SAR TEST REPORT (FCC/IC)

RF EXPOSURE EVALUATION | SPECIFIC ABSORPTION RATE

APPLICANT	GENERAL DYNAMICS ITRONIX CORPORATION			
DEVICE UNDER TEST (DUT)	802.11a/b/g/n WLAN Mini-PCI Express Card			
DEVICE MODEL(S)	IX-4965AGN			
DEVICE IDENTIFIER(S)	FCC ID:	KBCIX-4965AGN	IC:	1943A-4965AGN
HOST PC TYPE	Rugged Tablet PC (General Dynamics Itronix Corp. Model: IX350)			
CO-LOCATED TRANSMITTER(S)	Class 1 Bluetooth (v2.0) - Model: IX-GUBTC41MTH			
APPLICATION TYPE	Class II Permissive Change (Add IX350 Host PC and Bluetooth)			
STANDARD(S) APPLIED	FCC 47 CFR §2.1093			
	Health Canada Safety Code 6			
PROCEDURE(S) APPLIED	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			
	IEEE 1528-2003			
FCC DEVICE CLASSIFICATION(S)	Digital Transmission System (DTS) - §15C			
	Unlicensed National Information Infrastructure TX (NII) - §15E			
IC DEVICE CLASSIFICATION	Low Power License-Exempt Radiocommunication Device (RSS-210)			
RF EXPOSURE CATEGORY	General Population / Uncontrolled			
RF EXPOSURE EVALUATION(S)	Body and Lap-held			
DATE(S) OF EVALUATION(S)	November 02 & 06, 2007			
TEST REPORT SERIAL NO.	102407KBC-T866-S15WB			
TEST REPORT REVISION NO.	Revision 1.0	Initial Release	March 20, 2008	
TEST REPORT SIGNATORIES	Testing Performed By		Test Report Prepared By	
	Sean Johnston Celltech Labs Inc.		Jonathan Hughes Celltech Labs Inc.	
TEST LAB AND LOCATION	Celltech Compliance Testing and Engineering Lab			
	21-364 Lougheed Road, Kelowna, B.C. V1X 7R8 Canada			
TEST LAB CONTACT INFO.	Tel.: 250-765-7650		Fax: 250-765-7645	
	info@celltechlabs.com		www.celltechlabs.com	
TEST LAB ACCREDITATION(S)	ilac-MRA ACCREDITED Certificate No. 2470.01			

DECLARATION OF COMPLIANCE - SAR RF EXPOSURE EVALUATION

Test Lab Information	**Name**	**CELLTECH LABS INC.**	**Address**	21-364 Lougheed Road, Kelowna, B.C. V1X 7R8 Canada			
Company Information	**Name**	**GENERAL DYNAMICS ITRONIX CORP.**	**Address**	12825 E. Mirabeau Parkway, Spokane Valley, WA 92216 USA			
Standard(s) Applied	**FCC**	47 CFR §2.1093	**IC**	Health Canada Safety Code 6			
Procedure(s) Applied	**FCC**	OET Bulletin 65, Supplement C (01-01)	**IC**	RSS-102 Issue 2	**IEEE**	1528-2003	
	FCC	OET SAR Measurement Procedures for 802.11a/b/g	OET SAR Measurement Requirements for 3 - 6 GHz				
Device Classification(s)	**FCC**	Digital Transmission System (DTS) - §15C (ISM, UNII-3 Bands)					
	FCC	Unlicensed National Information Infrastructure TX (NII) - §15E (UNII-1, UNII-2 Bands)					
	IC	Low Power License-Exempt Radiocommunication Device (RSS-210)					
Application Type	**FCC/IC**	Class II Permissive Change (Add IX350 Host PC and Co-located IX-GUBTC41MTH Bluetooth)					
Device Identifier(s)	**FCC ID:**	KBCIX-4965AGN	**IC:**	1943A-4965AGN			
Device Under Test (DUT)	**Module**	802.11a/b/g/n WLAN Mini-PCI Express Card	**Model**	IX-4965AGN			
Device Configuration(s)	**Host PC**	Rugged Tablet PC	**Model**	IX350			
	Co-Tx	Class 1 Bluetooth	**Model**	IX-GUBTC41MTH	**FCC ID:**	KBCIX-GUBTC41MTH	**IC:** 1943A-GUBTC41MTH
Device Manufacturer(s)	**WLAN**	Intel Corporation	**Serial No.**	MAC: 0013E847EDE3 (Production Sample)			
	Bluetooth	Billionton Systems, Inc.	**Serial No.**	07052200019 (Production Sample)			
	Host PC	General Dynamics Itronix Corporation	**Serial No.**	SY7200000659 (Identical Prototype)			
LCD Display Orientation(s)	**Host PC**	0 Degrees Landscape	-90 Degrees Portrait	90 Degrees Portrait			
Device Position(s) Tested	**Host PC**	Bottom Side (Touch) - Lap-held					
		WLAN MAIN Diversity Antenna Adjacent Edge (Touch) - Body (-90 Degrees Portrait)					
		WLAN AUX Diversity Antenna Adjacent Edge (Touch) - Body (90 Degrees Portrait)					
Mode(s) of Operation	802.11b/n	Direct Sequence Spread Spectrum (DSSS)	802.11a/g/n	Orthogonal Frequency Division Multiplexing (OFDM)			
	Bluetooth	Frequency Hopping Spread Spectrum (FHSS)	GFSK (1 Mbps), π/4-DQPSK (2 Mbps), 8DPSK (3 Mbps)				
WLAN Data Rates	802.11a	6, 9, 12, 24, 36, 48, 54 Mbps	802.11b	1, 2, 5.5, 11 Mbps	802.11g	6, 9, 12, 24, 36, 48, 54 Mbps	
	802.11n	7.2/14.4/15/21.7/28.9/30/43.3/45/57.8/60/65/72.2/86.667/90/115.5/117/120/130/135/144/150/180/240/243/270/300					
Transmit Frequency Range(s)	802.11a	5180-5240 MHz (UNII-1)	5260-5320 MHz (UNII-2)	5745-5825 MHz (UNII-3)	802.11b	2412-2462 MHz (ISM)	
	Bluetooth	2402 - 2480 MHz	Test Frequency	2441 MHz	Test Mode	GFSK (1 Mbps) - DH5 Packet Rate	

Max. RF Output Power Tested	**Transmit Mode**	**Frequency**	**Channel**	**Data Rate**	**Chain A (AUX)**	**Chain B (MAIN)**	**Measurement**
	802.11b (ISM)	2442 MHz	7	1 Mbps	16.1 dBm	16.1 dBm	Conducted (Av.)
	802.11a (UNII-1)	5180 MHz	36	6 Mbps	15.8 dBm	16.1 dBm	Conducted (Av.)
	802.11a (UNII-2)	5260 MHz	52	6 Mbps	17.5 dBm	17.5 dBm	Conducted (Av.)
	802.11a (UNII-3)	5785 MHz	157	6 Mbps	17.6 dBm	17.5 dBm	Conducted (Av.)
	Bluetooth	2402 MHz	0	1 Mbps	13.0 dBm (20 mW)		Conducted (Av.)

Max. Duty Cycle(s) Tested	**802.11b**	98%	Crest Factor: 1:1.02	**802.11a**	91%	Crest Factor: 1:1.1	(Source-Based Time-Averaged)
Antenna Type(s) Tested	**WLAN**	Transmit Diversity	MAIN	Internal - Top Left Side of Tablet PC	AUX	Internal - Top Right Side of Tablet PC	
		Supports MIMO operation in 802.11n mode		**Bluetooth**	Internal	Left Side Edge of Tablet PC	
Power Source(s) Tested	**Host PC**	Internal Lithium-ion Battery		11.1V	3900mAh	Model: T8M-E	
Max. SAR Level(s) Evaluated	**Body**	**802.11a**	**0.050 W/kg**	Peak	Bottom Side	**FCC/IC Spatial Peak SAR Limit**	**1.6 W/kg** **1g average**
		802.11b	**0.024 W/kg**	1g average	Adjacent Edge		**Uncontrolled Exposure**

Celltech Labs Inc. declares under its sole responsibility that this wireless portable device is compliant with the Specific Absorption Rate (SAR) RF exposure requirements specified in FCC 47 CFR §2.1093 and Health Canada's Safety Code 6 for the General Population / Uncontrolled Exposure environment. The device was tested in accordance with the measurement standards and procedures specified in FCC OET Bulletin 65, Supplement C (Edition 01-01), FCC OET SAR Measurement Procedures for 802.11a/b/g Transmitters, FCC OET SAR Measurement Requirements for 3 - 6 GHz, Industry Canada RSS-102 Issue 2 and IEEE 1528-2003. 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.

The results and statements contained in this report pertain only to the device(s) evaluated.

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Test Report Approved By	Sean Johnston	**Celltech Labs Inc.**

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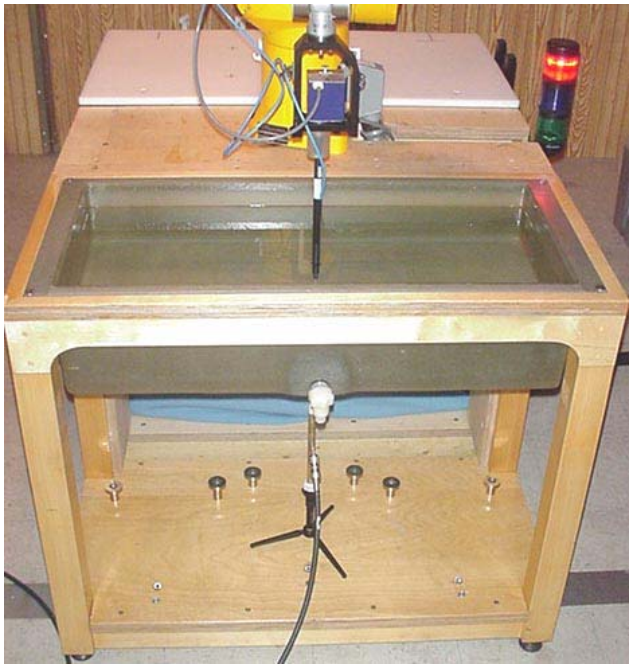
1.0 INTRODUCTION

This measurement report demonstrates compliance of the General Dynamics Itronix Corporation Model: IX350 Rugged Tablet PC, incorporating the IX-4965AGN WLAN Mini-PCI Express Card and co-located IX-GUBTC41MTH Class 1 Bluetooth, with the SAR (Specific Absorption Rate) RF exposure requirements of 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]), FCC OET SAR Measurement Procedures for 802.11a/b/g Transmitters (see reference [6]), FCC OET SAR Measurement Requirements for 3 - 6 GHz (see reference [7]), IC RSS-102 Issue 2 (see reference [4]) and IEEE 1528-2003 (see reference [5] 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 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 anipulation 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 SAR Measurement System with Planar Phantom

DASY4 Measurement Server

3.0 CONDUCTED POWER MEASUREMENT SUMMARY

802.11b 1Mbps
Duty Cycle 98%

Channel	Frequency	Average Power Chain A (dBm)	Average Power Chain B (dBm)	
1	2412	16.0	16.1	
7	2442	16.1	16.1	
11	2462	16.3	16.3	

802.11g 6Mbps
Duty Cycle 91%

Channel	Frequency	Average Power Chain A (dBm)	Average Power Chain B (dBm)	
1	2412	16.0	16.0	
7	2442	16.0	16.0	
11	2462	16.0	16.0	

802.11n HT0
Duty Cycle 91%

Channel	Frequency	Average Power Chain A (dBm)	Average Power Chain B (dBm)	
1	2412	16.0	16.0	
7	2442	16.0	16.0	
11	2462	16.0	16.0	

802.11n MIMO HT8
Duty Cycle 71%

Channel	Frequency	Average Power Chain A (dBm)	Average Power Chain B (dBm)	Aggregate Total (dBm)
1	2412	14.7	14.7	17.7
7	2442	14.5	14.7	17.6
11	2462	14.1	14.8	17.5

CONDUCTED POWER MEASUREMENT SUMMARY (Cont.)

802.11a 6Mbps
Duty Cycle 91%

Channel	Frequency	Average Power Chain A (dBm)	Average Power Chain B (dBm)	
Low	5180	15.8	16.1	
Mid	5260	17.5	17.5	
High	5320	16.5	16.5	

802.11n 20M HT0
Duty Cycle 91%

Channel	Frequency	Average Power Chain A (dBm)	Average Power Chain B (dBm)	
Low	5180	15.6	15.8	
Mid	5260	17.7	17.7	
High	5320	16.4	16.6	

802.11n 40M HT0
Duty Cycle 83%

Channel	Frequency	Average Power Chain A (dBm)	Average Power Chain B (dBm)	
Low	5190	15.6	15.7	
Mid	5270	17.6	17.7	
High	5310	15.6	15.6	

802.11n MIMO 20M HT8
Duty Cycle 71%

Channel	Frequency	Average Power Chain A (dBm)	Average Power Chain B (dBm)	Aggregate Total (dBm)
Low	5180	13.7	13.3	16.5
Mid	5260	14.5	14.6	17.6
High	5320	14.2	14.4	17.3

802.11n MIMO 40M HT8
Duty Cycle 57%

Channel	Frequency	Average Power Chain A (dBm)	Average Power Chain B (dBm)	Aggregate Total (dBm)
Low	5190	13.7	13.3	16.5
Mid	5270	14.5	14.6	17.6
High	5310	14.2	14.4	17.3

CONDUCTED POWER MEASUREMENT SUMMARY (Cont.)

802.11a 6Mbps
Duty Cycle 91%

Channel	Frequency	Average Power Chain A (dBm)	Average Power Chain B (dBm)	
149	5745	17.7	17.4	
157	5785	17.6	17.5	
165	5825	17.6	17.5	

802.11n 20M HT0
Duty Cycle 91%

Channel	Frequency	Average Power Chain A (dBm)	Average Power Chain B (dBm)	
149	5745	17.4	17.5	
157	5785	17.5	17.5	
165	5825	17.6	17.7	

802.11n 40M HT0
Duty Cycle 83%

Channel	Frequency	Average Power Chain A (dBm)	Average Power Chain B (dBm)	
	5755	17.6	17.5	
	5795	17.6	17.5	

802.11n MIMO 20M HT8
Duty Cycle 71%

Channel	Frequency	Average Power Chain A (dBm)	Average Power Chain B (dBm)	Aggregate Total (dBm)
149	5745	14.3	14.4	17.4
157	5785	14.5	14.5	17.5
165	5825	14.5	14.6	17.6

802.11n MIMO 40M HT8
Duty Cycle 57%

Channel	Frequency	Average Power Chain A (dBm)	Average Power Chain B (dBm)	Aggregate Total (dBm)
	5755	14.5	14.6	17.6
	5795	14.4	14.5	17.5

4.0 SAR MEASUREMENT SUMMARY

BODY SAR MEASUREMENT RESULTS

Transmit Mode	Band	Test Mode	Freq.	Ch.	Data Rate	Bluetooth Co-Tx	WLAN Antenna	Host PC Position to Planar Phantom	Antenna Distance to Planar Phantom	Cond. Power Before Test	SAR Drift During Test	Measured SAR	
			MHz		Mbps				cm	dBm	dB	W/kg	
802.11b	ISM	DSSS	2442	7	1	Off	AUX (A)	Bottom Touch	4.2	16.1	--[6]	0.007	Peak[4]
802.11b	ISM	DSSS	2442	7	1	Off	MAIN (B)	Bottom Touch	4.2	16.1	--[6]	0.047	Peak[4]
802.11b	ISM	DSSS	2442	7	1	Off	AUX (A)	Adjacent Edge	6.5	16.1	0.100[5]	0.014	1g
802.11b	ISM	DSSS	2442	7	1	Off	MAIN (B)	Adjacent Edge	4.0	16.1	0.205[5]	**0.024**	**1g**
802.11a	UNII-1	OFDM	5180	36	6	Off	AUX (A)	Bottom Touch	4.2	15.8	--[6]	**0.050**	**Peak[4]**
802.11a	UNII-1	OFDM	5180	36	6	Off	MAIN (B)	Bottom Touch	4.2	16.1	--[6]	0.029	Peak[4]
802.11a	UNII-1	OFDM	5180	36	6	Off	AUX (A)	Adjacent Edge	6.5	15.8	--[6]	0.027	Peak[4]
802.11a	UNII-1	OFDM	5180	36	6	Off	MAIN (B)	Adjacent Edge	4.0	16.1	--[6]	0.048	Peak[4]
802.11a	UNII-2	OFDM	5260	52	6	Off	AUX (A)	Bottom Touch	4.2	17.5	--[6]	0.047	Peak[4]
802.11a	UNII-2	OFDM	5260	52	6	Off	MAIN (B)	Bottom Touch	4.2	17.5	--[6]	0.047	Peak[4]
802.11a	UNII-2	OFDM	5260	52	6	Off	AUX (A)	Adjacent Edge	6.5	17.5	--[6]	0.038	Peak[4]
802.11a	UNII-2	OFDM	5260	52	6	Off	MAIN (B)	Adjacent Edge	4.0	17.5	--[6]	0.019	Peak[4]
802.11a	UNII-3	OFDM	5785	157	6	Off	AUX (A)	Bottom Touch	4.2	17.6	--[6]	0.018	Peak[4]
802.11a	UNII-3	OFDM	5785	157	6	Off	MAIN (B)	Bottom Touch	4.2	17.5	--[6]	0.025	Peak[4]
802.11a	UNII-3	OFDM	5785	157	6	Off	AUX (A)	Adjacent Edge	6.5	17.6	--[6]	0.017	Peak[4]
802.11a	UNII-3	OFDM	5785	157	6	Off	MAIN (B)	Adjacent Edge	4.0	17.5	--[6]	0.030	Peak[4]

SAR LIMIT(S)		BODY	SPATIAL PEAK	RF EXPOSURE CATEGORY
FCC 47 CFR 2.1093	Health Canada Safety Code 6	1.6 W/kg	averaged over 1 gram	General Population / Uncontrolled

Test Date(s)	November 06, 2007				November 02, 2007				November 02, 2007				November 02, 2007			
Fluid Dielectric Parameters	2450 MHz Body				5180 MHz Body				5260 MHz Body				5800 MHz Body			
	IEEE Target		Meas.	Dev.	IEEE Target		Meas.	Dev.	IEEE Target		Meas.	Dev.	IEEE Target		Meas.	Dev.
Dielectric Constant ε_r	52.7	±5%	50.6	-4.0%	49.0	±10%	45.0	-8.1%	48.9	±10%	44.9	-8.2%	48.2	±10%	45.5	-5.6%
Conductivity σ (mho/m)	1.95	±5%	2.01	+3.1%	5.28	±5%	5.25	-0.5%	5.37	±5%	5.39	+0.4%	6.00	±5%	6.20	+3.3%

Test Date	ρ (Kg/m^3)	Ambient Temperature	Fluid Temperature	Fluid Depth	Relative Humidity	Atmospheric Pressure
November 02, 2007	1000	23.3°C	22.0°C	≥ 15 cm	33%	101.0 kPa
November 06, 2007	1000	22.2°C	20.2°C	≥ 15 cm	31%	101.1 kPa

Notes

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. The measured SAR levels were ≥ 3 dB below the SAR limit; therefore single channel data only is reported (per FCC OET SAR Measurement Procedures for 802.11a/b/g Transmitters - see reference [6]).
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 [6]).
4. The SAR levels measured and reported are the Peak SAR levels measured from the area scan. The 1g-averaged SAR is not measured when the peak SAR value from the area scan evaluation is less than 1% of the 1g average limit. The mathematical formula used to extrapolate the SAR value at the surface from the zoom scan SAR values measured at 5 mm steps leading away from the surface assumes a curving slope (i.e. the SAR values gradually decrease as the probe moves away from the surface). When the peak SAR of a device is so low that the RF noise level is competing with the SAR level, the zoom scan measurements leading away from the surface are no longer a curving slope and the extrapolation formula cannot accurately estimate the 1g average SAR. Therefore the peak value from the area scan is reported in place of the 1g averaged SAR value whenever the peak values are less than 1% of the average limit. This avoids gross uncertainties in the 1g average SAR calculation while maintaining a conservative estimation of the SAR level.
5. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system. The power drift was within 5% of the measured start power.
6. The power drift of the DUT during the SAR evaluations was measured at the reference point of the phantom with low SAR. The resulting drift values were inaccurate due to the SAR value at the reference point was close to the measurement noise floor and are therefore not reported.

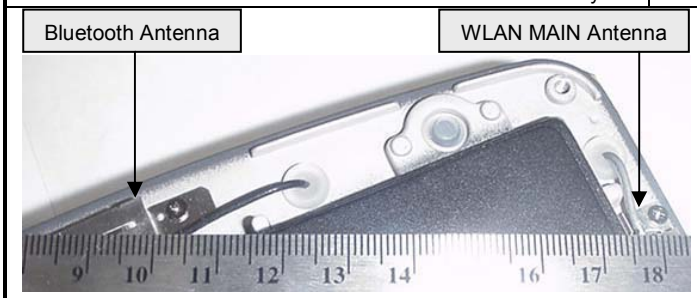
SAR MEASUREMENT SUMMARY (Cont.)

MEASURED SAR LEVELS AND DISTANCES OF CO-TRANSMITTING ANTENNAS

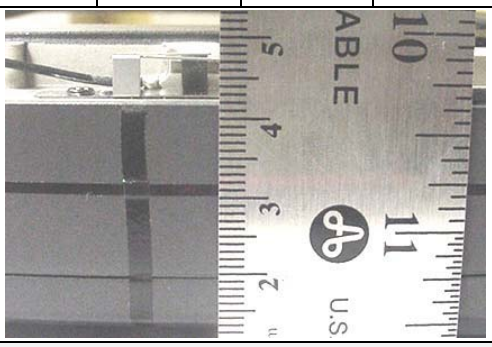
DUT TEST POSITION	BLUETOOTH & WLAN MAIN ANTENNA SPACING	DISTANCE FROM ANTENNA TO PLANAR PHANTOM		BLUETOOTH TRANSMITTER		WLAN TRANSMITTER MAIN ANT. (CHAIN B)	
		BLUETOOTH	WLAN MAIN	Frequency	SAR	Frequency	SAR
	cm	cm	cm	MHz	W/kg	MHz	W/kg
Bottom Side of Tablet PC	7.5	4.2	4.2	2402	0.053	2442	0.047
					Peak		Peak
Bottom Side of Tablet PC	7.5	4.2	4.2	2402	0.053	5260	0.047
					Peak		Peak
Bluetooth Antenna Side - Tablet PC Edge-on (WLAN MAIN Adjacent)	7.5	0.5	4.0	2480	**0.410**	2442	**0.024**
					1 gram		**1 gram**
Bluetooth Antenna Side - Tablet PC Edge-on (WLAN MAIN Adjacent)	7.5	0.5	4.0	2480	0.410	5180	0.048
					1 gram		Peak
Maximum SAR Summation of Co-transmitting Antennas:				**0.434 W/kg (averaged over 1 gram)**			

MEASURED RF CONDUCTED OUTPUT POWER LEVELS OF CO-TRANSMITTING ANTENNAS

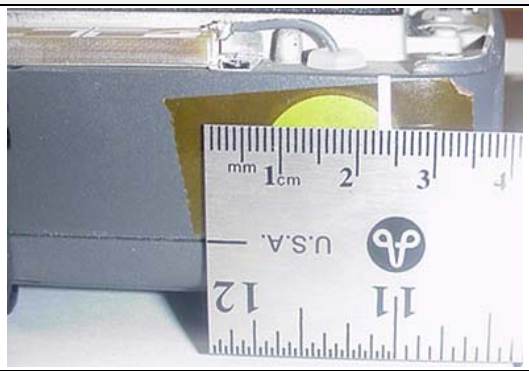
BLUETOOTH (Average Power)					WLAN (Average Power)			
Frequency (MHz)	Mode			Level	Frequency (MHz)	Mode		Level
2402	GFSK	1 Mbps	DH5	13.0 dBm	2442	802.11b	1 Mbps	16.1 dBm
2480	GFSK	1 Mbps	DH5	12.9 dBm	5180	802.11a	6 Mbps	16.1 dBm
Note: The WLAN AUX (Chain A) Antenna is 17 cm distance from the Bluetooth Antenna and is not considered in this co-tx analysis					5260	802.11a	6 Mbps	17.5 dBm



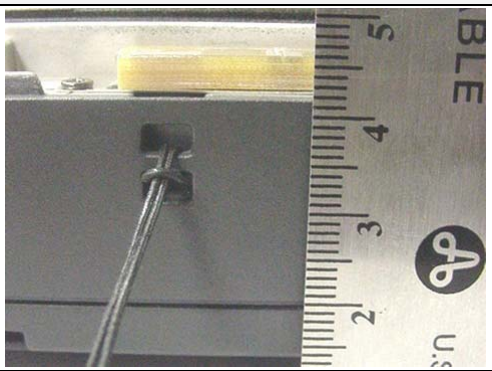
7.5 cm Spacing between Bluetooth Antenna and WLAN MAIN Antenna



4.2 cm Distance from Bluetooth Antenna to Bottom of PC



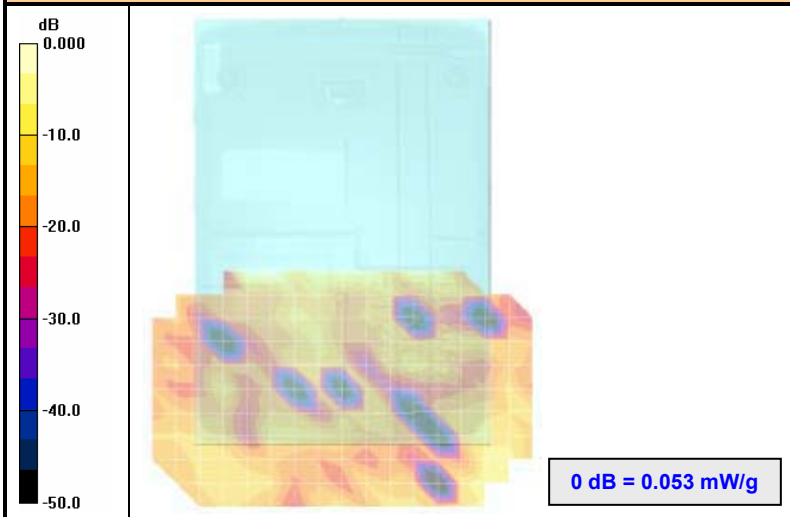
4 cm Distance from WLAN MAIN Ant. to Adjacent Edge (BT Ant. Edge)



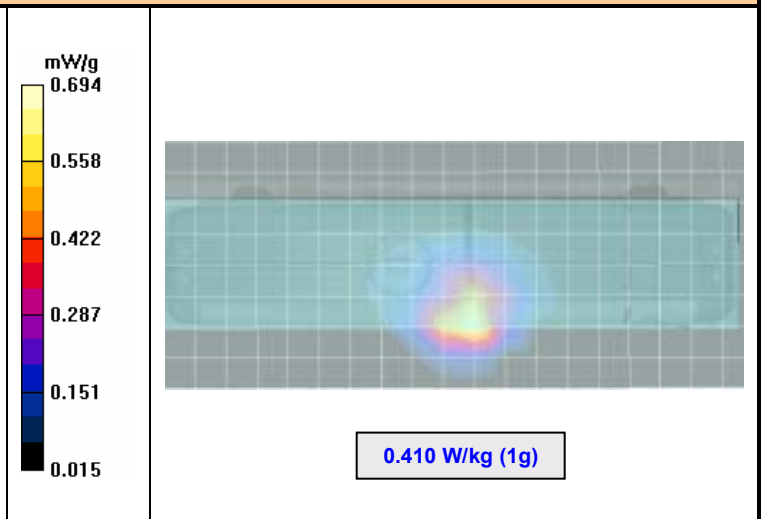
4.2 cm Distance from WLAN MAIN Antenna to Bottom of PC

SAR MEASUREMENT SUMMARY (Cont.)

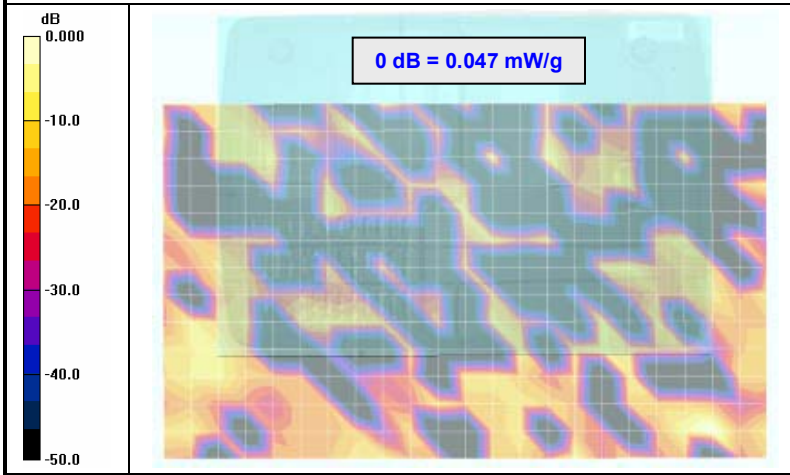
MEASURED SAR DISTRIBUTION OF CO-TRANSMITTING ANTENNAS



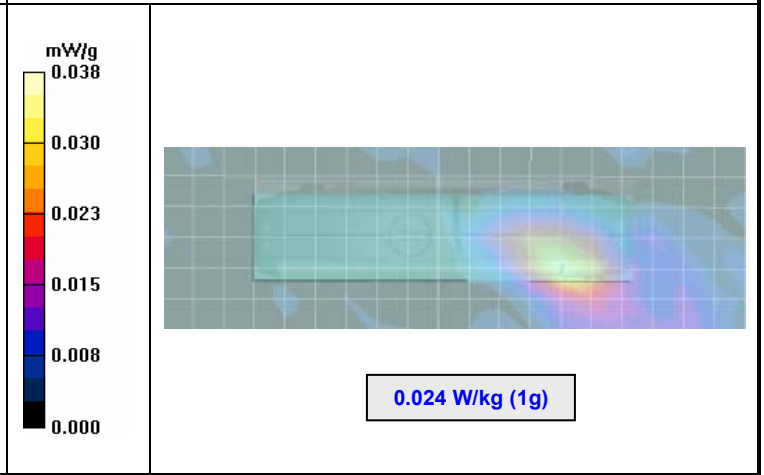
Bottom Side of Tablet PC (0.0 cm) - Bluetooth Antenna (2402 MHz)



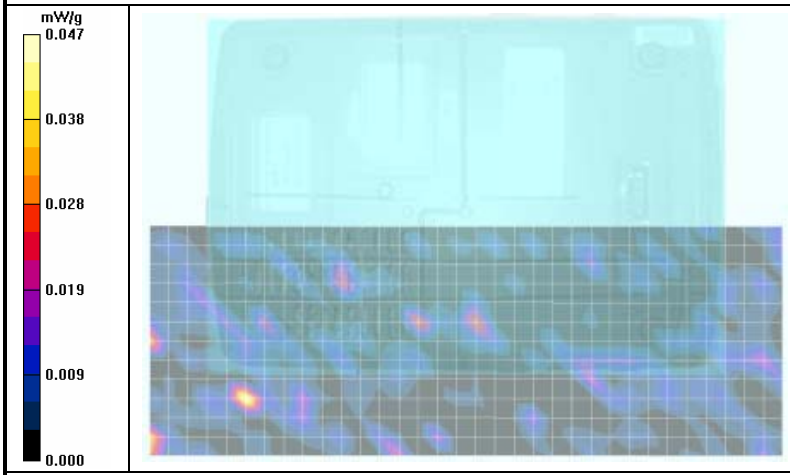
Bluetooth Antenna Edge of Tablet PC (0.0 cm) - Bluetooth Ant. (2480 MHz)



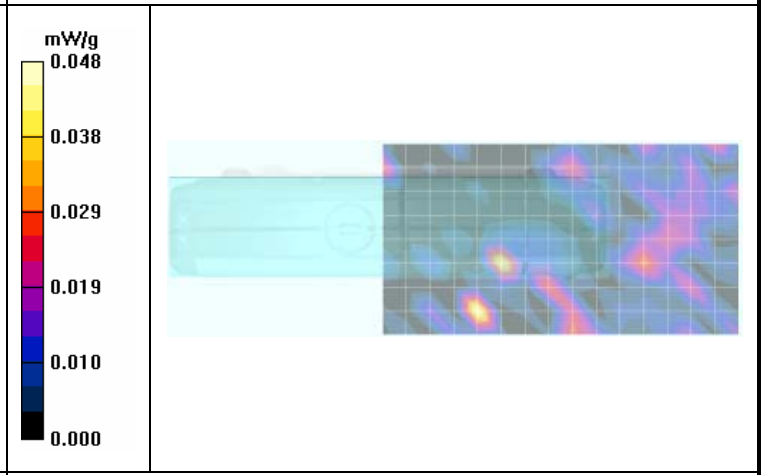
Bottom Side of Tablet PC (0.0 cm) - WLAN MAIN Antenna (2442 MHz)



BT Ant. Edge of PC (0.0 cm) - WLAN MAIN Ant. Adjacent Edge (2442 MHz)



Bottom Side of Tablet PC (0.0 cm) - WLAN MAIN Antenna (5260 MHz)



BT Ant. Edge of PC (0.0 cm) - WLAN MAIN Ant. Adjacent Edge (5180 MHz)

5.0 DETAILS OF SAR EVALUATION

The General Dynamics Itronix Corporation Model: IX350 Tablet PC incorporating the IX-4965AGN WLAN Mini-PCI Express Card and co-located IX-GUBTC41MTH Class 1 Bluetooth was compliant for localized Specific Absorption Rate (General Population) based on the test provisions and conditions described below. The test setup photographs are shown in Appendix D.

1. The DUT was evaluated for body SAR (lap-held) with the bottom side of the Tablet PC touching the outer surface of the planar phantom.
2. The DUT was evaluated for body SAR with the WLAN MAIN antenna (Chain B) adjacent edge of the Tablet PC (-90° Portrait LCD user display orientation) touching the outer surface of the planar phantom, based on the WLAN MAIN antenna is < 10 cm from the adjacent edge (4.0 cm distance). The WLAN MAIN antenna (Chain B) adjacent edge of the Tablet PC is also the co-located Class 1 Bluetooth antenna edge of the Tablet PC. The co-located Class 1 Bluetooth was also evaluated for SAR in this configuration and the measurement results are reported herein to show the SAR distribution as a co-transmitting antenna in conjunction with the WLAN MAIN antenna (Chain B) adjacent edge SAR distribution (see SAR data summary of co-transmitting antennas on pages 6-7).
3. The DUT was evaluated for body SAR with the WLAN AUX antenna (Chain A) adjacent edge of the Tablet PC (90° Portrait LCD user display orientation) touching the outer surface of the planar phantom, based on the WLAN AUX antenna is < 10 cm from the adjacent edge (6.5 cm distance).
4. The MAIN and AUX switched diversity antennas were evaluated individually (one at a time with each other disabled).
5. The WLAN was tested using proprietary CRTU test software provided by Intel to continuously transmit on a specific test channel/frequency and antenna and to manually set the appropriate power levels and associated duty cycle prescribed by Intel. The WLAN was tested with a modulated DSSS signal in 802.11b mode and a modulated OFDM signal in 802.11a mode.
6. The Bluetooth was tested using the proprietary Blue Suite test software and CSR Blue test application provided by the applicant. The test software enabled the Bluetooth in modulated continuous transmit operation on a fixed frequency (frequency hopping disabled). The maximum power level settings were prescribed by the manufacturer.
7. The average conducted output power levels of the WLAN and Bluetooth were measured prior to the SAR evaluations using a universal power meter according to the procedures described in FCC 47 CFR §2.1046 and IC RSS-Gen.
8. The internal battery of the Tablet PC was fully charged prior to the SAR evaluations.

6.0 EVALUATION PROCEDURES

a. (i) The evaluation was 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.

b. 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:

c. 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.

d. 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:

e. 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.

f. 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).

g. 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.

h. 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.

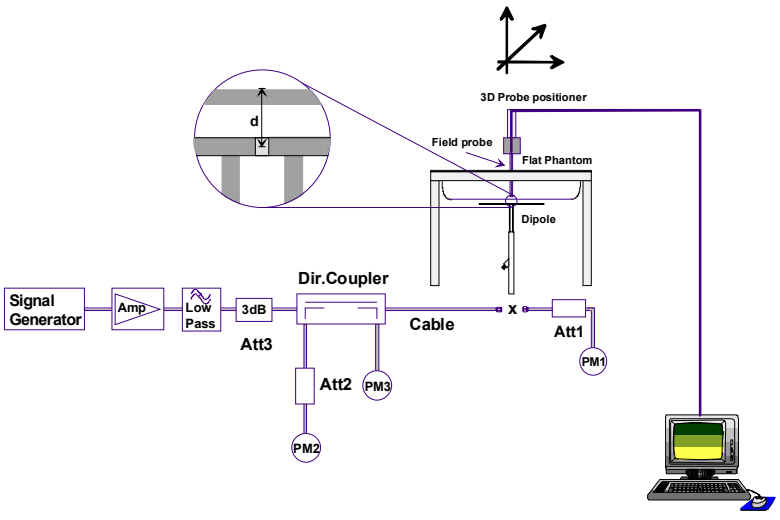
7.0 SYSTEM PERFORMANCE CHECK

Prior to the SAR evaluations, system checks were performed using a planar phantom with 2450 MHz and 5000 MHz validation dipoles (see Appendix B for system performance check test plots). The dielectric parameters of the simulated tissue mixtures were measured prior to the system performance checks using a Dielectric Probe Kit and a 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 ±10% from the system validation target SAR values (see Appendix F for system validation measurement procedures).

SYSTEM PERFORMANCE CHECK EVALUATION RESULTS

Test Date	Freq. (MHz)	SAR 10g (W/kg)			PEAK SAR (W/kg)			Dielectric Constant ε_r			Conductivity σ (mho/m)			Amb. Temp. (°C)	Fluid Temp. (°C)	Humid. (%)	Barom. Press. (kPa)
	Body	Sys. Val. Target	Meas.	Dev.	Sys. Val. Target	Meas.	Dev.	Sys. Val. Target	Meas.	Dev.	Sys. Val. Target	Meas.	Dev.				
Nov. 6	2450	13.4 ±10%	14.0	+4.5%	-	-	-	50.1 ±5%	50.6	+1.0%	1.99±5%	2.01	+1.0%	22.2	20.2	31	101.1
Nov. 2	5200	18.2 ±10%	17.8	-2.2%	72.7±15%	74.2	+2.1%	44.6±10%	45.1	+1.2%	5.52±5%	5.28	-4.3%	23.3	22.0	33	101.0
Nov. 2	5800	19.1±10%	19.3	+1.1%	87.3±15%	87.0	-0.3%	44.7±10%	45.5	+1.8%	6.22±5%	6.20	-0.3%	23.3	22.0	33	101.0

Fluid Depth	≥ 15 cm	Notes	1. The target SAR values are referenced from the System Validation procedures performed by Celltech Labs Inc. (see Appendix F).
			2. The target dielectric parameters are referenced from the System Validation procedures performed by Celltech Labs Inc. (see Appendix F).
ρ (Kg/m^3)	1000		3. The fluid temperature was measured prior to and after the system performance checks to ensure the temperature remained within +/-2°C of the fluid temperature reported during the dielectric parameter measurements.
			4. The SAR evaluations were performed within 24 hours of the system performance check.



System Performance Check Measurement Setup Diagram

2 GHz Validation Dipole Setup

5 GHz Validation Dipole Setup

8.0 SIMULATED EQUIVALENT TISSUES

The 2450 MHz simulated tissue mixture consisted of Glycol-monobutyl, water and salt. The 5 GHz simulated tissue mixture was provided by SPEAG and is listed below. The dielectric parameters of the fluid (permittivity and conductivity) were measured prior to the SAR evaluations. See Appendix D for the system manufacturer's 5GHz fluid data sheet.

SIMULATED TISSUE MIXTURE (2 GHz)		
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 %

SIMULATED TISSUE MIXTURE (5 GHz)		
INGREDIENT	5 GHz Body	5 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%

9.0 SAR LIMITS

SAR RF EXPOSURE LIMITS			
FCC 47 CFR 2.1093	Health Canada Safety Code 6	(General Population / Uncontrolled Exposure)	(Occupational / Controlled Exposure)
Spatial Average (averaged over the whole body)		0.08 W/kg	0.4 W/kg
Spatial Peak (averaged over any 1 g of tissue)		1.6 W/kg	8.0 W/kg
Spatial Peak (hands/wrists/feet/ankles averaged over 10 g)		4.0 W/kg	20.0 W/kg
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.			

10.0 ROBOT SYSTEM SPECIFICATIONS

Specifications	
Positioner	Stäubli Unimation Corp. Robot Model: RX60L
Repeatability	0.02 mm
No. of axis	6
Data Acquisition Electronic (DAE) System	
Cell Controller	
Processor	AMD Athlon XP 2400+
Clock Speed	2.0 GHz
Operating System	Windows XP Professional
Data Converter	
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
DASY4 Measurement Server	
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
E-Field Probe	
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)
Phantom(s)	
Type	Planar Phantom
Shell Material	Fiberglass
Thickness	2.0 ±0.1 mm
Volume	Approx. 70 liters

11.0 PROBE SPECIFICATION (EX3DV4)

Construction:	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g. DGBE)
Calibration:	Basic Broadband Calibration in air: 10-3000 MHz Conversion Factors (CF) for HSL 900 and HSL 1750
Frequency:	10 MHz to >6 GHz; Linearity: ±0.2 dB (30 MHz to 3 GHz)
Directivity:	±0.3 dB in HSL (rotation around probe axis) ±0.5 dB in tissue material (rotation normal to probe axis)
Dynamic Range:	10 μW/g to >100 mW/g; Linearity: ±0.2 dB (noise: typically < 1 μW/g)
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
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%.

EX3DV4 E-Field Probe

12.0 PLANAR PHANTOM

The planar phantom is a fiberglass shell phantom with a 2.0 mm (+/-0.2mm) thick device measurement area at the center of the phantom for SAR evaluations of devices with a larger surface area than the planar section of the SAM phantom. The planar phantom is integrated in a wooden table (see Appendix H for dimensions and specifications of the planar phantom). The planar phantom was also used for the system performance check evaluations.

Planar Phantom

13.0 DEVICE HOLDER

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.

Device Holder

14.0 TEST EQUIPMENT LIST

TEST EQUIPMENT			ASSET NO.	SERIAL NO.	DATE CALIBRATED		CALIBRATION DUE DATE
USED	DESCRIPTION						
x	Schmid & Partner DASY4 System		-	-	-		-
x	-DASY4 Measurement Server		00158	1078	N/A		N/A
x	-Robot		00046	599396-01	N/A		N/A
x	-DAE4		00019	353	10Jul07		10Jul08
x	-EX3DV4 E-Field Probe		00213	3600	24Jan07		24Jan08
	-300 MHz Validation Dipole		00023	135	08Jun07		08Jun08
	-450 MHz Validation Dipole		00024	136	30Jul07		30Jul08
	-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**	16Jul07	16Jul08
x					**Body**	08Jun07	08Jun08
x	5GHz Validation Dipole	-5200 MHz	00126	1031	**Body**	18May07	18May08
		-5500 MHz			**Body**	22May07	22May08
		-5800 MHz			**Brain**	09May07	09May08
x					**Body**	10May07	10May08
	-SAM Phantom V4.0C		00154	1033	N/A		N/A
x	-Barski Planar Phantom		00155	03-01	N/A		N/A
	-Plexiglas Side Planar Phantom		00156	161	N/A		N/A
	-Plexiglas Validation Planar Phantom		00157	137	N/A		N/A
	ALS-PR-DIEL Dielectric Probe Kit		00160	260-00953	N/A		N/A
x	HP 85070C Dielectric Probe Kit		00033	US39240170	N/A		N/A
x	Gigatronics 8652A Power Meter		00007	1835272	26Mar07		26Mar08
x	Gigatronics 80701A Power Sensor		00012	1834350	22Jan07		22Jan08
x	Gigatronics 80701A Power Sensor		00014	1833699	22Jan07		22Jan08
	Gigatronics 80701A Power Sensor		00109	1834366	26Mar07		26Mar08
x	HP 8753ET Network Analyzer		00134	US39170292	20Apr07		20Apr08
x	HP 8648D Signal Generator		00005	3847A00611	NCR		NCR
x	Rohde & Schwarz SMR20 Signal Generator		00006	100104	NCR		NCR
x	Amplifier Research 5S1G4 Power Amplifier		00106	26235	NCR		NCR
	Amplifier Research 10W1000C Power Amplifier		00041	27887	NCR		NCR
x	Nextec NB00383 Microwave Amplifier		00151	0535	NCR		NCR

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	0.1	Rectangular	1.732050808	1	0.1	∞
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)	3.3	Normal	1	0.64	2.1	∞
Liquid permittivity (target)	10	Rectangular	1.732050808	0.6	3.5	∞
Liquid permittivity (measured)	8.2	Normal	1	0.6	4.9	∞
Combined Standard Uncertainty					**13.05**	
Expanded Uncertainty (k=2)					**26.10**	
Measurement Uncertainty Table in accordance with IEEE Standard 1528-2003 (see reference [5])						

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	0.1	Rectangular	1.732050808	1	0.1	∞
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)	4.3	Normal	1	0.64	2.8	∞
Liquid permittivity (target)	10	Rectangular	1.732050808	0.6	3.5	∞
Liquid permittivity (measured)	1.8	Normal	1	0.6	1.1	∞
Combined Standard Uncertainty					**12.10**	
Expanded Uncertainty (k=2)					**24.19**	

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

MEASUREMENT UNCERTAINTIES (Cont.)

UNCERTAINTY BUDGET FOR DEVICE EVALUATION (2 GHz)

Error Description	Uncertainty Value ±%	Probability Distribution	Divisor	ci 1g	Uncertainty Value ±% (1g)	V_i or V_{eff}
Measurement System						
Probe calibration (2450 MHz)	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	0.2	Rectangular	1.732050808	1	0.1	∞
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)	3.1	Normal	1	0.64	2.0	∞
Liquid permittivity (target)	5	Rectangular	1.732050808	0.6	1.7	∞
Liquid permittivity (measured)	4	Normal	1	0.6	2.4	∞
Combined Standard Uncertainty					**11.00**	
Expanded Uncertainty (k=2)					**22.01**	

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

MEASUREMENT UNCERTAINTIES (Cont.)

UNCERTAINTY BUDGET FOR SYSTEM VALIDATION (2 GHz)

Error Description	Uncertainty Value ±%	Probability Distribution	Divisor	ci 1g	Uncertainty Value ±% (1g)	V_i or V_{eff}
Measurement System						
Probe calibration (2450 MHz)	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	0.2	Rectangular	1.732050808	1	0.1	∞
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)	1	Normal	1	0.64	0.6	∞
Liquid permittivity (target)	5	Rectangular	1.732050808	0.6	1.7	∞
Liquid permittivity (measured)	1	Normal	1	0.6	0.6	∞
Combined Standard Uncertainty					**8.80**	
Expanded Uncertainty (k=2)					**17.59**	

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

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] Federal Communications Commission - “SAR Measurement Procedures for 802.11a/b/g Transmitters”: May 2007 (Rev. 1.2).

[7] Federal Communications Commission - “SAR Measurement Requirements for 3 - 6 GHz”: October 2006 (Rev. 1.1).

APPENDIX A - SAR MEASUREMENT DATA

Date Tested: 11/06/2007

Body SAR - 802.11b - 1 Mbps - 2442 MHz - Channel 7 - Bottom Side of Tablet PC - AUX Antenna

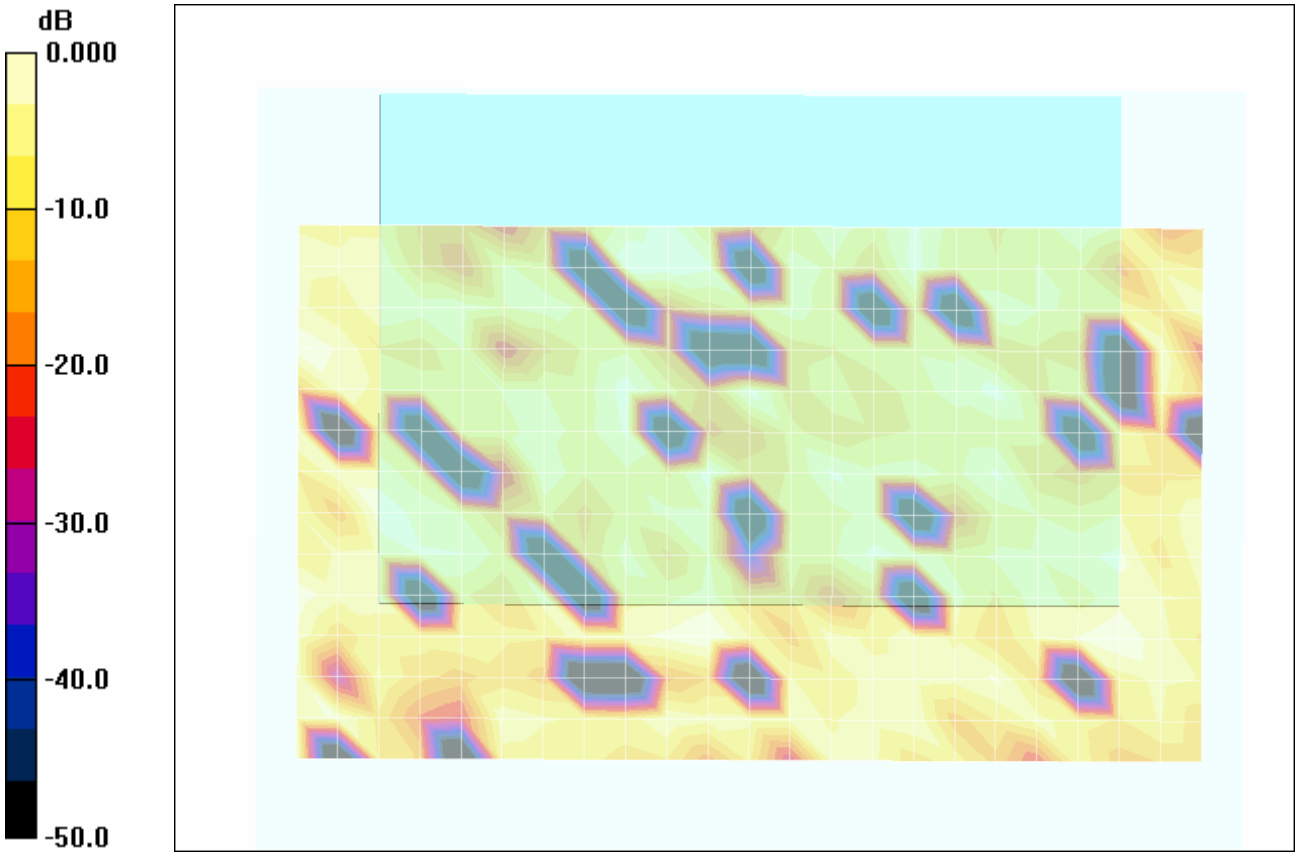
DUT: General Dynamics Itronix Corporation; Type: IX-4965AGN WLAN in IX350 Tablet PC; Serial: SY7200000659

Ambient Temp: 22.2°C; Fluid Temp: 20.2°C; Barometric Pressure: 101.1 kPa; Humidity: 31%

Power: 11.1V, 3900mAh Li-ion Battery
Communication System: DSSS WLAN
RF Output Power: 16.1 dBm (Conducted)
Frequency: 2442 MHz; Duty Cycle: 1:1.02
Medium: M2450 Medium parameters used: f = 2442 MHz; σ = 2.01 mho/m; ε_r = 50.6; ρ = 1000 kg/m^3

- Probe: EX3DV4 - SN3600; ConvF(6.31, 6.31, 6.31); Calibrated: 24/01/2007
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 10/07/2007
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - Bottom Side Touch Position of Tablet PC - AUX Antenna (Chain A) - 2442 MHz
Area Scan (14x23x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.007 mW/g



0 dB = 0.007mW/g

Date Tested: 11/06/2007

Body SAR - 802.11b - 1 Mbps - 2442 MHz - Channel 7 - Bottom Side of Tablet PC - MAIN Antenna

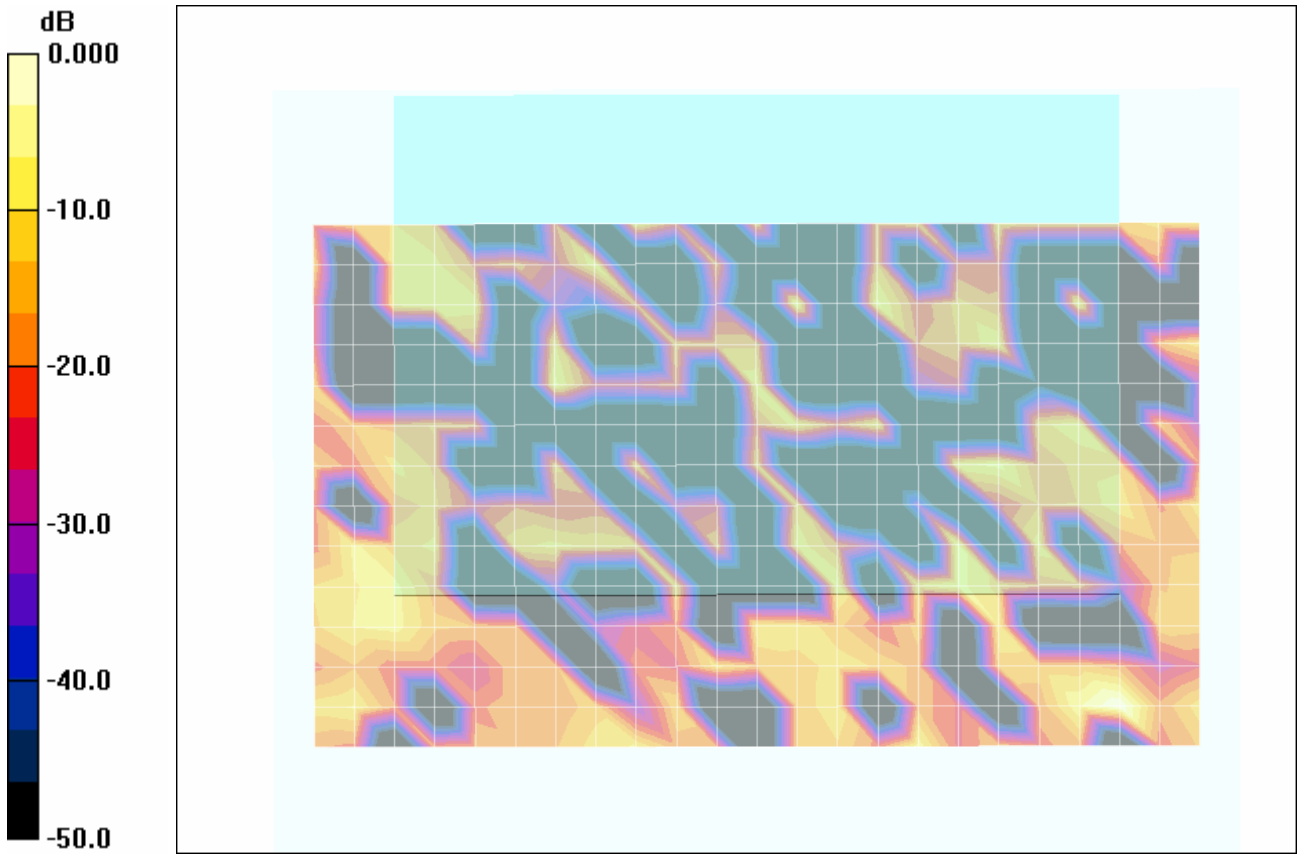
DUT: General Dynamics Itronix Corporation; Type: IX-4965AGN WLAN in IX350 Tablet PC; Serial: SY7200000659

Ambient Temp: 22.2°C; Fluid Temp: 20.2°C; Barometric Pressure: 101.1 kPa; Humidity: 31%

Power: 11.1V, 3900mAh Li-ion Battery
Communication System: DSSS WLAN
RF Output Power: 16.1 dBm (Conducted)
Frequency: 2442 MHz; Duty Cycle: 1:1.02
Medium: M2450 Medium parameters used: f = 2442 MHz; σ = 2.01 mho/m; ε_r = 50.6; ρ = 1000 kg/m^3

- Probe: EX3DV4 - SN3600; ConvF(6.31, 6.31, 6.31); Calibrated: 24/01/2007
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 10/07/2007
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - Bottom Side Touch Position of Tablet PC - MAIN Antenna (Chain B) - 2442 MHz
Area Scan (14x23x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.047 mW/g



0 dB = 0.047mW/g

Date Tested: 11/06/2007

Body SAR - 802.11b - 1 Mbps - 2442 MHz - Channel 7 - AUX Antenna Adjacent Edge of Tablet PC

DUT: General Dynamics Itronix Corporation; Type: IX-4965AGN WLAN in IX350 Tablet PC; Serial: SY7200000659

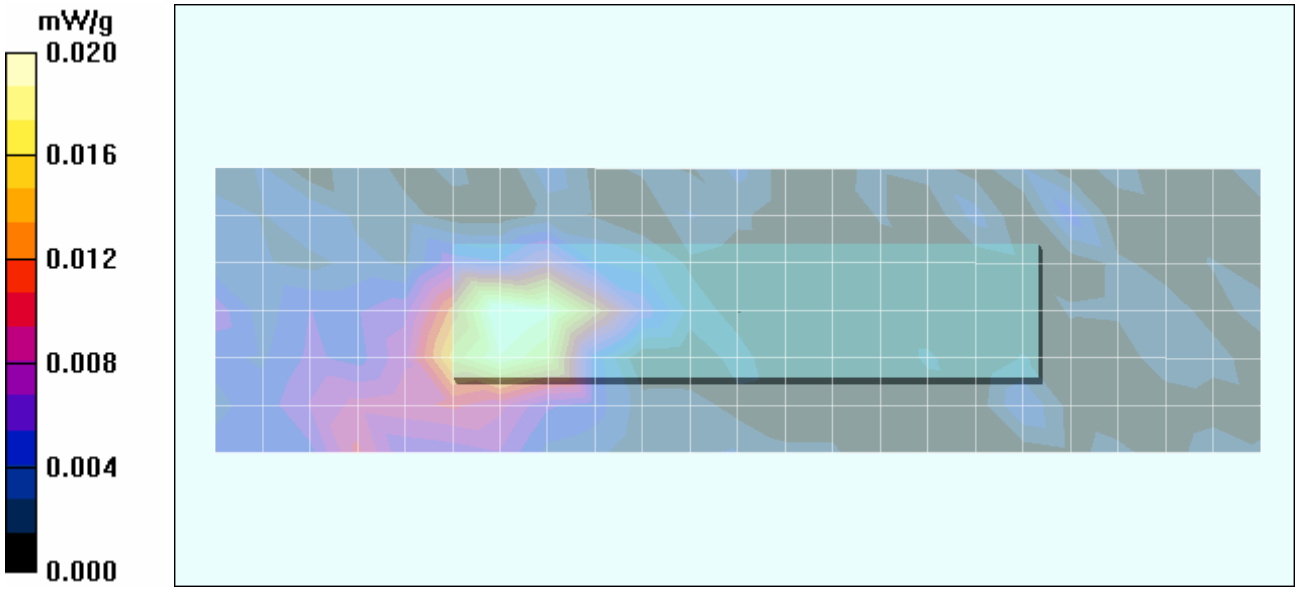
Ambient Temp: 22.2°C; Fluid Temp: 20.2°C; Barometric Pressure: 101.1 kPa; Humidity: 31%

Power: 11.1V, 3900mAh Li-ion Battery
Communication System: DSSS WLAN
RF Output Power: 16.1 dBm (Conducted)
Frequency: 2442 MHz; Duty Cycle: 1:1.02
Medium: M2450 Medium parameters used: f = 2442 MHz; σ = 2.01 mho/m; ε_r = 50.6; ρ = 1000 kg/m^3

- Probe: EX3DV4 - SN3600; ConvF(6.31, 6.31, 6.31); Calibrated: 24/01/2007
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 10/07/2007
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - AUX Antenna Adjacent Edge Touch Position of Tablet PC - AUX Antenna (Chain A) - 2442 MHz
Area Scan (7x23x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.021 mW/g

Body SAR - AUX Antenna Adjacent Edge Touch Position of Tablet PC - AUX Antenna (Chain A) - 2442 MHz
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.83 V/m; Power Drift = 0.100 dB
Peak SAR (extrapolated) = 0.044 W/kg
SAR(1 g) = 0.014 mW/g; SAR(10 g) = 0.00809 mW/g
Maximum value of SAR (measured) = 0.020 mW/g



Date Tested: 11/06/2007

Body SAR - 802.11b - 1 Mbps - 2442 MHz - Channel 7 - MAIN Antenna Adjacent Edge of Tablet PC

DUT: General Dynamics Itronix Corporation; Type: IX-4965AGN WLAN in IX350 Tablet PC; Serial: SY7200000659

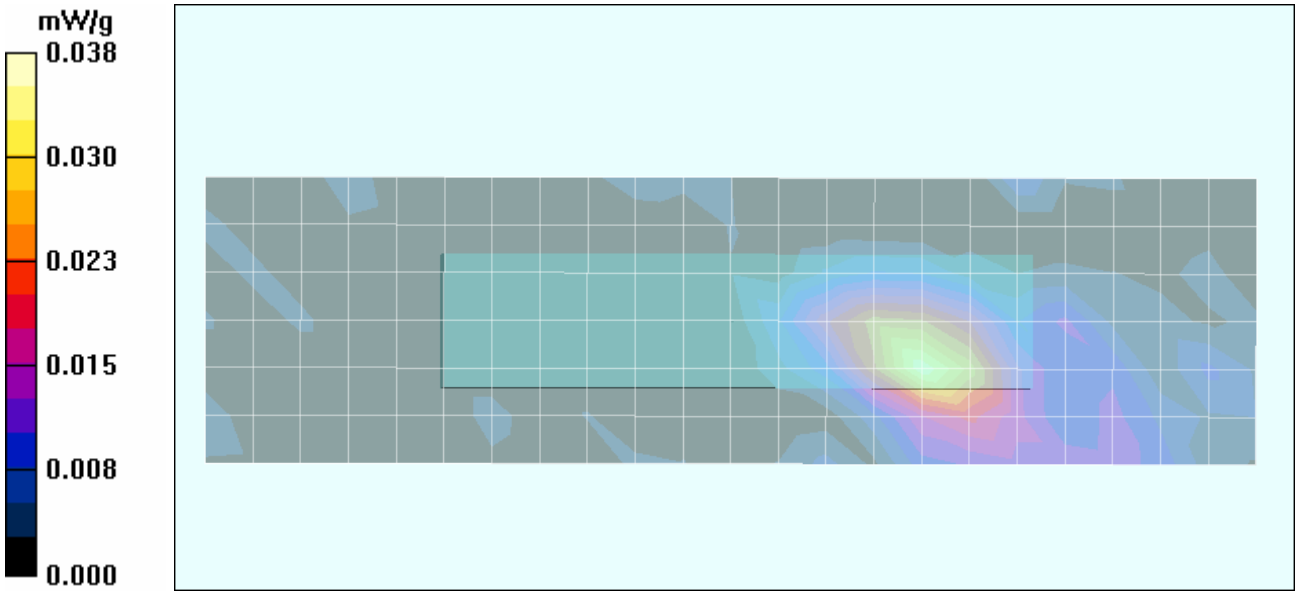
Ambient Temp: 22.2°C; Fluid Temp: 20.2°C; Barometric Pressure: 101.1 kPa; Humidity: 31%

Power: 11.1V, 3900mAh Li-ion Battery
Communication System: DSSS WLAN
RF Output Power: 16.1 dBm (Conducted)
Frequency: 2442 MHz; Duty Cycle: 1:1.02
Medium: M2450 Medium parameters used: f = 2442 MHz; σ = 2.01 mho/m; ε_r = 50.6; ρ = 1000 kg/m^3

- Probe: EX3DV4 - SN3600; ConvF(6.31, 6.31, 6.31); Calibrated: 24/01/2007
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 10/07/2007
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - MAIN Antenna Adjacent Edge Touch Position of Tablet PC - MAIN Antenna (Chain B) - 2442 MHz
Area Scan (7x23x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.035 mW/g

Body SAR - MAIN Antenna Adjacent Edge Touch Position of Tablet PC - MAIN Antenna (Chain B) - 2442 MHz
Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.60 V/m; Power Drift = 0.205 dB
Peak SAR (extrapolated) = 0.054 W/kg
SAR(1 g) = 0.024 mW/g; SAR(10 g) = 0.014 mW/g
Maximum value of SAR (measured) = 0.038 mW/g



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.

Date Tested: 11/02/2007

Body SAR - 802.11a - 6 Mbps - 5180 MHz - Channel 36 - Bottom Side of Tablet PC - AUX Antenna

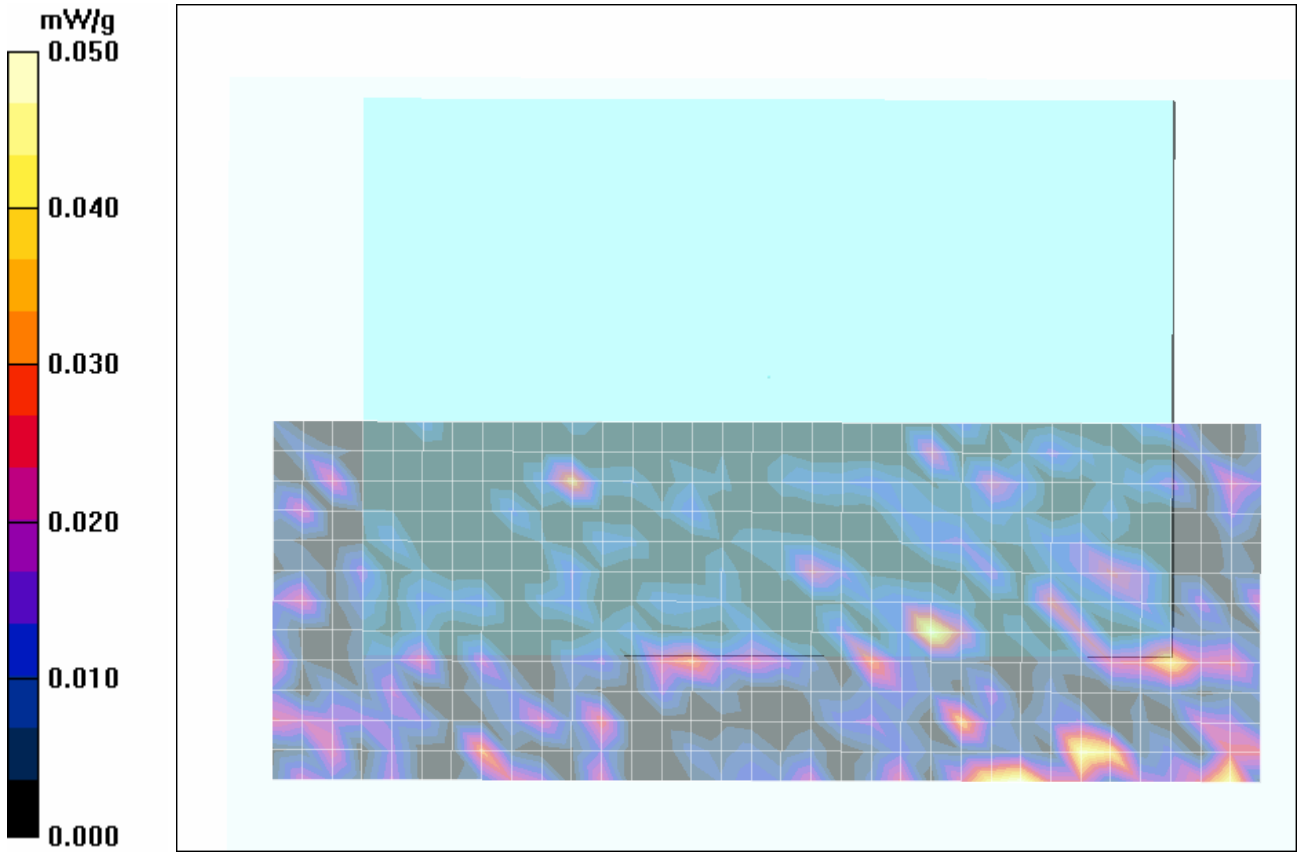
DUT: General Dynamics Itronix Corporation; Type: IX-4965AGN WLAN in IX350 Tablet PC; Serial: SY7200000659

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

Power: 11.1V, 3900mAh Li-ion Battery
Communication System: OFDM WLAN
Frequency: 5180 MHz; Duty Cycle: 1:1.1
RF Output Power: 15.8 dBm (Conducted)
Medium: M5200-5800 Medium parameters used: f = 5180 MHz; σ = 5.25 mho/m; ε_r = 45.0; ρ = 1000 kg/m^3

- Probe: EX3DV4 - SN3600; ConvF(4.1, 4.1, 4.1); Calibrated: 24/01/2007
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 10/07/2007
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - Bottom Side Touch Position of Tablet PC - AUX Antenna (Chain A) - 5180 MHz
Area Scan (13x34x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.050 mW/g



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.

Date Tested: 11/02/2007

Body SAR - 802.11a - 6 Mbps - 5180 MHz - Channel 36 - Bottom Side of Tablet PC - MAIN Antenna

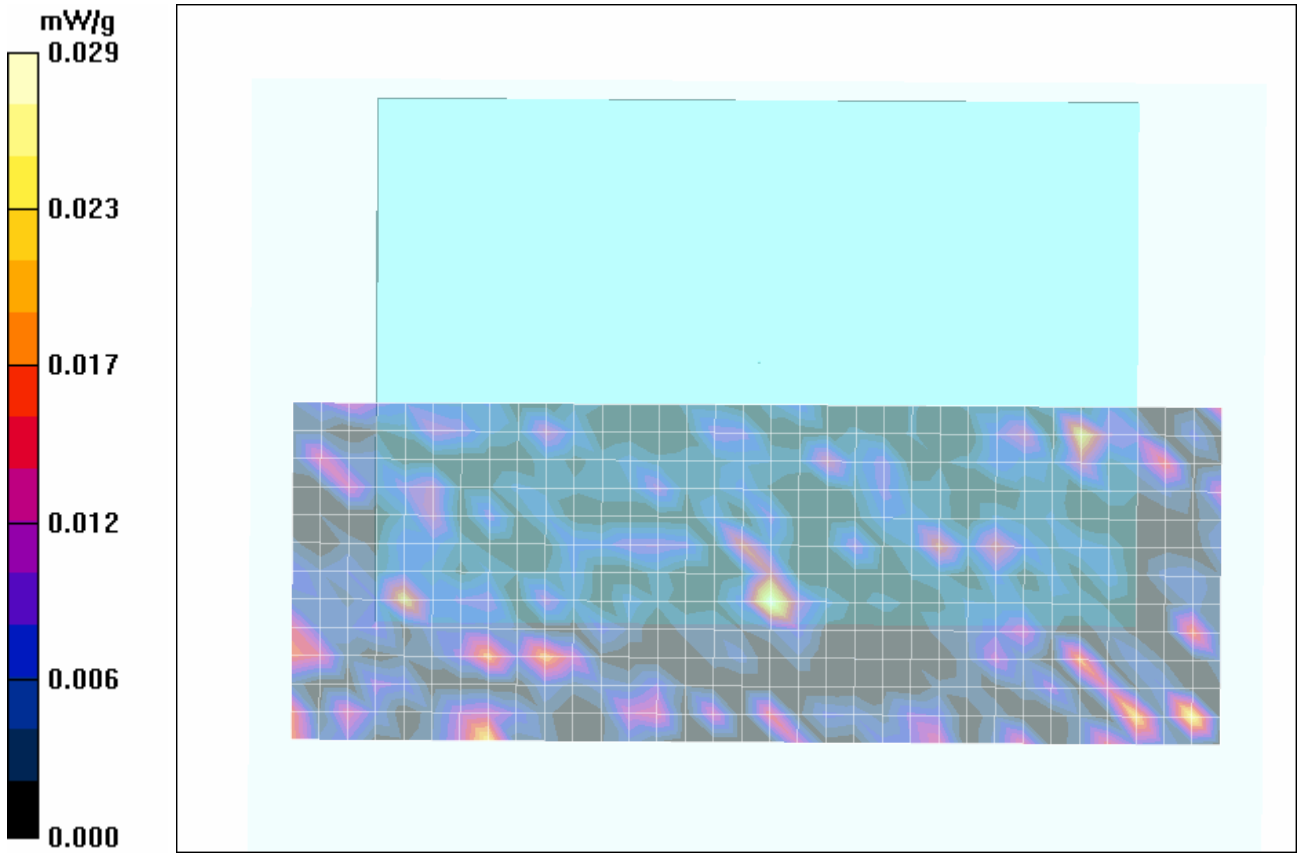
DUT: General Dynamics Itronix Corporation; Type: IX-4965AGN WLAN in IX350 Tablet PC; Serial: SY7200000659

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

Power: 11.1V, 3900mAh Li-ion Battery
Communication System: OFDM WLAN
Frequency: 5180 MHz; Duty Cycle: 1:1.1
RF Output Power: 16.1 dBm (Conducted)
Medium: M5200-5800 Medium parameters used: f = 5180 MHz; σ = 5.25 mho/m; ε_r = 45.0; ρ = 1000 kg/m^3

- Probe: EX3DV4 - SN3600; ConvF(4.1, 4.1, 4.1); Calibrated: 24/01/2007
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 10/07/2007
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - Bottom Side Touch Position of Tablet PC - MAIN Antenna (Chain B) - 5180 MHz
Area Scan (13x34x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.029 mW/g



Date Tested: 11/02/2007

Body SAR - 802.11a - 6 Mbps - 5180 MHz - Channel 36 - AUX Antenna Adjacent Edge of Tablet PC

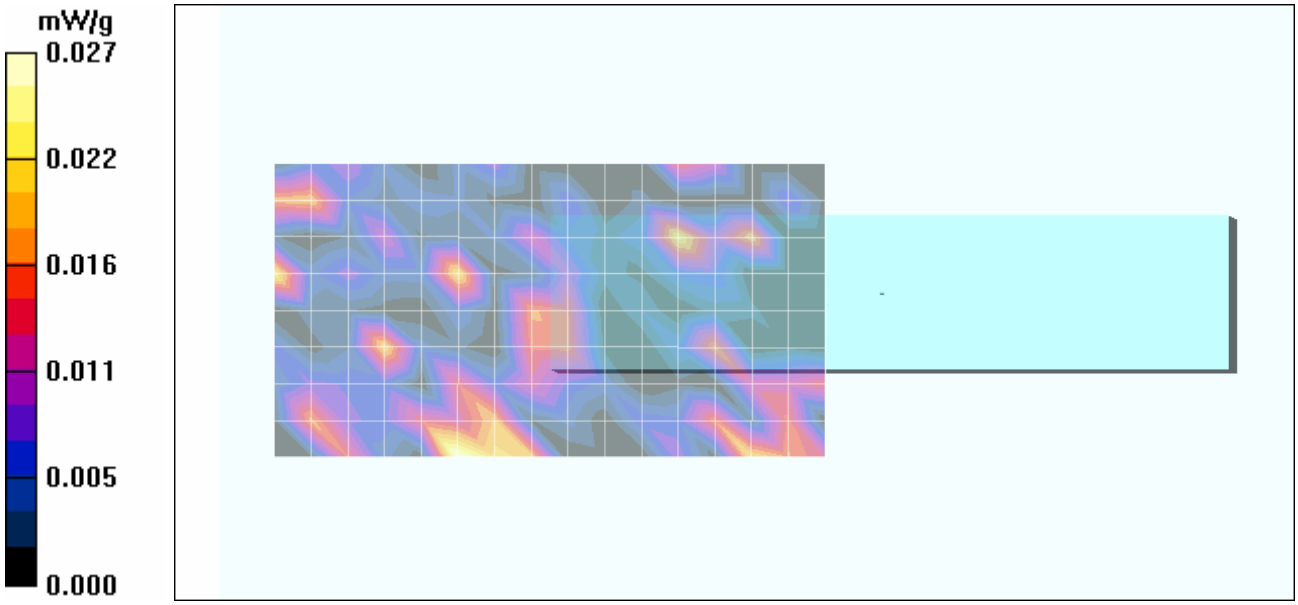
DUT: General Dynamics Itronix Corporation; Type: IX-4965AGN WLAN in IX350 Tablet PC; Serial: SY7200000659

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

Power: 11.1V, 3900mAh Li-ion Battery
Communication System: OFDM WLAN
Frequency: 5180 MHz; Duty Cycle: 1:1.1
RF Output Power: 15.8 dBm (Conducted)
Medium: M5200-5800 Medium parameters used: f = 5180 MHz; σ = 5.25 mho/m; ε_r = 45.0; ρ = 1000 kg/m^3

- Probe: EX3DV4 - SN3600; ConvF(4.1, 4.1, 4.1); Calibrated: 24/01/2007
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 10/07/2007
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - AUX Antenna Adjacent Edge Touch Position of Tablet PC - AUX Antenna (Chain A) - 5180 MHz
Area Scan (9x16x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.027 mW/g



Date Tested: 11/02/2007

Body SAR - 802.11a - 6 Mbps - 5180 MHz - Channel 36 - MAIN Antenna Adjacent Edge of Tablet PC

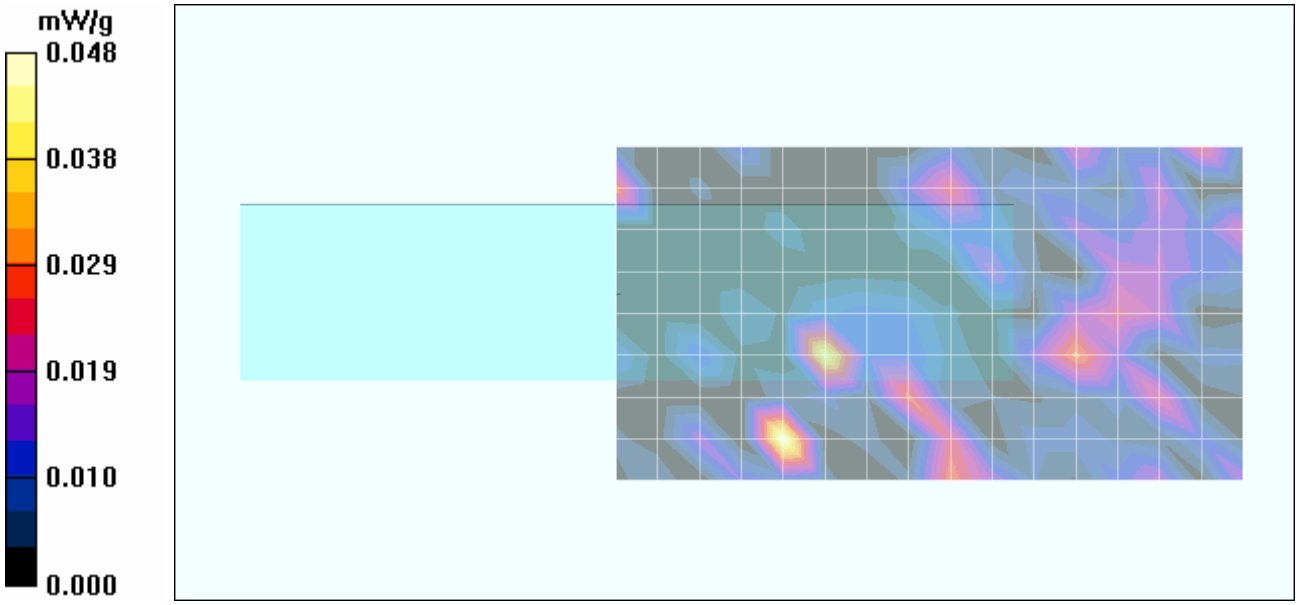
DUT: General Dynamics Itronix Corporation; Type: IX-4965AGN WLAN in IX350 Tablet PC; Serial: SY7200000659

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

Power: 11.1V, 3900mAh Li-ion Battery
Communication System: OFDM WLAN
Frequency: 5180 MHz; Duty Cycle: 1:1.1
RF Output Power: 16.1 dBm (Conducted)
Medium: M5200-5800 Medium parameters used: f = 5180 MHz; σ = 5.25 mho/m; ε_r = 45.0; ρ = 1000 kg/m^3

- Probe: EX3DV4 - SN3600; ConvF(4.1, 4.1, 4.1); Calibrated: 24/01/2007
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 10/07/2007
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - MAIN Antenna Adjacent Edge Touch Position of Tablet PC - MAIN Antenna (Chain B) - 5180 MHz
Area Scan (9x16x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.048 mW/g



Date Tested: 11/02/2007

Body SAR - 802.11a - 6 Mbps - 5260 MHz - Channel 52 - Bottom Side of Tablet PC - AUX Antenna

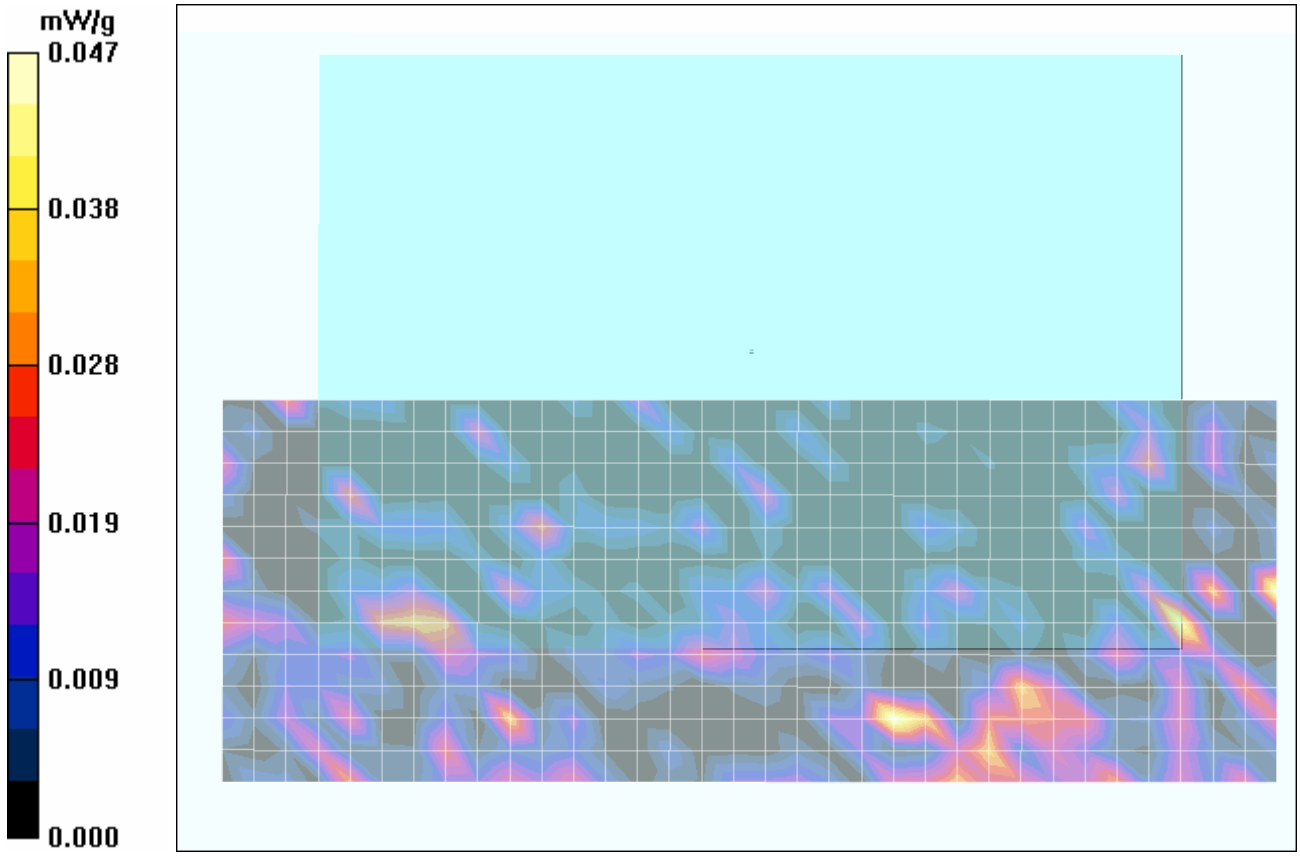
DUT: General Dynamics Itronix Corporation; Type: IX-4965AGN WLAN in IX350 Tablet PC; Serial: SY7200000659

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

Power: 11.1V, 3900mAh Li-ion Battery
Communication System: OFDM WLAN
Frequency: 5260 MHz; Duty Cycle: 1:1.1
RF Output Power: 17.5 dBm (Conducted)
Medium: M5200-5800 Medium parameters used: f = 5260 MHz; σ = 5.39 mho/m; ε_r = 44.9; ρ = 1000 kg/m^3

- Probe: EX3DV4 - SN3600; ConvF(4.1, 4.1, 4.1); Calibrated: 24/01/2007
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 10/07/2007
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - Bottom Side Touch Position of Tablet PC - AUX Antenna (Chain A) - 5260 MHz
Area Scan (13x34x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.047 mW/g



Date Tested: 11/02/2007

Body SAR - 802.11a - 6 Mbps - 5260 MHz - Channel 52 - Bottom Side of Tablet PC - MAIN Antenna

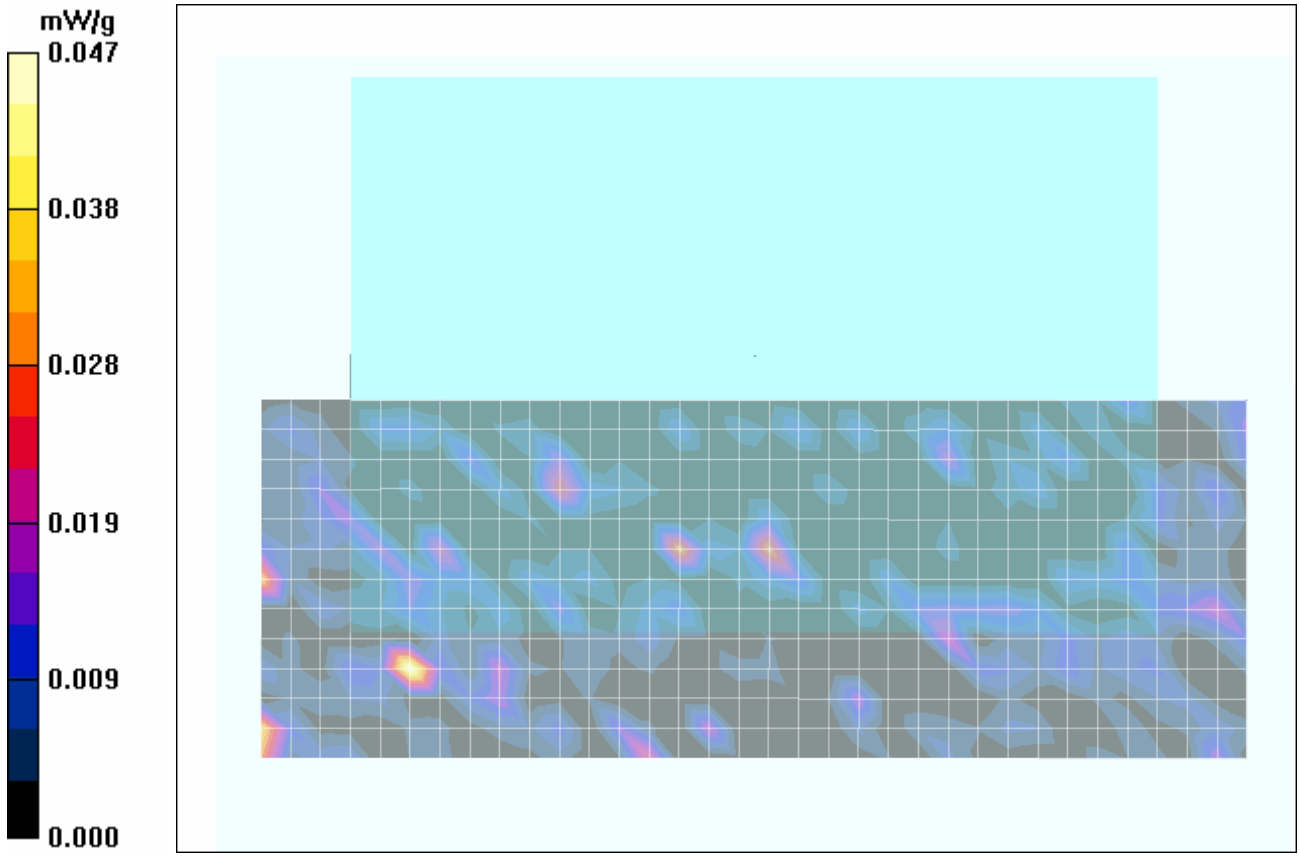
DUT: General Dynamics Itronix Corporation; Type: IX-4965AGN WLAN in IX350 Tablet PC; Serial: SY7200000659

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

Power: 11.1V, 3900mAh Li-ion Battery
Communication System: OFDM WLAN
Frequency: 5260 MHz; Duty Cycle: 1:1.1
RF Output Power: 17.5 dBm (Conducted)
Medium: M5200-5800 Medium parameters used: f = 5260 MHz; σ = 5.39 mho/m; ε_r = 44.9; ρ = 1000 kg/m^3

- Probe: EX3DV4 - SN3600; ConvF(4.1, 4.1, 4.1); Calibrated: 24/01/2007
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 10/07/2007
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - Bottom Side Touch Position of Tablet PC - MAIN Antenna (Chain B) - 5260 MHz
Area Scan (13x34x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.047 mW/g



Date Tested: 11/02/2007

Body SAR - 802.11a - 6 Mbps - 5260 MHz - Channel 52 - AUX Antenna Adjacent Edge of Tablet PC

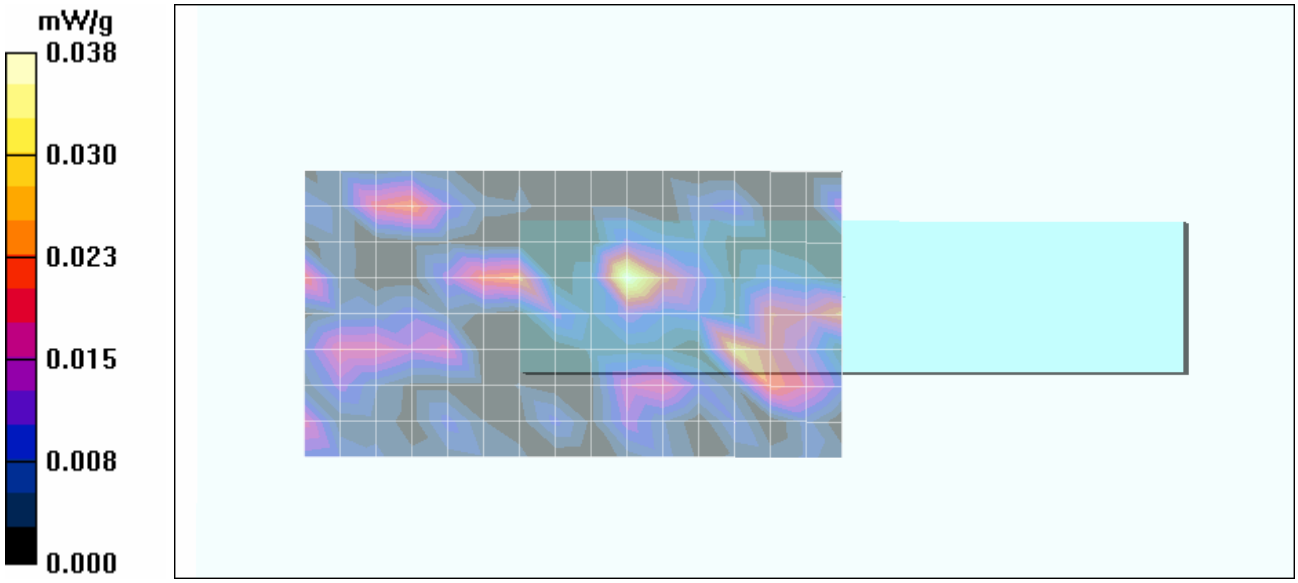
DUT: General Dynamics Itronix Corporation; Type: IX-4965AGN WLAN in IX350 Tablet PC; Serial: SY7200000659

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

Power: 11.1V, 3900mAh Li-ion Battery
Communication System: OFDM WLAN
Frequency: 5260 MHz; Duty Cycle: 1:1.1
RF Output Power: 17.5 dBm (Conducted)
Medium: M5200-5800 Medium parameters used: f = 5260 MHz; σ = 5.39 mho/m; ε_r = 44.9; ρ = 1000 kg/m^3

- Probe: EX3DV4 - SN3600; ConvF(4.1, 4.1, 4.1); Calibrated: 24/01/2007
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 10/07/2007
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - AUX Antenna Adjacent Edge Touch Position of Tablet PC - AUX Antenna (Chain A) - 5260 MHz
Area Scan (9x16x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.038 mW/g



Date Tested: 11/02/2007

Body SAR - 802.11a - 6 Mbps - 5260 MHz - Channel 52 - MAIN Antenna Adjacent Edge of Tablet PC

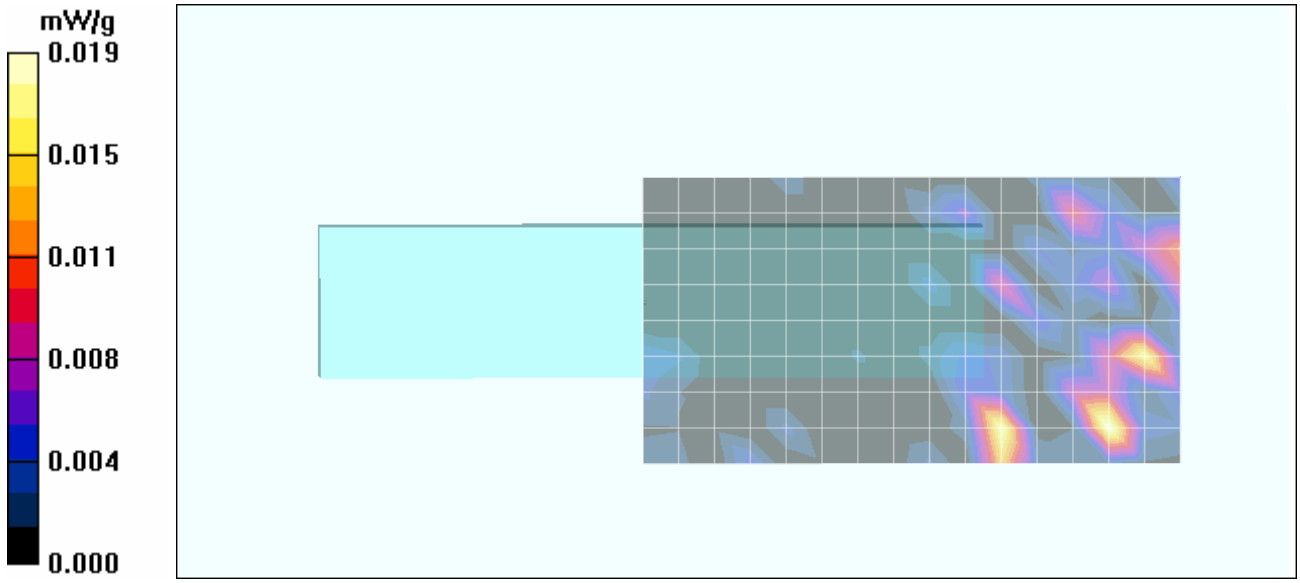
DUT: General Dynamics Itronix Corporation; Type: IX-4965AGN WLAN in IX350 Tablet PC; Serial: SY7200000659

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

Power: 11.1V, 3900mAh Li-ion Battery
Communication System: OFDM WLAN
Frequency: 5260 MHz; Duty Cycle: 1:1.1
RF Output Power: 17.5 dBm (Conducted)
Medium: M5200-5800 Medium parameters used: f = 5260 MHz; σ = 5.39 mho/m; ε_r = 44.9; ρ = 1000 kg/m^3

- Probe: EX3DV4 - SN3600; ConvF(4.1, 4.1, 4.1); Calibrated: 24/01/2007
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 10/07/2007
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - MAIN Antenna Adjacent Edge Touch Position of Tablet PC - MAIN Antenna (Chain B) - 5260 MHz
Area Scan (9x16x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.019 mW/g



Date Tested: 11/02/2007

Body SAR - 802.11a - 6 Mbps - 5785 MHz - Channel 157 - Bottom Side of Tablet PC - AUX Antenna

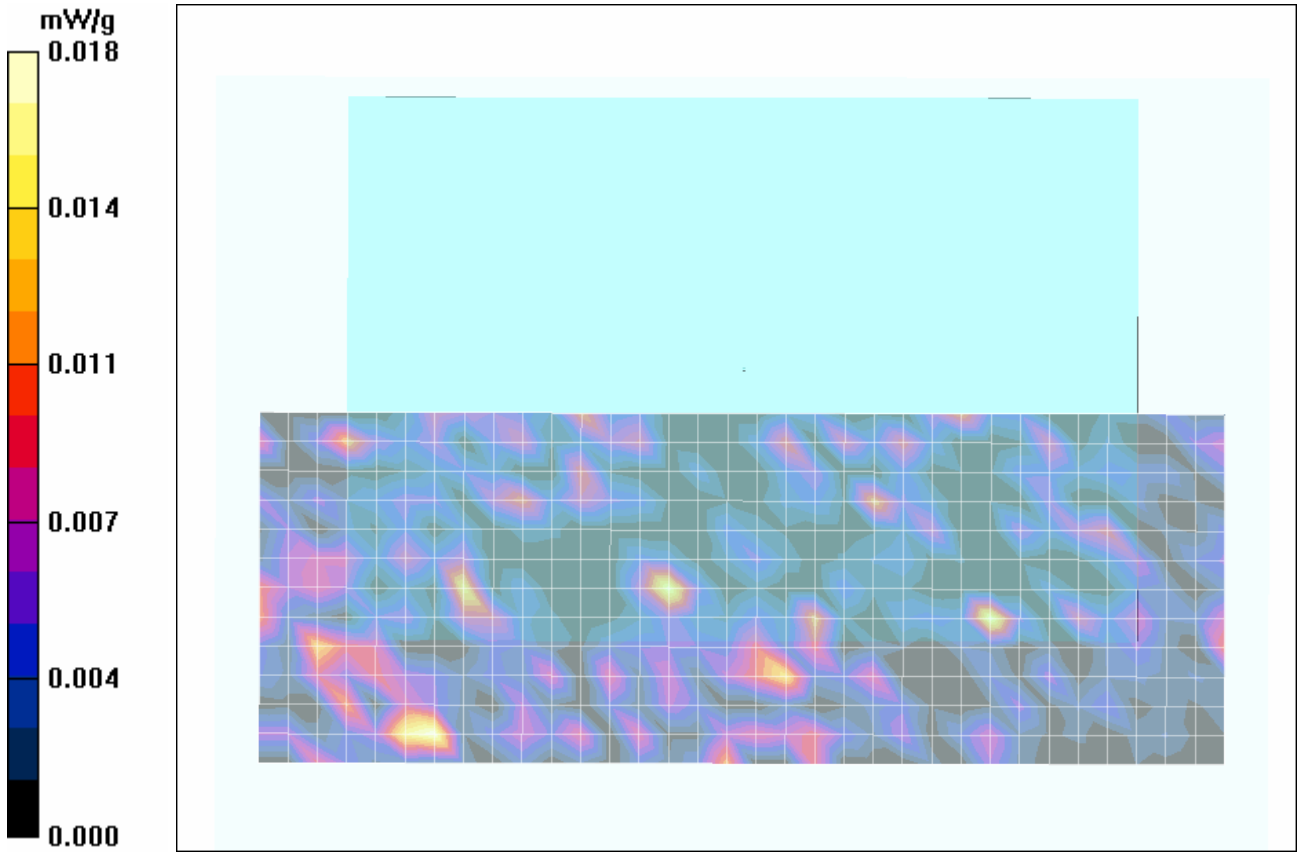
DUT: General Dynamics Itronix Corporation; Type: IX-4965AGN WLAN in IX350 Tablet PC; Serial: SY7200000659

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

Power: 11.1V, 3900mAh Li-ion Battery
Communication System: OFDM WLAN
Frequency: 5785 MHz; Duty Cycle: 1:1.1
RF Output Power: 17.6 dBm (Conducted)
Medium: M5200-5800 Medium parameters used: f = 5785 MHz; σ = 6.2 mho/m; ε_r = 45.5; ρ = 1000 kg/m^3

- Probe: EX3DV4 - SN3600; ConvF(4.14, 4.14, 4.14); Calibrated: 24/01/2007
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 10/07/2007
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - Bottom Side Touch Position of Tablet PC - AUX Antenna (Chain A) - 5785 MHz
Area Scan (13x34x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.018 mW/g



Date Tested: 11/02/2007

Body SAR - 802.11a - 6 Mbps - 5785 MHz - Channel 157 - Bottom Side of Tablet PC - MAIN Antenna

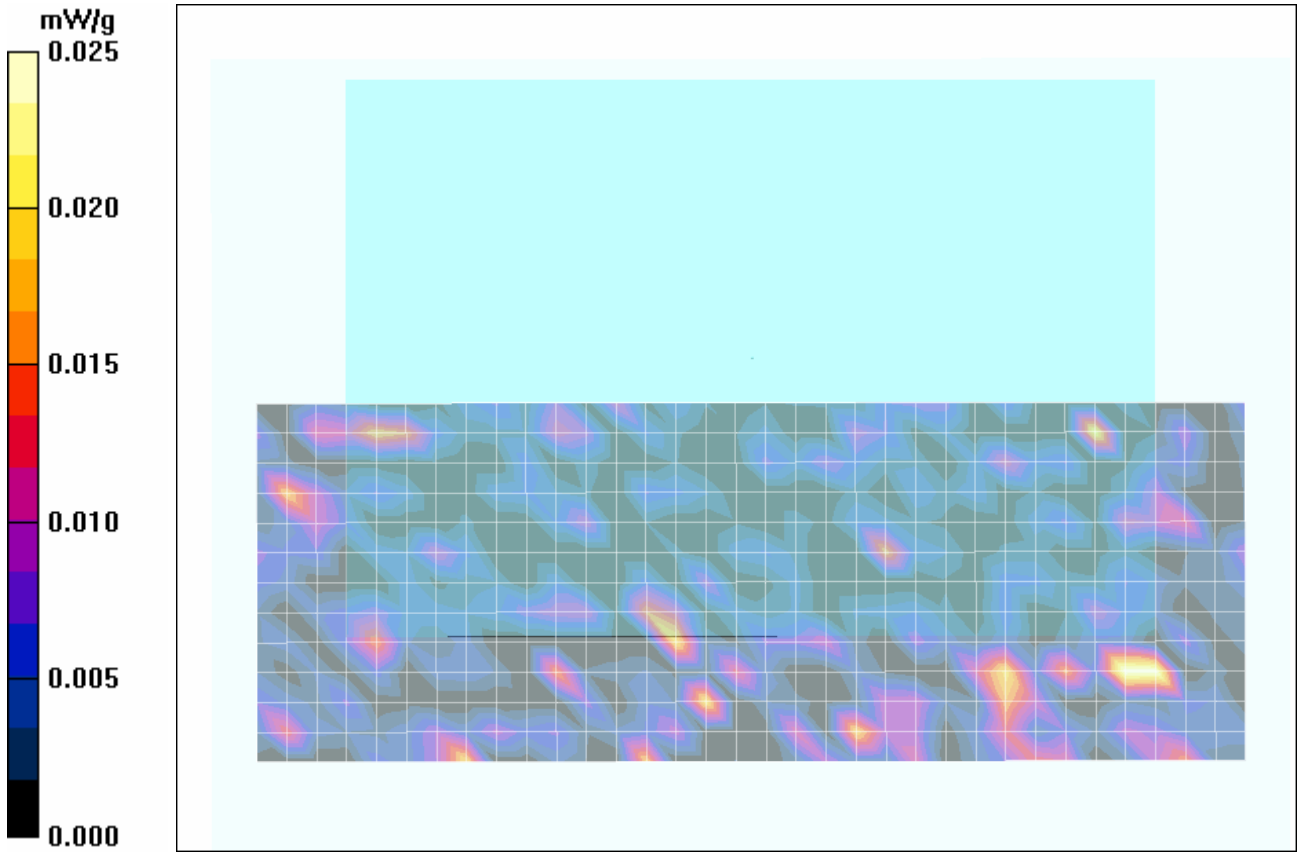
DUT: General Dynamics Itronix Corporation; Type: IX-4965AGN WLAN in IX350 Tablet PC; Serial: SY7200000659

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

Power: 11.1V, 3900mAh Li-ion Battery
Communication System: OFDM WLAN
Frequency: 5785 MHz; Duty Cycle: 1:1.1
RF Output Power: 17.5 dBm (Conducted)
Medium: M5200-5800 Medium parameters used: f = 5785 MHz; σ = 6.2 mho/m; ε_r = 45.5; ρ = 1000 kg/m^3

- Probe: EX3DV4 - SN3600; ConvF(4.14, 4.14, 4.14); Calibrated: 24/01/2007
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 10/07/2007
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - Bottom Side Touch Position of Tablet PC - MAIN Antenna (Chain B) - 5785 MHz
Area Scan (13x34x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.025 mW/g



Date Tested: 11/02/2007

Body SAR - 802.11a - 6 Mbps - 5785 MHz - Channel 157 - AUX Antenna Adjacent Edge of Tablet PC

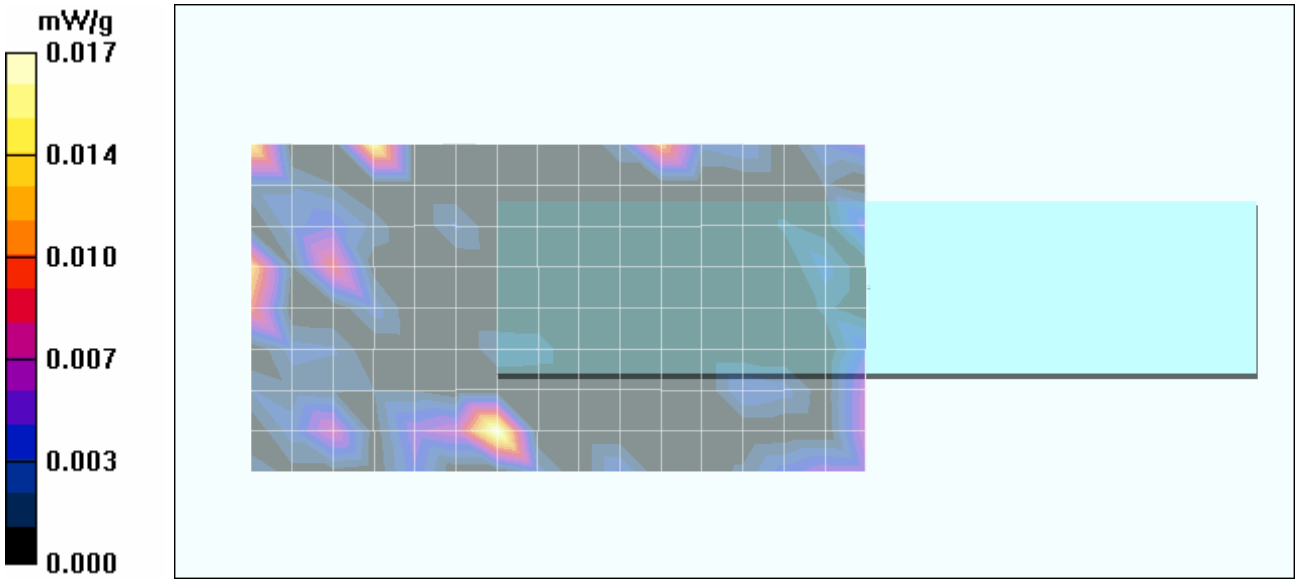
DUT: General Dynamics Itronix Corporation; Type: IX-4965AGN WLAN in IX350 Tablet PC; Serial: SY7200000659

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

Power: 11.1V, 3900mAh Li-ion Battery
Communication System: OFDM WLAN
Frequency: 5785 MHz; Duty Cycle: 1:1.1
RF Output Power: 17.6 dBm (Conducted)
Medium: M5200-5800 Medium parameters used: f = 5785 MHz; σ = 6.2 mho/m; ε_r = 45.5; ρ = 1000 kg/m^3

- Probe: EX3DV4 - SN3600; ConvF(4.14, 4.14, 4.14); Calibrated: 24/01/2007
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 10/07/2007
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - AUX Antenna Adjacent Edge Touch Position of Tablet PC - AUX Antenna (Chain A) - 5785 MHz
Area Scan (9x16x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.017 mW/g



Date Tested: 11/02/2007

Body SAR - 802.11a - 6 Mbps - 5785 MHz - Channel 157 - MAIN Antenna Adjacent Edge of Tablet PC

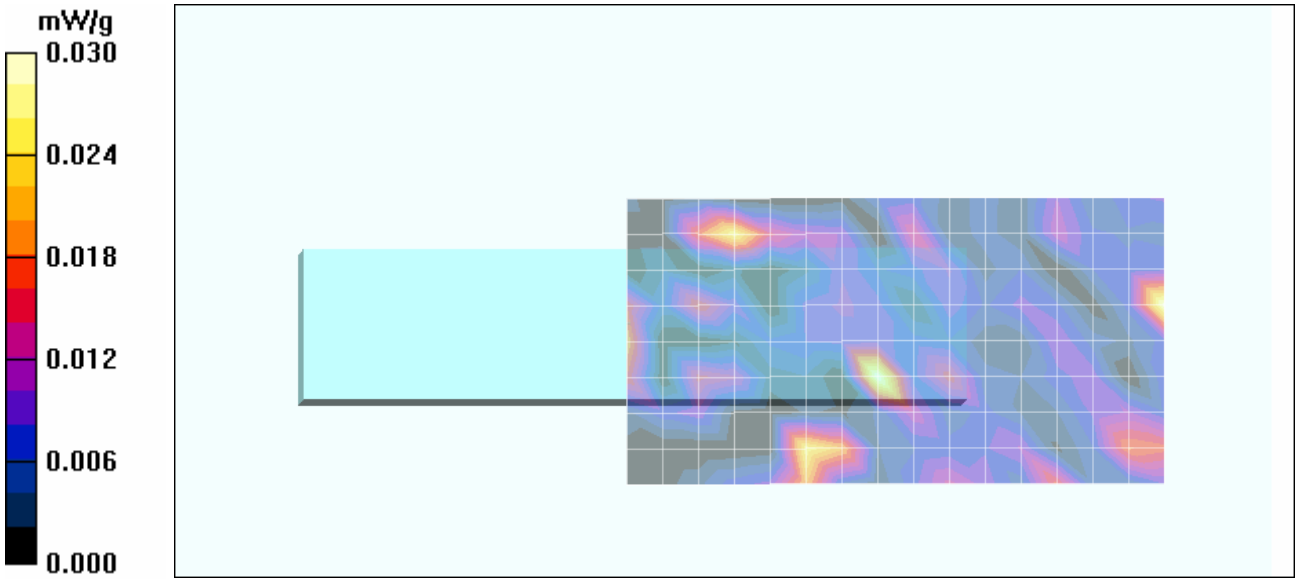
DUT: General Dynamics Itronix Corporation; Type: IX-4965AGN WLAN in IX350 Tablet PC; Serial: SY7200000659

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

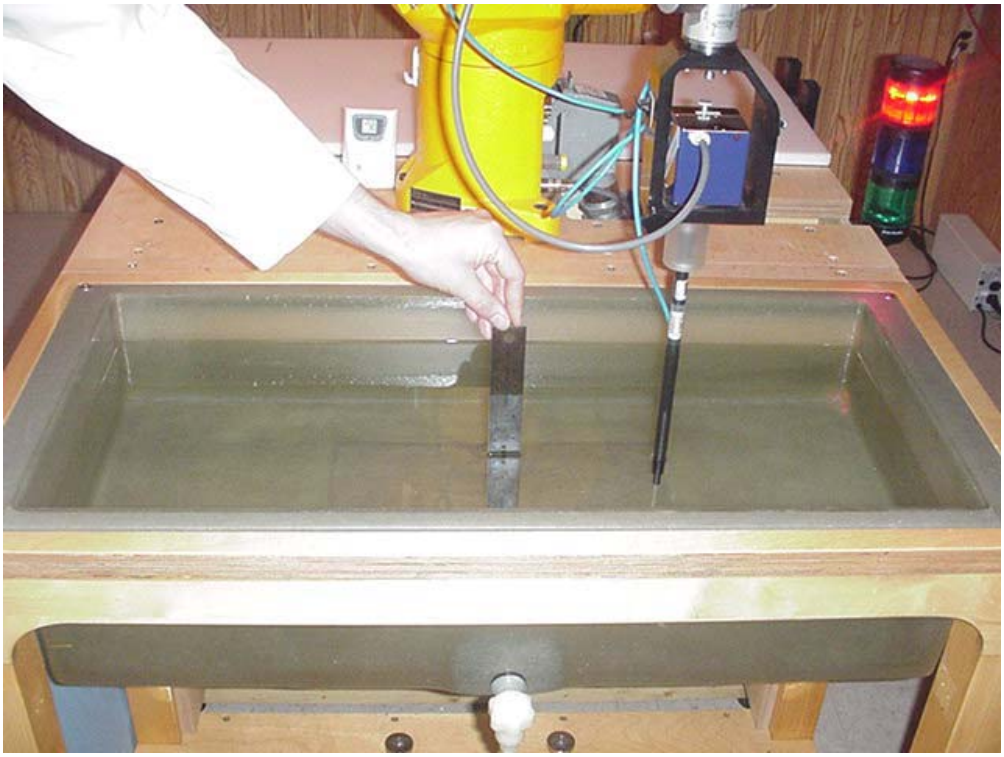
Power: 11.1V, 3900mAh Li-ion Battery
Communication System: OFDM WLAN
Frequency: 5785 MHz; Duty Cycle: 1:1.1
RF Output Power: 17.5 dBm (Conducted)
Medium: M5200-5800 Medium parameters used: f = 5785 MHz; σ = 6.2 mho/m; ε_r = 45.5; ρ = 1000 kg/m^3

- Probe: EX3DV4 - SN3600; ConvF(4.14, 4.14, 4.14); Calibrated: 24/01/2007
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 10/07/2007
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - MAIN Antenna Adjacent Edge Touch Position of Tablet PC - MAIN Antenna (Chain B) - 5785 MHz
Area Scan (9x16x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.030 mW/g



Fluid Depth (>15cm)



APPENDIX B - SYSTEM PERFORMANCE CHECK DATA

Date Tested: 11/06/2007

System Performance Check - 2450 MHz Dipole - MSL

DUT: Dipole 2450 MHz; Asset: 00025; Serial: 150; Validation: 06/08/2007

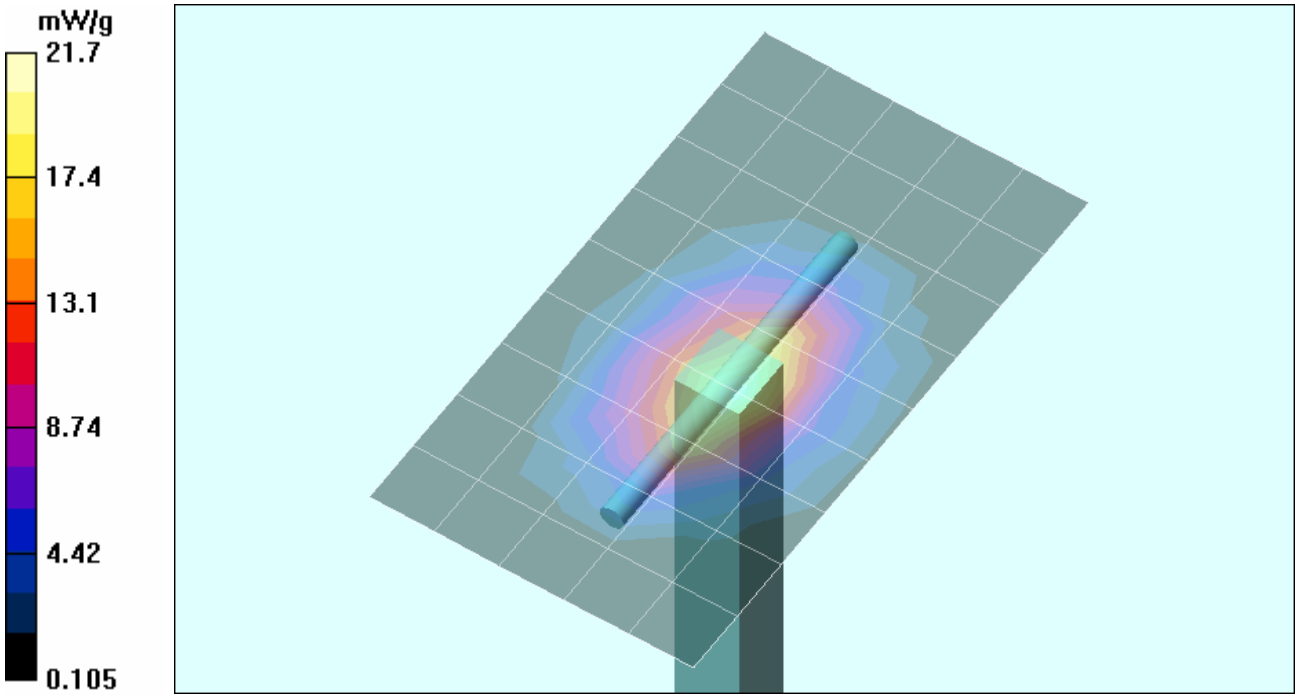
Ambient Temp: 22.2°C; Fluid Temp: 20.2°C; Barometric Pressure: 101.1 kPa; Humidity: 31%

Communication System: CW
Forward Conducted Power: 250 mW
Frequency: 2450 MHz; Duty Cycle: 1:1
Medium: M2450 Medium parameters used: f = 2450 MHz; σ = 2.01 mho/m; ε_r = 50.6; ρ = 1000 kg/m^3

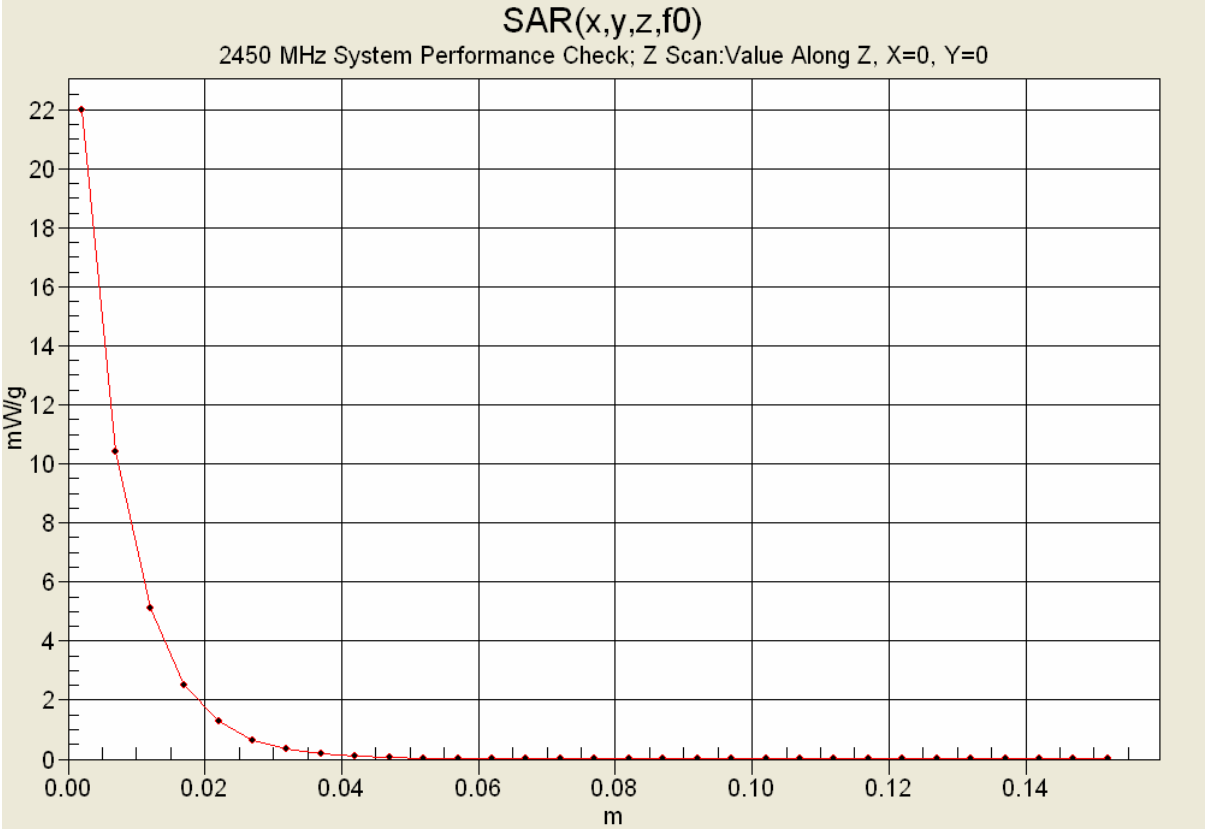
- Probe: EX3DV4 - SN3600; ConvF(6.31, 6.31, 6.31); Calibrated: 24/01/2007
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 10/07/2007
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing 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) = 21.3 mW/g

2450 MHz Dipole - System Performance Check/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 100.0 V/m; Power Drift = -0.134 dB
Peak SAR (extrapolated) = 29.5 W/kg
SAR(1 g) = 14.0 mW/g; SAR(10 g) = 6.24 mW/g
Maximum value of SAR (measured) = 21.7 mW/g



Z-Axis Scan



Date Tested: 11/02/2007

System Performance Check - 5200 MHz Dipole - MSL

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

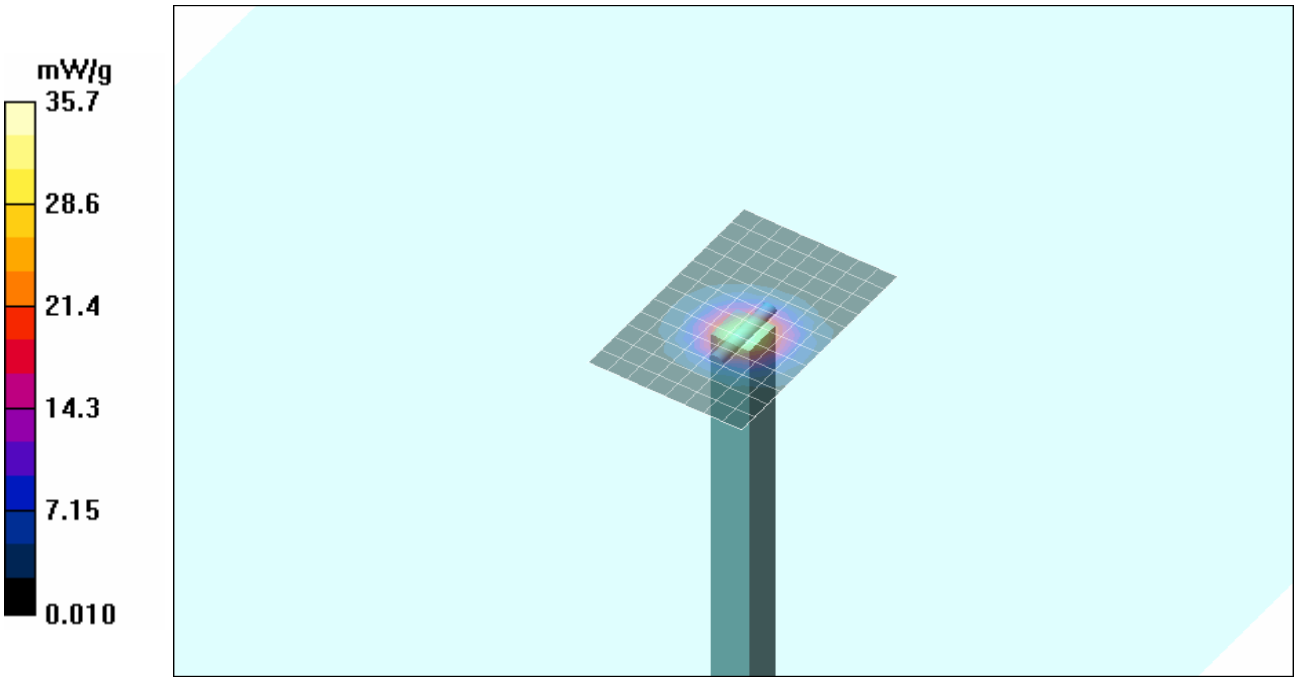
Ambient Temp: 23.3°C; Fluid Temp: 22.0°C; Barometric Pressure: 101.0 kPa; Humidity: 33%

Communication System: CW
Forward Conducted Power: 250 mW
Frequency: 5200 MHz; Duty Cycle: 1:1
Medium: M5200-5800 Medium parameters used: f = 5200 MHz; σ = 5.28 mho/m; ε_r = 45.1; ρ = 1000 kg/m^3

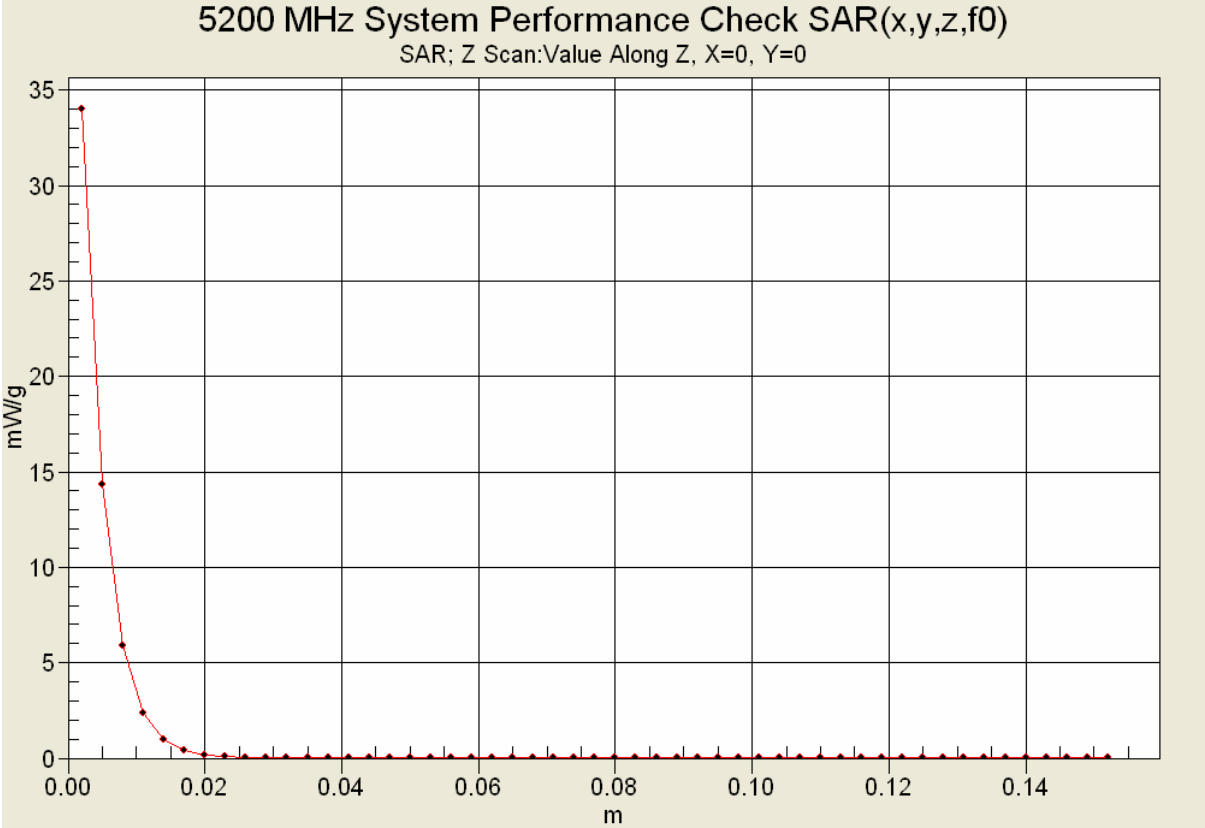
- Probe: EX3DV4 - SN3600; ConvF(4.1, 4.1, 4.1); Calibrated: 24/01/2007
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 10/07/2007
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

5200 MHz System Performance Check/Area Scan (9x13x1):
Measurement grid: dx=5mm, dy=5mm
Maximum value of SAR (measured) = 35.4 mW/g

5200 MHz System Performance Check/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 51.8 V/m; Power Drift = -0.015 dB
Peak SAR (extrapolated) = 74.2 W/kg
SAR(1 g) = 17.8 mW/g; SAR(10 g) = 5.02 mW/g
Maximum value of SAR (measured) = 35.7 mW/g



Z-Axis Scan



Date Tested: 11/02/2007

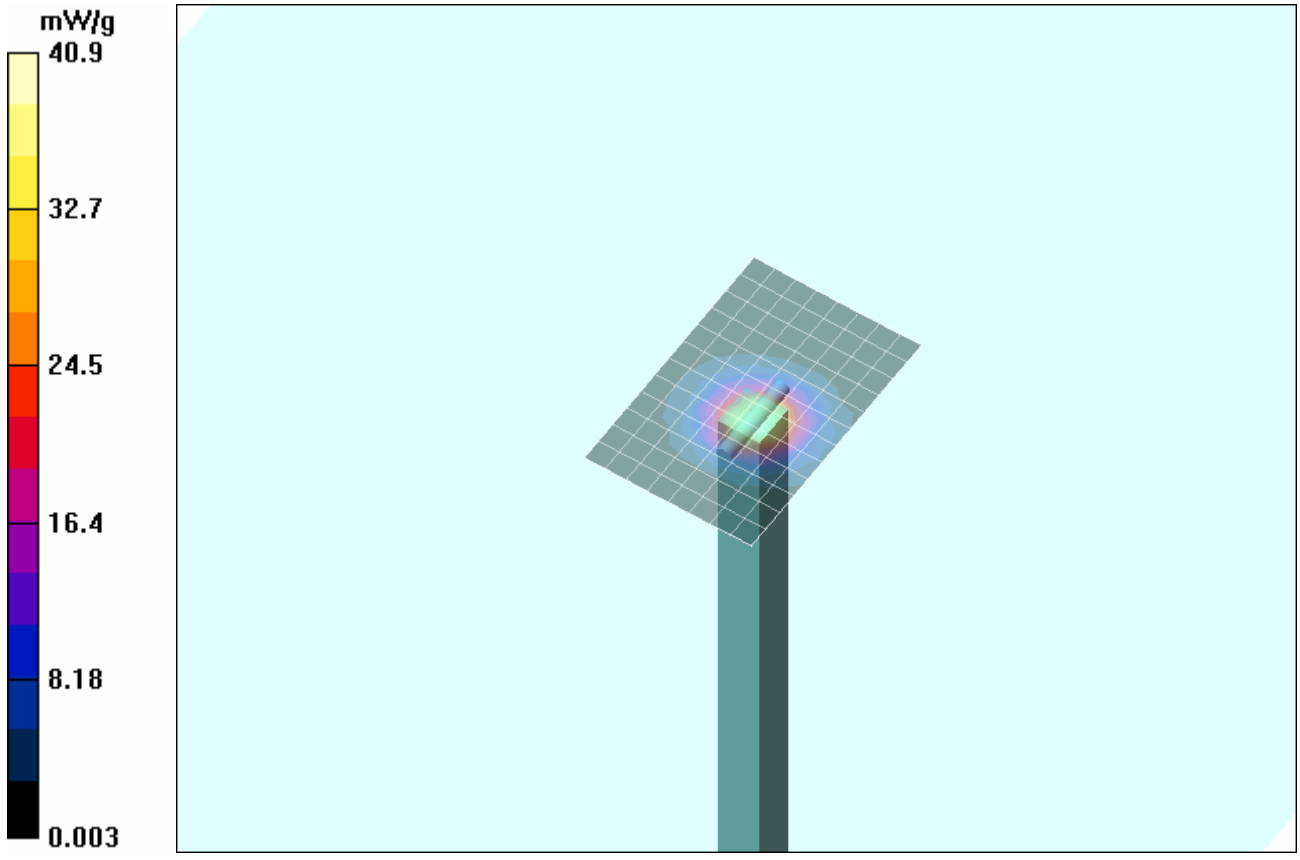
System Performance Check - 5800 MHz Dipole - MSL

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

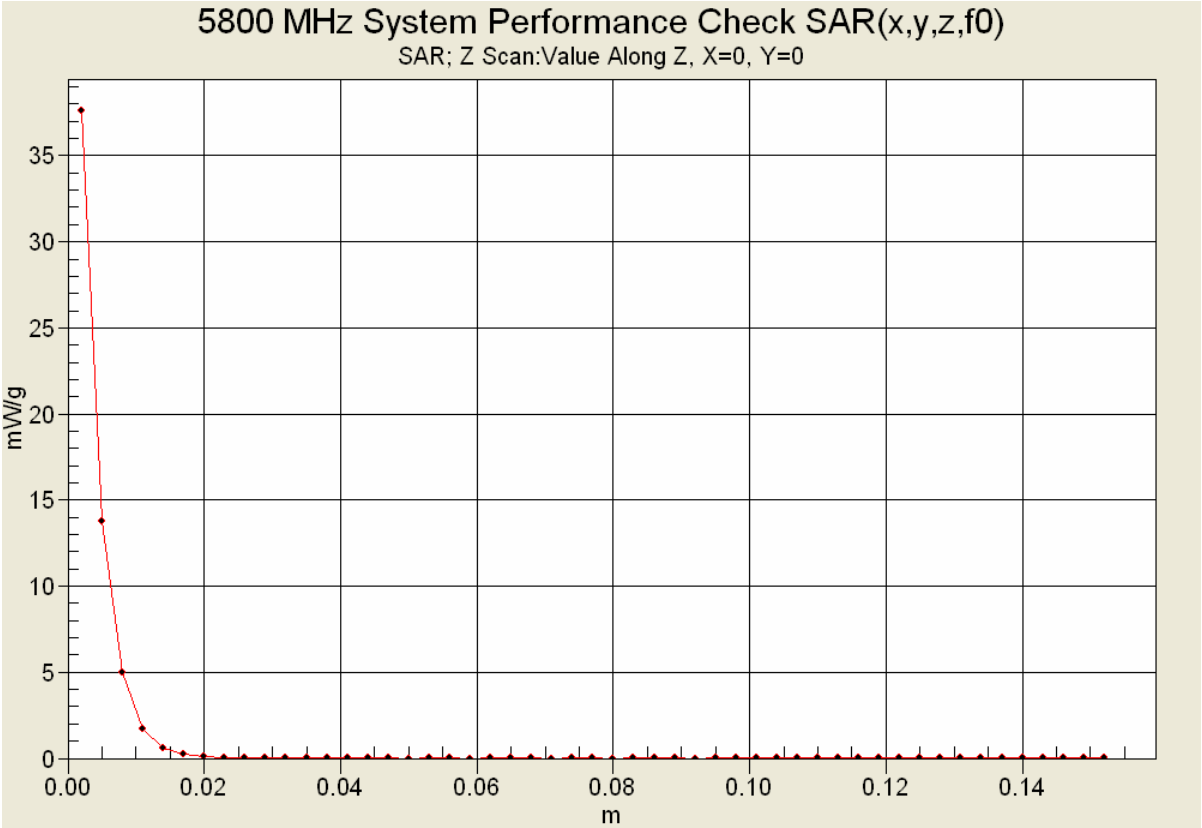
Ambient Temp: 23.3°C; Fluid Temp: 22.0°C; Barometric Pressure: 101.0 kPa; Humidity: 33%

Communication System: CW
Forward Conducted Power: 250 mW
Frequency: 5800 MHz; Duty Cycle: 1:1
Medium: M5200-5800 Medium parameters used: f = 5800 MHz; σ = 6.2 mho/m; ε_r = 45.5; ρ = 1000 kg/m^3
- Probe: EX3DV4 - SN3600; ConvF(4.14, 4.14, 4.14); Calibrated: 24/01/2007
- Sensor-Surface: 2 mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 10/07/2007
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

5800 MHz System Performance Check/Area Scan (9x13x1):
Measurement grid: dx=5mm, dy=5mm
Maximum value of SAR (measured) = 39.9 mW/g
5800 MHz System Performance Check/Zoom Scan (7x7x9)/Cube 0:
Measurement grid: dx=4mm, dy=4mm, dz=2.5mm
Reference Value = 72.1 V/m; Power Drift = 0.083 dB
Peak SAR (extrapolated) = 87.0 W/kg
SAR(1 g) = 19.3 mW/g; SAR(10 g) = 5.35 mW/g
Maximum value of SAR (measured) = 40.9 mW/g



Z-Axis Scan



APPENDIX C - MEASURED FLUID DIELECTRIC PARAMETERS

2450 MHz System Performance Check & DUT Evaluation (Body)

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Celltech Labs Inc.
Test Result for UIM Dielectric Parameter
Tue 06/Nov/2007
Frequency (GHz)
FCC_eH FCC Bulletin 65 Supplement C (June 2001) Limits for Head Epsilon
FCC_sH FCC 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	50.84	1.88
2.3600	52.82	1.86	50.85	1.89
2.3700	52.81	1.87	50.83	1.91
2.3800	52.79	1.88	50.78	1.92
2.3900	52.78	1.89	50.74	1.92
2.4000	52.77	1.90	50.79	1.94
2.4100	52.75	1.91	50.78	1.96
2.4200	52.74	1.92	50.66	1.97
2.4300	52.73	1.93	50.69	1.98
2.4400	52.71	1.94	50.61	2.00
2.4500	52.70	1.95	50.61	2.01
2.4600	52.69	1.96	50.57	2.02
2.4700	52.67	1.98	50.59	2.04
2.4800	52.66	1.99	50.53	2.05
2.4900	52.65	2.01	50.52	2.06
2.5000	52.64	2.02	50.44	2.07
2.5100	52.62	2.04	50.35	2.09
2.5200	52.61	2.05	50.39	2.10
2.5300	52.60	2.06	50.30	2.11
2.5400	52.59	2.08	50.27	2.13
2.5500	52.57	2.09	50.31	2.14

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

****

Celltech Labs Inc.
Test Result for UIM Dielectric Parameter
Fri 02/Nov/2007
Frequency (GHz)
FCC_eH FCC Bulletin 65 Supplement C (June 2001) Limits for Head Epsilon
FCC_sH FCC 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	45.28	5.13
5.1100	49.14	5.19	45.31	5.16
5.1200	49.12	5.21	45.20	5.15
5.1300	49.11	5.22	45.27	5.18
5.1400	49.10	5.23	45.12	5.17
5.1500	49.08	5.24	45.12	5.19
5.1600	49.07	5.25	44.99	5.23
5.1700	49.06	5.26	45.06	5.21
5.1800	49.04	5.28	45.02	5.25
5.1900	49.03	5.29	45.12	5.30
5.2000	49.01	5.30	45.11	5.28
5.2100	49.00	5.31	45.00	5.27
5.2200	48.99	5.32	45.03	5.30
5.2300	48.97	5.33	44.98	5.32
5.2400	48.96	5.35	44.99	5.34
5.2500	48.95	5.36	44.86	5.37
5.2600	48.93	5.37	44.90	5.39
5.2700	48.92	5.38	44.94	5.40
5.2800	48.91	5.39	44.81	5.40
5.2900	48.89	5.40	44.87	5.40
5.3000	48.88	5.42	44.75	5.44

5800 MHz System Performance Check & DUT Evaluation (Body)

****

Celltech Labs Inc.
Test Result for UIM Dielectric Parameter
Fri 02/Nov/2007
Frequency (GHz)
FCC_eH FCC Bulletin 65 Supplement C (June 2001) Limits for Head Epsilon
FCC_sH FCC 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	45.60	6.07
5.7100	48.32	5.89	45.48	6.08
5.7200	48.31	5.91	45.49	6.10
5.7300	48.30	5.92	45.54	6.08
5.7400	48.28	5.93	45.49	6.12
5.7500	48.27	5.94	45.45	6.16
5.7600	48.25	5.95	45.46	6.17
5.7700	48.24	5.96	45.46	6.19
5.7800	48.23	5.98	45.62	6.22
5.7900	48.21	5.99	45.47	6.19
5.8000	48.20	6.00	45.45	6.20
5.8100	48.19	6.01	45.52	6.27
5.8200	48.17	6.02	45.50	6.24
5.8300	48.16	6.04	45.38	6.31
5.8400	48.15	6.05	45.33	6.31
5.8500	48.13	6.06	45.37	6.29
5.8600	48.12	6.07	45.48	6.30
5.8700	48.10	6.08	45.31	6.35
5.8800	48.09	6.09	45.35	6.36
5.8900	48.08	6.11	45.39	6.37
5.9000	48.06	6.12	45.28	6.38

APPENDIX D - MANUFACTURER'S TISSUE SIMULANT DATA SHEET

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.

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/cm^3

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

APPENDIX H - PLANAR PHANTOM CERTIFICATE OF CONFORMITY

2378 Westlake Road
Kelowna, B.C. Canada
V1Z-2V2

BARSKI INDUSTRIES (1985) LTD.

Ph. # 250-769-6848
Fax # 250-769-6334
E-mail: barskiind@shaw.ca
Web: www.bcfiberglass.com

FIBERGLASS FABRICATORS

Certificate of Conformity

Item : Flat Planar Phantom Unit # 03-01
Date: June 16, 2003
Manufacturer: Barski Industries (1985 Ltd)

Test	Requirement	Details
Shape	Compliance to geometry according to drawing	Supplied CAD drawing
Material Thickness	Compliant with the requirements	2mm +/- 0.2mm in measurement area
Material Parameters	Dielectric parameters for required frequencies Based on Dow Chemical technical data	100 MHz-5 GHz Relative permittivity<5 Loss Tangent<0.05

Conformity

Based on the above information, we certify this product to be compliant to the requirements specified.

Signature: _____

Daniel Chailler

Fiberglass Planar Phantom - Top View

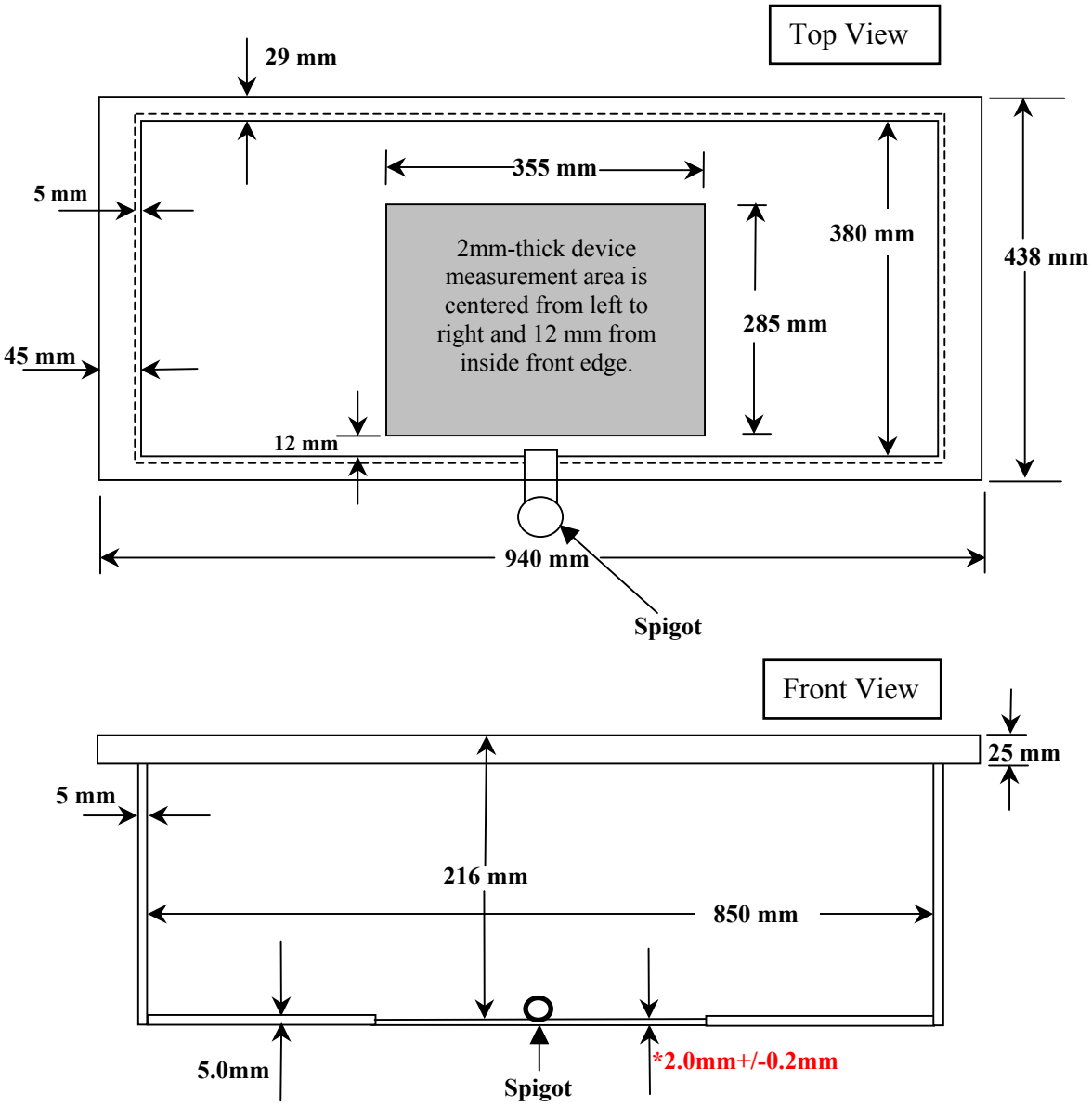
Fiberglass Planar Phantom - Front View

Fiberglass Planar Phantom - Back View

Fiberglass Planar Phantom - Bottom View

Dimensions of Fiberglass Planar Phantom

(Manufactured by Barski Industries Ltd. - Unit# 03-01)



Note: Measurements that aren't repeated for the opposite sides are the same as the side measured. This drawing is not to scale.