

RF EXPOSURE EVALUATION

SPECIFIC ABSORPTION RATE

SAR TEST REPORT

FOR

ITRONIX CORPORATION

MODEL: IX325A860IWLBT

IX325 SERIES RUGGED TABLET PC

WITH

DUAL-BAND GSM/GPRS/EDGE/UMTS PCMCIA MODEM

AND

CO-LOCATED BLUETOOTH

FCC ID: KBCIX325A860IWLBT

IC: 1943A-IX325g

TEST STANDARD(S) & PROCEDURE(S) APPLIED

FCC OET Bulletin 65, Supplement C (01-01)

Industry Canada RSS-102 Issue 2

Test Report Serial No.

042406KBC-T743-S24GWC

Test Report Revision No.

Revision 1.0 (Initial Release)

Test Lab and Location

Celltech Compliance Testing & Engineering Lab (Celltech Labs Inc.) 1955 Moss Court Kelowna, BC Canada V1Y 9L3

Test Report Prepared By: Cheri Frangiadakis Test Report Writer Celltech Labs Inc. <u>Test Report Reviewed By:</u> Jonathan Hughes General Manager Celltech Labs Inc.

Company:	Itronix Corporation		FCC ID:	KBCIX325A860IWLBT	5A860IWLBT IC ID: 1943A-IX325g				
Model:	IX325	A860IWLBT	Rugged Ta	blet PC with Dual-Band GSI		RONIX [®]			
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	Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006	
Celltech	Date(s) of Evaluation:	May 01-04 & 11	, 2006	Report Revision No.:	Revision 1.0	
Testing and Engineering Services Lat:	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2	

DECLARATION OF COMPLIANCE SAR RF EXPOSURE EVALUATION

Test Lab and Location CELLTECH LABS INCORPORAT Testing and Engineering Services 1955 Moss Court Kelowna, B.C. Canada V1Y 9L3	' ED Phone Fax: e-mail: web si	250-448-704 info@celltecl	6 hlabs.com	ITRON 12825	IIX CO E. Mir ne Val	iformation DRPORAT abeau Par lley, WA 99 s	- F ION rkway					
FCC IDENTIFIER:	KBCIX32	5A860IWLBT	IC IDENT	IFIER:	194	43A-IX325	ig I	Model(s)	: IX325	A860IWLBT		
Rule Part(s):	FCC	47 C	FR §2.1093			IC	н	ealth Ca	nada Safety	Code 6		
Test Procedure(s):	FCC	OET Bulletin 65	, Supplemer	nt C (01-01))	IC		RSS	S-102 Issue	2		
	FCC	PCS License	d Transmitte	er (PCB)			47 C	FR Part	24 Subpart I	Ξ		
Device Classification(s):	IC	2 GHz	Personal Co	ommunicatio	on Se	rvices			RSS-133 I	ssue 3		
	IC I	800 MHz Cellula	r Telephone	es Employin	ng Nev	w Technol	ogies		RSS-132 I	ssue 2		
Device Description:	Rugged Tal	olet PC with Dual-	Band GSM/	GPRS/EDC	GE/UN	/ITS and B	luetooth	1				
Internal Transmitter Type(s):	Sierra Wir	eless Model: AirC	ard 860 PCI	MCIA Mode	em	MSI	Model: I	MS-6837	Bluetooth T	ransmitter		
User Display Orientation(s):		0 Degrees L	andscape				-	-90 Degrees Portrait				
	1850.2 -	1909.8 MHz	PCS GSN	I/GPRS/ED	GE	824.2 -	848.8 M	.8 MHz Cellular GSM/GPRS/EDG				
Transmit Frequency Range(s):	1852.4 -	1907.5 MHz	PCS	SUMTS		826.4 -	846.6 M	IHz	Cellula	UMTS		
	2402 -	2480 MHz	Blu	uetooth			-					
	Conducted PCS GPR		28.71 dBr	n 0.743	n 0.743 Watt		ular GP	RS 3	32.27 dBm	1.69 Watts		
	Conducted	PCS EDGE	25.72 dBr	n 0.373	3 Watt	s Cell	ellular EDGE		26.91 dBm	0.491 Watts		
Max. RF Output Power Tested:	Conducted	PCS UMTS	23.00 dBr	n 0.200) Watt	s Cell	Cellular UMTS		24.00 dBm	0 251 Watts		
	Conducted	Bluetooth	3.60 dBm				sted with modulated signal & fixed free					
Max. RF Output Power Tested:	Conducted	PCS GPRS	22.69 dBr		S Watt		ular GP		25.80 dBm			
(Source-Based Time Averaged)	Conducted	PCS EDGE	19.70 dBr				ular ED		20.89 dBm			
GSM Transmit Class:	Class B							-	service at a			
GSM Multislot Class:	Class 10	2 Uplink							uty Cycle:			
GSM Power Class:		S 850: 1		1900: 1	Joure		E 850: E	<u> </u>				
WCDMA Power Class:		S 850: 3		1900: 3			Duty Cyc					
WCDMA Uplink Channel(s):		1 DPCCH C	Channel						Channel			
• • • • • • • • • • • • • • • • • • • •	AC860 Exte	ernal Hinged Mon	opole	Sierra	a Wire	eless		atta	ched to AirC	ard 860		
Antenna Type(s) Tested:		oth Internal PIFA		Well Gree	en Te	chnology	L	.eft Side	Center Edae	Issue 2 ransmitter /GPRS/EDGE r UMTS - 1.69 Watts 0.491 Watts 0.251 Watts 0.251 Watts 0.251 Watts 0.380 Watts 0.123 Watts 0.123 Watts a time 25% 1900: E2 00% Card 860 e of Tablet PC		
Battery Type(s) Tested:		Lithium-ion		11.1 V					Model: T8N			
		PCS Band	GPRS:	0.628 W	/kg	EDGE:	0.30	6 W/kg	UMTS:	0.252 W/kg		
Max. SAR Level(s) Evaluated:	Body (1g)	Cellular Band	GPRS:	0.334 W/		EDGE:		19 W/kg	UMTS:			

Celltech Labs Inc. declares under its sole responsibility that this wireless 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.

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Company:	Itronix Corporation		FCC ID:	KBCIX325A860IWLBT	IC ID:	IT	ITRONIX	
Model:	IX325	A860IWLBT	Rugged Ta	blet PC with Dual-Band GS	M/GPRS/E	DGE/UMTS Modem		RAL DYNAMICS COMPANY
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	Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006		
	Date(s) of Evaluation:	May 01-04 & 11	, 2006	Report Revision No.:	Revision 1.0		
Lat	Type of Evaluation:	Evaluation: RF Exposure		FCC 47 CFR §2.1093	IC RSS-102 Issue 2		

TABLE OF CONTENTS							
1.0 INTRODUCTION	4						
2.0 DESCRIPTION of DEVICE UNDER TEST (DUT)	4						
3.0 SAR MEASUREMENT SYSTEM	5						
4.0 MEASUREMENT SUMMARY	6						
MEASUREMENT SUMMARY (Cont.)	7						
5.0 DETAILS OF SAR EVALUATION	8						
6.0 EVALUATION PROCEDURES	9						
7.0 SYSTEM PERFORMANCE CHECK	10						
8.0 SIMULATED EQUIVALENT TISSUES	11						
9.0 SAR SAFETY LIMITS	11						
10.0 ROBOT SYSTEM SPECIFICATIONS	12						
11.0 PROBE SPECIFICATION (ET3DV6)	13						
12.0 PLANAR PHANTOM	13						
13.0 DEVICE HOLDER	13						
14.0 TEST EQUIPMENT LIST	14						
15.0 MEASUREMENT UNCERTAINTIES	15						
MEASUREMENT UNCERTAINTIES (Cont.)	16						
16.0 REFERENCES	17						
APPENDIX A - SAR MEASUREMENT DATA	18						
APPENDIX B - SYSTEM PERFORMANCE CHECK DATA	36						
APPENDIX C - MEASURED FLUID DIELECTRIC PARAMETERS	47						
APPENDIX D - SAR TEST SETUP PHOTOGRAPHS	54						
APPENDIX E - SYSTEM VALIDATION	58						
APPENDIX F - PROBE CALIBRATION	59						
APPENDIX G - PLANAR PHANTOM CERTIFICATE OF CONFORMITY	60						

Company:	Itronix Corporation		FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g		TRONIX		
Model:	el: IX325A860IWLBT		Rugged Ta	blet PC with Dual-Band GS	OGE/UMTS Modem		ERAL DYNAMICS COMPANY			
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Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

1.0 INTRODUCTION

This measurement report demonstrates that ITRONIX CORPORATION Model: IX325A860IWLBT Rugged Tablet PC FCC ID: KBCIX325A860IWLBT, incorporating the Sierra Wireless AirCard 860 Dual-Band GSM/GPRS/EDGE/UMTS PCMCIA Modem, 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)

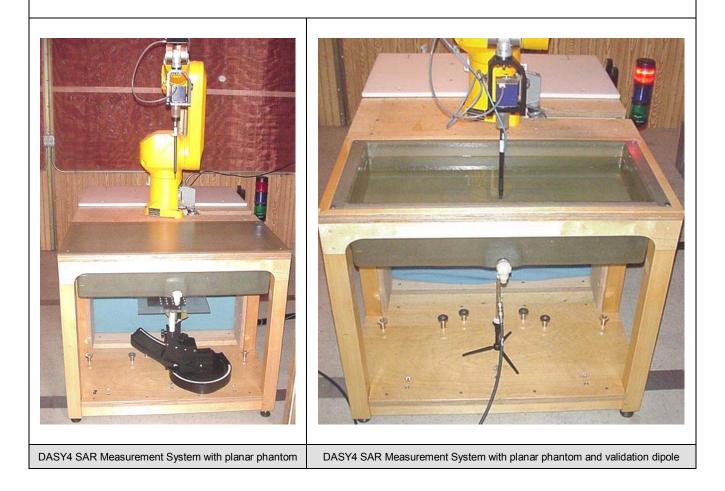
FCC Rule Part(s) Applied		47 C	FR §2	.1093			IC R	ule F	Part(s)		Неа	alth Canada	Safety (Code 6
Test Procedure(s) Applied	FCC	OET E	Bulletin	65, Supp	lement C	(01-0	1)			Indu	istry Car	nada RSS-1	02 Issue	2
RF Exposure Category					General	Popu	lation	/ Ur	ncontro	lled Envir	ronment			
FCC Device Classification			PCS I	icensed	Transmitt	er (PC	B)				47	7 CFR Part	24 Subp	art E
IC Device Classification	2 GHz Personal Communication Services RSS 133 Issue 3 800MHz Cellular Telephones Employing New Technologies RSS-132 Issue 2													
To Device classification	800MH	Iz Cel	llular T	elephone	s Employi	ng Ne	w Te	chno	ologies			RSS-132	2 Issue 2	
Device Description		Ru	igged T	ablet PC				Мо	del(s)			IX325A8	60IWLB	Г
Internal Transmitter(s)	Dua	Dual-Band GSM/GPRS/EDGE/UMTS					MCIA	Мо	dem		Sierra	Wireless M	odel: Air	Card 860
Tablet PC User Orientation(s)		0 Degrees Landscape				be					-90 D	egrees Por	trait	
FCC IDENTIFIER	К	KBCIX325A860IWLBT				IC ID	ENT	FIFIER			1943A-	IX325g		
Test Sample Serial No.(s)	ZZGEG	5073Z	Z9784			D	K325 [·]	Tabl	et PC			P	roductio	n Unit
	357806	600046	65210			Air	Card a	860	Modem	า		P	roductio	n Unit
Transmitter Frequency Range(s)	1850.2 -	1909	.8 MHz PCS GSM/GPRS/ED			EDG	E	824.	2 - 848.8	MHz	Cellular	GSM/G	PRS/EDGE	
	1852.4 -	1907	.5 MHz		PCS	JMTS			826.	4 - 846.6	MHz	(Cellular L	JMTS
	Band	Fre	eq.	GP	RS		ED	GE		Fre	eq.	W-CD		AN
	Dana	MI	Hz	dBm	Watts	dB	m	W	latts	MI	MHz dBr		I	Watts
		824	4.2	31.70	1.48	26.	74	0.	.472	826	6.4	23.80	C	0.240
Max. RF Conducted Output	Cellular	83	6.6	31.82	1.52	26.	91	0.	.491	836	6.4	23.90		0.245
Power Level(s) Measured		84	8.8	32.27	1.69	26.	85	0.	.484	846	6.6	24.00		0.251
			50.2	28.62	0.728	25.			.364	185		22.3	-	0.171
	PCS	188		28.71	0.743	25.			.373	188		23.00	-	0.200
		190		28.50	0.708	25.	-	-	.356	190	-	22.70		0.186
Max. Conducted Source-Based Time	Cellular		6.6	25.80	0.380	20.		-	.123			q. Range	-	2-2480 MHz
Averaged RF Output Power Tested	PCS	188	30.0	22.69	0.186	19.	-	-	.093			er Tested		Bm (Mid Ch.)
GSM Transmit Class	Class B					d to b						g one servi		1
GSM Multislot Class	Class 10			2 Uplink				ax. S			-	raged Duty	,	25%
GSM Power Class	GPRS 850		1	-	RS: 1900:		1		-	E 850:	E2	-	E 1900:	E2
WCDMA Power Class	UMTS 850):	3	-	TS 1900:		3		Sourc	e-Based		eraged Dut	, ,	100%
WCDMA Uplink Channel(s)				CCH Cha	annel						1 DF	PDCH Chan	-	
Modulation Type(s)	(SPRS:	GMS	<		ED	GE: 8	8-PS	SK			UMTS: \	NCDMA	
Antenna Type(s) Tested	AirCard	860:	1	v	Monopol			ueto			ì		Ū	Tablet PC)
				osition 1	_	osed				ot Closed				CMCIA Card
Antenna Position(s) Tested	AirCard 8	360		osition 2	-	pen 1				vot Open				CMCIA Card
				osition 3		Open 9	90°			vot Open				MCIA Card
Battery Type(s) Tested				m-ion Ba	,				,	00 mAh			odel: T8	
Additional Battery Type(s)				ithium-io	,				,	00 mAh			odel: T8	-
Testing Not Performed												o the fact th tion distanc		exactly the ablet to user.

Company:	Itronix Corporation		FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g		TRONIX		
Model:	Model: IX325A860IWLBT			Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem						
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Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006		
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Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2		

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 Electrooptical 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.



Company:	Itronix Corporation		FCC ID:	KBCIX325A860IWLBT	IT	ITRONIX		
Model:	Model: IX325A860IWLBT			Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem				
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4.0 MEASUREMENT SUMMARY

						BOD	Y SAI	R EVA	LUATIO)N RE	ESULTS					
	Cellular Band															
Test Date	Lest Mode			Freq. (MHz)	Chan.	Chan. Antenna Position		Battery Type		DUT Position to Planar Phantom	Separation Distance to Planar Phantom (cm)		Cond. Power Before Test (dBm)	SAR Drift During Test (dB)	Measured SAR 1g (W/kg)	
May 2	GPRS	3 2	Slots	Script	836.6	190	Close	ed 180°	Internal	Li-ion	Bottom Side	0.0 (Touch)		31.82	0.0131	0.332
May 3	GPRS	2	Slots	Script	836.6	836.6 190		ed 180°	Internel	Liion	Bottom Side		0 (Touch)	31.82	0.032	0.334
May 5	Bluetooth Co-trans Modulated Fixed Free			2441	41	Inte	ernal	Internal		Bollom Side	0.		3.60	0.032	0.334	
May 2			Slots	Script	836.6	190	Oper	n 180°	Internal	Li-ion	Bottom Side	0.	0 (Touch)	31.82	-0.0280	0.0569
May 2	GPRS	3 2	Slots	Script	836.6	190	Ope	en 90°	Internal	Li-ion	Bottom Side	0.	0 (Touch)	31.82	-0.0955	0.0207
May 3	EDGE	2	Slots	Script	836.6	190	Close	ed 180°	Internal	Li-ion	Bottom Side	0.	0 (Touch)	26.91	0.0106	0.0919
May 11 UMTS WCDMA		Air-link	836.4	4182	Close	ed 180°	Internal	Li-ion	Bottom Side	0.	0 (Touch)	23.90	0.009	0.251		
ANSI / IEEE C95.1 1999 - SAFETY LIMIT BODY: 1.6 W/kg (averaged over 1 gram) Spatial Peak - Uncontrolled Expos										Exposure	/ General	Population				
	Test Da	te(s)		May 2	, 2006	006 May 3, 2006 May 11, 2006 Test Date(s) May 2			May 2	May 3	May 11	Unit				
Dielec	Fluid Type 835 I		835 MH	z Body	835 MHz	z Body	835 MI	MHz Body Relative		lative Humidity		30	30	30	%	
Const ε _r	ant	nt IEEE Target Meas. Dev		Dev.	Meas.	Dev. Meas.		Dev.	Atmo	ospheric Pressu	re	101.6	102.9	102.7	kPa	
		55.2	± 5%	53.2	-3.6%	53.1	-3.8%	52.7	-4.5%	Amb	ient Temperatur	re	22.4	22.5	23.2	°C
Conduc	tivity	Fluid Type		835 MH	-	835 MHz	-		Hz Body	Fluid Temperature			22.2	22.0	21.5	°C
σ (mho			Target	Meas.	Dev.	Meas.	Dev.	Meas.	Dev.	Fluid Depth			≥ 15	≥ 15	≥ 15	cm
		0.97 1.	The m	± 5%0.95-2.1%0.970.0%0.95-2.1%ρ (Kg/m³)1000The 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.								Detailed				
	_	2.	chann	els was	optiona	l (per FC	C OET	Bulletin	65, Supp	lement	below the SAR t C, Edition 01-	01 -	see refer	ence [3]).		C C
		3.		S and ED est Scrip		des were	e evalua	ated for	SAR at r	naximı	um power using	g th	e propriet	ary Sierra	Wireless	Procomm
		4.	UMTS set.	6 mode v	vas eva	luated fo	or SAR	at maxi	mum pov	ver via	air-link using	the	Anritsu M	T8820A (communica	ations test
Note	(s)	5.	EDGE	and UN	ITS mo	des were	evalua	ted for S	SAR in the	e worst	t-case antenna	cor	nfiguration	evaluated	d in GPRS	mode.
		6.	The p	ower drif	t of the	DUT mea	asured	by the D	ASY4 sy	stem d	luring the SAR	eva	luations w	/as <5% fi	rom the sta	art power.
		7.	The D	UT batte	ery was	fully char	ged pri	or to the	SAR eva	aluatior	ns.					
		8.									, and during, th ve were consis					k and the
		9.									re measured p alyzer (see App			AR evalua	tions using	g an ALS-
		10.	The S	AR evalu	uations	were per	formed	within 2	4 hours o	f the s	ystem performa	ance	e check.			

Company:	Itronix Corporation		FCC ID:	KBCIX325A860IWLBT	IT	ITRONIX			
Model:	IX325	A860IWLBT	Rugged Ta	Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem					
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Type of Evaluation:	ation: RF Exposure SAR		FCC 47 CFR §2.1093	IC RSS-102 Issue 2		

MEASUREMENT SUMMARY (Cont.)

						BOD	Y SAR E	EVALUA	TION RI	ESULTS			BODY SAR EVALUATION RESULTS													
								PCS Ba	and																	
Test Date		Test M	lode		Freq. (MHz)		Antenn Positio	-	Battery Type	DUT Position to Planar Phantom	Separation Distance to Planar Phantom (cm)	Conc Powe Befor Test (dBm	er Drift re During t Test	Measured SAR 1g (W/kg)												
May 4	GPRS	2 SI	ots	Script	1880.0	661	Closed 1	80° Inte	ernal Li-ion	Bottom Side	0.0 (Touch)	h) 28.71 -0.135		0.624												
Maria	GPRS	2 SI	ots	Script	1880.0	0 661	Closed 1			Dettern Cide	0.0 (Tauch)	28.7		0.628												
May 4		ooth Co ted Fixe			2441	41	Interna		ernal Li-ion	Bottom Side	0.0 (Touch)	3.60	-0.102	0.620												
May 4	GPRS	2 SI	ots	Script	1880.0	661	Open 18	30° Inte	ernal Li-ion	Bottom Side	0.0 (Touch)	28.7 ⁻	1 0.039	0.0626												
May 4	GPRS	2 SI	ots	Script	1880.0	0 661	Open 9	0° Inte	ernal Li-ion	Bottom Side	0.0 (Touch)	28.7 [.]	1 -0.040	0.0806												
May 4	EDGE	2 SI	ots	Script	1880.0	0 661	Closed 1	80° Inte	ernal Li-ion	Bottom Side	0.0 (Touch)	25.72	2 -0.012	0.306												
May 11	UMTS	WCE	DMA A	Air-link	1880.0	9400	Closed 1	80° Inte	nternal Li-ion Bottom Side (0.0 (Touch)	23.0	-0.207	0.252												
ANSI	IEEE C9	5.1 1999	- SAFE		пт	BODY: 1	.6 W/kg (ave	eraged ove	er 1 gram)	Spatial Peak	- Uncontrolled	Expos	ure / General	Population												
	Test Da	ite(s)			May 4, 2	2006	May 11	May 11, 2006		est Date(s)	May 4	May 4		Unit												
Diele	ctric	Fluid	1880 M		880 MHz	Iz Body 1880 MHz Body		Iz Body	Relat	tive Humidity	30		30	%												
Cons	tant	IEEE	E Target Meas		eas.	Dev.	Dev. Meas. De		Atmos	oheric Pressure	101.6		102.9	kPa												
٤,	r	53.3	± 5%	51	.5	-3.4%	51.2	-3.9%	Ambier	nt Temperature	24.0		24.3	°C												
Condu		Fluid Type		18	80 MHz	Body	1880 MH	Iz Body	Fluid	Temperature	23.5		23.7	°C												
Condu σ (mh	-	IEEE	Target	Me	eas.	Dev.	Meas.	Dev.	FI	Fluid Depth ≥ 15		≥ 15	cm													
		1.52	± 5%	1.	55	+2.0%	1.46	-3.9%	f	o (Kg/m³)		1000														
		1.								sted in the co tion of the DUT				Detailed												
		2.								below the SA C, Edition 01-0				v and high												
		3.		S and E Script.	DGE m	nodes we	re evaluated	d for SAR	at maximu	m power using t	he proprietary	Sierra	Wireless Proc	comm Plus												
		4.	UMT	S mode	was e	aluated f	or SAR at m	naximum p	ower via ai	r-link using the	Anritsu MT882	0A con	nmunications	test set.												
Note	e(s)	5.	EDG	E and L	JMTS m	nodes wei	e evaluated	d for SAR	in the worst	-case antenna o	configuration e	valuate	ed in GPRS m	ode.												
		6.	The p	ower d	rifts me	asured by	the DASY	4 system f	or the dura	tion of the SAR	evaluations we	ere <5%	6 from the sta	rt power.												
		7.	The D	OUT ba	ttery wa	is fully cha	arged prior f	to the SAF	R evaluation	IS.																
		8.								and during, the re consistent for				d the SAR												
		9.								e measured prier (see Appendix		evalua	tions using a	n ALS-PR-												
		10.	The S	SAR ev	aluation	s were pe	erformed wit	thin 24 ho	urs of the sy	ystem performai	nce check.															

Company:	Itronix	Corporation	FCC ID:	KBCIX325A860IWLBT		ITRONIX [®]			
Model:	IX325A860IWLBT Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem							A GENERAL DYNAMICS COMPANY	
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Test Report Serial No .:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006
Date(s) of Evaluation:	May 01-04 & 11	, 2006	Report Revision No.:	Revision 1.0
Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

5.0 DETAILS OF SAR EVALUATION

The ITRONIX CORPORATION Model: IX325A860IWLBT Rugged Tablet PC with internal Sierra Wireless AirCard 860 Dual-Band GSM/GPRS/EDGE/UMTS PCMCIA Modem was compliant for localized Specific Absorption Rate (Uncontrolled Exposure) based on the test provisions and conditions described below. The detailed test setup photographs are shown in Appendix D.

Test Configuration(s)

1. The DUT was tested for body SAR (lap-held) with the bottom side of the Tablet PC placed parallel to, and touching, the outer surface of the planar phantom. The DUT was evaluated for SAR with the AirCard 860 antenna placed in the "Closed 180°" position, "Open 180°" position, and "Open 90°" position (see placement photos on next page).

Test Modes & Power Settings

- 2. For the SAR evaluations in GPRS and EDGE modes the proprietary Sierra Wireless Procomm Plus Test Script installed in the DUT was utilized. The DUT was transmitting at maximum power in 2 time slots (25% duty cycle with a crest factor of 2).
- 3. For the SAR evaluations in UMTS mode an air-link communication was established using the Anritsu MT8820A communications test set. The DUT was transmitting at maximum power with "all-up bits" (see below settings table).

PROCEDURES USED TO) ESTABLISH TEST SIGNAL
The following settings wer Test Set:	e used to configure the Anritsu MT8820A Communications
Instrument Information Application: Standard: Scenario: Serial Number:	WCDMA MX88200B 4.41 #003 MX882050A 6200241241
Call Parameters Preset: Test Loop Mode: Channel Coding: DTCH Data Pattern: Power Control Algorithm: TPC Step size: Power Control Bit Pattern: UL Channel: DL Channel:	3GPP Mode 1 Reference Measurement Channel 12.2 kbps PN9 Algorithm 1 1dB All-Up Bits 9262 / 9400 / 9538 4132 / 4182 / 4233 9662 / 9800 / 9938 4357 / 4407 / 4458

- 4. The conducted power levels of the AC860 were measured at the PC card antenna connector prior to the SAR evaluations using a Gigatronics 8652A Universal Power Meter in Burst Average Power mode (GPRS/EDGE) and Modulated Average Power mode (WCDMA) according to the procedures described in FCC 47 CFR §2.1046.
- 5. For the co-located simultaneous transmit evaluations the Bluetooth transmitter was tested in continuous transmit mode at maximum power level on a fixed frequency with the frequency hopping disabled and a modulated signal.
- 6. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.

Test Conditions

- 7. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
- 8. 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).

Company:	Itronix Corporation		FCC ID:	KBCIX325A860IWLBT		RONIX [®]			
Model:	Model: IX325A860IWLBT			Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem					
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Test Report Serial No.:	042406KBC-T743-S24GWC		Test Report Issue Date:	November 03, 2006	
Date(s) of Evaluation:	May 01-04 & 11, 2006		Report Revision No.:	Revision 1.0	
Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2	

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.

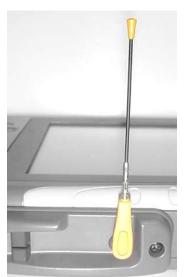
An area scan was determined as follows:

- 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 find the points between the dipole center of the probe and the surface of the phantom. This data cannot be measured, since the center of the dipoles is 2.7 mm away from the tip of the probe and the distance between the surface and the lowest measuring point is 1.4 mm (see probe calibration document in Appendix F). The extrapolation 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. A zoom scan volume of 32 mm x 32 mm x 30 mm (5 x 5 x 7 points) centered at the peak SAR location determined from the area scan is used for all zoom scans for devices with a transmit frequency < 800 MHz. Zoom scans for frequencies ≥ 800 MHz are determined with a scan volume of 30 mm x 30 mm x 30 mm (7 x 7 x 7) to ensure complete capture of the peak spatial-average SAR.

Antenna Test Positions







Antenna "Open 90°" Position

Antenna "Closed 180°" Position

Antenna "Open 180°" Position

Company:	Itronix	Corporation	FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g		RONIX®
Model:	IX325	A860IWLBT	Rugged Ta	Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem				
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Testing and Engineering Services Lab

Test Report Serial No.:	042406KBC-T743-S24GWC		Test Report Issue Date:	November 03, 2006
Date(s) of Evaluation:	May 01-04 & 11, 2006		Report Revision No.:	Revision 1.0
Type of Evaluation:	RF Exposure SAR		FCC 47 CFR §2.1093	IC RSS-102 Issue 2

7.0 SYSTEM PERFORMANCE CHECK

Prior to the SAR evaluations a system check was performed using a planar phantom with an 835MHz dipole and a 1900MHz dipole (see Appendix E for system validation procedures). The dielectric parameters of the simulated tissue mixtures were measured prior to the system performance check 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). See Table 1 below for the SAR system manufacturer's reference body SAR values from the DASY4 Operation Manual (see reference [6]).

	SYSTEM PERFORMANCE CHECK EVALUATIONS																
Test	Equiv. Tissue		SAR 1g (W/kg)		- J				ρ.	Amb.	Fluid	Fluid	Humid.	Barom.			
Date	Body (MHz)	IEE Tar	EE 'get	Meas.	Dev.	IEEE Target	Meas.	Dev.	IEEE Target	Meas.	Dev.	(Kg/m³)	Temp. (°C)	Temp. (°C)	Depth (cm)	(%)	Press. (kPa)
5/1/06	835	2.43	±10%	2.45	+0.8%	55.2 ±5%	53.0	-4.0%	0.97 ±5%	0.96	-1.0%	1000	25.5	22.8	≥ 15	30	101.8
5/3/06	835	2.43	±10%	2.24	-7.8%	55.2 ±5%	53.1	-3.8%	0.97 ±5%	0.97	0.0%	1000	22.5	22.0	≥ 15	30	102.9
5/4/06	1900	9.95	±10%	10.2	+2.5%	53.3 ±5%	51.5	-3.4%	1.52 ±5%	1.56	-2.6%	1000	24.0	23.5	≥ 15	30	101.6
5/11/06	835	2.43	±10%	2.48	+2.1%	55.2 ±5%	52.7	-4.5%	0.97 ±5%	0.95	-2.1%	1000	23.2	21.5	≥ 15	30	102.7
5/11/06	1900	9.95	±10%	9.71	-2.4%	53.3 ±5%	51.1	-4.1%	1.52 ±5%	1.47	-3.3%	1000	24.3	23.7	≥ 15	30	102.9
	Note(s) 1. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the system performance check. The temperatures listed in the table above were consistent for all measurement periods.																
			2.	The SA	he SAR evaluations were performed within 24 hours of the system performance check.												

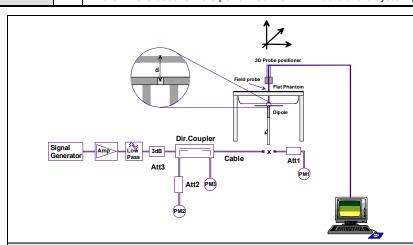


Figure 1. System Performance Check Measurement Setup

Frequency

[MHz]

300

450

835

900

1450

1500

1640

1800

1900

2000

2450

3000

SAR (1g)

[W/kg]

3.02

5.01

9.71

11.1

29.6

30.8

34.4

38.5

39.8

40.9

51.2

61.9

SAR (10g)

[W/kg]

2.06

3.36

6.38

7.17

16.6

17.1

18.7

20.3

20.8

21.2

23.7

24.8

SAR (peak)

[W/kg]

4.36

7.22

14.1

16.3

49.8

52.1

59.4

67.5

69.6

71.5

97.6

136.7

Dipole

Type

D300V2

D450V2

D835V2

D900V2

D1450V2

D1500V2

D1640V2

D1800V2

D1900V2

D2000V2

D2450V2

D3000V2

Distance

[mm]

15

15

10

10

10

10

10



835MHz Dipole Setup



Table 32.1: Numerical	reference SAR values	for SPEAG dipoles and flat	t phantom filled with
body-tissue simulating l	quid. Note: All SAR va	alues normalized to 1 W for	ward power.

Table 1. SAR System Manufacturer's Reference Body SAR Values

Company:	Itronix	Corporation	FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g	IT	RONIX
Model:	IX325	A860IWLBT	Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem					RAL DYNAMICS COMPANY
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Celltech Testing and Engineering Services Lake

Test Report Serial No .:	042406KBC-T743-S24GWC		Test Report Issue Date:	November 03, 2006
Date(s) of Evaluation:	May 01-04 & 11, 2006		Report Revision No.:	Revision 1.0
Type of Evaluation:	RF Exposure SAR		FCC 47 CFR §2.1093	IC RSS-102 Issue 2

8.0 SIMULATED EQUIVALENT TISSUES

The 1880/1900MHz simulated equivalent tissue mixture consisted of Glycol-monobutyl, water, and salt. The 835MHz simulated equivalent tissue mixture consisted of a viscous gel using saline solution. Preservation with a bactericide was added and visual inspection was made to ensure air bubbles were not trapped during the mixing process. The fluids were prepared according to standardized procedures and measured for dielectric parameters (permittivity and conductivity).

1880/1900MHz TISSUE MIXTURE							
INGREDIENT	1900 MHz Body	1880 MHz Body					
INGREDIENT	System Performance Check	DUT Evaluation					
Water	69.85 %	69.85 %					
Glycol Monobutyl	29.89 %	29.89 %					
Salt	0.26 %	0.26 %					

835MHz TISSUE MIXTURE							
INGREDIENT	835 MHz Body System Performance Check	835 MHz Body DUT Evaluation					
Wataz							
Water	53.79 %	53.79 %					
Sugar	45.13 %	45.13 %					
Salt	0.98 %	0.98 %					
Bactericide	0.10 %	0.10 %					

9.0 SAR SAFETY LIMITS

	SAR (W/kg)					
EXPOSURE LIMITS	(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				
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.						

Company:	Itronix Corporation		FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g		RONIX®
Model: IX325A860IWLBT		A860IWLBT	Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem					AL DYNAMICS COMPANY
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Test Report Serial No .:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006
Date(s) of Evaluation:	May 01-04 & 11	, 2006	Report Revision No.:	Revision 1.0
Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

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
Contware	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	ET3DV6
Serial No.	1590
Construction	Triangular core fiber optic detection system
Frequency	10 MHz to 6 GHz
Linearity	±0.2 dB (30 MHz to 3 GHz)
Phantom(s)	
Туре	Planar Phantom
Shell Material	Fiberglass
Thickness	2.0 ±0.1 mm
Volume	Approx. 70 liters

Company:	Itronix	Corporation	FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g		RONIX [®]
Model:	Model: IX325A860IWLBT		Rugged Ta	blet PC with Dual-Band GS	M/GPRS/E	OGE/UMTS Modem		RAL DYNAMICS COMPANY
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Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006
Date(s) of Evaluation:	May 01-04 & 11, 2006		Report Revision No.:	Revision 1.0
Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

11.0 PROBE SPECIFICATION (ET3DV6)

Construction:	Symmetrical design with triangular core	
	Built-in shielding against static charges	
	PEEK enclosure material (resistant to organic solvents, glycol)	
Calibration:	In air from 10 MHz to 2.5 GHz	
	In brain simulating tissue at frequencies of 900 MHz	
	and 1.8 GHz (accuracy \pm 8%)	
Frequency:	10 MHz to > 6 GHz; Linearity: \pm 0.2 dB	
	(30 MHz to 3 GHz)	
Directivity:	\pm 0.2 dB in brain tissue (rotation around probe axis)	
-	\pm 0.4 dB in brain tissue (rotation normal to probe axis)	
Dynamic Range:	5 μ W/g to > 100 mW/g; Linearity: \pm 0.2 dB	
Surface Detect:	\pm 0.2 mm repeatability in air and clear liquids over	
	diffuse reflecting surfaces	
Dimensions:	Overall length: 330 mm	
	Tip length: 16 mm	
	Body diameter: 12 mm	
	Tip diameter: 6.8 mm	
	Distance from probe tip to dipole centers: 2.7 mm	
Application:	General dosimetry up to 3 GHz	
1 P P	Compliance tests of mobile phone	



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 G for dimensions and specifications of the planar phantom).



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 such as Laptop and Tablet PCs, a Plexiglas platform is attached to the device holder.



Company:	Itronix Corporation		FCC ID:	ID: KBCIX325A860IWLBT IC ID: 1943A-IX325g		1943A-IX325g	ITRONIX	
Model:	IX325	A860IWLBT	Rugged Ta	blet PC with Dual-Band GSI	M/GPRS/EI	DGE/UMTS Modem		RAL DYNAMICS COMPANY
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Test Report Serial No .:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006
Date(s) of Evaluation:	May 01-04 & 11, 2006		Report Revision No.:	Revision 1.0
Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

14.0 TEST EQUIPMENT LIST

	TEST EQUIPMENT	ASSET NO.	SERIAL NO.	DA	TE	CALIBRATION
USED	DESCRIPTION	ASSET NO.	SERIAL NO.	CALIB	RATED	DUE DATE
х	Schmid & Partner DASY4 System	-	-		-	-
х	-DASY4 Measurement Server	00158	1078	N	/A	N/A
х	-Robot	00046	599396-01	N	/A	N/A
х	-DAE4	00019	353	15Ji	un05	15Jun06
	-DAE3	00018	370	08F	eb06	08Feb07
	-ET3DV6 E-Field Probe	00016	1387	16M	lar06	16Mar07
х	-ET3DV6 E-Field Probe	00017	1590	20M	ay05	20May06
	-EX3DV4 E-Field Probe	00125	3547	14F	eb06	14Feb07
	-300MHz Validation Dipole	00023	135	250	ct05	25Oct06
	-450MHz Validation Dipole	00024	136	250	ct05	25Oct06
	925MU Validation Dinala	00022	414	Brain	28Mar06	28Mar07
х	-835MHz Validation Dipole	00022	411	Body	27Mar06	27Mar07
		00000	054	Brain	10Jun05	10Jun06
	-900MHz Validation Dipole	00020	054	Body	10Jun05	10Jun06
		00001	047	Brain	14Jun05	14Jun06
	-1800MHz Validation Dipole	00021	247	Body	14Jun05	14Jun06
		00000	454	Brain	17Jun05	17Jun06
х	-1900MHz Validation Dipole	00032	151	Body	25Apr06	25Apr07
	2450MUz Validation Dinala	00025	150	Brain	20Sep05	20Sep06
	-2450MHz Validation Dipole	00025	150	Body	24Apr06	24Apr07
	-5800MHz Validation Dipole	00126	1031	Brain	15Mar06	15Mar07
	-SAM Phantom V4.0C	00154	1033	N	/A	N/A
х	-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
х	ALS-PR-DIEL Dielectric Probe Kit	00160	260-00953	N	/A	N/A
х	Gigatronics 8652A Power Meter	00110	1835801	12A	pr06	12Apr07
	Gigatronics 8652A Power Meter	00007	1835272	03F	eb06	03Feb07
	Gigatronics 80701A Power Sensor	00011	1833542	03F	eb06	03Feb07
х	Gigatronics 80701A Power Sensor	00012	1834350	12S	ep05	12Sep06
х	Gigatronics 80701A Power Sensor	00013	1833713	03F	eb06	03Feb07
	Gigatronics 80701A Power Sensor	00014	1833699	07S	ep05	07Sep06
х	HP 8753ET Network Analyzer	00134	US39170292	18A	pr06	18Apr07
х	HP 8648D Signal Generator	00005	3847A00611	N	/A	N/A
	Rohde & Schwarz SMR40 Signal Generator	00006	100104	06Apr06		06Apr07
х	Amplifier Research 5S1G4 Power Amplifier	00106	26235	N	/A	N/A

Company	Itron	Itronix Corporation		FCC ID:	CC ID: KBCIX325A860IWLBT I		IC ID: 1943A-IX325g		ITRONIX [®]	
Model: IX325A860IWLBT		WLBT	Rugged Ta	blet PC with Dual-Band GSI	M/GPRS/E	DGE/UMTS Modem		RAL DYNAMICS COMPANY		
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Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006
Date(s) of Evaluation:	May 01-04 & 11, 2006		Report Revision No.:	Revision 1.0
Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

15.0 MEASUREMENT UNCERTAINTIES

IU			R DEVICE EVAL	UATION		
Error Description	Uncertainty Value ±%	Probability Distribution	Divisor	ci 1g	Uncertainty Value ±% (1g)	V_i or V_{eff}
Measurement System						
Probe calibration	5.5	Normal	1	1	5.5	œ
Axial isotropy of the probe	4.7	Rectangular	1.732050808	0.7	1.9	œ
Spherical isotropy of the probe	9.6	Rectangular	1.732050808	0.7	3.9	œ
Spatial resolution	0	Rectangular	1.732050808	1	0.0	œ
Boundary effects	1	Rectangular	1.732050808	1	0.6	œ
Probe linearity	4.7	Rectangular	1.732050808	1	2.7	x
Detection limit	1	Rectangular	1.732050808	1	0.6	œ
Readout electronics	0.3	Normal	1	1	0.3	œ
Response time	0.8	Rectangular	1.732050808	1	0.5	x
Integration time	2.6	Rectangular	1.732050808	1	1.5	œ
RF ambient conditions	3	Rectangular	1.732050808	1	1.7	œ
Mech. constraints of robot	0.4	Rectangular	1.732050808	1	0.2	œ
Probe positioning	2.9	Rectangular	1.732050808	1	1.7	œ
Extrapolation & integration	1	Rectangular	1.732050808	1	0.6	œ
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	œ
Phantom and Setup						
Phantom uncertainty	4	Rectangular	1.732050808	1	2.3	œ
Liquid conductivity (target)	5	Rectangular	1.732050808	0.64	1.8	œ
Liquid conductivity (measured)	2.5	Normal	1	0.64	1.6	œ
Liquid permittivity (target)	5	Rectangular	1.732050808	0.6	1.7	~ ~
Liquid permittivity (measured)	2.5	Normal	1	0.6	1.5	00
Combined Standard Uncertaint	-		1		10.58	
Expanded Uncertainty (k=2)	<u>,</u>				21.16	

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

	Company:	Itronix	Corporation	FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g		RONIX®
	Model: IX325A860IWLBT			Rugged Ta	blet PC with Dual-Band GSI	M/GPRS/E	OGE/UMTS Modem		RAL DYNAMICS COMPANY
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Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006	
Date(s) of Evaluation:	May 01-04 & 11, 2006		Report Revision No.:	Revision 1.0	
Type of Evaluation:	RF Exposure SAR		FCC 47 CFR §2.1093	IC RSS-102 Issue 2	

MEASUREMENT UNCERTAINTIES (Cont.)

UI	NCERTAINT	Y BUDGET FOR	SYSTEM VALI	DATION		
Error Description	Uncertainty Value ±%	Probability Distribution	Divisor	ci 1g	Uncertainty Value ±% (1g)	V _i or V _{eff}
Measurement System						
Probe calibration	5.5	Normal	1	1	5.5	ø
Axial isotropy of the probe	4.7	Rectangular	1.732050808	1	2.7	œ
Spherical isotropy of the probe	0	Rectangular	1.732050808	1	0.0	œ
Spatial resolution	0	Rectangular	1.732050808	1	0.0	8
Boundary effects	1	Rectangular	1.732050808	1	0.6	×
Probe linearity	4.7	Rectangular	1.732050808	1	2.7	œ
Detection limit	1	Rectangular	1.732050808	1	0.6	œ
Readout electronics	0.3	Normal	1	1	0.3	œ
Response time	0	Rectangular	1.732050808	1	0.0	œ
Integration time	0	Rectangular	1.732050808	1	0.0	œ
RF ambient conditions	3	Rectangular	1.732050808	1	1.7	œ
Mech. constraints of robot	0.4	Rectangular	1.732050808	1	0.2	œ
Probe positioning	2.9	Rectangular	1.732050808	1	1.7	œ
Extrapolation & integration	1	Rectangular	1.732050808	1	0.6	ø
Test Sample Related						
Dipole Positioning	2	Normal	1.732050808	1	1.2	x
Power & Power Drift	4.7	Normal	1.732050808	1	2.7	x
Phantom and Setup						
Phantom uncertainty	4	Rectangular	1.732050808	1	2.3	x
Liquid conductivity (target)	5	Rectangular	1.732050808	0.64	1.8	ø
Liquid conductivity (measured)	2.5	Normal	1	0.64	1.6	x
Liquid permittivity (target)	5	Rectangular	1.732050808	0.6	1.7	x
Liquid permittivity (measured)	2.5	Normal	1	0.6	1.5	œ
Combined Standard Uncertaint	у			-	8.79	
Expanded Uncertainty (k=2)					17.57	

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

Company:	Itronix	Corporation	FCC ID:	KBCIX325A860IWLBT	1943A-IX325g	ITRONIX		
Model:	Model: IX325A860IWLBT		Rugged Ta	blet PC with Dual-Band GSI	M/GPRS/E	OGE/UMTS Modem		RAL DYNAMICS COMPANY
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Test Report	Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006		
Date(s) of E	Evaluation:	May 01-04 & 11, 2006		Report Revision No.:	Revision 1.0		
Type of Ev	aluation:	RF Exposure SAR		FCC 47 CFR §2.1093	IC RSS-102 Issue 2		

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.

Company:	Itronix	Corporation	FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g		RONIX®
Model: IX325A860IWLBT			Rugged Ta	blet PC with Dual-Band GS	M/GPRS/E	OGE/UMTS Modem		RAL DYNAMICS COMPANY
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Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006
Date(s) of Evaluation: May 01-04 & 11, 2006			Report Revision No.:	Revision 1.0
Type of Evaluation: RF Exposure		SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

APPENDIX A - SAR MEASUREMENT DATA

Company:	Itronix	Corporation	FCC ID:	KBCIX325A860IWLBT IC ID: 1943A-IX325g				ITRONIX [®]	
Model:	Model: IX325A860IWLBT		Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMT			OGE/UMTS Modem		RAL DYNAMICS COMPANY	
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1.200	Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006	
h	Date(s) of Evaluation:	May 01-04 & 11, 2006		Report Revision No.:	Revision 1.0	
vices Lab	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2	

Body SAR - Cellular Band - GPRS Mode - 836.6 MHz - Bottom Side of DUT - Antenna "Closed 180°"

DUT: Itronix Model: IX325A860IWLBT; Type: Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS; Serial: ZZGEG5073ZZ9784

Ambient Temp: 22.4 °C; Fluid Temp: 22.2 °C; Barometric Pressure: 101.6 kPa; Humidity: 30%

RF Output Power: 31.82 dBm (Conducted)

11.1V, 3600mAh Lithium-ion Battery (Model: T8M-E)

Communication System: Cellular GPRS (2 Time Slots)

Frequency: 836.6 MHz; Channel 190; Duty Cycle: 1:4.16

Medium: M835 (σ = 0.95 mho/m; ϵ_r = 53.2; ρ = 1000 kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(6.47, 6.47, 6.47); Calibrated: 20/05/2005

- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005

- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01

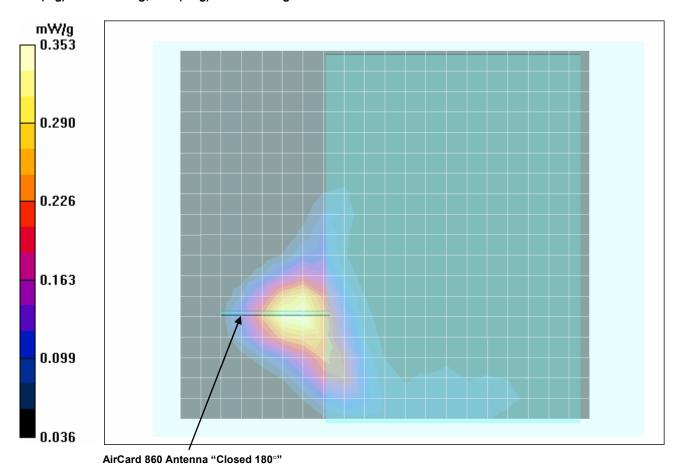
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Body SAR - Cellular GPRS - Bottom Side of DUT Touching Planar Phantom - Antenna Closed 180 - Channel 190 - 836.6 MHz Area Scan (19x21x1): Measurement grid: dx=15mm, dy=15mm

Body SAR - Cellular GPRS - Bottom Side of DUT Touching Planar Phantom - Antenna Closed 180 - Channel 190 - 836.6 MHz Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 19.6 V/m; Power Drift = 0.0131 dB Peak SAR (extrapolated) = 0.453 W/kg

SAR(1 g) = 0.332 mW/g; SAR(10 g) = 0.228 mW/g



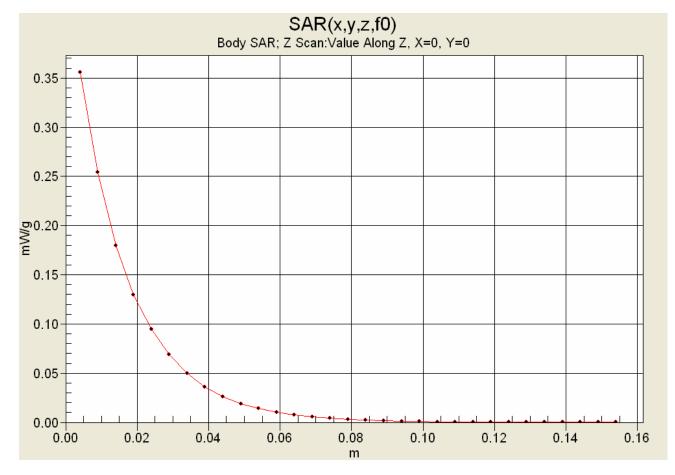
 Company:
 Itronix Corporation
 FCC ID:
 KBCIX325A860IWLBT
 IC ID:
 1943A-IX325g

 Model:
 IX325A860IWLBT
 Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem
 ITRONIX CENERAL DYNAMICE COMPANY

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 Page 19 of 60

	Test Report Serial No.: 042406KBC-T743-S24GWC		Test Report Issue Date:	November 03, 2006	
Celltech	Date(s) of Evaluation:	May 01-04 & 11	, 2006	Report Revision No.:	Revision 1.0
Testing and Engineering Services Lat:	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

Z-Axis Scan



Company:	Itronix	Corporation	FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g		RONIX
Model:	Model: IX325A860IWLBT		Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMT			OGE/UMTS Modem		RAL DYNAMICS COMPANY
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	Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006	
	Date(s) of Evaluation:	May 01-04 & 11, 2006		Report Revision No.:	Revision 1.0	
s Lab	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2	

Body SAR - Cellular Band - GPRS Mode - 836.6 MHz - Bottom Side of DUT - Antenna "Closed 180°" Simultaneous Transmit with Co-located Bluetooth

DUT: Itronix Model: IX325-AC860; Type: Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS; Serial: ZZGEG5073ZZ9784

Ambient Temp: 22.5 °C; Fluid Temp: 22.0 °C; Barometric Pressure: 102.9 kPa; Humidity: 30%

RF Output Power: 31.82 dBm (Conducted)

11.1V, 3600mAh Lithium-ion Battery (Model: T8M-E)

Communication System: Cellular GPRS (2 Time Slots)

Frequency: 836.6 MHz; Channel 190; Duty Cycle: 1:4.16

Frequency: 2441 MHz; Channel 41; Duty Cycle: 1:1 (Bluetooth)

RF Output Power: 3.60 dBm - Conducted (Bluetooth)

Medium: M835 (σ = 0.97 mho/m; ϵ_r = 53.1; ρ = 1000 kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(6.47, 6.47, 6.47); Calibrated: 20/05/2005

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn353; Calibrated: 15/06/2005

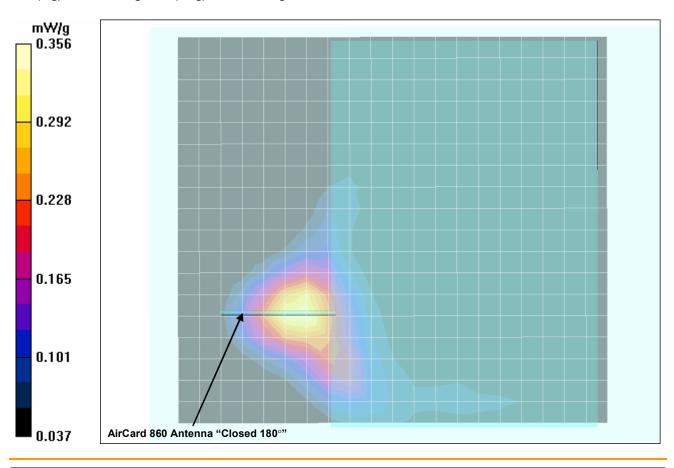
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01

- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Body SAR - Cellular GPRS with co-transmitting Bluetooth - Bottom Side of DUT Touching Planar Phantom - Channel 190 Area Scan (19x21x1): Measurement grid: dx=15mm, dy=15mm

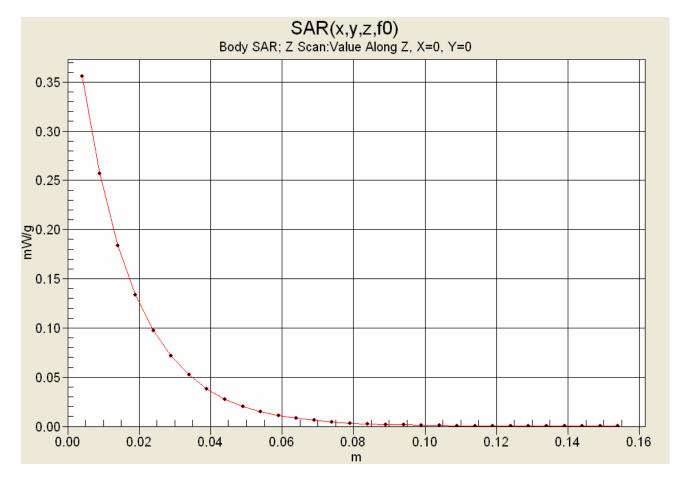
Body SAR - Cellular GPRS with co-transmitting Bluetooth - Bottom Side of DUT Touching Planar Phantom - Channel 190 Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 19.4 V/m; Power Drift = 0.032 dB Peak SAR (extrapolated) = 0.454 W/kg

SAR(1 g) = 0.334 mW/g; SAR(10 g) = 0.231 mW/g



	Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006
Celltech	Date(s) of Evaluation:	May 01-04 & 11, 2006		Report Revision No.:	Revision 1.0
Testing and Engineering Services Lat:	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

Z-Axis Scan



Со	ompany:	Itronix	Corporation	FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g		RONIX
N	Model: IX325A860IWLBT		Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem					A GENERAL DYNAMICS COMPANY	
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	Test Report Serial No.: 042406KBC-T743-S24GWC		Test Report Issue Date:	November 03, 2006	
Celltech	Date(s) of Evaluation:	(s) of Evaluation: May 01-04 & 11, 2006		Report Revision No.:	Revision 1.0
Testing and Engineering Services Lat:	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

Body SAR - Cellular Band - GPRS Mode - 836.6 MHz - Bottom Side of DUT - Antenna "Open 180°"

DUT: Itronix Model: IX325A860IWLBT; Type: Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS; Serial: ZZGEG5073ZZ9784

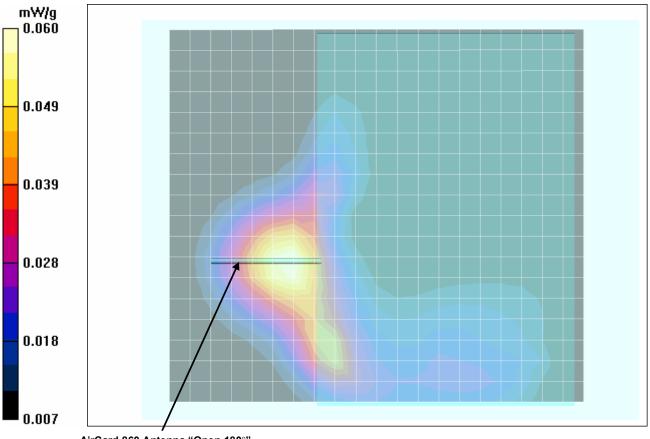
Ambient Temp: 22.4 °C; Fluid Temp: 22.2 °C; Barometric Pressure: 101.6 kPa; Humidity: 30%

- RF Output Power: 31.82 dBm (Conducted)
- 11.1V, 3600mAh Lithium-ion Battery (Model: T8M-E)
- Communication System: Cellular GPRS (2 Time Slots)
- Frequency: 836.6 MHz; Channel 190; Duty Cycle: 1:4.16
- Medium: M835 (σ = 0.95 mho/m; ϵ_r = 53.2; ρ = 1000 kg/m³)
- Probe: ET3DV6 SN1590; ConvF(6.47, 6.47, 6.47); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Body SAR - Cellular GPRS - Bottom Side of DUT Touching Planar Phantom - Antenna Open 180 - Channel 190 - 836.6 MHz Area Scan (19x21x1): Measurement grid: dx=15mm, dy=15mm

Body SAR - Cellular GPRS - Bottom Side of DUT Touching Planar Phantom - Antenna Open 180 - Channel 190 - 836.6 MHz Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 8.16 V/m; Power Drift = -0.0280 dB Peak SAR (extrapolated) = 0.075 W/kg

SAR(1 g) = 0.0569 mW/g; SAR(10 g) = 0.041 mW/g



AirCard 860 Antenna "Open 180°"

Company:	Itronix	Corporation	FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g	IT	RONIX [®]	
Model:	Model: IX325A860IWLBT		Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem						
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	Date(s) of Evaluation:	May 01-04 & 11	, 2006	Report Revision No.:	Revision 1.0
	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

Body SAR - Cellular Band - GPRS Mode - 836.6 MHz - Bottom Side of DUT - Antenna "Open 90°"

DUT: Itronix Model: IX325A860IWLBT; Type: Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS; Serial: ZZGEG5073ZZ9784

Ambient Temp: 22.4 °C; Fluid Temp: 22.2 °C; Barometric Pressure: 101.6 kPa; Humidity: 30%

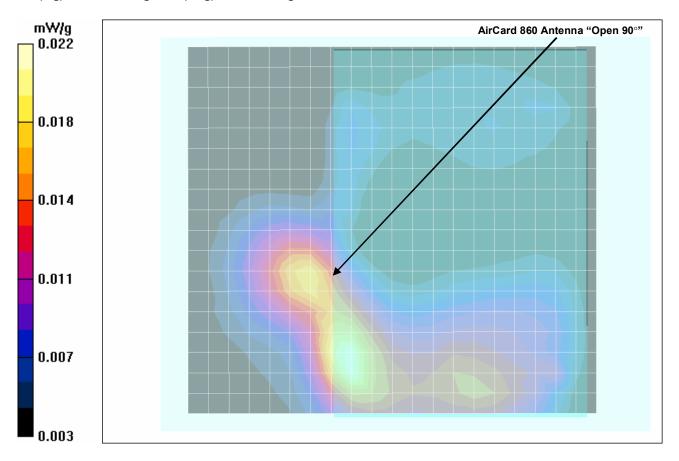
RF Output Power: 31.82 dBm (Conducted) 11.1V, 3600mAh Lithium-ion Battery (Model: T8M-E) Communication System: Cellular GPRS (2 Time Slots) Frequency: 836.6 MHz; Channel 190; Duty Cycle: 1:4.16 Medium: M835 (σ = 0.95 mho/m; ϵ_r = 53.2; ρ = 1000 kg/m³) - Probe: ET3DV6 - SN1590; ConvF(6.47, 6.47, 6.47); Calibrated: 20/05/2005 - Sensor-Surface: 4mm (Mechanical Surface Detection) - Electronics: DAE4 Sn353; Calibrated: 15/06/2005 - Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01 - Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161 Body SAR - Cellular GPRS - Bottom Side of DUT Touching Planar Phantom - Antenna Open 90 - Channel 190 - 836.6 MHz

Area Scan (19x21x1): Measurement grid: dx=15mm, dy=15mm

Body SAR - Cellular GPRS - Bottom Side of DUT Touching Planar Phantom - Antenna Open 90 - Channel 190 - 836.6 MHz Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 4.94 V/m; Power Drift = -0.0955 dB Peak SAR (extrapolated) = 0.029 W/kg

SAR(1 g) = 0.0207 mW/g; SAR(10 g) = 0.015 mW/g



Company:	Itronix	Corporation	FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g	IT	RONIX [®]	
Model:	Model: IX325A860IWLBT		Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem						
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	Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006
Celltech	Date(s) of Evaluation:	on: May 01-04 & 11, 2006		Report Revision No.:	Revision 1.0
Testing and Engineering Services Lab	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

Body SAR - Cellular Band - EDGE Mode - 836.6 MHz - Bottom Side of DUT - Antenna "Closed 180°"

DUT: Itronix Model: IX325A860IWLBT; Type: Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS; Serial: ZZGEG5073ZZ9784

Ambient Temp: 22.5 °C; Fluid Temp: 22.0 °C; Barometric Pressure: 102.9 kPa; Humidity: 30%

RF Output Power: 26.91 dBm (Conducted)

11.1V, 3600mAh Lithium-ion Battery (Model: T8M-E)

Communication System: Cellular EDGE (2 Time Slots)

Frequency: 836.6 MHz; Channel 190; Duty Cycle: 1:4.16

Medium: M835 (σ = 0.97 mho/m; ϵ_r = 53.1; ρ = 1000 kg/m³)

- Probe: ET3DV6 SN1590; ConvF(6.47, 6.47, 6.47); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
 Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

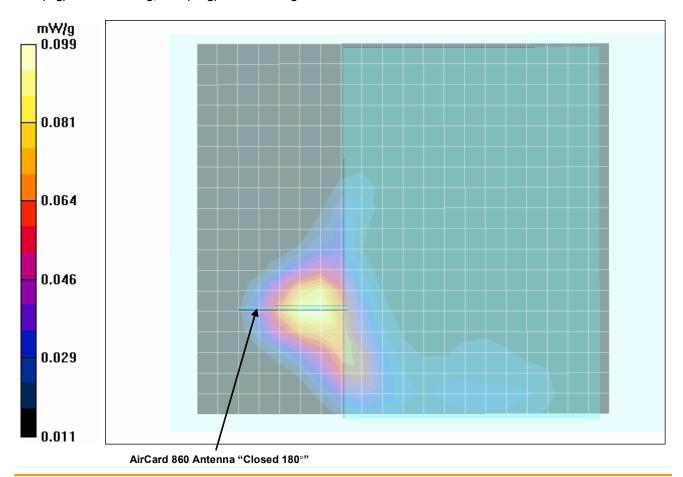
Body SAR - Cellular EDGE - Bottom Side of DUT Touching Planar Phantom - Antenna Closed 180 - Channel 190 - 836.6 MHz

Area Scan (19x21x1): Measurement grid: dx=15mm, dy=15mm

Body SAR - Cellular EDGE - Bottom Side of DUT Touching Planar Phantom - Antenna Closed 180 - Channel 190 - 836.6 MHz Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 10.2 V/m; Power Drift = 0.0106 dB

Peak SAR (extrapolated) = 0.124 W/kg

SAR(1 g) = 0.0919 mW/g; SAR(10 g) = 0.064 mW/g



Company:	Itronix	Corporation	FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g		RONIX®	
Model:	IX325A860IWLBT		Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem						
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Date Tested: 05/11/2006

Body SAR - Cellular Band - UMTS Mode - 836.4 MHz - Bottom Side of DUT - Antenna "Closed 180°"

Revision 1.0

DUT: Itronix Model: IX325A860IWLBT; Type: Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS; Serial: ZZGEG5073ZZ9784

Ambient Temp: 23.2 °C; Fluid Temp: 21.5 °C; Barometric Pressure: 102.7 kPa; Humidity: 30%

RF Output Power: 23.90 dBm (Conducted)

11.1V, 3600mAh Lithium-ion Battery (Model: T8M-E)

Communication System: Cellular UMTS (WCDMA)

Frequency: 836.4 MHz; Channel 4182; Duty Cycle: 1:1

Medium: M835 (σ = 0.95 mho/m; ϵ_r = 52.7; ρ = 1000 kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(6.47, 6.47, 6.47); Calibrated: 20/05/2005

- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005

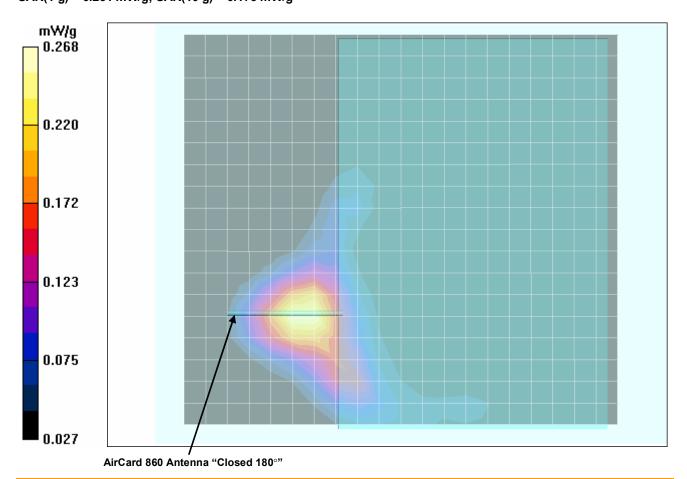
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01

- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - Cellular UMTS - Bottom Side of DUT Touching Planar Phantom - Antenna Closed 180 - Channel 4182 - 836.4 MHz Area Scan (19x21x1): Measurement grid: dx=15mm, dy=15mm

Body SAR - Cellular UMTS - Bottom Side of DUT Touching Planar Phantom - Antenna Closed 180 - Channel 4182 - 836.4 MHz Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 16.8 V/m; Power Drift = 0.009 dB Peak SAR (extrapolated) = 0.340 W/kg

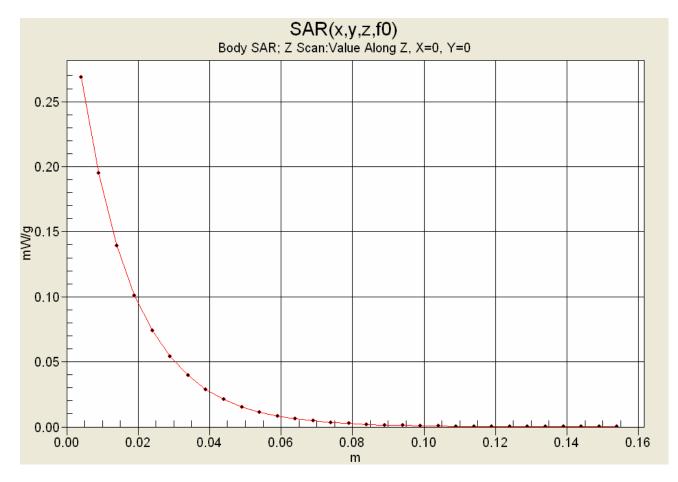
SAR(1 g) = 0.251 mW/g; SAR(10 g) = 0.173 mW/g



Company: **Itronix Corporation** FCC ID: KBCIX325A860IWLBT IC ID: 1943A-IX325g ITRONIX IX325A860IWLBT Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem Model: 2006 Celltech Labs Inc. This document is not to be reproduced in whole or in part without the prior written permission of Celltech Labs Inc. Page 26 of 60

	Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006
Celltech	Date(s) of Evaluation:	May 01-04 & 11, 2006		Report Revision No.:	Revision 1.0
Testing and Engineering Services Lat	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

Z-Axis Scan



Company:	Itronix	Corporation	FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g	ITRONIX		
Model:	Model: IX325A860IWLBT		Rugged Ta	blet PC with Dual-Band GS	M/GPRS/E	OGE/UMTS Modem			
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	Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006
Celltech	Date(s) of Evaluation:	May 01-04 & 11, 2006		Report Revision No.:	Revision 1.0
Testing and Engineering Services Lat:	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

Body SAR - PCS Band - GPRS Mode - 1880.0 MHz - Bottom Side of DUT - Antenna "Closed 180°"

DUT: Itronix Model: IX325A860IWLBT; Type: Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS; Serial: ZZGEG5073ZZ9784

Ambient Temp: 24.0 °C; Fluid Temp: 23.5 °C; Barometric Pressure: 101.6 kPa; Humidity: 30%

RF Output Power: 28.71 dBm (Conducted)

11.1V, 3600mAh Lithium-ion Battery (Model: T8M-E)

Communication System: PCS GPRS (2 Time Slots)

Frequency: 1880.0 MHz; Channel 661; Duty Cycle: 1:4.16

Medium: M1900 (σ = 1.55 mho/m; ϵ_r = 51.5; ρ = 1000 kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(4.85, 4.85, 4.85); Calibrated: 20/05/2005

- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005

- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01

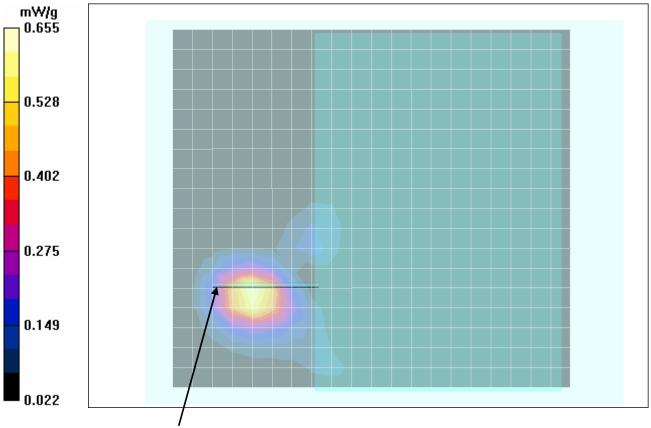
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Body SAR - PCS GPRS - Bottom Side of DUT Touching Planar Phantom - Antenna Closed 180 - Channel 661 - 1880 MHz Area Scan (19x21x1): Measurement grid: dx=15mm, dy=15mm

Body SAR - PCS GPRS - Bottom Side of DUT Touching Planar Phantom - Antenna Closed 180 - Channel 661 - 1880 MHz Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 20.2 V/m; Power Drift = -0.135 dB Peak SAR (extrapolated) = 1.25 W/kg

SAR(1 g) = 0.624 mW/g; SAR(10 g) = 0.364 mW/g



AirCard 860 Antenna "Closed 180°"

Company:	Itronix Corporation		FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g		RONIX
Model:	Iodel: IX325A860IWLBT			Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem				
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	Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006
Celltech	Date(s) of Evaluation:	May 01-04 & 11	, 2006	Report Revision No.:	Revision 1.0
Testing and Engineering Services Lab	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

Body SAR - PCS Band - GPRS Mode - 1880.0 MHz - Bottom Side of DUT - Antenna "Closed 180°" Simultaneous Transmit with Co-located Bluetooth

DUT: Itronix Model: IX325A860IWLBT; Type: Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS; Serial: ZZGEG5073ZZ9784

Ambient Temp: 24.0 °C; Fluid Temp: 23.5 °C; Barometric Pressure: 101.6 kPa; Humidity: 30%

RF Output Power: 28.71 dBm (Conducted)

11.1V, 3600mAh Lithium-ion Battery (Model: T8M-E)

Communication System: PCS GPRS (2 Time Slots)

Frequency: 1880.0 MHz; Channel 661; Duty Cycle: 1:4.16

Frequency: 2441 MHz; Channel 41; Duty Cycle: 1:1 (Bluetooth)

RF Output Power: 3.60 dBm - Conducted (Bluetooth)

Medium: M1900 (σ = 1.55 mho/m; ϵ_r = 51.5; ρ = 1000 kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(4.85, 4.85, 4.85); Calibrated: 20/05/2005

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn353; Calibrated: 15/06/2005

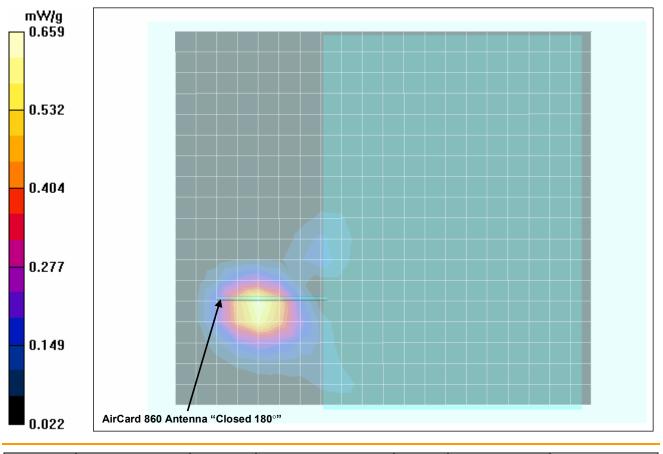
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01

- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Body SAR - PCS GPRS with co-transmitting Bluetooth - Bottom Side of DUT Touching Planar Phantom - Channel 661 Area Scan (19x21x1): Measurement grid: dx=15mm, dy=15mm

Body SAR - PCS GPRS with co-transmitting Bluetooth - Bottom Side of DUT Touching Planar Phantom - Channel 661 Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 20.3 V/m; Power Drift = -0.102 dB Peak SAR (extrapolated) = 1.26 W/kg SAP(4 c) = 0.628 mW/c; SAP(40 c) = 0.256 mW/c;

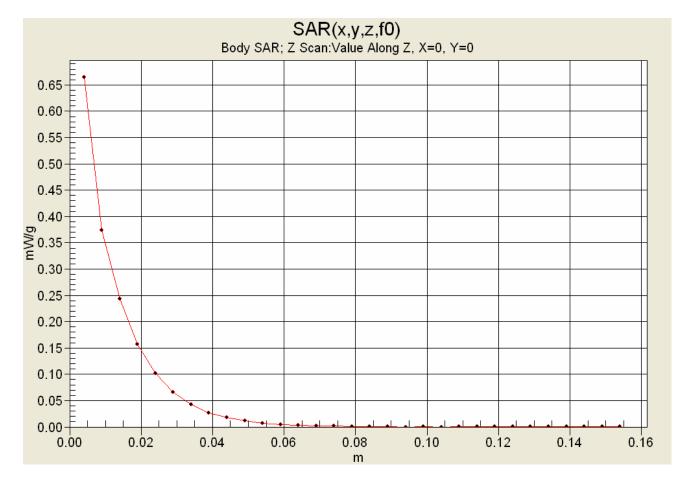
SAR(1 g) = 0.628 mW/g; SAR(10 g) = 0.366 mW/g



Company:	Itronix Corporation		FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g		RONIX®
Model:					RAL DYNAMICS COMPANY			
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	Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006
Celltech	Date(s) of Evaluation:	May 01-04 & 11	, 2006	Report Revision No.:	Revision 1.0
Testing and Engineering Services Lat	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

Z-Axis Scan



Company:	Itronix	Corporation	FCC ID:	KBCIX325A860IWLBT	IC ID: 1943A-IX325g			ITRONIX	
Model:	IX325	225A9COUNT DT Duraned Tehlet DC with Dwel Dand CCM/CDDC/EDCE/UNTC Medan					RAL DYNAMICS COMPANY		
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	Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006
Celltech	Date(s) of Evaluation:	May 01-04 & 11	l, 2006	Report Revision No.:	Revision 1.0
Testing and Engineering Services Lat:	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

Body SAR - PCS Band - GPRS Mode - 1880.0 MHz - Bottom Side of DUT - Antenna "Open 180°"

DUT: Itronix Model: IX325A860IWLBT; Type: Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS; Serial: ZZGEG5073ZZ9784

Ambient Temp: 24.0 °C; Fluid Temp: 23.5 °C; Barometric Pressure: 101.6 kPa; Humidity: 30%

RF Output Power: 28.71 dBm (Conducted)

11.1V, 3600mAh Lithium-ion Battery (Model: T8M-E)

Communication System: PCS GPRS (2 Time Slots)

Frequency: 1880.0 MHz; Channel 661; Duty Cycle: 1:4.16

Medium: M1900 (σ = 1.55 mho/m; ϵ_r = 51.5; ρ = 1000 kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(4.85, 4.85, 4.85); Calibrated: 20/05/2005

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn353; Calibrated: 15/06/2005

- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01

- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

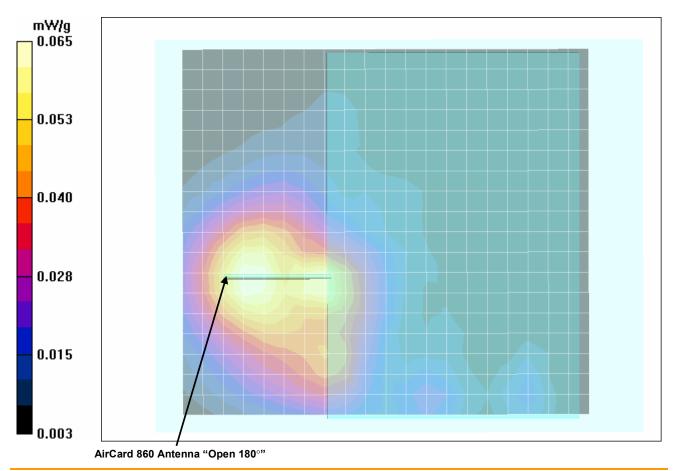
Body SAR - PCS GPRS - Bottom Side of DUT Touching Planar Phantom - Antenna Open 180 - Channel 661 - 1880 MHz Area Scan (19x21x1): Measurement grid: dx=15mm, dy=15mm

Body SAR - PCS GPRS - Bottom Side of DUT Touching Planar Phantom - Antenna Open 180 - Channel 661 - 1880 MHz Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 6.42 V/m; Power Drift = 0.039 dB

Peak SAR (extrapolated) = 0.119 W/kg

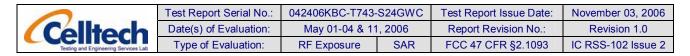
SAR(1 g) = 0.0626 mW/g; SAR(10 g) = 0.040 mW/g



 Company:
 Itronix Corporation
 FCC ID:
 KBCIX325A860IWLBT
 IC ID:
 1943A-IX325g

 Model:
 IX325×60IWLBT
 Rugged T=/// Corporation
 Rugged T=// Corporation
 IC ID:
 1943A-IX325g
 ITRONIX Corporation

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 Page 31 of 60



Body SAR - PCS Band - GPRS Mode - 1880.0 MHz - Bottom Side of DUT - Antenna "Open 90°"

DUT: Itronix Model: IX325A860IWLBT; Type: Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS; Serial: ZZGEG5073ZZ9784

Ambient Temp: 24.0 °C; Fluid Temp: 23.5 °C; Barometric Pressure: 101.6 kPa; Humidity: 30%

RF Output Power: 28.71 dBm (Conducted) 11.1V, 3600mAh Lithium-ion Battery (Model: T8M-E) Communication System: PCS GPRS (2 Time Slots) Frequency: 1880.0 MHz; Channel 661; Duty Cycle: 1:4.16 Medium: M1900 (σ = 1.55 mho/m; ϵ_r = 51.5; ρ = 1000 kg/m³) - Probe: ET3DV6 - SN1590; ConvF(4.85, 4.85, 4.85); Calibrated: 20/05/2005

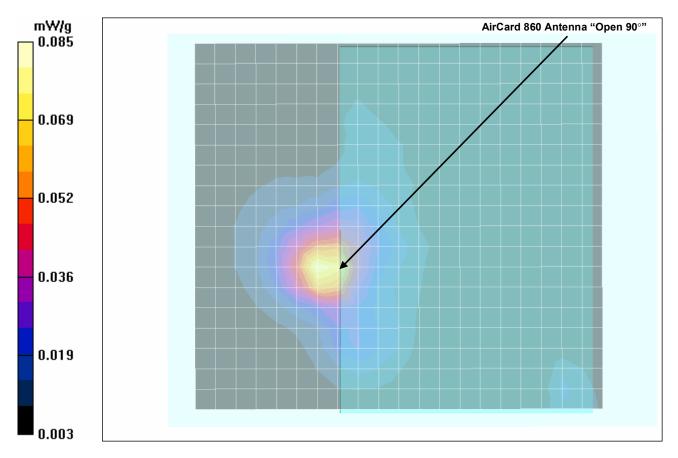
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Body SAR - PCS GPRS - Bottom Side of DUT Touching Planar Phantom - Antenna Open 90 - Channel 661 - 1880 MHz Area Scan (19x21x1): Measurement grid: dx=15mm, dy=15mm

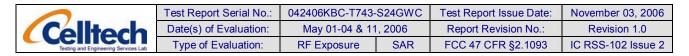
Body SAR - PCS GPRS - Bottom Side of DUT Touching Planar Phantom - Antenna Open 90 - Channel 661 - 1880 MHz Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 7.20 V/m; Power Drift = -0.040 dB

Peak SAR (extrapolated) = 0.159 W/kg

SAR(1 g) = 0.0806 mW/g; SAR(10 g) = 0.047 mW/g



Company:	Itronix Corporation		FCC ID:	KBCIX325A860IWLBT IC ID: 1943A-IX325g				ITRONIX	
Model:	Model: IX325A860IWLBT		Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem			OGE/UMTS Modem			
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Body SAR - PCS Band - EDGE Mode - 1880.0 MHz - Bottom Side of DUT - Antenna "Closed 180°"

DUT: Itronix Model: IX325A860IWLBT; Type: Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS; Serial: ZZGEG5073ZZ9784

Ambient Temp: 24.0 °C; Fluid Temp: 23.5 °C; Barometric Pressure: 101.6 kPa; Humidity: 30%

RF Output Power: 25.72 dBm (Conducted) 11.1V, 3600mAh Lithium-ion Battery (Model: T8M-E) Communication System: PCS EDGE (2 Time Slots) Frequency: 1880.0 MHz; Channel 661; Duty Cycle: 1:4.16 Medium: M1900 (σ = 1.55 mho/m; ϵ_r = 51.5; ρ = 1000 kg/m³)

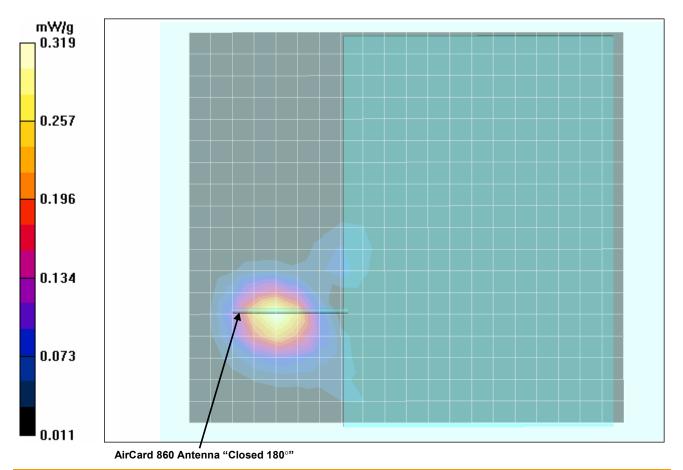
- Probe: ET3DV6 SN1590; ConvF(4.85, 4.85, 4.85); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - PCS EDGE - Bottom Side of DUT Touching Planar Phantom - Antenna Closed 180 - Channel 661 - 1880 MHz Area Scan (19x21x1): Measurement grid: dx=15mm, dy=15mm

Body SAR - PCS EDGE - Bottom Side of DUT Touching Planar Phantom - Antenna Closed 180 - Channel 661 - 1880 MHz Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 14.5 V/m; Power Drift = -0.012 dB

Peak SAR (extrapolated) = 0.601 W/kg

SAR(1 g) = 0.306 mW/g; SAR(10 g) = 0.180 mW/g



 Company:
 Itronix ⊂rporation
 FCC ID:
 KBCIX325A860IWLBT
 IC ID:
 1943A-IX325g

 Model:
 IX325×60IWLBT
 Rugged T= C with Dual-Band GS/CPRS/EFUE/Stone
 ITronix Company
 Itronix Company

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	Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006
Celltech	Date(s) of Evaluation:	May 01-04 & 11, 2006		Report Revision No.:	Revision 1.0
Testing and Engineering Services Lab	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

Date Tested: 05/11/2006

Body SAR - PCS Band - UMTS Mode - 1880.0 MHz - Bottom Side of DUT - Antenna "Closed 180°"

DUT: Itronix Model: IX325A860IWLBT; Type: Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS; Serial: ZZGEG5073ZZ9784

Ambient Temp: 24.3 °C; Fluid Temp: 23.7 °C; Barometric Pressure: 102.9 kPa; Humidity: 30%

RF Output Power: 23.00 dBm (Conducted)

11.1V, 3600mAh Lithium-ion Battery (Model: T8M-E)

Communication System: PCS UMTS (WCDMA)

Frequency: 1880 MHz; Channel 9400; Duty Cycle: 1:1

Medium: M1880 (σ = 1.46 mho/m; ϵ_r = 51.2; ρ = 1000 kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(4.85, 4.85, 4.85); Calibrated: 20/05/2005

- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005

- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01

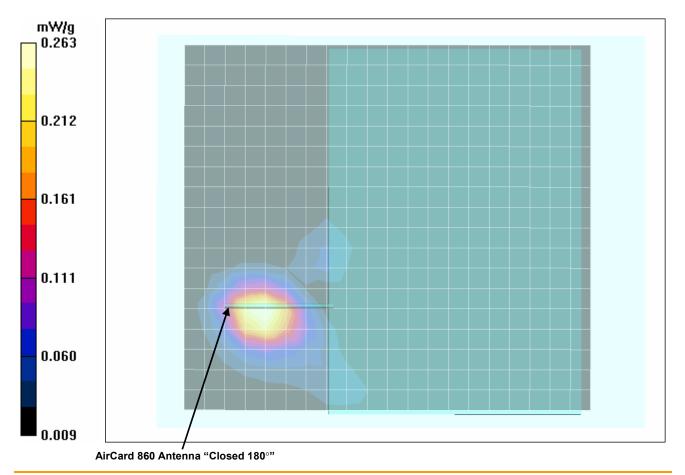
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 171

Body SAR - PCS UMTS - Bottom Side of DUT Touching Planar Phantom - Antenna Closed 180 - Channel 9400 - 1880 MHz Area Scan (19x21x1): Measurement grid: dx=15mm, dy=15mm

Body SAR - PCS UMTS - Bottom Side of DUT Touching Planar Phantom - Antenna Closed 180 - Channel 9400 - 1880 MHz Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 13.5 V/m; Power Drift = -0.207 dB Peak SAR (extrapolated) = 0.503 W/kg

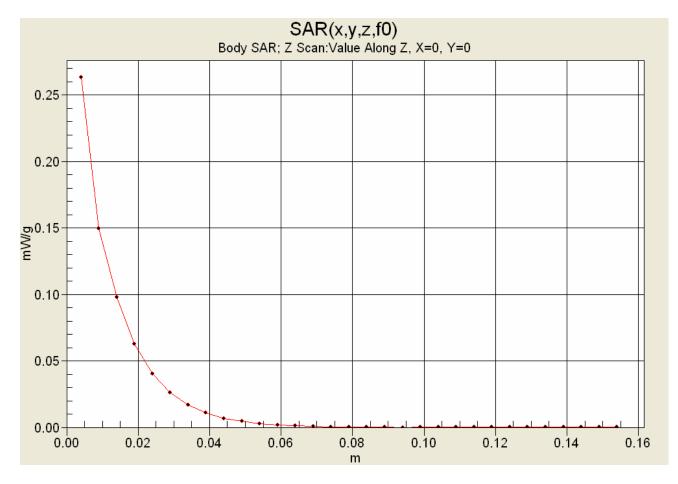
SAR(1 g) = 0.252 mW/g; SAR(10 g) = 0.148 mW/g



Company:ItronixFCC ID:KBCIX325A860IWLBTIC ID:1943A-IX325gItronixModel:IX325-860IWLBTRugged T=E C with Dual-Band GS/GPRS/ED UMTS ModenToward CompanyItronixItronix2006 Celltech L=This document is not to be reproducted in whole or in part without the reproducted in whole or in part without the reproducted in t

	Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006
Celltech	Date(s) of Evaluation:	May 01-04 & 11	l, 2006	Report Revision No.:	Revision 1.0
Testing and Engineering Services Lat:	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

Z-Axis Scan



Company:	Itronix	Corporation	FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g	IT	RONIX	
Model:	del: IX325A860IWLBT		Rugged Ta	blet PC with Dual-Band GSI	M/GPRS/E	OGE/UMTS Modem		A GENERAL DYNAMICS COMPANY	
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	Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006
Celltech	Date(s) of Evaluation:	May 01-04 & 11	, 2006	Report Revision No.:	Revision 1.0
Testing and Engineering Services Lat:	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

APPENDIX B - SYSTEM PERFORMANCE CHECK DATA

Compa	any:	Itronix Corporation		FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g	IT	RONIX
Mod	Iodel: IX325A860IWLBT Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem					RAL DYNAMICS COMPANY			
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Celltech Testing and Engineering Services Late	Test Report Serial No.:	Test Report Serial No.: 042406KBC-T743-S24GWC		Test Report Issue Date:	November 03, 2006
	Date(s) of Evaluation:	s) of Evaluation: May 01-04 & 11, 2006		Report Revision No.:	Revision 1.0
	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

Date Tested: 05/01/2006

System Performance Check (Body) - 835 MHz Dipole

DUT: Dipole 835 MHz; Model: D835V2; Type: System Performance Check; Serial: 411; Validation: 03/27/2006

Ambient Temp: 25.5 °C; Fluid Temp: 22.8 °C; Barometric Pressure: 101.8 kPa; Humidity: 30%

Communication System: CW Forward Conducted Power: 250 mW Frequency: 835 MHz; Duty Cycle: 1:1 Medium: M835 (σ = 0.96 mho/m; ϵ_r = 53.0; ρ = 1000 kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(6.47, 6.47, 6.47); Calibrated: 20/05/2005

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn353; Calibrated: 15/06/2005

- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01

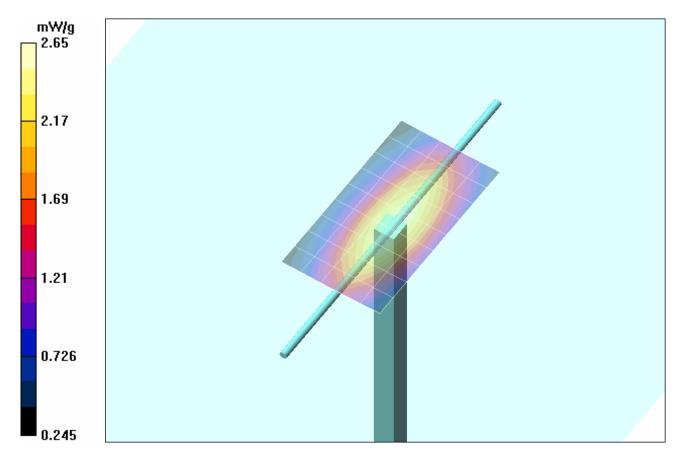
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

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

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

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

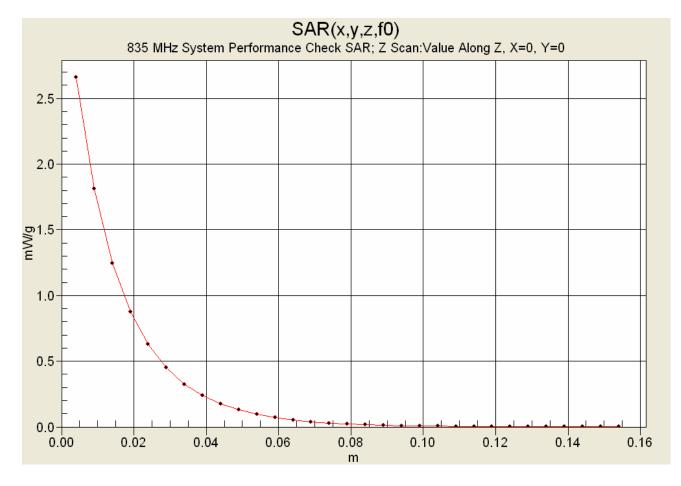
Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 53.8 V/m; Power Drift = -0.047 dB Peak SAR (extrapolated) = 3.58 W/kg SAR(1 g) = 2.45 mW/g; SAR(10 g) = 1.61 mW/g



Comp	bany:	Itronix	Corporation	FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g	IT	RONIX®
Mod	del:	IX325	A860IWLBT	Rugged Ta	et PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem				
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Celltech Testing and Engineering Services Late	Test Report Serial No.:	Serial No.: 042406KBC-T743-S24GWC		Test Report Issue Date:	November 03, 2006
	Date(s) of Evaluation:	May 01-04 & 11, 2006		Report Revision No.:	Revision 1.0
	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

Z-Axis Scan



Company:	Itronix	Corporation	FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g	IT	RONIX [®]
Model:	IX325	A860IWLBT	Rugged Ta	blet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem				
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Celltech Testing and Engineering Services Late	Test Report Serial No.:	ort Serial No.: 042406KBC-T743-S24GWC		Test Report Issue Date:	November 03, 2006
	Date(s) of Evaluation:	e(s) of Evaluation: May 01-04 & 11, 2006		Report Revision No.:	Revision 1.0
	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

Date Tested: 05/03/2006

System Performance Check (Body) - 835 MHz Dipole

DUT: Dipole 835 MHz; Model: D835V2; Type: System Performance Check; Serial: 411; Validation: 03/27/2006

Ambient Temp: 22.5 °C; Fluid Temp: 22.0 °C; Barometric Pressure: 102.9 kPa; Humidity: 30%

 $\begin{array}{l} \mbox{Communication System: CW} \\ \mbox{Forward Conducted Power: 250 mW} \\ \mbox{Frequency: 835 MHz; Duty Cycle: 1:1} \\ \mbox{Medium: M835 } (\sigma = 0.97 \mbox{ mho/m; } \epsilon_r = 53.1; \mbox{ρ} = 1000 \mbox{ kg/m}^3) \end{array}$

- Probe: ET3DV6 - SN1590; ConvF(6.47, 6.47, 6.47); Calibrated: 20/05/2005

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn353; Calibrated: 15/06/2005

- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01

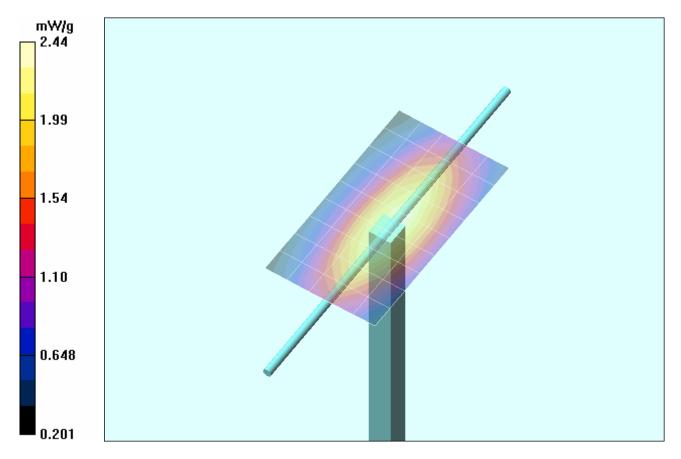
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

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

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

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

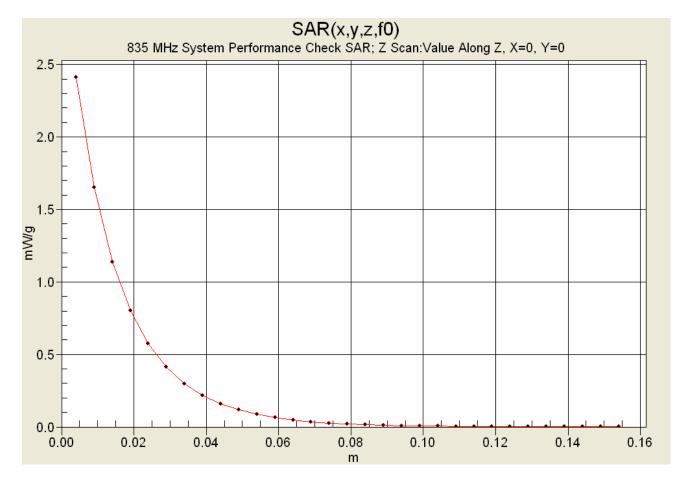
Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 50.8 V/m; Power Drift = -0.068 dB Peak SAR (extrapolated) = 3.24 W/kg SAR(1 g) = 2.24 mW/g; SAR(10 g) = 1.47 mW/g



Compa	any:	Itronix	Corporation	FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g	IT	RONIX®
Mode	el:	IX325	A860IWLBT	Rugged Ta	et PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem				
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Celltech Testing and Engineering Services Late	Test Report Serial No.:	Serial No.: 042406KBC-T743-S24GWC		Test Report Issue Date:	November 03, 2006
	Date(s) of Evaluation:	May 01-04 & 11, 2006		Report Revision No.:	Revision 1.0
	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

Z-Axis Scan



Company:	Itronix	Corporation	FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g		RONIX [®]	
Model:	IX325	A860IWLBT	Rugged Ta	Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem					
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Celltech Testing and Engineering Services Late	Test Report Serial No.:	ort Serial No.: 042406KBC-T743-S24GWC		Test Report Issue Date:	November 03, 2006
	Date(s) of Evaluation:	e(s) of Evaluation: May 01-04 & 11, 2006		Report Revision No.:	Revision 1.0
	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

Date Tested: 05/04/2006

System Performance Check (Body) - 1900 MHz Dipole

DUT: Dipole 1900 MHz; Model: D1900V2; Type: System Performance Check; Serial: 151; Validation: 04/25/2006

Ambient Temp: 24.0 °C; Fluid Temp: 23.5 °C; Barometric Pressure: 101.6 kPa; Humidity: 30%

Communication System: CW Forward Conducted Power: 250 mW Frequency: 1900 MHz; Duty Cycle: 1:1 Medium: M1900 (σ = 1.56 mho/m; ϵ_r = 51.5; ρ = 1000 kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(4.85, 4.85, 4.85); Calibrated: 20/05/2005

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn353; Calibrated: 15/06/2005

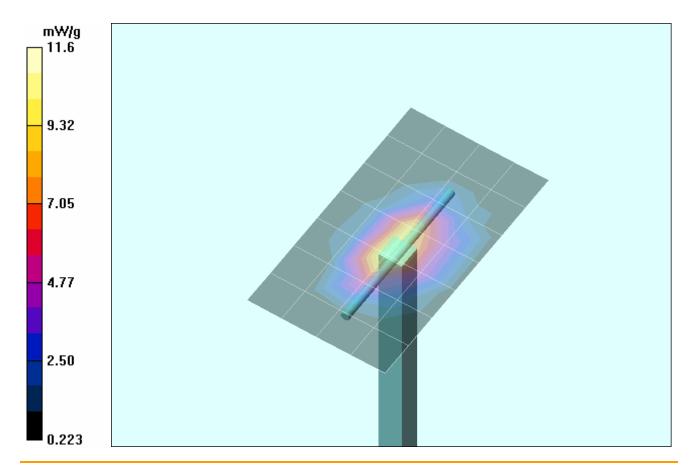
- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01

- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

1900 MHz Dipole - System Performance Check/Area Scan (5x8x1):

Measurement grid: dx=15mm, dy=15mm

1900 MHz Dipole - System Performance Check/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 89.1 V/m; Power Drift = -0.070 dB Peak SAR (extrapolated) = 17.7 W/kg **SAR(1 g) = 10.2 mW/g; SAR(10 g) = 5.42 mW/g**



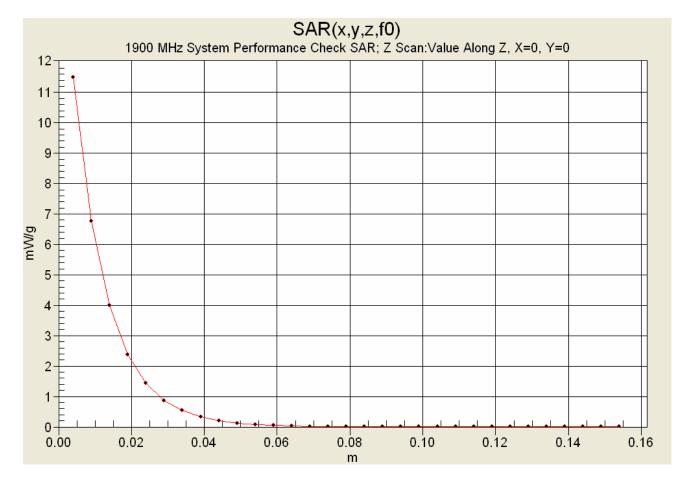
 Company:
 Itronix Corporation
 FCC ID:
 KBCIX325A860IWLBT
 IC ID:
 1943A-IX325g

 Model:
 IX325×60IWLBT
 Rugged T=> € with Dual-Band GS/FRS/ED
 E/UMTS Mode
 ITRONIX Company

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Celltech Testing and Engineering Services Late	Test Report Serial No.:	Serial No.: 042406KBC-T743-S24GWC		Test Report Issue Date:	November 03, 2006
	Date(s) of Evaluation:	May 01-04 & 11, 2006		Report Revision No.:	Revision 1.0
	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

Z-Axis Scan



Company:	Itronix	Corporation	FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g	IT	RONIX
Model:	IX325	A860IWLBT	Rugged Ta	blet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem				
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Celltech Testing and Engineering Services Late	Test Report Serial No.:	Test Report Serial No.: 042406KBC-T743-S24GWC		Test Report Issue Date:	November 03, 2006
	Date(s) of Evaluation:	s) of Evaluation: May 01-04 & 11, 2006		Report Revision No.:	Revision 1.0
	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

Date Tested: 05/11//2006

System Performance Check (Body) - 835 MHz Dipole

DUT: Dipole 835 MHz; Model: D835V2; Type: System Performance Check; Serial: 411; Validation: 03/27/2006

Ambient Temp: 23.2 °C; Fluid Temp: 21.5 °C; Barometric Pressure: 102.7 kPa; Humidity: 30%

 $\begin{array}{l} \mbox{Communication System: CW} \\ \mbox{Forward Conducted Power: 250 mW} \\ \mbox{Frequency: 835 MHz; Duty Cycle: 1:1} \\ \mbox{Medium: M835 } (\sigma = 0.95 \mbox{ mho/m; } \epsilon_r = 52.7; \mbox{ρ} = 1000 \mbox{ kg/m}^3) \end{array}$

- Probe: ET3DV6 - SN1590; ConvF(6.47, 6.47, 6.47); Calibrated: 20/05/2005

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn353; Calibrated: 15/06/2005

- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01

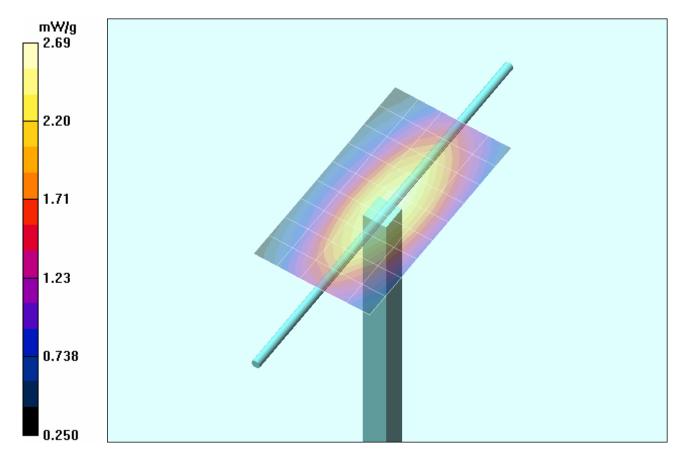
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 171

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

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

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

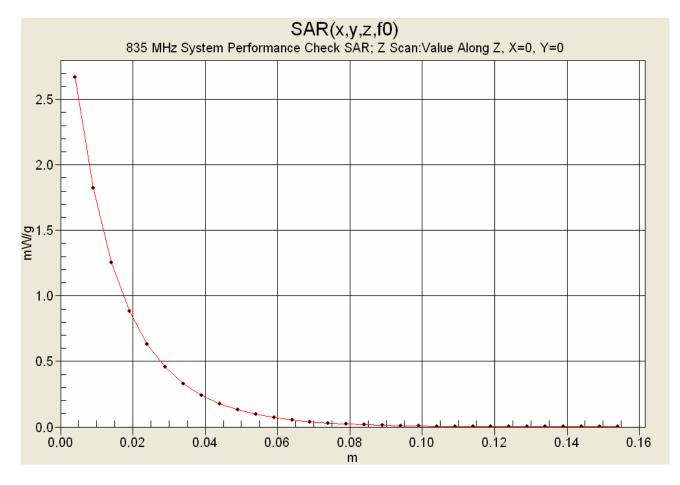
Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 53.3 V/m; Power Drift = -0.085 dB Peak SAR (extrapolated) = 3.63 W/kg SAR(1 g) = 2.48 mW/g; SAR(10 g) = 1.63 mW/g



Company:	Itronix Corporation		FCC ID:	KBCIX325A860IWLBT IC ID: 1943A-IX32		1943A-IX325g		RONIX®
Model:	I: IX325A860IWLBT Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE				DGE/UMTS Modem		RAL DYNAMICS COMPANY	
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Celltech Testa ard Engineering Services Lat	Test Report Serial No.: 042406KBC-T743-		-S24GWC	Test Report Issue Date:	November 03, 2006
	Date(s) of Evaluation:	May 01-04 & 11	1, 2006	Report Revision No.:	Revision 1.0
	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

Z-Axis Scan



Company:	Itronix Corporation		FCC ID:	KBCIX325A860IWLBT IC ID: 1943A-IX325g				ITRONIX	
Model:	IX325A860IWLBT		Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem			OGE/UMTS Modem			
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	Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006
Celltech Testing and Engineering Services Lat	Date(s) of Evaluation:	May 01-04 & 11	, 2006	Report Revision No.:	Revision 1.0
	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

Date Tested: 05/11/2006

System Performance Check (Body) - 1900 MHz Dipole

DUT: Dipole 1900 MHz; Model: D1900V2; Type: System Performance Check; Serial: 151; Validation: 04/25/2006

Ambient Temp: 24.3 °C; Fluid Temp: 23.7 °C; Barometric Pressure: 102.9 kPa; Humidity: 30%

Communication System: CW Forward Conducted Power: 250 mW Frequency: 1900 MHz; Duty Cycle: 1:1 Medium: M1900 (σ = 1.47 mho/m; ϵ_r = 51.1; ρ = 1000 kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(4.85, 4.85, 4.85); Calibrated: 20/05/2005

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn353; Calibrated: 15/06/2005

- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01

- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

1900 MHz Dipole - System Performance Check/Area Scan (5x8x1):

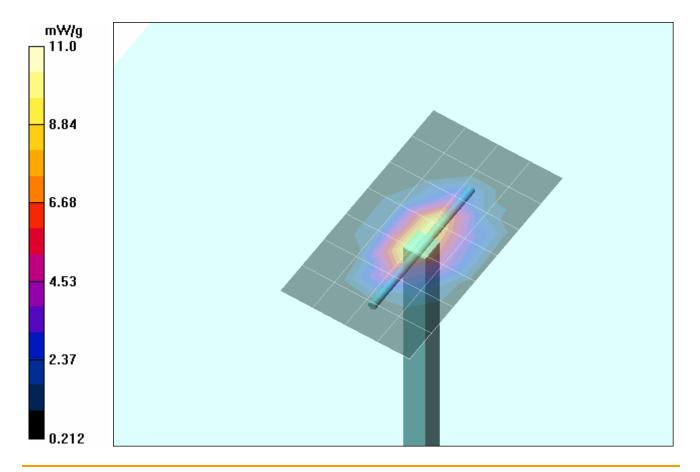
Measurement grid: dx=15mm, dy=15mm

1900 MHz Dipole - System Performance Check/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 90.3 V/m; Power Drift = -0.047 dB

Peak SAR (extrapolated) = 16.9 W/kg

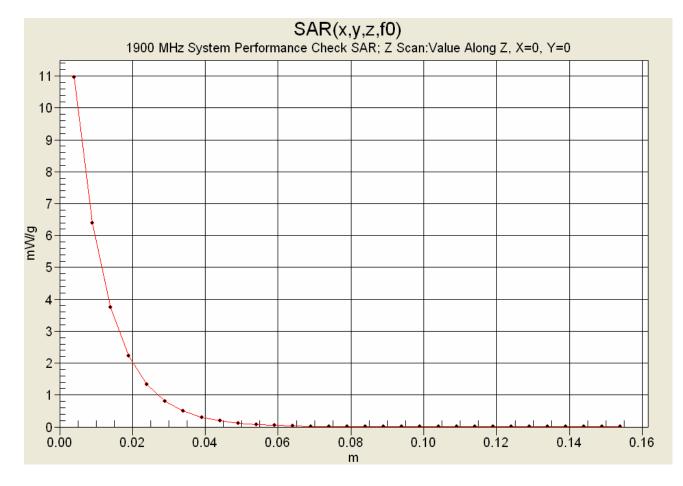
SAR(1 g) = 9.71 mW/g; SAR(10 g) = 5.13 mW/g



Company:	Itronix	Corporation	FCC ID:	KBCIX325A860IWLBT IC ID: 1943A-IX325g			ITRONIX [®]		
Model:	IX325A860IWLBT		Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem					A GENERAL DYNAMICS COMPANY	
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	Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006
Celltech Testing and Engineering Services Lat	Date(s) of Evaluation:	May 01-04 & 11	, 2006	Report Revision No.:	Revision 1.0
	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

Z-Axis Scan



Company:	Itronix Corporation		FCC ID:	KBCIX325A860IWLBT IC ID: 1943A-IX325g				ITRONIX	
Model:	IX325A860IWLBT Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UM				OGE/UMTS Modem		RAL DYNAMICS COMPANY		
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	Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006
Celltech	Date(s) of Evaluation:	May 01-04 & 11	, 2006	Report Revision No.:	Revision 1.0
Testing and Engineering Services Lat:	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

APPENDIX C - MEASURED FLUID DIELECTRIC PARAMETERS

Company:	Itronix Corporation		FCC ID:	KBCIX325A860IWLBT IC ID: 1943A-IX325g				ITRONIX	
Model:	Model: IX325A860IWLBT			Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem					
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	Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006
	Date(s) of Evaluation:	May 01-04 & 11, 2006		Report Revision No.:	Revision 1.0
Lab	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

835 MHz System Performance Check (Body)

Celltech Labs Inc. Test Result for UIM Dielectric Parameter Mon 01/May/2006 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 ***** ***** FCC_eB FCC_sB Test_e Test_s Freq 0.7350 55.59 0.96 53.78 0.87 0.7450 55.55 0.96 53.76 0.88 0.7550 55.51 0.96 53.70 0.88 0.96 0.89 0.7650 55.47 53.71 0.97 53.43 0.91 0.7750 55.43 0.7850 55.39 0.97 53.44 0.92 0.7950 55.36 0.97 53.49 0.92 0.8050 55.32 0.97 53.34 0.93 53.33 0.94 0.8150 55.28 0.97 0.8250 55.24 0.97 53.20 0.95 0.8350 55.20 0.97 52.99 0.96 0.8450 55.17 0.98 53.08 0.97 0.99 0.98 0.8550 55.14 52.87 0.8650 1.01 52.82 0.99 55.11 0.8750 55.08 1.02 52.63 0.99 52.55 1.00 0.8850 55.05 1.03 0.8950 1.04 52.61 1.02 55.02 0.9050 55.00 1.05 52.46 1.02 0.9150 55.00 1.06 52.35 1.03 0.9250 54.98 1.06 52.25 1.04 0.9350 54.96 1.07 52.20 1.05

Company:	Itronix Corporation		FCC ID:	KBCIX325A860IWLBT IC ID: 1943A-IX325g			ITRONIX	
Model:	del: IX325A860IWLBT		Rugged Tablet PC with Dual-Band GSM/GPRS/ED			OGE/UMTS Modem		RAL DYNAMICS COMPANY
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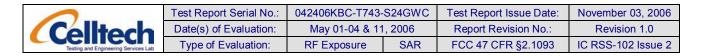
	Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006
	Date(s) of Evaluation:	May 01-04 & 11, 2006		Report Revision No.:	Revision 1.0
ata	Type of Evaluation:	RF Exposure SAR		FCC 47 CFR §2.1093	IC RSS-102 Issue 2

835 MHz DUT Evaluation (Body)

Celltech Labs Inc Test Result for UIM Dielectric Parameter Tue 02/May/2006 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 **** **** FCC_eB FCC_sB Test_e Test_s Freq 0.7350 55.59 0.96 54.21 0.86

0.7550	55.59	0.90	04.ZT	0.00
0.7450	55.55	0.96	53.90	0.87
0.7550	55.51	0.96	53.87	0.87
0.7650	55.47	0.96	53.75	0.88
0.7750	55.43	0.97	53.63	0.88
0.7850	55.39	0.97	53.47	0.89
0.7950	55.36	0.97	53.51	0.91
0.8050	55.32	0.97	53.32	0.92
0.8150	55.28	0.97	53.34	0.92
0.8250	55.24	0.97	53.23	0.94
0.8350	55.20	0.97	53.18	0.95
0.8450	55.17	0.98	53.10	0.96
0.8550	55.14	0.99	52.97	0.96
0.8650	55.11	1.01	52.96	0.97
0.8750	55.08	1.02	52.97	0.98
0.8850	55.05	1.03	52.81	0.98
0.8950	55.02	1.04	52.69	1.00
0.9050	55.00	1.05	52.69	1.00
0.9150	55.00	1.06	52.59	1.01
0.9250	54.98	1.06	52.34	1.02
0.9350	54.96	1.07	52.47	1.03

Company:	Itronix	Corporation	FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g	IT	RONIX®
Model:	IX325	A860IWLBT	Rugged Ta	blet PC with Dual-Band GSI	M/GPRS/ED	OGE/UMTS Modem		AL DYNAMICS COMPANY
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835 MHz System Performance Check & DUT Evaluation (Body)

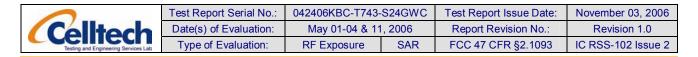
Celltech Labs Inc. Test Result for UIM Dielectric Parameter Wed 03/May/2006 Frequency (GHz) FCC_eHFCC Bulletin 65 Supplement C (June 2001) Limits for Head Epsilon FCC_sHFCC Bulletin 65 Supplement C (June 2001) Limits for Head Sigma FCC_eB FCC Limits for Body Epsilon FCC_sB FCC Limits for Body Sigma Test_e Epsilon of UIM

Test s Sigma of UIM

-				
****************	*******	********	***********	*********

0.7950 55.36	FCC_sB 0.96 0.96 0.96 0.96 0.97 0.97 0.97	53.88 53.95 53.82 53.69 53.53 53.59 53.44	Test_s 0.87 0.88 0.89 0.90 0.91 0.92 0.93 0.94
0.8050 55.32 0.8150 55.28 0.8250 55.24 0.8350 55.20 0.8450 55.17 0.8550 55.14 0.8650 55.11 0.8750 55.08 0.8850 55.05 0.8950 55.02 0.9050 55.00 0.9150 55.00 0.9250 54.98	0.97	53.35	0.94
	0.97	53.29	0.95
	0.97	53.24	0.97
	0.98	52.99	0.98
	0.99	52.73	0.99
	1.01	52.66	1.01
	1.02	52.69	1.02
	1.03	52.50	1.02
	1.04	52.41	1.03
	1.05	52.26	1.05
	1.06	52.22	1.06
	1.06	52.05	1.06

Company:	Itronix	Corporation	FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g	IT	RONIX
Model:						RAL DYNAMICS COMPANY		
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1900 MHz System Performance Check & 1880 MHz DUT Evaluation (Body)

Celltech Labs Inc. Test Result for UIM Dielectric Parameter Thu 04/May/2006 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

FCC_eB	FCC_sE	_	Test_s
53.30	1.52	51.84	1.47
53.30	1.52	51.88	1.47
53.30	1.52	51.79	1.47
	1.52	51 64	1.49
			1.51
			1.52
			1.52
			1.54
53.30	1.52	51.45	1.55
53.30	1.52	51.44	1.56
53.30	1.52	51.50	1.56
53.30	1.52	51.35	1.57
53.30	1.52	51.38	1.60
53.30	1.52	51.32	1.60
53.30	1.52	51.22	1.61
53.30	1.52	51.22	1.61
53.30	1.52	51.19	1.63
53.30	1.52	51.13	1.64
53.30	1.52	51.22	1.65
53.30	1.52	51.12	1.66
53.30	1.52	51.08	1.67
	53.30 53.30	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$

Company:	Itronix	Corporation	FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g		RONIX®
Model:						RAL DYNAMICS COMPANY		
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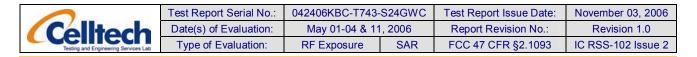


835 MHz System Performance Check & DUT Evaluation (Body)

Celltech Labs Inc. Test Result for UIM Dielectric Parameter Thu 11/May/2006 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_eBFCC_sBTest_e Test_s 0.7250 F55.50 0.005 53.54 0.955

⊢req	FCC_eB	FCC_SB	i est_e	lest_s
0.7350	55.59	0.96	53.54	0.86
0.7450	55.55	0.96	53.37	0.88
0.7550	55.51	0.96	53.35	0.88
0.7650	55.47	0.96	53.30	0.89
0.7750	55.43	0.97	53.34	0.90
0.7850	55.39	0.97	52.91	0.91
0.7950	55.36	0.97	52.73	0.92
0.8050	55.32	0.97	52.73	0.93
0.8150	55.28	0.97	52.60	0.93
0.8250	55.24	0.97	52.55	0.95
0.8350	55.20	0.97	52.68	0.95
0.8450	55.17	0.98	52.54	0.96
0.8550	55.14	0.99	52.33	0.98
0.8650	55.11	1.01	52.36	0.99
0.8750	55.08	1.02	52.10	0.99
0.8850	55.05	1.03	52.11	1.00
0.8950	55.02	1.04	51.94	1.01
0.9050	55.00	1.05	51.89	1.02
0.9150	55.00	1.06	51.75	1.03
0.9250	54.98	1.06	51.57	1.04
0.9350	54.96	1.07	51.56	1.05

Company:	any: Itronix Corporation FCC ID: KBCIX325A860IWLBT IC ID: 1943A		1943A-IX325g		RONIX	
Model:	IX325A860IWLBT Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem					AL DYNAMICS COMPANY
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1900 MHz System Performance Check & 1880 MHz DUT Evaluation (Body)

Celltech Labs Inc. Test Result for UIM Dielectric Parameter Thu 11/May/2006 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_sE	3 Test_e	Test_s
1.8000	53.30	1.52	51.51	1.38
1.8100	53.30	1.52	51.53	1.39
1.8200	53.30	1.52	51.37	1.39
1.8300	53.30	1.52	51.40	1.41
1.8400	53.30	1.52	51.24	1.41
1.8500	53.30	1.52	51.29	1.43
1.8600	53.30	1.52	51.34	1.43
1.8700	53.30	1.52	51.24	1.44
<mark>1.8800</mark>	53.30	1.52	51.21	<mark>1.46</mark>
1.8900	53.30	1.52	51.25	1.46
<mark>1.9000</mark>	53.30	1.52	51.13	1.47
1.9100	53.30	1.52	51.08	1.48
1.9200	53.30	1.52	51.19	1.49
1.9300	53.30	1.52	51.06	1.50
1.9400	53.30	1.52	51.01	1.51
1.9500	53.30	1.52	51.09	1.53
1.9600	53.30	1.52	51.08	1.53
1.9700	53.30	1.52	51.02	1.54
1.9800	53.30	1.52	50.95	1.56
1.9900	53.30	1.52	50.95	1.57
2.0000	53.30	1.52	50.90	1.58

	Company:	Itronix	Corporation	FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g	IT	RONIX [®]
	Model:	IX325	X325A860IWLBT Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem					RAL DYNAMICS COMPANY	
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	Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006
Celltech	Date(s) of Evaluation:	May 01-04 & 11	, 2006	Report Revision No.:	Revision 1.0
Testing and Engineering Services Lat:	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

APPENDIX D - SAR TEST SETUP PHOTOGRAPHS

	Company: Itronix Corporation Model: IX325A860IWLBT		FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g	IT	RONIX [®]
			A860IWLBT	Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem				
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	Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006
Celltech	Date(s) of Evaluation:	May 01-04 & 11	l, 2006	Report Revision No.:	Revision 1.0
Testing and Engineering Services Lab	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

BODY SAR TEST SETUP PHOTOGRAPHS 0.0 cm Separation Distance from Bottom of DUT to Planar Phantom AirCard 860 Antenna "Closed 180°"



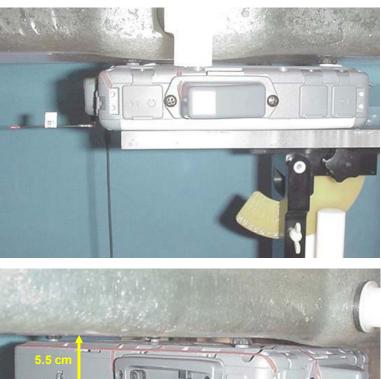


Company: Itronix Corporation Model: IX325A860IWLBT		FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g	IT	RONIX [®]
		Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem					RAL DYNAMICS COMPANY
2006 Celltech Labs Inc. This document		is not to be repro	duced in whole or in part without the	prior written p	permission of Celltech Labs	s Inc.	Page 55 of 60

	Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006
Celltech	Date(s) of Evaluation:	May 01-04 & 11	, 2006	Report Revision No.:	Revision 1.0
Testing and Engineering Services Lats	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

BODY SAR TEST SETUP PHOTOGRAPHS 0.0 cm Separation Distance from Bottom of DUT to Planar Phantom AirCard 860 Antenna "Open 180°"





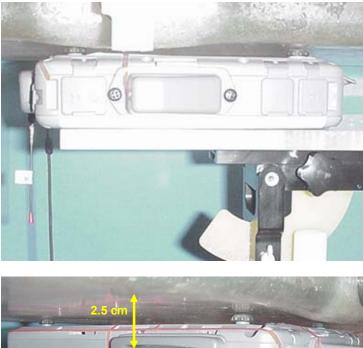


Company:	pany: Itronix Corporation		FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g		RONIX®
Model: IX325A860IWLBT		Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem					A GENERAL DYNAMICS COMPANY	
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	Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006
Celltech	Date(s) of Evaluation:	May 01-04 & 11	l, 2006	Report Revision No.:	Revision 1.0
Testing and Engineering Services Lats	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

BODY SAR TEST SETUP PHOTOGRAPHS 0.0 cm Separation Distance from Bottom of DUT to Planar Phantom AirCard 860 Antenna "Open 90°"







	Company: Itronix Corporation Model: IX325A860IWLBT		FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g		RONIX®
			Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem					AL DYNAMICS COMPANY
	2006 Celltech Labs Inc. This documen		is not to be repro	duced in whole or in part without the	e prior written p	permission of Celltech Labs	s Inc.	Page 57 of 60

Colltoch	
Testing and Engineering Services Lat:	

Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006
Date(s) of Evaluation:	May 01-04 & 11, 2006		Report Revision No.:	Revision 1.0
Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

APPENDIX E - SYSTEM VALIDATION

Company:	Itronix	Corporation	FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g	IT	RONIX [®]
Model: IX325A860IWLBT		Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem					RAL DYNAMICS COMPANY	
2006 Celltech Labs Inc. This documen		is not to be repro	duced in whole or in part without the	prior written p	permission of Celltech Labs	s Inc.	Page 58 of 60	

	Date of Evaluation:	March 27, 2006	Document Serial No.:	SV835B-03	2706-R1
Celltech Testing and Engineering Services Lat	Evaluation Type:	System Validation	Validation Dipole:	835 MHz	Body

835 MHz SYSTEM VALIDATION DIPOLE

Туре:	835 MHz Validation Dipole
Asset Number:	00022
Serial Number:	411
Place of Validation:	Celltech Labs Inc.
Date of Validation:	March 27, 2006

Celltech Labs Inc. hereby certifies that the 835 MHz System Validation (Body) was performed on the date indicated above.

Performed by: Sean Johnston
Approved by: Spencer Watson

Celltech Labs Inc. 1955 Moss Court, Kelowna, B.C. Canada V1Y 9L3 Tel. 250-448-7047 • Fax. 250-448-7046 • e-mail: info@celltechlabs.com www.celltechlabs.com

	Date of Evaluation:	March 27, 2006	Document Serial No.:	SV835B-032706-R1	
Celltech Testing and Engineering Services Lat	Evaluation Type:	System Validation	Validation Dipole:	835 MHz	Body

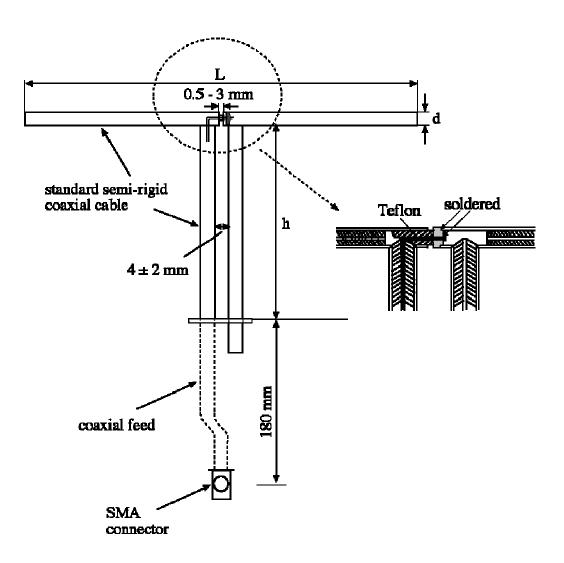
1. Validation Dipole Construction & Electrical Characteristics

The validation dipole was constructed in accordance with the IEEE Standard "Annex G (informative) Reference dipoles for use in system validation". The electrical properties were measured using an HP 8753ET Network Analyzer. The network analyzer was calibrated to the validation dipole N-type connector feed point using an HP85032E Type N calibration kit. The dipole was placed parallel to a planar phantom at a separation distance of 15.0mm from the simulating fluid using a loss-less dielectric spacer. The measured input impedance is:

Feed point impedance at 835MHz	Re{Z} = 47.627Ω
	lm{Z} = -0.67188Ω

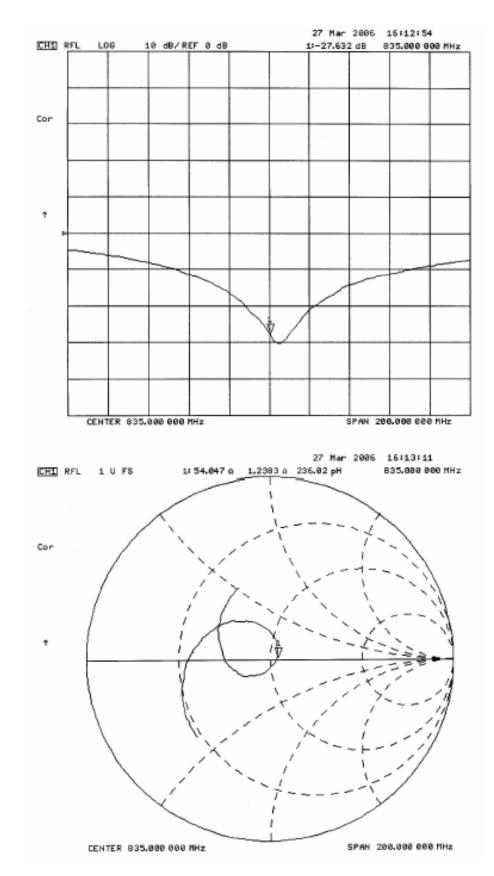
Return Loss at 835MHz

-31.954dB



	Date of Evaluation:	March 27, 2006	Document Serial No.:	SV835B-032706-R1	
Celltech Testing and Engineering Services Lat	Evaluation Type:	System Validation	Validation Dipole:	835 MHz	Body

2. Validation Dipole VSWR Data



Cilliante	Date of Evaluation:	March 27, 2006	Document Serial No.:	SV835B-032706-R1	
Celltech Testing and Engineering Services Lat	Evaluation Type:	System Validation	Validation Dipole:	835 MHz	Body

3. Validation Dipole Dimensions

Frequency (MHz)	L (mm)	h (mm)	d (mm)
300	420.0	250.0	6.2
450	288.0	167.0	6.2
835	161.0	89.8	3.6
900	149.0	83.3	3.6
1450	89.1	51.7	3.6
1800	72.0	41.7	3.6
1900	68.0	39.5	3.6
2000	64.5	37.5	3.6
2450	51.8	30.6	3.6
3000	41.5	25.0	3.6

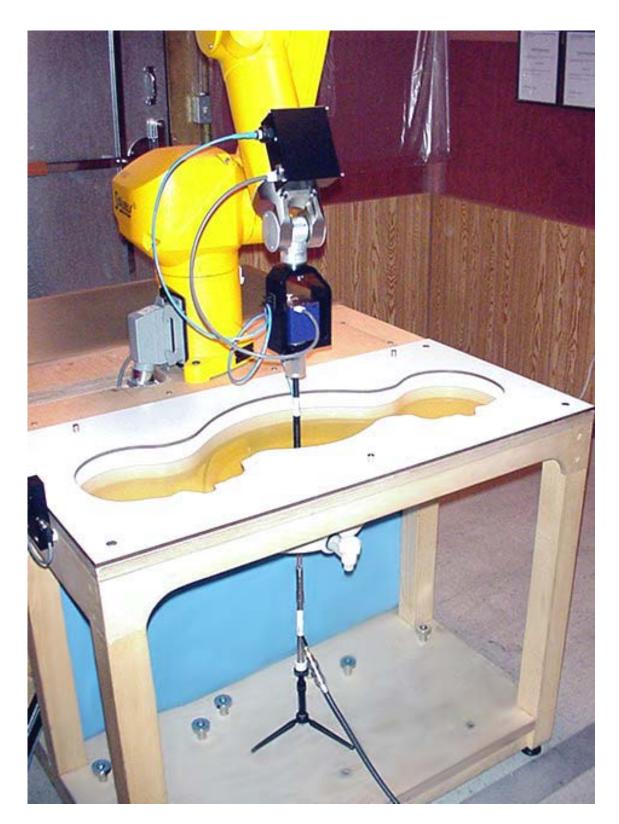
4. Validation Phantom

The validation phantom is the SAM (Specific Anthropomorphic Mannequin) phantom manufactured by Schmid & Partner Engineering AG. The SAM phantom is a Fiberglass shell integrated in a wooden table. The shape of the shell corresponds to the phantom defined by SCC34-SC2. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents evaporation of the liquid. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by manually teaching three points in the robot.

Shell Thickness:	2.0 ± 0.1 mm
Filling Volume:	Approx. 25 liters
Dimensions:	50 cm (W) x 100 cm (L)

	Date of Evaluation:	March 27, 2006	Document Serial No.:	SV835B-032706-R1	
Celltech Testing and Engineering Services Lat	Evaluation Type:	System Validation	Validation Dipole:	835 MHz	Body

5. 835 MHz System Validation Setup



	Date of Evaluation:	March 27, 2006	Document Serial No.:	SV835B-032706-R1	
Celltech Testing and Engineering Services Lat	Evaluation Type:	System Validation	Validation Dipole:	835 MHz	Body

6. 835 MHz Validation Dipole Setup



	Date of Evaluation:	March 27, 2006	Document Serial No.:	SV835B-032706-R1	
Celltech Testing and Engineering Services Lat	Evaluation Type:	System Validation	Validation Dipole:	835 MHz	Body

7. Measurement Conditions

The SAM phantom was filled with 835 MHz body tissue simulant with the following parameters:

Relative Permittivity:	53.7 (-2.7% from target)
Conductivity:	0.94 mho/m (-3% from target)
Fluid Temperature:	20.8 °C
Fluid Depth:	≥ 15.0 cm
Environmental Conditio	ns:
Ambient Temperature:	22.6 °C
Barometric Pressure:	101.8 kPa
Humidity:	30 %

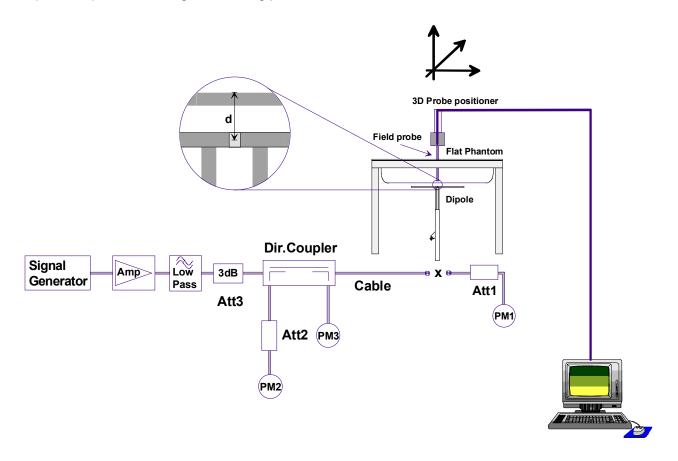
The 835 MHz body tissue simulant consisted of the following ingredients:

Ingredient	Percentage by weight
Water	53.79%
Sugar	45.13%
Salt	0.98%
Dowicil 75	0.10%
Target Dielectric Parameters at 22 °C	ε _r = 55.2 (+/- 5%) σ = 0.97 S/m (+/- 5%)

	Date of Evaluation:	March 27, 2006	Document Serial No.:	SV835B-032706-R1	
Celltech Testra and Engineering Services Lat	Evaluation Type:	System Validation	Validation Dipole:	835 MHz	Body

8. SAR Measurement

Measurements were made at the planar section of the SAM phantom using a dosimetric E-field probe ET3DV5 (S/N: 1590, conversion factor 6.47). The SAR measurement was performed with the E-field probe in mechanical detection mode only. The setup and determination of the forward power into the dipole was performed using the following procedures.



First the power meter PM1 (including attenuator Att1) is connected to the cable to measure the forward power at the location of the dipole connector (X). The signal generator is adjusted for the desired forward power at the dipole connector (taking into account the attenuation of Att1) as read by power meter PM2. After connecting the cable to the dipole, the signal generator is readjusted for the same reading at power meter PM2. If the signal generator does not allow adjustment in 0.01dB steps, the remaining difference at PM2 must be taken into consideration. PM3 records the reflected power from the dipole to ensure that the value is not changed from the previous value. The reflected power should be 20dB below the forward power.



Date of Evaluation:	March 27, 2006	Document Serial No.:	SV835B-03	2706-R1
Evaluation Type:	System Validation	Validation Dipole:	835 MHz	Body

9. Validation Dipole SAR Test Results

Ten SAR measurements were performed in order to achieve repeatability and to establish an average target value (W/kg).

Validation Measurement	SAR @ 0.25W Input averaged over 1g	SAR @ 1W Input averaged over 1g	SAR @ 0.25W Input averaged over 10g	SAR @ 1W Input averaged over 10g	Max SAR @ 0.25W Input
Test 1	2.46	9.84	1.62	6.48	2.65
Test 2	2.46	9.84	1.62	6.48	2.66
Test 3	2.46	9.84	1.62	6.48	2.67
Test 4	2.47	9.88	1.62	6.48	2.68
Test 5	2.43	9.72	1.60	6.40	2.64
Test 6	2.43	9.72	1.59	6.36	2.63
Test 7	2.42	9.68	1.59	6.36	2.59
Test 8	2.46	9.84	1.62	6.48	2.64
Test 9	2.47	9.88	1.62	6.48	2.65
Test10	2.45	9.80	1.62	6.48	2.61
Average SAR	2.451	9.804	1.612	6.448	2.642

@ 1 W averag	arget SAR /att Input ged over n (W/kg)	Measured SAR @ 1 Watt Input averaged over 1 gram (W/kg)	Deviation from Target (%)	@ 1 Wa averag	rget SAR att Input ed over s (W/kg)	Measured SAR @ 1 Watt Input averaged over 10 grams (W/kg)	Deviation from Target (%)
9.71	+/- 10%	9.804	+1.0%	6.38	+/- 10%	6.448	+1.1%

Dipole	Distance	Frequency	SAR $(1g)$	SAR (10g)	SAR (peak)
Type	[mm]	[MHz]	[W/kg]	[W/kg]	[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.

	Date of Evaluation:	March 27, 2006	Document Serial No.:	SV835B-03	2706-R1
Celltech Testing and Engineering Services Lat	Evaluation Type:	System Validation	Validation Dipole:	835 MHz	Body

835 MHz Dipole System Validation (Body) - March 27, 2006

DUT: Dipole 835 MHz; Model: D835V2; Serial: 411; Calibrated: 03/27/2006 Ambient Temp: 22.6 °C; Fluid Temp: 20.8 °C; Barometric Pressure: 101.8 kPa; Humidity: 30% Communication System: CW Frequency: 835 MHz; Duty Cycle: 1:1

Medium: M835 (σ = 0.94 mho/m; ϵ_r = 53.7; ρ = 1000 kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(6.47, 6.47, 6.47); Calibrated: 20/05/2005

- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)

- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: SAM 4.0; Type: Fiberglas; Serial: 1033
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

835 MHz Dipole System Validation/Area Scan (6x10x1): Measurement grid: dx=10mm, dy=10mm

835 MHz Dipole System Validation/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 55.0 V/m; Power Drift = 0.027 dB SAR(1 g) = 2.46 mW/g; SAR(10 g) = 1.62 mW/g Maximum value of SAR (measured) = 2.65 mW/g

835 MHz Dipole System Validation/Zoom Scan 3 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 54.8 V/m; Power Drift = 0.029 dB SAR(1 g) = 2.46 mW/g; SAR(10 g) = 1.62 mW/g Maximum value of SAR (measured) = 2.66 mW/g

835 MHz Dipole System Validation/Zoom Scan 4 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 54.5 V/m; Power Drift = 0.075 dB SAR(1 g) = 2.46 mW/g; SAR(10 g) = 1.62 mW/g Maximum value of SAR (measured) = 2.67 mW/g

835 MHz Dipole System Validation/Zoom Scan 5 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 54.9 V/m; Power Drift = 0.010 dB SAR(1 g) = 2.47 mW/g; SAR(10 g) = 1.62 mW/g Maximum value of SAR (measured) = 2.68 mW/g

835 MHz Dipole System Validation/Zoom Scan 6 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 55.0 V/m; Power Drift = -0.087 dB SAR(1 g) = 2.43 mW/g; SAR(10 g) = 1.6 mW/g Maximum value of SAR (measured) = 2.64 mW/g

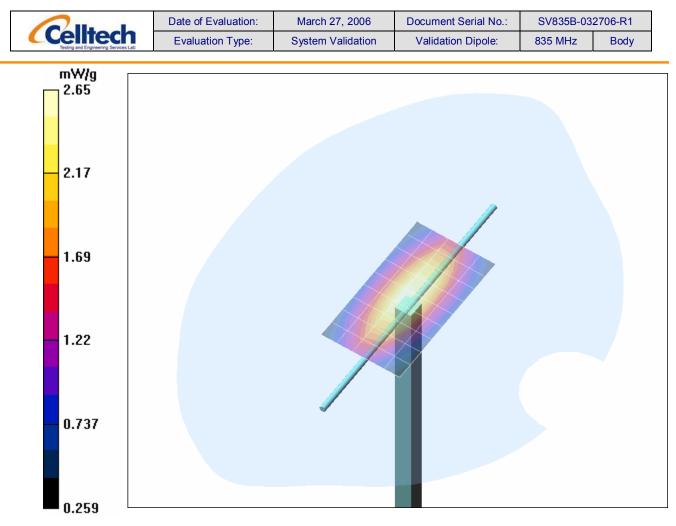
835 MHz Dipole System Validation/Zoom Scan 7 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 54.6 V/m; Power Drift = -0.017 dB SAR(1 g) = 2.43 mW/g; SAR(10 g) = 1.59 mW/g Maximum value of SAR (measured) = 2.63 mW/g

835 MHz Dipole System Validation/Zoom Scan 8 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 54.1 V/m; Power Drift = -0.023 dB SAR(1 g) = 2.42 mW/g; SAR(10 g) = 1.59 mW/g Maximum value of SAR (measured) = 2.59 mW/g

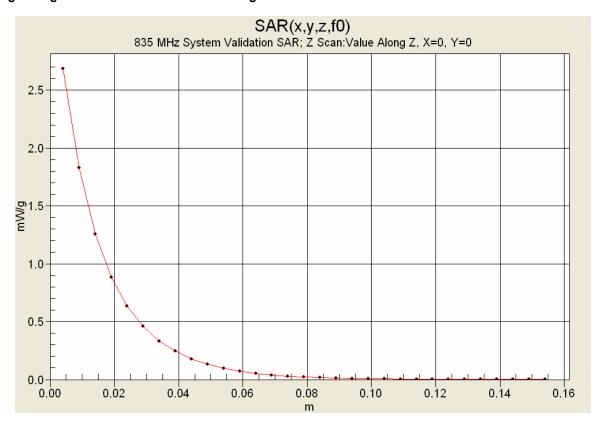
835 MHz Dipole System Validation/Zoom Scan 9 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 54.6 V/m; Power Drift = -0.004 dB SAR(1 g) = 2.46 mW/g; SAR(10 g) = 1.62 mW/g Maximum value of SAR (measured) = 2.64 mW/g

835 MHz Dipole System Validation/Zoom Scan 10 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 54.5 V/m; Power Drift = 0.012 dB SAR(1 g) = 2.47 mW/g; SAR(10 g) = 1.62 mW/g Maximum value of SAR (measured) = 2.65 mW/g

835 MHz Dipole System Validation/Zoom Scan 11 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 54.5 V/m; Power Drift = -0.005 dB SAR(1 g) = 2.45 mW/g; SAR(10 g) = 1.62 mW/g Maximum value of SAR (measured) = 2.61 mW/g



1 g average of 10 measurements: 2.451 mW/g 10 g average of 10 measurements: 1.612 mW/g



	Date of Evaluation:	March 27, 2006	Document Serial No.:	SV835B-03	2706-R1
Celltech Testing and Engineering Services Lat	Evaluation Type:	System Validation	Validation Dipole:	835 MHz	Body

10. Measured Fluid Dielectric Parameters

835 MHz System Validation (Body)

Celltech Labs Inc. Test Result for UIM Dielectric Parameter Mon 27/Mar/2006 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 0.7350 55.59 0.96 54.23 0.86 0.7450 55.55 0.96 54.00 0.87 0.7550 55.51 0.96 54.00 0.88 0.7650 55.47 0.96 54.04 0.89 0.7750 55.43 0.97 53.97 0.90

0.1100	00.10	0.07	00.07	0.00	
0.7850	55.39	0.97	54.01	0.90	
0.7950	55.36	0.97	53.96	0.91	
0.8050	55.32	0.97	53.85	0.92	
0.8150	55.28	0.97	53.79	0.93	
0.8250	55.24	0.97	53.69	0.94	
0.8350	55.20	0.97	53.68	0.94	
0.8450	55.17	0.98	53.35	0.95	
0.8550	55.14	0.99	53.18	0.96	
0.8650	55.11	1.01	53.25	0.98	
0.8750	55.08	1.02	53.26	0.98	
0.8850	55.05	1.03	53.11	0.99	
0.8950	55.02	1.04	53.11	1.00	
0.9050	55.00	1.05	52.96	1.01	
0.9150	55.00	1.06	52.91	1.02	
0.9250	54.98	1.06	52.93	1.03	

54.96

1.07

52.58 1.03

0.9350

	Date of Evaluation:	April 25, 2006	Document Serial No.:	SV1900B-04	12506-R0
Celltech Testing and Engineering Services Lat	Evaluation Type:	System Validation	Validation Dipole:	1900 MHz	Body

1900 MHz SYSTEM VALIDATION DIPOLE

Туре:	1900 MHz Validation Dipole
Asset Number:	00032
Serial Number:	151
Place of Validation:	Celltech Labs Inc.
Date of Validation:	April 25, 2006

Celltech Labs Inc. hereby certifies that the 1900 MHz System Validation (Body) was performed on the date indicated above.

Performed by:

Sean Johnston

Approved by:

Spencer Watson

Celltech Labs Inc. 1955 Moss Court, Kelowna, B.C. Canada V1Y 9L3 Tel. 250-448-7047 • Fax. 250-448-7046 • e-mail: info@celltechlabs.com www.celltechlabs.com

	Date of Evaluation:	April 25, 2006	Document Serial No.:	SV1900B-04	2506-R0
Testing and Engineering Services Lak	Evaluation Type:	System Validation	Validation Dipole:	1900 MHz	Body

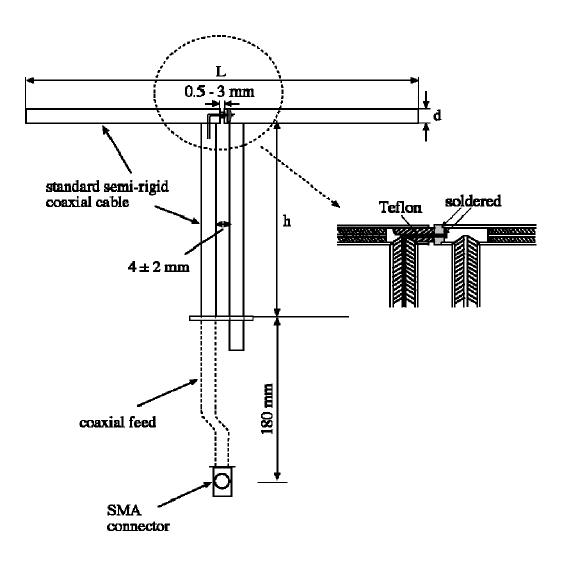
1. Dipole Construction & Electrical Characteristics

The validation dipole was constructed in accordance with the IEEE Standard "Annex G (informative) Reference dipoles for use in system validation". The electrical properties were measured using an HP 8753E Network Analyzer. The network analyzer was calibrated to the validation dipole N-type connector feed point using an HP85032E Type N calibration kit. The dipole was placed parallel to a planar phantom at a separation distance of 10.0mm from the simulating fluid using a loss-less dielectric spacer. The measured input impedance is:

Feed point impedance at 1900MHz	Re{Z} = 48.715Ω
	lm{Z} = 9.412Ω

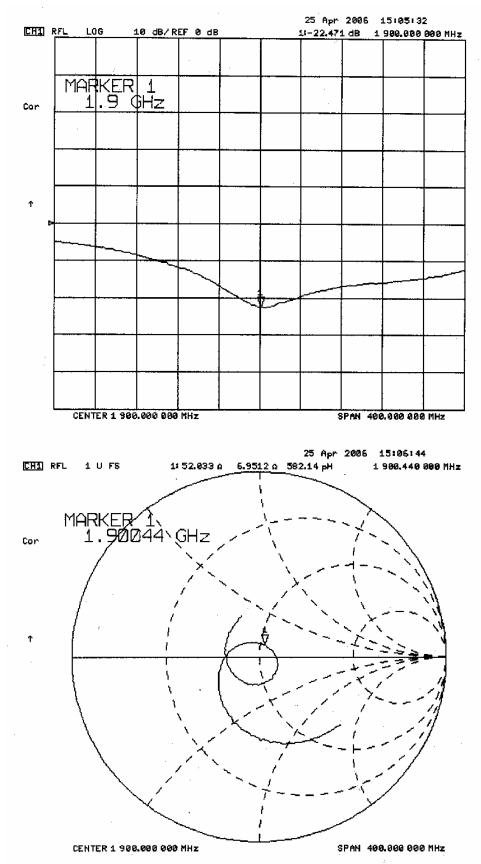
Return Loss at 1900MHz

-20.371dB



Celltech	Date of Evaluation:	April 25, 2006	Document Serial No.:	SV1900B-042506-R0	
	Evaluation Type:	System Validation	Validation Dipole:	1900 MHz	Body

2. Validation Dipole VSWR Data



	Date of Evaluation:	April 25, 2006	Document Serial No.:	SV1900B-042506-R0	
Celltech Testing and Engineering Services Lak	Evaluation Type:	System Validation	Validation Dipole:	1900 MHz	Body

3. Validation Dipole Dimensions

Frequency (MHz)	L (mm)	h (mm)	d (mm)
300	420.0	250.0	6.2
450	288.0	167.0	6.2
835	161.0	89.8	3.6
900	149.0	83.3	3.6
1450	89.1	51.7	3.6
1800	72.0	41.7	3.6
1900	68.0	39.5	3.6
2000	64.5	37.5	3.6
2450	51.8	30.6	3.6
3000	41.5	25.0	3.6

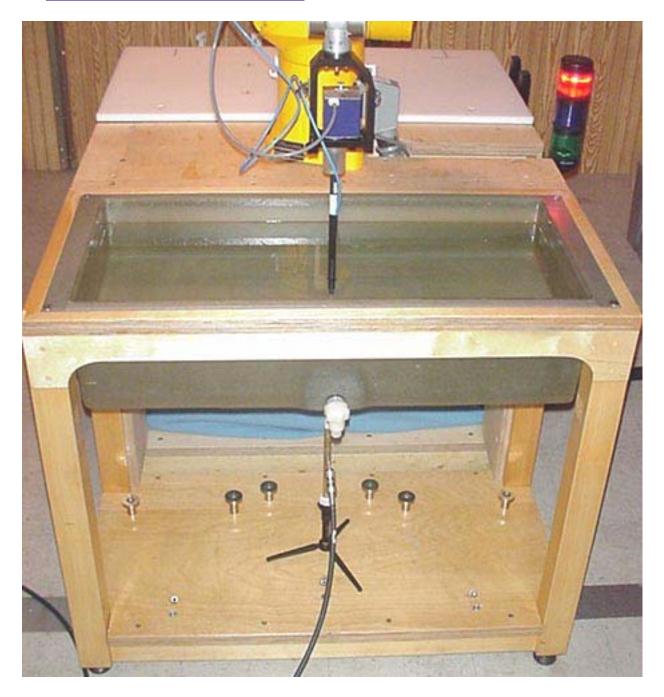
4. Validation Phantom

The validation phantom is a Fiberglass shell planar phantom manufactured by Barski Industries Ltd. The phantom is in conformance with the requirements defined by IEEE SCC34-SC2 for the dosimetric evaluations of body-worn and lap-held operating configurations. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids.

Shell Thickness:	2.0 ± 0.1 mm
Filling Volume:	Approx. 72 liters
Dimensions:	(L) 94 cm x (W) 44 cm x (H) 22 cm

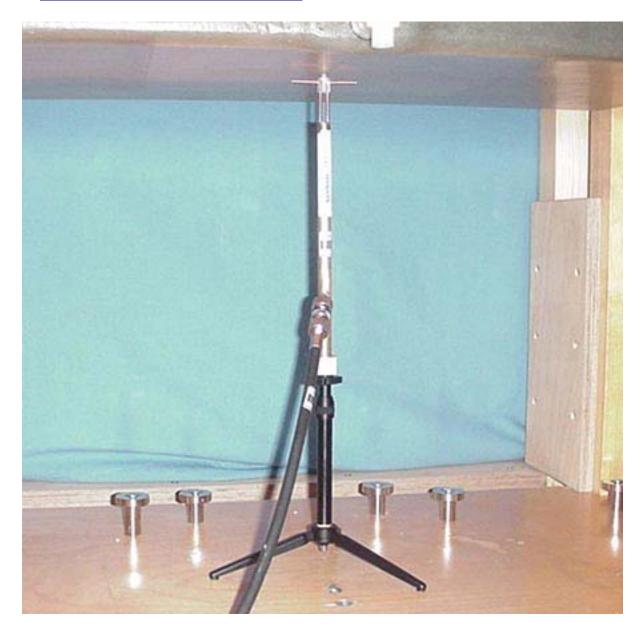
Celltech Testg and Engineering Sorvices Lat	Date of Evaluation:	April 25, 2006	Document Serial No.:	SV1900B-042506-R0	
	Evaluation Type:	System Validation	Validation Dipole:	1900 MHz	Body

5. 1900 MHz System Validation Setup



Celltech Tetra and Engineering Services Lat	Date of Evaluation:	April 25, 2006 Document Serial No.:		SV1900B-042506-R0	
	Evaluation Type:	System Validation	Validation Dipole:	1900 MHz	Body

6. 1900 MHz System Validation Dipole



	Date of Evaluation:	April 25, 2006	Document Serial No.:	SV1900B-042506-R0	
Celltech Testra and Engineering Services Lat	Evaluation Type:	System Validation	Validation Dipole:	1900 MHz	Body

7. Measurement Conditions

The phantom was filled with 1900 MHz Body tissue simulant:

Relative Permittivity: Conductivity: Fluid Temperature: Fluid Depth:	51.2 (-3.9% from target) 1.57 mho/m (+3.3% from target) 23.5 °C ≥ 15.0 cm
Environmental Conditio	ns:
Ambient Temperature:	24.1 °C
Barometric Pressure:	101.6 kPa
Humidity:	31%

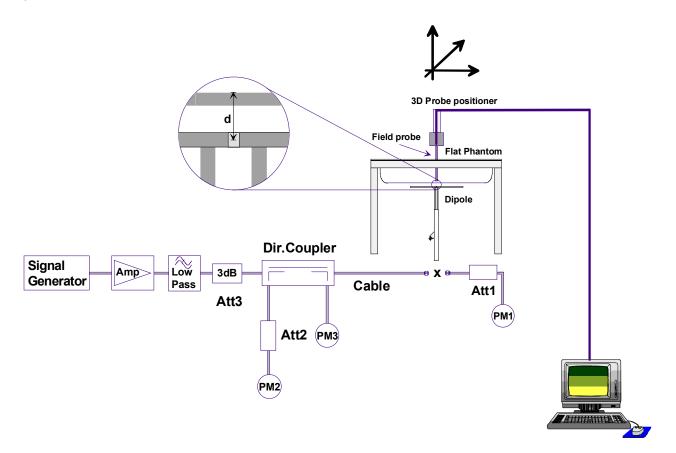
The 1900 MHz Body tissue simulant consisted of the following ingredients:

Ingredient	Percentage by weight
Water	69.85%
Glycol	29.89%
Salt	0.26%
Target Dielectric Parameters at 22 °C	ε _r = 53.3 (+/- 5%) σ = 1.52 S/m (+/- 5%)

	Date of Evaluation:	April 25, 2006 Document Serial No.:		SV1900B-042506-R0	
Testing and Engineering Services Lat	Evaluation Type:	System Validation	Validation Dipole:	1900 MHz	Body

8. SAR Measurement

Measurements were made using a dosimetric E-field probe ET3DV6 (S/N: 1590, conversion factor 4.85). The SAR measurement was performed with the E-field probe in mechanical detection mode only. The setup and determination of the forward power into the dipole was performed using the following procedures.



First the power meter PM1 (including attenuator Att1) is connected to the cable to measure the forward power at the location of the dipole connector (X). The signal generator is adjusted for the desired forward power at the dipole connector (taking into account the attenuation of Att1) as read by power meter PM2. After connecting the cable to the dipole, the signal generator is readjusted for the same reading at power meter PM2. If the signal generator does not allow adjustment in 0.01dB steps, the remaining difference at PM2 must be taken into consideration. PM3 records the reflected power from the dipole to ensure that the value is not changed from the previous value. The reflected power should be 50dB below the forward power.

	Date of Evaluation:	April 25, 2006	Document Serial No.:	SV1900B-042506-R0	
Celltech Testing and Engineering Services Lat	Evaluation Type:	System Validation	Validation Dipole:	1900 MHz	Body

9. Validation Dipole SAR Test Results

Ten SAR measurements were performed in order to achieve repeatability and to establish an average target value.

Validation Measurement	SAR @ 0.25W Input averaged over 1g	SAR @ 1W Input averaged over 1g	SAR @ 0.25W Input averaged over 10g	SAR @ 1W Input averaged over 10g	Peak SAR @ 0.25W Input
Test 1	10.5	42.00	5.53	22.12	11.8
Test 2	10.4	41.60	5.53	22.12	11.7
Test 3	10.3	41.20	5.44	21.76	11.6
Test 4	10.5	42.00	5.53	22.12	11.6
Test 5	10.5	42.00	5.54	22.16	11.7
Test 6	10.4	41.60	5.47	21.88	11.6
Test 7	10.5	42.00	5.54	22.16	11.7
Test 8	10.2	40.80	5.39	21.56	11.4
Test 9	10.2	40.80	5.39	21.56	11.4
Test 10	10.5	42.00	5.54	22.16	11.7
Average	10.40	41.60	5.49	21.96	11.62

The results have been normalized to 1W (forward power) into the dipole.

Target SAR		Measured SAR	Deviation	Target SAR		Measured SAR	Deviation
@ 1 Watt Input		@ 1 Watt Input	from	@ 1 Watt Input		@ 1 Watt Input	from
averaged over		averaged over	Target	averaged over		averaged over	Target
1 gram (W/kg)		1 gram (W/kg)	(%)	10 grams (W/kg)		10 grams (W/kg)	(%)
39.8	+/- 10%	41.60	+4.52	20.8	+/- 10%	21.96	+5.58

Dipole	Distance	Frequency	SAR (1g)	SAR (10g)	SAR (peak)
Type	[mm]	[MHz]	[W/kg]	[W/kg]	[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.

	Date of Evaluation:	ation: April 25, 2006 Document Serial No.: SV1900B-0	42506-R0		
Celltech Testing and Engineering Services Lat	Evaluation Type:	System Validation	Validation Dipole:	1900 MHz	Body

System Validation (Body) - 1900 MHz Dipole - April 25, 2006

DUT: Dipole 1900 MHz; Model: D1900V2; Serial: 151; Validation: 04/25/2006

Ambient Temp: 24.1 °C; Fluid Temp: 23.5 °C; Barometric Pressure: 101.6 kPa; Humidity: 31% Communication System: CW

Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: M1900 (σ = 1.57 mho/m; ϵ_r = 51.2; ρ = 1000 kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(4.85, 4.85, 4.85); Calibrated: 20/05/2005

- Sensor-Surface: 4mm (Mechanical Surface Detection)

- Electronics: DAE4 Sn353; Calibrated: 15/06/2005

- Phantom: Barski Industries; Type: Fiberglas Planar; Serial: 03-01

- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

1900 MHz Dipole - System Validation/Area Scan (5x8x1): Measurement grid: dx=15mm, dy=15mm

1900 MHz Dipole - System Validation/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 89.3 V/m; Power Drift = 0.002 dB **SAR(1 g) = 10.5 mW/g; SAR(10 g) = 5.53 mW/g** Maximum value of SAR (measured) = 11.8 mW/g

1900 MHz Dipole - System Validation/Zoom Scan 2 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 89.0 V/m; Power Drift = 0.027 dB SAR(1 g) = 10.4 mW/g; SAR(10 g) = 5.53 mW/g Maximum value of SAR (measured) = 11.7 mW/g

1900 MHz Dipole - System Validation/Zoom Scan 3 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 88.4 V/m; Power Drift = -0.026 dB SAR(1 g) = 10.3 mW/g; SAR(10 g) = 5.44 mW/g Maximum value of SAR (measured) = 11.6 mW/g

1900 MHz Dipole - System Validation/Zoom Scan 4 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 87.3 V/m; Power Drift = -0.060 dB SAR(1 g) = 10.5 mW/g; SAR(10 g) = 5.53 mW/g Maximum value of SAR (measured) = 11.6 mW/g

1900 MHz Dipole - System Validation/Zoom Scan 5 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 87.3 V/m; Power Drift = -0.033 dB **SAR(1 g) = 10.5 mW/g; SAR(10 g) = 5.54 mW/g** Maximum value of SAR (measured) = 11.7 mW/g

1900 MHz Dipole - System Validation/Zoom Scan 6 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 86.6 V/m; Power Drift = -0.060 dB SAR(1 g) = 10.4 mW/g; SAR(10 g) = 5.47 mW/g Maximum value of SAR (measured) = 11.6 mW/g

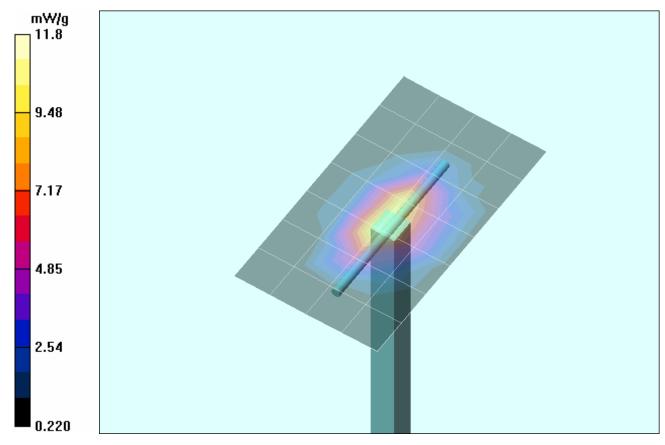
1900 MHz Dipole - System Validation/Zoom Scan 7 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 86.9 V/m; Power Drift = 0.041 dB SAR(1 g) = 10.5 mW/g; SAR(10 g) = 5.54 mW/g Maximum value of SAR (measured) = 11.7 mW/g

1900 MHz Dipole - System Validation/Zoom Scan 8 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 86.0 V/m; Power Drift = -0.074 dB SAR(1 g) = 10.2 mW/g; SAR(10 g) = 5.39 mW/g Maximum value of SAR (measured) = 11.4 mW/g

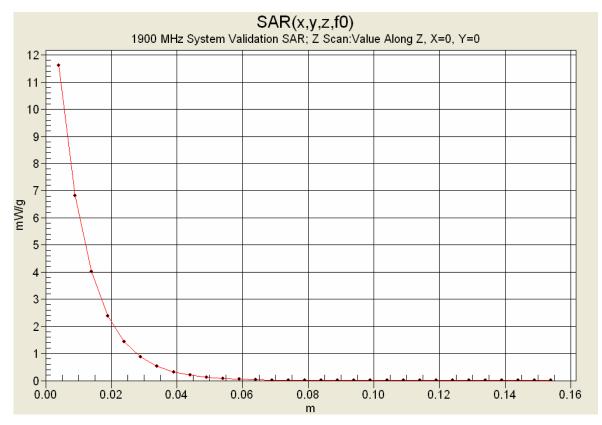
1900 MHz Dipole - System Validation/Zoom Scan 9 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 86.0 V/m; Power Drift = -0.051 dB **SAR(1 g) = 10.2 mW/g; SAR(10 g) = 5.39 mW/g** Maximum value of SAR (measured) = 11.4 mW/g

1900 MHz Dipole - System Validation/Zoom Scan 10 (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 87.0 V/m; Power Drift = -0.056 dB **SAR(1 g) = 10.5 mW/g; SAR(10 g) = 5.54 mW/g** Maximum value of SAR (measured) = 11.7 mW/g





1 g average of 10 measurements: 10.40 mW/g 10 g average of 10 measurements: 5.49 mW/g





10. Measured Fluid Dielectric Parameters

1900 MHz System Validation (Body)

Celltech Labs Inc. Test Result for UIM Dielectric Parameter Tue 25/Apr/2006 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 ***** FCC_eB FCC_sB Test_e Test_s Freq 1.8000 53.30 1.52 51.68 1.46 53.30 1.52 51.51 1.48 1.8100

1.0100	55.50	1.52	51.51	1.40	
1.8200	53.30	1.52	51.45	1.49	
1.8300	53.30	1.52	51.50	1.50	
1.8400	53.30	1.52	51.34	1.50	
1.8500	53.30	1.52	51.27	1.52	
1.8600	53.30	1.52	51.21	1.53	
1.8700	53.30	1.52	51.33	1.54	
1.8800	53.30	1.52	51.22	1.55	
1.8900	53.30	1.52	51.18	1.56	
<mark>1.9000</mark>	53.30	1.52	51.20	1.57	
1.9100	53.30	1.52	51.09	1.58	
1.9200	53.30	1.52	51.18	1.59	
1.9300	53.30	1.52	51.10	1.62	
1.9400	53.30	1.52	50.95	1.62	
1.9500	53.30	1.52	50.95	1.63	
1.9600	53.30	1.52	50.91	1.64	
1.9700	53.30	1.52	50.88	1.65	
1.9800	53.30	1.52	50.81	1.67	
1.9900	53.30	1.52	50.79	1.68	
2.0000	53.30	1.52	50.66	1.70	

	Test Report Serial No.:	042406KBC-T743-	S24GWC	Test Report Issue Date:	November 03, 2006
Celltech	Date(s) of Evaluation:	uation: May 01-04 & 11, 2006		Report Revision No.:	Revision 1.0
Testing and Engineering Services Lat:	Type of Evaluation:	RF Exposure	SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

APPENDIX G - PLANAR PHANTOM CERTIFICATE OF CONFORMITY

Company:	Company: Itronix Corporation		FCC ID:	KBCIX325A860IWLBT	IC ID:	1943A-IX325g	IT	RONIX®
Model: IX325A860IWLBT		Rugged Tablet PC with Dual-Band GSM/GPRS/EDGE/UMTS Modem					A GENERAL DYNAMICS COMPANY	
2006 Celltech Labs Inc.		This document	is not to be repro	duced in whole or in part without the	prior written p	permission of Celltech Labs	s Inc.	Page 60 of 60

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



Ph. # 250-769-6848 Fax # 250-769-6334 E-mail: <u>barskiind@shaw.ca</u> 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)

