DECLARATION OF COMPLIANCE		SAR RF EXPOSURE EVALUATION				FCC & IC
Test Lab Information	**Name**	**CELLTECH LABS INC.**				
	Address	21-364 Lougheed Road, Kelowna, B.C. V1X 7R8 Canada				
Test Lab Accreditation(s)	**ISO 17025**	A2LA Test Lab Certificate No. 2470.01				
Applicant Information	**Name**	**HARRIS CORPORATION**				
	Address	221 Jefferson Ridge Parkway, Lynchburg, VA 24501 U.S.A.				
Standard(s) Applied	**FCC**	47 CFR §2.1093				
	IC	Health Canada Safety Code 6				
Procedure(s) Applied	**FCC**	OET Bulletin 65, Supp. C	KDB 447498 D01v05	KDB 643646 D01v01r01		
	IC	RSS-102 Issue 4	**IEEE**	1528-2003	**IEC**	62209-2:2010
Device Classification(s)	**FCC**	Licensed Non-Broadcast Transmitter Held to Face (TNF) - FCC Part 90				
	IC	Land Mobile Radio Transmitter/Receiver (27.41-960 MHz) - RSS-119				
Device Identifier(s)	**FCC ID:**	OWDTR-0109-E	**IC:**	3636B-0109		
Date of Sample Receipt	May 28, 2013					
Dates of Evaluation	May 30, 31, June 3, 4 ,5 ,6 & 7, 2013					
Device Description	Portable UHF Band Digital Push-To-Talk (PTT) Radio Transceiver with Bluetooth					
Device Name / Model(s)	XG-25P UHF-L System	Model: DPXG-PFU1B	P/N: 14011-0030-01	DTMF Keypad		
	XG-25P UHF-L Scan	Model: DPXG-PFU1B	P/N: 14011-0030-02	Limited Keypad		
Test Sample Serial No.(s)	XG-25P System - S/N: 25 (identical prototype)	XG-25P Scan - S/N: 50 (identical prototype)				
Test Sample Revision No.s	**Hardware**	n/a	**Firmware**	P02A10		
Transmit Frequency Range(s)	**FCC**	406.1 – 470.0 MHz				
	IC	406.1 – 430.0; 450.0 – 470.0 MHz				
Manufacturer's Rated Output Power	5.0 W (5.3 W max.)					
Co-located Transmitter(s)	Bluetooth (Class 2)	Output Power: 1.0 mW	Freq. Range: 2402-2480 MHz			
Antenna Type(s) Tested	See manufacturer's accessory listing (Section 5.0)					
Battery Type(s) Tested	See manufacturer's accessory listing (Section 5.0)					
Body-worn Accessories Tested	See manufacturer's accessory listing (Section 5.0)					
Audio Accessories Tested	See manufacturer's accessory listing (Section 5.0)					
Max. SAR Level(s) Evaluated	Face-held (FCC)	**1.94 W/kg**	1g	50% PTT duty factor	Occupational / Controlled Exposure	
	Face-Held (IC)	**2.10 W/kg**	1g	50% PTT duty factor	Occupational / Controlled Exposure	
	Body-worn	**5.13 W/kg**	1g	50% PTT duty factor	Occupational / Controlled Exposure	
FCC/IC Spatial Peak SAR Limit	Head/Body	8.0 W/kg	1g	50% PTT duty factor	Occupational / Controlled Exposure	

Celltech Labs Inc. declares under its sole responsibility that this wireless portable device has demonstrated compliance with the Specific Absorption Rate (SAR) RF exposure requirements specified in FCC 47 CFR §2.1093 and Health Canada Safety Code 6 for the Occupational / Controlled Exposure environment. The device was tested in accordance with the measurement procedures specified in FCC OET Bulletin 65, Supplement C (Edition 01-01), Industry Canada RSS-102 Issue 4, IEEE Standard 1528-2003 and IEC International Standard 62209-2:2010. 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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The results and statements contained in this report pertain only to the device(s) evaluated.

Test Report Approved By		**Mike Meaker**	**Engineering Technologist**	**Celltech Labs Inc.**

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REVISION HISTORY			
REVISION NO.	**DESCRIPTION**	**IMPLEMENTED BY**	**RELEASE DATE**
1.0	1st Release	Mike Meaker	Jun. 14, 2013

TEST REPORT SIGN-OFF			
DEVICE TESTED BY	**REPORT PREPARED BY**	**QA REVIEW BY**	**REPORT APPROVED BY**
Mike Meaker	Cheri Frangiadakis	Mike Meaker	Mike Meaker

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1.0 INTRODUCTION

This measurement report demonstrates that the HARRIS Corporation XG-25P UHF-L Portable PTT Radio Transceiver with Bluetooth 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 Occupational / Controlled Exposure environment. The measurement procedures described in FCC OET Bulletin 65, Supplement C 01-01 (see reference [3]), IC RSS-102 Issue 4 (see reference [4]), IEEE Standard 1528-2003 (see reference [5]) and IEC 62209-2:2010 (see reference [6]) were employed. A description of the device, operating configuration, detailed summary of the test results, methodology and procedures used in the evaluation, equipment used and the various provisions of the rules are included within this test report.

2.0 SAR MEASUREMENT SYSTEM

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

DASY4 Measurement System with Barski Planar Phantom

3.0 RF CONDUCTED OUTPUT POWER MEASUREMENTS

MEASURED RF CONDUCTED OUTPUT POWER LEVELS						
Test Freq.	Mode	System Radio		Scan Radio		Method
		Watts	dBm	Watts	dBm	
408	CW	5.06	37.0	5.17	37.1	Average Conducted
418		5.01	37.0	5.07	37.1	
428		5.01	37.0	5.09	37.1	
443		4.80	36.8	4.92	36.9	
458		4.93	36.9	4.97	37.0	
470		5.14	37.1	5.20	37.2	

Notes

1. The test channels were selected in accordance with the procedures specified in FCC KDB 447498 (see reference [8]).

2. The RF conducted output power levels of the DUT were measured by Celltech Labs prior to the SAR evaluations using a Gigatronics 8652A Universal Power Meter at the external antenna connector of the radio in accordance with requirements of FCC 47 CFR §2.1046 (see reference [13]) and IC RSS-Gen (see reference [14]).

4.0 NO. OF TEST CHANNELS (N_c)

Antenna Part No.		Antenna Type	Antenna Freq. Range	N_c	Test Frequencies (MHz)
1	KRE 101 1219/10	Helical Stub	403 - 430 MHz	3	408, 418, 428
2	KRE 101 1219/12	Helical Stub	440 - 470 MHz	3	443, 458, 470
3	KRE 101 1223/10	Whip	378 - 430 MHz	3	408, 418, 428
4	KRE 101 1223/12	Whip	440 - 470 MHz	3	443, 458, 470

Note: The number of test channels (*Nc*) were calculated in accordance with the procedures specified in FCC KDB 447498 (see reference [8]).

5.0 MANUFACTURER'S DISCLOSED ACCESSORY LISTING

Accessory ID # for Test Report	ACCESSORY CATEGORY: ANTENNA		
	Part Number	**Description**	**SAR Evaluation**
1	KRE 101 1219/10	Helical Stub (403-430 MHz)	Yes
2	KRE 101 1219/12	Helical Stub (440-470 MHz)	Yes
3	KRE 101 1223/10	¼-wave Whip (378-430 MHz)	Yes
4	KRE 101 1223/12	¼-wave Whip (440-470 MHz)	Yes
Accessory ID # for Test Report	**ACCESSORY CATEGORY: BATTERY**		
	Part Number	**Description**	**SAR Evaluation**
a	BT-023406-003	Ni-MH, immersible, non-IS, 7.5V, 2400mAh	Yes
b	BT-023406-004	Ni-MH, immersible, <IS> (7.5V, 2400mAh)	Yes
c	BT-023406-005	Li-ion, immersible, non-IS (7.4V, 2000mAh)	Yes
d	BT-023436-001	Lithium-polymer, immersible, non-IS (7.4V, 3000mAh)	Yes
Accessory ID # for Test Report	**ACCESSORY CATEGORY: BODY-WORN**		
	Part Number	**Description**	**SAR Evaluation**
1	14011-0012-01	Kit containing: 14011-0011-01 BEE Nylon case (Black) (with radio retaining strap) & CC-014527 BEE Leather Belt Loop	Yes
2	14011-0012-02	Kit containing: 14011-0011-02 BEE Nylon case (Orange) (with radio retaining strap) & CC-014527 BEE Leather Belt Loop	No[1]
3	14011-0012-03	Kit contains: 14011-0011-03 BEE Leather Case (with radio retaining strap) w/o Shoulder Strap D-rings, FM-017262-001 Swivel Mount & CC-014527 BEE Leather Belt Loop	Yes
4	14011-0012-04	Kit contains: 14011-0011-04 BEE Leather Case with Shoulder Strap D-rings (with radio retaining strap), FM-017262-001 Swivel Mount & CC-014524-001 BEE Shoulder Strap	Yes
5	CC23894	Metal Belt Clip (Standard)	Yes
6	FM-017262-001 CC-014527	Swivel Mount Belt Loop, Leather (BEE)	Yes
7	CC-014524-002	[BEE] Short Leather Retaining Strap (For use with shoulder strap application)	No[2]
8	KRY1011609/1 FM-017262-001	Merzon belt loop D-swivel	No[3]
9	14011-0011-01 KRY1011609/1	BEE Black nylon case Merzon belt loop	No[3]
10	14011-0011-02 KRY1011609/1	BEE Orange nylon case Merzon belt loop	No[3]
11	14011-0011-03 KRY1011609/1 FM-017262-001	BEE leather case Merzon belt loop D-swivel	No[3]

Note:
1) The orange nylon case differs only in color from the black nylon case and therefore was not tested.
2) The Short retaining strap has no impact on SAR compared to the regular long strap and therefore was not tested.
3) The alternate Merzon Belt-loop is similar in construction to the standard belt-loop, therefore it was not tested.

Accessory ID # for Test Report	ACCESSORY CATEGORY: AUDIO			
	Part Number	**Description**	**Audio Accessory Grouping**	**SAR Evaluation**
G1a	EA-009580-001	Earphone Kit, Black	1	Yes
G1b	EA-009580-002	Earphone Kit, Beige		No[1]
G2a	EA-009580-003	2-Wire Kit, Palm mic, Black	2	Yes
G2b	EA-009580-004	2-Wire Kit, Palm mic, Beige		No[1]
G3a	EA-009580-005	3-Wire Kit, Mini-Lapel Mic, Black	3	Yes
G3b	EA-009580-006	3-Wire Kit, Mini-Lapel Mic, Beige		No[1]
G4a	EA-009580-007	Explorer Headset w/ PTT	4	No
G4b	EA-009580-008	Lightweight headset single spkr w/ PTT		No
G4c	EA-009580-009	Breeze Headset w/ PTT		No
G4d	EA-009580-011	Ranger Headset w/ PTT		Yes
G4e	EA-009580-016	Breeze headset w/ PTT & pigtail jack		No
G4f	EA-009580-017	Hurricane headset w/ PTT		No
G4g	EA-009580-018	Hurricane headset w/ PTT & pigtail jack		No
G5	EA-009580-012	Skull mic w/body PTT & earcup	5	Yes
G6a	EA-009580-010	Headset, heavy duty, N/C behind the head, w/ PTT	6	Yes
G6b	EA-009580-013	Headset, heavy duty, N/C over the head, w/ PTT		No
G7a	EA-009580-014	Throat mic w/acoustic tube & body PTT	7	Yes
G7b	EA-009580-015	Throat mic w/acoustic tube, body PTT, & ring PTT		No
G8a	MC-023933-001	Speaker-Mic No Ant. (cc), <IS>	8	Yes
G8b	MC-009104-002	Speaker-Mic GPS, non-IS		No
G8c	MC-011617-601	Speaker-Mic Ruggedized Coil Cord		No
G8d	MC-011617-611	Speaker-Mic Ruggedized Coil Cord,P7300,Hirose		No
G8e	MC-011617-701	Speaker-Mic Standard - Non Ant		No
	LS103239V1	Earphone for Speaker-mic	n/a	No[2]
	FM-014712	UDC Weatherproof Cover	n/a	No[2]

Note:
1) The Beige versions differ only in color from the black and therefore were not tested.
2) The Earphone and Weatherproof cover are not tested as they have no impact on SAR.

Manufacturer's disclosed accessory listing information provided by HARRIS Corporation.
***All audio accessories can be used with any body worn and antenna combination.**

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6.0 FLUID DIELECTRIC PARAMETERS

FLUID DIELECTRIC PARAMETERS						
Date: May 30, 2013		Frequency: 450 MHz			Tissue: Head	
Freq	Test_e	Test_s	Target_e	Target_s	Deviation Permittivity	Deviation Conductivity
0.350	48.58	0.8	43.5	0.87	11.68%	-8.05%
0.360	47.91	0.82	43.5	0.87	10.14%	-5.75%
0.370	47.1	0.82	43.5	0.87	8.28%	-5.75%
0.380	46.98	0.83	43.5	0.87	8.00%	-4.60%
0.390	47.05	0.81	43.5	0.87	8.16%	-6.90%
0.400	46.66	0.84	43.5	0.87	7.26%	-3.45%
0.410	46.68	0.83	43.5	0.87	7.31%	-4.60%
0.420	45.87	0.85	43.5	0.87	5.45%	-2.30%
0.430	46.32	0.86	43.5	0.87	6.48%	-1.15%
0.440	45.65	0.87	43.5	0.87	4.94%	0.00%
0.450	45.49	0.88	43.5	0.87	4.57%	1.15%
0.460	44.92	0.87	43.5	0.87	3.26%	0.00%
0.470	45.47	0.91	43.5	0.87	4.53%	4.60%
0.480	45.09	0.91	43.5	0.87	3.66%	4.60%
0.490	44.75	0.91	43.5	0.87	2.87%	4.60%
0.500	44.51	0.91	43.5	0.87	2.32%	4.60%
0.510	44.25	0.93	43.5	0.87	1.72%	6.90%
0.520	43.98	0.93	43.5	0.87	1.10%	6.90%
0.530	43.61	0.96	43.5	0.87	0.25%	10.34%
0.540	44.06	0.96	43.5	0.87	1.29%	10.34%
0.550	43.4	0.98	43.5	0.87	-0.23%	12.64%

Test Date	Fluid Type	Ambient Temperature	Fluid Temperature	Fluid Depth	Atmospheric Pressure	Relative Humidity	ρ (Kg/m^3)
May 30	450 Head	23°C	21.0°C	≥ 15 cm	101.5 kPa	32%	1000

FLUID DIELECTRIC PARAMETERS

Date: May 31, 2013		Frequency: 450 MHz			Tissue: Head	
Freq	Test_e	Test_s	Target_e	Target_s	Deviation Permittivity	Deviation Conductivity
0.350	47.95	0.79	43.5	0.87	10.23%	-9.20%
0.360	47.01	0.79	43.5	0.87	8.07%	-9.20%
0.370	46.59	0.8	43.5	0.87	7.10%	-8.05%
0.380	45.81	0.81	43.5	0.87	5.31%	-6.90%
0.390	45.85	0.82	43.5	0.87	5.40%	-5.75%
0.400	45.31	0.82	43.5	0.87	4.16%	-5.75%
0.408*	45.7	0.836	43.5	0.87	5.06%	-3.91%
0.410	45.6	0.84	43.5	0.87	4.83%	-3.45%
0.420	45.95	0.83	43.5	0.87	5.63%	-4.60%
0.430	45.43	0.85	43.5	0.87	4.44%	-2.30%
0.440	45.35	0.86	43.5	0.87	4.25%	-1.15%
0.450	44.63	0.88	43.5	0.87	2.60%	1.15%
0.460	44.79	0.88	43.5	0.87	2.97%	1.15%
0.470	44.73	0.89	43.5	0.87	2.83%	2.30%
0.480	44.44	0.9	43.5	0.87	2.16%	3.45%
0.490	43.87	0.9	43.5	0.87	0.85%	3.45%
0.500	44.16	0.91	43.5	0.87	1.52%	4.60%
0.510	43.28	0.91	43.5	0.87	-0.51%	4.60%
0.520	43.24	0.94	43.5	0.87	-0.60%	8.05%
0.530	43.33	0.94	43.5	0.87	-0.39%	8.05%
0.540	43.1	0.95	43.5	0.87	-0.92%	9.20%
0.550	43.15	0.96	43.5	0.87	-0.80%	10.34%

*interpolated using DASY4 software

Test Date	Fluid Type	Ambient Temperature	Fluid Temperature	Fluid Depth	Atmospheric Pressure	Relative Humidity	ρ (Kg/m^3)
May 31	450 Head	22°C	22.0°C	≥ 15 cm	102.5 kPa	32%	1000

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FLUID DIELECTRIC PARAMETERS

Date: Jun 3, 4, 5, 2013		Frequency: 450 MHz			Tissue: Body	
Freq	Test_e	Test_s	Target_e	Target_s	Deviation Permittivity	Deviation Conductivity
0.350	59.25	0.89	56.7	0.94	4.50%	-5.32%
0.360	59.37	0.86	56.7	0.94	4.71%	-8.51%
0.370	58.66	0.88	56.7	0.94	3.46%	-6.38%
0.380	59.52	0.88	56.7	0.94	4.97%	-6.38%
0.390	58.45	0.9	56.7	0.94	3.09%	-4.26%
0.400	57.68	0.9	56.7	0.94	1.73%	-4.26%
0.408*	58.2	0.908	56.7	0.94	2.65%	-3.40%
0.410	58.29	0.91	56.7	0.94	2.80%	-3.19%
0.420	58.11	0.92	56.7	0.94	2.49%	-2.13%
0.430	58.14	0.93	56.7	0.94	2.54%	-1.06%
0.440	57.79	0.94	56.7	0.94	1.92%	0.00%
0.443*	57.7	0.94	56.7	0.94	1.76%	0.00%
0.450	57.37	0.94	56.7	0.94	1.18%	0.00%
0.458*	57.4	0.956	56.7	0.94	1.23%	1.70%
0.460	57.46	0.96	56.7	0.94	1.34%	2.13%
0.470	56.92	0.95	56.7	0.94	0.39%	1.06%
0.480	56.84	0.97	56.7	0.94	0.25%	3.19%
0.490	56.86	0.97	56.7	0.94	0.28%	3.19%
0.500	56.86	0.99	56.7	0.94	0.28%	5.32%
0.510	56.45	0.98	56.7	0.94	-0.44%	4.26%
0.520	56.3	0.99	56.7	0.94	-0.71%	5.32%
0.530	56.34	1.02	56.7	0.94	-0.63%	8.51%
0.540	56.31	1.02	56.7	0.94	-0.69%	8.51%
0.550	56.17	1.05	56.7	0.94	-0.93%	11.70%

*interpolated using DASY4 software

Test Date	Fluid Type	Ambient Temperature	Fluid Temperature	Fluid Depth	Atmospheric Pressure	Relative Humidity	ρ (Kg/m^3)
June 3	450 Body	22°C	21.8°C	≥ 15 cm	101.7 kPa	36%	1000
June 4	450 Body	23°C	21.8°C	≥ 15 cm	102.1 kPa	36%	1000
June 5	450 Body	23°C	21.8°C	≥ 15 cm	102.1 kPa	36%	1000

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FLUID DIELECTRIC PARAMETERS

Date: Jun 6 & 7, 2013		Frequency: 450 MHz			Tissue: Body	
Freq	Test_e	Test_s	Target_e	Target_s	Deviation Permittivity	Deviation Conductivity
0.350	59.17	0.85	56.7	0.94	4.36%	-9.57%
0.360	58.2	0.84	56.7	0.94	2.65%	-10.64%
0.370	57.78	0.88	56.7	0.94	1.90%	-6.38%
0.380	57.65	0.88	56.7	0.94	1.68%	-6.38%
0.390	57.39	0.86	56.7	0.94	1.22%	-8.51%
0.400	57.31	0.9	56.7	0.94	1.08%	-4.26%
0.408*	57.6	0.9	56.7	0.94	1.59%	-4.26%
0.410	57.73	0.9	56.7	0.94	1.82%	-4.26%
0.420	57.37	0.92	56.7	0.94	1.18%	-2.13%
0.430	57.44	0.9	56.7	0.94	1.31%	-4.26%
0.440	56.11	0.9	56.7	0.94	-1.04%	-4.26%
0.443*	56.2	0.909	56.7	0.94	-0.88%	-3.30%
0.450	56.46	0.93	56.7	0.94	-0.42%	-1.06%
0.460	56.64	0.93	56.7	0.94	-0.11%	-1.06%
0.470	56.92	0.94	56.7	0.94	0.39%	0.00%
0.480	56.67	0.94	56.7	0.94	-0.05%	0.00%
0.490	55.87	0.98	56.7	0.94	-1.46%	4.26%
0.500	55.91	0.97	56.7	0.94	-1.39%	3.19%
0.510	55.63	0.97	56.7	0.94	-1.89%	3.19%
0.520	55.23	0.99	56.7	0.94	-2.59%	5.32%
0.530	55.97	1	56.7	0.94	-1.29%	6.38%
0.540	55.64	1	56.7	0.94	-1.87%	6.38%
0.550	55.34	1.01	56.7	0.94	-2.40%	7.45%

*interpolated using DASY4 software

Test Date	Fluid Type	Ambient Temperature	Fluid Temperature	Fluid Depth	Atmospheric Pressure	Relative Humidity	ρ (Kg/m^3)
June 6	450 Body	22°C	21.9°C	≥ 15 cm	101.3 kPa	31%	1000
June 7	450 Body	22°C	21.9°C	≥ 15 cm	101.3 kPa	31%	1000

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7.0 SAR MEASUREMENT SUMMARY

TABLE 1	FACE-HELD SAR EVALUATION RESULTS
Device-Under-Test	XG-25P UHF-L Radio Transceiver (System)
Test Date(s)	May 31, 2012

C				1		2	3		4	5		6	7		8
R	Antenna Accessory ID #	Test Freq. (MHz)	Cond. Power Before Test (W)	SAR W/kg 1g			SAR W/kg 1g			SAR W/kg 1g			SAR W/kg 1g		
				Battery a (Additional)			Battery b (Additional)			Battery c (Additional)			Battery d (Default)		
				100% ptt d/f		50% ptt d/f	100% ptt d/f		50% ptt d/f	100% ptt d/f		50% ptt d/f	100% ptt d/f		50% ptt d/f
				Drift (dB)		50%+droop	Drift dB		50%+droop	Drift dB		50%+droop	Drift dB		50%+droop
1	1 (219/10)	408	5.06	N/A			N/A			N/A			F1	3.01	1.51
2														-0.307	1.62
3		418	5.01	N/A			N/A			N/A			N/A		
4		428	5.01	N/A			N/A			N/A			N/A		
5															
6	2 (219/12)	443	4.80	N/A			N/A			N/A			N/A		
7		458	4.93	N/A			N/A			N/A			N/A		
8		470	5.14	F5	3.79	1.90	F6	3.76	1.88	F7	3.74	1.87	F2	3.63	1.82
9					-0.342	2.05		-0.276	2.00		-0.450	2.07		-0.339	1.96
10	3 (223/10)	408	5.06	N/A			N/A			N/A			F3	2.62	1.31
11														-0.140	1.35
12		418	5.01	N/A			N/A			N/A			N/A		
13		428	5.01	N/A			N/A			N/A			N/A		
14	4 (223/12)	443	4.80	N/A			N/A			N/A			N/A		
15		458	4.93	N/A			N/A			N/A			N/A		
16		470	5.14	N/A			N/A			N/A			F4	3.26	1.63
17														-0.190	1.70

SAR LIMITS		HEAD	SPATIAL PEAK	RF EXPOSURE CATEGORY
FCC 47 CFR 2.1093	Health Canada Safety Code 6	8.0 W/kg	1 gram average	Occupational / Controlled

Notes

C = Column; R = Row	Fx (F = Face) denotes the corresponding Face SAR Plot # as shown in Appendix A
Test Mode = CW (Unmodulated Continuous Wave)	Phantom = Barski Planar Phantom

Front of DUT Distance to Planar Phantom (see Appendix D) (Front of DUT Parallel to Planar Phantom)	Shortest Antenna Distance to Planar Phantom (see Appendix D)			
	Antenna 1	Antenna 2	Antenna 3	Antenna 4
2.5 cm	5.5 cm	5.5 cm	5.5 cm	5.5 cm

Test Procedures in accordance with FCC KDB 643646 (see reference [9])
1. For face-held configuration, battery "d" was selected as the default battery (highest mAh).
2. When the head SAR of an antenna tested on the highest output power channel with the default battery is ≤ 3.5 W/kg, testing of all other required channels is not necessary.
3. When the SAR for all antennas tested using the default battery is ≤ 4.0 W/kg, test additional batteries using the antenna and channel configuration that resulted in the highest SAR among all antennas.
4. When test reduction applies, the data table entries for such configurations are denoted with N/A (Not Applicable).

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TABLE 2 — FACE-HELD SAR EVALUATION RESULTS

Device-Under-Test	XG-25P UHF-L Radio Transceiver (Scan)
Test Date(s)	May 31, 2012

C				1		2	3	4	5	6	7		8
R	Antenna Accessory ID #	Test Freq. (MHz)	Cond. Power Before Test (W)	SAR W/kg 1g			SAR W/kg 1g		SAR W/kg 1g		SAR W/kg 1g		
				Battery a (Additional)			Battery b (Additional)		Battery c (Additional)		Battery d (Default)		
				100% ptt d/f		50% ptt d/f	100% ptt d/f	50% ptt d/f	100% ptt d/f	50% ptt d/f	100% ptt d/f		50% ptt d/f
				Drift (dB)		50%+droop	Drift dB	50%+droop	Drift dB	50%+droop	Drift dB		50%+droop
1	1 (219/10)	408	5.17	N/A			N/A		N/A		F8	3.11	1.56
2												-0.231	1.64
3		418	5.07	N/A			N/A		N/A		N/A		
4		428	5.09	N/A			N/A		N/A		N/A		
5													
6	2 (219/12)	443	4.92	N/A			N/A		N/A		N/A		
7		458	4.97	N/A			N/A		N/A		N/A		
8		470	5.20	F9	3.86	1.93	N/A		N/A		N/A		
9					-0.142	1.99							
10	3 (223/10)	408	5.17	N/A			N/A		N/A		F10	2.66	1.33
11												-0.068	1.35
12		418	5.07	N/A			N/A		N/A		N/A		
13		428	5.09	N/A			N/A		N/A		N/A		
14	4 (223/12)	443	4.92	N/A			N/A		N/A		N/A		
15		458	4.97	N/A			N/A		N/A		N/A		
16		470	5.20	N/A			N/A		N/A		F11	3.39	1.70
17												0.005	1.70

SAR LIMITS		HEAD	SPATIAL PEAK	RF EXPOSURE CATEGORY
FCC 47 CFR 2.1093	Health Canada Safety Code 6	8.0 W/kg	1 gram average	Occupational / Controlled

Notes

C = Column; R = Row	Fx (F = Face) denotes the corresponding Face SAR Plot # as shown in Appendix A
Test Mode = CW (Unmodulated Continuous Wave)	Phantom = Barski Planar Phantom

Front of DUT Distance to Planar Phantom (see Appendix D) (Front of DUT Parallel to Planar Phantom)	Shortest Antenna Distance to Planar Phantom (see Appendix D)			
	Antenna 1	Antenna 2	Antenna 3	Antenna 4
2.5 cm	5.5 cm	5.5 cm	5.5 cm	5.5 cm

Subsets of tests were performed for the Scan radio model variant based on re-evaluating the maximum SAR levels per antenna configuration from the System model evaluations.

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TABLE 3	BODY-WORN SAR EVALUATION RESULTS
Device-Under-Test	XG-25P UHF-L Radio Transceiver (System)
Body-worn Accessory ID #	5 (Default)
Audio Accessory ID #	G8a (Default)
Test Date(s)	June 3 & 4, 2012

C				1	2	3	4	5	6	7	8
R	Antenna Accessory ID #	Test Freq. (MHz)	Cond. Power Before Test (W)	SAR W/kg 1g		SAR W/kg 1g		SAR W/kg 1g		SAR W/kg 1g	
				Battery a (Additional)		Battery b (Additional)		Battery c (Additional)		Battery d (Default)	
				100% ptt d/f	50% ptt d/f	100% ptt d/f	50% ptt d/f	100% ptt d/f	50% ptt d/f	100% ptt d/f	50% ptt d/f
				Drift (dB)	50%+droop	Drift dB	50%+droop	Drift dB	50%+droop	Drift dB	50%+droop
1	1 (219/10)	408	5.06	N/A		N/A		N/A		B1 5.24	2.62
2										-0.392	2.87
3		418	5.01	N/A		N/A		N/A		N/A	
4		428	5.01	N/A		N/A		N/A		N/A	
5											
6	2 (219/12)	443	4.80	N/A		N/A		N/A		N/A	
7		458	4.93	N/A		N/A		N/A		B3 7.85	3.93
8										-0.418	4.32
9		470	5.14	N/A		N/A		N/A		B2 8.25	4.13
10										-0.257	4.38
11	3 (223/10)	408	5.06	N/A		N/A		N/A		B4 5.51	2.76
12										-0.132	2.84
13		418	5.01	N/A		N/A		N/A		N/A	
14		428	5.01	N/A		N/A		N/A		N/A	
15	4 (223/12)	443	4.80	B8 9.07	4.54	B9 8.99	4.50	B10 8.46	4.23	B7 8.78	4.39
16				-0.173	4.72	-0.669	5.24	-0.210	4.44	-0.288	4.69
17		458	4.93	N/A		N/A		N/A		B6 8.17	4.09
18										-0.248	4.33
19		470	5.14	N/A		N/A		N/A		B5 8.71	4.36
20										-0.340	4.71

SAR LIMITS		BODY	SPATIAL PEAK	RF EXPOSURE CATEGORY
FCC 47 CFR 2.1093	Health Canada Safety Code 6	8.0 W/kg	1 gram average	Occupational / Controlled

Notes				
C = Column; R = Row	Bx (B = Body) denotes the corresponding Body SAR Plot # as shown in Appendix A			
Test Mode = CW (Unmodulated Continuous Wave)	Phantom = Barski Planar Phantom			
Back of DUT Distance to Planar Phantom (see Appendix D) (Back of Radio Parallel to Planar Phantom)	Shortest Antenna Distance to Planar Phantom (see Appendix D)			
	Antenna 1	Antenna 2	Antenna 3	Antenna 4
1.6 cm	2.0 cm	2.0 cm	2.0 cm	2.0 cm

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Test Procedures applied in accordance with FCC KDB 643646 (see reference [9])
1. For Body-worn configuration, battery "d" was selected as the default battery*.
2. When the body SAR of an antenna is ≤ 3.5 W/kg, testing of all other required channels is not necessary for that antenna.
3. When the body SAR of an antenna is >4.0 W/kg, test adjacent channels.
3. When the SAR for all antennas tested using the default battery is ≤ 6.0 W/kg, test additional batteries using the antenna and channel configuration that resulted in the highest SAR among all antennas.
4. The audio accessory G8a was selected as the default audio accessory based on preliminary evaluations.
5. When test reduction applies, the data table entries for such configurations are denoted with N/A (Not Applicable).

TABLE 4	BODY-WORN SAR EVALUATION RESULTS
Device-Under-Test	XG-25P UHF-L Radio Transceiver (Scan)
Body-worn Accessory ID #	5 (Default)
Audio Accessory ID #	G8a (Default)
Test Date(s)	June 3 & 4, 2012

C				1	2	3	4	5	6	7	8
R	Antenna Accessory ID #	Test Freq. (MHz)	Cond. Power Before Test (W)	SAR W/kg 1g		SAR W/kg 1g		SAR W/kg 1g		SAR W/kg 1g	
				Battery a (Additional)		Battery b (Additional)		Battery c (Additional)		Battery d (Default)	
				100% ptt d/f	50% ptt d/f	100% ptt d/f	50% ptt d/f	100% ptt d/f	50% ptt d/f	100% ptt d/f	50% ptt d/f
				Drift (dB)	50%+droop	Drift dB	50%+droop	Drift dB	50%+droop	Drift dB	50%+droop
1	1 (219/10)	408	5.17	N/A		N/A		N/A		B11 4.97	2.49
2										-0.040	2.51
3		418	5.07	N/A		N/A		N/A		N/A	
4		428	5.09	N/A		N/A		N/A		N/A	
5											
6	2 (219/12)	443	4.92	N/A		N/A		N/A		N/A	
7		458	4.97	N/A		N/A		N/A		N/A	
8		470	5.20	N/A		N/A		N/A		B12 8.31	4.16
9										-0.157	4.31
10	3 (223/10)	408	5.17	N/A		N/A		N/A		B13 6.25	3.13
11										-0.003	3.13
12		418	5.07	N/A		N/A		N/A		N/A	
13		428	5.09	N/A		N/A		N/A		N/A	
14	4 (223/12)	443	4.92	B14 9.21	4.61	N/A		N/A		N/A	
15				0.038	4.61						
16		458	4.97	N/A		N/A		N/A		N/A	
17		470	5.20	N/A		N/A		N/A		N/A	
18											

SAR LIMITS		BODY	SPATIAL PEAK	RF EXPOSURE CATEGORY
FCC 47 CFR 2.1093	Health Canada Safety Code 6	8.0 W/kg	1 gram average	Occupational / Controlled

Notes				
C = Column; R = Row	Bx (B = Body) denotes the corresponding Body SAR Plot # as shown in Appendix A			
Test Mode = CW (Unmodulated Continuous Wave)	Phantom = Barski Planar Phantom			
Back of DUT Distance to Planar Phantom (see Appendix D) (Back of Radio Parallel to Planar Phantom)	Shortest Antenna Distance to Planar Phantom (see Appendix D)			
	Antenna 1	Antenna 2	Antenna 3	Antenna 4
1.6 cm	2.0 cm	2.0 cm	2.0 cm	2.0 cm

Subsets of tests were performed for the Scan radio model variant based on re-evaluating the maximum SAR levels per antenna configuration from the System model evaluations.

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TABLE 5	BODY-WORN SAR EVALUATION RESULTS
Device-Under-Test	XG-25P UHF-L Radio Transceiver (System)
Body-worn Accessory ID #	1 (Additional)
Audio Accessory ID #	G8a (Default)
Test Date(s)	June 4 & 5, 2012

C				1		2	3		4	5		6	7		8
R	Antenna Accessory ID #	Test Freq. (MHz)	Cond. Power Before Test (W)	SAR W/kg 1g			SAR W/kg 1g			SAR W/kg 1g			SAR W/kg 1g		
				Battery a (Additional)			Battery b (Additional)			Battery c (Additional)			Battery d (Default)		
				100% ptt d/f		50% ptt d/f	100% ptt d/f		50% ptt d/f	100% ptt d/f		50% ptt d/f	100% ptt d/f		50% ptt d/f
				Drift (dB)		50%+droop	Drift dB		50%+droop	Drift dB		50%+droop	Drift dB		50%+droop
1	1 (219/10)	408	5.06	N/A			N/A			N/A			B15	2.22	1.11
2														-0.360	1.21
3		418	5.01	N/A			N/A			N/A			N/A		
4		428	5.01	N/A			N/A			N/A			N/A		
5															
6	2 (219/12)	443	4.80	N/A			N/A			N/A			N/A		
7		458	4.93	N/A			N/A			N/A			N/A		
8															
9		470	5.14	N/A			N/A			N/A			B16	2.61	1.31
10														-0.311	1.40
11	3 (223/10)	408	5.06	N/A			N/A			N/A			B17	1.96	0.980
12														-0.136	1.01
13		418	5.01	N/A			N/A			N/A			N/A		
14		428	5.01	N/A			N/A			N/A			N/A		
15	4 (223/12)	443	4.80	N/A			N/A			N/A			N/A		
16															
17		458	4.93	N/A			N/A			N/A			N/A		
18															
19		470	5.14	B19	2.85	1.43	B20	2.55	1.28	B21	2.54	1.27	B18	2.72	1.36
20					-0.164	1.48		-0.555	1.45		-0.343	1.37		-0.148	1.41

SAR LIMITS		BODY	SPATIAL PEAK	RF EXPOSURE CATEGORY
FCC 47 CFR 2.1093	Health Canada Safety Code 6	8.0 W/kg	1 gram average	Occupational / Controlled

Notes

C = Column; R = Row	Bx (B = Body) denotes the corresponding Body SAR Plot # as shown in Appendix A
Test Mode = CW (Unmodulated Continuous Wave)	Phantom = Barski Planar Phantom

Back of DUT Distance to Planar Phantom (see Appendix D) (Back of Radio Parallel to Planar Phantom)	Shortest Antenna Distance to Planar Phantom (see Appendix D)			
	Antenna 1	Antenna 2	Antenna 3	Antenna 4
4.5 cm	4.7 cm	4.7 cm	4.7 cm	4.7 cm

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TABLE 6 — BODY-WORN SAR EVALUATION RESULTS

Device-Under-Test	XG-25P UHF-L Radio Transceiver (Scan)
Body-worn Accessory ID #	1 (Additional)
Audio Accessory ID #	G8a (Default)
Test Date(s)	June 4 & 5, 2012

C				1	2	3	4	5	6	7		8
R	**Antenna Accessory ID #**	**Test Freq. (MHz)**	**Cond. Power Before Test (W)**	**SAR W/kg 1g**		**SAR W/kg 1g**		**SAR W/kg 1g**		**SAR W/kg 1g**		
				Battery a (Additional)		**Battery b (Additional)**		**Battery c (Additional)**		**Battery d (Default)**		
				100% ptt d/f	**50% ptt d/f**	**100% ptt d/f**	**50% ptt d/f**	**100% ptt d/f**	**50% ptt d/f**	**100% ptt d/f**		**50% ptt d/f**
				Drift (dB)	**50%+droop**	**Drift dB**	**50%+droop**	**Drift dB**	**50%+droop**	**Drift dB**		**50%+droop**
1	1 (219/10)	408	5.17	N/A		N/A		N/A		B22	2.18	1.09
2											-0.238	1.15
3		418	5.07	N/A		N/A		N/A		N/A		
4		428	5.09	N/A		N/A		N/A		N/A		
5												
6	2 (219/12)	443	4.92	N/A		N/A		N/A		N/A		
7		458	4.97	N/A		N/A		N/A		N/A		
8		470	5.20	N/A		N/A		N/A		B23	2.73	1.37
9											-0.124	1.41
10	3 (223/10)	408	5.17	N/A		N/A		N/A		B24	2.11	1.06
11											0.059	1.06
12		418	5.07	N/A		N/A		N/A		N/A		
13		428	5.09	N/A		N/A		N/A		N/A		
14	4 (223/12)	443	4.92	N/A		N/A		N/A		N/A		
15												
16		458	4.97	N/A		N/A		N/A		N/A		
17		470	5.20	B25	2.73	1.37	N/A	N/A		N/A		
18					0.059	1.37						

SAR LIMITS		BODY	SPATIAL PEAK	RF EXPOSURE CATEGORY
FCC 47 CFR 2.1093	Health Canada Safety Code 6	8.0 W/kg	1 gram average	Occupational / Controlled

Notes

C = Column; R = Row	Bx (B = Body) denotes the corresponding Body SAR Plot # as shown in Appendix A
Test Mode = CW (Unmodulated Continuous Wave)	Phantom = Barski Planar Phantom

Back of DUT Distance to Planar Phantom (see Appendix D) (Back of Radio Parallel to Planar Phantom)	Shortest Antenna Distance to Planar Phantom (see Appendix D)			
	Antenna 1	Antenna 2	Antenna 3	Antenna 4
4.5 cm	4.7 cm	4.7 cm	4.7 cm	4.7 cm

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TABLE 7	BODY-WORN SAR EVALUATION RESULTS
Device-Under-Test	XG-25P UHF-L Radio Transceiver (System)
Body-worn Accessory ID #	3 (Additional)
Audio Accessory ID #	G8a (Default)
Test Date(s)	June 5 & 6 2012

C				1		2	3		4	5		6	7		8
R	Antenna Accessory ID #	Test Freq. (MHz)	Cond. Power Before Test (W)	SAR W/kg 1g			SAR W/kg 1g			SAR W/kg 1g			SAR W/kg 1g		
				Battery a (Additional)			Battery b (Additional)			Battery c (Additional)			Battery d (Default)		
				100% ptt d/f		50% ptt d/f	100% ptt d/f		50% ptt d/f	100% ptt d/f		50% ptt d/f	100% ptt d/f		50% ptt d/f
				Drift (dB)		50%+droop	Drift dB		50%+droop	Drift dB		50%+droop	Drift dB		50%+droop
1	1 (219/10)	408	5.06	N/A			N/A			N/A			B26	1.40	0.700
2														-0.401	0.768
3		418	5.01	N/A			N/A			N/A			N/A		
4		428	5.01	N/A			N/A			N/A			N/A		
5															
6	2 (219/12)	443	4.80	N/A			N/A			N/A			N/A		
7		458	4.93	N/A			N/A			N/A			N/A		
8															
9		470	5.14	B30	1.90	0.950	B31	1.82	0.910	B32	1.54	0.770	B27	1.85	0.925
10					-0.336	1.03		-0.340	0.984		-0.297	0.825		-0.350	1.00
11	3 (223/10)	408	5.06	N/A			N/A			N/A			B28	1.36	0.680
12														-0.221	0.715
13		418	5.01	N/A			N/A			N/A			N/A		
14		428	5.01	N/A			N/A			N/A			N/A		
15	4 (223/12)	443	4.80	N/A			N/A			N/A			N/A		
16															
17		458	4.93	N/A			N/A			N/A			N/A		
18															
19		470	5.14	N/A			N/A			N/A			B29	1.85	0.925
20														-0.162	0.960

SAR LIMITS		BODY	SPATIAL PEAK	RF EXPOSURE CATEGORY
FCC 47 CFR 2.1093	Health Canada Safety Code 6	8.0 W/kg	1 gram average	Occupational / Controlled

Notes

C = Column; R = Row	Bx (B = Body) denotes the corresponding Body SAR Plot # as shown in Appendix A			
Test Mode = CW (Unmodulated Continuous Wave)	Phantom = Barski Planar Phantom			
Back of DUT Distance to Planar Phantom (see Appendix D) (Back of Radio Parallel to Planar Phantom)	Shortest Antenna Distance to Planar Phantom (see Appendix D)			
	Antenna 1	Antenna 2	Antenna 3	Antenna 4
5.4 cm	5.9 cm	5.9 cm	5.9 cm	5.9 cm

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TABLE 8 — BODY-WORN SAR EVALUATION RESULTS

Device-Under-Test	XG-25P UHF-L Radio Transceiver (Scan)
Body-worn Accessory ID #	3 (Additional)
Audio Accessory ID #	G8a (Default)
Test Date(s)	June 5 & 6, 2012

C				1	2	3	4	5	6	7		8
R	**Antenna Accessory ID #**	**Test Freq. (MHz)**	**Cond. Power Before Test (W)**	**SAR W/kg 1g**		**SAR W/kg 1g**		**SAR W/kg 1g**		**SAR W/kg 1g**		
				Battery a (Additional)		**Battery b (Additional)**		**Battery c (Additional)**		**Battery d (Default)**		
				100% ptt d/f	**50% ptt d/f**	**100% ptt d/f**	**50% ptt d/f**	**100% ptt d/f**	**50% ptt d/f**	**100% ptt d/f**		**50% ptt d/f**
				Drift (dB)	**50%+droop**	**Drift dB**	**50%+droop**	**Drift dB**	**50%+droop**	**Drift dB**		**50%+droop**
1	1 (219/10)	408	5.17	N/A		N/A		N/A		B33	1.44	0.720
2											-0.081	0.734
3		418	5.07	N/A		N/A		N/A		N/A		
4		428	5.09	N/A		N/A		N/A		N/A		
5												
6	2 (219/12)	443	4.92	N/A		N/A		N/A		N/A		
7		458	4.97	N/A		N/A		N/A		N/A		
8		470	5.20	B34	1.79	N/A		N/A		N/A		
9					-0.097							
10	3 (223/10)	408	5.17	N/A		N/A		N/A		B35	1.25	0.625
11											0.004	0.625
12		418	5.07	N/A		N/A		N/A		N/A		
13		428	5.09	N/A		N/A		N/A		N/A		
14	4 (223/12)	443	4.92	N/A		N/A		N/A		N/A		
15												
16		458	4.97	N/A		N/A		N/A		N/A		
17		470	5.20	N/A		N/A		N/A		B36	1.56	0.780
18											-0.024	0.784

SAR LIMITS		BODY	SPATIAL PEAK	RF EXPOSURE CATEGORY
FCC 47 CFR 2.1093	Health Canada Safety Code 6	8.0 W/kg	1 gram average	Occupational / Controlled

Notes

C = Column; R = Row	Bx (B = Body) denotes the corresponding Body SAR Plot # as shown in Appendix A
Test Mode = CW (Unmodulated Continuous Wave)	Phantom = Barski Planar Phantom

Back of DUT Distance to Planar Phantom (see Appendix D) (Back of Radio Parallel to Planar Phantom)	Shortest Antenna Distance to Planar Phantom (see Appendix D)			
	Antenna 1	Antenna 2	Antenna 3	Antenna 4
5.4 cm	5.9 cm	5.9 cm	5.9 cm	5.9 cm

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TABLE 9 — BODY-WORN SAR EVALUATION RESULTS

Device-Under-Test	XG-25P UHF-L Radio Transceiver (System)
Body-worn Accessory ID #	4 (Additional)
Audio Accessory ID #	G8a (Default)
Test Date(s)	June 6, 2012

C				1		2	3		4	5		6	7		8
R	**Antenna Accessory ID #**	**Test Freq. (MHz)**	**Cond. Power Before Test (W)**	**SAR W/kg 1g**			**SAR W/kg 1g**			**SAR W/kg 1g**			**SAR W/kg 1g**		
				Battery a (Additional)			**Battery b (Additional)**			**Battery c (Additional)**			**Battery d (Default)**		
				100% ptt d/f		**50% ptt d/f**	**100% ptt d/f**		**50% ptt d/f**	**100% ptt d/f**		**50% ptt d/f**	**100% ptt d/f**		**50% ptt d/f**
				Drift (dB)		**50%+droop**	**Drift dB**		**50%+droop**	**Drift dB**		**50%+droop**	**Drift dB**		**50%+droop**
1	1 (219/10)	408	5.06	N/A			N/A			N/A			B37	3.54	1.77
2														-0.426	1.95
3		418	5.01	N/A			N/A			N/A			N/A		
4		428	5.01	N/A			N/A			N/A			N/A		
5															
6	2 (219/12)	443	4.80	N/A			N/A			N/A			N/A		
7		458	4.93	N/A			N/A			N/A			N/A		
8															
9		470	5.14	N/A			N/A			N/A			B38	4.60	2.30
10														-0.406	2.53
11	3 (223/10)	408	5.06	N/A			N/A			N/A			B39	4.17	2.09
12														-0.218	2.19
13		418	5.01	N/A			N/A			N/A			N/A		
14		428	5.01	N/A			N/A			N/A			N/A		
15	4 (223/12)	443	4.80	N/A			N/A			N/A			N/A		
16															
17		458	4.93	N/A			N/A			N/A			N/A		
18															
19		470	5.14	B41	5.34	2.67	B42	5.12	2.56	B43	4.96	2.48	B40	4.82	2.41
20					-0.235	2.82		-0.571	2.92		-0.169	2.58		-0.217	2.53

SAR LIMITS		BODY	SPATIAL PEAK	RF EXPOSURE CATEGORY
FCC 47 CFR 2.1093	Health Canada Safety Code 6	8.0 W/kg	1 gram average	Occupational / Controlled

Notes

C = Column; R = Row	Bx (B = Body) denotes the corresponding Body SAR Plot # as shown in Appendix A
Test Mode = CW (Unmodulated Continuous Wave)	Phantom = Barski Planar Phantom

Back of DUT Distance to Planar Phantom (see Appendix D) (Back of Radio Parallel to Planar Phantom)	Shortest Antenna Distance to Planar Phantom (see Appendix D)			
	Antenna 1	Antenna 2	Antenna 3	Antenna 4
3.2 cm	3.4 cm	3.4 cm	3.4 cm	3.4 cm

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TABLE 10	BODY-WORN SAR EVALUATION RESULTS
Device-Under-Test	XG-25P UHF-L Radio Transceiver (Scan)
Body-worn Accessory ID #	4 (Additional)
Audio Accessory ID #	G8a (Default)
Test Date(s)	June 6, 2012

C				1	2	3	4	5	6	7		8
R	Antenna Accessory ID #	Test Freq. (MHz)	Cond. Power Before Test (W)	SAR W/kg 1g		SAR W/kg 1g		SAR W/kg 1g		SAR W/kg 1g		
				Battery a (Additional)		Battery b (Additional)		Battery c (Additional)		Battery d (Default)		
				100% ptt d/f	50% ptt d/f	100% ptt d/f	50% ptt d/f	100% ptt d/f	50% ptt d/f	100% ptt d/f		50% ptt d/f
				Drift (dB)	50%+droop	Drift dB	50%+droop	Drift dB	50%+droop	Drift dB		50%+droop
1	1 (219/10)	408	5.17	N/A		N/A		N/A		B44	3.42	1.71
2											-0.270	1.82
3		418	5.07	N/A		N/A		N/A		N/A		
4		428	5.09	N/A		N/A		N/A		N/A		
5												
6	2 (219/12)	443	4.92	N/A		N/A		N/A		N/A		
7		458	4.97	N/A		N/A		N/A		N/A		
8		470	5.20	N/A		N/A		N/A		B45	5.35	2.68
9											-0.168	2.78
10	3 (223/10)	408	5.17	N/A		N/A		N/A		B46	3.54	1.77
11											0.062	1.77
12		418	5.07	N/A		N/A		N/A		N/A		
13		428	5.09	N/A		N/A		N/A		N/A		
14	4 (223/12)	443	4.92	N/A		N/A		N/A		N/A		
15												
16		458	4.97	N/A		N/A		N/A		N/A		
17		470	5.20	B47 4.68	2.34	N/A		N/A		N/A		
18				-0.159	2.43							

SAR LIMITS		BODY	SPATIAL PEAK	RF EXPOSURE CATEGORY
FCC 47 CFR 2.1093	Health Canada Safety Code 6	8.0 W/kg	1 gram average	Occupational / Controlled

Notes				
C = Column; R = Row	Bx (B = Body) denotes the corresponding Body SAR Plot # as shown in Appendix A			
Test Mode = CW (Unmodulated Continuous Wave)	Phantom = Barski Planar Phantom			
Back of DUT Distance to Planar Phantom (see Appendix D) (Back of Radio Parallel to Planar Phantom)	Shortest Antenna Distance to Planar Phantom (see Appendix D)			
	Antenna 1	Antenna 2	Antenna 3	Antenna 4
3.2 cm	3.4 cm	3.4 cm	3.4 cm	3.4 cm

Subsets of tests were performed for the Scan radio model variant based on re-evaluating the maximum SAR levels per antenna configuration from the System model evaluations.

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TABLE 11 — BODY-WORN SAR EVALUATION RESULTS

Device-Under-Test	XG-25P UHF-L Radio Transceiver (System)
Body-worn Accessory ID #	6 (Additional)
Audio Accessory ID #	G8a (Default)
Test Date(s)	June 7 2012

C				1		2	3		4	5		6	7		8
R	**Antenna Accessory ID #**	**Test Freq. (MHz)**	**Cond. Power Before Test (W)**	**SAR W/kg 1g**			**SAR W/kg 1g**			**SAR W/kg 1g**			**SAR W/kg 1g**		
				Battery a (Additional)			**Battery b (Additional)**			**Battery c (Additional)**			**Battery d (Default)**		
				100% ptt d/f		**50% ptt d/f**	**100% ptt d/f**		**50% ptt d/f**	**100% ptt d/f**		**50% ptt d/f**	**100% ptt d/f**		**50% ptt d/f**
				Drift (dB)		**50%+droop**	**Drift dB**		**50%+droop**	**Drift dB**		**50%+droop**	**Drift dB**		**50%+droop**
1	1 (219/10)	408	5.06	N/A			N/A			N/A			B48	2.70	1.35
2														-0.423	1.49
3		418	5.01	N/A			N/A			N/A			N/A		
4		428	5.01	N/A			N/A			N/A			N/A		
5															
6	2 (219/12)	443	4.80	N/A			N/A			N/A			N/A		
7		458	4.93	N/A			N/A			N/A			N/A		
8															
9		470	5.14	B52	3.55	1.78	B53	3.64	1.82	B54	3.23	1.62	B49	3.59	1.80
10					-0.278	1.89		-0.383	1.99		-0.520	1.82		-0.272	1.91
11	3 (223/10)	408	5.06	N/A			N/A			N/A			B50	2.78	1.39
12														-0.187	1.45
13		418	5.01	N/A			N/A			N/A			N/A		
14		428	5.01	N/A			N/A			N/A			N/A		
15	4 (223/12)	443	4.80	N/A			N/A			N/A			N/A		
16															
17		458	4.93	N/A			N/A			N/A			N/A		
18															
19		470	5.14	N/A			N/A			N/A			B51	3.38	1.69
20														-0.207	1.77

SAR LIMITS		BODY	SPATIAL PEAK	RF EXPOSURE CATEGORY
FCC 47 CFR 2.1093	Health Canada Safety Code 6	8.0 W/kg	1 gram average	Occupational / Controlled

Notes

C = Column; R = Row	Bx (B = Body) denotes the corresponding Body SAR Plot # as shown in Appendix A
Test Mode = CW (Unmodulated Continuous Wave)	Phantom = Barski Planar Phantom

Back of DUT Distance to Planar Phantom (see Appendix D) (Back of Radio Parallel to Planar Phantom)	Shortest Antenna Distance to Planar Phantom (see Appendix D)			
	Antenna 1	Antenna 2	Antenna 3	Antenna 4
3.5 cm	3.9 cm	3.9 cm	3.9 cm	3.9 cm

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TABLE 12	BODY-WORN SAR EVALUATION RESULTS
Device-Under-Test	XG-25P UHF-L Radio Transceiver (Scan)
Body-worn Accessory ID #	6 (Additional)
Audio Accessory ID #	G8a (Default)
Test Date(s)	June 7, 2012

C				1	2	3		4	5	6	7		8
R	Antenna Accessory ID #	Test Freq. (MHz)	Cond. Power Before Test (W)	SAR W/kg 1g		SAR W/kg 1g			SAR W/kg 1g		SAR W/kg 1g		
				Battery a (Additional)		Battery b (Additional)			Battery c (Additional)		Battery d (Default)		
				100% ptt d/f	50% ptt d/f	100% ptt d/f		50% ptt d/f	100% ptt d/f	50% ptt d/f	100% ptt d/f		50% ptt d/f
				Drift (dB)	50%+droop	Drift dB		50%+droop	Drift dB	50%+droop	Drift dB		50%+droop
1	1 (219/10)	408	5.17	N/A		N/A			N/A		B55	2.82	1.41
2												-0.273	1.50
3		418	5.07	N/A		N/A			N/A		N/A		
4		428	5.09	N/A		N/A			N/A		N/A		
5													
6	2 (219/12)	443	4.92	N/A		N/A			N/A		N/A		
7		458	4.97	N/A		N/A			N/A		N/A		
8		470	5.20	N/A		B56	3.74	1.87	N/A		N/A		
9							-0.069	1.90					
10	3 (223/10)	408	5.17	N/A		N/A			N/A		B57	2.48	1.24
11												0.084	1.24
12		418	5.07	N/A		N/A			N/A		N/A		
13		428	5.09	N/A		N/A			N/A		N/A		
14	4 (223/12)	443	4.92	N/A		N/A			N/A		N/A		
15													
16		458	4.97	N/A		N/A			N/A		N/A		
17		470	5.20	N/A		N/A			N/A		B58	3.60	1.80
18												-0.058	1.82

SAR LIMITS		BODY	SPATIAL PEAK	RF EXPOSURE CATEGORY
FCC 47 CFR 2.1093	Health Canada Safety Code 6	8.0 W/kg	1 gram average	Occupational / Controlled

Notes

C = Column; R = Row	Bx (B = Body) denotes the corresponding Body SAR Plot # as shown in Appendix A
Test Mode = CW (Unmodulated Continuous Wave)	Phantom = Barski Planar Phantom

Back of DUT Distance to Planar Phantom (see Appendix D) (Back of Radio Parallel to Planar Phantom)	Shortest Antenna Distance to Planar Phantom (see Appendix D)			
	Antenna 1	Antenna 2	Antenna 3	Antenna 4
3.5 cm	3.9 cm	3.9 cm	3.9 cm	3.9 cm

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TABLE 13	BODY-WORN SAR EVALUATION RESULTS REMAINING DEFAULT AUDIO ACCESSORIES BY GROUPING
Device-Under-Test	XG-25P UHF-L Radio Transceiver (System)
Body-worn Accessory ID #	5 (Default)
Test Date(s)	June 7, 2011

C						1		2
R	Antenna Accessory ID #	Battery Accessory ID #	Audio Accessory ID #	Cond. Power Before Test (W)	Test Freq. (MHz)	1g SAR (W/kg)		
						Plot #	100% ptt d/f SAR Drift dB	50% ptt d/f 50%+droop
1	4	a	G1a	4.80	443	A1	8.80	4.40
2							-0.156	4.56
3			G2a	4.80	443	A2	8.62	4.31
4							-0.228	4.54
5			G3a	4.80	443	A3	8.94	4.47
6							-0.208	4.69
7			G6a	4.80	443	A4	8.32	4.16
8							-0.178	4.33
9			G4d	4.80	443	A5	9.01	4.51
10							-0.130	4.64
11			G5	4.80	443	A6	8.68	4.34
12							-0.149	4.49
13			G7a	4.80	443	A7	9.36	4.68
14							-0.187	4.89
Repeatability Test per FCC (KDB: 447498)								
15	4	a	G7a	4.80	443	A8	8.12	4.06
16							-0.673	4.74

8.0 SAR SCALING (TUNE-UP TOLERANCE)

SCALING OF MAXIMUM SAR LEVELS TO MANUFACTURER'S TUNE-UP TOLERANCE SPECIFICATION

Test Config.	Test Freq. (MHz)	Antenna	Battery	Body-worn Accessory ID #	Cond. Power	Drift	SAR Level 1g (50% PTT d/f)		Scaling up to Manuf. Upper Tol. Power Spec.	Scaled SAR (50% PTT d/f) 1g (W/kg)
					Watts	dB	W/kg	Plot #		
FCC (scaled without drift)										
Face-Held	470	2	a	N/A	5.14	-0.342	1.90	F5	+0.1 dB	**1.94**
Body-worn	443	4	a	5	4.8	-0.187	4.68	A7	+0.4 dB	**5.13**
IC (scaled with drift)										
Face-Held	470	2	a	N/A	5.14	-0.342	1.90	F5	+0.1 dB	**2.10**

Notes:

1. Only the highest SAR values for face and body per frequency band are scaled.
2. The resulting value is the reported SAR.
3. The scaled SAR levels are below the FCC/IC Occupational SAR Limit of 8.0 W/kg.
4. Body-worn SAR is the same for FCC and IC, as the drift is less than 5% so the resulting SAR value does not need to be scaled with the drift.

9.0 SIMULTANEOUS TRANSMISSION ASSESSMENT

Co-transmitting Antennas: External UHF (378-470 MHz) and Internal Bluetooth (2402-2480 MHz)
Manuf. Rated Output Power: 1 mW (Bluetooth)
Antenna-to-Antenna Distance: 46.4 mm

MAX. SAR - UHF-BAND PTT (50% PTT duty factor)		MAX. SAR (BLUETOOTH)	SUM OF SAR LEVELS (50% PTT duty factor)	FCC/IC SAR LIMIT (Occupational)
Body-worn	5.13 W/kg (1g)	0.013 W/kg (1g) (Estimated SAR)	5.14 W/kg (1g)	8.0 W/kg (1g)

Simultaneous transmission of the UHF band and Bluetooth was assessed in accordance with the procedures specified in FCC KDB 447498 (see reference [8]). The sum of the highest measured UHF SAR and the estimated Bluetooth SAR are below the limit.

10.0 SAR PROBE CALIBRATION & MEASUREMENT FREQUENCIES

The following procedures are recommended for to minimize probe calibration and tissue dielectric parameter discrepancies. In general, SAR measurements below 300 MHz should be within ±50 MHz of the probe calibration frequency. At 300 MHz to 6 GHz, measurements should be within ±100 MHz of the probe calibration frequency. Measurements exceeding 50% of these intervals, ±25 MHz < 300 MHz and ±50 MHz ≥300 MHz, require additional steps (per FCC KDB 865664 D01v01 - see reference [15]).

Probe Calibration Freq.	Device Measurement Freq.	Frequency Interval	±50 MHz ≥ 300 MHz
450 MHz	408 MHz	42 MHz	< 50 MHz[1]
	443 MHz	7 MHz	< 50 MHz[1]
	458 MHz	8 MHz	< 50 MHz[1]
	470 MHz	20 MHz	< 50 MHz[1]

1. The probe calibration and measurement frequency interval is < 50 MHz; therefore the additional steps were not required.

11.0 DETAILS OF SAR EVALUATION

1. The number of test frequencies and the test channels selected for the SAR evaluations are in accordance with the procedures described in FCC KDB 447498 (see reference [8]).
2. The DUT was evaluated for SAR in accordance with the procedures described in FCC KDB 643646 (see reference [9]).
3. The SAR evaluations were performed with a fully charged battery.
4. The SAR drift of the DUT was measured by the DASY4 system for the duration of the SAR evaluations. The measured SAR droop was added to the measured SAR levels to report scaled SAR levels as shown in the SAR test data tables. A SAR-versus-Time power droop evaluation was performed and is shown in Appendix A.
5. The fluid temperature remained within +/-2°C from the fluid dielectric parameter measurement to the completion of the SAR evaluation.
6. The dielectric parameters of the simulated tissue mixtures were measured prior to the SAR evaluations using a Dielectric Probe Kit and a Network Analyzer (see Appendix C).
7. The DUT was evaluated for SAR at the maximum conducted output power level preset by the manufacturer in unmodulated continuous transmit operation (Continuous Wave mode at 100% duty cycle) with the transmit key constantly depressed. For a push-to-talk device the 50% duty cycle compensation reported assumes a transmit/receive cycle of equal time base.
8. The Scan radio model differs from the System radio model in front keypad only. The scan radio was evaluated for the worst case configuration of each antenna and head/body test position from the system radio testing.

12.0 SAR 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 30 mm x 30 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.

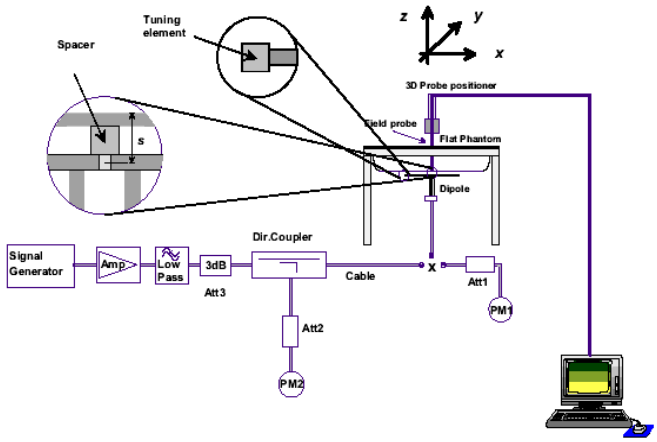
13.0 SYSTEM PERFORMANCE CHECK

Prior to the SAR evaluations, system checks were performed with a planar phantom and an 450 MHz SPEAG validation dipole (see Appendix B for system performance check test plots) in accordance with the procedures described in IEEE Standard 1528-2003 (see reference [5]). The dielectric parameters of the simulated tissue mixture were measured prior to the system performance check using a Dielectric Probe Kit and a Network Analyzer (see Appendix C for measured fluid dielectric parameters). A forward power of 398 mW was applied to the dipole and the system was verified to a tolerance of ±10% from the system manufacturer's dipole calibration target SAR value (see Appendix E for system manufacturer's dipole calibration procedures).

SYSTEM PERFORMANCE CHECK EVALUATIONS

Test Date	Equiv. Tissue	SAR 1g (W/kg)			Dielectric Constant ε_r			Conductivity σ (mho/m)			ρ (Kg/m³)	Amb. Temp. (°C)	Fluid Temp. (°C)	Fluid Depth (cm)	Humid. (%)	Barom. Press. (kPa)
	Freq. (MHz)	SPEAG Target	Meas.	Dev.	SPEAG Target	Meas.	Dev.	SPEAG Target	Meas.	Dev.						
May 30	Head 450	1.87 ±10%	1.93	+3.2%	43.5 ±5%	45.5	+4.6%	0.87 ±5%	0.88	+1.1%	1000	23.0	21.0	≥ 15	32	101.5
Jun 3	Body 450	1.81 ±10%	1.84	+1.7%	56.7 ±5%	57.4	+1.2%	0.94 ±5%	0.94	0.0%	1000	22.0	21.8	≥ 15	36	101.7
Jun 6	Body 450	1.81 ±10%	1.79	-1.1%	56.7 ±5%	56.5	-0.4%	0.94 ±5%	0.93	-1.1%	1000	22.0	21.9	≥ 15	31	101.3

Notes		
	1.	The target SAR values are the measured values from the SAR system manufacturer's dipole calibration (see Appendix E).
	2.	The target dielectric parameters are the nominal values from the SAR system manufacturer's dipole calibration (see Appendix E).
	3.	The fluid temperature was measured prior to and after the system performance check evaluations. The fluid temperature remained within +/- 2°C during the system performance check evaluations.
	4.	The dielectric parameters of the simulated tissue mixture were measured prior to the system performance check using a Dielectric Probe Kit and a Network Analyzer (see Appendix C).



System Performance Check Measurement Setup (IEEE Standard 1528-2003)

SPEAG 450 MHz Validation Dipole Setup

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14.0 SIMULATED EQUIVALENT TISSUES

The simulated equivalent tissue recipes in the table below are derived from the SAR system manufacturer's suggested recipes in the DASY4 manual (see references [10] and [11]) in accordance with the procedures and requirements specified in IEEE Standard 1528-2003 (see reference [5]). The ingredient percentage may have been adjusted minimally in order to achieve the appropriate target dielectric parameters within the specified tolerance.

SIMULATED TISSUE MIXTURES		
INGREDIENT	**450 MHz HEAD**	**450 MHz BODY**
Water	38.56 %	52.00 %
Sugar	56.32 %	45.65 %
Salt	3.95 %	1.75 %
HEC	0.98 %	0.50 %
Bactericide	0.19 %	0.10 %

15.0 SAR LIMITS

SAR RF EXPOSURE LIMITS			
FCC 47 CFR 2.1093	**Health Canada Safety Code 6**	**(General Population / Uncontrolled Exposure)**	**(Occupational / Controlled Exposure)**
Spatial Average (averaged over the whole body)		0.08 W/kg	0.4 W/kg
Spatial Peak (averaged over any 1 g of tissue)		1.6 W/kg	**8.0 W/kg**
Spatial Peak (hands/wrists/feet/ankles averaged over 10 g)		4.0 W/kg	20.0 W/kg
The Spatial Average value of the SAR averaged over the whole body.			
The Spatial Peak value of the SAR averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.			
The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.			
Uncontrolled environments are defined as locations where there is potential exposure of individuals who have no knowledge or control of their potential exposure.			
Controlled environments are defined as locations where there is potential exposure of individuals who have knowledge of their potential exposure and can exercise control over their exposure.			

16.0 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 80
	Postprocessing Software: SEMCAD, V1.8 Build 186
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	
Type	Barski Planar Phantom
Shell Material	Fiberglass
Thickness	2.0 ±0.1 mm
Volume	Approx. 70 liters

17.0 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 head simulating tissue at frequencies of 900 MHz and 1.8 GHz (accuracy ± 8%)
Frequency:	10 MHz to > 6 GHz; Linearity: ± 0.2 dB (30 MHz to 3 GHz)
Directivity:	± 0.2 dB in head tissue (rotation around probe axis) ± 0.4 dB in head tissue (rotation normal to probe axis)
Dynamic Range:	5 μW/g to > 100 mW/g; Linearity: ± 0.2 dB
Surface Detect:	± 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; Compliance tests of mobile phone

ET3DV6 E-Field Probe

18.0 PHANTOM(S)

The Barski 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. The planar phantom is used for SAR evaluations and system performance check evaluations. See Appendix G for dimensions and specifications of the Barski planar phantom.

Barski Planar Phantom

19.0 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.

Device Holder

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20.0 TEST EQUIPMENT LIST

TEST EQUIPMENT		ASSET NO.	SERIAL NO.	DATE CALIBRATED	CALIBRATION INTERVAL
USED	DESCRIPTION				
x	Schmid & Partner DASY4 System	-	-	-	-
x	-DASY4 Measurement Server	00158	1078	CNR	CNR
x	-Robot	00046	599396-01	CNR	CNR
x	-DAE4	00019	353	19-Apr-12	Biennial
x	-ET3DV6 E-Field Probe	00017	1590	24-Apr-13	Annual
x	-D450V3 Validation Dipole	00221	1068	27-Apr-12	Triennial
x	-Barski Planar Phantom	00155	03-01	CNR	CNR
x	HP 85070C Dielectric Probe Kit	00033	none	CNR	CNR
x	Gigatronics 8652A Power Meter	00007	1835272	03-May-12	Biennial
x	Gigatronics 80701A Power Sensor	00014	1833542	03-May-12	Biennial
x	Gigatronics 80334A Power Sensor	-	1837001	03-May-12	Biennial
x	HP 8753ET Network Analyzer	00134	US39170292	26-Apr-12	Biennial
x	Rohde & Schwarz SMR20 Signal Generator	00006	100104	02-May-12	Biennial
x	Amplifier Research 5S1G4 Power Amplifier	00106	26235	CNR	CNR
Abbr.	CNR = Calibration Not Required				

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21.0 MEASUREMENT UNCERTAINTIES

UNCERTAINTY BUDGET FOR DEVICE EVALUATION (IEC 62209-2:2010)									
Source of Uncertainty	**IEC 62209-2 Section**	**Tolerance / Uncertainty ±%**	**Probability Distribution**	**Divisor**	**ci 1g**	**ci 10g**	**Standard Uncertainty ±% (1g)**	**Standard Uncertainty ±% (10g)**	**V_i or V_{eff}**
Measurement System									
Probe Calibration (450 MHz)	7.2.2.1	6.7	Normal	1	1	1	6.7	6.7	∞
Isotropy	7.2.2.2	4.7	Rectangular	1.732050808	1	1	2.7	2.7	∞
Boundary Effect	7.2.2.6	1	Rectangular	1.732050808	1	1	0.6	0.6	∞
Linearity	7.2.2.3	4.7	Rectangular	1.732050808	1	1	2.7	2.7	∞
Detection Limits	7.2.2.5	1	Rectangular	1.732050808	1	1	0.6	0.6	∞
Readout Electronics	7.2.2.7	0.3	Normal	1	1	1	0.3	0.3	∞
Response Time	7.2.2.8	0.8	Rectangular	1.732050808	1	1	0.5	0.5	∞
Integration Time	7.2.2.9	2.6	Rectangular	1.732050808	1	1	1.5	1.5	∞
RF Ambient Conditions	7.2.4.5	3	Rectangular	1.732050808	1	1	1.7	1.7	∞
Probe Positioner Mechanical Restrictions	7.2.3.1	0.4	Rectangular	1.732050808	1	1	0.2	0.2	∞
Probe Positioning wrt Phantom Shell	7.2.3.3	2.9	Rectangular	1.732050808	1	1	1.7	1.7	∞
Post-processing	7.2.5	1	Rectangular	1.732050808	1	1	0.6	0.6	∞
Test Sample Related									
Test Sample Positioning	7.2.3.4.3	2.9	Normal	1	1	1	2.9	2.9	12
Device Holder Uncertainty	7.2.3.4.2	3.6	Normal	1	1	1	3.6	3.6	8
Drift of Output Power (meas. SAR drift)	7.2.2.10	0	Rectangular	1.732050808	1	1	0.0	0.0	∞
Phantom and Tissue Parameters									
Phantom Uncertainty	7.2.3.2	4	Rectangular	1.732050808	1	1	2.3	2.3	∞
SAR Correction Algorithm for deviations in permittivity and conductivity	7.2.4.3	1.2	Normal	1	1	0.81	1.2	0.97	∞
Liquid Conductivity (measured)	7.2.4.3	4.26	Normal	1	0.78	0.71	3.3	3.0	∞
Liquid Permittivity (measured)	7.2.4.3	5.06	Normal	1	0.23	0.26	1.2	1.3	∞
Liquid Permittivity - temp. uncertainty	7.2.4.4	0.27	Rectangular	1.732050808	0.78	0.71	0.1	0.1	∞
Liquid Conductivity - temp. uncertainty	7.2.4.4	0.84	Rectangular	1.732050808	0.23	0.26	0.1	0.1	∞
Combined Standard Uncertainty	**7.3.1**		**RSS**				**10.47**	**10.37**	
Expanded Uncertainty (95% Confidence Interval)	**7.3.2**		**k=2**				**20.94**	**20.74**	
Measurement Uncertainty Table in accordance with International Standard IEC 62209-2:2010									

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2

22.0 REFERENCES

[1] Federal Communications Commission - "Radiofrequency radiation exposure evaluation: portable devices", Rule Part 47 CFR §2.1093.

[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 (RF) Exposure Compliance of Radiocommunication Apparatus (All Frequency Bands)", Radio Standards Specification RSS-102 Issue 4: March 2010.

[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] International Standard IEC 62209-2 Edition 1.0 2010-03 - "Human exposure to radio frequency fields from hand-held & body-mounted wireless communication devices - Part 2: Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)".

[7] IEC International Standard 62209-1:2005 - "Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Human models, instrumentation, and procedures."

[8] Federal Communications Commission, Office of Engineering and Technology - "Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies"; KDB 447498 D01v05r01: May 2013.

[9] Federal Communications Commission, Office of Engineering and Technology - "SAR Test Reduction Considerations for Occupational PTT Radios", KDB 643646 D01v01r01: April 2011.

[10] Schmid & Partner Engineering AG - DASY4 Manual V4.6, Chapter 16 Application Note, Head Tissue Recipe: Sept. 2005.

[11] Schmid & Partner Engineering AG - DASY4 Manual V4.6, Chapter 17 Application Note, Body Tissue Recipe: Sept. 2005.

[12] ISO/IEC 17025 - "General requirements for the competence of testing and calibration laboratories (ISO/IEC 17025:2005)."

[13] Federal Communications Commission - "Measurements Required: RF Power Output"; Rule Part 47 CFR §2.1046.

[14] Industry Canada - "General Requirements and Information for the Certification of Radiocommunication Equipment", Radio Standards Specification RSS-Gen Issue 3: December 2010.

[15] Federal Communications Commission, Office of Engineering and Technology - "SAR Measurement Requirements for 100 MHz to 6 GHz"; KDB 865664 D01v01r01: May 2013.

APPENDIX A - SAR MEASUREMENT PLOTS

Plot F1

Date Tested: 05/31/2013

DUT: Harris XG-25P; Type: UHF-L PTT Radio Transceiver; Serial: 25

Program Notes: Ambient Temp: 22C; Fluid Temp: 22.0C; Barometric Pressure: 102.5 kPa; Humidity: 32%

Communication System: UHF-L
Frequency: 408 MHz; Duty Cycle: 1:1
Medium: HSL450 Medium parameters used (interpolated): f = 408 MHz; σ = 0.836 mho/m; ε_r = 45.7; ρ = 1000 kg/m^3

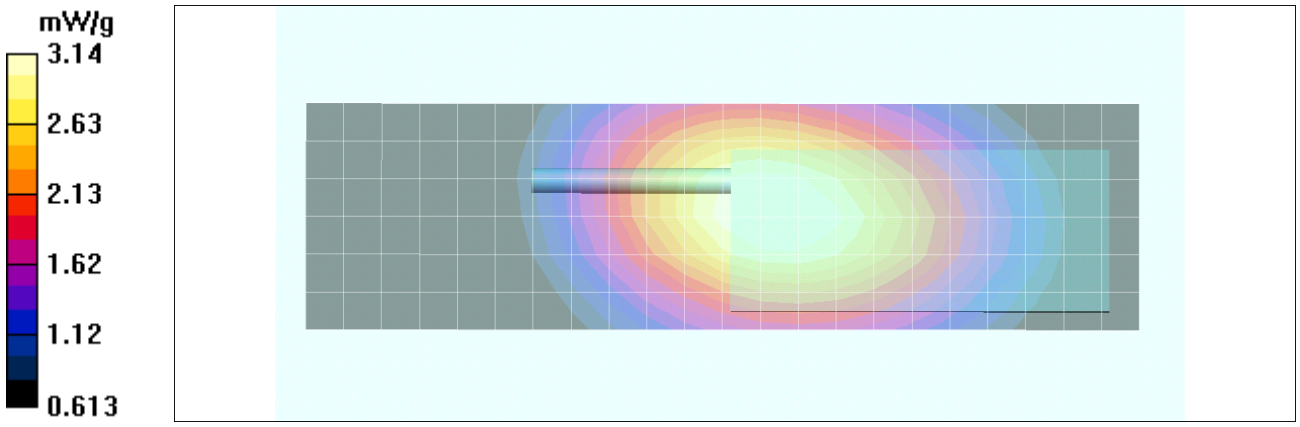
- Probe: ET3DV6 - SN1590; ConvF(7.53, 7.53, 7.53); Calibrated: 24/04/2013
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

408 - Li-poly - 1219/10/Area Scan (7x24x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 3.22 mW/g

408 - Li-poly - 1219/10/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 62.6 V/m; Power Drift = -0.307 dB
Peak SAR (extrapolated) = 4.05 W/kg
SAR(1 g) = 3.01 mW/g; SAR(10 g) = 2.27 mW/g

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 3.14 mW/g



Plot F2

Date Tested: 05/31/2013

DUT: Harris XG-25P; Type: UHF-L PTT Radio Transceiver; Serial: 25

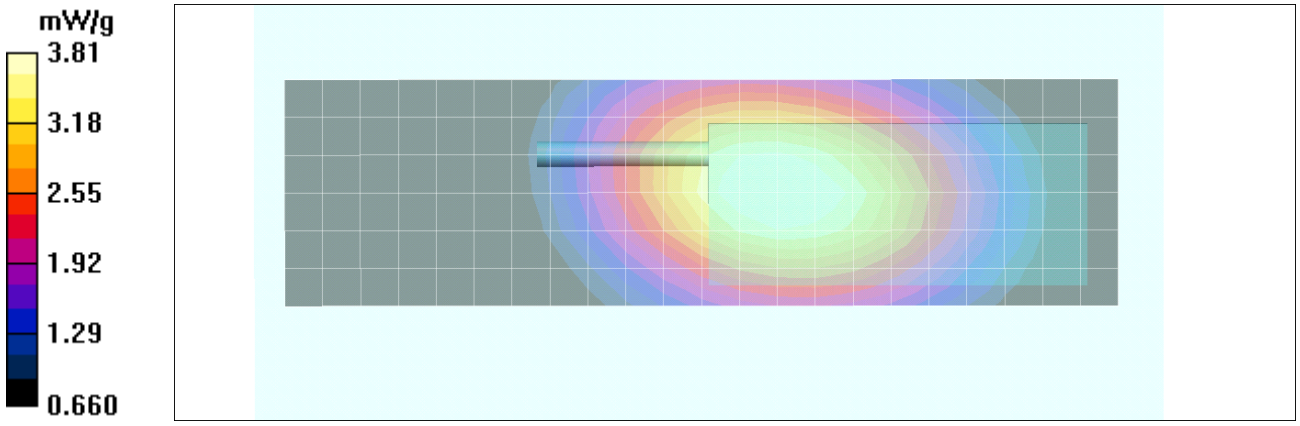
Program Notes: Ambient Temp: 22C; Fluid Temp: 22.0C; Barometric Pressure: 102.5 kPa; Humidity: 32%

Communication System: UHF-L
Frequency: 470 MHz; Duty Cycle: 1:1
Medium: HSL450 Medium parameters used: f = 470 MHz; σ = 0.89 mho/m; ε_r = 44.7; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1590; ConvF(7.53, 7.53, 7.53); Calibrated: 24/04/2013
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

470 - Li-poly - 1219/12/Area Scan (7x24x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.93 mW/g

470 - Li-poly - 1219/12/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 64.7 V/m; Power Drift = -0.339 dB
Peak SAR (extrapolated) = 4.95 W/kg
SAR(1 g) = 3.63 mW/g; SAR(10 g) = 2.7 mW/g
Maximum value of SAR (measured) = 3.81 mW/g



Plot F3

Date Tested: 05/31/2013

DUT: Harris XG-25P; Type: UHF-L PTT Radio Transceiver; Serial: 25

Program Notes: Ambient Temp: 22C; Fluid Temp: 22.0C; Barometric Pressure: 102.5 kPa; Humidity: 32%

Communication System: UHF-L
Frequency: 408 MHz; Duty Cycle: 1:1
Medium: HSL450 Medium parameters used (interpolated): f = 408 MHz; σ = 0.836 mho/m; ε_r = 45.7; ρ = 1000 kg/m^3

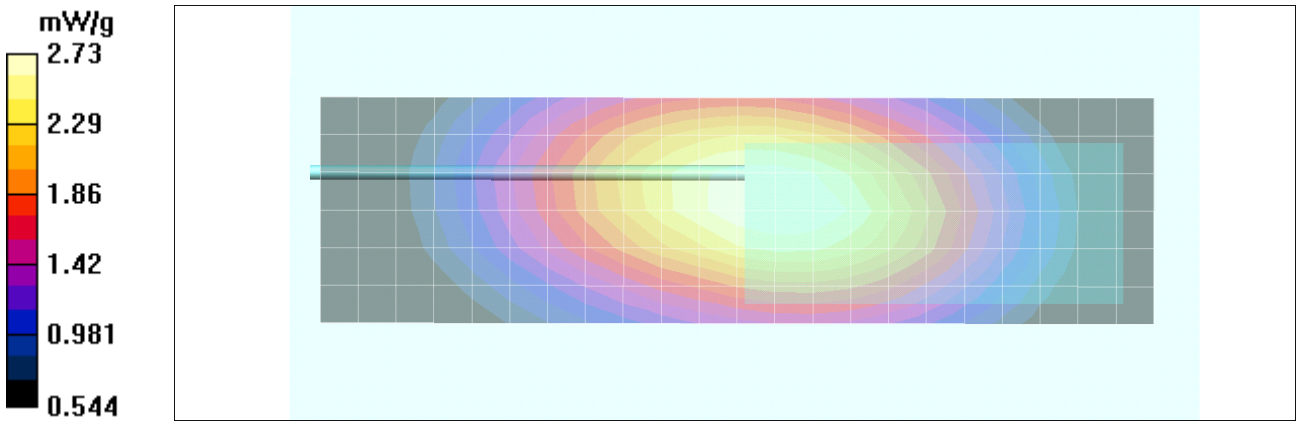
- Probe: ET3DV6 - SN1590; ConvF(7.53, 7.53, 7.53); Calibrated: 24/04/2013
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

408 - Li-poly - 1223/10/Area Scan (7x24x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 2.76 mW/g

408 - Li-poly - 1223/10/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 57.7 V/m; Power Drift = -0.140 dB
Peak SAR (extrapolated) = 3.52 W/kg
SAR(1 g) = 2.62 mW/g; SAR(10 g) = 1.98 mW/g

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 2.73 mW/g



Plot F4

Date Tested: 05/31/2013

DUT: Harris XG-25P; Type: UHF-L PTT Radio Transceiver; Serial: 25

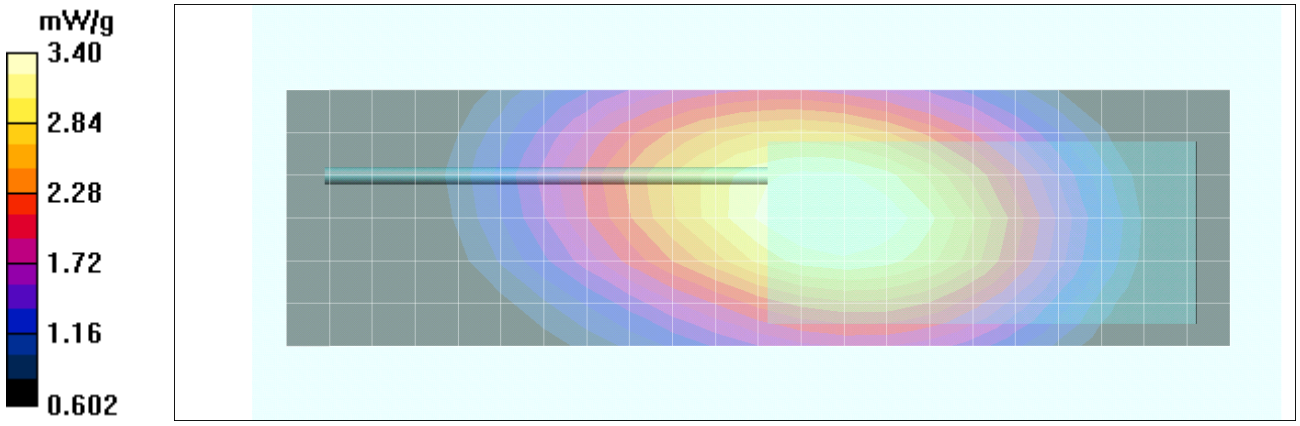
Program Notes: Ambient Temp: 22C; Fluid Temp: 22.0C; Barometric Pressure: 102.5 kPa; Humidity: 32%

Communication System: UHF-L
Frequency: 470 MHz; Duty Cycle: 1:1
Medium: HSL450 Medium parameters used: f = 470 MHz; σ = 0.89 mho/m; ε_r = 44.7; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1590; ConvF(7.53, 7.53, 7.53); Calibrated: 24/04/2013
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

470 - Li-poly - 1223/12/Area Scan (7x24x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.47 mW/g

470 - Li-poly - 1223/12/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 61.6 V/m; Power Drift = -0.190 dB
Peak SAR (extrapolated) = 4.42 W/kg
SAR(1 g) = 3.26 mW/g; SAR(10 g) = 2.43 mW/g
Maximum value of SAR (measured) = 3.40 mW/g



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Plot F5

Date Tested: 05/31/2013

DUT: Harris XG-25P; Type: UHF-L PTT Radio Transceiver; Serial: 25

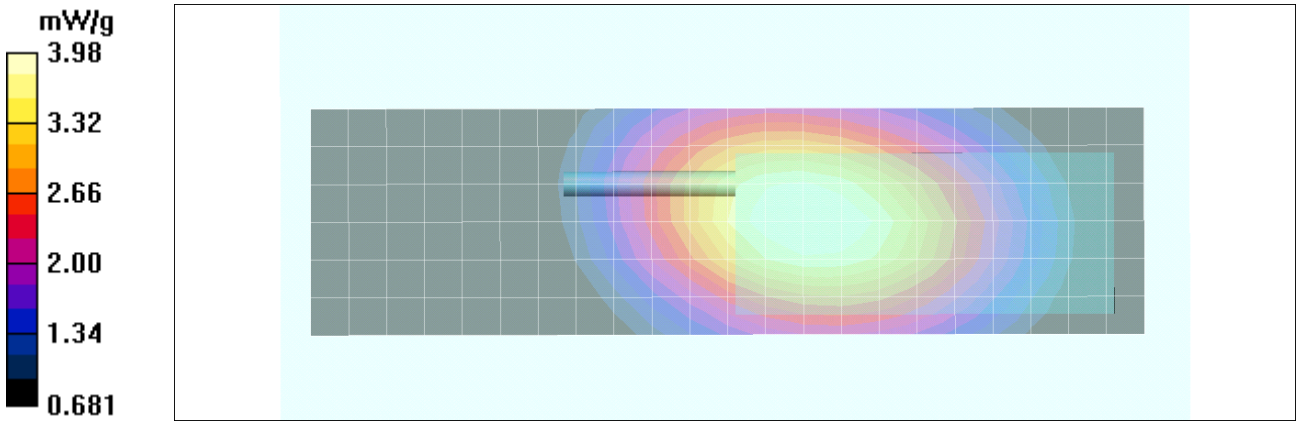
Program Notes: Ambient Temp: 22C; Fluid Temp: 22.0C; Barometric Pressure: 102.5 kPa; Humidity: 32%

Communication System: UHF-L
Frequency: 470 MHz; Duty Cycle: 1:1
Medium: HSL450 Medium parameters used: f = 470 MHz; σ = 0.89 mho/m; ε_r = 44.7; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1590; ConvF(7.53, 7.53, 7.53); Calibrated: 24/04/2013
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

470 - NiMH NIS - 1219/12/Area Scan (7x24x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 4.06 mW/g

470 - NiMH NIS - 1219/12/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 65.7 V/m; Power Drift = -0.342 dB
Peak SAR (extrapolated) = 5.16 W/kg
SAR(1 g) = 3.79 mW/g; SAR(10 g) = 2.82 mW/g
Maximum value of SAR (measured) = 3.98 mW/g



Plot F6

Date Tested: 05/31/2013

DUT: Harris XG-25P; Type: UHF-L PTT Radio Transceiver; Serial: 25

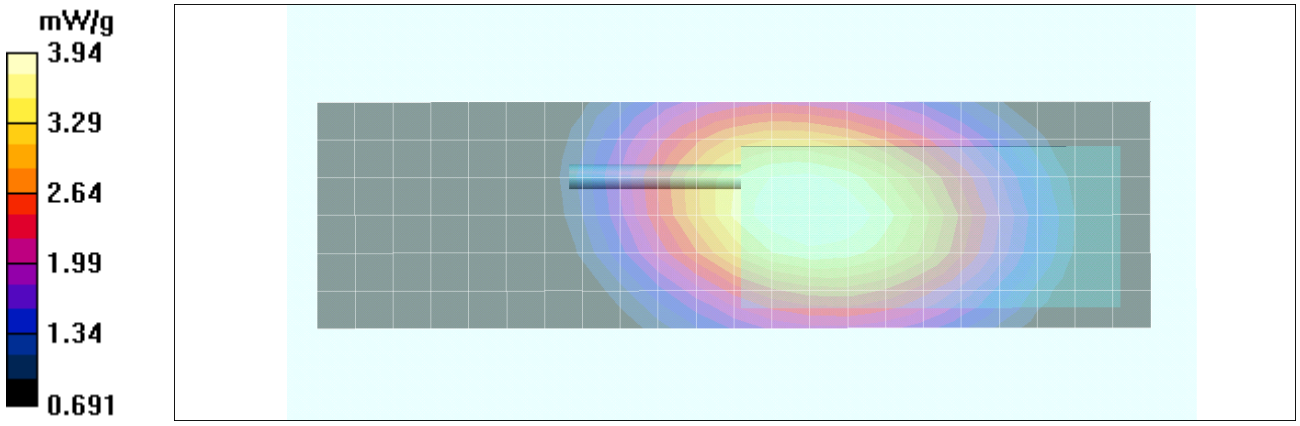
Program Notes: Ambient Temp: 22C; Fluid Temp: 22.0C; Barometric Pressure: 102.5 kPa; Humidity: 32%

Communication System: UHF-L
Frequency: 470 MHz; Duty Cycle: 1:1
Medium: HSL450 Medium parameters used: f = 470 MHz; σ = 0.89 mho/m; ε_r = 44.7; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1590; ConvF(7.53, 7.53, 7.53); Calibrated: 24/04/2013
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

470 - NiMH IS - 1219/12/Area Scan (7x24x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 4.02 mW/g

470 - NiMH IS - 1219/12/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 65.6 V/m; Power Drift = -0.276 dB
Peak SAR (extrapolated) = 5.11 W/kg
SAR(1 g) = 3.76 mW/g; SAR(10 g) = 2.8 mW/g
Maximum value of SAR (measured) = 3.94 mW/g



Plot F7

Date Tested: 05/31/2013

DUT: Harris XG-25P; Type: UHF-L PTT Radio Transceiver; Serial: 25

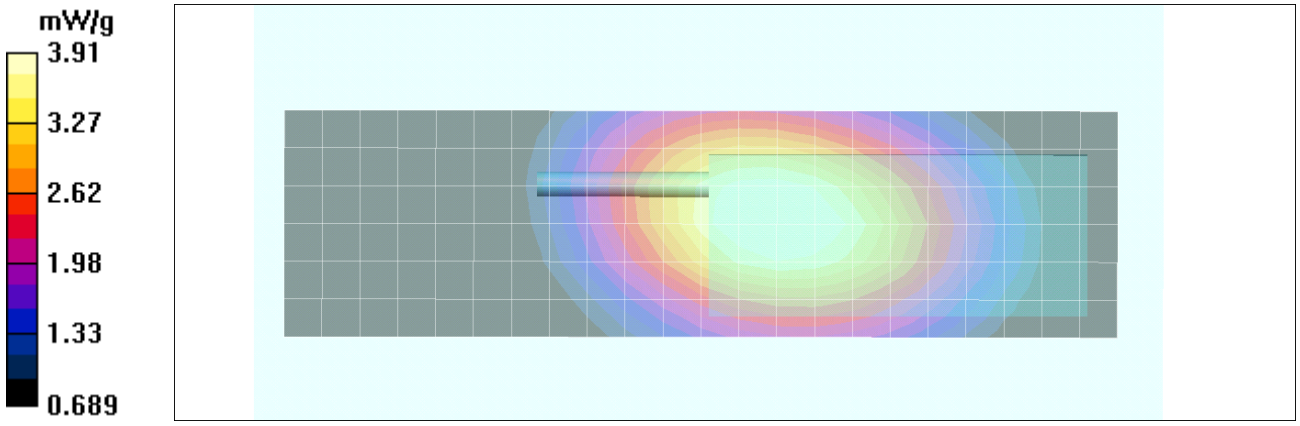
Program Notes: Ambient Temp: 22C; Fluid Temp: 22.0C; Barometric Pressure: 102.5 kPa; Humidity: 32%

Communication System: UHF-L
Frequency: 470 MHz; Duty Cycle: 1:1
Medium: HSL450 Medium parameters used: f = 470 MHz; σ = 0.89 mho/m; ε_r = 44.7; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1590; ConvF(7.53, 7.53, 7.53); Calibrated: 24/04/2013
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

470 - Li-ion - 1219/12/Area Scan (7x24x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 4.08 mW/g

470 - Li-ion - 1219/12/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 66.3 V/m; Power Drift = -0.450 dB
Peak SAR (extrapolated) = 5.07 W/kg
SAR(1 g) = 3.74 mW/g; SAR(10 g) = 2.8 mW/g
Maximum value of SAR (measured) = 3.91 mW/g



Plot F8

Date Tested: 05/31/2013

DUT: Harris XG-25P; Type: UHF-L PTT Radio Transceiver; Serial: 50

Program Notes: Ambient Temp: 22C; Fluid Temp: 22.0C; Barometric Pressure: 102.5 kPa; Humidity: 32%

Communication System: UHF-L
Frequency: 408 MHz; Duty Cycle: 1:1
Medium: HSL450 Medium parameters used (interpolated): f = 408 MHz; σ = 0.836 mho/m; ε_r = 45.7; ρ = 1000 kg/m^3

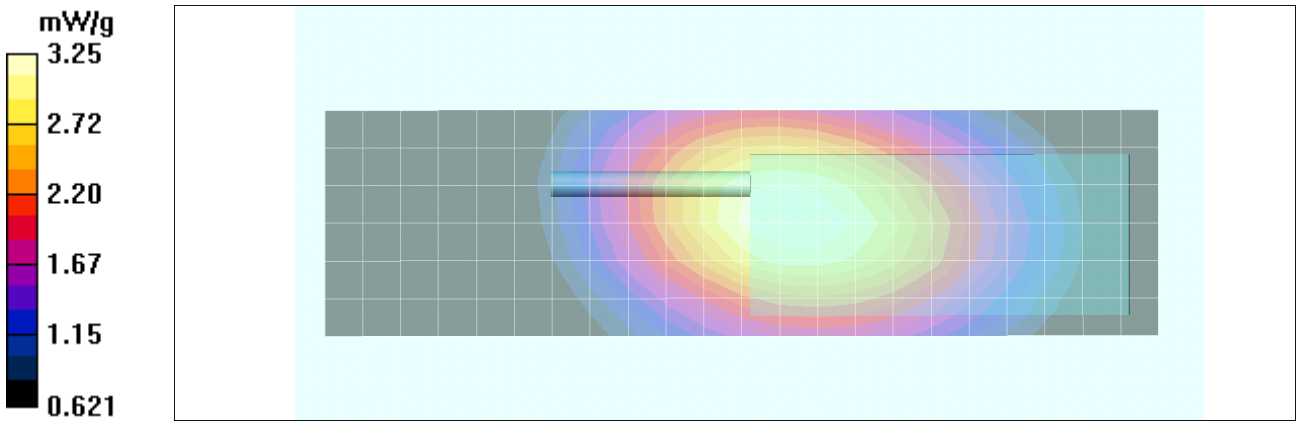
- Probe: ET3DV6 - SN1590; ConvF(7.53, 7.53, 7.53); Calibrated: 24/04/2013
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

SCAN - 408 - Li-poly - 1219/10/Area Scan (7x24x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 3.27 mW/g

SCAN - 408 - Li-poly - 1219/10/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 63.0 V/m; Power Drift = -0.231 dB
Peak SAR (extrapolated) = 4.18 W/kg
SAR(1 g) = 3.11 mW/g; SAR(10 g) = 2.34 mW/g

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 3.25 mW/g



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Plot F9

Date Tested: 05/31/2013

DUT: Harris XG-25P; Type: UHF-L PTT Radio Transceiver; Serial: 50

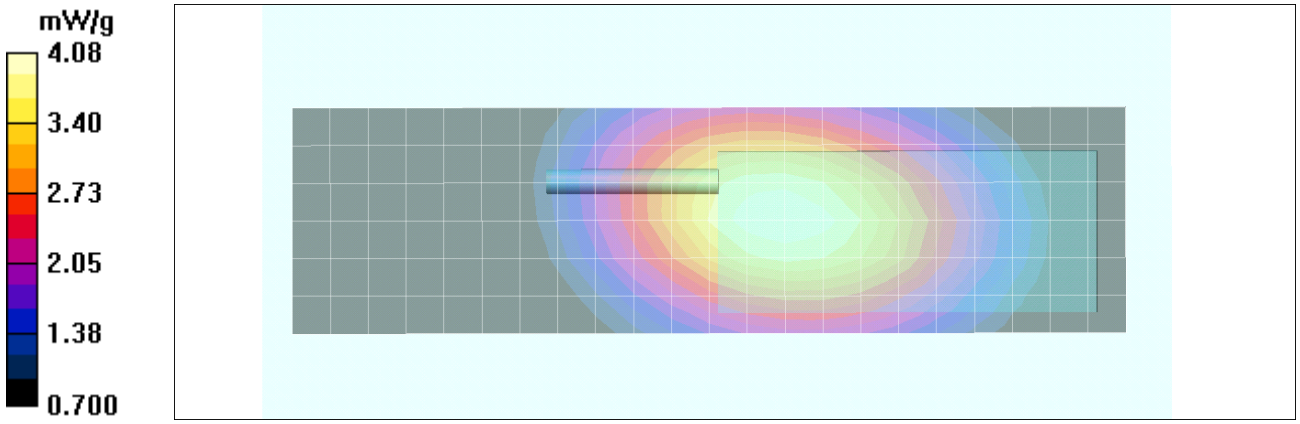
Program Notes: Ambient Temp: 22C; Fluid Temp: 22.0C; Barometric Pressure: 102.5 kPa; Humidity: 32%

Communication System: UHF-L
Frequency: 470 MHz; Duty Cycle: 1:1
Medium: HSL450 Medium parameters used: f = 470 MHz; σ = 0.89 mho/m; ε_r = 44.7; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1590; ConvF(7.53, 7.53, 7.53); Calibrated: 24/04/2013
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

SCAN - 470 - NiMH NIS - 1219/12/Area Scan (7x24x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 4.08 mW/g

SCAN - 470 - NiMH NIS - 1219/12/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 66.0 V/m; Power Drift = -0.142 dB
Peak SAR (extrapolated) = 5.28 W/kg
SAR(1 g) = 3.86 mW/g; SAR(10 g) = 2.88 mW/g



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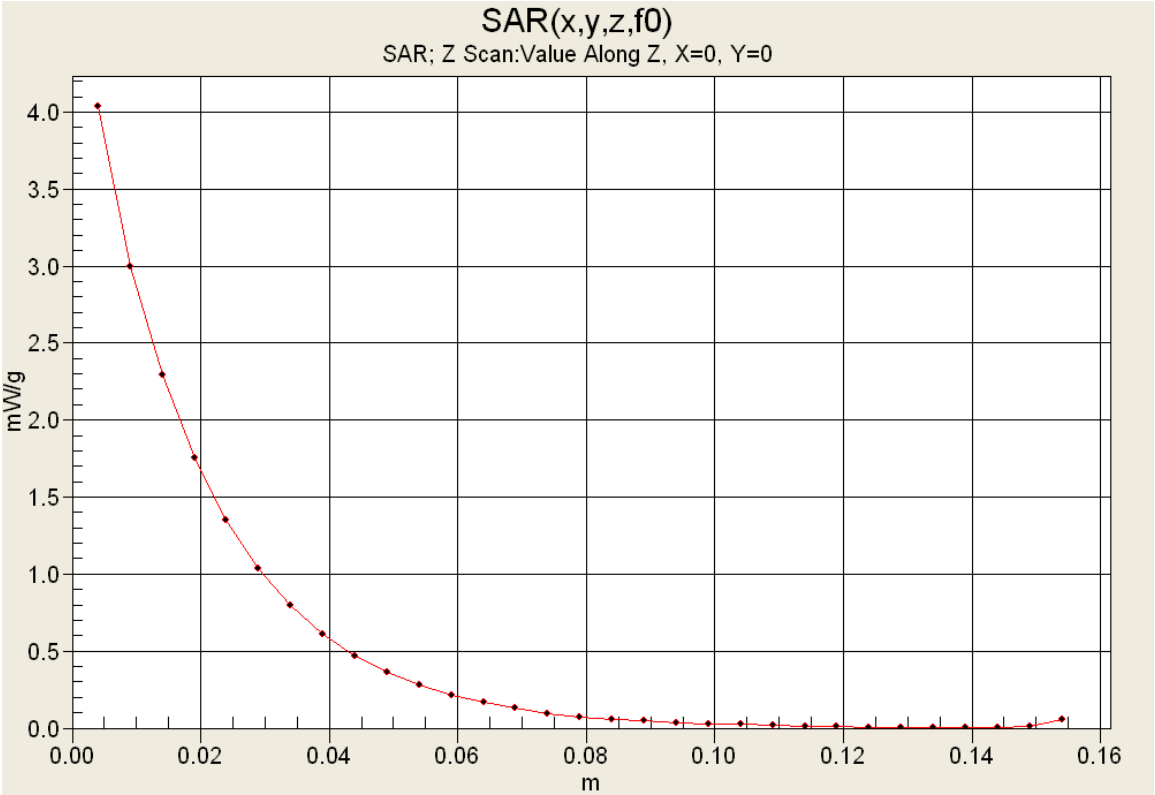
Z-Axis Scan


SAR(x,y,z,f0)
SAR; Z Scan:Value Along Z, X=0, Y=0
mW/g
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
0.16
m

Plot F10

Date Tested: 05/31/2013

DUT: Harris XG-25P; Type: UHF-L PTT Radio Transceiver; Serial: 50

Program Notes: Ambient Temp: 22C; Fluid Temp: 22.0C; Barometric Pressure: 102.5 kPa; Humidity: 32%

Communication System: UHF-L
Frequency: 408 MHz; Duty Cycle: 1:1
Medium: HSL450 Medium parameters used (interpolated): f = 408 MHz; σ = 0.836 mho/m; ε_r = 45.7; ρ = 1000 kg/m^3

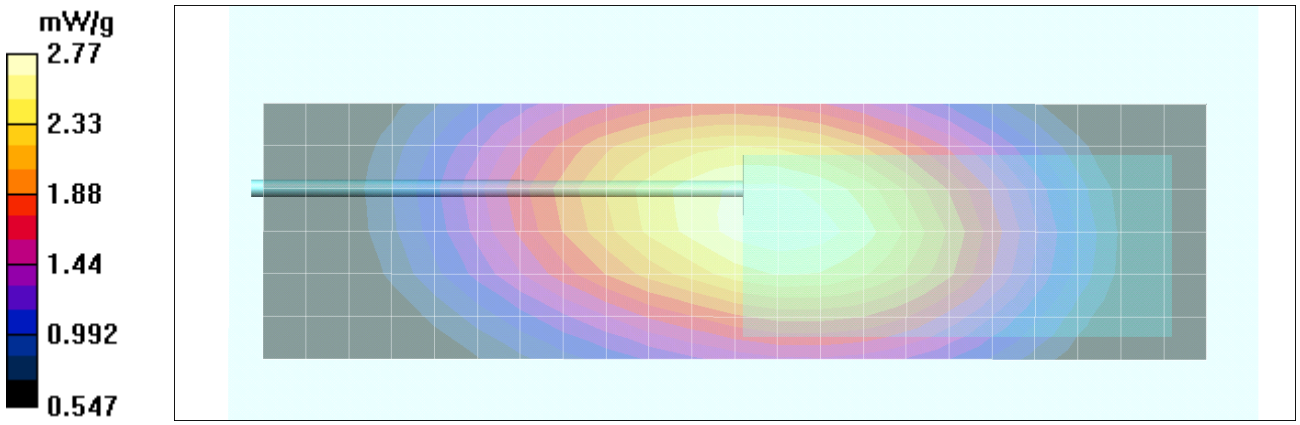
- Probe: ET3DV6 - SN1590; ConvF(7.53, 7.53, 7.53); Calibrated: 24/04/2013
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

SCAN - 408 - Li-poly - 1223/10/Area Scan (7x24x1): Measurement grid: dx=15mm, dy=15mm

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 2.74 mW/g

SCAN - 408 - Li-poly - 1223/10/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 57.4 V/m; Power Drift = -0.068 dB
Peak SAR (extrapolated) = 3.56 W/kg
SAR(1 g) = 2.66 mW/g; SAR(10 g) = 2.01 mW/g

Info: Interpolated medium parameters used for SAR evaluation.
Maximum value of SAR (measured) = 2.77 mW/g



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Plot F11

Date Tested: 05/31/2013

DUT: Harris XG-25P; Type: UHF-L PTT Radio Transceiver; Serial: 50

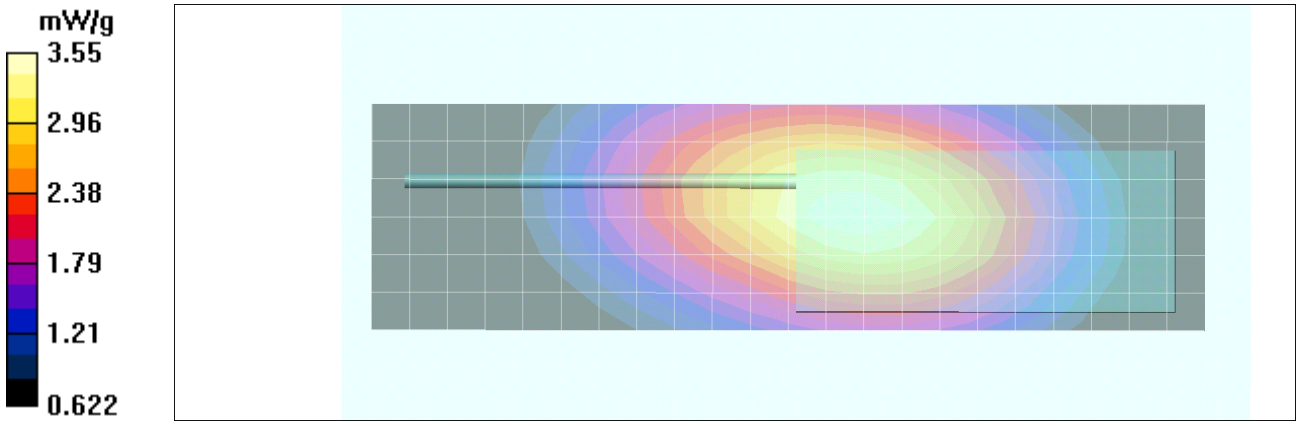
Program Notes: Ambient Temp: 22C; Fluid Temp: 22.0C; Barometric Pressure: 102.5 kPa; Humidity: 32%

Communication System: UHF-L
Frequency: 470 MHz; Duty Cycle: 1:1
Medium: HSL450 Medium parameters used: f = 470 MHz; σ = 0.89 mho/m; ε_r = 44.7; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1590; ConvF(7.53, 7.53, 7.53); Calibrated: 24/04/2013
- Sensor-Surface: 4mm (Mechanical Surface Detection (Locations From Previous Scan Used))Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 19/04/2012
- Phantom: Barski Industries; Type: Fiberglass Planar; Serial: 03-01
- Measurement SW: DASY4, V4.7 Build 80; Postprocessing SW: SEMCAD, V1.8 Build 186

SCAN - 470 - Li-Poly - 1223/12/Area Scan (7x24x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 3.52 mW/g

SCAN - 470 - Li-Poly - 1223/12/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 61.1 V/m; Power Drift = 0.005 dB
Peak SAR (extrapolated) = 4.61 W/kg
SAR(1 g) = 3.39 mW/g; SAR(10 g) = 2.52 mW/g
Maximum value of SAR (measured) = 3.55 mW/g



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