/m; Power Drift = -0.007 dB



Peak SAR (extrapolated) = 69.5 W/kg

SAR(1 g) = 17.6 mW/g; SAR(10 g) = 4.98 mW/g

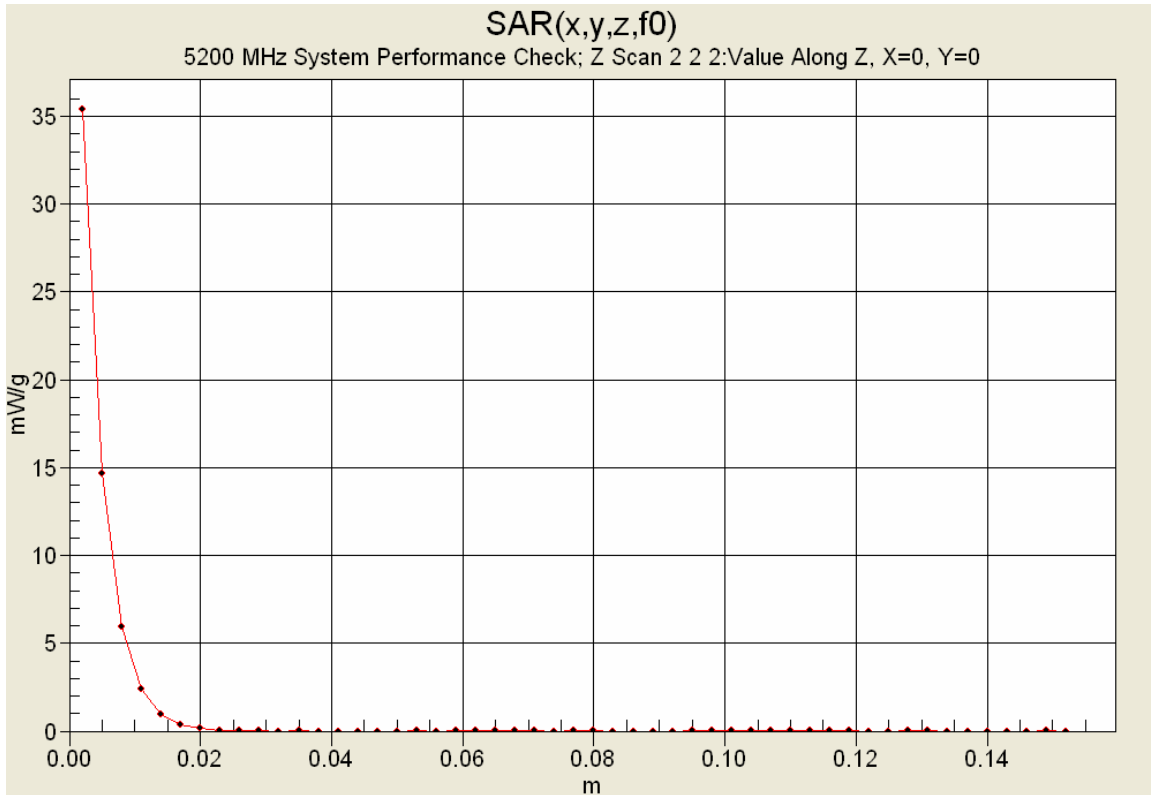
Maximum value of SAR (measured) = 35.3 mW/g






Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Date(s) of Evaluation</u> June 26-27, 2007	<u>Test Report Serial No.</u> 050707KBC-T830-S15W	<u>Test Report Revision No.</u> Revision 1.1	 Certificate No. 2470.01
	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	

Z-Axis Scan



Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Date(s) of Evaluation</u> June 26-27, 2007	<u>Test Report Serial No.</u> 050707KBC-T830-S15W	<u>Test Report Revision No.</u> Revision 1.1	 Certificate No. 2470.01
	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	

Date Tested: 06/27/2007

System Performance Check - 5800 MHz Dipole - MSL

DUT: Dipole 5GHz; Type: D5GHzV2; Serial: 1031; Validation: 05/10/2007

Ambient Temp: 24.7°C; Fluid Temp: 22.5°C; Barometric Pressure: 101.2 kPa; Humidity: 30%

Communication System: CW

Forward Conducted Power: 250 mW

Frequency: 5800 MHz; Duty Cycle: 1:1

Medium: M5200-5800 Medium parameters used: $f = 5800 \text{ MHz}$; $\sigma = 6.28 \text{ mho/m}$; $\epsilon_r = 45.3$; $\rho = 1000 \text{ kg/m}^3$

- Probe: EX3DV4 - SN3600; ConvF(4.14, 4.14, 4.14); Calibrated: 24/01/2007
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 13/03/2007
- Phantom: SAM 4.0; Type: Fiberglass; Serial: 1033
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

5800 MHz Dipole - System Performance Check/Area Scan (9x13x1):

Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$

Maximum value of SAR (measured) = 43.8 mW/g

5800 MHz Dipole - System Performance Check/Zoom Scan (7x7x9)/Cube 0:

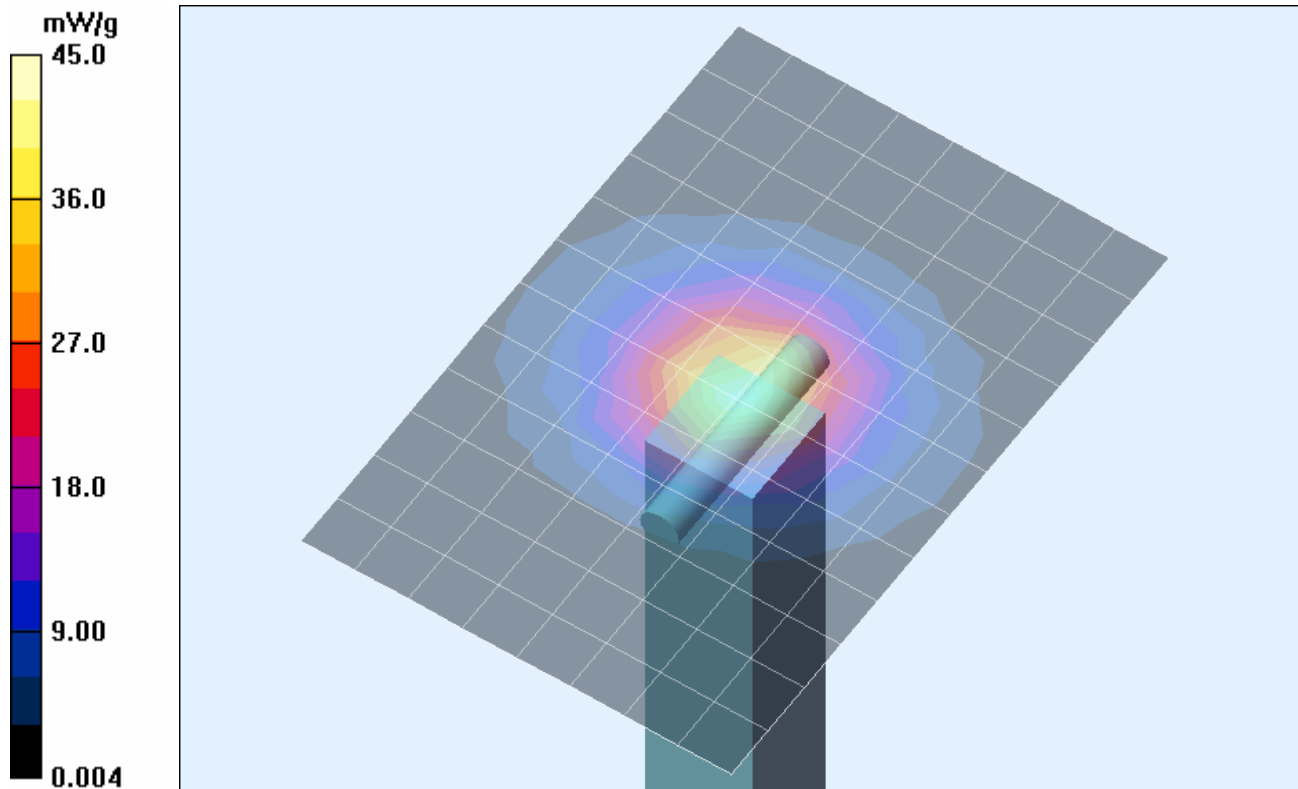
Measurement grid: $dx=4\text{mm}$, $dy=4\text{mm}$, $dz=2.5\text{mm}$


Reference Value = 87.6 V/m; Power Drift = 0.234 dB



Peak SAR (extrapolated) = 93.3 W/kg

SAR(1 g) = 20.1 mW/g; SAR(10 g) = 5.56 mW/g

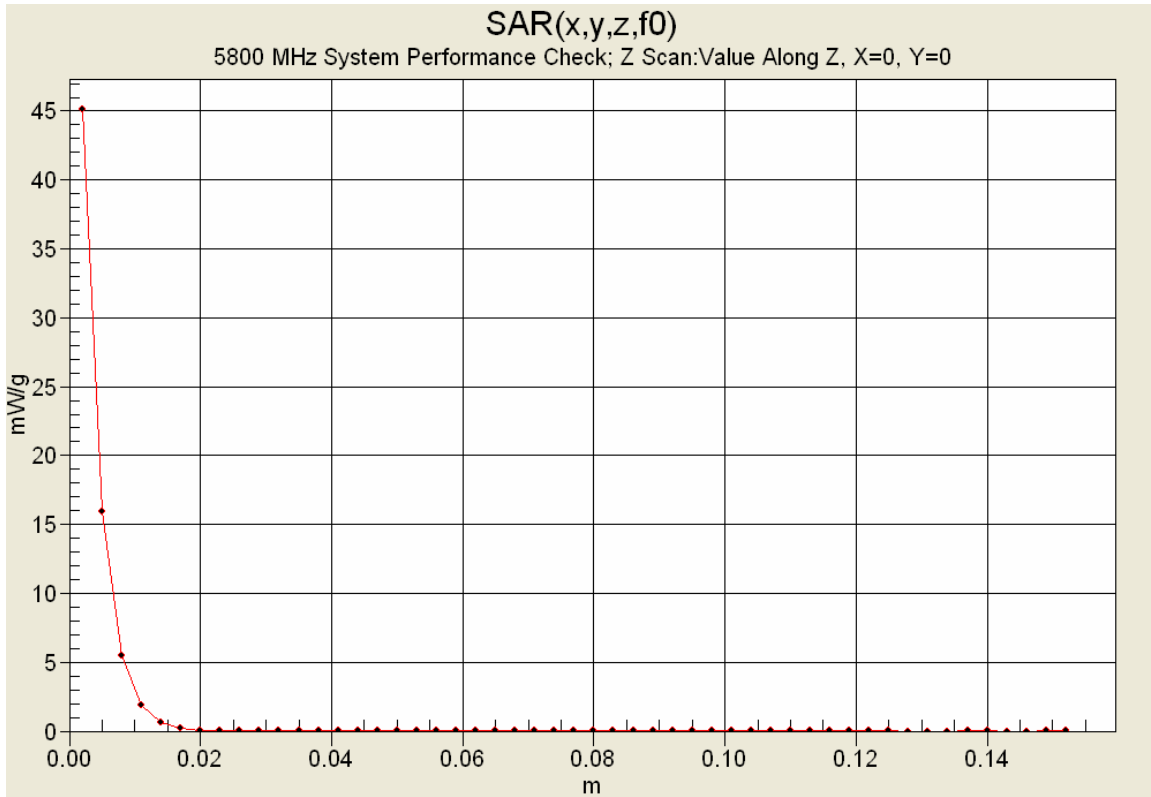
Maximum value of SAR (measured) = 45.0 mW/g






Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Date(s) of Evaluation</u> June 26-27, 2007	<u>Test Report Serial No.</u> 050707KBC-T830-S15W	<u>Test Report Revision No.</u> Revision 1.1	 Certificate No. 2470.01
	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	

Z-Axis Scan



Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Date(s) of Evaluation</u> June 26-27, 2007	<u>Test Report Serial No.</u> 050707KBC-T830-S15W	<u>Test Report Revision No.</u> Revision 1.1	 Certificate No. 2470.01
	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	

Date Tested: 06/27/2007

System Performance Check - 2450 MHz Dipole - MSL

DUT: Dipole 2450 MHz; Type: D2450V2; Serial: 150; Validation: 06/08/2007

Ambient Temp: 24.8°C; Fluid Temp: 22.6°C; Barometric Pressure: 101.1 kPa; Humidity: 31%

Communication System: CW

Forward Conducted Power: 250 mW

Frequency: 2450 MHz; Duty Cycle: 1:1

Medium: M2450 Medium parameters used: $f = 2450 \text{ MHz}$; $\sigma = 1.98 \text{ mho/m}$; $\epsilon_r = 50.3$; $\rho = 1000 \text{ kg/m}^3$

- Probe: EX3DV4 - SN3600; ConvF(6.31, 6.31, 6.31); Calibrated: 24/01/2007
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn370; Calibrated: 13/03/2007
- Phantom: SAM 4.0; Type: Fiberglas; Serial: 1033
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

2450 MHz Dipole - System Performance Check/Area Scan (6x10x1):

Measurement grid: dx=10mm, dy=10mm

Maximum value of SAR (measured) = 13.4 mW/g

2450 MHz Dipole - System Performance Check/Zoom Scan (7x7x7)/Cube 0:

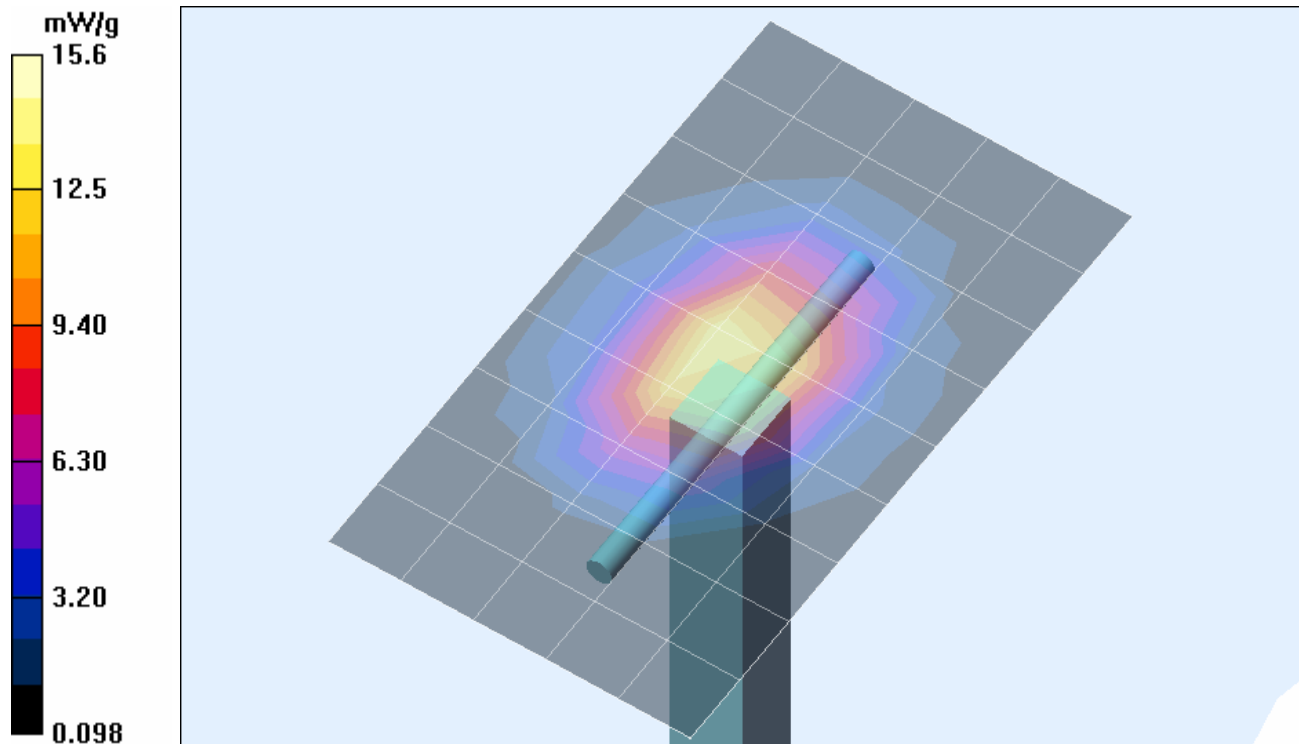
Measurement grid: dx=5mm, dy=5mm, dz=5mm


Reference Value = 88.8 V/m; Power Drift = 0.008 dB



Peak SAR (extrapolated) = 28.3 W/kg

SAR(1 g) = 13.6 mW/g; SAR(10 g) = 6.17 mW/g

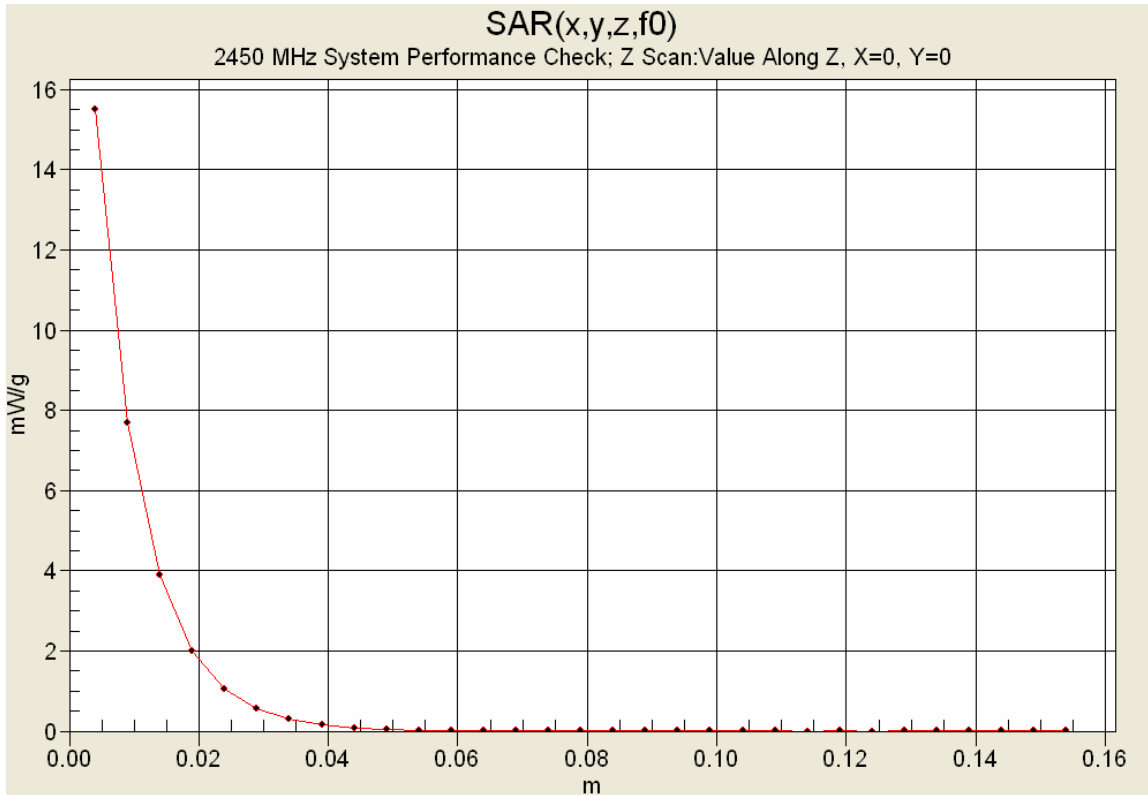
Maximum value of SAR (measured) = 15.6 mW/g






Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Date(s) of Evaluation</u> June 26-27, 2007	<u>Test Report Serial No.</u> 050707KBC-T830-S15W	<u>Test Report Revision No.</u> Revision 1.1	 Certificate No. 2470.01
	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	


Z-Axis Scan





Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Date(s) of Evaluation</u> June 26-27, 2007	<u>Test Report Serial No.</u> 050707KBC-T830-S15W	<u>Test Report Revision No.</u> Revision 1.1	 Certificate No. 2470.01
	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	

APPENDIX C - MEASURED FLUID DIELECTRIC PARAMETERS


Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Date(s) of Evaluation</u> June 26-27, 2007	<u>Test Report Serial No.</u> 050707KBC-T830-S15W	<u>Test Report Revision No.</u> Revision 1.1	 Certificate No. 2470.01
	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	

5200 MHz System Performance Check & 5180/5260 MHz DUT Evaluation (Body)

Celltech Labs Inc.
 Test Result for UIM Dielectric Parameter
 Tue 26/Jun/2007
 Frequency (GHz)
 FCC_eHFCC Bulletin 65 Supplement C (June 2001) Limits for Head Epsilon
 FCC_sHFCC Bulletin 65 Supplement C (June 2001) Limits for Head Sigma
 FCC_eB FCC Limits for Body Epsilon
 FCC_sB FCC Limits for Body Sigma
 Test_e Epsilon of UIM
 Test_s Sigma of UIM

Freq	FCC_eB	FCC_sB	Test_e	Test_s
5.1000	49.15	5.18	44.78	5.38
5.1100	49.14	5.19	44.72	5.38
5.1200	49.12	5.21	44.60	5.36
5.1300	49.11	5.22	44.57	5.39
5.1400	49.10	5.23	44.55	5.40
5.1500	49.08	5.24	44.57	5.38
5.1600	49.07	5.25	44.55	5.39
5.1700	49.06	5.26	44.44	5.45
5.1800	49.04	5.28	44.35	5.46
5.1900	49.03	5.29	44.39	5.48
5.2000	49.01	5.30	44.43	5.50
5.2100	49.00	5.31	44.27	5.48
5.2200	48.99	5.32	44.07	5.47
5.2300	48.97	5.33	44.14	5.48
5.2400	48.96	5.35	43.97	5.51
5.2500	48.95	5.36	44.12	5.54
5.2600	48.93	5.37	44.04	5.53
5.2700	48.92	5.38	43.89	5.55
5.2800	48.91	5.39	43.78	5.56
5.2900	48.89	5.40	43.90	5.56
5.3000	48.88	5.42	43.75	5.55


Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Date(s) of Evaluation</u> June 26-27, 2007	<u>Test Report Serial No.</u> 050707KBC-T830-S15W	<u>Test Report Revision No.</u> Revision 1.1	 Certificate No. 2470.01
	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	

5800 MHz System Performance Check & DUT Evaluation (Body)

Celltech Labs Inc.
 Test Result for UIM Dielectric Parameter
 Wed 27/Jun/2007
 Frequency (GHz)
 FCC_eHFCC Bulletin 65 Supplement C (June 2001) Limits for Head Epsilon
 FCC_sHFCC Bulletin 65 Supplement C (June 2001) Limits for Head Sigma
 FCC_eB FCC Limits for Body Epsilon
 FCC_sB FCC Limits for Body Sigma
 Test_e Epsilon of UIM
 Test_s Sigma of UIM

Freq	FCC_eB	FCC_sB	Test_e	Test_s
5.7000	48.34	5.88	45.46	6.08
5.7100	48.32	5.89	45.36	6.12
5.7200	48.31	5.91	45.23	6.11
5.7300	48.30	5.92	45.09	6.13
5.7400	48.28	5.93	45.14	6.16
5.7500	48.27	5.94	45.12	6.20
5.7600	48.25	5.95	45.08	6.20
5.7700	48.24	5.96	45.13	6.25
5.7800	48.23	5.98	45.21	6.24
5.7900	48.21	5.99	45.27	6.27
5.8000	48.20	6.00	45.32	6.28
5.8100	48.19	6.01	45.01	6.29
5.8200	48.17	6.02	45.16	6.31
5.8300	48.16	6.04	45.17	6.29
5.8400	48.15	6.05	45.05	6.30
5.8500	48.13	6.06	45.06	6.34
5.8600	48.12	6.07	45.20	6.38
5.8700	48.10	6.08	45.06	6.39
5.8800	48.09	6.09	45.10	6.38
5.8900	48.08	6.11	45.03	6.37
5.9000	48.06	6.12	45.06	6.35


Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Date(s) of Evaluation</u> June 26-27, 2007	<u>Test Report Serial No.</u> 050707KBC-T830-S15W	<u>Test Report Revision No.</u> Revision 1.1	 Certificate No. 2470.01
	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	

2450 MHz System Performance Check & DUT Evaluation (Body)


Celltech Labs Inc.
 Test Result for UIM Dielectric Parameter
 Wed 27/Jun/2007
 Frequency (GHz)
 FCC_eHFCC Bulletin 65 Supplement C (June 2001) Limits for Head Epsilon
 FCC_sHFCC Bulletin 65 Supplement C (June 2001) Limits for Head Sigma
 FCC_eB FCC Limits for Body Epsilon
 FCC_sB FCC Limits for Body Sigma
 Test_e Epsilon of UIM
 Test_s Sigma of UIM



Freq	FCC_eB	FCC_sB	Test_e	Test_s
2.3500	52.83	1.85	50.56	1.88
2.3600	52.82	1.86	50.53	1.88
2.3700	52.81	1.87	50.48	1.89
2.3800	52.79	1.88	50.50	1.89
2.3900	52.78	1.89	50.44	1.90
2.4000	52.77	1.90	50.38	1.90
2.4100	52.75	1.91	50.29	1.93
2.4200	52.74	1.92	50.28	1.95
2.4300	52.73	1.93	50.36	1.95
2.4400	52.71	1.94	50.29	1.96
2.4500	52.70	1.95	50.26	1.98
2.4600	52.69	1.96	50.22	1.97
2.4700	52.67	1.98	50.18	1.98
2.4800	52.66	1.99	50.15	2.00
2.4900	52.65	2.01	50.09	2.00
2.5000	52.64	2.02	49.99	2.02
2.5100	52.62	2.04	49.90	2.04
2.5200	52.61	2.05	49.98	2.05
2.5300	52.60	2.06	49.99	2.06
2.5400	52.59	2.08	49.98	2.08
2.5500	52.57	2.09	49.98	2.09

Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Date(s) of Evaluation</u> June 26-27, 2007	<u>Test Report Serial No.</u> 050707KBC-T830-S15W	<u>Test Report Revision No.</u> Revision 1.1	
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APPENDIX D - MANUFACTURER'S TISSUE SIMULANT DATA SHEET

Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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Schmid & Partner Engineering AG

s p e a g

Zeughausstrasse 43, 8004 Zurich, Switzerland
 Phone +41 1 245 9700, Fax +41 1 245 9779
 info@speag.com, http://www.speag.com

Material Safety Data Sheet

1 Identification of the substance and of the manufacturer / origin

Item	Head Tissue Simulation Liquid HSL5800 Muscle Tissue Simulation Liquid MSL 5800
Type No	SL AAH 580, SL AAM 580
Series No	N/A
Manufacturer / Origin	Schmid & Partner Engineering AG Zeughausstrasse 43 8004 Zürich Switzerland Phone +41 1 245 9700, Fax +41 1 245 9779, support@speag.com

Use of the substance:

Liquid simulating physical parameters of Head or Muscle Tissue in the RF range to 6GHz.

2 Composition / Information on ingredients

The Item is composed of the following ingredients:

Water	64 - 78%
Mineral Oil	11 - 18%
Emulsifiers	9 - 15%
Additives and Salt	2 - 3%

Safety relevant ingredients according to EU directives:

CAS-No 107-41-5	< 4%	2-Methyl-2,4-pentandiol (Hexylene Glycol): Xi irritant, R36/38 irritant for eyes and skin
CAS-No 770-35-4	< 2%	1-Phenoxy-2-propanol (Propylene Glycol Phenyl Ether): Xi irritant, R36 irritant for eyes
CAS-No 93-83-4	< 2%	N,N-bis(2-Hydroxyethyl)oleamide: Xi irritant, R36/38 irritant for eyes and skin
CAS-No 9004-95-9	< 0.5%	Polyethylene glycol cetyl ether: Xi irritant, R22 harmful if swallowed, R36/38 irritant for eyes and skin R50 Very toxic to aquatic organisms

According to EU guidelines and Swiss rules, the product is not a dangerous mixture and therefore not required to be marked by symbols.

3 Hazards identification

Identification not required.

4 First aid measures


The product reacts slightly alkaline.



After skin contact:	Wash with fresh water and mild sope
After eye contact:	Rinse out with plenty of water for several minutes with the eyelid held open. Consult an ophthalmologist if necessary.
After ingestion:	Do not induce vomiting. Get medical attention.

5 Fire-fighting measures

Firefighting media	CO ₂ , foam, dry chemical
Combustion products	Carbon oxides, nitrogen and traces of oxides of chlorine and sulfur, HCl

Due to the high water content, the liquid is self-extinguishing.

Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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6 Accidental release measures

Person-related precaution measures: wash with water and mild soap.
 Environmental-protection measures: do not allow to enter sewerage system.
 Procedures for cleaning / absorption: Use oil-binding agents., forward for disposal. Spills may cause slippery conditions.

7 Handling and storage

Handling: Keep in open container only for minimum required time in order to avoid water evaporation.
 Storage: tightly closed, between >0 to 40°C. Avoid direct solar irradiation of the storage containers.

8 Exposure controls / personal protection

Protection measures are not generally required. For eye protection, industrial safety glasses are recommended.
 Personal hygiene and clean working practices are sufficient.

9 Physical and chemical properties

Form: liquid
 Colour: medium to dark brown, transparent to opaque
 Odour: almost odourless / slightly oily
 pH-Value: slightly alcalic
 Boiling point: 100°C
 Density: 1g/cm³

10 Stability and reactivity

Conditions to be avoided: heating above 40°C
 The product contains water and is not compatible with strong oxidizers or magnesium.

11 Toxicological information

LD50 > 40 g/kg
 Further data: the product should be handled with the care usual when dealing with chemicals

12 Ecological information

Contains mineral oil. Do not allow to enter waters, waste water, or soil!

13 Disposal considerations

Disposal is possible by splitting the mineral oil from the emulsion with absorbing agents, with salt or ultra-filtration. Dispose as other mineral oil containing products according to local regulations.
 Product packing must be disposed of in compliance with respect national regulations.

14 Transport information


Not subject to transport regulations.



15 Regulatory information

No special labelling required.


16 Other information



Release date: 6.1.2005
 Responsible: FB

Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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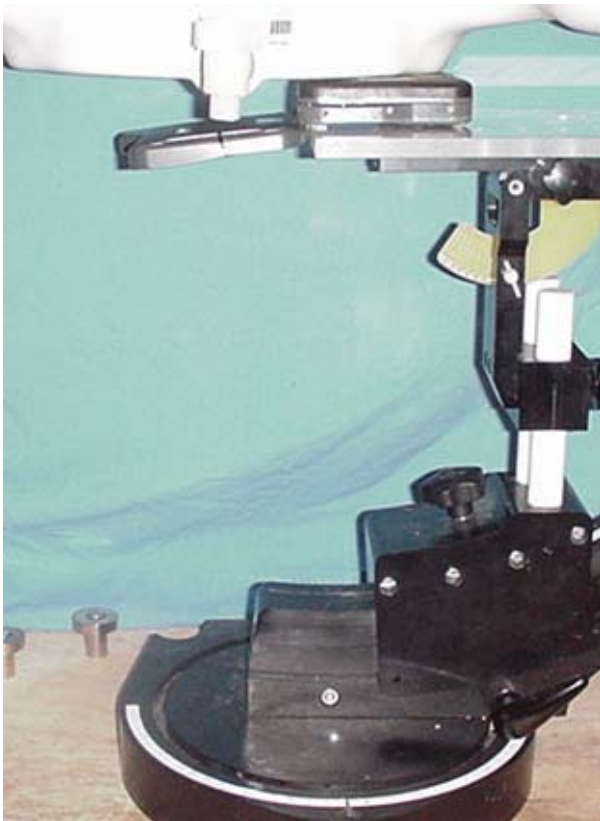
	<u>Date(s) of Evaluation</u> June 26-27, 2007	<u>Test Report Serial No.</u> 050707KBC-T830-S15W	<u>Test Report Revision No.</u> Revision 1.1	 Certificate No. 2470.01
	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	


APPENDIX E - SAR TEST SETUP & DUT PHOTOGRAPHS



Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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BODY SAR TEST SETUP PHOTOGRAPHS
4.7 cm Spacing from MAIN Antenna to SAM Phantom (Planar Section)
Bottom Side of DUT Touching Phantom - LCD Lid Open (MAIN Antenna)






Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	

BODY SAR TEST SETUP PHOTOGRAPHS
4.3 cm Spacing from AUX Antenna to SAM Phantom (Planar Section)
Bottom Side of DUT Touching Phantom - LCD Lid Open (AUX Antenna)




Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	

DUT PHOTOGRAPHS



Front of DUT - LCD Lid Open

Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	

DUT PHOTOGRAPHS




Left Side of DUT - LCD Lid Open





Right Side of DUT - LCD Lid Open



Back of DUT - LCD Lid Open

Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	


DUT PHOTOGRAPHS





Front of DUT - LCD Lid Closed



Bottom Side of DUT

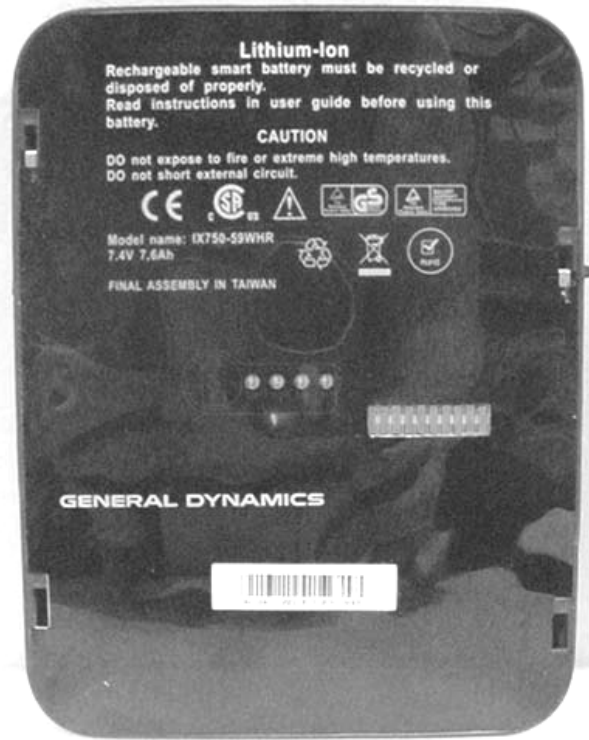
Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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DUT PHOTOGRAPHS





Bottom Side of DUT - Battery Removed



Lithium-ion Battery (Model: IX750-59WHR)


Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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DUT PHOTOGRAPHS

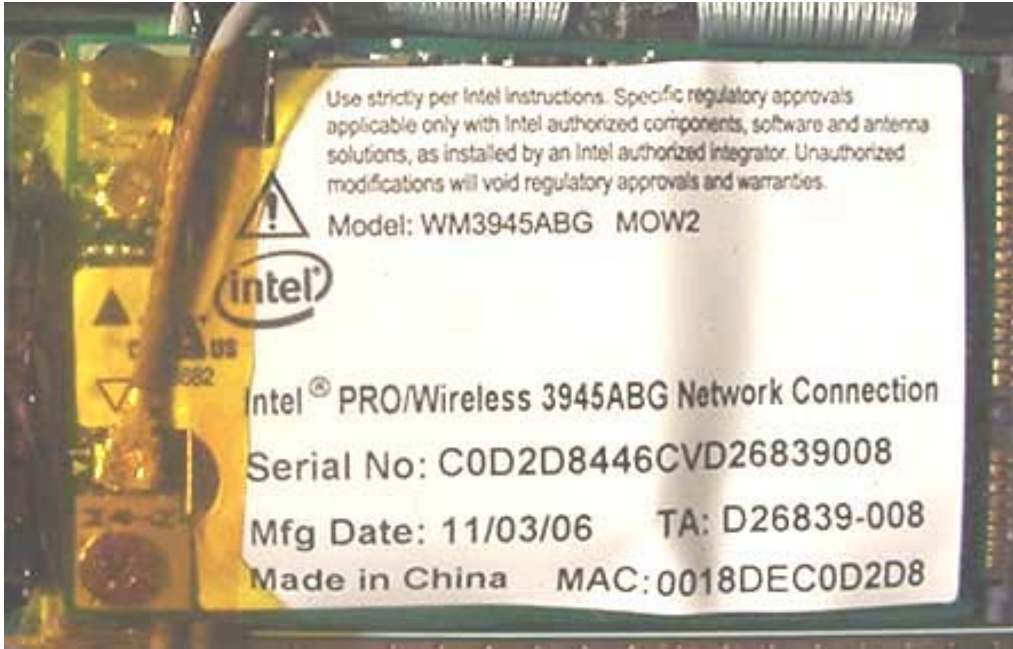


Intel 3945ABG
 802.11abg WLAN
 Mini-PCI Express Card
 installed in DUT

Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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DUT PHOTOGRAPHS





Intel PRO 3945ABG 802.11abg WLAN Mini-PCI Express Card - Front View




Intel PRO 3945ABG 802.11abg WLAN Mini-PCI Express Card - Rear View

Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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	<u>Test Report Issue Date</u> July 12, 2007	<u>Description of Test(s)</u> Specific Absorption Rate	<u>RF Exposure Category</u> General Population	

APPENDIX H - SAM PHANTOM CERTIFICATE OF CONFORMITY

Company:	General Dynamics Itronix Corporation	FCC ID:	KBCIX-WL3945	IC ID:	1943A-WL3945
Model(s):	IX750	Device Type:	Footprint PC with Intel PRO 3945ABG 802.11abg WLAN		
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Schmid & Partner Engineering AG

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

Certificate of conformity / First Article Inspection

Item	SAM Twin Phantom V4.0
Type No	QD 000 P40 BA
Series No	TP-1002 and higher
Manufacturer / Origin	Untersee Composites Hauptstr. 69 CH-8559 Fruthwilen Switzerland

Tests

The series production process used allows the limitation to test of first articles. Complete tests were made on the pre-series Type No. QD 000 P40 AA, Serial No. TP-1001 and on the series first article Type No. QD 000 P40 BA, Serial No. TP-1006. Certain parameters have been retested using further series units (called samples).

Test	Requirement	Details	Units tested
Shape	Compliance with the geometry according to the CAD model.	IT'IS CAD File (*)	First article, Samples
Material thickness	Compliant with the requirements according to the standards	2mm +/- 0.2mm in specific areas	First article, Samples
Material parameters	Dielectric parameters for required frequencies	200 MHz – 3 GHz Relative permittivity < 5 Loss tangent < 0.05.	Material sample TP 104-5
Material resistivity	The material has been tested to be compatible with the liquids defined in the standards	Liquid type HSL 1800 and others according to the standard.	Pre-series, First article

Standards

- [1] CENELEC EN 50361
- [2] IEEE P1528-200x draft 6.5
- [3] IEC PT 62209 draft 0.9

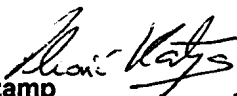
(*) The IT'IS CAD file is derived from [2] and is also within the tolerance requirements of the shapes of [1] and [3].

Conformity

Based on the sample tests above, we certify that this item is in compliance with the uncertainty requirements of SAR measurements specified in standard [1] and draft standards [2] and [3].

Date 18.11.2001

Signature / Stamp



**Schmid & Partner
Engineering AG**



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