RF EXPOSURE EVALUATION

SPECIFIC ABSORPTION RATE

SAR TEST REPORT

FOR

M/A-COM, INC.

PORTABLE 900 MHz PTT RADIO TRANSCEIVER

MODEL: P5300 (Analog/Digital)

IDENTIFIER(S)	FCC ID: OWDTR-0047-E	IC: 3636B-0047
Test Standard(s) and Procedure(s)	FCC OET Bulletin 65, Supplement C (01-01)	
	Industry Canada RSS-102 Issue 2	

Test Report Serial No.

032807OWD-T826-S90F

Test Report Revision No.

Revision 1.1 (2nd Release)
Revision 1.0 (Initial Release)

Test Lab and Location

Celltech Compliance Testing & Engineering Lab
(Celltech Labs Inc.)
1955 Moss Court
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Certificate No. 2470.01

Test Report Prepared By:	Test Report Reviewed By:
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DECLARATION OF COMPLIANCE
SAR RF EXPOSURE EVALUATION

Test Lab and Location

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FCC IDENTIFIER:	**OWDTR-0047-E**
IC IDENTIFIER:	**3636B-0047**
Device Model No.(s):	**P5300**
Device Part No.(s) Tested:	**RU-123550-041 (Scan); RU-123550-042 (System)**
Test Requirement(s):	**FCC 47 CFR §2.1093; Health Canada Safety Code 6**
Test Procedure(s):	**FCC OET Bulletin 65, Supplement C (Edition 01-01)** **Industry Canada RSS-102 Issue 2**
FCC Device Classification:	**Licensed Non-Broadcast Transmitter Held to Face (TNF)**
IC Device Classification:	**Land Mobile Radio Transmitter/Receiver (27.41-960 MHz)**
Device Description:	**Portable 900 MHz PTT Radio Transceiver**
Modulation Type(s):	**Analog (FM), Digital (FSK)**
Transmit Frequency Range(s):	**Band 1: 896-902 MHz (Repeater Input Mode); Band 2: 935-941 MHz (Talk-around Mode)**
Max. RF Output Power Tested:	**3.0 Watts (34.8 dBm) Conducted (898.5 MHz); 2.5 Watts (34.0 dBm) Conducted (937.5 MHz)**
Antenna Type(s) Tested:	**Quarter-Wave Whip (P/N: KRE 101 1223/02)**
Battery Type(s) Tested:	**7.5V NiCd, immersible, non-IS (P/N: BT-023406-001); 7.5V NiCd, immersible, IS (P/N: BT-023406-002)** **7.5V NiMH, immersible, non-IS (P/N: BT-023406-003); 7.5V NiMH, immersible, IS (P/N: BT-023406-004)** **7.5V Li-ion, immersible, non-IS (P/N: BT-023406-005); 7.5V Li-ion, immersible, IS (P/N: BT-023406-006)**
Body-worn Accessories Tested:	**1. Metal Belt-Clip (P/N: CC23894)** **2. Leather Belt Loop (P/N: KRY 101 1609/1) and Metal Swivel-Mount (P/N: KRY 101 1608/2)** **3. Leather Case Kit 1 (P/N: CC-023931-003): Leather Case w/o D-rings (P/N: CC-023931-001), Swivel-Mount (P/N: KRY 101 1608/2), Elastic Strap (P/N: FM-011820) and Belt Loop (P/N: KRY 101 1609/1)** **4. Leather Case Kit 2 (P/N: CC-023931-004): Leather Case w/ D-rings (P/N: CC-023931-002), Swivel-Mount (P/N: KRY 101 1608/2), Elastic Strap (P/N: FM-011820) and Belt Loop (P/N: KRY 101 1609/1)** **5. Leather Case 3 w/ D-rings (P/N: CC-023931-002), Elastic Strap (P/N: FM-011820), Shoulder Strap (P/N: CC103333V1)** **6. Nylon (black) Case (P/N: CC-023932-001) and Belt Loop (P/N: KRY 101 1609/1)** **7. Nylon "T" Strap Holder (P/N: KRY 101 1656/1)**
Audio Accessories Tested:	**1. Speaker-Microphone Antenna Version (P/N: MC-023933-002)** **2. Speaker-Microphone (P/N: MC-023933-001)** **3. Earphone (P/N: LS103239V1)**
Max. SAR Level(s) Evaluated:	**Face-held: 2.51 W/kg (1g average) - 50% Duty Cycle** **Body-worn: 2.84 W/kg (1g average) - 50% Duty Cycle**

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'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 Occupational/Controlled 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.

Test Report Approved By:
Sean Johnston
SAR Lab Manager
Celltech Labs Inc.

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1.0 INTRODUCTION

This measurement report demonstrates that the M/A-COM Model: P5300 Portable Analog/Digital 900 MHz PTT Radio Transceiver 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 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 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 DESCRIPTION OF DEVICE UNDER TEST (DUT)

Test Requirement(s)	FCC Rule Part 47 CFR §2.1093				
	Health Canada Safety Code 6				
Test Procedure(s)	FCC OET Bulletin 65, Supplement C (01-01)				
	Industry Canada RSS-102 Issue 2				
Device Classification(s)	FCC: Licensed Non-Broadcast Transmitter Held to Face (TNF)				
	IC: Land Mobile Radio Transmitter/Receiver (27.41-960 MHz)				
Device Description	Portable Analog/Digital 900 MHz PTT Radio Transceiver				
Modulation Type(s)	Analog (FM)		Digital (FSK)		
RF Exposure Category	Occupational / Controlled Environment				
FCC IDENTIFIER	OWDTR-0047-E				
IC IDENTIFIER	3636B-0047				
Device Model(s)	P5300				
Part No.(s) / Serial No.(s) Tested	Scan	P/N: RU-123550-041	S/N: T2A-9M-004	Identical Prototype	
	System	P/N: RU-123550-042	S/N: T2A-9M-003	Identical Prototype	
Transmit Frequency Range(s)	896-902 MHz	Repeater Input mode	Band 1		
	935-941 MHz	Talk-around mode	Band 2		
Max. RF Conducted Output Power Measured	3.0 Watts	34.8 dBm	898.5 MHz	Scan & System	
	2.5 Watts	34.0 dBm	937.5 MHz	Scan & System	
Antenna Type(s) Tested	Quarter-Wave Whip	Length: 85 mm	P/N: KRE 101 1223/02		
Battery Type(s) Tested	NiCd	immersible	non-intrinsically safe	7.5 V	P/N: BT-023406-001
	NiCd	immersible	intrinsically safe	7.5 V	P/N: BT-023406-002
	NiMH	immersible	non-intrinsically safe	7.5 V	P/N: BT-023406-003
	NiMH	immersible	intrinsically safe	7.5 V	P/N: BT-023406-004
	Li-ion	immersible	non-intrinsically safe	7.5 V	P/N: BT-023406-005
	Li-ion	immersible	intrinsically safe	7.5 V	P/N: BT-023406-006

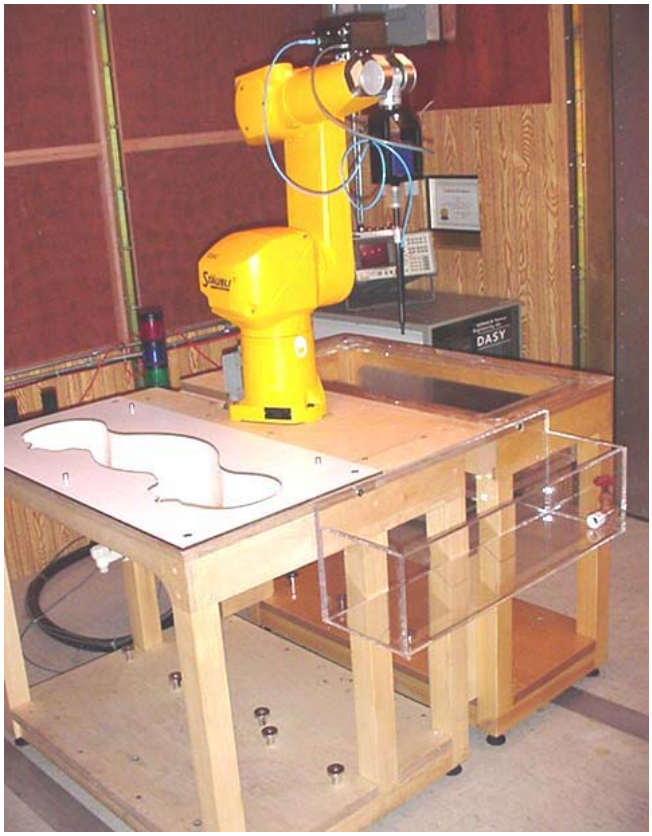
DESCRIPTION OF DEVICE UNDER TEST (DUT) - Cont.

	Accessory Type	Part No.
Body-worn Accessories Tested	Metal Belt-Clip (standard)	CC23894
	Leather Belt Loop and Swivel Mount (P/N: KRY 101 1608/2)	KRY 101 1609/1
	Leather Case Kit: Leather Case w/o D-rings (P/N: CC-023931-001), elastic strap (P/N: FM-011820), Swivel Mount (P/N: KRY 101 1608/2) and Leather Belt Loop (P/N: KRY 101 1609/1)	CC-023931-003
	Leather Case Kit: Leather Case w/ D-rings (P/N: CC-023931-002), elastic strap (P/N: FM-011820), Swivel Mount (P/N: KRY 101 1608/2) and Leather Belt Loop (P/N: KRY 101 1609/1)	CC-023931-004
	Leather Case w/ D-rings, elastic strap (P/N: FM-011820) and Shoulder Strap (P/N: CC103333V1)	CC-023931-002
	Nylon Case (black) w/ Leather Belt Loop (P/N: KRY 101 1609/1)	CC-023932-001
	Nylon "T" Strap Holder	KRY 101 1656/1
Audio Accessories Tested	Speaker-Microphone Non-Antenna Version	MC-023933-001
	Speaker-Microphone Antenna Version	MC-023933-002
	Earphone for speaker/mic	LS103239V1
Additional Body-worn and Audio Accessories (Testing Not Required)	Nylon Case (Orange) w/ Leather Belt Loop (P/N: KRY 101 1609/1)	CC-023932-002
	Metal Belt Clip (alternate)	CC-011318
	Earphone Kit, Black	EA-009580-001
	Earphone Kit, Beige	EA-009580-002
	2-Wire Kit, Palm mic, Black	EA-009580-003
	2-Wire Kit, Palm mic, Beige	EA-009580-004
	3-Wire Kit, Mini-Lapel Mic, Black	EA-009580-005
	3-Wire Kit, Mini-Lapel Mic, Beige	EA-009580-006
	Explorer Headset w/ PTT	EA-009580-007
	Lightweight headset single spkr w/ PTT	EA-009580-008
	Breeze Headset w/ PTT	EA-009580-009
	Headset, heavy duty, N/C behind the head, w/ PTT	EA-009580-010
	Ranger Headset w/ PTT	EA-009580-011
	Skull mic w/body PTT & earcup	EA-009580-012
	Headset, heavy duty, N/C over the head, w/ PTT	EA-009580-013
	Throat mic w/acoustic tube & body PTT	EA-009580-014
	Throat mic w/acoustic tube, body PTT, & ring PTT	EA-009580-015
	Breeze headset w/ PTT & pigtail jack	EA-009580-016
	Hurricane headset w/ PTT	EA-009580-017
	Hurricane headset w/ PTT & pigtail jack	EA-009580-018

3.0 SAR MEASUREMENT SYSTEM

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

DASY4 SAR Measurement System with SAM validation phantom



DASY4 SAR Measurement System with Plexiglas side planar phantom

4.0 SAR MEASUREMENT SUMMARY

FACE-HELD SAR EVALUATION RESULTS - Band 1 (896-902 MHz)

Test Date	Freq.	Chan.	Test Mode	Device Tested	Antenna Position	Battery Type	DUT Position to Planar Phantom	DUT Spacing to Planar Phantom	Conducted Power Before Test	SAR Drift During Test	Measured SAR 1g (W/kg)	
											Duty Cycle	
	MHz							cm	Watts	dB	100%	50%
Mar 29	898.5	Mid	CW	Scan Radio	Fixed	NiCd NIS	Front Side	2.5	3.0	-0.106	4.74	2.37
Mar 29	898.5	Mid	CW	Scan Radio	Fixed	NiCd IS	Front Side	2.5	3.0	-0.0670	5.01	**2.51**
Mar 28	898.5	Mid	CW	System Radio	Fixed	NiMH NIS	Front Side	2.5	3.0	-0.0497	4.67	2.34
Mar 29	898.5	Mid	CW	Scan Radio	Fixed	NiMH IS	Front Side	2.5	3.0	-0.0763	4.74	2.37
Mar 29	898.5	Mid	CW	Scan Radio	Fixed	Li-ion NIS	Front Side	2.5	3.0	-0.0943	4.37	2.19
Mar 29	898.5	Mid	CW	Scan Radio	Fixed	Li-ion IS	Front Side	2.5	3.0	-0.102	4.41	2.21
Mar 29	898.5	Mid	CW	Speaker-Mic with Antenna	Fixed	NiCd IS	Front Side	2.5	3.0	-0.0480	1.65	0.825

ANSI / IEEE C95.1:2005 - SAFETY LIMIT | **BRAIN: 8.0 W/kg (averaged over 1 gram)** | **Spatial Peak - Controlled Exposure / Occupational**

Test Date(s)			March 28, 2007		March 29, 2007		Test Date	Mar 28	Mar 29	Unit
Dielectric Constant ε_r	Fluid Type		900 MHz Brain		900 MHz Brain		Relative Humidity	33	33	%
	IEEE Target		Measured	Deviation	Measured	Deviation	Atmospheric Pressure	101.9	101.4	kPa
	41.5	± 5%	39.6	-4.6%	40.2	-3.1%	Ambient Temperature	22.5	22.8	°C
Conductivity σ (mho/m)	Fluid Type		900 MHz Brain		900 MHz Brain		Fluid Temperature	22.0	21.3	°C
	IEEE Target		Measured	Deviation	Measured	Deviation	Fluid Depth	≥ 15	≥ 15	cm
	0.97	± 5%	0.94	-3.1%	0.95	-2.1%	ρ (Kg/m^3)	1000		

Note(s)		
	1.	The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
	2.	The transmission band of the DUT (Band 1) is less than 10 MHz; therefore single channel data only is reported (per FCC OET Bulletin 65, Supplement C, Edition 01-01 - see reference [3]).
	3.	The power drifts measured by the DASY4 system for the duration of the SAR evaluations were <5% from the start power.
	4.	The area scan evaluation was performed with a fully charged battery. After the area scan evaluation was completed the battery was replaced with a fully charged battery prior to the zoom scan evaluation.
	5.	The fluid temperature was measured prior to and after the SAR evaluations to ensure the temperature remained within +/-2°C of the fluid temperature reported during the dielectric parameter measurements.
	6.	The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C).
	7.	The SAR evaluations were performed within 24 hours of the system performance check.

SAR MEASUREMENT SUMMARY (Cont.)

FACE-HELD SAR EVALUATION RESULTS - Band 2 (935-941 MHz)

Test Date	Freq.	Chan.	Test Mode	Device Tested	Antenna Position	Battery Type	DUT Position to Planar Phantom	DUT Spacing to Planar Phantom	Conducted Power Before Test	SAR Drift During Test	Measured SAR 1g (W/kg)	
											Duty Cycle	
	MHz							cm	Watts	dB	100%	50%
Mar 29	937.5	Mid	CW	Scan Radio	Fixed	NiCd NIS	Front Side	2.5	2.5	-0.135	3.36	1.68
Mar 29	937.5	Mid	CW	Scan Radio	Fixed	NiCd IS	Front Side	2.5	2.5	-0.0087	3.21	1.61
Mar 29	937.5	Mid	CW	Scan Radio	Fixed	NiMH NIS	Front Side	2.5	2.5	0.0460	3.44	**1.72**
Mar 29	937.5	Mid	CW	Scan Radio	Fixed	NiMH IS	Front Side	2.5	2.5	-0.0293	3.30	1.65
Mar 29	937.5	Mid	CW	Scan Radio	Fixed	Li-ion NIS	Front Side	2.5	2.5	-0.0822	3.10	1.55
Mar 29	937.5	Mid	CW	Scan Radio	Fixed	Li-ion IS	Front Side	2.5	2.5	-0.0078	3.09	1.55
Mar 29	937.5	Mid	CW	Speaker-Mic with Antenna	Fixed	NiMH NIS	Front Side	2.5	2.5	0.0287	0.994	0.497

ANSI / IEEE C95.1:2005 - SAFETY LIMIT	BRAIN: 8.0 W/kg (averaged over 1 gram)	Spatial Peak - Controlled Exposure / Occupational

Test Date(s)	March 29, 2007				Relative Humidity	33	%
Fluid Type	940 MHz Brain				Atmospheric Pressure	101.4	KPa
Dielectric Constant ε_r	IEEE Target		Measured	Deviation	Ambient Temperature	22.8	°C
	41.5	± 5%	39.8	-4.1%	Fluid Temperature	21.3	°C
Conductivity σ (mho/m)	IEEE Target		Measured	Deviation	Fluid Depth	≥ 15	cm
	0.99	± 5%	0.99	0.0%	ρ (Kg/m^3)	1000	

Note(s)		
	1.	The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
	2.	The transmission band of the DUT (Band 2) is less than 10 MHz; therefore single channel data only is reported (per FCC OET Bulletin 65, Supplement C, Edition 01-01 - see reference [3]).
	3.	The power drifts measured by the DASY4 system for the duration of the SAR evaluations were <5% from the start power.
	4.	The area scan evaluation was performed with a fully charged battery. After the area scan evaluation was completed the battery was replaced with a fully charged battery prior to the zoom scan evaluation.
	5.	The fluid temperature was measured prior to and after the SAR evaluations to ensure the temperature remained within +/-2°C of the fluid temperature reported during the dielectric parameter measurements.
	6.	The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C).
	7.	The SAR evaluations were performed within 24 hours of the system performance check.

SAR MEASUREMENT SUMMARY (Cont.)

BODY-WORN SAR EVALUATION RESULTS - Band 1 (896-902 MHz)

Test Date	Freq. (MHz)	Chan.	Test Mode	Device Tested	Antenna Position	Battery Type	DUT Position to Planar Phantom	DUT Spacing to Planar Phantom (cm)	Conducted Power Before Test (Watts)	SAR Drift During Test (dB)		Measured SAR 1g (W/kg) Duty Cycle 100%	Duty Cycle 50%
Radio with Metal Belt-Clip (P/N: CC23894) & Speaker-Microphone (P/N: MC-023933-001) Accessories													
Mar 28	898.5	Mid	CW	System Radio	Fixed	NiCd NIS	Back Side	1.1	3.0	-0.0221	P	5.59	2.80
										-0.0774	S	3.35	1.68
Mar 29	898.5	Mid	CW	Scan Radio	Fixed	NiCd IS	Back Side	1.1	3.0	-0.0380	P	5.67	2.84
											S	4.24	2.12
Mar 28	898.5	Mid	CW	System Radio	Fixed	NiMH NIS	Back Side	1.1	3.0	-0.0937		5.28	2.64
Mar 29	898.5	Mid	CW	Scan Radio	Fixed	NiMH IS	Back Side	1.1	3.0	-0.0200	P	5.68	**2.84**
											S	3.89	1.95
Mar 28	898.5	Mid	CW	System Radio	Fixed	Li-ion NIS	Back Side	1.1	3.0	-0.135	P	5.22	2.61
											S	3.45	1.73
Mar 29	898.5	Mid	CW	Scan Radio	Fixed	Li-ion IS	Back Side	1.1	3.0	-0.0270	P	5.18	2.59
											S	3.78	1.89
Speaker-Microphone Antenna Version with Lapel Clip & Earphone (P/N: LS103239V1) Accessory													
Apr 3	898.5	Mid	CW	Speaker-Mic with Antenna	Fixed	NiMH IS	Back Side	1.5	3.0	-0.0246		2.72	1.36

ANSI / IEEE C95.1:2005 - SAFETY LIMIT | **BODY: 8.0 W/kg (averaged over 1 gram)** | **Spatial Peak - Controlled Exposure / Occupational**

Test Date(s)			Mar 28, 2007		Mar 29, 2007		Apr 3, 2007		Test Date	Mar 28	Mar 29	Apr 3	Unit
Dielectric Constant ε_r	Fluid Type		900 MHz Body		900 MHz Body		900 MHz Body		Relative Humidity	33	33	30	%
	IEEE Target		Meas.	Dev.	Meas.	Dev.	Meas.	Dev.	Atmospheric Pressure	101.9	101.9	101.4	kPa
	55.0	± 5%	55.9	+1.6%	55.1	+0.2%	55.9	+1.6%	Ambient Temperature	22.5	22.3	22.6	°C
Conductivity σ (mho/m)	Fluid Type		900 MHz Body		900 MHz Body		900 MHz Body		Fluid Temperature	22.0	22.0	20.2	°C
	IEEE Target		Meas.	Dev.	Meas.	Dev.	Meas.	Dev.	Fluid Depth	≥ 15	≥ 15	≥ 15	cm
	1.05	± 5%	1.03	-1.9%	1.05	0.0%	1.04	-1.0%	ρ (Kg/m^3)	1000			

Note(s)		
	1.	The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
	2.	The transmission band of the DUT (Band 1) is less than 10 MHz; therefore single channel data only is reported (per FCC OET Bulletin 65, Supplement C, Edition 01-01 - see reference [3]).
	3.	The power drifts measured by the DASY4 system for the duration of the SAR evaluations were <5% from the start power.
	4.	Secondary peak SAR levels measured within 2 dB of the primary were reported (P = Primary, S = Secondary).
	5.	The area scan evaluation was performed with a fully charged battery. After the area scan evaluation was completed the battery was replaced with a fully charged battery prior to the zoom scan evaluation.
	6.	The fluid temperature was measured prior to and after the SAR evaluations to ensure the temperature remained within +/-2°C of the fluid temperature reported during the dielectric parameter measurements.
	7.	The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C).
	8.	The SAR evaluations were performed within 24 hours of the system performance check.

SAR MEASUREMENT SUMMARY (Cont.)

BODY-WORN SAR EVALUATION RESULTS - Band 2 (935-941 MHz)

Test Date	Freq. (MHz)	Chan.	Test Mode	Device Tested	Antenna Position	Battery Type	DUT Position to Planar Phantom	DUT Spacing to Planar Phantom (cm)	Conducted Power Before Test (Watts)	SAR Drift During Test (dB)	Measured SAR 1g (W/kg) Duty Cycle		
												100%	50%
Radio with Metal Belt-Clip (P/N: CC23894) & Speaker-Microphone (P/N: MC-023933-001) Accessories													
Mar 28	937.5	Mid	CW	System Radio	Fixed	NiCd NIS	Back Side	1.1	2.5	-0.131		4.54	2.27
Mar 29	937.5	Mid	CW	Scan Radio	Fixed	NiCd IS	Back Side	1.1	2.5	-0.0290	P	4.56	2.28
											S	3.56	1.78
Mar 28	937.5	Mid	CW	System Radio	Fixed	NiMH NIS	Back Side	1.1	2.5	-0.0780	P	4.94	**2.47**
											S	3.91	1.96
Mar 29	937.5	Mid	CW	Scan Radio	Fixed	NiMH IS	Back Side	1.1	2.5	-0.0570	P	4.76	2.38
											S	3.77	1.89
Mar 28	937.5	Mid	CW	System Radio	Fixed	Li-ion NIS	Back Side	1.1	2.5	-0.0871		4.11	2.06
Mar 29	937.5	Mid	CW	Scan Radio	Fixed	Li-ion IS	Back Side	1.1	2.5	-0.141	P	3.58	1.79
											S	3.10	1.55
Speaker-Microphone Antenna Version with Lapel Clip & Earphone (P/N: LS103239V1) Accessory													
Apr 3	937.5	Mid	CW	Speaker-Mic with Antenna	Fixed	NiMH NIS	Back Side	1.5	2.5	-0.0402		2.24	1.12

ANSI / IEEE C95.1 2005 - SAFETY LIMIT | **BODY: 8.0 W/kg (averaged over 1 gram)** | **Spatial Peak - Controlled Exposure / Occupational**

Test Date(s)			March 28		March 29		April 3		Test Date	Mar 28	Mar 29	Apr 3	Unit
Dielectric Constant ε_r	Fluid Type		940 MHz Body		940 MHz Body		940 MHz Body		Relative Humidity	33	33	30	%
	IEEE Target		Meas.	Dev.	Meas.	Dev.	Meas.	Dev.	Atmospheric Pressure	101.9	101.9	101.4	kPa
	55.0	± 5%	55.7	+1.3%	54.8	+0.4%	55.5	+0.9%	Ambient Temperature	22.5	22.3	22.6	°C
Conductivity σ (mho/m)	Fluid Type		940 MHz Body		940 MHz Body		940 MHz Body		Fluid Temperature	22.0	22.0	20.2	°C
	IEEE Target		Meas.	Dev.	Meas.	Dev.	Meas.	Dev.	Fluid Depth	≥ 15	≥ 15	≥ 15	cm
	1.07	± 5%	1.06	-1.0%	1.08	+1.0%	1.09	+1.9%	ρ (Kg/m^3)	1000			

Note(s)

1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. The transmission band of the DUT (Band 2) is less than 10 MHz; therefore single channel data only is reported (per FCC OET Bulletin 65, Supplement C, Edition 01-01 - see reference [3]).
3. The power drifts measured by the DASY4 system for the duration of the SAR evaluations were <5% from the start power.
4. Secondary peak SAR levels measured within 2 dB of the primary were reported (P = Primary, S = Secondary).
5. The area scan evaluation was performed with a fully charged battery. After the area scan evaluation was completed the battery was replaced with a fully charged battery prior to the zoom scan evaluation.
6. The fluid temperature was measured prior to and after the SAR evaluations to ensure the temperature remained within +/-2°C of the fluid temperature reported during the dielectric parameter measurements.
7. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C).
8. The SAR evaluations were performed within 24 hours of the system performance check.

SAR MEASUREMENT SUMMARY (Cont.)

BODY-WORN SAR EVALUATION RESULTS - Band 1 (896-902 MHz) & Band 2 (935-941 MHz)

Test Date	Freq. (MHz)	Chan.	Test Mode	Device Tested	Antenna Position	Battery Type	DUT Position to Planar Phantom	DUT Spacing to Planar Phantom (cm)	Conducted Power Before Test (Watts)	SAR Drift During Test (dB)		Measured SAR 1g (W/kg) Duty Cycle 100%	Measured SAR 1g (W/kg) Duty Cycle 50%
Radio with Leather Case Kit 1 (P/N: CC-023931-003) & Speaker-Microphone (P/N: MC-023933-001) Accessories													
Mar 30	898.5	Mid	CW	Scan Radio	Fixed	NiMH IS	Back Side	4.0	3.0	-0.0705	P	1.69	0.845
										-0.138	S	1.24	0.620
Mar 29	937.5	Mid	CW	Scan Radio	Fixed	NiMH NIS	Back Side	4.0	2.5	-0.166	P	0.929	0.465
											S	0.808	0.404
											S	0.834	0.417
Radio with Leather Case Kit 2 (P/N: CC-023931-004) & Speaker-Microphone (P/N: MC-023933-001) Accessories													
Mar 29	898.5	Mid	CW	Scan Radio	Fixed	NiMH IS	Back Side	4.0	3.0	-0.0532		1.80	0.900
Mar 29	937.5	Mid	CW	Scan Radio	Fixed	NiMH NIS	Back Side	4.0	2.5	-0.0950	P	0.872	0.436
											S	0.803	0.402
Radio with Leather Case 3 (P/N: CC-023931-002) & Speaker-Microphone (P/N: MC-023933-001) Accessories													
Mar 29	898.5	Mid	CW	Scan Radio	Fixed	NiMH IS	Back Side	2.5	3.0	-0.0439		4.32	2.16
Mar 29	937.5	Mid	CW	Scan Radio	Fixed	NiMH NIS	Back Side	2.5	2.5	-0.0614		3.85	1.93
Radio with Leather Belt Loop (P/N: KRY 101 1609/1) & Speaker-Microphone (P/N: MC-023933-001) Accessories													
Mar 30	898.5	Mid	CW	Scan Radio	Fixed	NiMH IS	Back Side	3.0	3.0	-0.0896	P	2.75	1.38
										-0.127	S	1.94	0.970
Mar 30	937.5	Mid	CW	Scan Radio	Fixed	NiMH NIS	Back Side	3.0	2.5	-0.0229	P	1.85	0.925
										-0.0788	S	1.54	0.770
										-0.127	S	1.81	0.905
Radio with Nylon Case (P/N: CC-023932-001), Belt Loop (KRY 101 1609/1) & Speaker-Microphone (P/N: MC-023933-001) Accessories													
Apr 3	898.5	Mid	CW	Scan Radio	Fixed	NiMH IS	Back Side	3.5	3.0	-0.104		2.01	1.01
Mar 30	937.5	Mid	CW	Scan Radio	Fixed	NiMH NIS	Back Side	3.5	2.5	-0.162		0.985	0.493
Radio with Nylon "T" Strap Holder (P/N: KRY 101 1656/1) & Speaker-Microphone (P/N: MC-023933-001) Accessories													
Apr 3	898.5	Mid	CW	Scan Radio	Fixed	NiMH IS	Back Side	2.0	3.0	-0.158	P	4.05	2.03
											S	3.53	1.77
Apr 3	937.5	Mid	CW	Scan Radio	Fixed	NMH NIS	Back Side	2.0	2.5	-0.128	P	3.60	1.80
											S	3.20	1.60

ANSI / IEEE C95.1:2005 - SAFETY LIMIT | **BODY: 8.0 W/kg (averaged over 1 gram)** | **Spatial Peak - Controlled Exposure / Occupational**

Fluid Type	900 MHz Body IEEE Target		Date	Meas.	Dev.	940 MHz Body IEEE Target		Date	Meas.	Dev.	Test Date	Mar. 29	Mar. 30	Apr. 03	Unit
Dielectric Constant ε_r	55.0	± 5%	Mar 29	55.1	+0.2%	55.0	± 5%	Mar 29	54.8	-0.4%	Amb. Temp	22.3	22.9	22.6	°C
			Mar 30	55.5	+0.9%			Mar 30	55.1	+0.2%	Fluid Temp	22.0	21.5	20.2	°C
			Apr 3	55.9	+1.6%			Apr 3	55.5	+0.9%	Fluid Depth	≥ 15	≥ 15	≥ 15	cm
Conductivity σ (mho/m)	1.05	± 5%	Mar 29	1.05	0.0%	1.07	± 5%	Mar 29	1.08	+1.0%	Rel. Humidity	33	31	30	%
			Mar 30	1.04	-1.0%			Mar 30	1.07	0.0%	Atmos. Press.	101.9	101.9	101.4	kPa
			Apr 3	1.04	-1.0%			Apr 3	1.09	+1.9%	ρ (Kg/m^3)	1000			

Note(s)

1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.
2. The transmission bands of the DUT are less than 10 MHz; therefore single channel data only is reported (per FCC OET Bulletin 65, Supplement C, Edition 01-01 - see reference [3]).
3. The power drifts measured by the DASY4 system for the duration of the SAR evaluations were <5% from the start power.
4. Secondary peak SAR levels measured within 2 dB of the primary were reported (P = Primary, S = Secondary).
5. The area scan evaluation was performed with a fully charged battery. After the area scan evaluation was completed the battery was replaced with a fully charged battery prior to the zoom scan evaluation.
6. The fluid temperature was measured prior to and after the SAR evaluations to ensure the temperature remained within +/-2°C of the fluid temperature reported during the dielectric parameter measurements.
7. The dielectric parameters of the simulated tissue mixture were measured prior to the SAR evaluations using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C).
8. The SAR evaluations were performed within 24 hours of the system performance check.

5.0 DETAILS OF SAR EVALUATION

The M/A-COM Model: P5300 Portable Analog/Digital 900 MHz PTT Radio Transceiver was compliant for localized Specific Absorption Rate (Occupational / Controlled Exposure) based on the test provisions and conditions described below. Detailed photographs of the test setup are shown in Appendix D.

Face-Held Configuration

1. The Radio was tested in a face-held configuration with the front of the radio placed parallel to the outer surface of the planar phantom. A spacing of 2.5 cm was maintained between the front side of the Radio and the outer surface of the planar phantom. The face-held SAR evaluations were performed with the System and Scan Radios to show comparisons between the two radios.
2. The Speaker-Microphone Antenna Version (P/N: MC-023933-002) was connected to the Radio and tested in a face-held configuration with the front of the speaker-microphone placed parallel to the outer surface of the planar phantom with a spacing of 2.5 cm.

Body-Worn Configuration

3. The Speaker-Microphone Antenna Version (P/N: MC-023933-002) was connected to the Radio and tested in a body-worn configuration with the back of the speaker-microphone placed parallel to the outer surface of the planar phantom. The speaker-microphone Lapel Clip was touching the outer surface of the planar phantom and provided a 1.5 cm spacing between the back of the speaker-microphone and the outer surface of the planar phantom. The evaluation was performed with the Earphone audio accessory (P/N: LS103239V1) connected to the Speaker-Mic.
4. The Radio was tested in a body-worn configuration with the back side placed parallel to the outer surface of the planar phantom. The attached Metal Belt-Clip (P/N: CC23894) was touching the planar phantom and provided a 1.1 cm spacing between the back of the Radio and the planar phantom. The evaluation was performed with the Speaker-Microphone (non-antenna version) audio accessory (P/N: MC-023933-001) connected to the Radio.
5. The Radio was tested in a body-worn configuration with the Leather Case Kit 1 (P/N: CC-023931-003). The Radio was placed inside the Leather Case (P/N: CC-023931-001) with the Belt Loop (P/N: KRY 101 1609/1) attached to the Swivel Mount (P/N: KRY 101 1608/2) and the back of the Radio facing parallel to the outer surface of the planar phantom. The back side of the Belt Loop (P/N: KRY 101 1609/1) was touching the planar phantom and provided a 4.0 cm spacing between the back of the Radio and the planar phantom. The evaluation was performed with the Speaker-Microphone (non-antenna version) audio accessory (P/N: MC-023933-001) connected to the Radio.
6. The Radio was tested in a body-worn configuration with the Leather Case Kit 2 (P/N: CC-023931-004). The Radio was placed inside the Leather Case (P/N: CC-023931-002) with the Belt Loop (P/N: KRY 101 1609/1) attached to the Swivel Mount (P/N: KRY 101 1608/2) and the back of the Radio facing parallel to the outer surface of the planar phantom. The back side of the Belt Loop (P/N: KRY 101 1609/1) was touching the planar phantom and provided a 4.0 cm spacing between the back of the Radio and the planar phantom. The evaluation was performed with the Speaker-Microphone (non-antenna version) audio accessory (P/N: MC-023933-001) connected to the Radio.
7. The Radio was tested in a body-worn configuration placed inside Leather Case 3 (P/N: CC-023931-002), which provided a 2.5 cm spacing between the back of the Radio and the outer surface of the planar phantom. The Shoulder Strap (P/N: CC103333V1) was attached to the Leather Case and the evaluation was performed with the Speaker-Microphone (non-antenna version) audio accessory (P/N: MC-023933-001) connected to the Radio.
8. The Radio was tested in a body-worn configuration with the Belt Loop (P/N: KRY 101 1609/1) attached to the Swivel Mount (P/N: KRY 101 1608/2) on the back of the Radio. The back side of the Belt Loop was touching the outer surface of the planar phantom and provided a 3.0 cm spacing between the back of the Radio and the planar phantom. The evaluation was performed with the Speaker-Microphone (non-antenna version) audio accessory (P/N: MC-023933-001) connected to the Radio.
9. The Radio was tested in a body-worn configuration placed inside the Nylon Case (P/N: CC-023932-001) with Belt Loop (P/N: KRY 101 1609/1) attached to the Nylon Case. The back side of the Belt Loop (P/N: KRY 101 1609/1) was touching the outer surface of the planar phantom and provided a 3.5 cm spacing between the back of the Radio and the planar phantom. The evaluation was performed with the Speaker-Microphone (non-antenna version) audio accessory (P/N: MC-023933-001) connected to the Radio.
10. The Radio was tested in a body-worn configuration with the Nylon “T” Strap Holder (P/N: KRY 101 1656/1) attached to the Radio facing parallel to and touching the outer surface of the planar phantom. The Nylon “T” Strap Holder provided a 2.0 cm spacing between the back of the Radio and the planar phantom. The evaluation was performed with the Speaker-Microphone (non-antenna version) audio accessory (P/N: MC-023933-001) connected to the Radio.
11. The body-worn SAR evaluations were performed with the System and Scan Radios to show comparisons between the two radios.

DETAILS OF SAR EVALUATION (Cont.)

Power Setting(s)

12. The DUT was configured to maximum power setting prior to the SAR evaluations by the manufacturer.
13. The conducted power levels were measured prior to the SAR evaluations with a Gigatronics 8652A Universal Power Meter according to the procedures described in FCC 47 CFR §2.1046.
14. The area scan evaluation was performed with a fully charged battery. After the area scan evaluation was completed the battery was replaced with a fully charged battery prior to the zoom scan evaluation.
15. The power drift of the DUT during the SAR evaluations was measured by the DASY4 system.

Test Mode(s)

16. The DUT was configured to Analog FM modulation prior to the SAR evaluations by the manufacturer.
17. The DUT was tested 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.

Test Conditions

18. The fluid temperature was measured prior to and after the SAR evaluations to ensure the temperature remained within +/-2°C of the fluid temperature reported during the dielectric parameter measurements.
19. 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).
20. SAR measurements were performed within 24 hours of the system performance check.

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 1 g and 10 g 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 form 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 1 g and 10 g 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. Depending on the device type under evaluation, zoom scans for frequencies ≥ 800 MHz are typically 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.

7.0 SYSTEM PERFORMANCE CHECK

Prior to the SAR evaluations, system checks were performed at the planar section of the SAM phantom with a 900MHz dipole (see Appendix E for system validation procedures). Prior to the system performance checks the dielectric parameters of the simulated tissue mixtures were measured using an ALS-PR-DIEL Dielectric Probe Kit and an HP 8753ET Network Analyzer (see Appendix C for measured fluid dielectric parameters). A forward power of 250 mW was applied to the dipole and the system was verified to a tolerance of ±10% (see Appendix B for system performance check test plots).

SYSTEM PERFORMANCE CHECK EVALUATIONS

Test Date	Tissue Type	SAR 1g (W/kg)			Dielectric Constant ε_r			Conductivity σ (mho/m)			ρ (Kg/m^3)	Amb. Temp. (°C)	Fluid Temp. (°C)	Fluid Depth (cm)	Humid. (%)	Barom. Press. (kPa)
	900MHz	IEEE Target	Meas.	Dev.	IEEE Target	Meas.	Dev.	IEEE Target	Meas.	Dev.						
Mar 28	Brain	**2.70 ±10%**	2.64	-2.2%	**41.5 ±5%**	39.6	-4.6%	**0.97 ±5%**	0.94	-3.1%	1000	22.5	22.0	≥ 15	33	101.9
Mar 29	Brain	**2.70 ±10%**	2.63	-2.6%	**41.5 ±5%**	40.2	-3.1%	**0.97 ±5%**	0.95	-2.1%	1000	23.0	22.3	≥ 15	33	101.4
Apr 03	Brain	**2.70 ±10%**	2.58	-4.4%	**41.5 ±5%**	39.8	-4.1%	**0.97 ±5%**	0.93	-4.1%	1000	22.6	21.5	≥ 15	30	101.4
Note(s)	1. The fluid temperature was measured prior to and after the system performance checks to ensure the temperature remained within +/-2°C of the fluid temperature reported during the dielectric parameter measurements.															
	2. The SAR evaluations were performed within 24 hours of the system performance checks.															

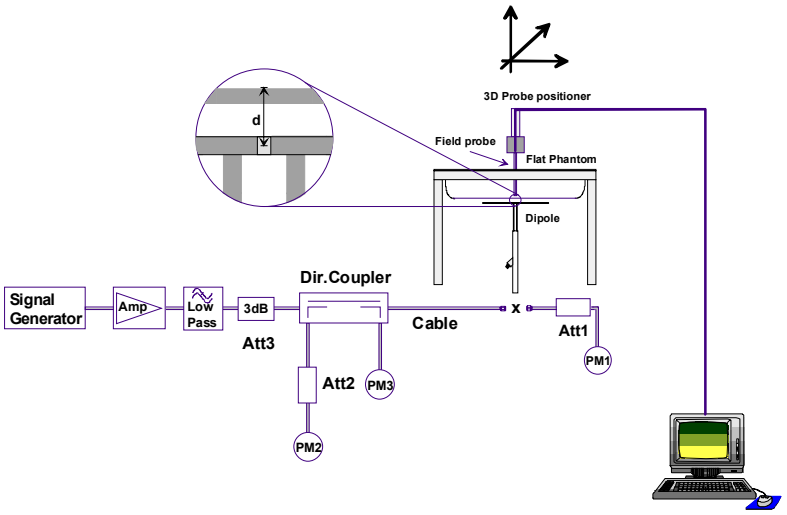


Figure 1. System Performance Check Setup Diagram

900 MHz Dipole Setup

8.0 SIMULATED EQUIVALENT TISSUES

The 900/940MHz simulated tissue mixtures consisted of a viscous gel using hydroxethylcellulose (HEC) gelling agent (brain tissue mixture only) and 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).

900/940 MHz TISSUE MIXTURES		
INGREDIENT	**900/940 MHz Brain**	**900/940 MHz Body**
Water	40.71 %	53.79 %
Sugar	56.63 %	45.13 %
Salt	1.48 %	0.98 %
Bactericide	0.19 %	0.10 %
HEC	0.99 %	-

9.0 SAR SAFETY LIMITS

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

10.0 ROBOT SYSTEM SPECIFICATIONS

Specifications	
Positioner	Stäubli Unimation Corp. Robot Model: RX60L
Repeatability	0.02 mm
No. of axis	6
Data Acquisition Electronic (DAE) System	
Cell Controller	
Processor	AMD Athlon XP 2400+
Clock Speed	2.0 GHz
Operating System	Windows XP Professional
Data Converter	
Features	Signal Amplifier, multiplexer, A/D converter, and control logic
Software	Measurement Software: DASY4, V4.7 Build 44
	Postprocessing Software: SEMCAD, V1.8 Build 171
Connecting Lines	Optical downlink for data and status info.; Optical uplink for commands and clock
DASY4 Measurement Server	
Function	Real-time data evaluation for field measurements and surface detection
Hardware	PC/104 166MHz Pentium CPU; 32 MB chipdisk; 64 MB RAM
Connections	COM1, COM2, DAE, Robot, Ethernet, Service Interface
E-Field Probe	
Model	ET3DV6
Serial No.	1387
Construction	Triangular core fiber optic detection system
Frequency	10 MHz to 6 GHz
Linearity	±0.2 dB (30 MHz to 3 GHz)
Phantom(s)	
Evaluation Phantom	
Type	Side Planar Phantom
Shell Material	Plexiglas
Bottom Thickness	2.0 mm ± 0.1 mm
Outer Dimensions	75.0 cm (L) x 22.5 cm (W) x 20.5 cm (H); Back Plane: 25.7 cm (H)
Validation Phantom	
Type	SAM V4.0C
Shell Material	Fiberglass
Bottom Thickness	2.0 ±0.1 mm
Outer Dimensions	Approx. 25 liters

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 ± 8%)
Frequency:	10 MHz to > 6 GHz; Linearity: ± 0.2 dB (30 MHz to 3 GHz)
Directivity:	± 0.2 dB in brain tissue (rotation around probe axis) ± 0.4 dB in brain 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

12.0 SAM PHANTOM V4.0C

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

SAM Phantom V4.0C

13.0 SIDE PLANAR PHANTOM

The side planar phantom is constructed of Plexiglas material with a 2.0 mm shell thickness for face-held and body-worn SAR evaluations of portable radio transceivers. The side planar phantom is mounted on the side of the DASY4 compact system table.

Plexiglas Side Planar Phantom

14.0 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

15.0 TEST EQUIPMENT LIST

TEST EQUIPMENT		ASSET NO.	SERIAL NO.	DATE CALIBRATED		CALIBRATION DUE DATE
USED	DESCRIPTION					
x	Schmid & Partner DASY4 System	-	-	-		-
x	-DASY4 Measurement Server	00158	1078	N/A		N/A
x	-Robot	00046	599396-01	N/A		N/A
x	-DAE4	00019	353	21Jun06		21Jun07
	-DAE3	00018	370	13Mar07		13Mar08
x	-ET3DV6 E-Field Probe	00016	1387	16Mar07		16Mar08
	-EX3DV4 E-Field Probe	00213	3600	24Jan07		24Jan08
	-300 MHz Validation Dipole	00023	135	23Oct06		23Oct07
	-450 MHz Validation Dipole	00024	136	23Mar07		23Mar08
	-835 MHz Validation Dipole	00022	411	**Body**	26Mar07	26Mar08
x	-900 MHz Validation Dipole	00020	054	**Brain**	28Mar07	28Mar08
				Body	30Mar07	30Mar08
	-1640 MHz Validation Dipole	00212	0175	**Brain**	14Aug06	14Aug07
	-1800 MHz Validation Dipole	00021	247	**Brain**	08Jun06	08Jun07
				Body	21Mar07	21Mar08
	-1900 MHz Validation Dipole	00032	151	**Brain**	20Mar07	20Mar08
				Body	02Feb07	02Feb08
	-2450 MHz Validation Dipole	00025	150	**Body**	15Mar07	15Mar08
	5 GHz Validation Dipole -5200 MHz	00126	1031	**Body**	18Jul06	18Jul07
	5 GHz Validation Dipole -5500 MHz			**Body**	14Nov06	14Nov07
	5 GHz Validation Dipole -5800 MHz			**Brain**	27Feb07	27Feb08
				Body	18Jul06	18Jul07
x	-SAM Phantom V4.0C	00154	1033	N/A		N/A
	-Barski Planar Phantom	00155	03-01	N/A		N/A
x	-Plexiglas Side Planar Phantom	00156	161	N/A		N/A
	-Plexiglas Validation Planar Phantom	00157	137	N/A		N/A
x	ALS-PR-DIEL Dielectric Probe Kit	00160	260-00953	N/A		N/A
x	Gigatronics 8652A Power Meter	00110	1835801	12Apr06		12Apr07
	Gigatronics 8652A Power Meter	00007	1835272	26Mar07		26Mar08
	Gigatronics 8652A Power Meter	00008	1835267	22Jan07		22Jan08
x	Gigatronics 80701A Power Sensor	00012	1834350	22Jan07		22Jan08
	Gigatronics 80701A Power Sensor	00013	1833713	26Mar07		26Mar08
	Gigatronics 80701A Power Sensor	00014	1833699	22Jan07		22Jan08
	Gigatronics 80701A Power Sensor	00109	1834366	26Mar07		26Mar08
x	HP 8753ET Network Analyzer	00134	US39170292	18Apr06		18Apr07
x	HP 8648D Signal Generator	00005	3847A00611	NCR		NCR
	Rohde & Schwarz SMR20 Signal Generator	00006	100104	NCR		NCR
x	Amplifier Research 5S1G4 Power Amplifier	00106	26235	NCR		NCR
	HP E4408B Spectrum Analyzer	00015	US39240170	05Feb07		05Feb08
	Anritsu Radio Communication Analyzer	00208	6200241241	06Jun06		06Jun07

16.0 MEASUREMENT UNCERTAINTIES

UNCERTAINTY BUDGET FOR DEVICE EVALUATION						
Error Description	**Uncertainty Value ±%**	**Probability Distribution**	**Divisor**	**ci 1g**	**Uncertainty Value ±% (1g)**	**V_i or V_{eff}**
Measurement System						
Probe calibration (900 MHz)	7.0	Normal	1	1	7.0	∞
Axial isotropy of the probe	4.7	Rectangular	1.732050808	0.7	1.9	∞
Spherical isotropy of the probe	9.6	Rectangular	1.732050808	0.7	3.9	∞
Spatial resolution	0	Rectangular	1.732050808	1	0.0	∞
Boundary effects	1	Rectangular	1.732050808	1	0.6	∞
Probe linearity	4.7	Rectangular	1.732050808	1	2.7	∞
Detection limit	1	Rectangular	1.732050808	1	0.6	∞
Readout electronics	0.3	Normal	1	1	0.3	∞
Response time	0.8	Rectangular	1.732050808	1	0.5	∞
Integration time	2.6	Rectangular	1.732050808	1	1.5	∞
RF ambient conditions	3	Rectangular	1.732050808	1	1.7	∞
Mech. constraints of robot	0.4	Rectangular	1.732050808	1	0.2	∞
Probe positioning	2.9	Rectangular	1.732050808	1	1.7	∞
Extrapolation & integration	1	Rectangular	1.732050808	1	0.6	∞
Test Sample Related						
Device positioning	2.9	Normal	1	1	2.9	12
Device holder uncertainty	3.6	Normal	1	1	3.6	8
Power drift	8	Rectangular	1.732050808	1	4.6	∞
Phantom and Setup						
Phantom uncertainty	4	Rectangular	1.732050808	1	2.3	∞
Liquid conductivity (target)	5	Rectangular	1.732050808	0.64	1.8	∞
Liquid conductivity (measured)	5	Normal	1	0.64	3.2	∞
Liquid permittivity (target)	5	Rectangular	1.732050808	0.6	1.7	∞
Liquid permittivity (measured)	5	Normal	1	0.6	3.0	∞
Combined Standard Uncertainty					**12.57**	
Expanded Uncertainty (k=2)					**25.15**	

Note(s)	
	1. Measurement Uncertainty Table in accordance with IEEE Standard 1528-2003 (see reference [5]).
	2. Power Drfft Uncertainty Value factored at 8% based on measured power variation from EMC report.

MEASUREMENT UNCERTAINTIES (Cont.)

UNCERTAINTY BUDGET FOR SYSTEM VALIDATION

Error Description	Uncertainty Value ±%	Probability Distribution	Divisor	ci 1g	Uncertainty Value ±% (1g)	V_i or V_{eff}
Measurement System						
Probe calibration (900 MHz)	7.0	Normal	1	1	7.0	∞
Axial isotropy of the probe	4.7	Rectangular	1.732050808	1	2.7	∞
Spherical isotropy of the probe	0	Rectangular	1.732050808	1	0.0	∞
Spatial resolution	0	Rectangular	1.732050808	1	0.0	∞
Boundary effects	1	Rectangular	1.732050808	1	0.6	∞
Probe linearity	4.7	Rectangular	1.732050808	1	2.7	∞
Detection limit	1	Rectangular	1.732050808	1	0.6	∞
Readout electronics	0.3	Normal	1	1	0.3	∞
Response time	0	Rectangular	1.732050808	1	0.0	∞
Integration time	0	Rectangular	1.732050808	1	0.0	∞
RF ambient conditions	3	Rectangular	1.732050808	1	1.7	∞
Mech. Constraints of robot	0.4	Rectangular	1.732050808	1	0.2	∞
Probe positioning	2.9	Rectangular	1.732050808	1	1.7	∞
Extrapolation & integration	1	Rectangular	1.732050808	1	0.6	∞
Dipole						
Dipole Positioning	2	Normal	1.732050808	1	1.2	∞
Power & Power Drift	4.7	Normal	1.732050808	1	2.7	∞
Phantom and Setup						
Phantom uncertainty	4	Rectangular	1.732050808	1	2.3	∞
Liquid conductivity (target)	5	Rectangular	1.732050808	0.64	1.8	∞
Liquid conductivity (measured)	5	Normal	1	0.64	3.2	∞
Liquid permittivity (target)	5	Rectangular	1.732050808	0.6	1.7	∞
Liquid permittivity (measured)	5	Normal	1	0.6	3.0	∞
Combined Standard Uncertainty					**10.51**	
Expanded Uncertainty (k=2)					**21.01**	

Note(s) 1. Measurement Uncertainty Table in accordance with IEEE Standard 1528-2003 (see reference [5]).

17.0 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] ANSI/IEEE C95.1:2005 - “American National Standard safety levels with respect to human exposure to radio frequency electromagnetic fields, 3 kHz to 300 GHz”, New York: IEEE, April 2006.

APPENDIX A - SAR MEASUREMENT DATA

Date Tested: 03/29/2007

Face-Held SAR - Scan Radio - NiCd NIS Battery - Repeater Input - 898.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

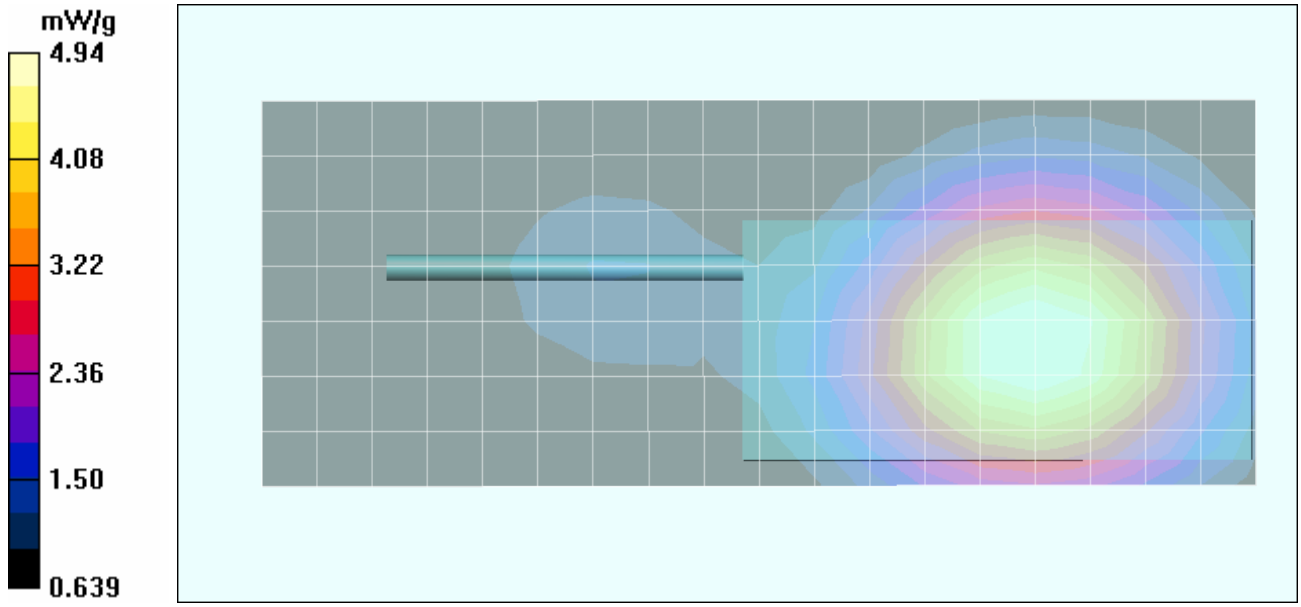
Ambient Temp: 22.8ºC; Fluid Temp: 21.3ºC; Barometric Pressure: 101.4 kPa; Humidity: 33%

Frequency: 898.5 MHz; Duty Cycle: 1:1
RF Output Power: 3.0 Watts (Conducted)
Communication System: FM (Repeater Input)
NiCd Battery, immersible, non-IS (P/N: BT-023406-001)
Medium: HSL900 Medium parameters used: f = 898.5 MHz; σ = 0.95 mho/m; ε_r = 40.2; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(6, 6, 6); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 1 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 1 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 31.9 V/m; Power Drift = -0.106 dB
Peak SAR (extrapolated) = 7.17 W/kg
SAR(1 g) = 4.74 mW/g; SAR(10 g) = 3.34 mW/g
Maximum value of SAR (measured) = 4.94 mW/g



Date Tested: 03/29/2007

Face-Held SAR - Scan Radio - NiCd IS Battery - Repeater Input - 898.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

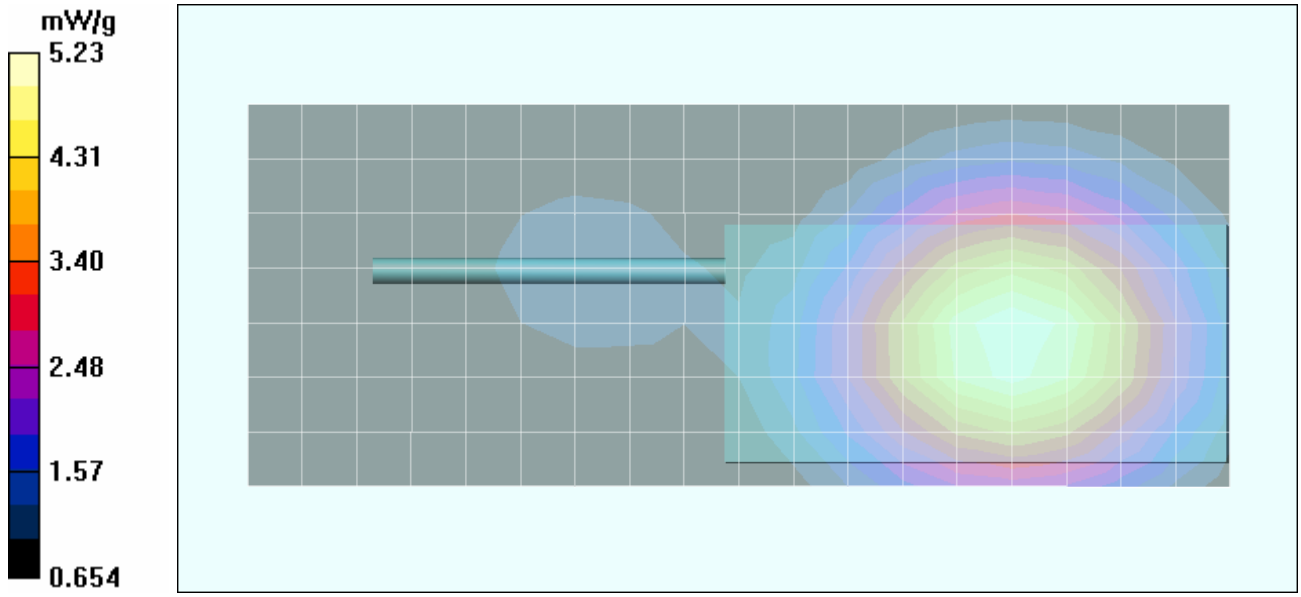
Ambient Temp: 22.8ºC; Fluid Temp: 21.3ºC; Barometric Pressure: 101.4 kPa; Humidity: 33%

Frequency: 898.5 MHz; Duty Cycle: 1:1
RF Output Power: 3.0 Watts (Conducted)
Communication System: FM (Repeater Input)
NiCd Battery, immersible, IS (P/N: BT-023406-002)
Medium: HSL900 Medium parameters used: f = 898.5 MHz; σ = 0.95 mho/m; ε_r = 40.2; ρ = 1000 kg/m^3

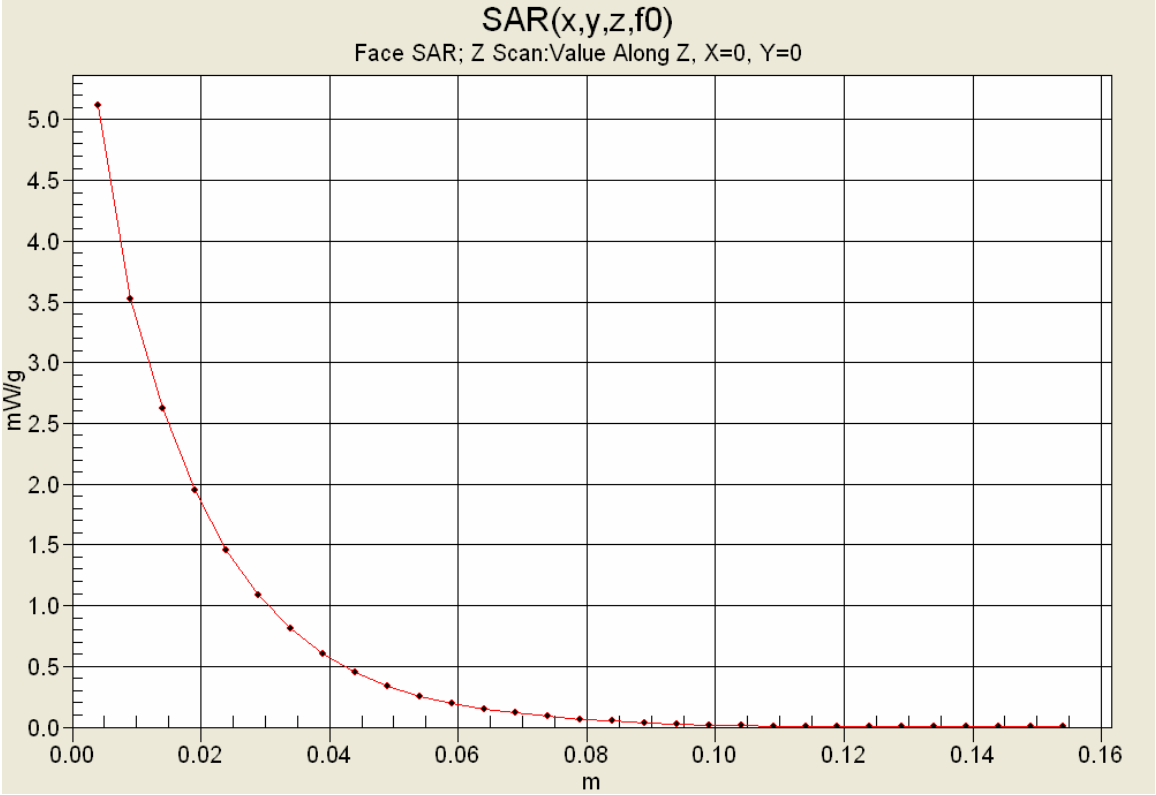
- Probe: ET3DV6 - SN1387; ConvF(6, 6, 6); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 1 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 1 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 33.1 V/m; Power Drift = -0.0670 dB
Peak SAR (extrapolated) = 7.60 W/kg
SAR(1 g) = 5.01 mW/g; SAR(10 g) = 3.52 mW/g
Maximum value of SAR (measured) = 5.23 mW/g



Z-Axis Scan



Date Tested: 03/28/2007

Face-Held SAR - System Radio - NiMH NIS Battery - Repeater Input - 898.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (System); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-003

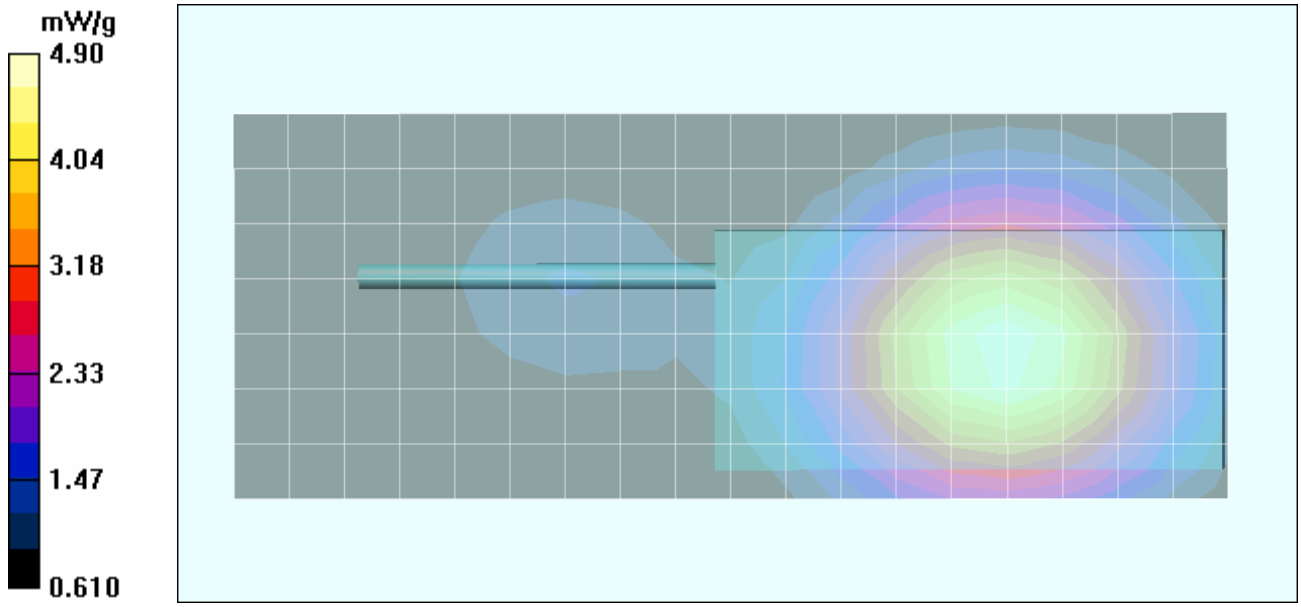
Ambient Temp: 22.5ºC; Fluid Temp: 22.0ºC; Barometric Pressure: 101.9 kPa; Humidity: 33%

Frequency: 898.5 MHz; Duty Cycle: 1:1
RF Output Power: 3.0 Watts (Conducted)
Communication System: FM (Repeater Input)
NiMH Battery, immersible, non-IS (P/N: BT-023406-003)
Medium: HSL900 Medium parameters used: f = 898.5 MHz; σ = 0.94 mho/m; ε_r = 39.6; ρ = 1000 kg/m^3

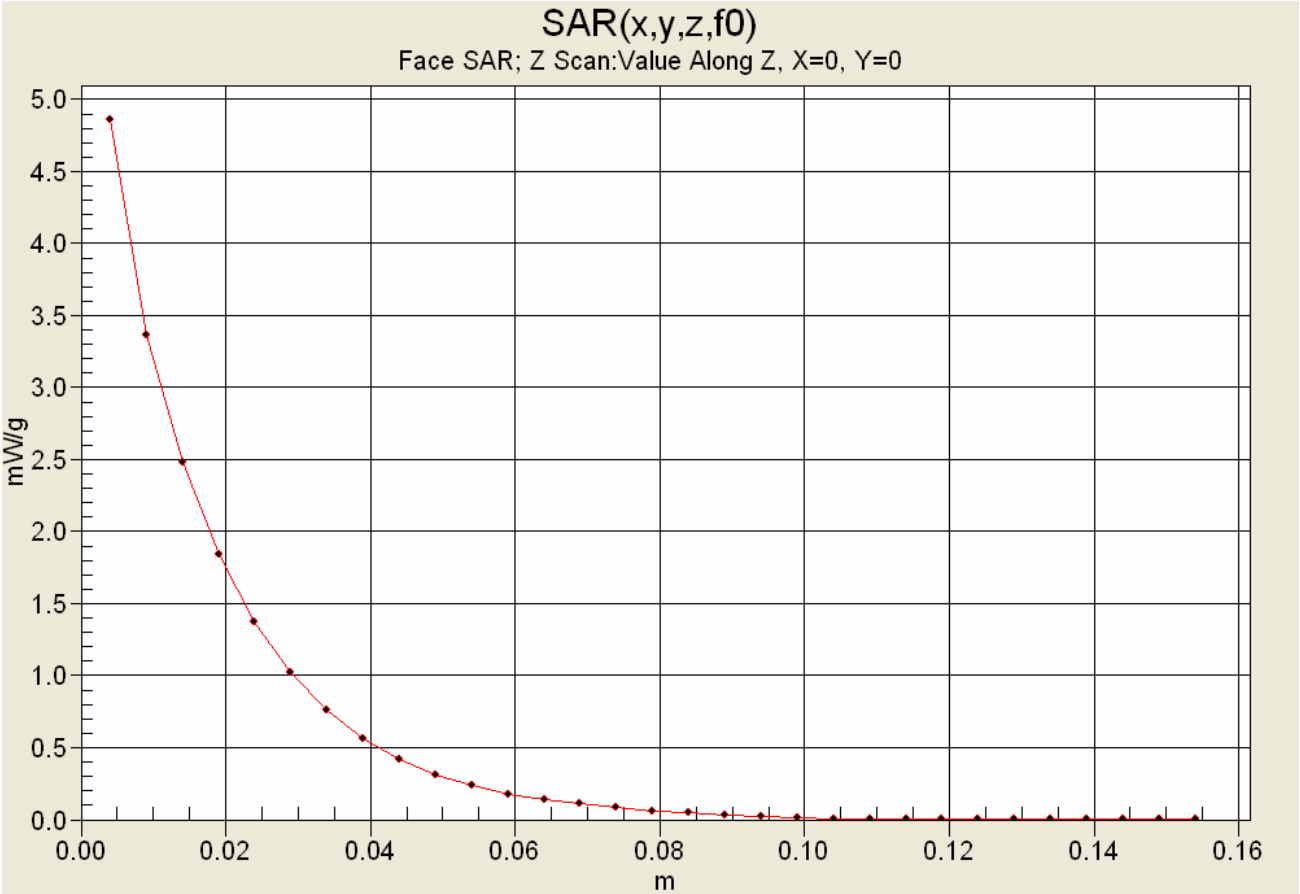
- Probe: ET3DV6 - SN1387; ConvF(6, 6, 6); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 1 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 1 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 31.7 V/m; Power Drift = -0.0497 dB
Peak SAR (extrapolated) = 7.11 W/kg
SAR(1 g) = 4.67 mW/g; SAR(10 g) = 3.28 mW/g
Maximum value of SAR (measured) = 4.90 mW/g



Z-Axis Scan



Date Tested: 03/29/2007

Face-Held SAR - Scan Radio - NiMH IS Battery - Repeater Input - 898.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

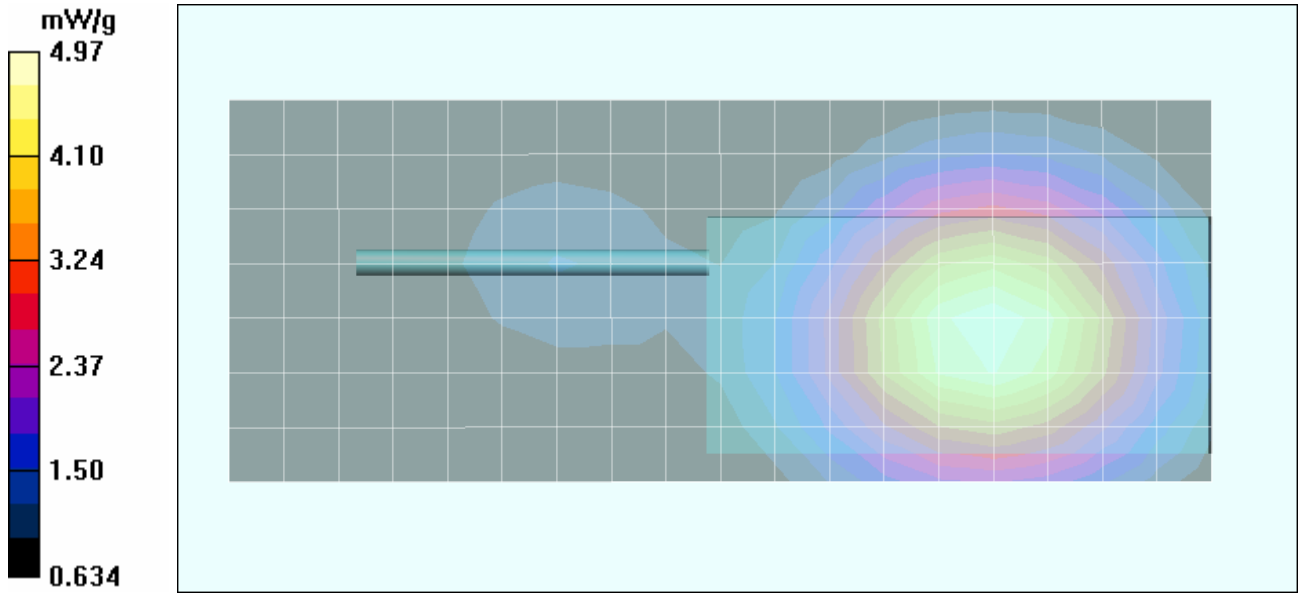
Ambient Temp: 22.8ºC; Fluid Temp: 21.3ºC; Barometric Pressure: 101.4 kPa; Humidity: 33%

Frequency: 898.5 MHz; Duty Cycle: 1:1
RF Output Power: 3.0 Watts (Conducted)
Communication System: FM (Repeater Input)
NiMH Battery, immersible, IS (P/N: BT-023406-004)
Medium: HSL900 Medium parameters used: f = 898.5 MHz; σ = 0.95 mho/m; ε_r = 40.2; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(6, 6, 6); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 1 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 1 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 30.1 V/m; Power Drift = -0.0763 dB
Peak SAR (extrapolated) = 7.21 W/kg
SAR(1 g) = 4.74 mW/g; SAR(10 g) = 3.33 mW/g
Maximum value of SAR (measured) = 4.97 mW/g



Date Tested: 03/29/2007

Face-Held SAR - Scan Radio - Li-ion NIS Battery - Repeater Input - 898.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

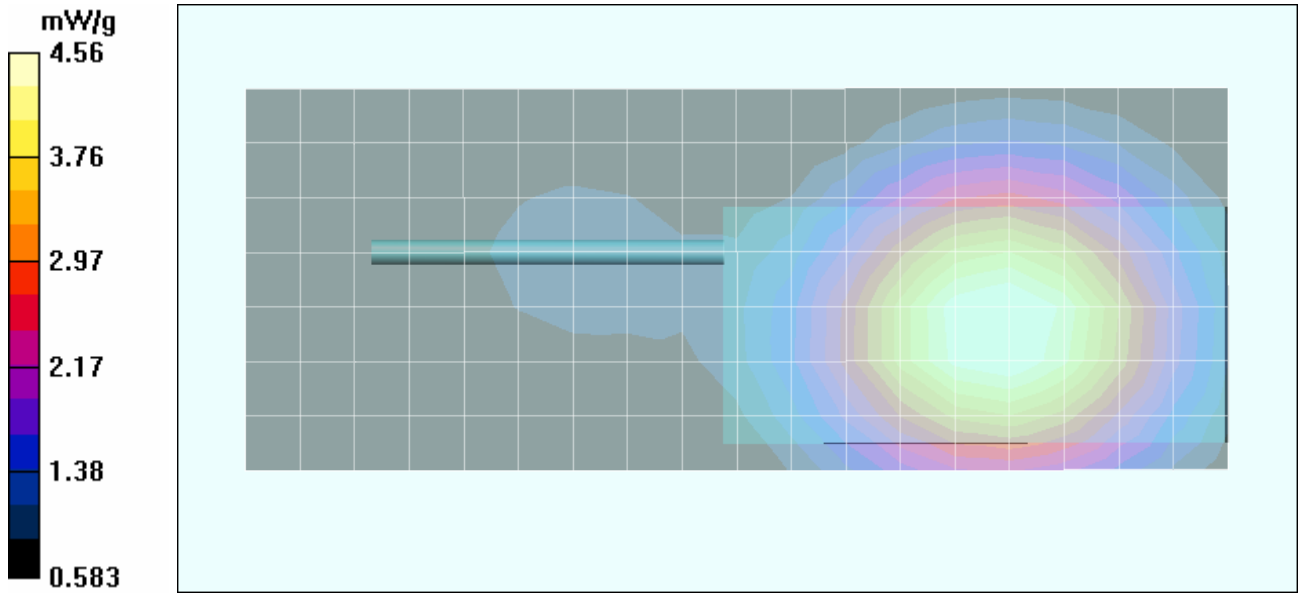
Ambient Temp: 22.8ºC; Fluid Temp: 21.3ºC; Barometric Pressure: 101.4 kPa; Humidity: 33%

Frequency: 898.5 MHz; Duty Cycle: 1:1
RF Output Power: 3.0 Watts (Conducted)
Communication System: FM (Repeater Input)
Li-ion Battery, immersible, non-IS (P/N: BT-023406-005)
Medium: HSL900 Medium parameters used: f = 898.5 MHz; σ = 0.95 mho/m; ε_r = 40.2; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(6, 6, 6); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 1 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 1 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 31.7 V/m; Power Drift = -0.0943 dB
Peak SAR (extrapolated) = 6.58 W/kg
SAR(1 g) = 4.37 mW/g; SAR(10 g) = 3.1 mW/g
Maximum value of SAR (measured) = 4.56 mW/g



Date Tested: 03/29/2007

Face-Held SAR - Scan Radio - Li-ion IS Battery - Repeater Input - 898.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

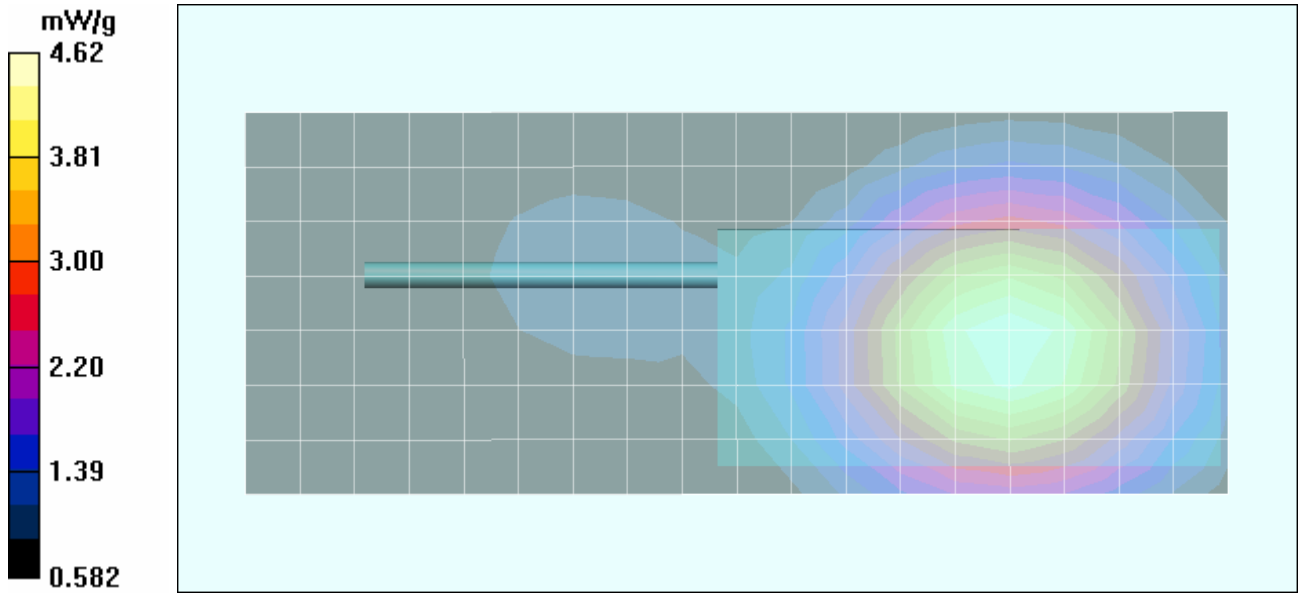
Ambient Temp: 22.8ºC; Fluid Temp: 21.3ºC; Barometric Pressure: 101.4 kPa; Humidity: 33%

Frequency: 898.5 MHz; Duty Cycle: 1:1
RF Output Power: 3.0 Watts (Conducted)
Communication System: FM (Repeater Input)
Li-ion Battery, immersible, IS (P/N: BT-023406-006)
Medium: HSL900 Medium parameters used: f = 898.5 MHz; σ = 0.95 mho/m; ε_r = 40.2; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(6, 6, 6); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 1 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 1 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 33.0 V/m; Power Drift = -0.102 dB
Peak SAR (extrapolated) = 6.72 W/kg
SAR(1 g) = 4.41 mW/g; SAR(10 g) = 3.11 mW/g
Maximum value of SAR (measured) = 4.62 mW/g



Date Tested: 03/29/2007

Face-Held SAR - Speaker-Mic Ant. - NiCd IS Battery - Repeater Input - 898.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300; Type: Portable Radio w/ PTT Speaker-Microphone with Antenna; P/N: MC-023933-002

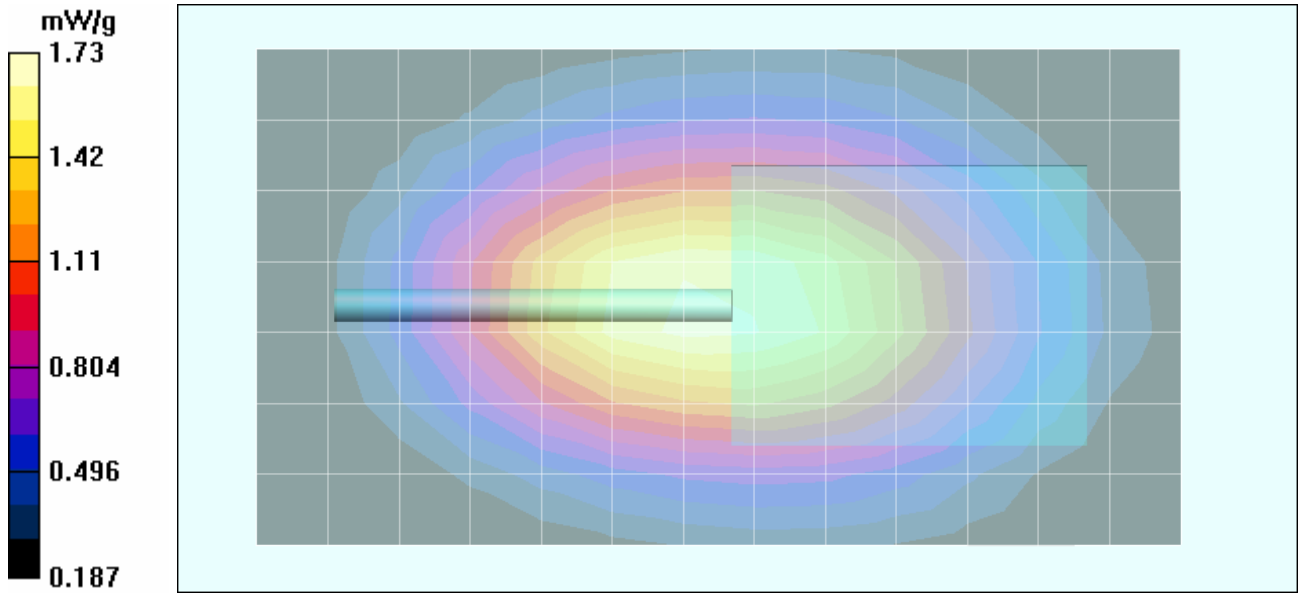
Ambient Temp: 22.8ºC; Fluid Temp: 21.3ºC; Barometric Pressure: 101.4 kPa; Humidity: 33%

Frequency: 898.5 MHz; Duty Cycle: 1:1
RF Output Power: 3.0 Watts (Conducted)
Communication System: FM (Repeater Input)
NiCd Battery, immersible, IS (P/N: BT-023406-002)
Medium: HSL900 Medium parameters used: f = 898.5 MHz; σ = 0.95 mho/m; ε_r = 40.2; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(6, 6, 6); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 1 - Mid Channel
Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 1 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 42.5 V/m; Power Drift = -0.0480 dB
Peak SAR (extrapolated) = 2.59 W/kg
SAR(1 g) = 1.65 mW/g; SAR(10 g) = 1.14 mW/g
Maximum value of SAR (measured) = 1.73 mW/g



Date Tested: 03/29/2007

Face-Held SAR - Scan Radio - NiCd NIS Battery - Talk-around - 937.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

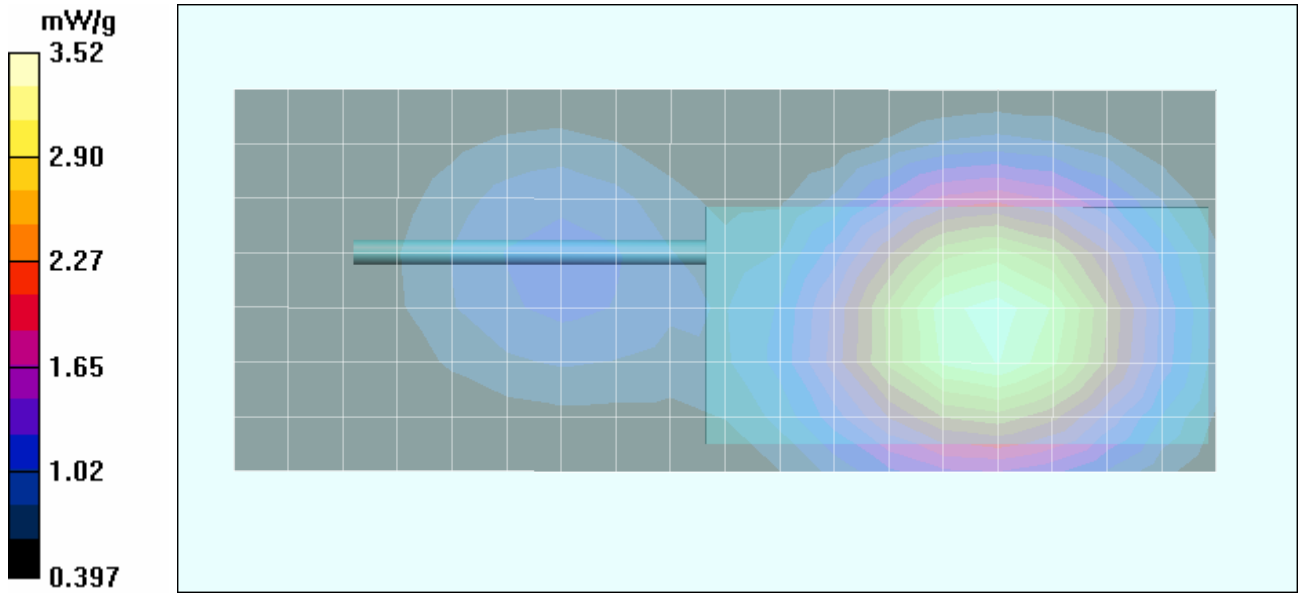
Ambient Temp: 22.8ºC; Fluid Temp: 21.3ºC; Barometric Pressure: 101.4 kPa; Humidity: 33%

Frequency: 937.5 MHz; Duty Cycle: 1:1
RF Output Power: 2.5 Watts (Conducted)
Communication System: FM (Talk-around)
NiCd Battery, immersible, non-IS (P/N: BT-023406-001)
Medium: HSL900 Medium parameters used: f = 937.5 MHz; σ = 0.99 mho/m; ε_r = 39.8; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(6, 6, 6); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 2 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 2 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 28.3 V/m; Power Drift = -0.135 dB
Peak SAR (extrapolated) = 5.18 W/kg
SAR(1 g) = 3.36 mW/g; SAR(10 g) = 2.34 mW/g
Maximum value of SAR (measured) = 3.52 mW/g



Date Tested: 03/29/2007

Face-Held SAR - Scan Radio - NiCd IS Battery - Talk-around - 937.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

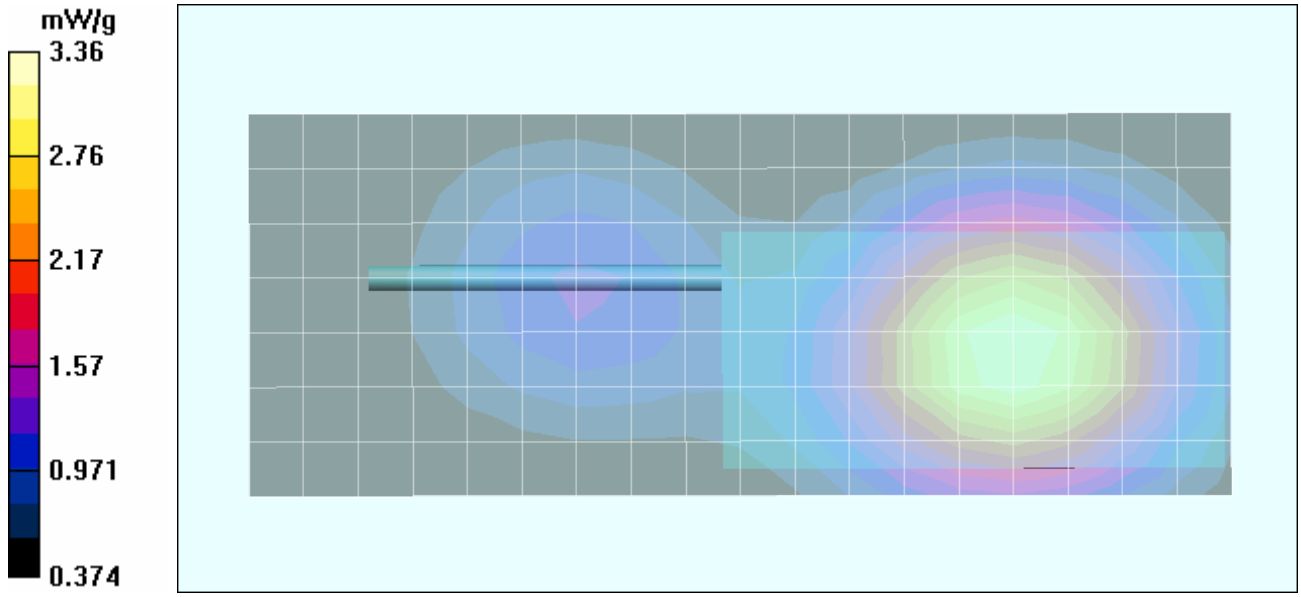
Ambient Temp: 22.8ºC; Fluid Temp: 21.3ºC; Barometric Pressure: 101.4 kPa; Humidity: 33%

Frequency: 937.5 MHz; Duty Cycle: 1:1
RF Output Power: 2.5 Watts (Conducted)
Communication System: FM (Talk-around)
NiCd Battery, immersible, IS (P/N: BT-023406-002)
Medium: HSL900 Medium parameters used: f = 937.5 MHz; σ = 0.99 mho/m; ε_r = 39.8; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(6, 6, 6); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 2 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 2 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 29.0 V/m; Power Drift = -0.0087 dB
Peak SAR (extrapolated) = 4.87 W/kg
SAR(1 g) = 3.21 mW/g; SAR(10 g) = 2.23 mW/g
Maximum value of SAR (measured) = 3.36 mW/g



Date Tested: 03/29/2007

Face-Held SAR - Scan Radio - NiMH NIS Battery - Talk-around - 937.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

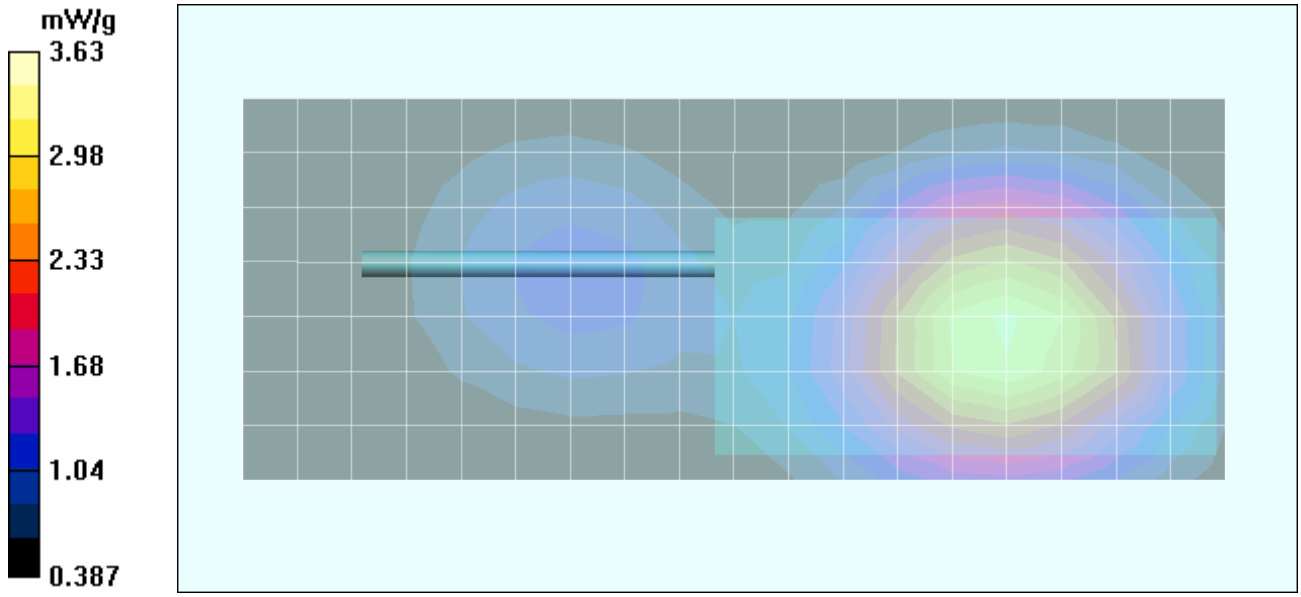
Ambient Temp: 22.8ºC; Fluid Temp: 21.3ºC; Barometric Pressure: 101.4 kPa; Humidity: 33%

Frequency: 937.5 MHz; Duty Cycle: 1:1
RF Output Power: 2.5 Watts (Conducted)
Communication System: FM (Talk-around)
NiMH Battery, immersible, non-IS (P/N: BT-023406-003)
Medium: HSL900 Medium parameters used: f = 937.5 MHz; σ = 0.99 mho/m; ε_r = 39.8; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(6, 6, 6); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 2 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 2 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 29.0 V/m; Power Drift = 0.0460 dB
Peak SAR (extrapolated) = 5.30 W/kg
SAR(1 g) = 3.44 mW/g; SAR(10 g) = 2.38 mW/g
Maximum value of SAR (measured) = 3.63 mW/g



Date Tested: 03/29/2007

Face-Held SAR - Scan Radio - NiMH IS Battery - Talk-around - 937.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

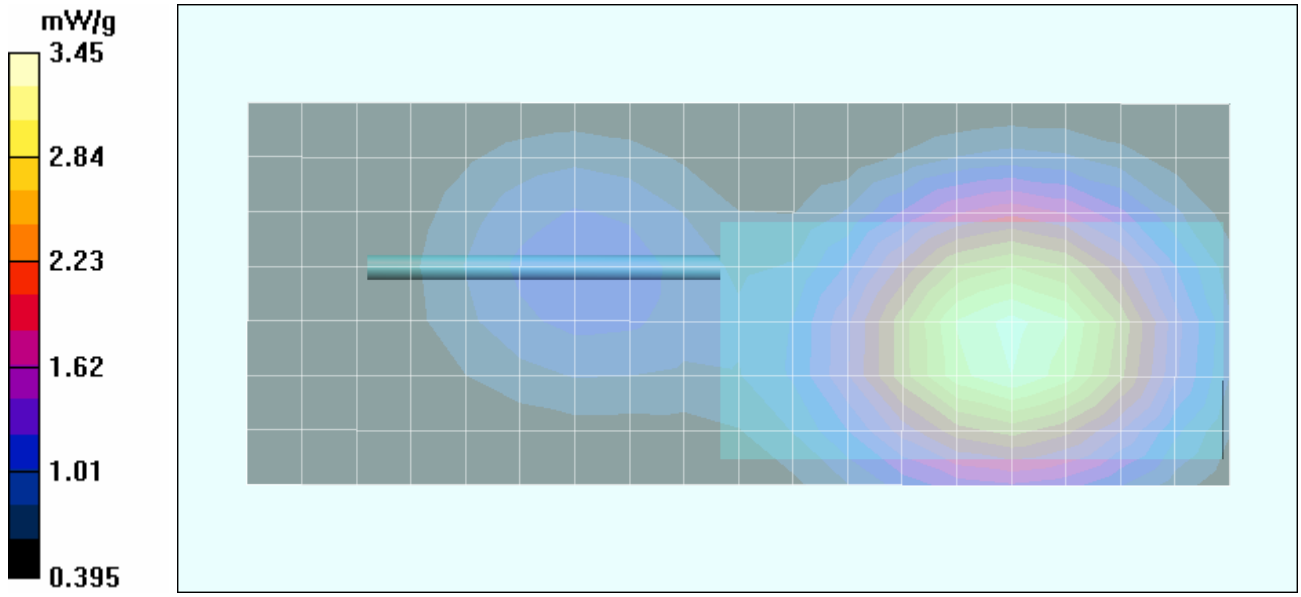
Ambient Temp: 22.8ºC; Fluid Temp: 21.3ºC; Barometric Pressure: 101.4 kPa; Humidity: 33%

Frequency: 937.5 MHz; Duty Cycle: 1:1
RF Output Power: 2.5 Watts (Conducted)
Communication System: FM (Talk-around)
NiMH Battery, immersible, IS (P/N: BT-023406-004)
Medium: HSL900 Medium parameters used: f = 937.5 MHz; σ = 0.99 mho/m; ε_r = 39.8; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(6, 6, 6); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 2 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 2 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 29.8 V/m; Power Drift = -0.0293 dB
Peak SAR (extrapolated) = 5.03 W/kg
SAR(1 g) = 3.30 mW/g; SAR(10 g) = 2.29 mW/g
Maximum value of SAR (measured) = 3.45 mW/g



Date Tested: 03/29/2007

Face-Held SAR - Scan Radio - Li-ion NIS Battery - Talk-around - 937.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

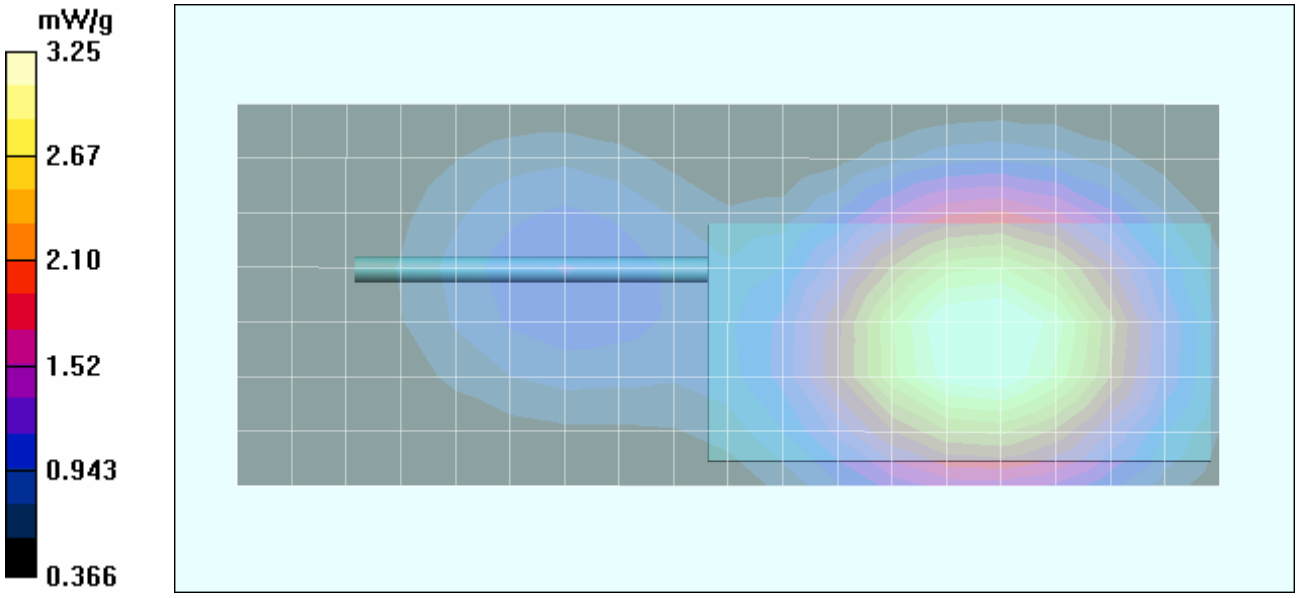
Ambient Temp: 22.8ºC; Fluid Temp: 21.3ºC; Barometric Pressure: 101.4 kPa; Humidity: 33%

Frequency: 937.5 MHz; Duty Cycle: 1:1
RF Output Power: 2.5 Watts (Conducted)
Communication System: FM (Talk-around)
Li-ion Battery, immersible, non-IS (P/N: BT-023406-005)
Medium: HSL900 Medium parameters used: f = 937.5 MHz; σ = 0.99 mho/m; ε_r = 39.8; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(6, 6, 6); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 2 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 2 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 29.0 V/m; Power Drift = -0.0822 dB
Peak SAR (extrapolated) = 4.72 W/kg
SAR(1 g) = 3.10 mW/g; SAR(10 g) = 2.15 mW/g
Maximum value of SAR (measured) = 3.25 mW/g



Date Tested: 03/29/2007

Face-Held SAR - Scan Radio - Li-ion IS Battery - Talk-around - 937.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

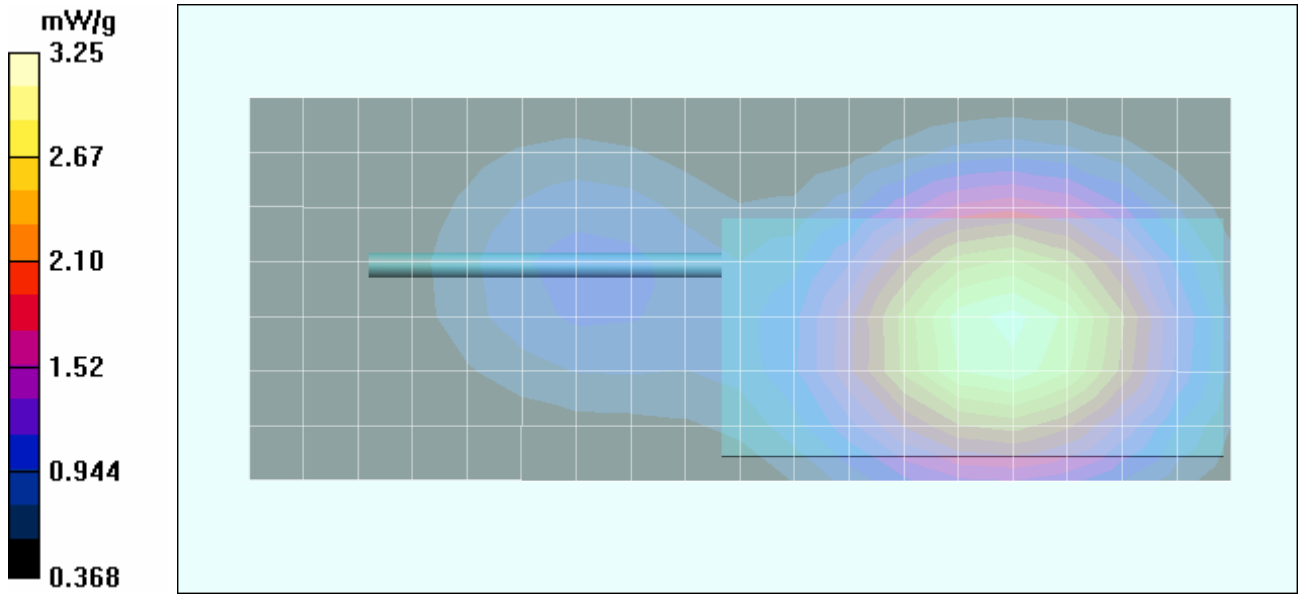
Ambient Temp: 22.8ºC; Fluid Temp: 21.3ºC; Barometric Pressure: 101.4 kPa; Humidity: 33%

Frequency: 937.5 MHz; Duty Cycle: 1:1
RF Output Power: 2.5 Watts (Conducted)
Communication System: FM (Talk-around)
Li-ion Battery, immersible, IS (P/N: BT-023406-006)
Medium: HSL900 Medium parameters used: f = 937.5 MHz; σ = 0.99 mho/m; ε_r = 39.8; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(6, 6, 6); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 2 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 2 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 29.5 V/m; Power Drift = -0.0078 dB
Peak SAR (extrapolated) = 4.77 W/kg
SAR(1 g) = 3.09 mW/g; SAR(10 g) = 2.15 mW/g
Maximum value of SAR (measured) = 3.25 mW/g



Date Tested: 03/29/2007

Face-Held SAR - Speaker-Mic Ant. - NiMH NIS Battery - Talk-around - 937.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300; Type: Portable Radio w/ PTT Speaker-Microphone with Antenna; P/N: MC-023933-002

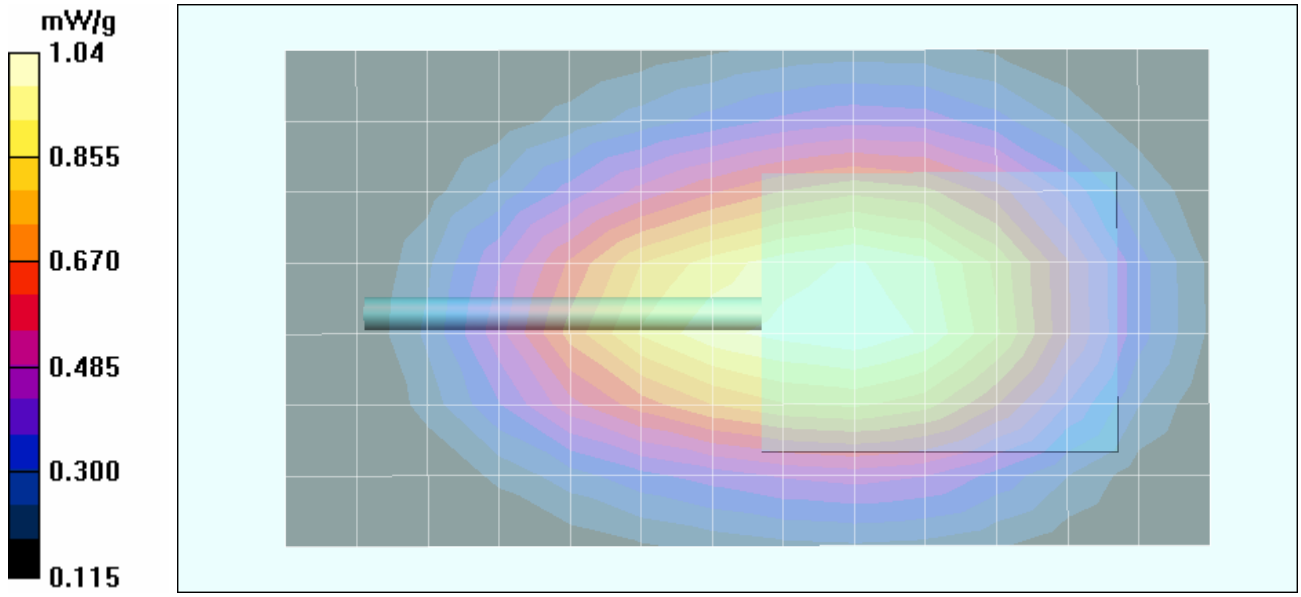
Ambient Temp: 22.8ºC; Fluid Temp: 21.3ºC; Barometric Pressure: 101.4 kPa; Humidity: 33%

Frequency: 937.5 MHz; Duty Cycle: 1:1
RF Output Power: 2.5 Watts (Conducted)
Communication System: FM (Talk-around)
NiMH Battery, immersible, non-IS (P/N: BT-023406-003)
Medium: HSL900 Medium parameters used: f = 937.5 MHz; σ = 0.99 mho/m; ε_r = 39.8; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(6, 6, 6); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 2 - Mid Channel
Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Face-Held - 2.5 cm Spacing from Front of DUT to Planar Phantom - Band 2 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 32.6 V/m; Power Drift = 0.0287 dB
Peak SAR (extrapolated) = 1.53 W/kg
SAR(1 g) = 0.994 mW/g; SAR(10 g) = 0.695 mW/g
Maximum value of SAR (measured) = 1.04 mW/g



Date Tested: 03/28/2007

Body-Worn SAR - System Radio - NiCd NIS Battery - Repeater Input - 898.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (System); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-003

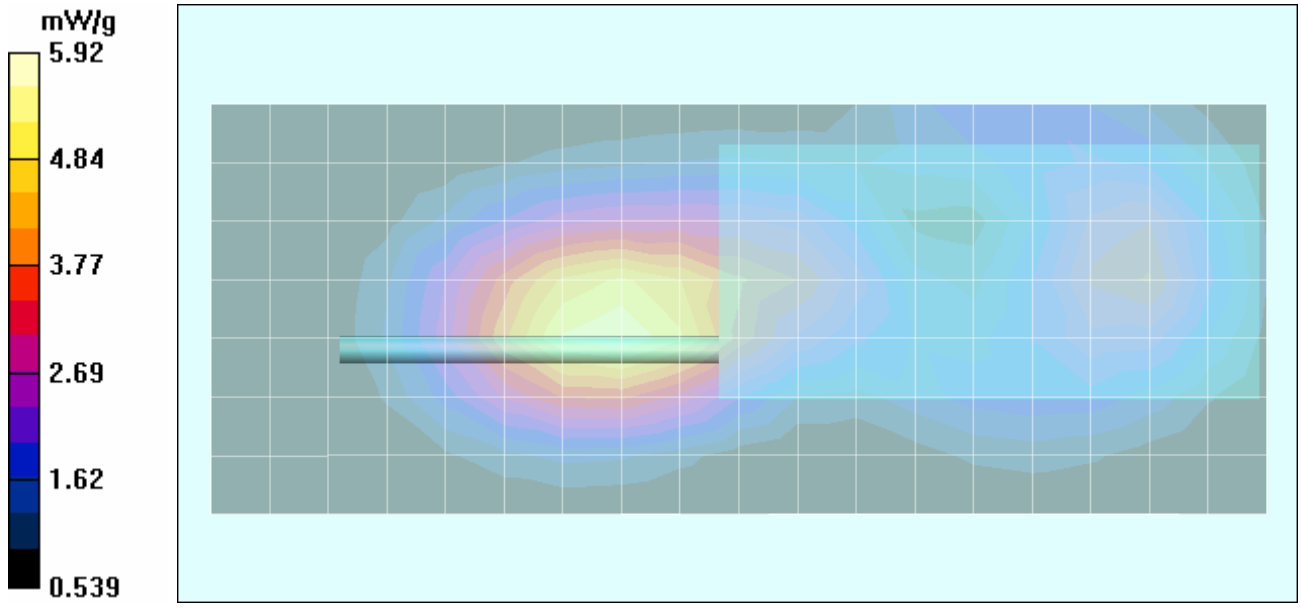
Body-Worn Accessory: Metal Belt-Clip (P/N: CC23894); Audio Accessory: Speaker-Microphone (P/N: MC-023933-001)

Ambient Temp: 22.5ºC; Fluid Temp: 22.0ºC; Barometric Pressure: 101.9 kPa; Humidity: 33%

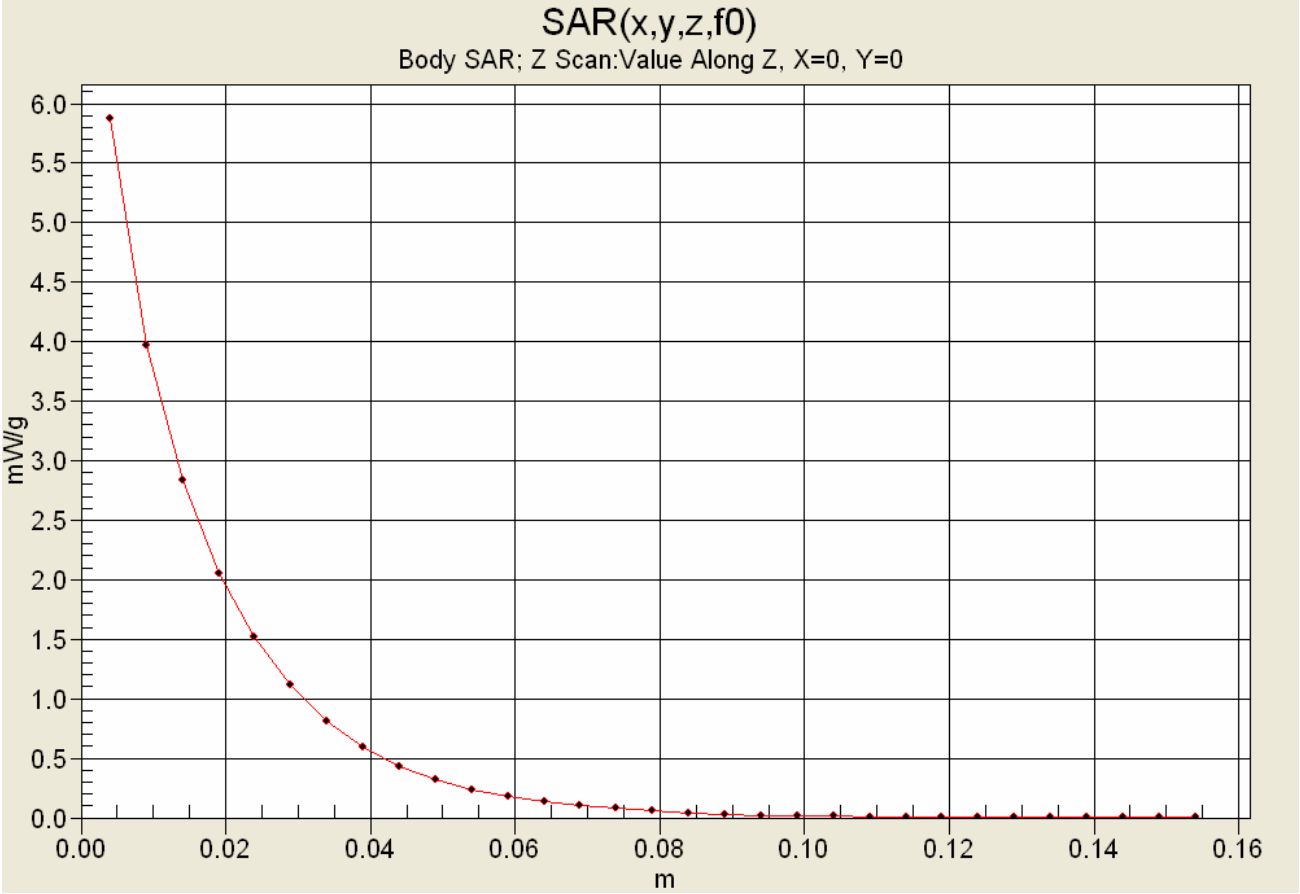
Frequency: 898.5 MHz; Duty Cycle: 1:1
RF Output Power: 3.0 Watts (Conducted)
Communication System: FM (Repeater Input)
NiCd Battery, immersible, non-IS (P/N: BT-023406-001)
Medium: M900 Medium parameters used: f = 898.5 MHz; σ = 1.03 mho/m; ε_r = 55.9; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(5.8, 5.8, 5.8); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm
Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 63.3 V/m; Power Drift = -0.0221 dB
Peak SAR (extrapolated) = 8.76 W/kg
SAR(1 g) = 5.59 mW/g; SAR(10 g) = 3.78 mW/g
Maximum value of SAR (measured) = 5.92 mW/g
Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Zoom Scan 2 (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 63.7 V/m; Power Drift = -0.0774 dB
Peak SAR (extrapolated) = 5.21 W/kg
SAR(1 g) = 3.35 mW/g; SAR(10 g) = 2.3 mW/g
Maximum value of SAR (measured) = 3.57 mW/g



Z-Axis Scan



Date Tested: 03/29/2007

Body-Worn SAR - Scan Radio - NiCd IS Battery - Repeater Input - 898.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

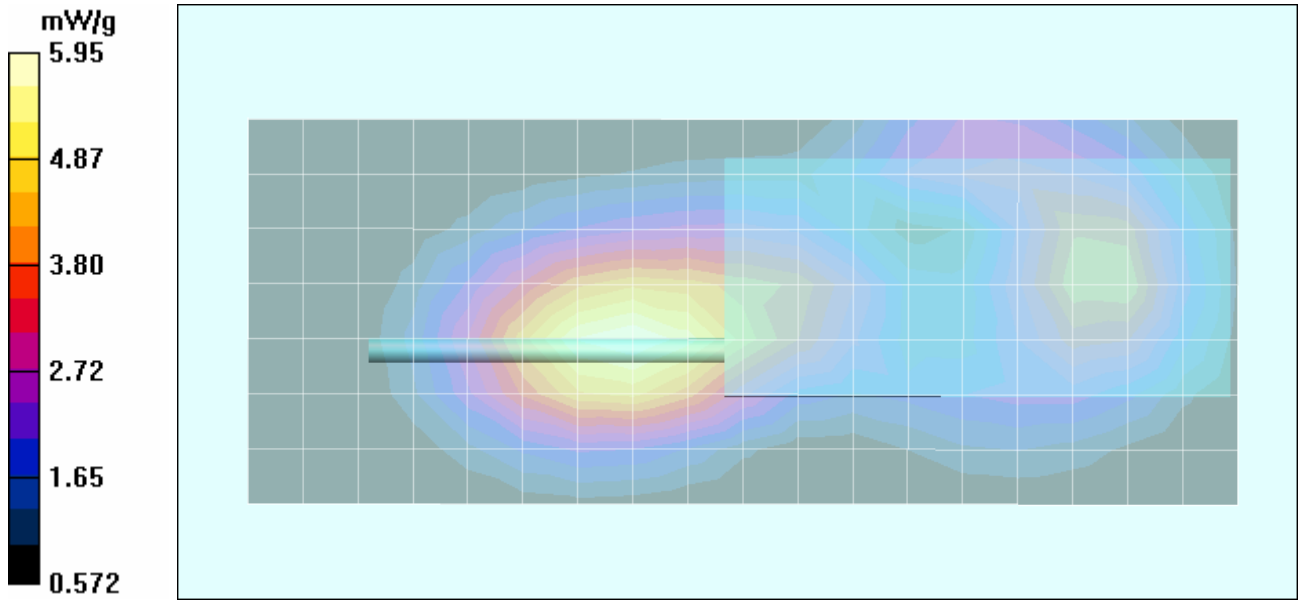
Body-Worn Accessory: Metal Belt-Clip (P/N: CC23894); Audio Accessory: Speaker-Microphone (P/N: MC-023933-001)

Ambient Temp: 22.3°C; Fluid Temp: 22.0°C; Barometric Pressure: 101.9 kPa; Humidity: 33%

Frequency: 898.5 MHz; Duty Cycle: 1:1
RF Output Power: 3.0 Watts (Conducted)
Communication System: FM (Repeater Input)
NiCd Battery, immersible, IS (P/N: BT-023406-002)
Medium: M900 Medium parameters used: f = 898.5 MHz; σ = 1.05 mho/m; ε_r = 55.1; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(5.8, 5.8, 5.8); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm
Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 61.2 V/m; Power Drift = -0.0380 dB
Peak SAR (extrapolated) = 8.87 W/kg
SAR(1 g) = 5.67 mW/g; SAR(10 g) = 3.84 mW/g
Maximum value of SAR (measured) = 5.95 mW/g
Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 61.2 V/m; Power Drift = -0.0380 dB
Peak SAR (extrapolated) = 6.63 W/kg
SAR(1 g) = 4.24 mW/g; SAR(10 g) = 2.88 mW/g
Maximum value of SAR (measured) = 4.53 mW/g



Date Tested: 03/28/2007

Body-Worn SAR - System Radio - NiMH NIS Battery - Repeater Input - 898.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (System); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-003

Body-Worn Accessory: Metal Belt-Clip (P/N: CC23894); Audio Accessory: Speaker-Microphone (P/N: MC-023933-001)

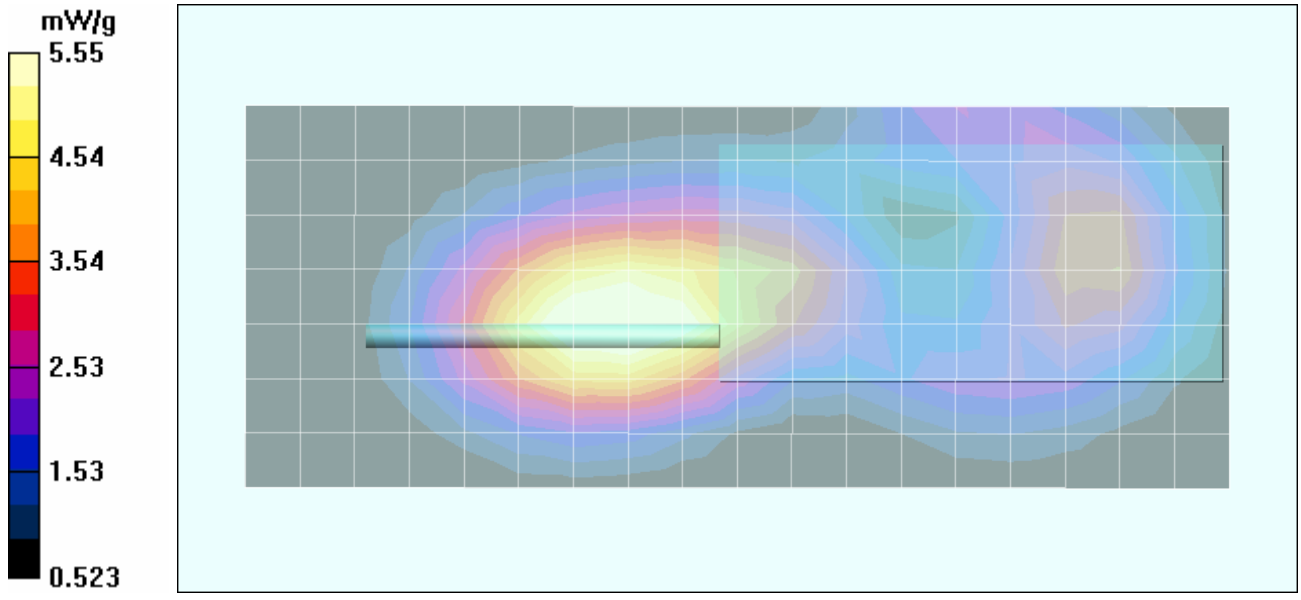
Ambient Temp: 22.5ºC; Fluid Temp: 22.0ºC; Barometric Pressure: 101.9 kPa; Humidity: 33%

Frequency: 898.5 MHz; Duty Cycle: 1:1
RF Output Power: 3.0 Watts (Conducted)
Communication System: FM (Repeater Input)
NiMH Battery, immersible, non-IS (P/N: BT-023406-003)
Medium: M900 Medium parameters used: f = 898.5 MHz; σ = 1.03 mho/m; ε_r = 55.9; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(5.8, 5.8, 5.8); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 58.6 V/m; Power Drift = -0.0937dB
Peak SAR (extrapolated) = 8.18 W/kg
SAR(1 g) = 5.28 mW/g; SAR(10 g) = 3.55 mW/g
Maximum value of SAR (measured) = 5.55 mW/g



Date Tested: 03/29/2007

Body-Worn SAR - Scan Radio - NiMH IS Battery - Repeater Input - 898.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

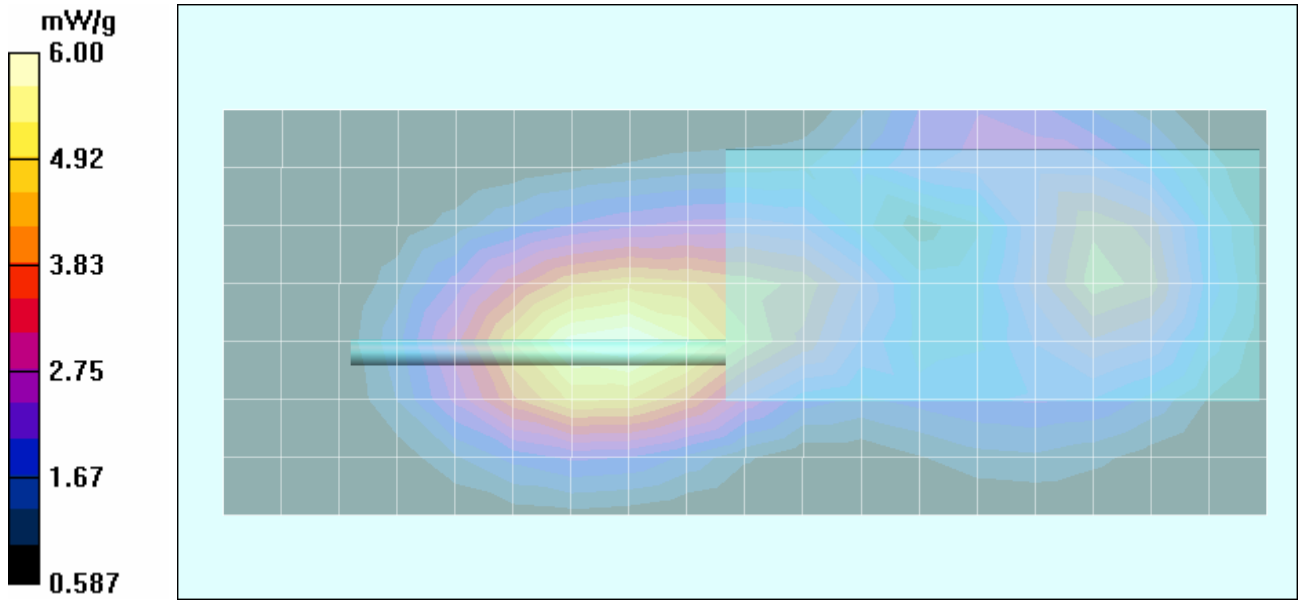
Body-Worn Accessory: Metal Belt-Clip (P/N: CC23894); Audio Accessory: Speaker-Microphone (P/N: MC-023933-001)

Ambient Temp: 22.3°C; Fluid Temp: 22.0°C; Barometric Pressure: 101.9 kPa; Humidity: 33%

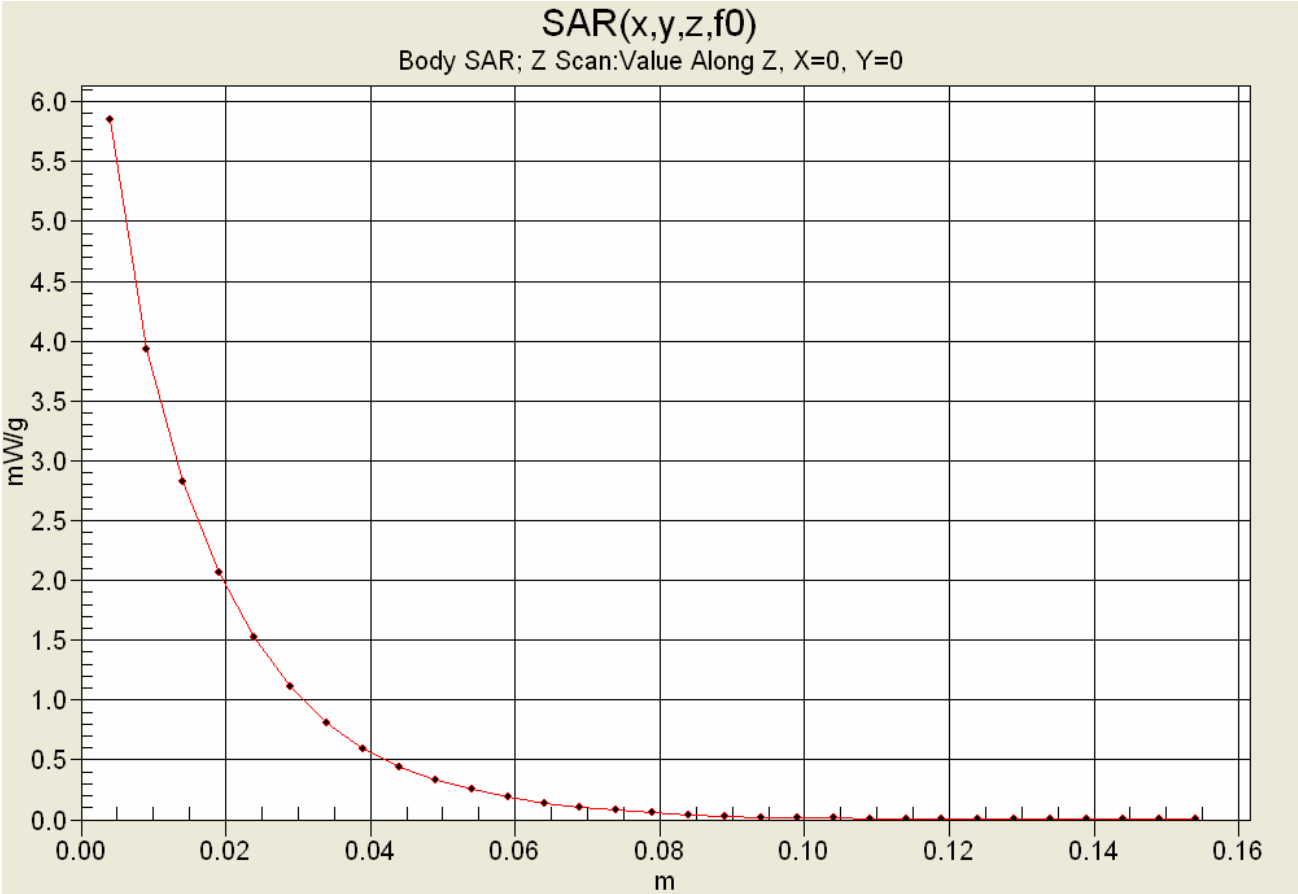
Frequency: 898.5 MHz; Duty Cycle: 1:1
RF Output Power: 3.0 Watts (Conducted)
Communication System: FM (Repeater Input)
NiMH Battery, immersible, IS (P/N: BT-023406-004)
Medium: M900 Medium parameters used: f = 898.5 MHz; σ = 1.05 mho/m; ε_r = 55.1; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(5.8, 5.8, 5.8); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm
Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 61.1 V/m; Power Drift = -0.0200 dB
Peak SAR (extrapolated) = 8.84 W/kg
SAR(1 g) = 5.68 mW/g; SAR(10 g) = 3.84 mW/g
Maximum value of SAR (measured) = 6.00 mW/g
Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 61.1 V/m; Power Drift = -0.0200 dB
Peak SAR (extrapolated) = 6.07 W/kg
SAR(1 g) = 3.89 mW/g; SAR(10 g) = 2.68 mW/g
Maximum value of SAR (measured) = 4.11 mW/g



Z-Axis Scan



Date Tested: 03/28/2007

Body-Worn SAR - System Radio - Li-ion NIS Battery - Repeater Input - 898.5 MHz - Mid Channel

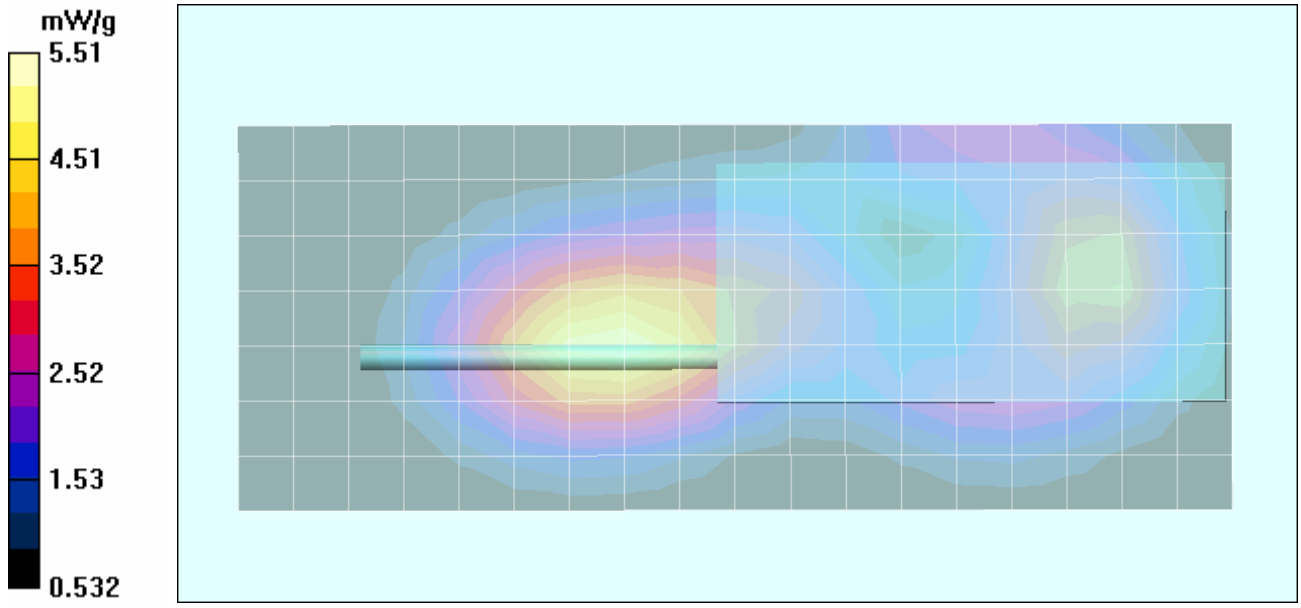
DUT: M/A-COM Model: P5300 (System); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-003

Body-Worn Accessory: Metal Belt-Clip (P/N: CC23894); Audio Accessory: Speaker-Microphone (P/N: MC-023933-001)

Ambient Temp: 22.5ºC; Fluid Temp: 22.0ºC; Barometric Pressure: 101.9 kPa; Humidity: 33%

Frequency: 898.5 MHz; Duty Cycle: 1:1
RF Output Power: 3.0 Watts (Conducted)
Communication System: FM (Repeater Input)
Li-ion Battery, immersible, non-IS (P/N: BT-023406-005)
Medium: M900 Medium parameters used: f = 898.5 MHz; σ = 1.03 mho/m; ε_r = 55.9; ρ = 1000 kg/m^3
- Probe: ET3DV6 - SN1387; ConvF(5.8, 5.8, 5.8); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 5.22 mW/g
Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 61.2 V/m; Power Drift = -0.135 dB
Peak SAR (extrapolated) = 8.25 W/kg
SAR(1 g) = 5.22 mW/g; SAR(10 g) = 3.51 mW/g
Maximum value of SAR (measured) = 5.51 mW/g
Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 61.2 V/m; Power Drift = -0.135 dB
Peak SAR (extrapolated) = 5.37 W/kg
SAR(1 g) = 3.45 mW/g; SAR(10 g) = 2.37 mW/g
Maximum value of SAR (measured) = 3.65 mW/g



Date Tested: 03/29/2007

Body-Worn SAR - Scan Radio - Li-ion IS Battery - Repeater Input - 898.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

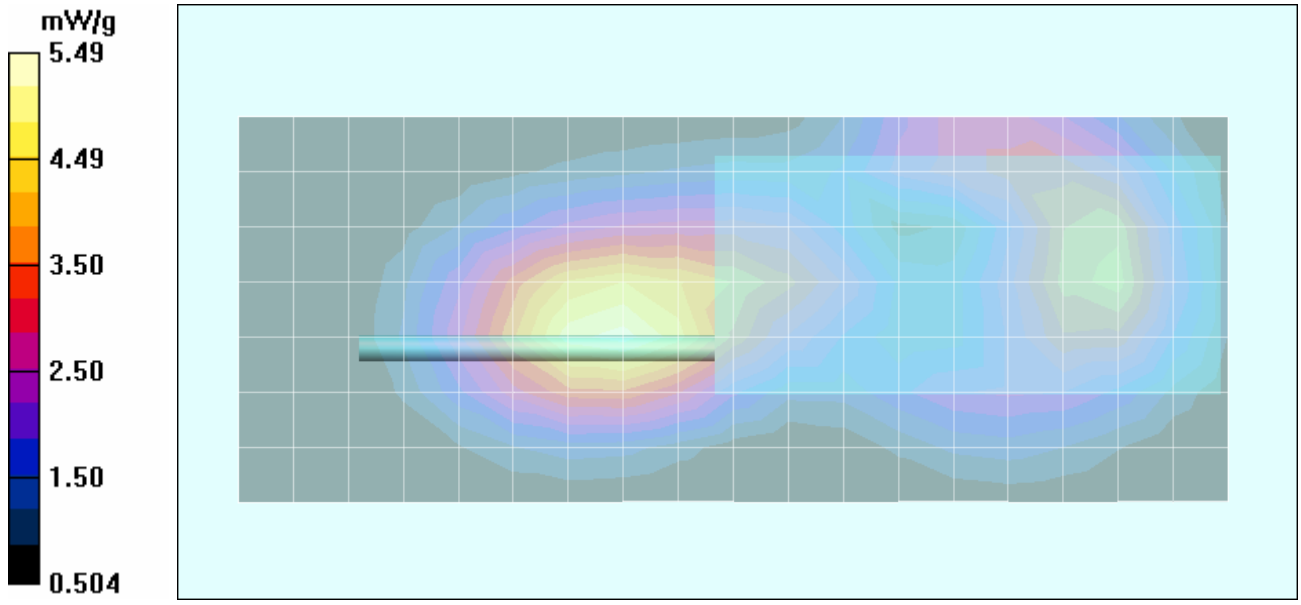
Body-Worn Accessory: Metal Belt-Clip (P/N: CC23894); Audio Accessory: Speaker-Microphone (P/N: MC-023933-001)

Ambient Temp: 22.3°C; Fluid Temp: 22.0°C; Barometric Pressure: 101.9 kPa; Humidity: 33%

Frequency: 898.5 MHz; Duty Cycle: 1:1
RF Output Power: 3.0 Watts (Conducted)
Communication System: FM (Repeater Input)
Li-ion Battery, immersible, IS (P/N: BT-023406-006)
Medium: M900 Medium parameters used: f = 898.5 MHz; σ = 1.05 mho/m; ε_r = 55.1; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(5.8, 5.8, 5.8); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 5.33 mW/g
Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 60.4 V/m; Power Drift = -0.0270 dB
Peak SAR (extrapolated) = 8.07 W/kg
SAR(1 g) = 5.18 mW/g; SAR(10 g) = 3.49 mW/g
Maximum value of SAR (measured) = 5.49 mW/g
Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 60.4 V/m; Power Drift = -0.0270 dB
Peak SAR (extrapolated) = 5.79 W/kg
SAR(1 g) = 3.78 mW/g; SAR(10 g) = 2.6 mW/g
Maximum value of SAR (measured) = 4.02 mW/g



Date Tested: 04/03/2007

Body-Worn SAR - Speaker-Mic Ant. - NiMH IS Battery - Repeater Input - 898.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300; Type: Portable Radio w/ PTT Speaker-Microphone with Antenna; P/N: MC-023933-002

Body-Worn Accessory: Lapel Clip; Audio Accessory: Earphone (P/N: LS103239V1)

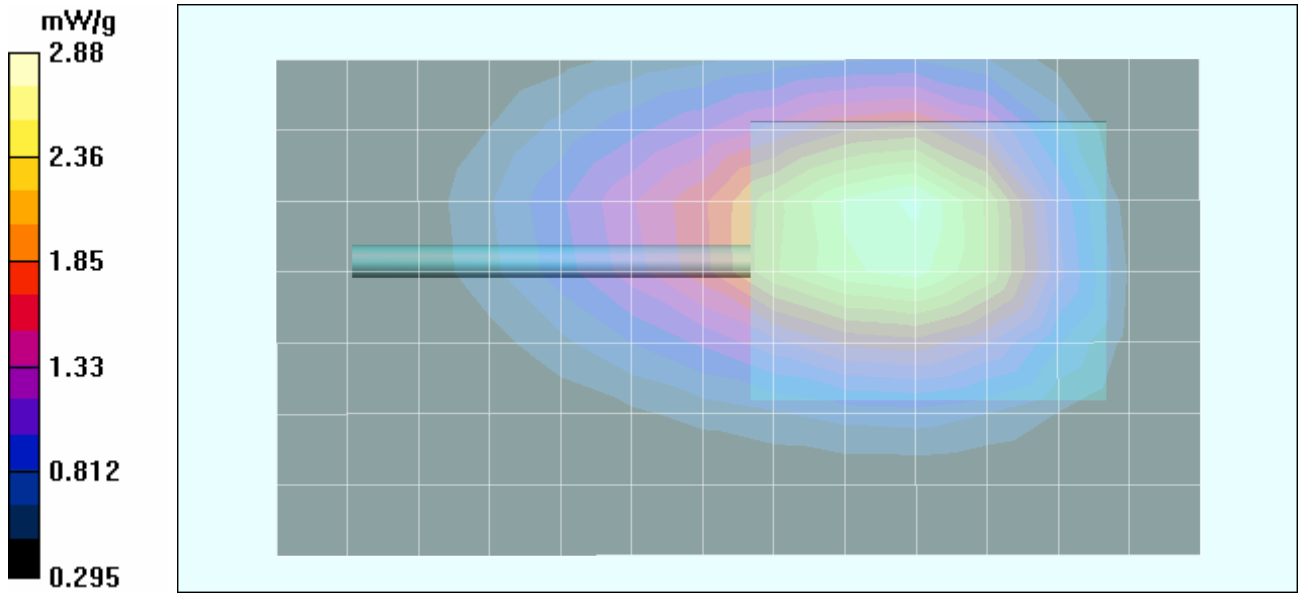
Ambient Temp: 22.6°C; Fluid Temp: 20.2°C; Barometric Pressure: 101.4 kPa; Humidity: 30%

Frequency: 898.5 MHz; Duty Cycle: 1:1
RF Output Power: 3.0 Watts (Conducted)
Communication System: FM (Repeater Input)
NiMH Battery, immersible, IS (P/N: BT-023406-004)
Medium: M900 Medium parameters used: f = 898.5 MHz; σ = 1.04 mho/m; ε_r = 55.9; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(5.8, 5.8, 5.8); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-Worn - 1.5 cm Lapel Clip Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.5 cm Lapel Clip Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 43.7 V/m; Power Drift = -0.0246 dB
Peak SAR (extrapolated) = 4.03 W/kg
SAR(1 g) = 2.72 mW/g; SAR(10 g) = 1.91 mW/g
Maximum value of SAR (measured) = 2.88 mW/g



Date Tested: 03/28/2007

Body-Worn SAR - System Radio - NiCd NIS Battery - Talk-around - 937.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (System); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-003

Body-Worn Accessory: Metal Belt-Clip (P/N: CC23894); Audio Accessory: Speaker-Microphone (P/N: MC-023933-001)

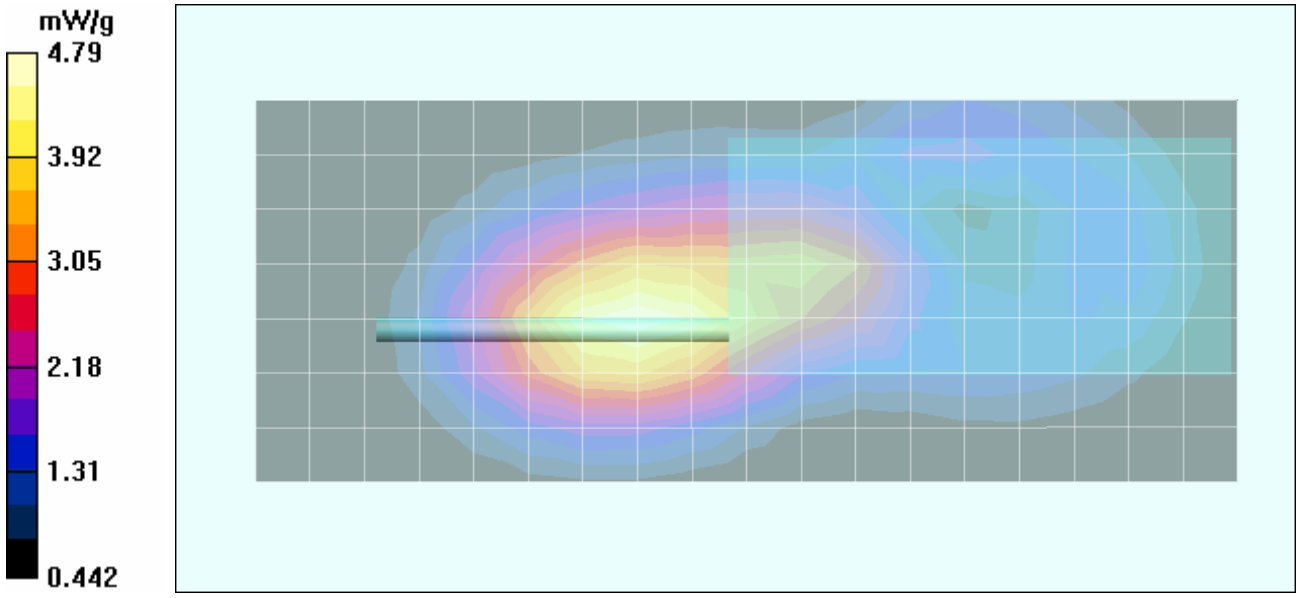
Ambient Temp: 22.5ºC; Fluid Temp: 22.0ºC; Barometric Pressure: 101.9 kPa; Humidity: 33%

Frequency: 937.5 MHz; Duty Cycle: 1:1
RF Output Power: 2.5 Watts (Conducted)
Communication System: FM (Talk-around)
NiCd Battery, immersible, non-IS (P/N: BT-023406-001)
Medium: M900 Medium parameters used: f = 937.5 MHz; σ = 1.06 mho/m; ε_r = 55.7; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(5.8, 5.8, 5.8); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 56.5 V/m; Power Drift = -0.131 dB
Peak SAR (extrapolated) = 7.19 W/kg
SAR(1 g) = 4.54 mW/g; SAR(10 g) = 3.05 mW/g
Maximum value of SAR (measured) = 4.79 mW/g



Date Tested: 03/29/2007

Body-Worn SAR - Scan Radio - NiCd IS Battery - Talk-around - 937.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

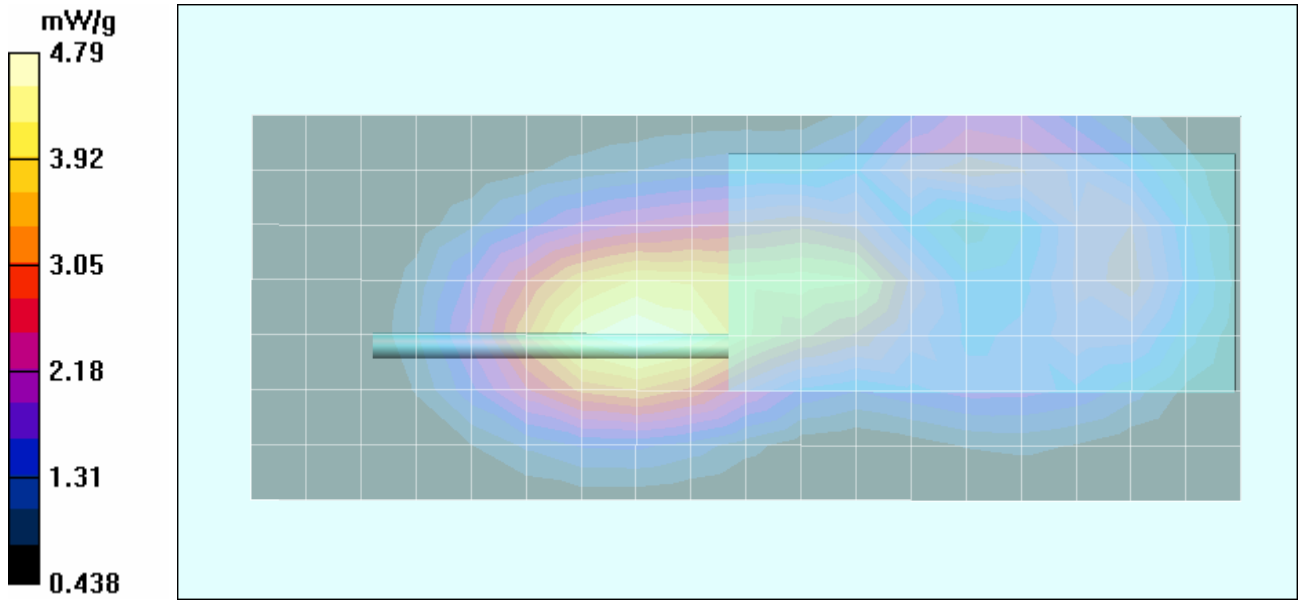
Body-Worn Accessory: Metal Belt-Clip (P/N: CC23894); Audio Accessory: Speaker-Microphone (P/N: MC-023933-001)

Ambient Temp: 22.3°C; Fluid Temp: 22.0°C; Barometric Pressure: 101.9 kPa; Humidity: 33%

Frequency: 937.5 MHz; Duty Cycle: 1:1
RF Output Power: 2.5 Watts (Conducted)
Communication System: FM (Talk-around)
NiCd Battery, immersible, IS (P/N: BT-023406-002)
Medium: M900 Medium parameters used: f = 937.5 MHz; σ = 1.08 mho/m; ε_r = 54.8; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(5.8, 5.8, 5.8); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm
Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 57.6 V/m; Power Drift = -0.0290 dB
Peak SAR (extrapolated) = 7.21 W/kg
SAR(1 g) = 4.56 mW/g; SAR(10 g) = 3.07 mW/g
Maximum value of SAR (measured) = 4.79 mW/g
Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 57.6 V/m; Power Drift = -0.0290 dB
Peak SAR (extrapolated) = 5.98 W/kg
SAR(1 g) = 3.56 mW/g; SAR(10 g) = 2.35 mW/g
Maximum value of SAR (measured) = 3.74 mW/g



Date Tested: 03/28/2007

Body-Worn SAR - System Radio - NiMH NIS Battery - Talk-around - 937.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (System); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-003

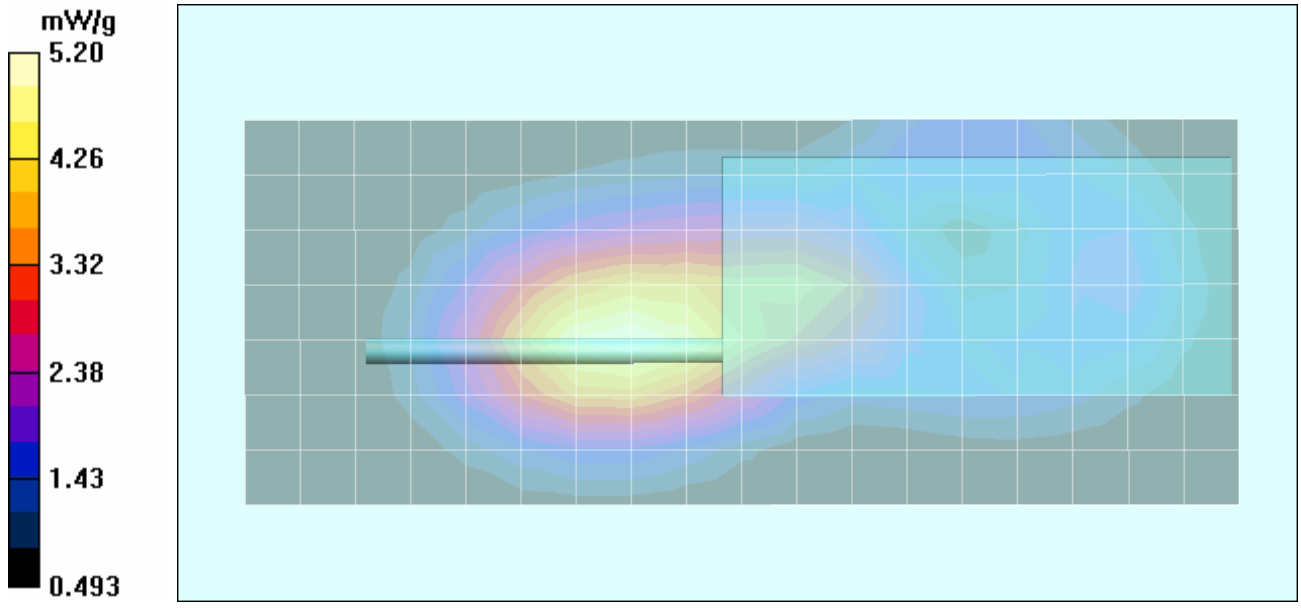
Body-Worn Accessory: Metal Belt-Clip (P/N: CC23894); Audio Accessory: Speaker-Microphone (P/N: MC-023933-001)

Ambient Temp: 22.5ºC; Fluid Temp: 22.0ºC; Barometric Pressure: 101.9 kPa; Humidity: 33%

Frequency: 937.5 MHz; Duty Cycle: 1:1
RF Output Power: 2.5 Watts (Conducted)
Communication System: FM (Talk- around)
NiMH Battery, immersible, non-IS (P/N: BT-023406-003)
Medium: M900 Medium parameters used: f = 937.5 MHz; σ = 1.06 mho/m; ε_r = 55.7; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(5.8, 5.8, 5.8); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm
Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 59.1 V/m; Power Drift = -0.0780 dB
Peak SAR (extrapolated) = 7.77 W/kg
SAR(1 g) = 4.94 mW/g; SAR(10 g) = 3.32 mW/g
Maximum value of SAR (measured) = 5.20 mW/g
Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 59.1 V/m; Power Drift = -0.0780 dB
Peak SAR (extrapolated) = 6.45 W/kg
SAR(1 g) = 3.91 mW/g; SAR(10 g) = 2.61 mW/g
Maximum value of SAR (measured) = 4.31 mW/g



Date Tested: 03/29/2007

Body-Worn SAR - Scan Radio - NiMH IS Battery - Talk-around - 937.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

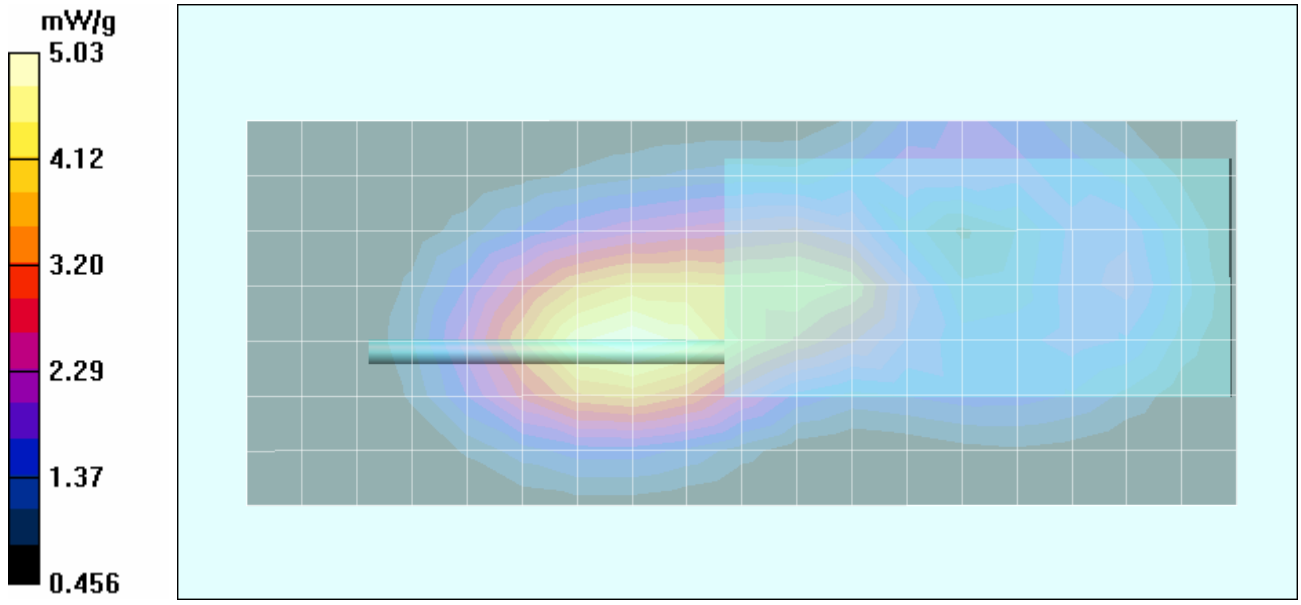
Body-Worn Accessory: Metal Belt-Clip (P/N: CC23894); Audio Accessory: Speaker-Microphone (P/N: MC-023933-001)

Ambient Temp: 22.3°C; Fluid Temp: 22.0°C; Barometric Pressure: 101.9 kPa; Humidity: 33%

Frequency: 937.5 MHz; Duty Cycle: 1:1
RF Output Power: 2.5 Watts (Conducted)
Communication System: FM (Talk-around)
NiMH Battery, immersible, IS (P/N: BT-023406-004)
Medium: M900 Medium parameters used: f = 937.5 MHz; σ = 1.08 mho/m; ε_r = 54.8; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(5.8, 5.8, 5.8); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm
Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 58.3 V/m; Power Drift = -0.0570 dB
Peak SAR (extrapolated) = 7.57 W/kg
SAR(1 g) = 4.76 mW/g; SAR(10 g) = 3.18 mW/g
Maximum value of SAR (measured) = 5.03 mW/g
Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 58.3 V/m; Power Drift = -0.0570 dB
Peak SAR (extrapolated) = 6.23 W/kg
SAR(1 g) = 3.77 mW/g; SAR(10 g) = 2.55 mW/g
Maximum value of SAR (measured) = 4.13 mW/g



Date Tested: 03/28/2007

Body-Worn SAR - System Radio - Li-ion NIS Battery - Talk-around - 937.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (System); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-003

Body-Worn Accessory: Metal Belt-Clip (P/N: CC23894); Audio Accessory: Speaker-Microphone (P/N: MC-023933-001)

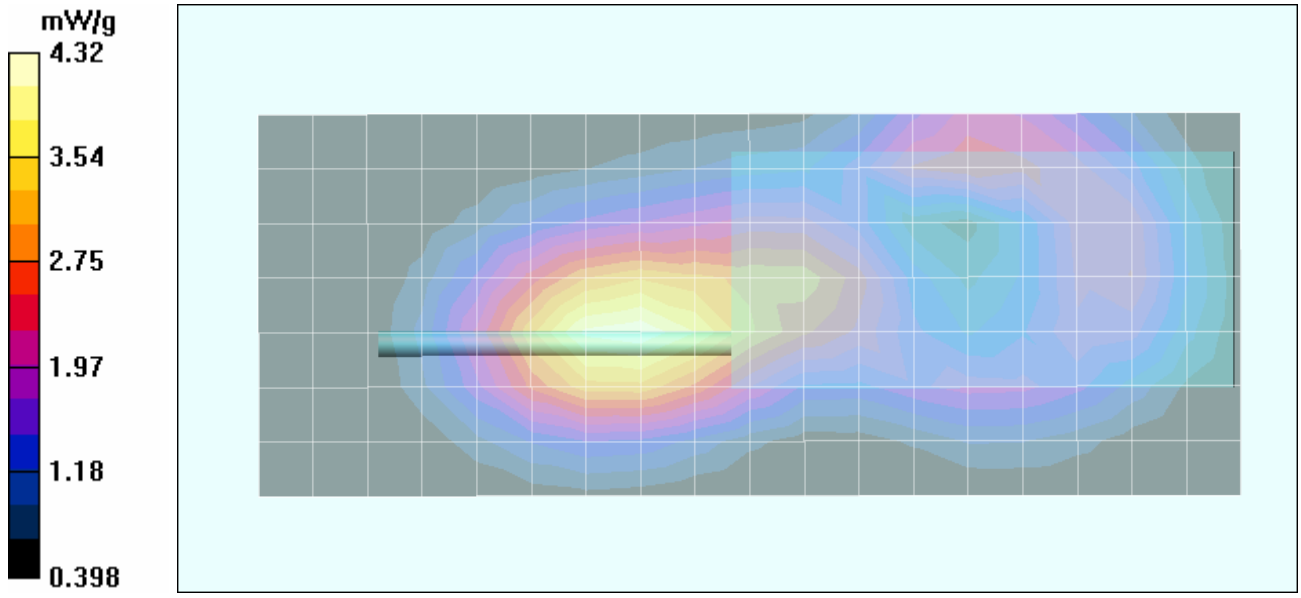
Ambient Temp: 22.5ºC; Fluid Temp: 22.0ºC; Barometric Pressure: 101.9 kPa; Humidity: 33%

Frequency: 937.5 MHz; Duty Cycle: 1:1
RF Output Power: 2.5 Watts (Conducted)
Communication System: FM (Talk-around)
Li-ion Battery, immersible, non-IS (P/N: BT-023406-005)
Medium: M900 Medium parameters used: f = 937.5 MHz; σ = 1.06 mho/m; ε_r = 55.7; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(5.8, 5.8, 5.8); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 52.1 V/m; Power Drift = -0.0871 dB
Peak SAR (extrapolated) = 6.44 W/kg
SAR(1 g) = 4.11 mW/g; SAR(10 g) = 2.75 mW/g
Maximum value of SAR (measured) = 4.32 mW/g



Date Tested: 03/29/2007

Body-Worn SAR - Scan Radio - Li-ion IS Battery - Talk-around - 937.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

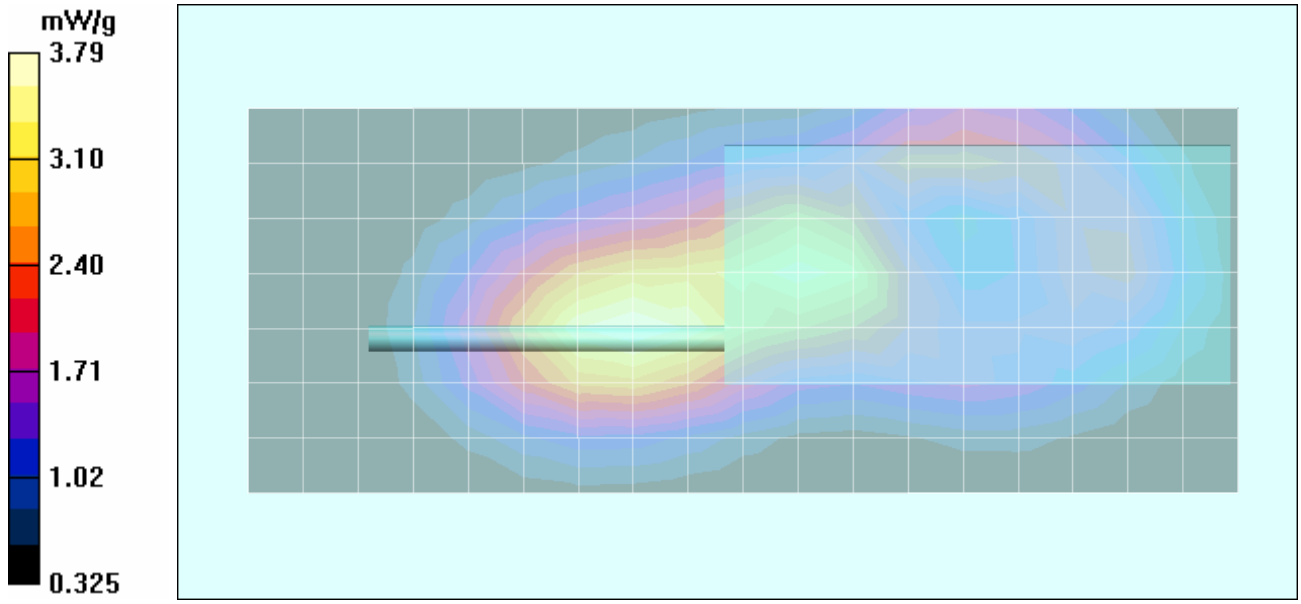
Body-Worn Accessory: Metal Belt-Clip (P/N: CC23894); Audio Accessory: Speaker-Microphone (P/N: MC-023933-001)

Ambient Temp: 22.3°C; Fluid Temp: 22.0°C; Barometric Pressure: 101.9 kPa; Humidity: 33%

Frequency: 937.5 MHz; Duty Cycle: 1:1
RF Output Power: 2.5 Watts (Conducted)
Communication System: FM (Talk-around)
Li-ion Battery, immersible, IS (P/N: BT-023406-006)
Medium: M900 Medium parameters used: f = 937.5 MHz; σ = 1.08 mho/m; ε_r = 54.8; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(5.8, 5.8, 5.8); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm
Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 52.5 V/m; Power Drift = -0.141 dB
Peak SAR (extrapolated) = 5.74 W/kg
SAR(1 g) = 3.58 mW/g; SAR(10 g) = 2.39 mW/g
Maximum value of SAR (measured) = 3.79 mW/g
Body-Worn - 1.1 cm Belt-Clip Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 52.5 V/m; Power Drift = -0.141 dB
Peak SAR (extrapolated) = 5.28 W/kg
SAR(1 g) = 3.10 mW/g; SAR(10 g) = 2.08 mW/g
Maximum value of SAR (measured) = 3.24 mW/g



Date Tested: 04/03/2007

Body-Worn SAR - Speaker-Mic Ant. - NiMH NIS Battery - Talk-around - 937.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300; Type: Portable Radio w/ PTT Speaker-Microphone with Antenna; P/N: MC-023933-002

Body-Worn Accessory: Lapel Clip; Audio Accessory: Earphone (P/N: LS103239V1)

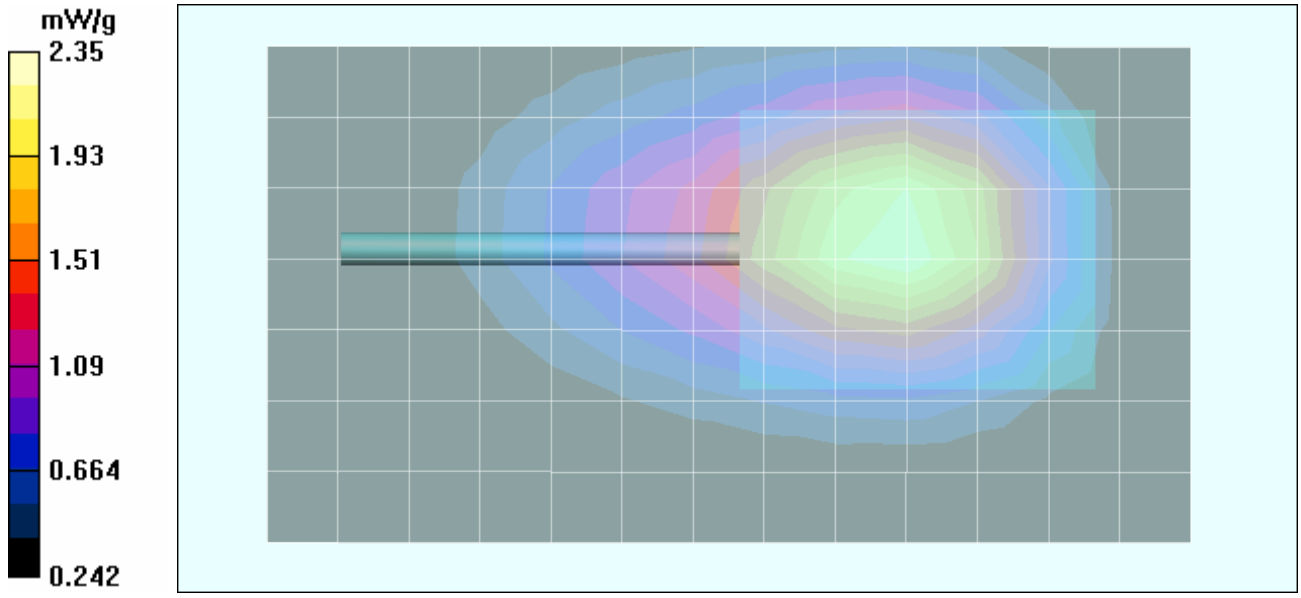
Ambient Temp: 22.6°C; Fluid Temp: 20.2°C; Barometric Pressure: 101.4 kPa; Humidity: 30%

Frequency: 937.5 MHz; Duty Cycle: 1:1
RF Output Power: 2.5 Watts (Conducted)
Communication System: FM (Talk-around)
NiMH Battery, immersible, non-IS (P/N: BT-023406-003)
Medium: M900 Medium parameters used: f = 937.5 MHz; σ = 1.09 mho/m; ε_r = 55.5; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(5.8, 5.8, 5.8); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-Worn - 1.5 cm Lapel Clip Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Area Scan (8x14x1): Measurement grid: dx=15mm, dy=15mm

Body-Worn - 1.5 cm Lapel Clip Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 37.0 V/m; Power Drift = -0.0402 dB
Peak SAR (extrapolated) = 3.39 W/kg
SAR(1 g) = 2.24 mW/g; SAR(10 g) = 1.55 mW/g
Maximum value of SAR (measured) = 2.35 mW/g



Date Tested: 03/30/2007

Body-Worn SAR - Scan Radio - NiMH IS Battery - Repeater Input - 898.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

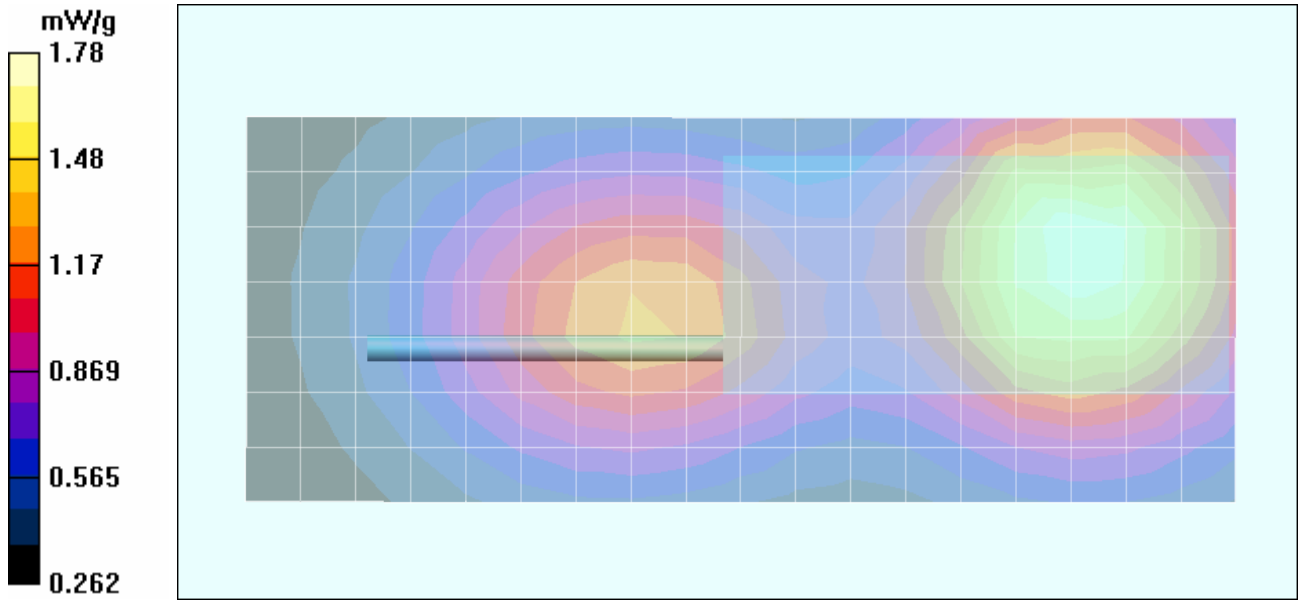
Body-Worn Accessory: Leather Case Kit 1 (P/N: CC-023931-003); Audio Accessory: Speaker-Microphone (P/N: MC-023933-001)

Ambient Temp: 22.9°C; Fluid Temp: 21.5°C; Barometric Pressure: 101.9 kPa; Humidity: 31%

Frequency: 898.5 MHz; Duty Cycle: 1:1
RF Output Power: 3.0 Watts (Conducted)
Communication System: FM (Repeater Input)
NiMH Battery, immersible, IS (P/N: BT-023406-004)
Medium: M900 Medium parameters used: f = 898.5 MHz; σ = 1.04 mho/m; ε_r = 55.5; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(5.8, 5.8, 5.8); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-Worn - 4.0 cm Leather Case & Belt Loop Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm
Body-Worn - 4.0 cm Leather Case & Belt Loop Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 29.9 V/m; Power Drift = -0.0705 dB
Peak SAR (extrapolated) = 3.14 W/kg
SAR(1 g) = 1.69 mW/g; SAR(10 g) = 1.23 mW/g
Maximum value of SAR (measured) = 1.78 mW/g
Body-Worn - 4.0 cm Leather Case & Belt Loop Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel Zoom Scan 2 (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 31.0 V/m; Power Drift = -0.138 dB
Peak SAR (extrapolated) = 1.87 W/kg
SAR(1 g) = 1.24 mW/g; SAR(10 g) = 0.875 mW/g
Maximum value of SAR (measured) = 1.31 mW/g



Date Tested: 03/29/2007

Body-Worn SAR - Scan Radio - NiMH NIS Battery - Talk-around - 937.5 MHz - Mid Channel

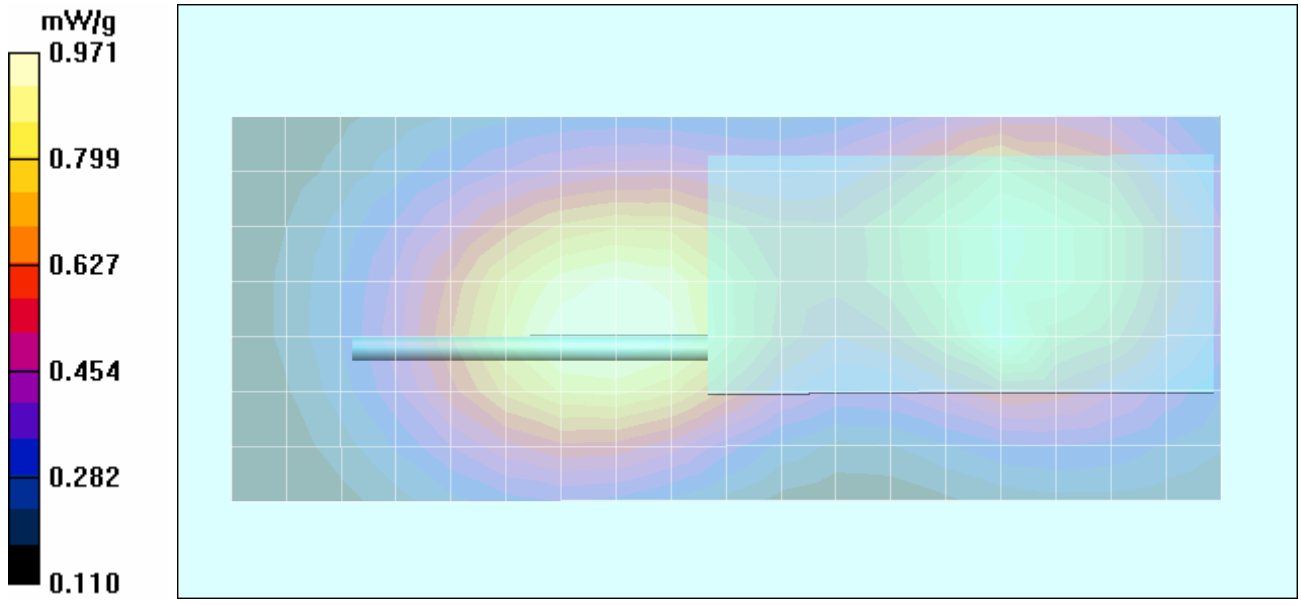
DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

Body-Worn Accessory: Leather Case Kit 1 (P/N: CC-023931-003); Audio Accessory: Speaker-Microphone (P/N: MC-023933-001)

Ambient Temp: 22.3°C; Fluid Temp: 22.0°C; Barometric Pressure: 101.9 kPa; Humidity: 33%

Frequency: 937.5 MHz; Duty Cycle: 1:1
RF Output Power: 2.5 Watts (Conducted)
Communication System: FM (Talk-around)
NiMH Battery, immersible, non-IS (P/N: BT-023406-003)
Medium: M900 Medium parameters used: f = 937.5 MHz; σ = 1.08 mho/m; ε_r = 54.8; ρ = 1000 kg/m^3
- Probe: ET3DV6 - SN1387; ConvF(5.8, 5.8, 5.8); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-Worn - 4.0 cm Leather Case & Belt Loop Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm
Body-Worn - 4.0 cm Leather Case & Belt Loop Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 26.9 V/m; Power Drift = -0.166 dB
Peak SAR (extrapolated) = 1.43 W/kg
SAR(1 g) = 0.929 mW/g; SAR(10 g) = 0.648 mW/g
Maximum value of SAR (measured) = 0.971 mW/g
Body-Worn - 4.0 cm Leather Case & Belt Loop Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 26.9 V/m; Power Drift = -0.166 dB
Peak SAR (extrapolated) = 1.38 W/kg
SAR(1 g) = 0.808 mW/g; SAR(10 g) = 0.566 mW/g
Maximum value of SAR (measured) = 0.868 mW/g
Body-Worn - 4.0 cm Leather Case & Belt Loop Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Zoom Scan (5x5x7)/Cube 2: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 26.9 V/m; Power Drift = -0.166 dB
Peak SAR (extrapolated) = 1.35 W/kg
SAR(1 g) = 0.834 mW/g; SAR(10 g) = 0.607 mW/g
Maximum value of SAR (measured) = 0.873 mW/g



Date Tested: 03/29/2007

Body-Worn SAR - Scan Radio - NiMH IS Battery - Repeater Input - 898.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

Body-Worn Accessory: Leather Case Kit 2 (P/N: CC-023931-004); Audio Accessory: Speaker-Microphone (P/N: MC-023933-001)

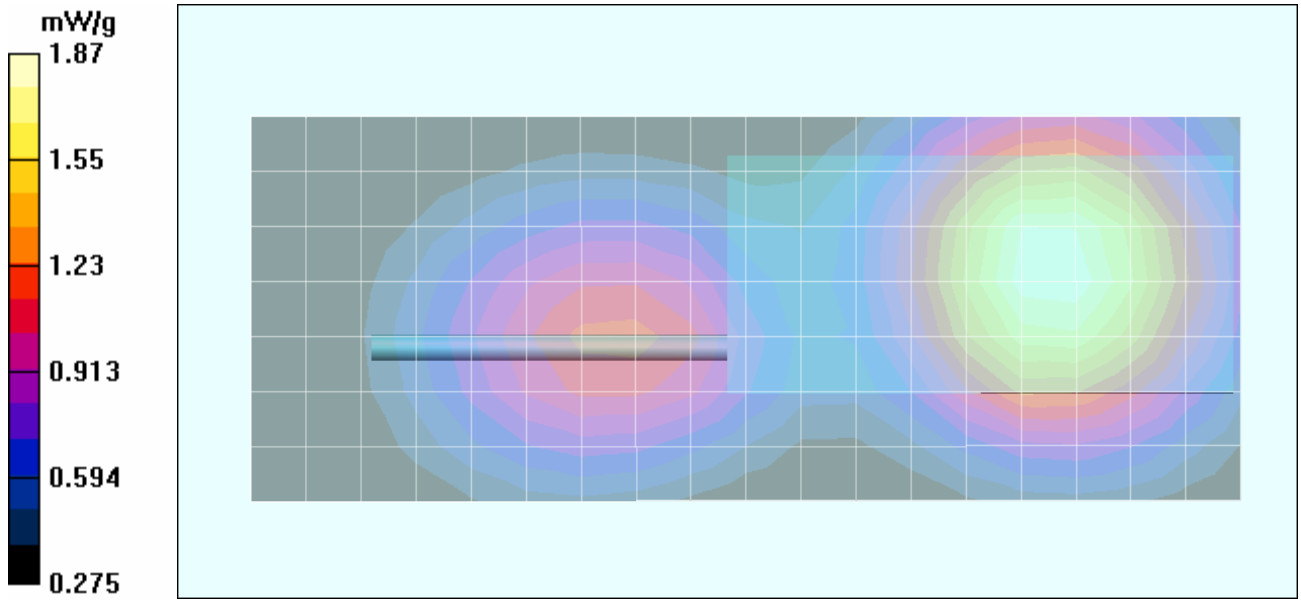
Ambient Temp: 22.3°C; Fluid Temp: 22.0°C; Barometric Pressure: 101.9 kPa; Humidity: 33%

Frequency: 898.5 MHz; Duty Cycle: 1:1
RF Output Power: 3.0 Watts (Conducted)
Communication System: FM (Repeater Input)
NiMH Battery, immersible, IS (P/N: BT-023406-004)
Medium: M900 Medium parameters used: f = 898.5 MHz; σ = 1.05 mho/m; ε_r = 55.1; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(5.8, 5.8, 5.8); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-Worn - 4.0 cm Leather Case & Belt Loop Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm

Body-Worn - 4.0 cm Leather Case & Belt Loop Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 26.5 V/m; Power Drift = -0.0532 dB
Peak SAR (extrapolated) = 2.61 W/kg
SAR(1 g) = 1.80 mW/g; SAR(10 g) = 1.31 mW/g
Maximum value of SAR (measured) = 1.87 mW/g



Date Tested: 03/29/2007

Body-Worn SAR - Scan Radio - NiMH NIS Battery - Talk-around - 937.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

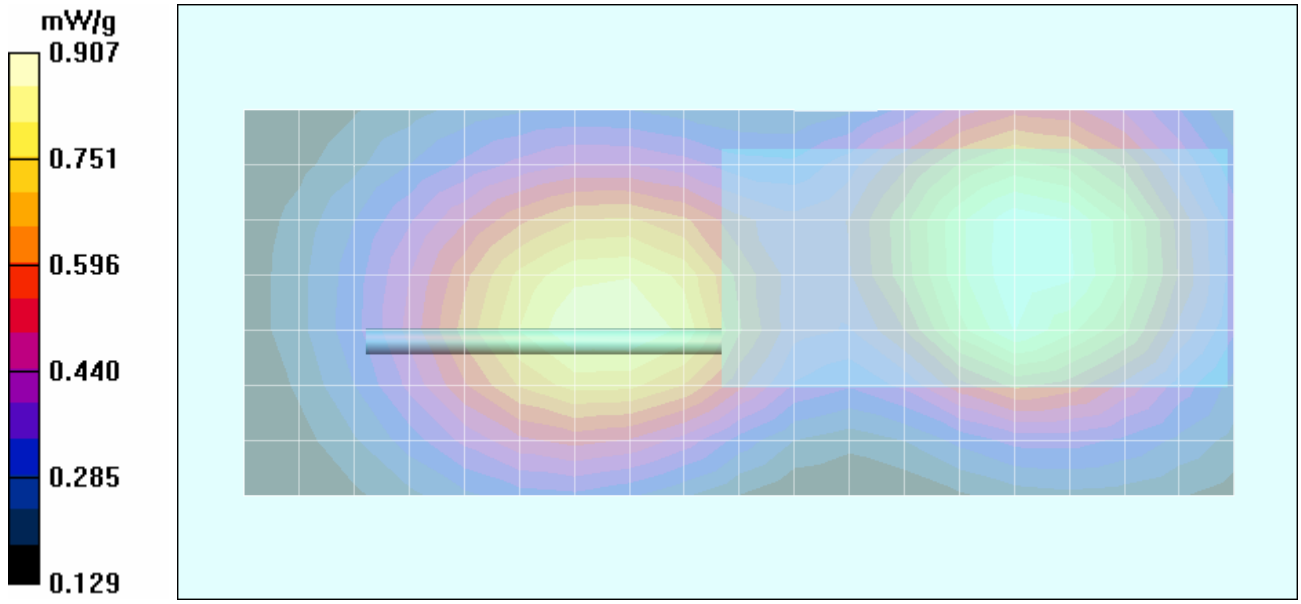
Body-Worn Accessory: Leather Case Kit 2 (P/N: CC-023931-004); Audio Accessory: Speaker-Microphone (P/N: MC-023933-001)

Ambient Temp: 22.3°C; Fluid Temp: 22.0°C; Barometric Pressure: 101.9 kPa; Humidity: 33%

Frequency: 937.5 MHz; Duty Cycle: 1:1
RF Output Power: 2.5 Watts (Conducted)
Communication System: FM (Talk-around)
NiMH Battery, immersible, non-IS (P/N: BT-023406-003)
Medium: M900 Medium parameters used: f = 937.5 MHz; σ = 1.08 mho/m; ε_r = 54.8; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(5.8, 5.8, 5.8); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-Worn - 4.0 cm Leather Case & Belt Loop Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm
Body-Worn - 4.0 cm Leather Case & Belt Loop Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 23.9 V/m; Power Drift = -0.0950 dB
Peak SAR (extrapolated) = 1.34 W/kg
SAR(1 g) = 0.872 mW/g; SAR(10 g) = 0.633 mW/g
Maximum value of SAR (measured) = 0.907 mW/g
Body-Worn - 4.0 cm Leather Case & Belt Loop Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 23.9 V/m; Power Drift = -0.0950 dB
Peak SAR (extrapolated) = 1.24 W/kg
SAR(1 g) = 0.803 mW/g; SAR(10 g) = 0.564 mW/g
Maximum value of SAR (measured) = 0.844 mW/g



Date Tested: 03/29/2007

Body-Worn SAR - Scan Radio - NiMH IS Battery - Repeater Input - 898.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

Body-Worn Accessory: Leather Case 3 (P/N: CC-023931-002); Audio Accessory: Speaker-Microphone (P/N: MC-023933-001)

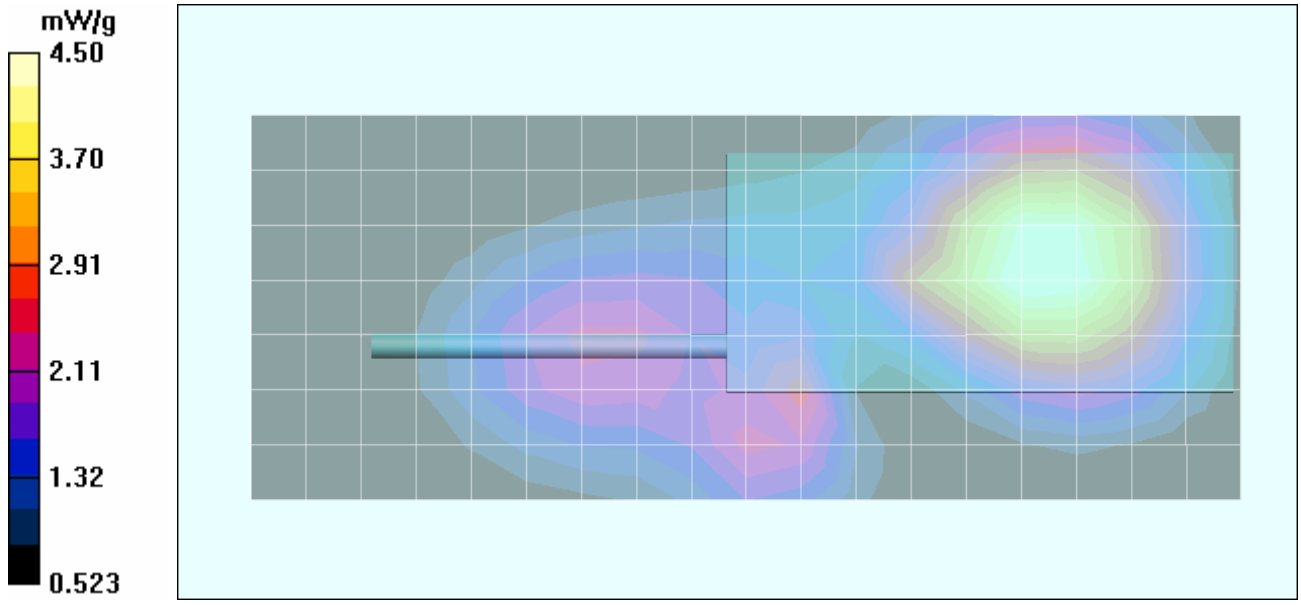
Ambient Temp: 22.3°C; Fluid Temp: 22.0°C; Barometric Pressure: 101.9 kPa; Humidity: 33%

Frequency: 898.5 MHz; Duty Cycle: 1:1
RF Output Power: 3.0 Watts (Conducted)
Communication System: FM (Repeater Input)
NiMH Battery, immersible, IS (P/N: BT-023406-004)
Medium: M900 Medium parameters used: f = 898.5 MHz; σ = 1.05 mho/m; ε_r = 55.1; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(5.8, 5.8, 5.8); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-Worn - 2.5 cm Leather Case Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm

Body-Worn - 2.5 cm Leather Case Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 37.3 V/m; Power Drift = -0.0439 dB
Peak SAR (extrapolated) = 6.38 W/kg
SAR(1 g) = 4.32 mW/g; SAR(10 g) = 3.08 mW/g
Maximum value of SAR (measured) = 4.50 mW/g



Date Tested: 03/29/2007

Body-Worn SAR - Scan Radio - NiMH NIS Battery - Talk-around - 937.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

Body-Worn Accessory: Leather Case 3 (P/N: CC-023931-002); Audio Accessory: Speaker-Microphone (P/N: MC-023933-001)

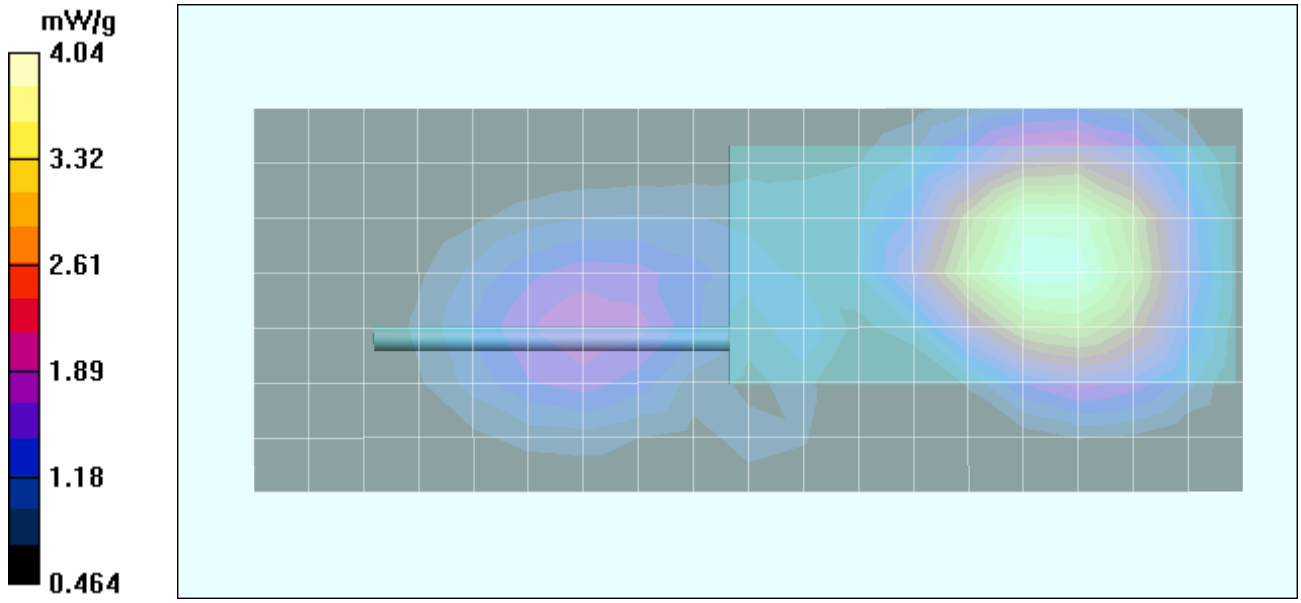
Ambient Temp: 22.3°C; Fluid Temp: 22.0°C; Barometric Pressure: 101.9 kPa; Humidity: 33%

Frequency: 937.5 MHz; Duty Cycle: 1:1
RF Output Power: 2.5 Watts (Conducted)
Communication System: FM (Talk-around)
NiMH Battery, immersible, non-IS (P/N: BT-023406-003)
Medium: M900 Medium parameters used: f = 937.5 MHz; σ = 1.08 mho/m; ε_r = 54.8; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(5.8, 5.8, 5.8); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-Worn - 2.5 cm Leather Case Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm

Body-Worn - 2.5 cm Leather Case Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 31.7 V/m; Power Drift = -0.0614 dB
Peak SAR (extrapolated) = 5.76 W/kg
SAR(1 g) = 3.85 mW/g; SAR(10 g) = 2.72 mW/g
Maximum value of SAR (measured) = 4.04 mW/g



Date Tested: 03/30/2007

Body-Worn SAR - Scan Radio - NiMH IS Battery - Repeater Input - 898.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

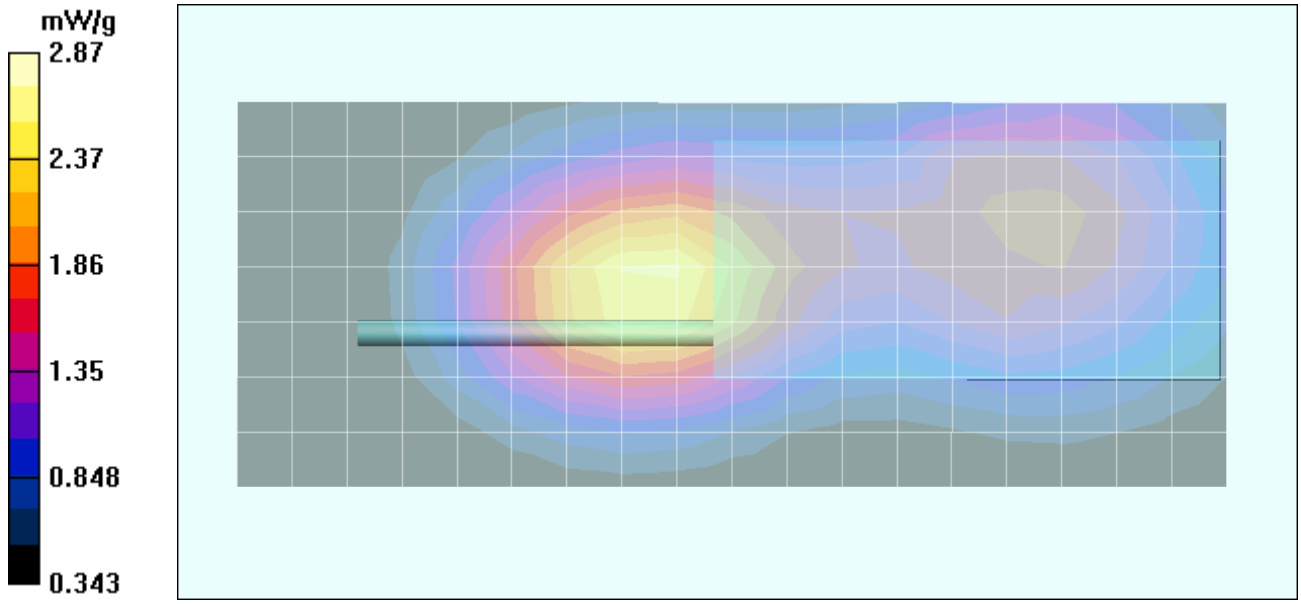
Body-Worn Accessory: Belt Loop (P/N: KRY 101 1609/1); Audio Accessory: Speaker-Microphone (P/N: MC-023933-001)

Ambient Temp: 22.9°C; Fluid Temp: 21.5°C; Barometric Pressure: 101.9 kPa; Humidity: 31%

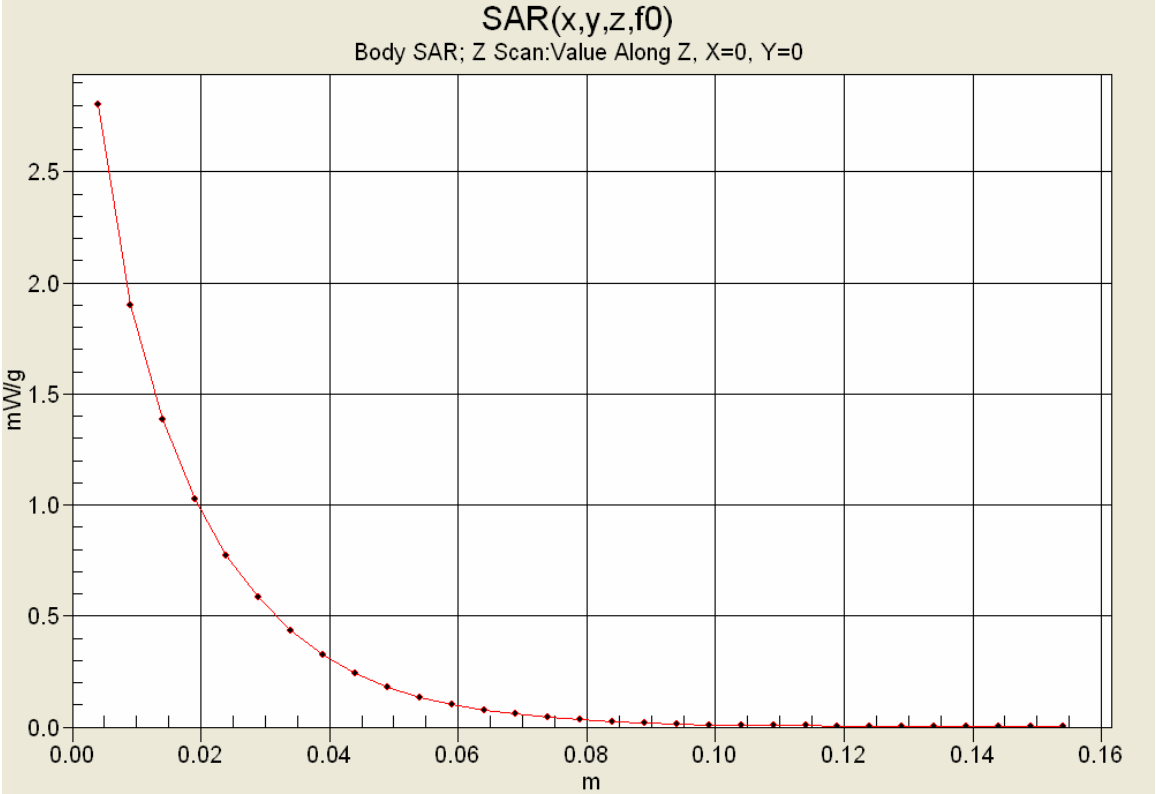
Frequency: 898.5 MHz; Duty Cycle: 1:1
RF Output Power: 3.0 Watts (Conducted)
Communication System: FM (Repeater Input)
NiMH Battery, immersible, IS (P/N: BT-023406-004)
Medium: M900 Medium parameters used: f = 898.5 MHz; σ = 1.04 mho/m; ε_r = 55.5; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(5.8, 5.8, 5.8); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-Worn - 3.0 cm Belt Loop Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm
Body-Worn - 3.0 cm Belt Loop Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 49.0 V/m; Power Drift = -0.0896 dB
Peak SAR (extrapolated) = 4.21 W/kg
SAR(1 g) = 2.75 mW/g; SAR(10 g) = 1.91 mW/g
Maximum value of SAR (measured) = 2.87 mW/g
Body-Worn - 3.0 cm Belt Loop Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Zoom Scan 2 (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 48.1 V/m; Power Drift = -0.127 dB
Peak SAR (extrapolated) = 3.16 W/kg
SAR(1 g) = 1.94 mW/g; SAR(10 g) = 1.43 mW/g
Maximum value of SAR (measured) = 2.07 mW/g



Z-Axis Scan



Date Tested: 03/30/2007

Body-Worn SAR - Scan Radio - NiMH NIS Battery - Talk-around - 937.5 MHz - Mid Channel

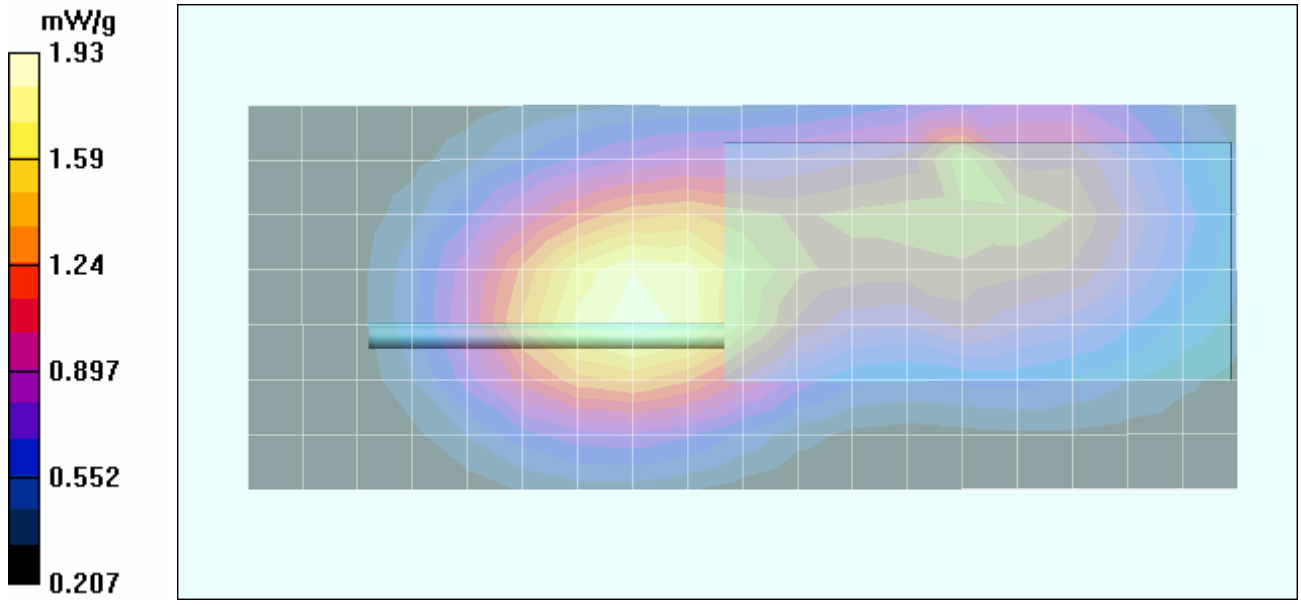
DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

Body-Worn Accessory: Belt Loop (P/N: KRY 101 1609/1); Audio Accessory: Speaker-Microphone (P/N: MC-023933-001)

Ambient Temp: 22.9°C; Fluid Temp: 21.5°C; Barometric Pressure: 101.9 kPa; Humidity: 31%

Frequency: 937.5 MHz; Duty Cycle: 1:1
RF Output Power: 2.5 Watts (Conducted)
Communication System: FM (Talk-around)
NiMH Battery, immersible, non-IS (P/N: BT-023406-003)
Medium: M900 Medium parameters used: f = 937.5 MHz; σ = 1.07 mho/m; ε_r = 55.1; ρ = 1000 kg/m^3
- Probe: ET3DV6 - SN1387; ConvF(5.8, 5.8, 5.8); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-Worn - 3.0 cm Belt Loop Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm
Body-Worn - 3.0 cm Belt Loop Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 39.9 V/m; Power Drift = -0.0229 dB
Peak SAR (extrapolated) = 2.89 W/kg
SAR(1 g) = 1.85 mW/g; SAR(10 g) = 1.28 mW/g
Maximum value of SAR (measured) = 1.93 mW/g
Body-Worn - 3.0 cm Belt Loop Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Zoom Scan 2 (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 41.6 V/m; Power Drift = -0.0788 dB
Peak SAR (extrapolated) = 3.07 W/kg
SAR(1 g) = 1.54 mW/g; SAR(10 g) = 1.03 mW/g
Maximum value of SAR (measured) = 1.65 mW/g
Body-Worn - 3.0 cm Belt Loop Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Zoom Scan 3 (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 39.2 V/m; Power Drift = -0.127 dB
Peak SAR (extrapolated) = 2.81 W/kg
SAR(1 g) = 1.81 mW/g; SAR(10 g) = 1.25 mW/g
Maximum value of SAR (measured) = 1.91 mW/g



Date Tested: 04/03/2007

Body-Worn SAR - Scan Radio - NiMH IS Battery - Repeater Input - 898.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

Body-Worn Accessory: Nylon Case (P/N: CC-023932-001) and Belt Loop (P/N: KRY 101 1609/1)
Audio Accessory: Speaker-Microphone (P/N: MC-023933-001)

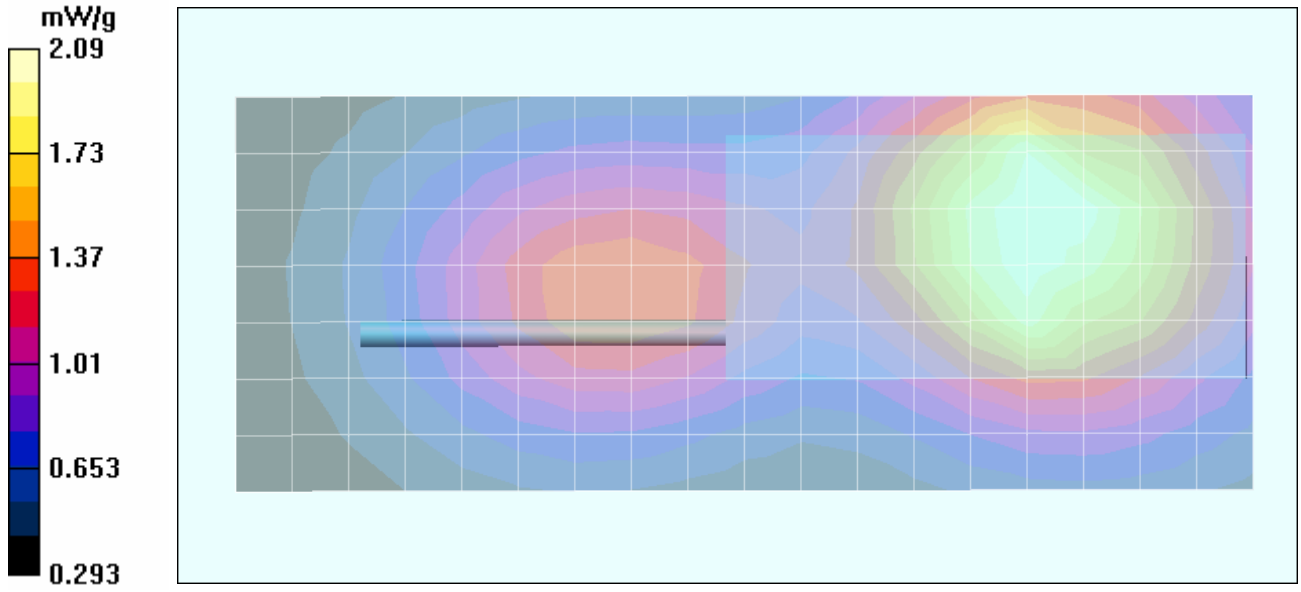
Ambient Temp: 22.6°C; Fluid Temp: 20.2°C; Barometric Pressure: 101.4 kPa; Humidity: 30%

Frequency: 898.5 MHz; Duty Cycle: 1:1
RF Output Power: 3.0 Watts (Conducted)
Communication System: FM (Repeater Input)
NiMH Battery, immersible, IS (P/N: BT-023406-004)
Medium: M900 Medium parameters used: f = 898.5 MHz; σ = 1.04 mho/m; ε_r = 55.9; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(5.8, 5.8, 5.8); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-Worn - 3.5 cm Nylon Case & Belt Loop Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm

Body-Worn - 3.5 cm Nylon Case & Belt Loop Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 31.6 V/m; Power Drift = -0.104 dB
Peak SAR (extrapolated) = 3.32 W/kg
SAR(1 g) = 2.01 mW/g; SAR(10 g) = 1.47 mW/g
Maximum value of SAR (measured) = 2.09 mW/g



Date Tested: 03/30/2007

Body-Worn SAR - Scan Radio - NiMH NIS Battery - Talk-around - 937.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

Body-Worn Accessory: Nylon Case (P/N: CC-023932-001) and Belt Loop (P/N: KRY 101 1609/1)
Audio Accessory: Speaker-Microphone (P/N: MC-023933-001)

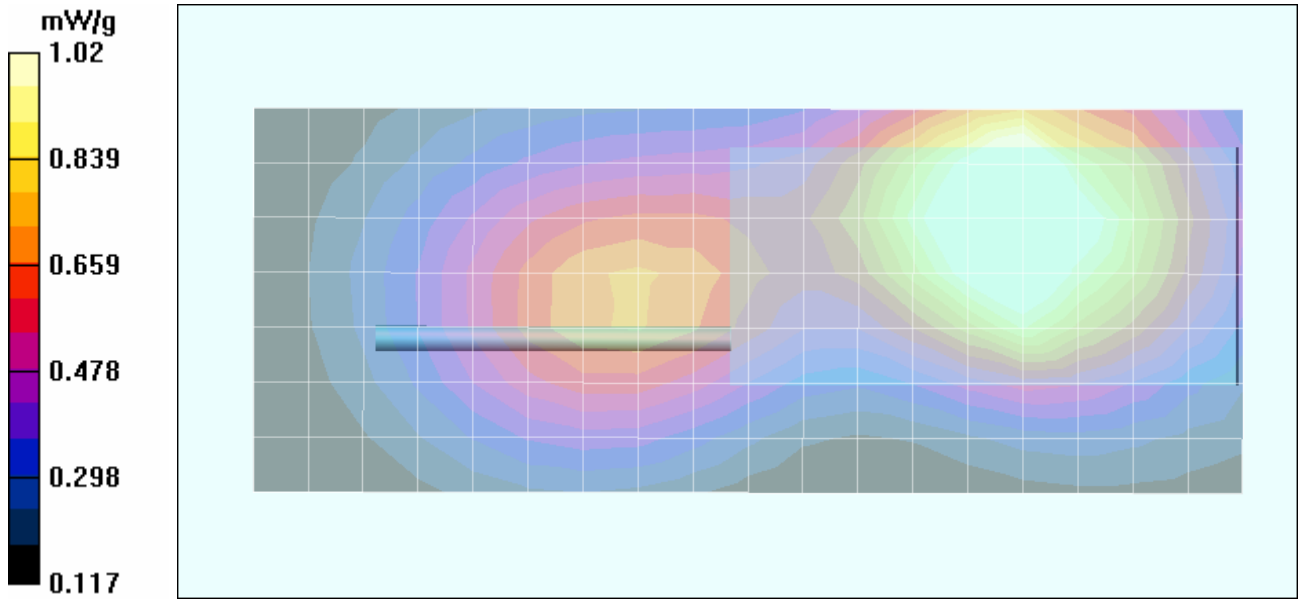
Ambient Temp: 22.9°C; Fluid Temp: 21.5°C; Barometric Pressure: 101.9 kPa; Humidity: 31%

Frequency: 937.5 MHz; Duty Cycle: 1:1
RF Output Power: 2.5 Watts (Conducted)
Communication System: FM (Talk-around)
NiMH Battery, immersible, non-IS (P/N: BT-023406-003)
Medium: M900 Medium parameters used: f = 937.5 MHz; σ = 1.07 mho/m; ε_r = 55.1; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(5.8, 5.8, 5.8); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-Worn - 3.5 cm Nylon Case & Belt Loop Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm

Body-Worn - 3.5 cm Nylon Case & Belt Loop Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel
Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 25.9 V/m; Power Drift = -0.162 dB
Peak SAR (extrapolated) = 1.72 W/kg
SAR(1 g) = 0.985 mW/g; SAR(10 g) = 0.693 mW/g
Maximum value of SAR (measured) = 1.02 mW/g



Date Tested: 04/03/2007

Body-Worn SAR - Scan Radio - NiMH IS Battery - Repeater Input - 898.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

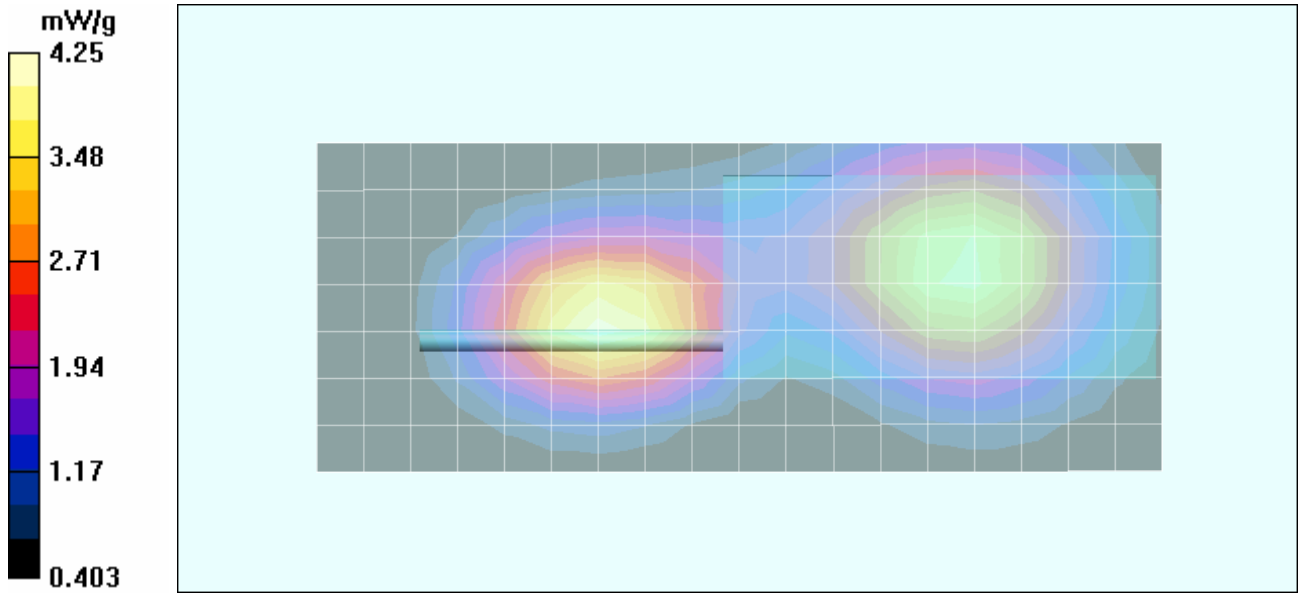
Body-Worn Accessory: Nylon "T" Strap Holder (P/N: KRY 101 1656/1)
Audio Accessory: Speaker-Microphone (P/N: MC-023933-001)

Ambient Temp: 22.6°C; Fluid Temp: 20.2°C; Barometric Pressure: 101.4 kPa; Humidity: 30%

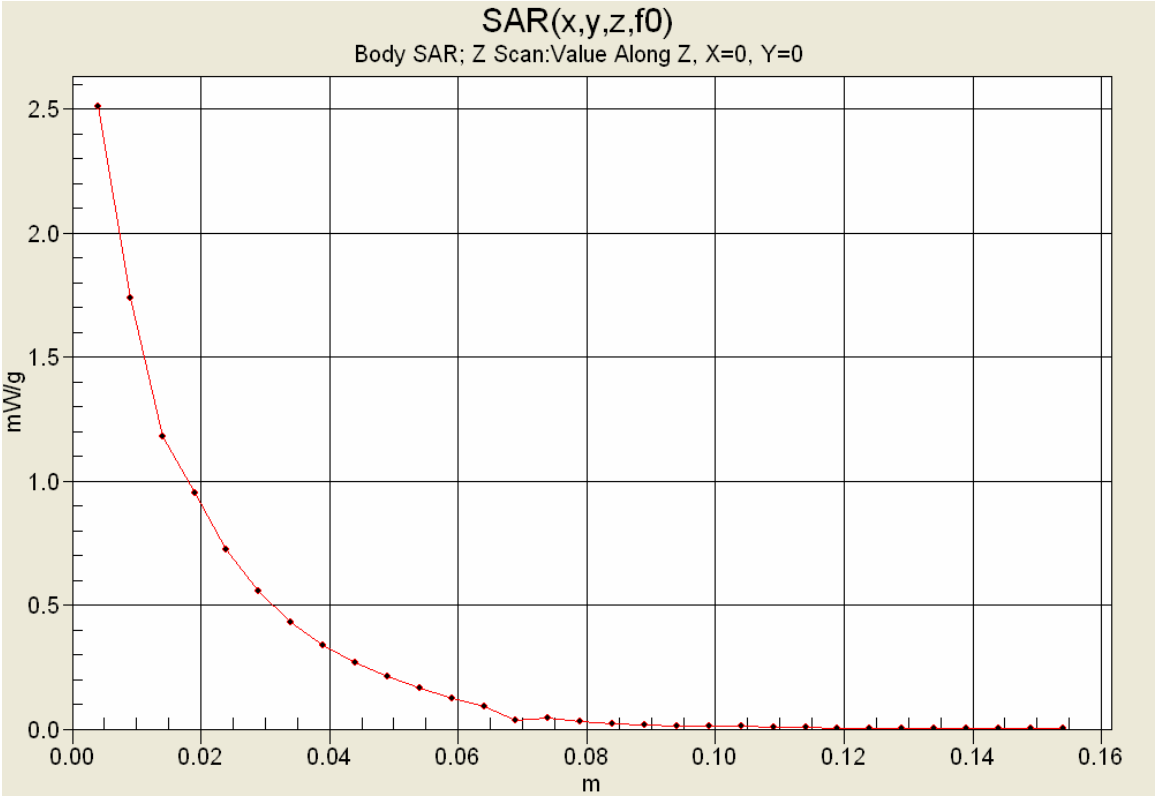
Frequency: 898.5 MHz; Duty Cycle: 1:1
RF Output Power: 3.0 Watts (Conducted)
Communication System: FM (Repeater Input)
NiMH Battery, immersible, IS (P/N: BT-023406-004)
Medium: M900 Medium parameters used: f = 898.5 MHz; σ = 1.04 mho/m; ε_r = 55.9; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(5.8, 5.8, 5.8); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-Worn - 2.0 cm Nylon "T" Strap Holder Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm
Body-Worn - 2.0 cm Nylon "T" Strap Holder Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 45.4 V/m; Power Drift = -0.158 dB
Peak SAR (extrapolated) = 6.31 W/kg
SAR(1 g) = 4.05 mW/g; SAR(10 g) = 2.74 mW/g
Maximum value of SAR (measured) = 4.25 mW/g
Body-Worn - 2.0 cm Nylon "T" Strap Holder Spacing from Back of DUT to Planar Phantom - Band 1 - Mid Channel Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 45.4 V/m; Power Drift = -0.158 dB
Peak SAR (extrapolated) = 5.32 W/kg
SAR(1 g) = 3.53 mW/g; SAR(10 g) = 2.5 mW/g
Maximum value of SAR (measured) = 3.69 mW/g



Z-Axis Scan



Date Tested: 04/03/2007

Body-Worn SAR - Scan Radio - NiMH NIS Battery - Talk-around - 937.5 MHz - Mid Channel

DUT: M/A-COM Model: P5300 (Scan); Type: Portable 900 MHz PTT Radio Transceiver; Serial: T2A-9M-004

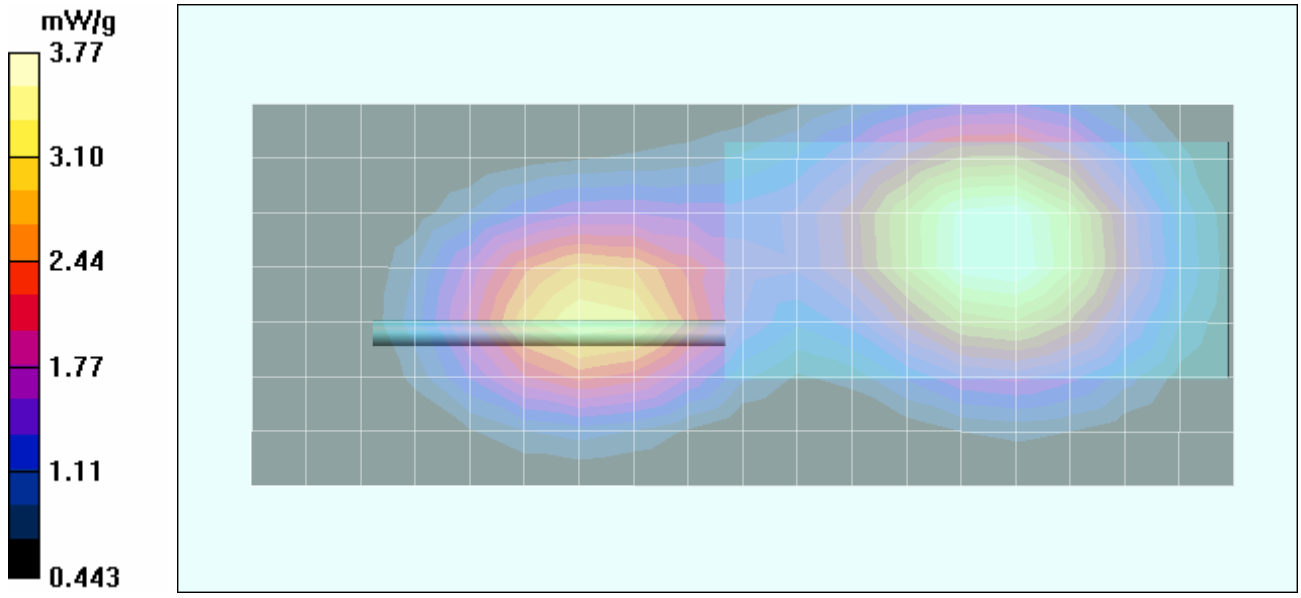
Body-Worn Accessory: Nylon "T" Strap Holder (P/N: KRY 101 1656/1)
Audio Accessory: Speaker-Microphone (P/N: MC-023933-001)

Ambient Temp: 22.6°C; Fluid Temp: 20.2°C; Barometric Pressure: 101.4 kPa; Humidity: 30%

Frequency: 937.5 MHz; Duty Cycle: 1:1
RF Output Power: 2.5 Watts (Conducted)
Communication System: FM (Talk-around)
NiMH Battery, immersible, non-IS (P/N: BT-023406-003)
Medium: M900 Medium parameters used: f = 937.5 MHz; σ = 1.09 mho/m; ε_r = 55.5; ρ = 1000 kg/m^3

- Probe: ET3DV6 - SN1387; ConvF(5.8, 5.8, 5.8); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body-Worn - 2.0 cm Nylon "T" Strap Holder Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel Area Scan (8x19x1): Measurement grid: dx=15mm, dy=15mm
Body-Worn - 2.0 cm Nylon "T" Strap Holder Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 40.2 V/m; Power Drift = -0.128 dB
Peak SAR (extrapolated) = 5.43 W/kg
SAR(1 g) = 3.60 mW/g; SAR(10 g) = 2.53 mW/g
Maximum value of SAR (measured) = 3.77 mW/g
Body-Worn - 2.0 cm Nylon "T" Strap Holder Spacing from Back of DUT to Planar Phantom - Band 2 - Mid Channel Zoom Scan (5x5x7)/Cube 1: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 40.2 V/m; Power Drift = -0.128 dB
Peak SAR (extrapolated) = 5.05 W/kg
SAR(1 g) = 3.20 mW/g; SAR(10 g) = 2.15 mW/g
Maximum value of SAR (measured) = 3.38 mW/g



APPENDIX B - SYSTEM PERFORMANCE CHECK DATA

Date Tested: 03/28/2007

System Performance Check - 900 MHz Dipole

DUT: Dipole 900 MHz; Asset: 00020; Serial: 054; Validation: 03/28/2007

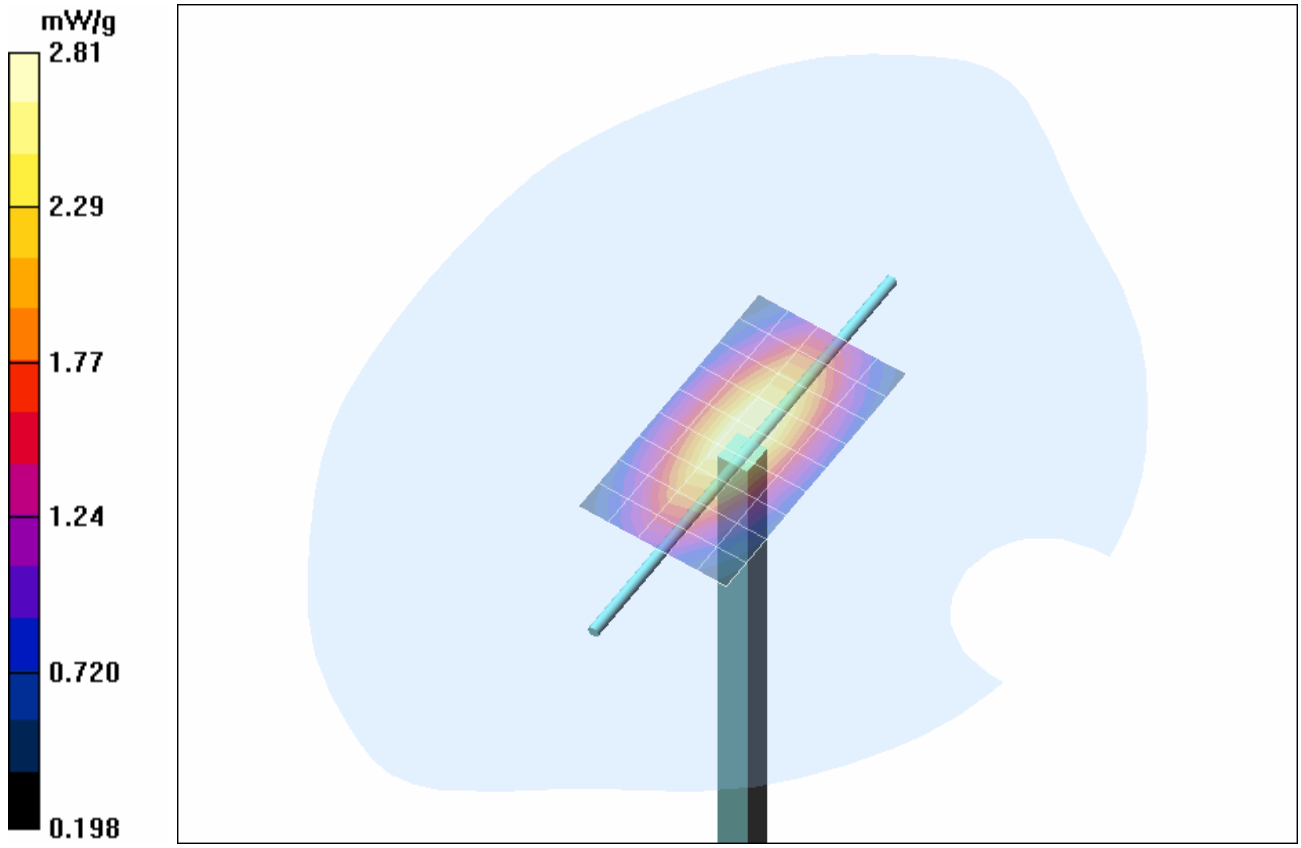
Ambient Temp: 22.5ºC; Fluid Temp: 22.0ºC; Barometric Pressure: 101.9 kPa; Humidity: 33%

Communication System: CW
Forward Conducted Power: 250 mW
Frequency: 900 MHz; Duty Cycle: 1:1
Medium: HSL900 Medium parameters used: f = 900 MHz; σ = 0.94 mho/m; ε_r = 39.6; ρ = 1000 kg/m^3

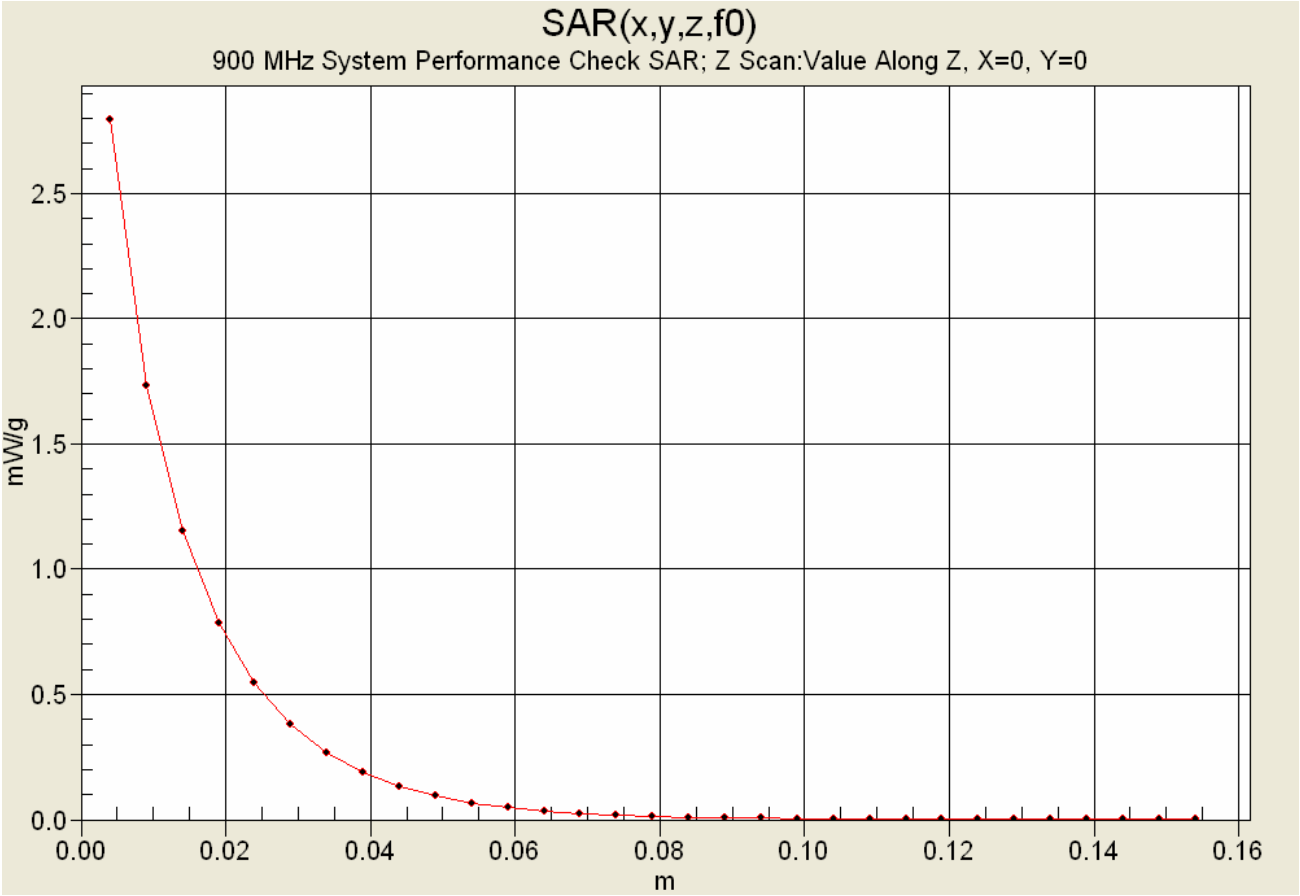
- Probe: ET3DV6 - SN1387; ConvF(6, 6, 6); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: SAM 4.0; Type: Fiberglas; Serial: 1033
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

900 MHz Dipole - System Performance Check/Area Scan (6x10x1):
Measurement grid: dx=10mm, dy=10mm

900 MHz Dipole - System Performance Check/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 54.6 V/m; Power Drift = -0.014 dB
Peak SAR (extrapolated) = 4.44 W/kg
SAR(1 g) = 2.64 mW/g; SAR(10 g) = 1.65 mW/g
Maximum value of SAR (measured) = 2.81 mW/g



Z-Axis Scan



Date Tested: 03/29/2007

System Performance Check - 900 MHz Dipole

DUT: Dipole 900 MHz; Asset: 00020; Serial: 054; Validation: 03/28/2007

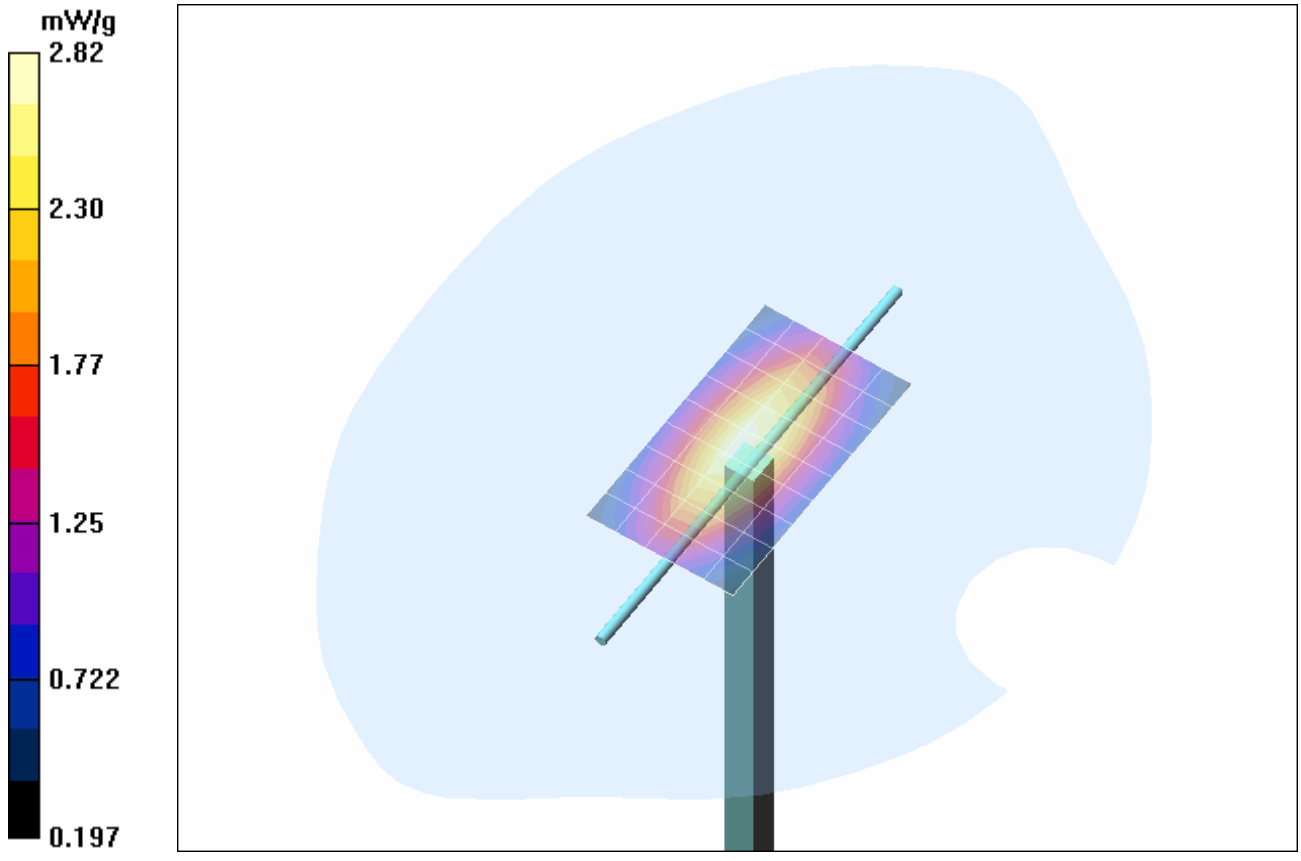
Ambient Temp: 23.0ºC; Fluid Temp: 22.3ºC; Barometric Pressure: 101.4 kPa; Humidity: 33%

Communication System: CW
Forward Conducted Power: 250 mW
Frequency: 900 MHz; Duty Cycle: 1:1
Medium: HSL900 Medium parameters used: f = 900 MHz; σ = 0.95 mho/m; ε_r = 40.2; ρ = 1000 kg/m^3

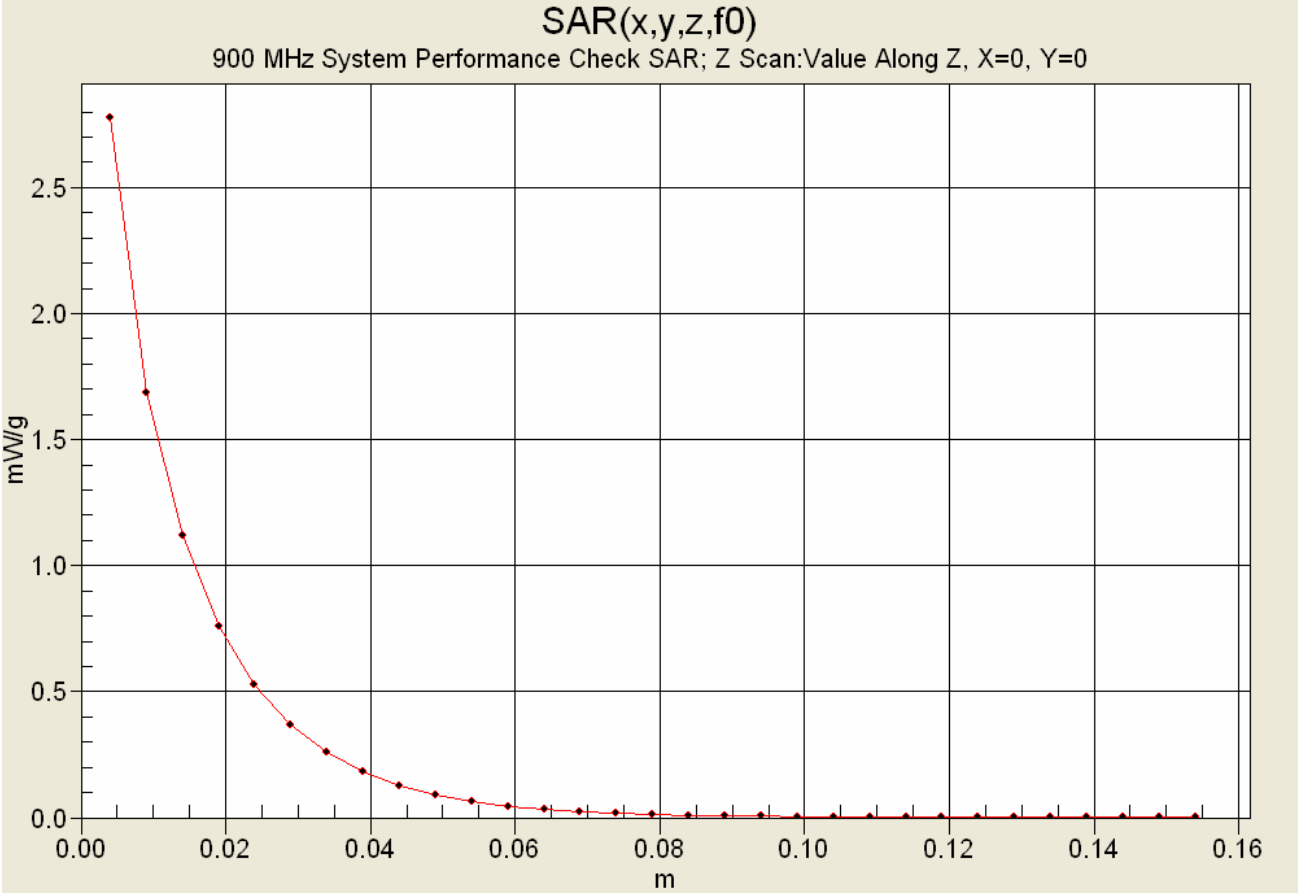
- Probe: ET3DV6 - SN1387; ConvF(6, 6, 6); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: SAM 4.0; Type: Fiberglas; Serial: 1033
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

900 MHz Dipole - System Performance Check/Area Scan (6x10x1):
Measurement grid: dx=10mm, dy=10mm

900 MHz Dipole - System Performance Check/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 54.2 V/m; Power Drift = -0.088 dB
Peak SAR (extrapolated) = 4.67 W/kg
SAR(1 g) = 2.63 mW/g; SAR(10 g) = 1.62 mW/g
Maximum value of SAR (measured) = 2.82 mW/g



Z-Axis Scan



Date Tested: 04/03/2007

System Performance Check - 900 MHz Dipole

DUT: Dipole 900 MHz; Asset: 00020; Serial: 054; Validation: 03/28/2007

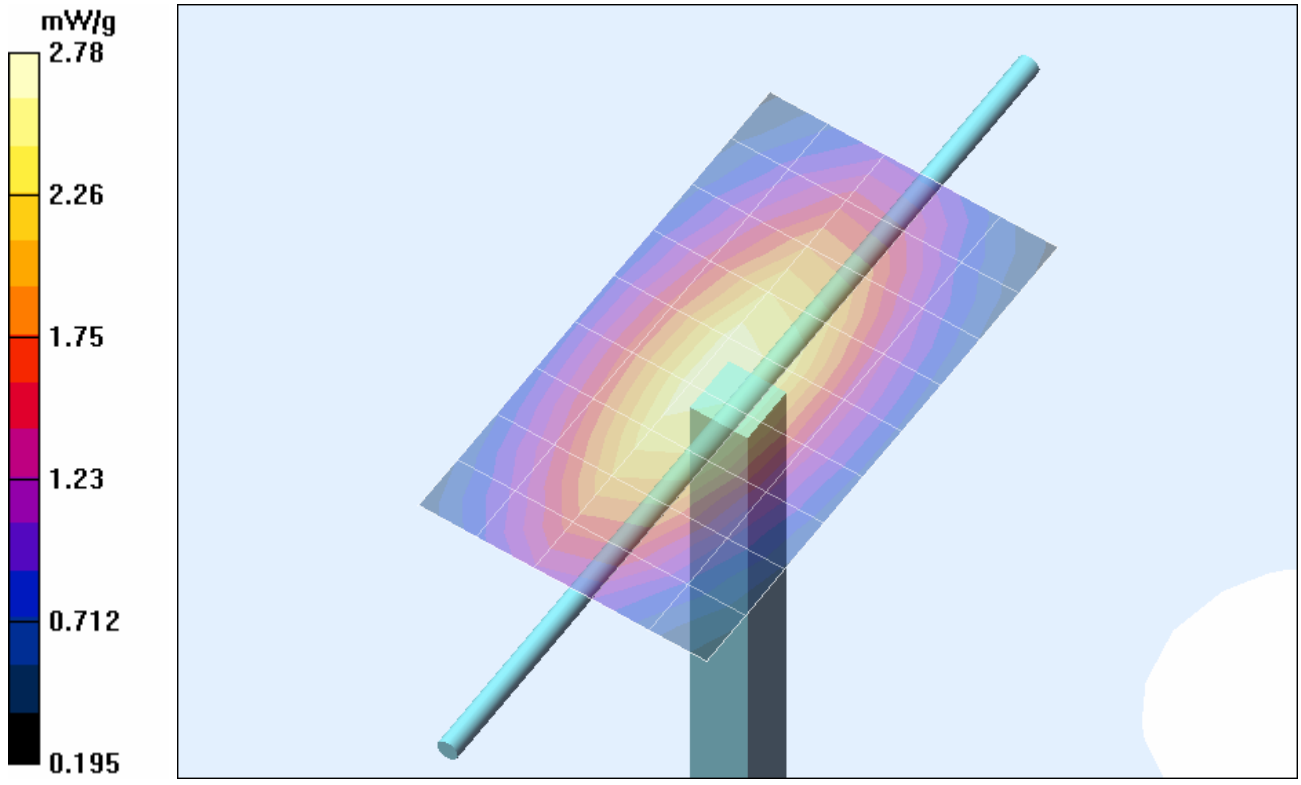
Ambient Temp: 22.6ºC; Fluid Temp: 21.5ºC; Barometric Pressure: 101.4 kPa; Humidity: 30%

Communication System: CW
Forward Conducted Power: 250 mW
Frequency: 900 MHz; Duty Cycle: 1:1
Medium: HSL900 Medium parameters used: f = 900 MHz; σ = 0.93 mho/m; ε_r = 39.8; ρ = 1000 kg/m^3

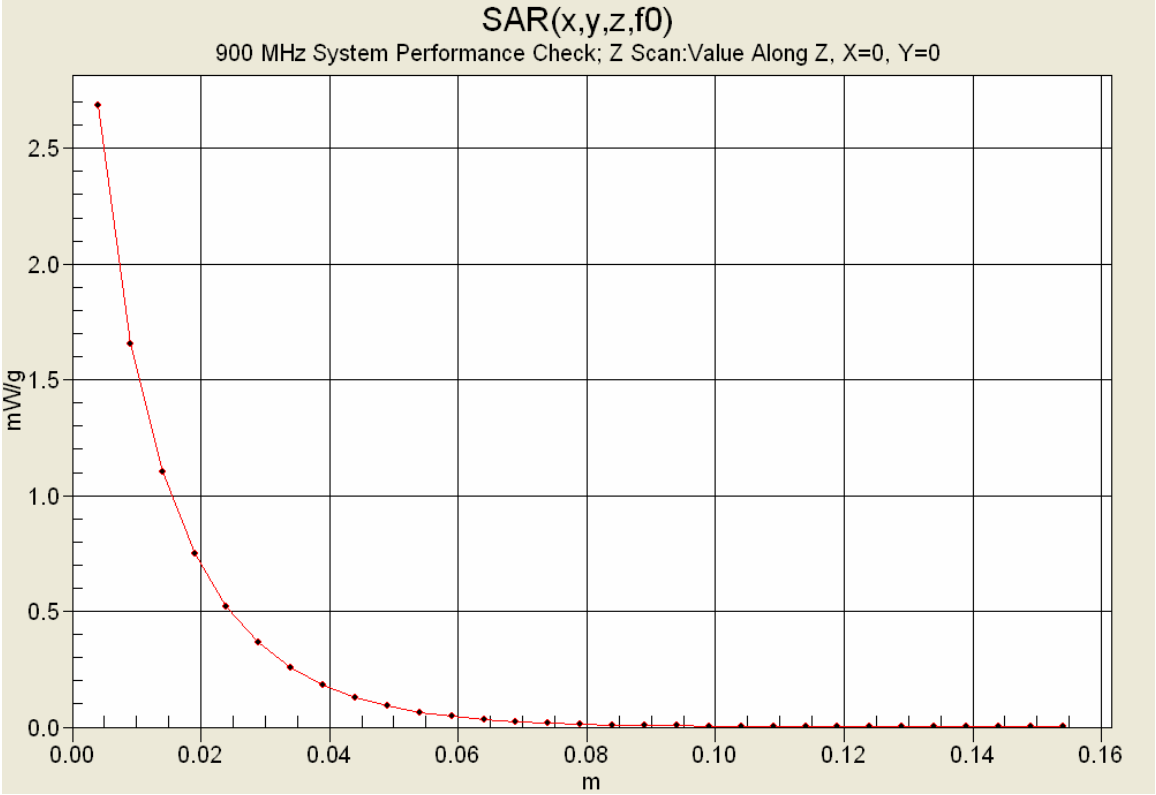
- Probe: ET3DV6 - SN1387; ConvF(6, 6, 6); Calibrated: 16/03/2007
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 21/06/2006
- Phantom: SAM 4.0; Type: Fiberglas; Serial: 1033
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

900 MHz Dipole - System Performance Check/Area Scan (6x10x1):
Measurement grid: dx=10mm, dy=10mm

900 MHz Dipole - System Performance Check/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 53.9 V/m; Power Drift = -0.069 dB
Peak SAR (extrapolated) = 4.47 W/kg
SAR(1 g) = 2.58 mW/g; SAR(10 g) = 1.6 mW/g
Maximum value of SAR (measured) = 2.78 mW/g



Z-Axis Scan



APPENDIX C - MEASURED FLUID DIELECTRIC PARAMETERS

900 MHz System Performance Check & DUT Evaluation (Brain)

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Celltech Labs Inc.
Test Result for UIM Dielectric Parameter
Wed 28/Mar/2007
Frequency (GHz)
FCC_eH FCC OET 65 Supplement C (June 2001) Limits for Head Epsilon
FCC_sH FCC OET 65 Supplement C (June 2001) Limits for Head Sigma
Test_e Epsilon of UIM
Test_s Sigma of UIM

****

Freq	FCC_eH	FCC_sH	Test_e	Test_s
0.8000	41.68	0.90	40.80	0.84
0.8100	41.63	0.90	40.73	0.85
0.8200	41.58	0.90	40.58	0.87
0.8300	41.53	0.90	40.54	0.87
0.8400	41.50	0.91	40.37	0.88
0.8500	41.50	0.92	40.20	0.89
0.8600	41.50	0.93	40.05	0.90
0.8700	41.50	0.94	40.03	0.91
0.8800	41.50	0.95	39.76	0.92
0.8900	41.50	0.96	39.76	0.93
0.9000	41.50	0.97	39.56	0.94
0.9100	41.50	0.98	39.45	0.95
0.9200	41.49	0.98	39.44	0.96
0.9300	41.47	0.99	39.34	0.97
0.9400	41.45	0.99	39.30	0.98
0.9500	41.43	0.99	39.02	0.98
0.9600	41.42	1.00	39.12	1.00
0.9700	41.40	1.00	38.87	1.01
0.9800	41.38	1.01	38.79	1.01
0.9900	41.36	1.01	38.79	1.03
1.0000	41.34	1.01	38.56	1.03

900 / 940 MHz DUT Evaluation (Body)

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Celtlech Labs Inc.
Test Result for UIM Dielectric Parameter
Wed 28/Mar/2007
Frequency (GHz)
FCC_eH FCC Bulletin 65 Supplement C (June 2001) Limits for Head Epsilon
FCC_sH FCC Bulletin 65 Supplement C (June 2001) Limits for Head Sigma
FCC_eB FCC Limits for Body Epsilon
FCC_sB FCC Limits for Body Sigma
Test_e Epsilon of UIM
Test_s Sigma of UIM

****

Freq	FCC_eB	FCC_sB	Test_e	Test_s
0.8000	55.34	0.97	57.00	0.93
0.8100	55.30	0.97	56.96	0.94
0.8200	55.26	0.97	56.71	0.95
0.8300	55.22	0.97	56.71	0.96
0.8400	55.18	0.98	56.50	0.96
0.8500	55.15	0.99	56.30	0.98
0.8600	55.12	1.00	56.18	0.98
0.8700	55.09	1.01	55.98	0.99
0.8800	55.06	1.03	55.82	1.00
0.8900	55.03	1.04	55.86	1.02
0.9000	55.00	1.05	55.88	1.03
0.9100	55.00	1.06	55.89	1.04
0.9200	54.99	1.06	55.73	1.05
0.9300	54.97	1.07	55.87	1.06
0.9400	54.95	1.07	55.68	1.06
0.9500	54.93	1.08	55.52	1.07
0.9600	54.92	1.08	55.34	1.09
0.9700	54.90	1.08	55.29	1.09
0.9800	54.88	1.09	55.07	1.10
0.9900	54.86	1.09	55.03	1.11
1.0000	54.84	1.10	54.86	1.12

900 MHz System Performance Check & 900 / 940 MHz DUT Evaluation (Brain)

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Celltech Labs Inc.
Test Result for UIM Dielectric Parameter
Thu 29/Mar/2007
Frequency (GHz)
FCC_eH FCC OET 65 Supplement C (June 2001) Limits for Head Epsilon
FCC_sH FCC OET 65 Supplement C (June 2001) Limits for Head Sigma
Test_e Epsilon of UIM
Test_s Sigma of UIM

****

Freq	FCC_eH	FCC_sH	Test_e	Test_s
0.8000	41.68	0.90	41.21	0.86
0.8100	41.63	0.90	41.29	0.87
0.8200	41.58	0.90	41.15	0.87
0.8300	41.53	0.90	41.05	0.88
0.8400	41.50	0.91	41.04	0.89
0.8500	41.50	0.92	40.70	0.91
0.8600	41.50	0.93	40.69	0.91
0.8700	41.50	0.94	40.44	0.93
0.8800	41.50	0.95	40.25	0.93
0.8900	41.50	0.96	40.25	0.93
0.9000	41.50	0.97	40.15	0.95
0.9100	41.50	0.98	40.09	0.96
0.9200	41.49	0.98	39.84	0.97
0.9300	41.47	0.99	39.77	0.98
0.9400	41.45	0.99	39.78	0.99
0.9500	41.43	0.99	39.45	0.99
0.9600	41.42	1.00	39.46	1.00
0.9700	41.40	1.00	39.43	1.01
0.9800	41.38	1.01	39.29	1.02
0.9900	41.36	1.01	39.20	1.02
1.0000	41.34	1.01	39.05	1.04

900 / 940 MHz DUT Evaluation (Body)

****

Celltech Labs Inc.
Test Result for UIM Dielectric Parameter
Thu 29/Mar/2007
Frequency (GHz)
FCC_eH FCC Bulletin 65 Supplement C (June 2001) Limits for Head Epsilon
FCC_sH FCC Bulletin 65 Supplement C (June 2001) Limits for Head Sigma
FCC_eB FCC Limits for Body Epsilon
FCC_sB FCC Limits for Body Sigma
Test_e Epsilon of UIM
Test_s Sigma of UIM

****

Freq	FCC_eB	FCC_sB	Test_e	Test_s
0.8000	55.34	0.97	55.94	0.94
0.8100	55.30	0.97	55.91	0.96
0.8200	55.26	0.97	55.82	0.97
0.8300	55.22	0.97	55.83	0.98
0.8400	55.18	0.98	55.77	0.99
0.8500	55.15	0.99	55.82	1.00
0.8600	55.12	1.00	55.58	1.01
0.8700	55.09	1.01	55.51	1.01
0.8800	55.06	1.03	55.34	1.02
0.8900	55.03	1.04	55.30	1.03
0.9000	55.00	1.05	55.12	1.05
0.9100	55.00	1.06	54.99	1.05
0.9200	54.99	1.06	55.04	1.07
0.9300	54.97	1.07	54.70	1.08
0.9400	54.95	1.07	54.83	1.08
0.9500	54.93	1.08	54.76	1.10
0.9600	54.92	1.08	54.69	1.10
0.9700	54.90	1.08	54.65	1.11
0.9800	54.88	1.09	54.60	1.12
0.9900	54.86	1.09	54.30	1.13
1.0000	54.84	1.10	54.33	1.15

900 / 940 MHz DUT Evaluation (Body)

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Celltech Labs Inc.
Test Result for UIM Dielectric Parameter
Fri 30/Mar/2007
Frequency (GHz)
FCC_eH FCC Bulletin 65 Supplement C (June 2001) Limits for Head Epsilon
FCC_sH FCC Bulletin 65 Supplement C (June 2001) Limits for Head Sigma
FCC_eB FCC Limits for Body Epsilon
FCC_sB FCC Limits for Body Sigma
Test_e Epsilon of UIM
Test_s Sigma of UIM

****

Freq	FCC_eB	FCC_sB	Test_e	Test_s
0.8000	55.34	0.97	56.40	0.94
0.8100	55.30	0.97	56.28	0.96
0.8200	55.26	0.97	56.06	0.97
0.8300	55.22	0.97	56.15	0.96
0.8400	55.18	0.98	55.82	0.98
0.8500	55.15	0.99	56.00	0.98
0.8600	55.12	1.00	55.71	0.99
0.8700	55.09	1.01	55.67	1.00
0.8800	55.06	1.03	55.64	1.02
0.8900	55.03	1.04	55.43	1.03
0.9000	55.00	1.05	55.53	1.04
0.9100	55.00	1.06	55.34	1.04
0.9200	54.99	1.06	55.26	1.06
0.9300	54.97	1.07	55.25	1.07
0.9400	54.95	1.07	55.07	1.07
0.9500	54.93	1.08	55.03	1.08
0.9600	54.92	1.08	54.92	1.09
0.9700	54.90	1.08	54.78	1.10
0.9800	54.88	1.09	54.84	1.10
0.9900	54.86	1.09	54.78	1.12
1.0000	54.84	1.10	54.67	1.13

900 MHz System Performance Check (Brain)

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Celltech Labs Inc.
Test Result for UIM Dielectric Parameter
Tue 03/Apr/2007
Frequency (GHz)
FCC_eH FCC OET 65 Supplement C (June 2001) Limits for Head Epsilon
FCC_sH FCC OET 65 Supplement C (June 2001) Limits for Head Sigma
Test_e Epsilon of UIM
Test_s Sigma of UIM

****

Freq	FCC_eH	FCC_sH	Test_e	Test_s
0.8000	41.68	0.90	40.99	0.84
0.8100	41.63	0.90	40.83	0.85
0.8200	41.58	0.90	40.78	0.87
0.8300	41.53	0.90	40.53	0.87
0.8400	41.50	0.91	40.46	0.88
0.8500	41.50	0.92	40.46	0.89
0.8600	41.50	0.93	40.25	0.90
0.8700	41.50	0.94	40.22	0.91
0.8800	41.50	0.95	40.04	0.92
0.8900	41.50	0.96	39.99	0.92
0.9000	41.50	0.97	39.81	0.93
0.9100	41.50	0.98	39.77	0.94
0.9200	41.49	0.98	39.55	0.95
0.9300	41.47	0.99	39.39	0.96
0.9400	41.45	0.99	39.19	0.97
0.9500	41.43	0.99	39.36	0.98
0.9600	41.42	1.00	39.13	0.99
0.9700	41.40	1.00	39.13	1.00
0.9800	41.38	1.01	39.08	1.00
0.9900	41.36	1.01	38.87	1.01
1.0000	41.34	1.01	38.80	1.02

900 / 940 MHz DUT Evaluation (Body)

****

Celltech Labs Inc.
Test Result for UIM Dielectric Parameter
Tue 03/Apr/2007
Frequency (GHz)
FCC_eH FCC Bulletin 65 Supplement C (June 2001) Limits for Head Epsilon
FCC_sH FCC Bulletin 65 Supplement C (June 2001) Limits for Head Sigma
FCC_eB FCC Limits for Body Epsilon
FCC_sB FCC Limits for Body Sigma
Test_e Epsilon of UIM
Test_s Sigma of UIM

****

Freq	FCC_eB	FCC_sB	Test_e	Test_s
0.8000	55.34	0.97	56.70	0.94
0.8100	55.30	0.97	56.46	0.95
0.8200	55.26	0.97	56.52	0.96
0.8300	55.22	0.97	56.30	0.96
0.8400	55.18	0.98	56.38	0.98
0.8500	55.15	0.99	56.31	0.99
0.8600	55.12	1.00	56.14	1.00
0.8700	55.09	1.01	55.92	1.01
0.8800	55.06	1.03	56.04	1.02
0.8900	55.03	1.04	56.00	1.03
0.9000	55.00	1.05	55.85	1.04
0.9100	55.00	1.06	55.79	1.05
0.9200	54.99	1.06	55.57	1.06
0.9300	54.97	1.07	55.59	1.07
0.9400	54.95	1.07	55.47	1.09
0.9500	54.93	1.08	55.41	1.09
0.9600	54.92	1.08	55.37	1.11
0.9700	54.90	1.08	55.44	1.12
0.9800	54.88	1.09	55.28	1.13
0.9900	54.86	1.09	55.17	1.14
1.0000	54.84	1.10	55.10	1.15

APPENDIX G - SAM PHANTOM CERTIFICATE OF CONFORMITY

Schmid & Partner
Engineering AG

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

Certificate of conformity / First Article Inspection

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

Tests

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

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

Standards

[1] CENELEC EN 50361
[2] IEEE P1528-200x draft 6.5
[3] IEC PT 62209 draft 0.9
(*) The IT'IS CAD file is derived from [2] and is also within the tolerance requirements of the shapes of [1] and [3].

Conformity

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

Date 18.11.2001

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