

	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

RF EXPOSURE EVALUATION

SPECIFIC ABSORPTION RATE

SAR TEST REPORT

FOR

M/A-COM, INC.

PORTABLE FM PTT RADIO TRANSCEIVER

MODEL: LPE-200

FCC ID: AXATR-336-A

IC ID: 287194340NA

Test Report Serial Number

032106AXA-T734-S90F

Test Report Issue Number

S734F-040606-T-R0

Test Lab

**Celltech Compliance Testing & Engineering Lab
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Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz					
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093 IC RSS-102 Issue 2

DECLARATION OF COMPLIANCE SAR RF EXPOSURE EVALUATION

<u>Test Lab</u> CELLTECH LABS INC. Testing and Engineering Services 1955 Moss Court Kelowna, B.C. Canada V1Y 9L3 Phone: 250-448-7047 Fax: 250-448-7046 e-mail: info@celltechlabs.com web site: www.celltechlabs.com		<u>Company Information</u> M/A-COM, INC. 221 Jefferson Ridge Parkway Lynchburg, VA 24501 United States	
FCC IDENTIFIER: IC IDENTIFIER: Model No.(s) Tested: Part Number(s) Tested:	AXATR-336-A 287194340NA LPE-200 KRD 103 103/A203 (Scan Radio) KRD 103 103/A204 (System Radio)		
Test Requirement(s): Test Procedure(s): FCC Device Classification: Device Description:	FCC 47 CFR §2.1093; Health Canada Safety Code 6 FCC OET Bulletin 65, Supplement C (Edition 01-01) Industry Canada RSS-102 Issue 2 Licensed Non-Broadcast Transmitter Held to Face (TNF) Portable FM PTT Radio Transceiver		
Transmit Frequency Range(s) Tested: Max. RF Output Power Tested: Antenna Type(s) Tested: Battery Type(s) Tested:	806-821 MHz (Repeater Input mode) 821-824 MHz (NPSPAC, Repeater Input mode) 3.3 Watts (35.19 dBm) Conducted (806 MHz) 3.2 Watts (35.05 dBm) Conducted (815 MHz) 3.2 Watts (35.05 dBm) Conducted (824 MHz) ½-Wave Antenna (P/N: KRE 101 1506/1) ¼-Wave Antenna (P/N: KRE 101 1223/01) 7.5V NiCD High Capacity Battery (P/N: BKB 191 203) 7.5V NiCD Extra High Capacity Battery (P/N: BKB 191 202)		
Body-Worn Accessories Tested: Audio Accessories Tested:	Aluminum Belt-Clip (P/N: CC23894) Speaker-Microphone Antenna Version (P/N: KRY 101 1617/74) Speaker-Microphone (P/N: KRY 101 1617/73) Over-the-Head Headset (P/N: OT-V4-10073)		
Max. SAR Level(s) Evaluated:	Face-Held: 2.18 W/kg (1g average) - 50% Duty Cycle Body-worn: 7.01 W/kg (1g average) - 50% Duty Cycle		
Class II Permissive Change(s):	New Power Amplifier		

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.

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

Tested By:  Sean Johnston Compliance Technologist Celltech Labs Inc.	Reviewed By:  Spencer Watson Senior Compliance Technologist Celltech Labs Inc.
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Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver	Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz					
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
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TABLE OF CONTENTS

1.0 INTRODUCTION	4
2.0 DESCRIPTION OF DEVICE UNDER TEST (DUT)	4
DESCRIPTION OF DEVICE UNDER TEST (DUT) - Cont.	5
3.0 SAR MEASUREMENT SYSTEM	6
4.0 SAR MEASUREMENT SUMMARY	7
SAR MEASUREMENT SUMMARY (Cont.)	8
5.0 DETAILS OF SAR EVALUATION	9
6.0 EVALUATION PROCEDURES	10
7.0 SYSTEM PERFORMANCE CHECK	11
8.0 SIMULATED EQUIVALENT TISSUES	12
9.0 SAR SAFETY LIMITS	12
10.0 ROBOT SYSTEM SPECIFICATIONS	13
11.0 PROBE SPECIFICATION (ET3DV6)	14
12.0 SAM PHANTOM V4.0C	14
13.0 SIDE PLANAR PHANTOM	14
14.0 DEVICE HOLDER	14
15.0 TEST EQUIPMENT LIST	15
16.0 MEASUREMENT UNCERTAINTIES	16
MEASUREMENT UNCERTAINTIES (Cont.)	17
17.0 REFERENCES	18
APPENDIX A - SAR MEASUREMENT DATA	19
APPENDIX B - SYSTEM PERFORMANCE CHECK DATA	48
APPENDIX C - MEASURED FLUID DIELECTRIC PARAMETERS	61
APPENDIX D - SAR TEST SETUP & DUT PHOTOGRAPHS	72
APPENDIX E - SYSTEM VALIDATION	97
APPENDIX F - PROBE CALIBRATION	98
APPENDIX G - SAM PHANTOM CERTIFICATE OF CONFORMITY	99

Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

1.0 INTRODUCTION

This measurement report demonstrates that the M/A-COM, Inc. Model: LPE-200 (Scan and System) Portable FM PTT Radio Transceiver FCC ID: AXATR-336-A, with the Class II Permissive Change(s) described in this report, 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	Licensed Non-Broadcast Transmitter Held to Face (TNF)			
Device Description	Portable FM PTT Radio Transceiver			
RF Exposure Category	Occupational / Controlled Environment			
FCC IDENTIFIER	AXATR-336-A			
IC IDENTIFIER	287194340NA			
Model(s) Tested	LPE-200 Scan	LPE-200 System		
Part No.(s) Tested	KRD 103 103/A203	KRD 103 103/A204		
Serial No.(s) Tested	9806264	Production Unit	9794057	Production Unit
Transmit Frequency Range(s) Tested	806-821 MHz	(Repeater Input mode)		
	821-824 MHz	(NPSPAC, Repeater Input mode)		
	Note: The High Band (851-869 MHz) was not tested for SAR based on lower power level (2.2 W)			
Max. RF Conducted Output Power Measured	3.3 Watts	35.19 dBm	806 MHz	
	3.2 Watts	35.05 dBm	815 MHz	
	3.2 Watts	35.05 dBm	824 MHz	
Antenna Type(s) Tested	½-Wave	Length: 188 mm	P/N: KRE 101 1506/1	
	¼-Wave	Length: 111 mm	P/N: KRE 101 1223/01	
Battery Type(s) Tested	NiCd High Capacity	7.5 V	P/N: BKB 191 203	
	NiCd Extra High Capacity	7.5 V	P/N: BKB 191 202	
Additional Battery Type(s)	NiCd High Capacity IS	7.5 V	P/N: BKB 191 203/2	
	NiCd Extra High Capacity IS	7.5 V	P/N: BKB 191 202/2	
Body-Worn Accessories Tested	Aluminum Belt-Clip		P/N: CC23894	
	Note: Body-worn accessories listed on next page were not tested based on the aluminum belt-clip providing the minimum separation distance of all accessories and containing metallic components			
Audio Accessories Tested	Speaker-Microphone Antenna Version		P/N: KRY 101 1617/74	
	Speaker-Microphone		P/N: KRY 101 1617/73	
	Over-the-Head Headset		P/N: OT-V4-10073	
Class II Permissive Change(s)	New Power Amplifier			

Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver	Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz					
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
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DESCRIPTION OF DEVICE UNDER TEST (DUT) - Cont.

	Accessory Type	Part No.	
Additional Body-Worn and Audio Accessories	MICROPHONE, LAPEL, IMMERSION RATED***	KRY 101 1617/273	
	MICROPHONE, LAPEL, ANT PVSN, IMMERSION***	KRY 101 1617/274	
	MICROPHONE, LPL, ANT PVSN, IMMERSION, CC***	KRY 101 1617/276	
	MICROPHONE, LAPEL, RUGGEDIZED***	KRY 101 1617/373	
	MICROPHONE, LAPEL, ANT PRVSN, RUGGED***	KRY 101 1617/374	
	MICROPHONE, LAPEL, ANT PRVSN, RUGGED, CC***	KRY 101 1617/376	
	EARPHONE, LAPEL MICROPHONE ***	LS103239V1	
	*** NOT COMPATIBLE WITH EARPHONE		
	PLUS SPKR MIC/ ANT PRVSN	OT-V2-10098	
	INDUSTRIAL SPKR MIC ***	OT-V2-10066	
	INDUSTRIAL PLUS SPKR MIC ***	OT-V2-10075	
	EARPHONE KIT, BLACK	OT-V1-10343	
	EARPHONE KIT, BEIGE	OT-V1-10342	
	PALM MIC KIT, BLACK	OT-V1-10347	
	PALM MIC KIT, BEIGE	OT-V1-10346	
	3-WIRE MINI LAPEL MIC, BLACK	OT-V1-10351	
	3-WIRE MINI LAPEL MIC, BEIGE	OT-V1-10350	
	ULTRA LITE HEADSET, BLACK	OT-V4-10068	
	OVER-THE-HEAD HEADSET, BLACK	OT-V4-10073	
	COM-CTRL UNT, SHORT CA W UDC CONN	SV-V1-40280	
	COM-CTRL UNT, CC W UDC CONN	SV-V1-40282	
	COM-CTRL UNT, CC W UDC CONN, EXTD PTT	SV-V1-40285	
	COM-CTRL UNT, CC W UDC CONN, MSHRM PTT	SV-V1-40288	
	HELMET-COM UNT, CC W SPKR	SV-V1-51000	
	HELMET-COM UNT, CC W DUAL SPKR'S	SV-V1-51010	
	NOISE-COM UNT, CC	SV-V1-51020	
	THROAT MIC UNT W SPKR	SV-V1-50257	
	THROAT MIC UNT W DUAL SPKR'S	SV-V1-50258	
	SPARE BELT CLIP FOR COM-CTRL UNT	SV-V1-11289	
	MUSHROOM LID FOR COM-CTRL UNT	SV-V1-11545	
	SPARE COLLAR FOR THROAT MIC UNIT	SV-V1-10907	
	EXTENDED PTT	SV-V1-11439	
	LEATHER CASE W/BELT LOOP	KRY 101 1605/01	
LEATHER CASE W/SWIVEL/ BELT LP	KRY 101 1605/02		
SHOULDER STRAP, LEATHER CASE	KRY 101 1607/1		
BELT LOOP WITH SWIVEL	KRY 101 1608/2		
BELT CLIP, PLASTIC	KRY 101 1232/2		
"T" STRAP RADIO HOLDER	KRY 101 1656/1		

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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
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3.0 SAR MEASUREMENT SYSTEM

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



DASY4 SAR Measurement System with SAM phantom & validation dipole



DASY4 SAR Measurement System with Plexiglas side planar phantom

Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
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4.0 SAR MEASUREMENT SUMMARY

FACE-HELD SAR EVALUATION RESULTS

Test Date	Freq. (MHz)	Chan.	Test Mode	Antenna Type	Battery Type	Separation Distance to Planar Phantom (cm)	Cond. Power Before Test (Watts)	Measured SAR 1g (W/kg)		SAR Drift During Test (dB)	Scaled SAR with droop 1g (W/kg)			
								Duty Cycle			Duty Cycle			
								100%	50%		100%	50%		
Handheld Scan Radio Transceiver (P/N: KR D 103 103/A203)														
Mar 24	815	Mid	CW	½-Wave	NiCd Extra High Capacity	2.5	3.2	1.63	0.815	-0.0837	1.66	0.831		
Mar 24	815	Mid	CW	½-Wave	NiCd High Capacity	2.5	3.2	1.90	0.950	-0.121	1.95	0.977		
Mar 24	815	Mid	CW	¼-Wave	NiCd Extra High Capacity	2.5	3.2	4.22	2.11	-0.0955	4.31	2.16		
Mar 24	815	Mid	CW	¼-Wave	NiCd High Capacity	2.5	3.2	4.29	2.15	-0.0765	4.37	2.18		
Handheld Scan Radio (P/N: KR D 103 103/A203) with Speaker-Microphone Antenna Version (P/N: KRY 101 1617/74)														
Mar 27	815	Mid	CW	½-Wave	NiCd Extra High Capacity	2.5	3.2	2.70	1.35	-0.157	2.80	1.40		
Mar 24	815	Mid	CW	½-Wave	NiCd High Capacity	2.5	3.2	2.91	1.46	-0.125	2.99	1.50		
Mar 27	815	Mid	CW	¼-Wave	NiCd Extra High Capacity	2.5	3.2	2.95	1.48	-0.416	3.25	1.62		
Mar 27	815	Mid	CW	¼-Wave	NiCd High Capacity	2.5	3.2	2.67	1.34	-0.545	3.03	1.51		
Handheld System Radio Transceiver (P/N: KR D 103 103/A204)														
Mar 29	815	Mid	CW	¼-Wave	NiCd High Capacity	2.5	3.2	4.29	2.15	-0.021	4.31	2.16		
ANSI / IEEE C95.1 1999 - SAFETY LIMIT				BRAIN: 8.0 W/kg (averaged over 1 gram)				Spatial Peak - Controlled Exposure / Occupational						
Test Date(s)		March 24, 2006		March 27, 2006		March 29, 2006		Test Date		Mar 24	Mar 27	Mar 29	Unit	
Dielectric Constant ϵ_r	Fluid Type		815 MHz Brain		815 MHz Brain		815 MHz Brain		Relative Humidity		30	30	30	%
	IEEE Target		Meas.	Dev.	Meas.	Dev.	Meas.	Dev.	Atmospheric Pressure		101.1	101.8	101.1	kPa
	41.6	± 5%	41.3	-0.7%	39.8	-4.3%	41.2	-1.0%	Ambient Temperature		23.6	22.6	23.5	°C
Conductivity σ (mho/m)	Fluid Type		815 MHz Brain		815 MHz Brain		815 MHz Brain		Fluid Temperature		21.5	20.6	22.0	°C
	IEEE Target		Meas.	Dev.	Meas.	Dev.	Meas.	Dev.	Fluid Depth		≥ 15	≥ 15	≥ 15	cm
	0.90	± 5%	0.89	-1.1%	0.87	-3.3%	0.89	-1.1%	ρ (Kg/m³)		1000			
Note(s)	1.	The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.												
	2.	If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).												
	3.	The power droops measured by the DASY4 system for the duration of the SAR evaluations were added to the measured SAR levels to report scaled SAR results as shown in the above test data table.												
	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 ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.												
	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.	SAR measurements were performed within 24 hours of the system performance check.												

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DUT Type:	Portable FM PTT Radio Transceiver	Frequency Range(s):		806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
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SAR MEASUREMENT SUMMARY (Cont.)

BODY-WORN SAR EVALUATION RESULTS

Test Date	Freq. (MHz)	Chan.	Test Mode	Antenna Type	Battery Type	Accessories		Separation Distance to Planar Phantom (cm)	Cond. Power Before Test (Watts)	Measured SAR 1g (W/kg)		SAR Drift During Test (dB)	Scaled SAR with droop 1g (W/kg)		
						Body-Worn	Audio			Duty Cycle			Duty Cycle		
										100%	50%		100%	50%	
Handheld Scan Radio Transceiver (P/N: KRD 103 103/A203)															
Mar 21	815	Mid	CW	½-Wave	NiCd Extra High Capacity	Aluminum Belt-Clip	Speaker-Mic	1.1	3.2	3.92	1.96	0.703	-	-	
Mar 23	815	Mid	CW	½-Wave	NiCd High Capacity	Aluminum Belt-Clip	Speaker-Mic	1.1	3.2	4.06	2.03	-0.0706	4.13	2.06	
Mar 21	815	Mid	CW	¼-Wave	NiCd Extra High Capacity	Aluminum Belt-Clip	Speaker-Mic	1.1	3.2	8.81	4.41	-0.724	10.4	5.20	
Mar 23	815	Mid	CW	¼-Wave	NiCd High Capacity	Aluminum Belt-Clip	Speaker-Mic	1.1	3.2	6.80	3.40	-0.00578	6.81	3.40	
Mar 23	806	Low	CW	¼-Wave	NiCd Extra High Capacity	Aluminum Belt-Clip	Speaker-Mic	1.1	3.3	11.7	5.85	-0.783	14.0	7.01	
Mar 23	824	High	CW	¼-Wave	NiCd Extra High Capacity	Aluminum Belt-Clip	Speaker-Mic	1.1	3.2	9.93	4.97	-0.893	12.2	6.10	
Handheld Scan Radio (P/N: KRD 103 103/A203) with Speaker-Microphone Antenna Version (P/N: KRY 101 1617/74)															
Mar 23	815	Mid	CW	½-Wave	NiCd Extra High Capacity	Lapel-Clip	-	1.5	3.2	7.43	3.72	-0.0197	7.46	3.73	
Mar 23	815	Mid	CW	½-Wave	NiCd High Capacity	Lapel-Clip	-	1.5	3.2	7.71	3.86	0.0571	-	-	
Mar 23	815	Mid	CW	¼-Wave	NiCd Extra High Capacity	Lapel-Clip	-	1.5	3.2	6.92	3.46	-0.455	7.68	3.84	
Mar 23	815	Mid	CW	¼-Wave	NiCd High Capacity	Lapel-Clip	-	1.5	3.2	6.94	3.47	-0.509	7.80	3.90	
Handheld System Radio Transceiver (P/N: KRD 103 103/A204)															
Mar 28	806	Low	CW	¼-Wave	NiCd Extra High Capacity	Aluminum Belt-Clip	Speaker-Mic	1.1	3.3	11.7	5.85	-0.717	13.8	6.90	
Mar 28	806	Low	CW	¼-Wave	NiCd Extra High Capacity	Aluminum Belt-Clip	Headset	1.1	3.3	10.0	5.00	-0.697	11.7	5.87	
ANSI / IEEE C95.1 1999 - SAFETY LIMIT					BODY: 8.0 W/kg (averaged over 1 gram)					Spatial Peak - Controlled Exposure / Occupational					
Test Date(s)				March 21, 2006		March 23, 2006		March 28, 2006		Test Date		Mar 21	Mar 23	Mar 28	Unit
Dielectric Constant ϵ_r		Fluid Type		815 MHz Body		815 MHz Body		815 MHz Body		Relative Humidity		30	30	30	%
		IEEE Target		Meas. Dev.		Meas. Dev.		Meas. Dev.		Atmospheric Pressure		100.9	100.9	101.9	kPa
		55.3 ± 5%		55.3 0.0%		54.8 -0.9%		54.7 -1.1%		Ambient Temperature		24.0	23.8	23.9	°C
Conductivity σ (mho/m)		Fluid Type		815 MHz Body		815 MHz Body		815 MHz Body		Fluid Temperature		23.2	23.0	22.9	°C
		IEEE Target		Meas. Dev.		Meas. Dev.		Meas. Dev.		Fluid Depth		≥ 15	≥ 15	≥ 15	cm
		0.97 ± 5%		0.94 -3.1%		0.96 -1.0%		0.93 -4.1%		ρ (Kg/m³)		1000			
Note(s)		1. The measurement results were obtained with the DUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the DUT are reported in Appendix A.													
		2. If the scaled SAR levels evaluated at the mid channel (50% duty cycle) were ≥ 3 dB below the SAR limit, SAR evaluation for the low and high channels was optional per FCC OET Bulletin 65, Supplement C, Edition 01-01 (see reference [3]).													
		3. The power droops measured by the DASY4 system for the duration of the SAR evaluations were added to the measured SAR levels to report scaled SAR results as shown in the above test data table.													
		4. The Headset audio accessory was evaluated in order to report a comparison with the Speaker-Microphone audio accessory.													
		5. A SAR-versus-time power droop evaluation was performed in the test configuration that reported the maximum-scaled SAR level. See Appendix A (SAR Test Plots) for SAR-versus-Time power droop evaluation plot.													
		6. 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.													
		7. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.													
		8. The dielectric parameters of the simulated tissue 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).													
		9. SAR measurements were performed within 24 hours of the system performance check.													

Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):		806 - 824 MHz / 851 - 869 MHz			
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

5.0 DETAILS OF SAR EVALUATION

The M/A-COM, Inc. Model: LPE-200 (Scan and System) Portable FM PTT Radio Transceiver FCC ID: AXATR-336-A with the Class II Permissive Change(s) described in this report 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 DUT was evaluated in a face-held configuration with the front of the radio placed parallel to the outer surface of the planar phantom. A 2.5 cm separation distance was maintained between the front side of the DUT and the outer surface of the planar phantom.
2. The Speaker-Microphone Antenna Version (P/N: KRY 101 1617/74) was evaluated in a face-held configuration connected to the handheld radio (scan) with the front of the speaker-microphone placed parallel to the outer surface of the planar phantom at a 2.5 cm separation distance.

Body-Worn Configuration

3. The Speaker-Microphone Antenna Version (P/N: KRY 101 1617/74) was tested in a body-worn configuration connected to the handheld radio (scan) with the back of the speaker-microphone antenna version placed parallel to the outer surface of the planar phantom. The attached lapel-clip was touching the outer surface of the planar phantom and provided a 1.5 cm separation distance between the back of the speaker-microphone antenna version and the outer surface of the planar phantom.
4. The DUT was tested in a body-worn configuration with the back of the radio placed parallel to the outer surface of the planar phantom. The attached Aluminum Belt-Clip accessory (P/N: CC23894) was touching the planar phantom and provided a 1.1 cm separation distance between the back of the DUT and the outer surface of the planar phantom. The DUT was evaluated for body-worn SAR with the Speaker-Microphone audio accessory (P/N: KRY 101 1617/73) and Over-the-Head Headset audio accessory (P/N: OT-V4-10073) connected to the audio port of the handheld radio.
5. The System Radio (P/N: KRD 103 103/A204) is identical to the Scan Radio (P/N: KRD 103 103/A203) except for the front keypad. The System Radio (P/N: KRD 103 103/A204) was evaluated for face-held and body-worn SAR in the worst-case configurations that were evaluated with the Scan Radio (P/N: KRD 103 103/A203).

Test Modes & Power Settings

6. The conducted power levels were measured prior to each test using a Gigatronix 8652A Universal Power Meter according to the procedures described in FCC 47 CFR §2.1046.
7. The power droops measured by the DASY4 system for the duration of the SAR evaluations were added to the measured SAR levels to report scaled SAR results as shown in the test data tables (pages 7-8).
8. A SAR-versus-time power droop evaluation was performed in the test configuration that reported the maximum-scaled SAR level. See Appendix A (SAR Test Plots) for SAR-versus-Time power droop evaluation plot.
9. 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.
10. 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

11. Due to the dimensions of the DUT a Plexiglas planar phantom was used in place of the SAM phantom.
12. The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the SAR evaluations. The temperatures reported were consistent for all measurement periods.
13. 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).
14. SAR measurements were performed within 24 hours of the system performance check.

Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver			Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz			
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093 IC RSS-102 Issue 2

6.0 EVALUATION PROCEDURES

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

An area scan was determined as follows:

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

A 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 from the tip of the probe and the distance between the surface and the lowest measuring point is 1.4 mm (see probe calibration document in Appendix F). The extrapolation was based on trivariate quadratics computed from the previously calculated 3D interpolated points nearest the phantom surface.
- f. Interpolated data is used to calculate the average SAR over 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.



Face-Held Test Setup Configuration



Body-Worn Test Setup Configuration

Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

7.0 SYSTEM PERFORMANCE CHECK

Prior to the SAR evaluations a system check was performed at the planar section of the SAM phantom with an 835MHz dipole (see Appendix E for system validation procedures). Prior to the system performance check 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 $\pm 10\%$ (see Appendix B for system performance check test plots). See Table 1 below for the SAR system manufacturer's reference body SAR values from the DASY4 Operation Manual (see reference [6]).

SYSTEM PERFORMANCE CHECK EVALUATIONS																
Test Date	Equiv. Tissue	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)
		IEEE Target	Meas.	Dev.	IEEE Target	Meas.	Dev.	IEEE Target	Meas.	Dev.						
2/21/06	Body	2.43 $\pm 10\%$	2.39	-1.6%	55.2 $\pm 5\%$	55.3	+0.2%	0.97 $\pm 5\%$	0.95	-2.1%	1000	23.1	23.0	≥ 15	30	100.9
2/23/06	Brain	2.38 $\pm 10\%$	2.28	-4.2%	41.5 $\pm 5\%$	39.7	-4.3%	0.90 $\pm 5\%$	0.88	-2.2%	1000	21.5	23.5	≥ 15	30	101.1
2/24/06	Brain	2.38 $\pm 10\%$	2.37	-0.4%	41.5 $\pm 5\%$	39.5	-4.8%	0.90 $\pm 5\%$	0.87	-3.3%	1000	23.3	21.8	≥ 15	30	101.1
2/27/06	Body	2.43 $\pm 10\%$	2.40	-1.2%	55.2 $\pm 5\%$	53.7	-2.7%	0.97 $\pm 5\%$	0.94	-3.1%	1000	22.6	20.6	≥ 15	30	101.8
2/28/06	Brain	2.38 $\pm 10\%$	2.50	+5.0%	41.5 $\pm 5\%$	42.1	+1.4%	0.90 $\pm 5\%$	0.91	+1.1%	1000	22.6	20.8	≥ 15	30	101.8
2/29/06	Brain	2.38 $\pm 10\%$	2.44	+2.5%	41.5 $\pm 5\%$	40.8	-1.7%	0.90 $\pm 5\%$	0.90	0.0%	1000	21.8	21.6	≥ 15	30	101.1

Note(s):

- The ambient and fluid temperatures were measured prior to, and during, the fluid dielectric parameter check and the system performance check. The temperatures listed in the table above were consistent for all measurement periods.

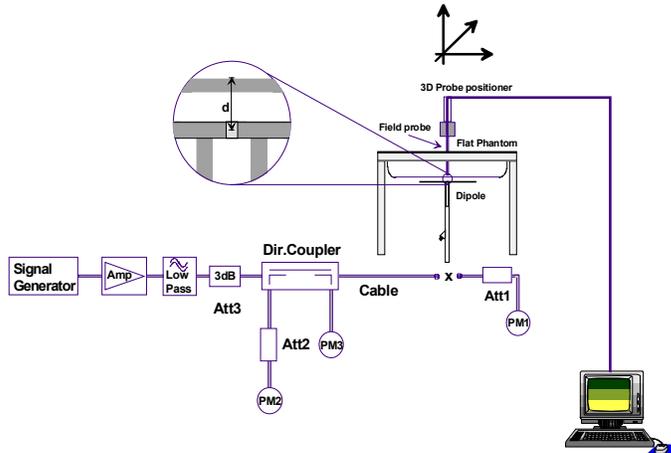


Figure 1. System Performance Check Setup Diagram

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



835MHz Dipole Setup

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

Table 1. SAR system manufacturer's reference Body SAR values

Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):		806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

8.0 SIMULATED EQUIVALENT TISSUES

The simulated tissue mixtures consist of a viscous gel using hydroxethylcellulose (HEC) gelling agent and saline solution. Preservation with a bactericide is added and visual inspection is made to ensure air bubbles are not trapped during the mixing process. The fluid was prepared according to standardized procedures and measured for dielectric parameters (permittivity and conductivity).

SIMULATED TISSUE MIXTURES		
	Brain Tissue Simulant	Body Tissue Simulant
INGREDIENT	835 MHz System Performance Check	835 MHz System Performance Check
	815 MHz DUT Evaluation	815 MHz DUT Evaluation
Water	40.71 %	53.79 %
Sugar	56.63 %	45.13 %
Salt	1.48 %	0.98 %
HEC	0.99 %	--
Bactericide	0.19 %	0.10 %

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
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.		

	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093 IC RSS-102 Issue 2

10.0 ROBOT SYSTEM SPECIFICATIONS

Specifications

POSITIONER: Staubli 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: DASY4 software
Connecting Lines: Optical downlink for data and status info.
 Optical uplink for commands and clock

DASY4 Measurement Server

Function: Real-time data evaluation for field measurements and surface detection
Hardware: PC/104 166MHz Pentium CPU; 32 MB chipdisk; 64 MB RAM
Connections: COM1, COM2, DAE, Robot, Ethernet, Service Interface

E-Field Probe

Model: ET3DV6
Serial No.: 1590
Construction: Triangular core fiber optic detection system
Frequency: 10 MHz to 6 GHz
Linearity: ±0.2 dB (30 MHz to 3 GHz)

Phantom(s)

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
Thickness: 2.0 ± 0.1 mm
Volume: Approx. 25 liters

Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):		806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

11.0 PROBE SPECIFICATION (ET3DV6)

Construction:	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g. glycol)
Calibration:	In air from 10 MHz to 2.5 GHz In brain simulating tissue at frequencies of 900 MHz and 1.8 GHz (accuracy $\pm 8\%$)
Frequency:	10 MHz to >6 GHz; Linearity: ± 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 μ W/g to >100 mW/g; Linearity: ± 0.2 dB
Surface Detection:	± 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

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

Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver	Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz					
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

15.0 TEST EQUIPMENT LIST

USED	TEST EQUIPMENT	ASSET NO.	SERIAL NO.	DATE CALIBRATED		CALIBRATION DUE DATE
	DESCRIPTION					
x	Schmid & Partner DASY4 System	-	-	-	-	-
x	-DASY4 Measurement Server	00158	1078	N/A	N/A	N/A
x	-Robot	00046	599396-01	N/A	N/A	N/A
x	-DAE4	00019	353	15Jun05		15Jun06
	-DAE3	00018	370	08Feb06		08Feb07
	-ET3DV6 E-Field Probe	00016	1387	16Mar06		16Mar07
x	-ET3DV6 E-Field Probe	00017	1590	20May05		20May06
	-EX3DV4 E-Field Probe	00125	3547	14Feb06		14Feb07
	-300 MHz Validation Dipole	00023	135	25Oct05		25Oct06
	-450 MHz Validation Dipole	00024	136	25Oct05		25Oct06
x	-835 MHz Validation Dipole	00022	411	Brain	30Mar05	30Mar06
x				Body	12Apr05	12Apr06
	-900 MHz Validation Dipole	00020	054	Brain	10Jun05	10Jun06
				Body	10Jun05	10Jun06
	-1800 MHz Validation Dipole	00021	247	Brain	14Jun05	14Jun06
				Body	14Jun05	14Jun06
	-1900 MHz Validation Dipole	00032	151	Brain	17Jun05	17Jun06
				Body	22Apr05	22Apr06
	-2450 MHz Validation Dipole	00025	150	Brain	20Sep05	20Sep06
				Body	22Apr05	22Apr06
	-5800 MHz Validation Dipole	00126	1031	Brain	15Mar06	15Mar07
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
	Gigatronics 8652A Power Meter	00110	1835801	16Apr05		16Apr06
x	Gigatronics 8652A Power Meter	00008	1835267	29Apr05		29Apr06
x	Gigatronics 80701A Power Sensor	00012	1834350	12Sep05		12Sep06
	Gigatronics 80701A Power Sensor	00014	1833699	07Sep05		07Sep06
x	Gigatronics 80701A Power Sensor	00109	1834366	16Apr05		16Apr06
x	HP 8753ET Network Analyzer	00134	US39170292	04May05		04May06
x	HP 8648D Signal Generator	00005	3847A00611	29Apr05		29Apr06
	Rohde & Schwarz SMR40 Signal Generator	00006	100104	12Apr05		12Apr06
x	Amplifier Research 5S1G4 Power Amplifier	00106	26235	N/A		N/A

Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):		806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

16.0 MEASUREMENT UNCERTAINTIES

UNCERTAINTY BUDGET FOR DEVICE EVALUATION						
Error Description	Uncertainty Value $\pm\%$	Probability Distribution	Divisor	ci 1g	Uncertainty Value $\pm\%$ (1g)	V_i or V_{eff}
Measurement System						
Probe calibration	5.5	Normal	1	1	5.5	∞
Axial isotropy of the probe	4.7	Rectangular	1.732050808	0.7	1.9	∞
Spherical isotropy of the probe	9.6	Rectangular	1.732050808	0.7	3.9	∞
Spatial resolution	0	Rectangular	1.732050808	1	0.0	∞
Boundary effects	1	Rectangular	1.732050808	1	0.6	∞
Probe linearity	4.7	Rectangular	1.732050808	1	2.7	∞
Detection limit	1	Rectangular	1.732050808	1	0.6	∞
Readout electronics	0.3	Normal	1	1	0.3	∞
Response time	0.8	Rectangular	1.732050808	1	0.5	∞
Integration time	2.6	Rectangular	1.732050808	1	1.5	∞
RF ambient conditions	3	Rectangular	1.732050808	1	1.7	∞
Mech. constraints of robot	0.4	Rectangular	1.732050808	1	0.2	∞
Probe positioning	2.9	Rectangular	1.732050808	1	1.7	∞
Extrapolation & integration	1	Rectangular	1.732050808	1	0.6	∞
Test Sample Related						
Device positioning	2.9	Normal	1	1	2.9	12
Device holder uncertainty	3.6	Normal	1	1	3.6	8
Power drift	5	Rectangular	1.732050808	1	2.9	∞
Phantom and Setup						
Phantom uncertainty	4	Rectangular	1.732050808	1	2.3	∞
Liquid conductivity (target)	5	Rectangular	1.732050808	0.64	1.8	∞
Liquid conductivity (measured)	2.5	Normal	1	0.64	1.6	∞
Liquid permittivity (target)	5	Rectangular	1.732050808	0.6	1.7	∞
Liquid permittivity (measured)	2.5	Normal	1	0.6	1.5	∞
Combined Standard Uncertainty					10.58	
Expanded Uncertainty (k=2)					21.16	

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

Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):		806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

MEASUREMENT UNCERTAINTIES (Cont.)

UNCERTAINTY BUDGET FOR SYSTEM VALIDATION						
Error Description	Uncertainty Value $\pm\%$	Probability Distribution	Divisor	ci 1g	Uncertainty Value $\pm\%$ (1g)	V_i or V_{eff}
Measurement System						
Probe calibration	5.5	Normal	1	1	5.5	∞
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	∞
Test Sample Related						
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)	2.5	Normal	1	0.64	1.6	∞
Liquid permittivity (target)	5	Rectangular	1.732050808	0.6	1.7	∞
Liquid permittivity (measured)	2.5	Normal	1	0.6	1.5	∞
Combined Standard Uncertainty					8.79	
Expanded Uncertainty (k=2)					17.57	

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

	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

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] Schmid & Partner Engineering AG, "DASY4 Manual" V4.5: March 2005.

Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz					
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

APPENDIX A - SAR MEASUREMENT DATA

Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Date Tested: 03/24/2006

Face-Held SAR - 815 MHz - NiCd Extra High Capacity Battery - 1/2-Wave Antenna (P/N: KRE 101 1506/1)

DUT: M/A-COM Model: LPE-200; Type: Portable FM PTT Radio Transceiver (Scan Radio P/N: KRD 103 103/A203); Serial: 9806264

Ambient Temp: 23.6 °C; Fluid Temp: 21.5 °C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: FM

Frequency: 815 MHz; Duty Cycle: 1:1

RF Output Power: 3.2 Watts (Conducted)

7.5V NiCd Extra High Capacity Battery (P/N: BKB 191 202)

Medium: HSL815 ($\sigma = 0.89$ mho/m; $\epsilon_r = 41.3$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(6.67, 6.67, 6.67); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Face-Held SAR - 2.5 cm Separation Distance to Planar Phantom - Mid Channel/Area Scan (8x25x1):

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

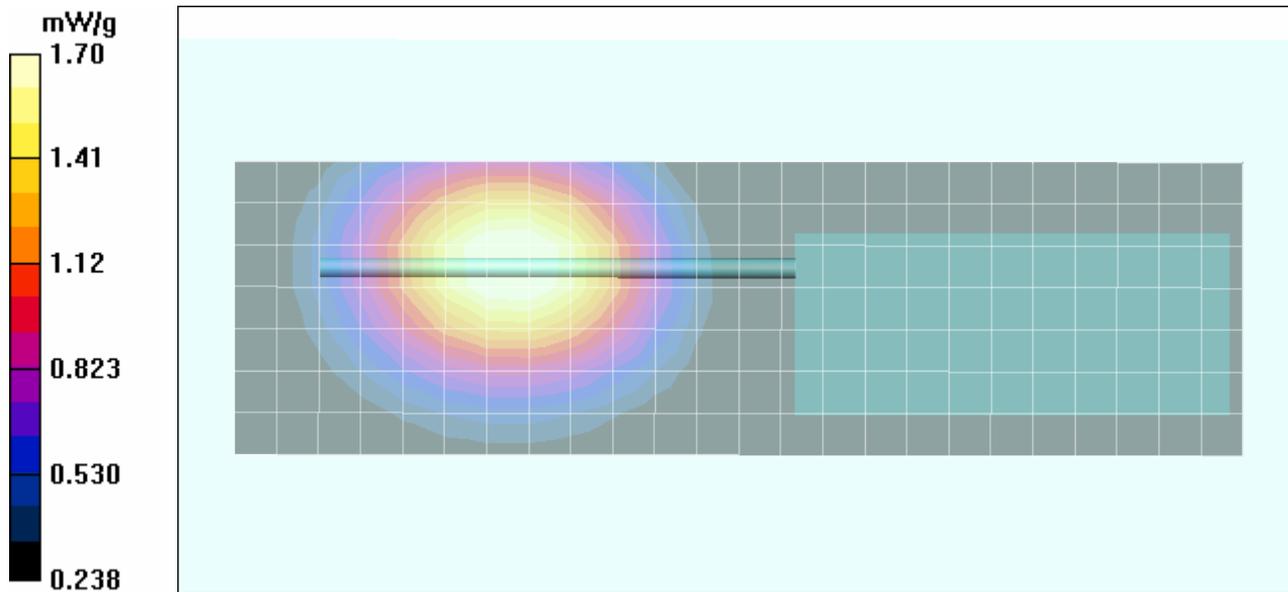
Face-Held SAR - 2.5 cm Separation Distance to Planar Phantom - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 10.6 V/m; Power Drift = -0.0837 dB

Peak SAR (extrapolated) = 2.12 W/kg

SAR(1 g) = 1.63 mW/g; SAR(10 g) = 1.21 mW/g



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):		806 - 824 MHz / 851 - 869 MHz			
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093 IC RSS-102 Issue 2

Date Tested: 03/24/2006

Face-Held SAR - 815 MHz - NiCd High Capacity Battery - 1/2-Wave Antenna (P/N: KRE 101 1506/1)

DUT: M/A-COM Model: LPE-200; Type: Portable FM PTT Radio Transceiver (Scan Radio P/N: KRD 103 103/A203); Serial: 9806264

Ambient Temp: 23.6 °C; Fluid Temp: 21.5 °C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: FM

Frequency: 815 MHz; Duty Cycle: 1:1

RF Output Power: 3.2 Watts (Conducted)

7.5V NiCd High Capacity Battery (P/N: BKB 191 203)

Medium: HSL815 ($\sigma = 0.89$ mho/m; $\epsilon_r = 41.3$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(6.67, 6.67, 6.67); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Face-Held SAR - 2.5 cm Separation Distance to Planar Phantom - Mid Channel/Area Scan (8x25x1):

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

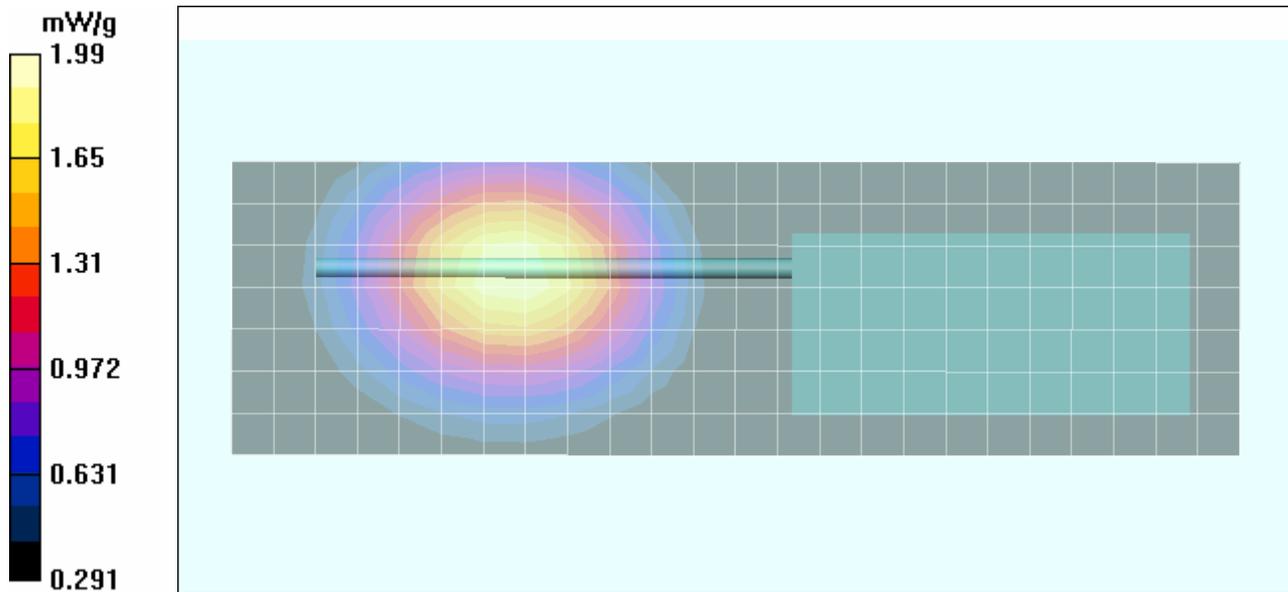
Face-Held SAR - 2.5 cm Separation Distance to Planar Phantom - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.5 V/m; Power Drift = -0.121 dB

Peak SAR (extrapolated) = 2.48 W/kg

SAR(1 g) = 1.90 mW/g; SAR(10 g) = 1.39 mW/g



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):		806 - 824 MHz / 851 - 869 MHz			
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Date Tested: 03/24/2006

Face-Held SAR - 815 MHz - NiCd Extra High Capacity Battery - 1/4-Wave Antenna (P/N: KRE 101 1223/01)

DUT: M/A-COM Model: LPE-200; Type: Portable FM PTT Radio Transceiver (Scan Radio P/N: KRD 103 103/A203); Serial: 9806264

Ambient Temp: 23.6 °C; Fluid Temp: 21.5 °C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: FM

Frequency: 815 MHz; Duty Cycle: 1:1

RF Output Power: 3.2 Watts (Conducted)

7.5V NiCd Extra High Capacity Battery (P/N: BKB 191 202)

Medium: HSL815 ($\sigma = 0.89$ mho/m; $\epsilon_r = 41.3$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(6.67, 6.67, 6.67); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Face-Held SAR - 2.5 cm Separation Distance to Planar Phantom - Mid Channel/Area Scan (8x25x1):

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

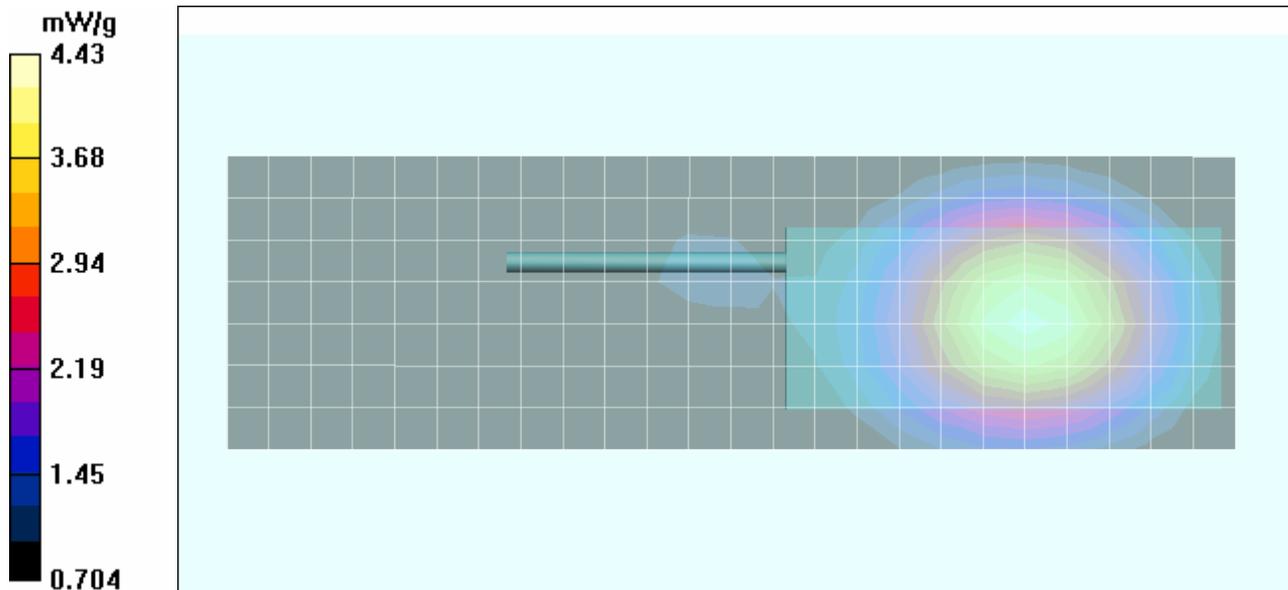
Face-Held SAR - 2.5 cm Separation Distance to Planar Phantom - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 34.6 V/m; Power Drift = -0.0955 dB

Peak SAR (extrapolated) = 5.44 W/kg

SAR(1 g) = 4.22 mW/g; SAR(10 g) = 3.14 mW/g



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):		806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Date Tested: 03/24/2006

Face-Held SAR - 815 MHz - NiCd High Capacity Battery - 1/4-Wave Antenna (P/N: KRE 101 1223/01)

DUT: M/A-COM Model: LPE-200; Type: Portable FM PTT Radio Transceiver (Scan Radio P/N: KRD 103 103/A203); Serial: 9806264

Ambient Temp: 23.6 °C; Fluid Temp: 21.5 °C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: FM

Frequency: 815 MHz; Duty Cycle: 1:1

RF Output Power: 3.2 Watts (Conducted)

7.5V NiCd High Capacity Battery (P/N: BKB 191 203)

Medium: HSL815 ($\sigma = 0.89$ mho/m; $\epsilon_r = 41.3$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(6.67, 6.67, 6.67); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Face-Held SAR - 2.5 cm Separation Distance to Planar Phantom - Mid Channel/Area Scan (8x25x1):

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

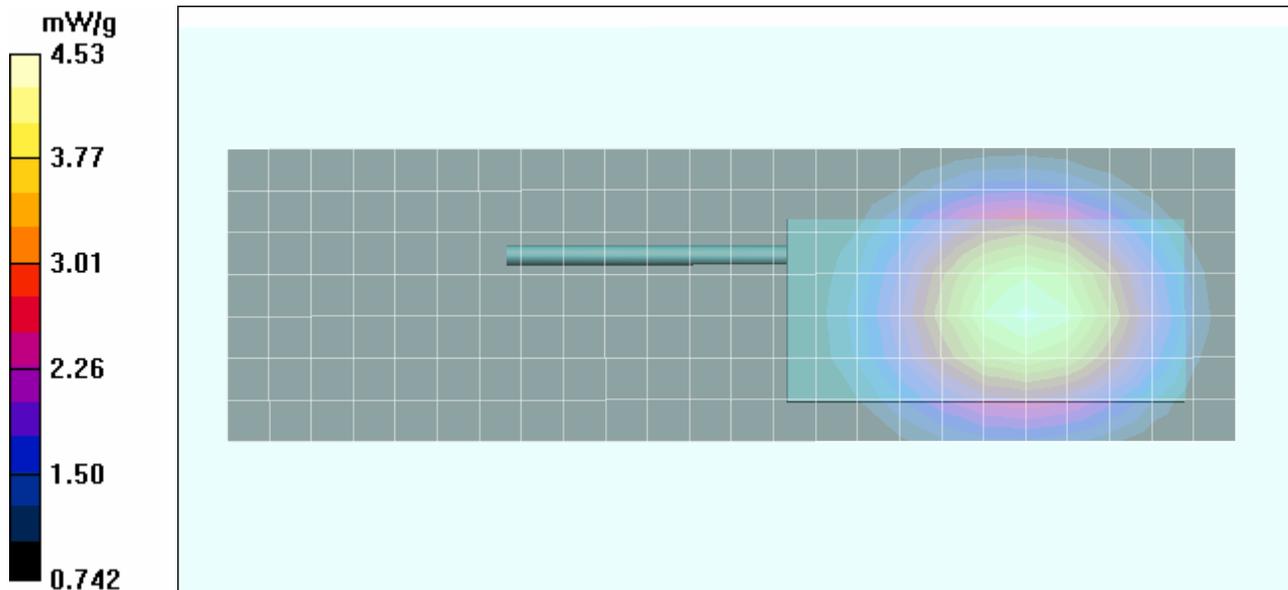
Face-Held SAR - 2.5 cm Separation Distance to Planar Phantom - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 31.2 V/m; Power Drift = -0.0765 dB

Peak SAR (extrapolated) = 5.51 W/kg

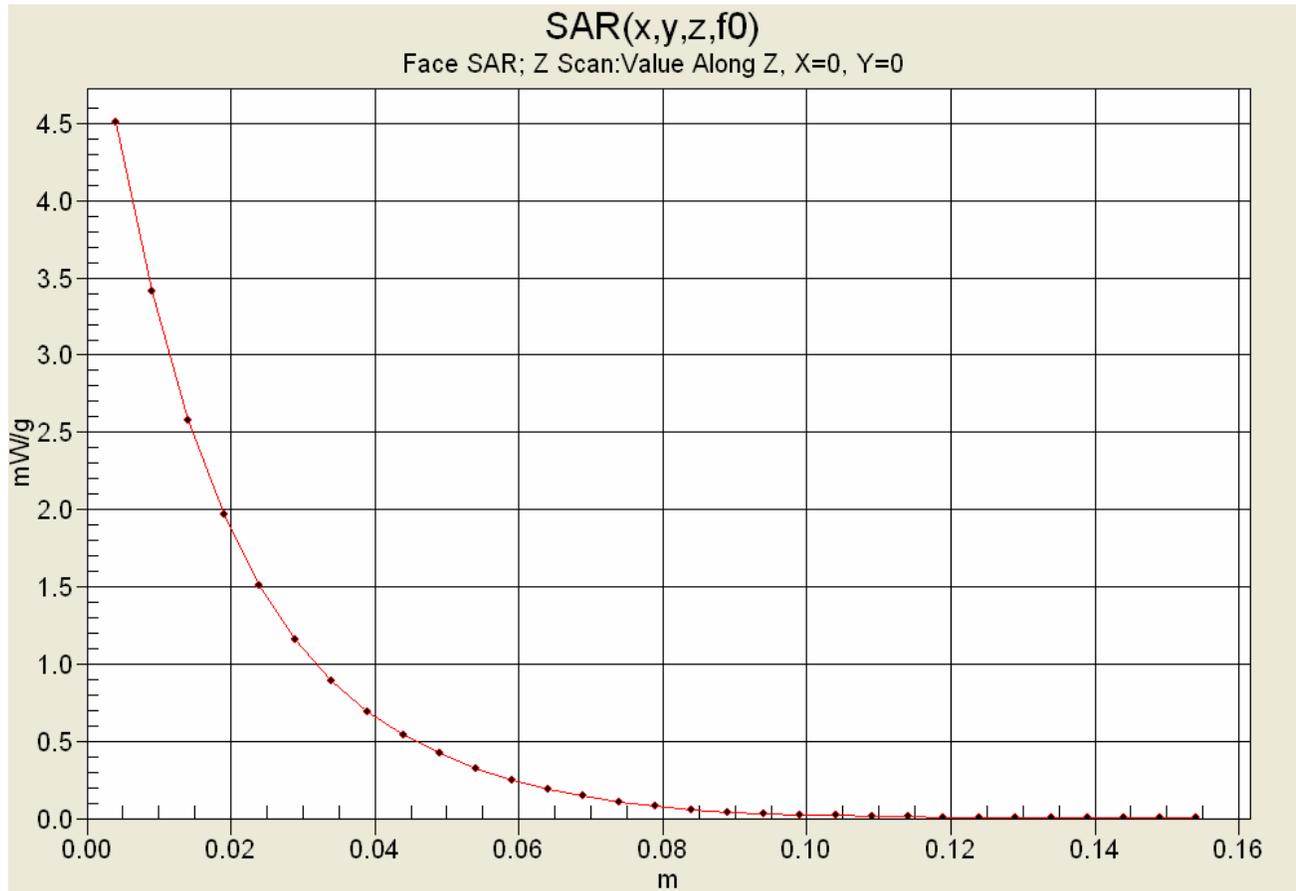
SAR(1 g) = 4.29 mW/g; SAR(10 g) = 3.19 mW/g



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):		806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Z-Axis Scan



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz					
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Date Tested: 03/27/2006

Face-Held SAR - 815 MHz - NiCd Extra High Capacity Battery - 1/2-Wave Antenna (P/N: KRE 101 1506/1)

DUT: M/A-COM Model: LPE-200; Type: Scan Radio with FM PTT Speaker-Microphone Antenna Version (P/N: KRY 101 1617/74)

Ambient Temp: 22.6 °C; Fluid Temp: 20.6 °C; Barometric Pressure: 101.8 kPa; Humidity: 30%

Communication System: FM

Frequency: 815 MHz; Duty Cycle: 1:1

RF Output Power: 3.2 Watts (Conducted)

7.5V NiCd Extra High Capacity Battery (P/N: BKB 191 202)

Medium: HSL815 ($\sigma = 0.87$ mho/m; $\epsilon_r = 39.8$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(6.67, 6.67, 6.67); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Face-Held SAR - 2.5 cm Separation Distance to Planar Phantom - Mid Channel/Area Scan (8x18x1):

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

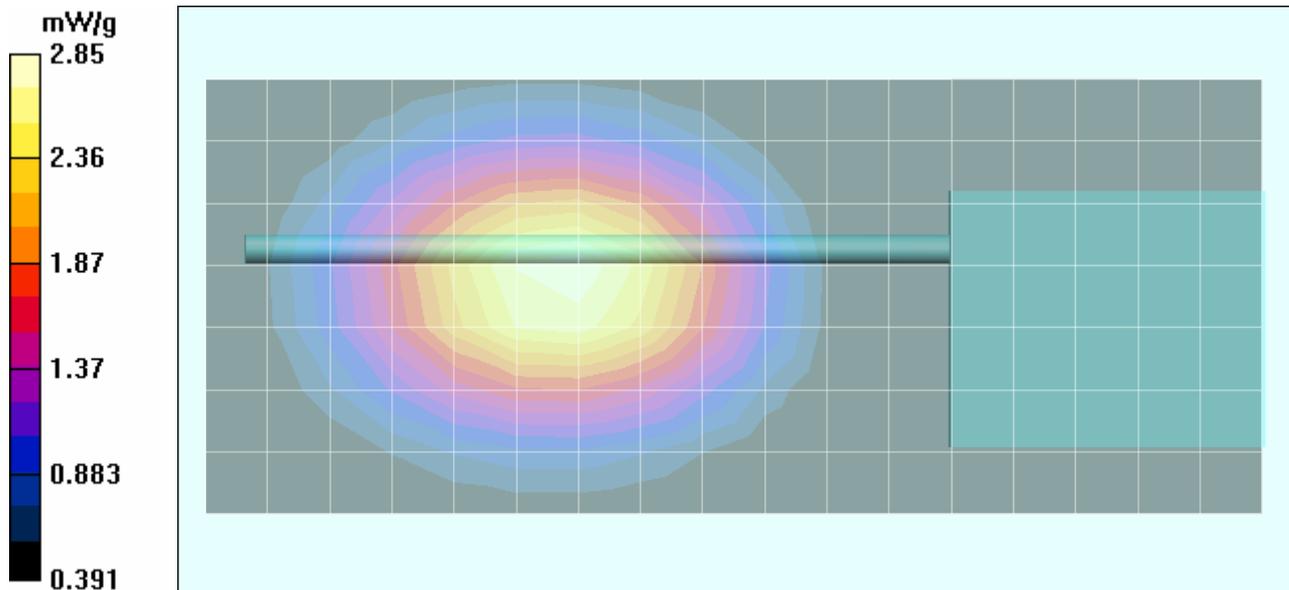
Face-Held SAR - 2.5 cm Separation Distance to Planar Phantom - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.9 V/m; Power Drift = -0.157 dB

Peak SAR (extrapolated) = 3.60 W/kg

SAR(1 g) = 2.70 mW/g; SAR(10 g) = 1.95 mW/g



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):		806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Date Tested: 03/24/2006

Face-Held SAR - 815 MHz - NiCd High Capacity Battery - 1/2-Wave Antenna (P/N: KRE 101 1506/1)

DUT: M/A-COM Model: LPE-200; Type: Scan Radio with FM PTT Speaker-Microphone Antenna Version (P/N: KRY 101 1617/74)

Ambient Temp: 23.6 °C; Fluid Temp: 21.5 °C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: FM

Frequency: 815 MHz; Duty Cycle: 1:1

RF Output Power: 3.2 Watts (Conducted)

7.5V NiCd High Capacity Battery (P/N: BKB 191 203)

Medium: HSL815 ($\sigma = 0.89$ mho/m; $\epsilon_r = 41.3$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(6.67, 6.67, 6.67); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Face-Held SAR - 2.5 cm Separation Distance to Planar Phantom - Mid Channel/Area Scan (8x18x1):

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

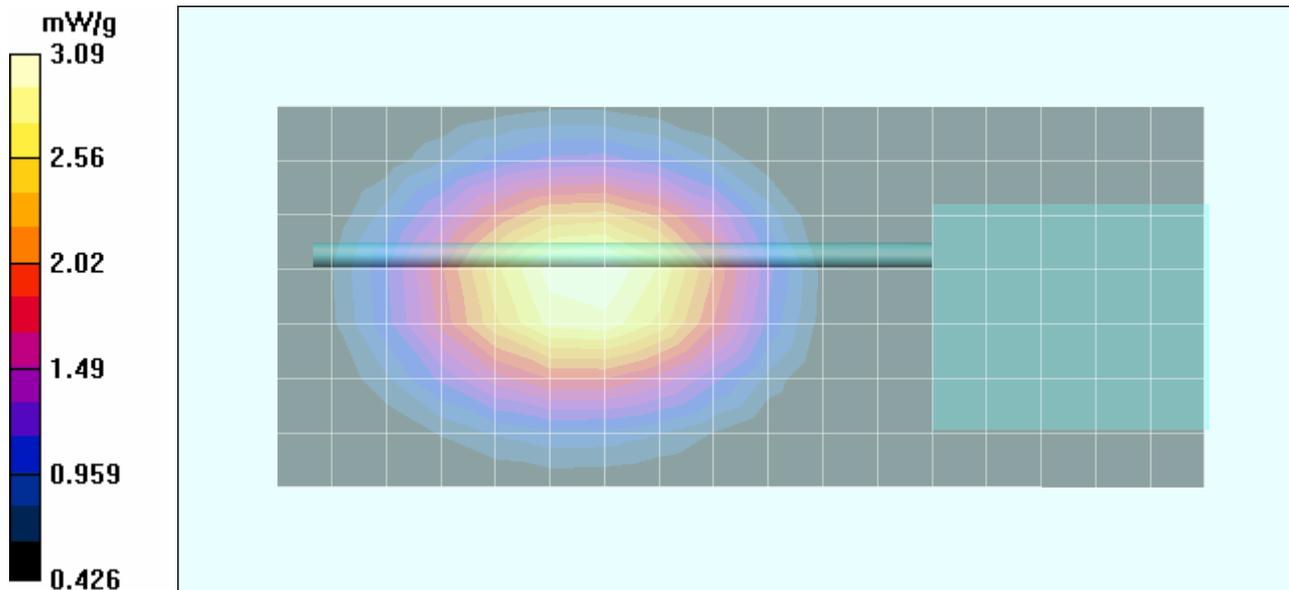
Face-Held SAR - 2.5 cm Separation Distance to Planar Phantom - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 11.5 V/m; Power Drift = -0.125 dB

Peak SAR (extrapolated) = 3.90 W/kg

SAR(1 g) = 2.91 mW/g; SAR(10 g) = 2.1 mW/g



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz					
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Date Tested: 03/27/2006

Face-Held SAR - 815 MHz - NiCd Extra High Capacity Battery - 1/4-Wave Antenna (P/N: KRE 101 1223/01)

DUT: M/A-COM Model: LPE-200; Type: Scan Radio with FM PTT Speaker-Microphone Antenna Version (P/N: KRY 101 1617/74)

Ambient Temp: 22.6 °C; Fluid Temp: 20.6 °C; Barometric Pressure: 101.8 kPa; Humidity: 30%

Communication System: FM

Frequency: 815 MHz; Duty Cycle: 1:1

RF Output Power: 3.2 Watts (Conducted)

7.5V NiCd Extra High Capacity Battery (P/N: BKB 191 202)

Medium: HSL815 ($\sigma = 0.87$ mho/m; $\epsilon_r = 39.8$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(6.67, 6.67, 6.67); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Face-Held SAR - 2.5 cm Separation Distance to Planar Phantom - Mid Channel/Area Scan (8x18x1):

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

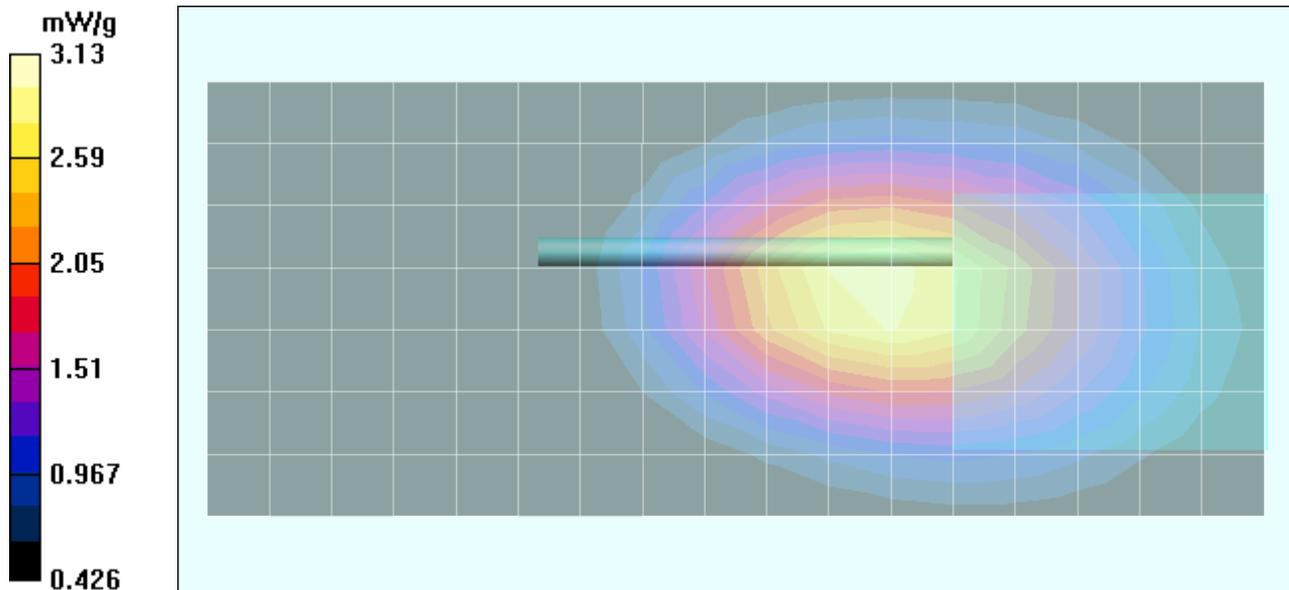
Face-Held SAR - 2.5 cm Separation Distance to Planar Phantom - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 59.2 V/m; Power Drift = -0.416 dB

Peak SAR (extrapolated) = 3.95 W/kg

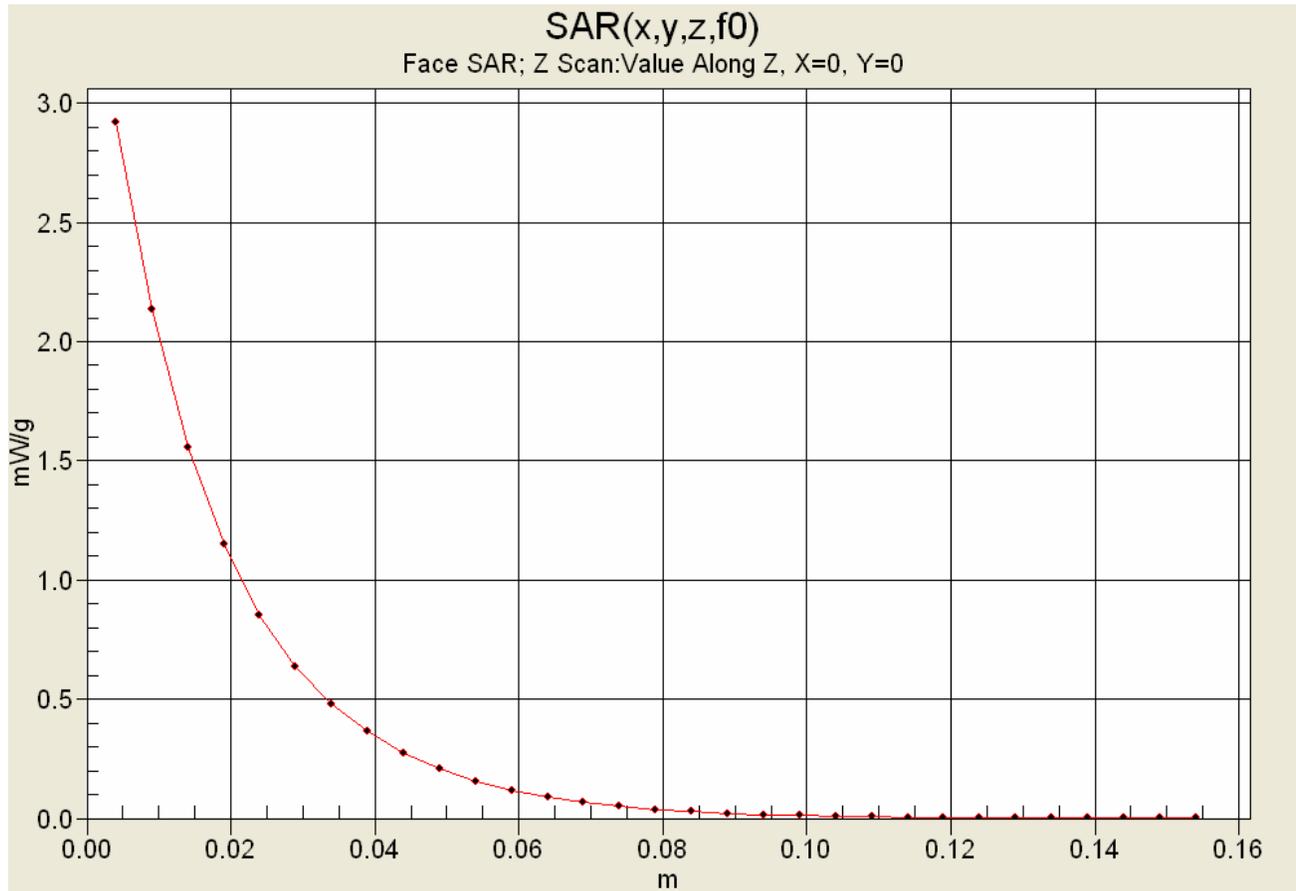
SAR(1 g) = 2.95 mW/g; SAR(10 g) = 2.11 mW/g



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):		806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Z-Axis Scan



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver	Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz						
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Date Tested: 03/27/2006

Face-Held SAR - 815 MHz - NiCd High Capacity Battery - 1/4-Wave Antenna (P/N: KRE 101 1223/01)

DUT: M/A-COM Model: LPE-200; Type: Scan Radio with FM PTT Speaker-Microphone Antenna Version (P/N: KRY 101 1617/74)

Ambient Temp: 22.6 °C; Fluid Temp: 20.6 °C; Barometric Pressure: 101.8 kPa; Humidity: 30%

Communication System: FM

Frequency: 815 MHz; Duty Cycle: 1:1

RF Output Power: 3.2 Watts (Conducted)

7.5V NiCd High Capacity Battery (P/N: BKB 191 203)

Medium: HSL815 ($\sigma = 0.87$ mho/m; $\epsilon_r = 39.8$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(6.67, 6.67, 6.67); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Face-Held SAR - 2.5 cm Separation Distance to Planar Phantom - Mid Channel/Area Scan (8x18x1):

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

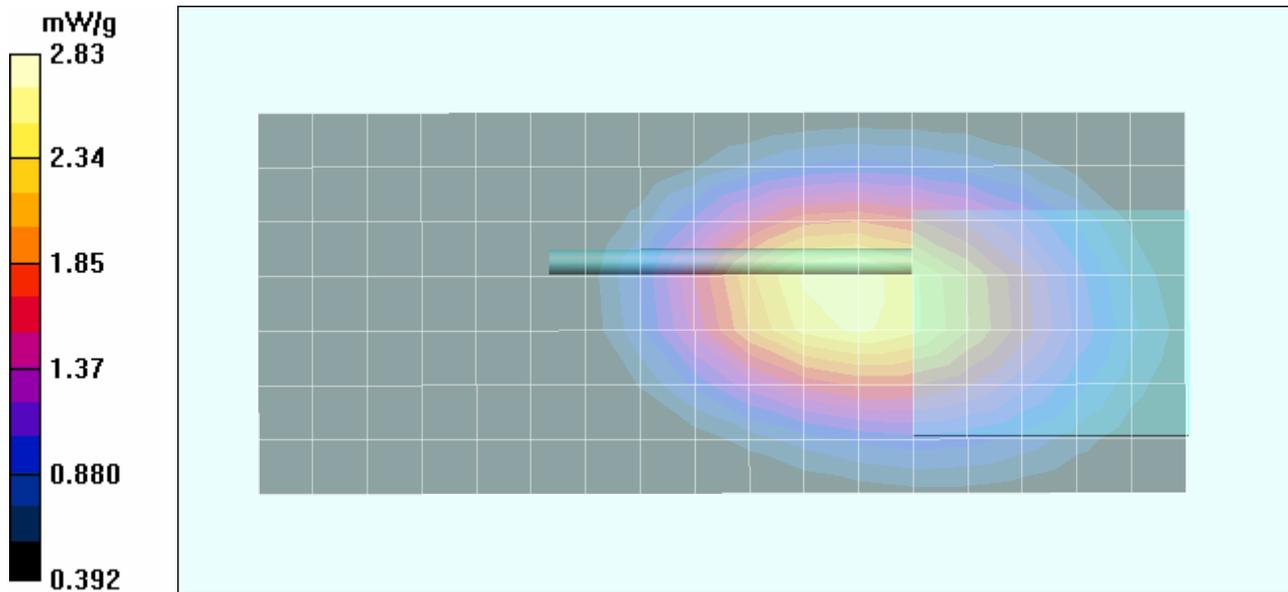
Face-Held SAR - 2.5 cm Separation Distance to Planar Phantom - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 57.7 V/m; Power Drift = -0.545 dB

Peak SAR (extrapolated) = 3.57 W/kg

SAR(1 g) = 2.67 mW/g; SAR(10 g) = 1.92 mW/g



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):		806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Date Tested: 03/29/2006

Face-Held SAR - 815 MHz - NiCd High Capacity Battery - 1/4-Wave Antenna (P/N: KRE 101 1223/01)

DUT: M/A-COM Model: LPE-200; Type: Portable FM PTT Radio Transceiver (System Radio P/N: KRD 103 103/A204); Serial: 9794057

Ambient Temp: 23.5 °C; Fluid Temp: 22.0 °C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: FM

Frequency: 815 MHz; Duty Cycle: 1:1

RF Output Power: 3.2 Watts (Conducted)

7.5V NiCd High Capacity Battery (P/N: BKB 191 203)

Medium: HSL815 ($\sigma = 0.89$ mho/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(6.67, 6.67, 6.67); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Face-Held SAR - 2.5 cm Separation Distance to Planar Phantom - Mid Channel/Area Scan (8x25x1):

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

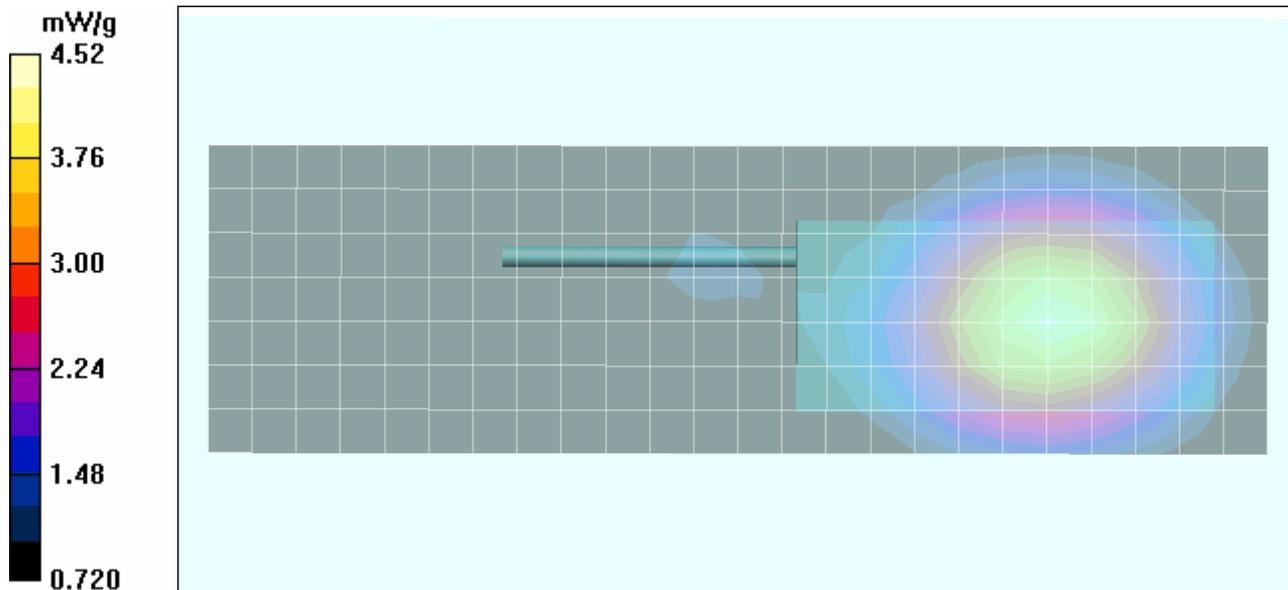
Face-Held SAR - 2.5 cm Separation Distance to Planar Phantom - Mid Channel/Zoom Scan (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 34.3 V/m; Power Drift = -0.021 dB

Peak SAR (extrapolated) = 5.52 W/kg

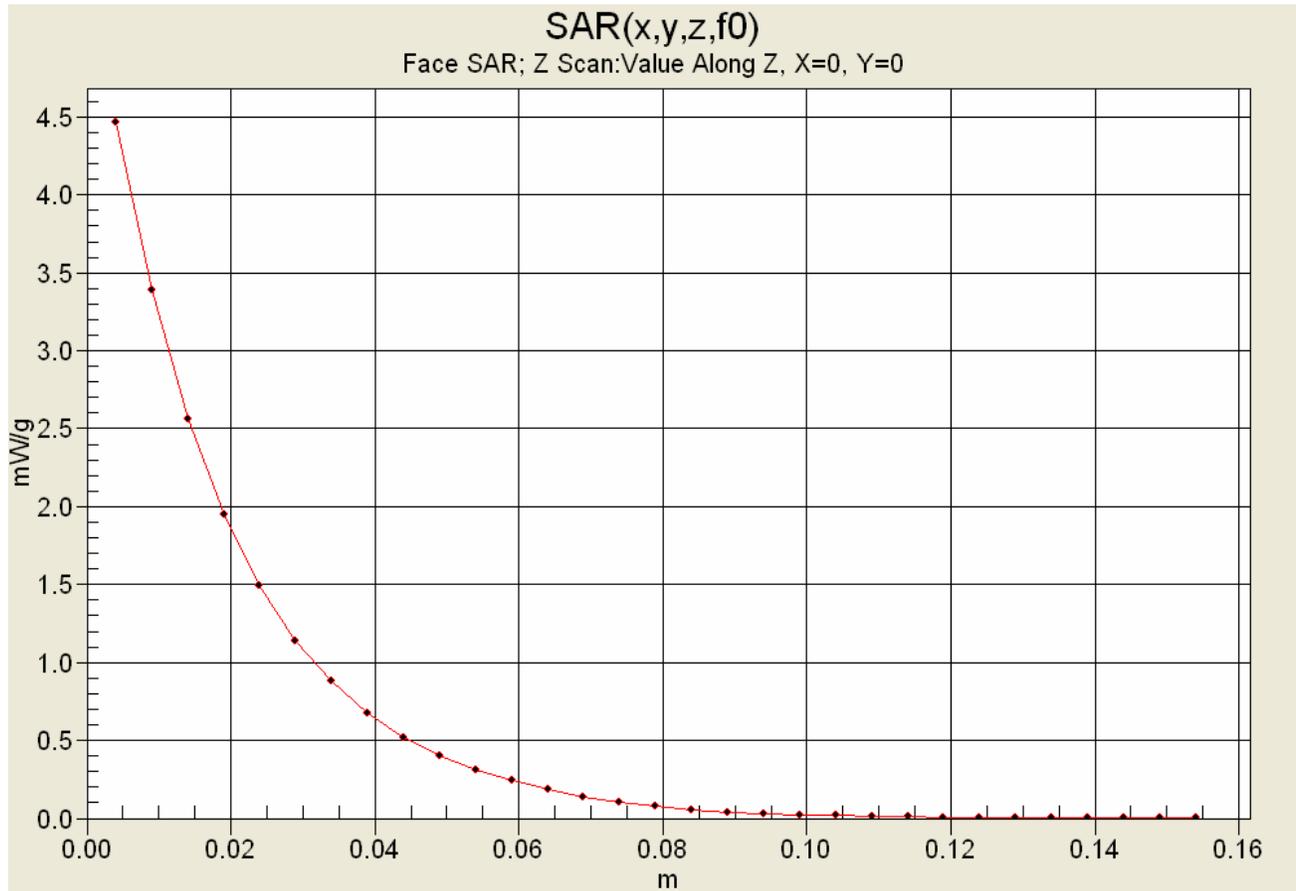
SAR(1 g) = 4.29 mW/g; SAR(10 g) = 3.19 mW/g



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):		806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Z-Axis Scan



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver	Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz					
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Date Tested: 03/21/2006

Body-Worn SAR - 815 MHz - NiCd Extra High Capacity Battery - 1/2-Wave Antenna (P/N: KRE 101 1506/1)

DUT: M/A-COM Model: LPE-200; Type: Portable FM PTT Radio Transceiver (Scan Radio P/N: KRD 103 103/A203); Serial: 9806264

Body-Worn Accessory: Aluminum Belt-Clip (P/N: CC23894); Audio Accessory: Speaker-Microphone (P/N: KRY 101 1617/73)

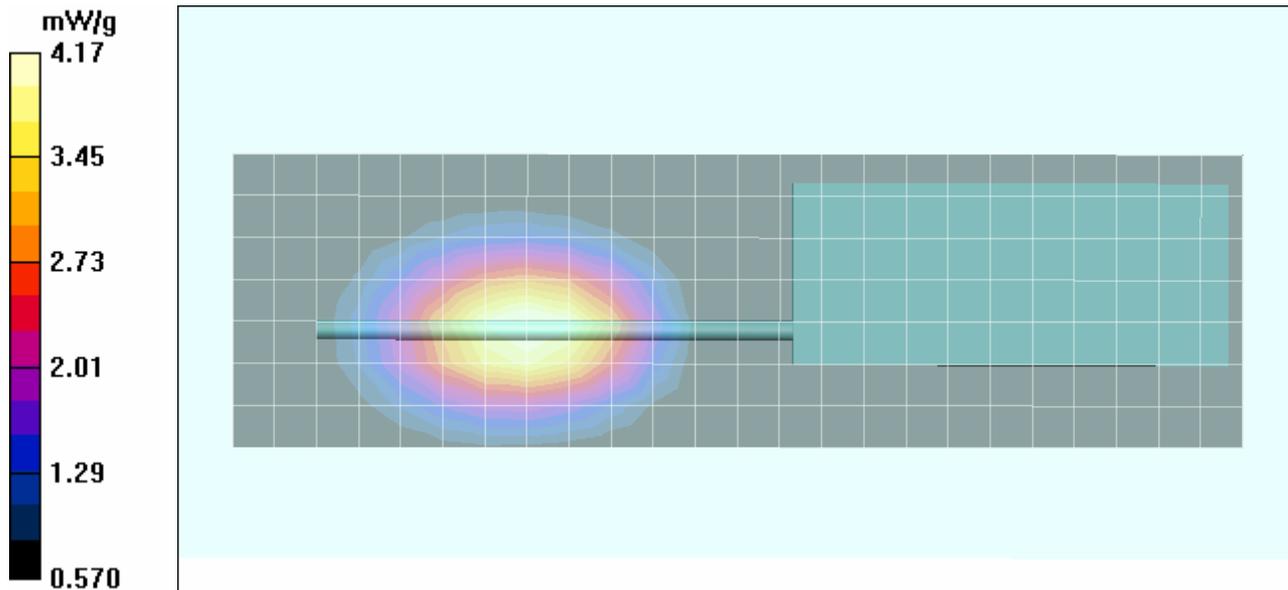
Ambient Temp: 24.0 °C; Fluid Temp: 23.2 °C; Barometric Pressure: 100.9 kPa; Humidity: 30%

Communication System: FM
 Frequency: 815 MHz; Duty Cycle: 1:1
 RF Output Power: 3.2 Watts (Conducted)
 7.5V NiCd Extra High Capacity Battery (P/N: BKB 191 202)
 Medium: MSL815 ($\sigma = 0.94$ mho/m; $\epsilon_r = 55.3$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(6.47, 6.47, 6.47); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Body-Worn SAR - 1.1 cm Belt-Clip Separation Distance to Planar Phantom - Mid Channel Area Scan (8x25x1): Measurement grid: dx=15mm, dy=15mm

Body-Worn SAR - 1.1 cm Belt-Clip Separation Distance to Planar Phantom - Mid Channel Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 10.5 V/m; Power Drift = 0.703 dB
 Peak SAR (extrapolated) = 5.07 W/kg
SAR(1 g) = 3.92 mW/g; SAR(10 g) = 2.83 mW/g



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):		806 - 824 MHz / 851 - 869 MHz			
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093 IC RSS-102 Issue 2

Date Tested: 03/23/2006

Body-Worn SAR - 815 MHz - NiCd High Capacity Battery - 1/2-Wave Antenna (P/N: KRE 101 1506/1)

DUT: M/A-COM Model: LPE-200; Type: Portable FM PTT Radio Transceiver (Scan Radio P/N: KR D 103 103/A203); Serial: 9806264

Body-Worn Accessory: Aluminum Belt-Clip (P/N: CC23894); Audio Accessory: Speaker-Microphone (P/N: KRY 101 1617/73)

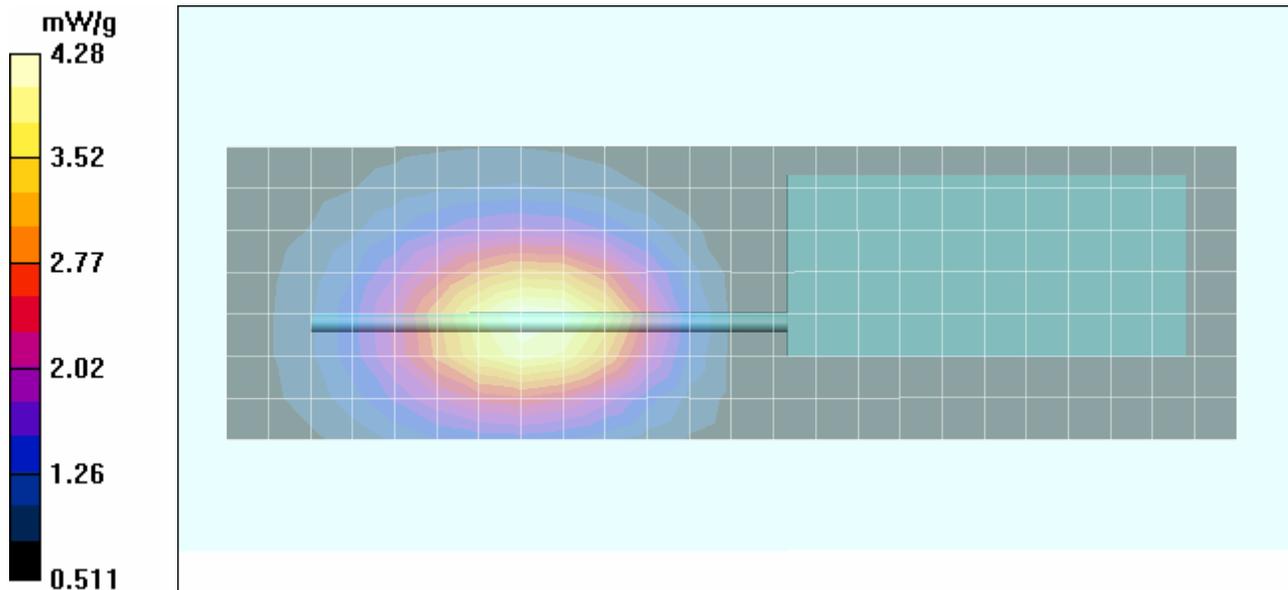
Ambient Temp: 23.8 °C; Fluid Temp: 23.0 °C; Barometric Pressure: 100.9 kPa; Humidity: 30%

Communication System: FM
 Frequency: 815 MHz; Duty Cycle: 1:1
 RF Output Power: 3.2 Watts (Conducted)
 7.5V NiCd High Capacity Battery (P/N: BKB 191 203)
 Medium: MSL815 ($\sigma = 0.96 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$)

- Probe: ET3DV6 - SN1590; ConvF(6.47, 6.47, 6.47); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Body-Worn SAR - 1.1 cm Belt-Clip Separation Distance to Planar Phantom - Mid Channel Area Scan (8x25x1): Measurement grid: dx=15mm, dy=15mm

Body-Worn SAR - 1.1 cm Belt-Clip Separation Distance to Planar Phantom - Mid Channel Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 12.7 V/m; Power Drift = -0.0706 dB
 Peak SAR (extrapolated) = 5.27 W/kg
SAR(1 g) = 4.06 mW/g; SAR(10 g) = 2.93 mW/g



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz					
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Date Tested: 03/21/2006

Body-Worn SAR - 815 MHz - NiCd Extra High Capacity Battery - 1/4-Wave Antenna (P/N: KRE 101 1223/01)

DUT: M/A-COM Model: LPE-200; Type: Portable FM PTT Radio Transceiver (Scan Radio P/N: KRD 103 103/A203); Serial: 9806264

Body-Worn Accessory: Aluminum Belt-Clip (P/N: CC23894); Audio Accessory: Speaker-Microphone (P/N: KRY 101 1617/73)

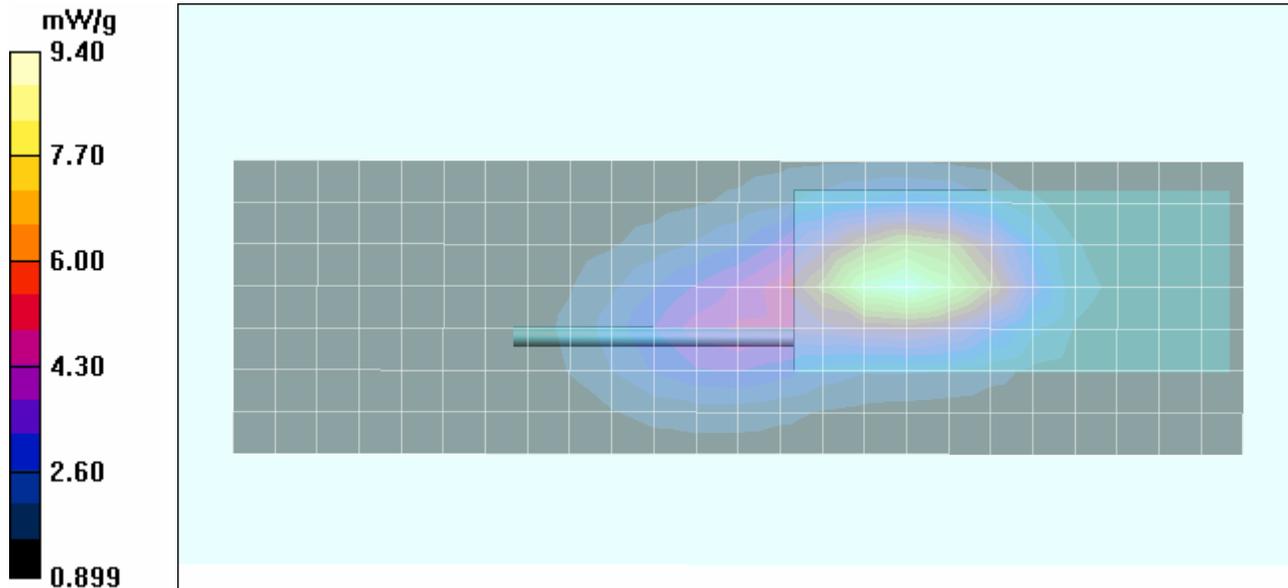
Ambient Temp: 24.0 °C; Fluid Temp: 23.2 °C; Barometric Pressure: 100.9 kPa; Humidity: 30%

Communication System: FM
 Frequency: 815 MHz; Duty Cycle: 1:1
 RF Output Power: 3.2 Watts (Conducted)
 7.5V NiCd Extra High Capacity Battery (P/N: BKB 191 202)
 Medium: MSL815 ($\sigma = 0.94$ mho/m; $\epsilon_r = 55.3$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(6.47, 6.47, 6.47); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Body-Worn SAR - 1.1 cm Belt-Clip Separation Distance to Planar Phantom - Mid Channel Area Scan (8x25x1): Measurement grid: dx=15mm, dy=15mm

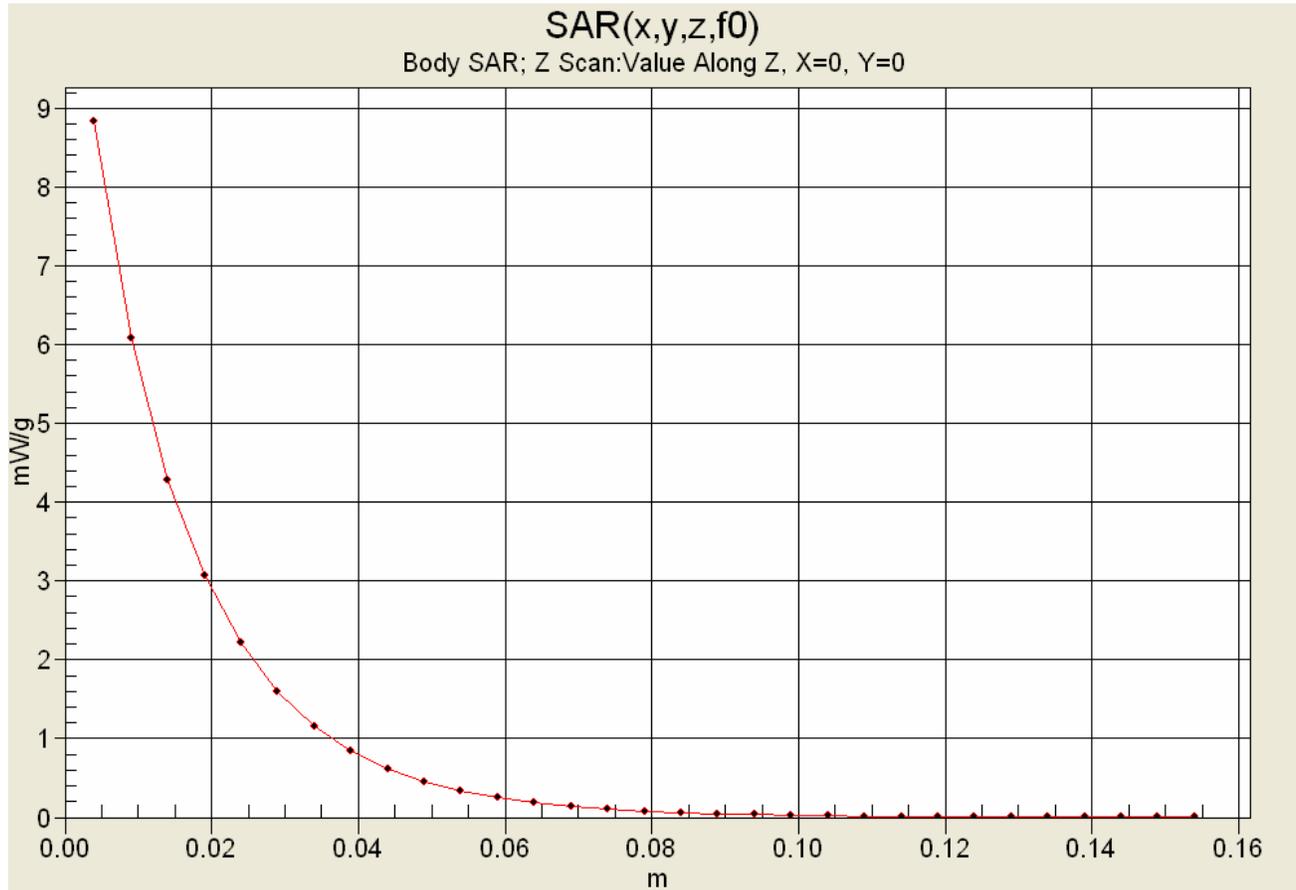
Body-Worn SAR - 1.1 cm Belt-Clip Separation Distance to Planar Phantom - Mid Channel Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 81.3 V/m; Power Drift = -0.724 dB
 Peak SAR (extrapolated) = 13.1 W/kg
SAR(1 g) = 8.81 mW/g; SAR(10 g) = 5.86 mW/g



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Z-Axis Scan



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver	Frequency Range(s):		806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Date Tested: 03/23/2006

Body-Worn SAR - 815 MHz - NiCd High Capacity Battery - 1/4-Wave Antenna (P/N: KRE 101 1223/01)

DUT: M/A-COM Model: LPE-200; Type: Portable FM PTT Radio Transceiver (Scan Radio P/N: KR D 103 103/A203); Serial: 9806264

Body-Worn Accessory: Aluminum Belt-Clip (P/N: CC23894); Audio Accessory: Speaker-Microphone (P/N: KRY 101 1617/73)

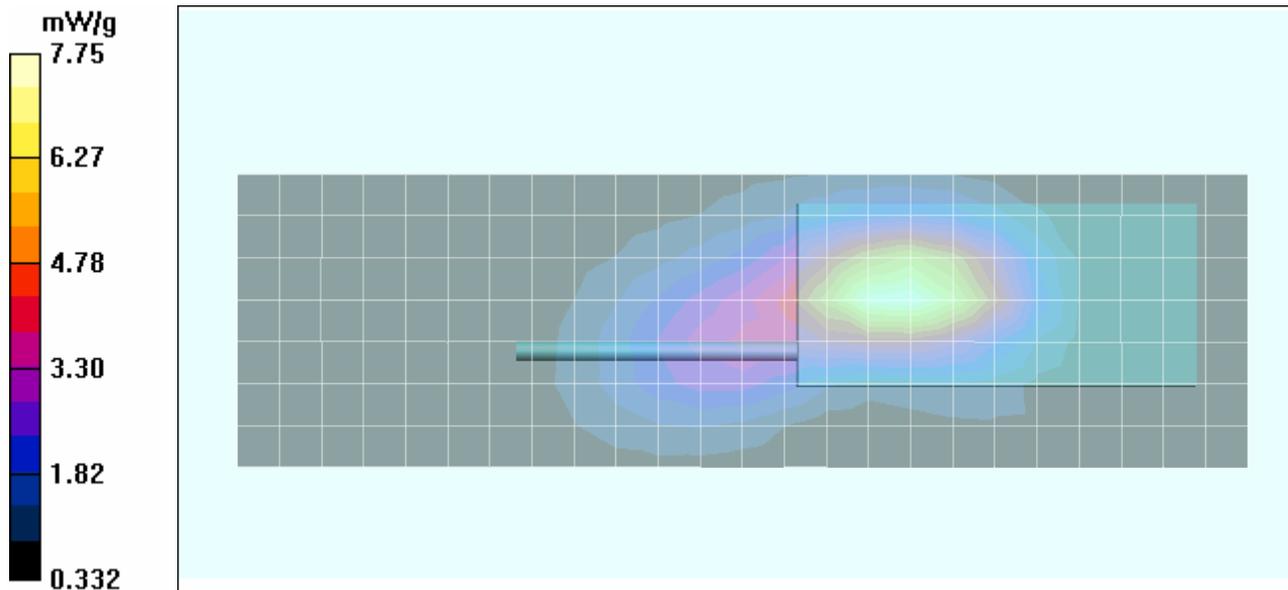
Ambient Temp: 23.8 °C; Fluid Temp: 23.0 °C; Barometric Pressure: 100.9 kPa; Humidity: 30%

Communication System: FM
 Frequency: 815 MHz; Duty Cycle: 1:1
 RF Output Power: 3.2 Watts (Conducted)
 7.5V NiCd High Capacity Battery (P/N: BKB 191 203)
 Medium: MSL815 ($\sigma = 0.96 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$)

- Probe: ET3DV6 - SN1590; ConvF(6.47, 6.47, 6.47); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Body-Worn SAR - 1.1 cm Belt-Clip Separation Distance to Planar Phantom - Mid Channel Area Scan (8x25x1): Measurement grid: dx=15mm, dy=15mm

Body-Worn SAR - 1.1 cm Belt-Clip Separation Distance to Planar Phantom - Mid Channel Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 77.9 V/m; Power Drift = -0.00578 dB
 Peak SAR (extrapolated) = 11.2 W/kg
SAR(1 g) = 6.80 mW/g; SAR(10 g) = 3.76 mW/g



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver	Frequency Range(s):		806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Date Tested: 03/23/2006

Body-Worn SAR - 806 MHz - NiCd Extra High Capacity Battery - 1/4-Wave Antenna (P/N: KRE 101 1223/01)

DUT: M/A-COM Model: LPE-200; Type: Portable FM PTT Radio Transceiver (Scan Radio P/N: KRD 103 103/A203); Serial: 9806264

Body-Worn Accessory: Aluminum Belt-Clip (P/N: CC23894); Audio Accessory: Speaker-Microphone (P/N: KRY 101 1617/73)

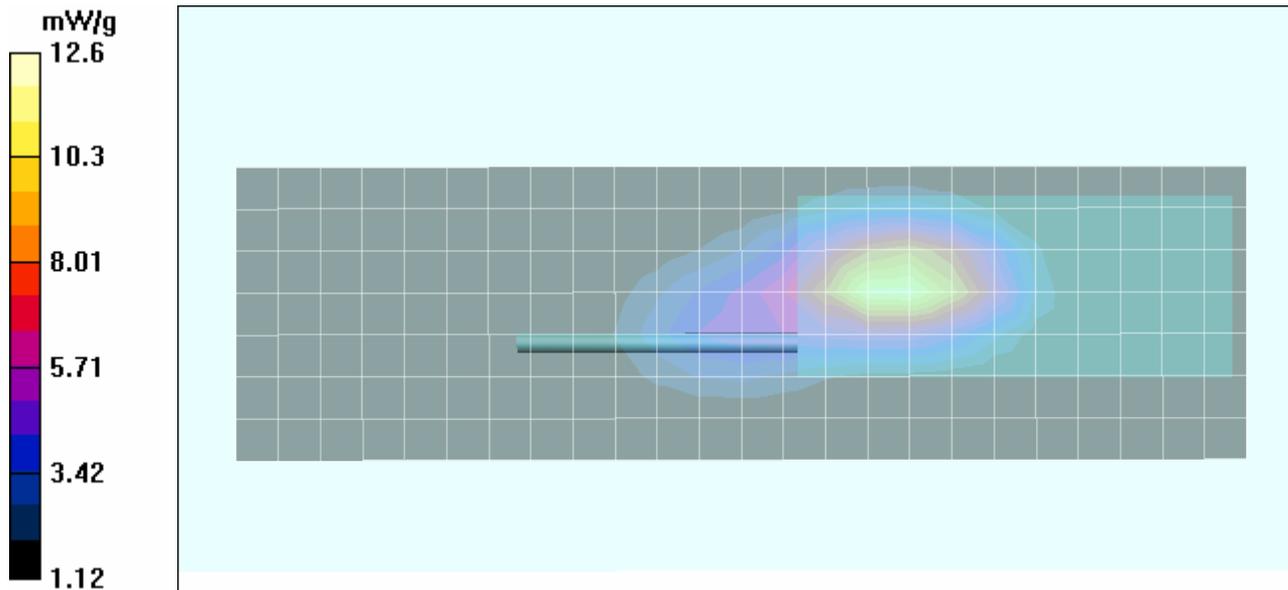
Ambient Temp: 23.8 °C; Fluid Temp: 23.0 °C; Barometric Pressure: 100.9 kPa; Humidity: 30%

Communication System: FM
 Frequency: 806 MHz; Duty Cycle: 1:1
 RF Output Power: 3.3 Watts (Conducted)
 7.5V NiCd Extra High Capacity Battery (P/N: BKB 191 202)
 Medium: MSL815 ($\sigma = 0.96$ mho/m; $\epsilon_r = 54.8$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(6.47, 6.47, 6.47); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Body-Worn SAR - 1.1 cm Belt-Clip Separation Distance to Planar Phantom - Low Channel Area Scan (8x25x1): Measurement grid: dx=15mm, dy=15mm

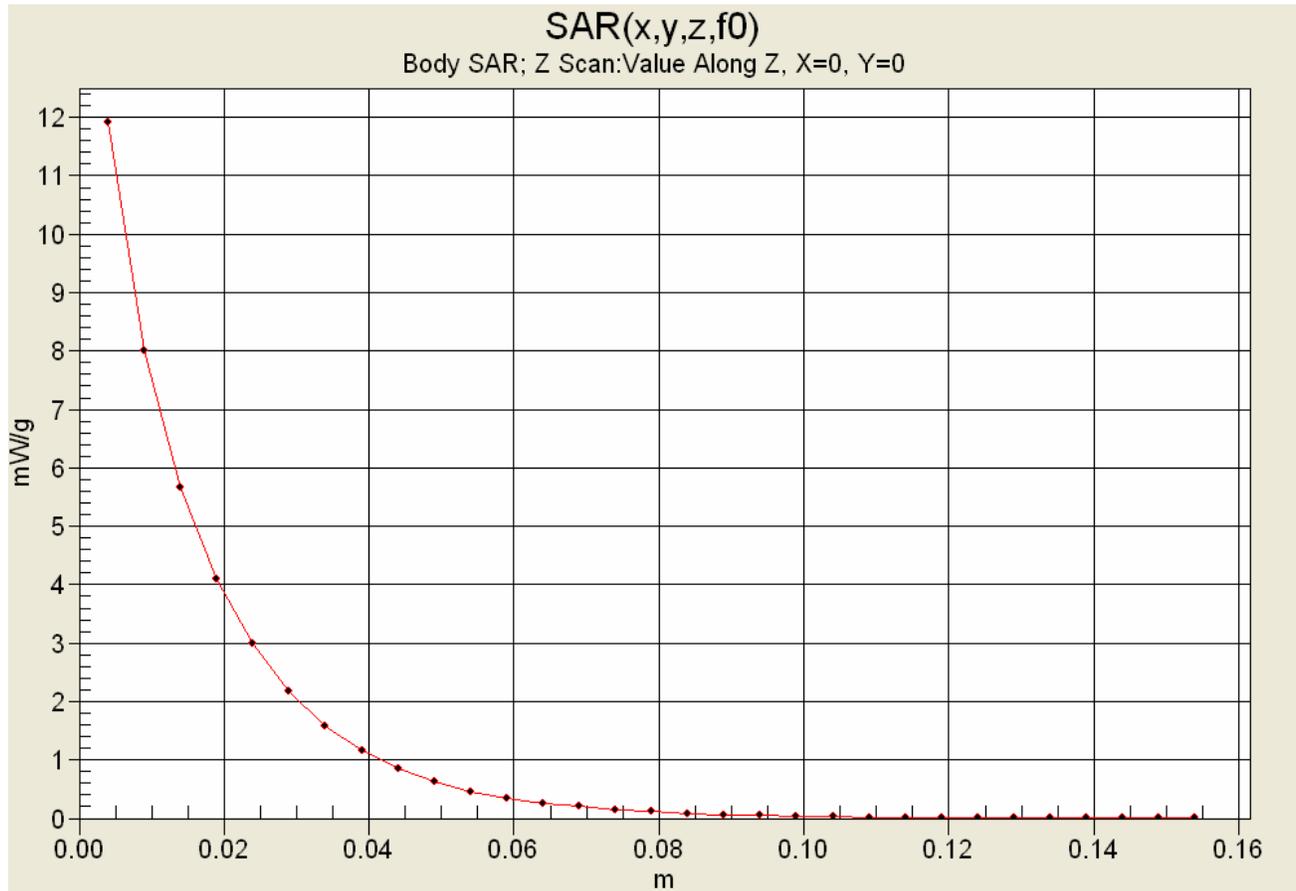
Body-Worn SAR - 1.1 cm Belt-Clip Separation Distance to Planar Phantom - Low Channel Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 91.3 V/m; Power Drift = -0.783 dB
 Peak SAR (extrapolated) = 17.6 W/kg
SAR(1 g) = 11.7 mW/g; SAR(10 g) = 7.79 mW/g



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):		806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Z-Axis Scan

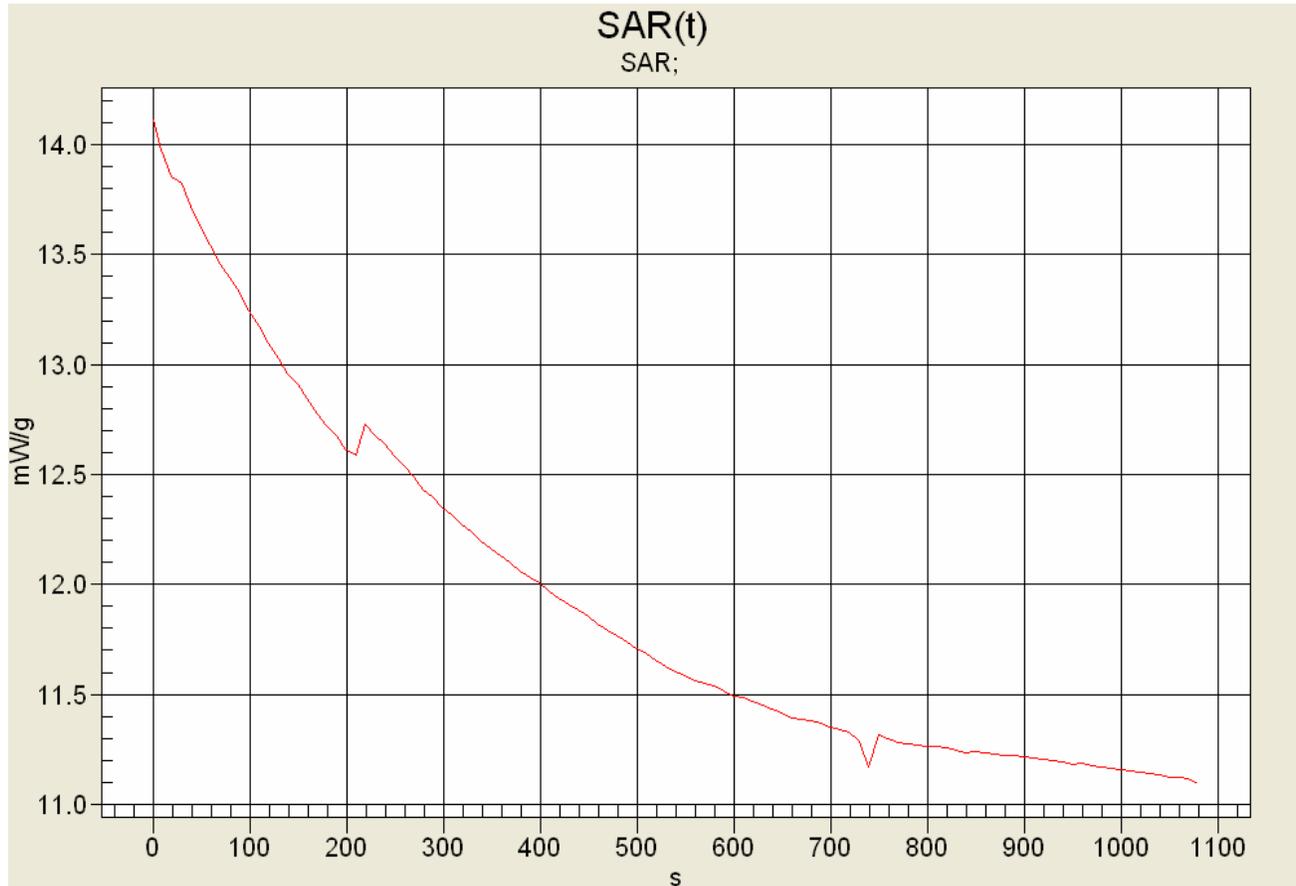


Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver	Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz					
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

SAR-Versus-Time Power Droop Evaluation

Scan Radio (P/N: KRD 103 103/A203)
 Body-Worn Configuration with Belt-Clip & Speaker-Microphone
 NiCd Extra High Capacity Battery (P/N: BKB 191 202)
 ¼-Wave Antenna (PN: KRE 1011223/01)
 806 MHz - Low Channel



Max SAR: 14.1104 mW/g
Low SAR: 11.0946 mW/g (-1.044 dB)
SAR after 340s: 12.1943 mW/g (-0.634 dB)
 (340s = Zoom Scan Duration)
 (1080s = Area Scan Duration)

Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):		806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Date Tested: 03/23/2006

Body-Worn SAR - 824 MHz - NiCd Extra High Capacity Battery - 1/4-Wave Antenna (P/N: KRE 101 1223/01)

DUT: M/A-COM Model: LPE-200; Type: Portable FM PTT Radio Transceiver (Scan Radio P/N: KRD 103 103/A203); Serial: 9806264

Body-Worn Accessory: Aluminum Belt-Clip (P/N: CC23894); Audio Accessory: Speaker-Microphone (P/N: KRY 101 1617/73)

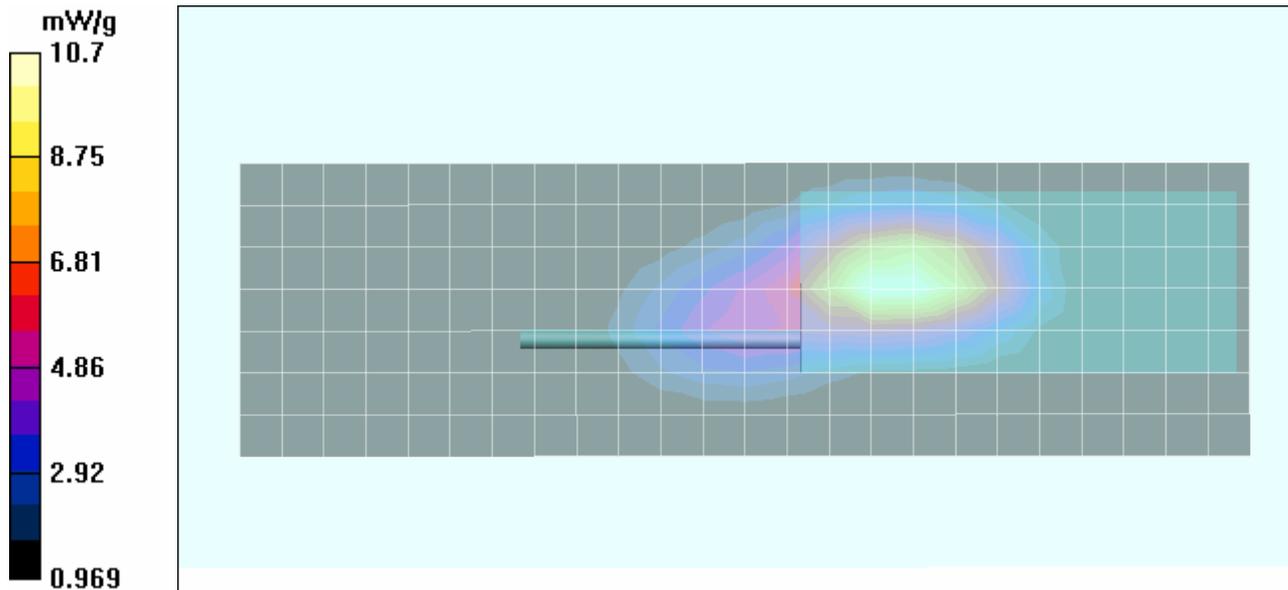
Ambient Temp: 23.8 °C; Fluid Temp: 23.0 °C; Barometric Pressure: 100.9 kPa; Humidity: 30%

Communication System: FM
 Frequency: 824 MHz; Duty Cycle: 1:1
 RF Output Power: 3.2 Watts (Conducted)
 7.5V NiCd Extra High Capacity Battery (P/N: BKB 191 202)
 Medium: MSL815 ($\sigma = 0.96 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$)

- Probe: ET3DV6 - SN1590; ConvF(6.47, 6.47, 6.47); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Body-Worn SAR - 1.1 cm Belt-Clip Separation Distance to Planar Phantom - High Channel Area Scan (8x25x1): Measurement grid: dx=15mm, dy=15mm

Body-Worn SAR - 1.1 cm Belt-Clip Separation Distance to Planar Phantom - High Channel Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 89.4 V/m; Power Drift = -0.893 dB
 Peak SAR (extrapolated) = 15.0 W/kg
SAR(1 g) = 9.93 mW/g; SAR(10 g) = 6.63 mW/g



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):		806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Date Tested: 03/23/2006

Body-Worn SAR - 815 MHz - NiCd Extra High Capacity Battery - 1/2-Wave Antenna (P/N: KRE 101 1506/1)

DUT: M/A-COM Model: LPE-200; Type: Scan Radio with FM PTT Speaker-Microphone Antenna Version (P/N: KRY 101 1617/74)

Body-Worn Accessory: Lapel-Clip; Audio Accessory: None

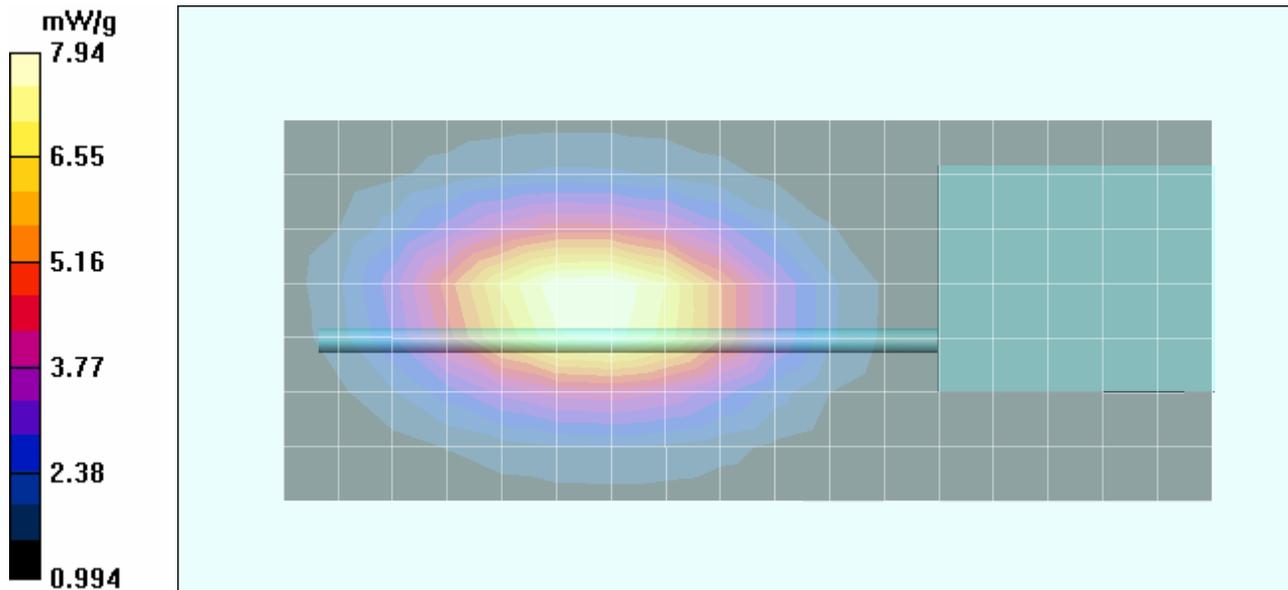
Ambient Temp: 23.8 °C; Fluid Temp: 23.0 °C; Barometric Pressure: 100.9 kPa; Humidity: 30%

Communication System: FM
 Frequency: 815 MHz; Duty Cycle: 1:1
 RF Output Power: 3.2 Watts (Conducted)
 7.5V NiCd Extra High Capacity Battery (P/N: BKB 191 202)
 Medium: MSL815 ($\sigma = 0.96 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$)

- Probe: ET3DV6 - SN1590; ConvF(6.47, 6.47, 6.47); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Body-Worn SAR - 1.5 cm Lapel-Clip Separation Distance to Planar Phantom - Mid Channel Area Scan (8x18x1): Measurement grid: dx=15mm, dy=15mm

Body-Worn SAR - 1.5 cm Lapel-Clip Separation Distance to Planar Phantom - Mid Channel Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 18.5 V/m; Power Drift = -0.0197 dB
 Peak SAR (extrapolated) = 9.98 W/kg
SAR(1 g) = 7.43 mW/g; SAR(10 g) = 5.2 mW/g



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):		806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Date Tested: 03/23/2006

Body-Worn SAR - 815 MHz - NiCd High Capacity Battery - 1/2-Wave Antenna (P/N: KRE 101 1506/1)

DUT: M/A-COM Model: LPE-200; Type: Scan Radio with FM PTT Speaker-Microphone Antenna Version (P/N: KRY 101 1617/74)

Body-Worn Accessory: Lapel-Clip; Audio Accessory: None

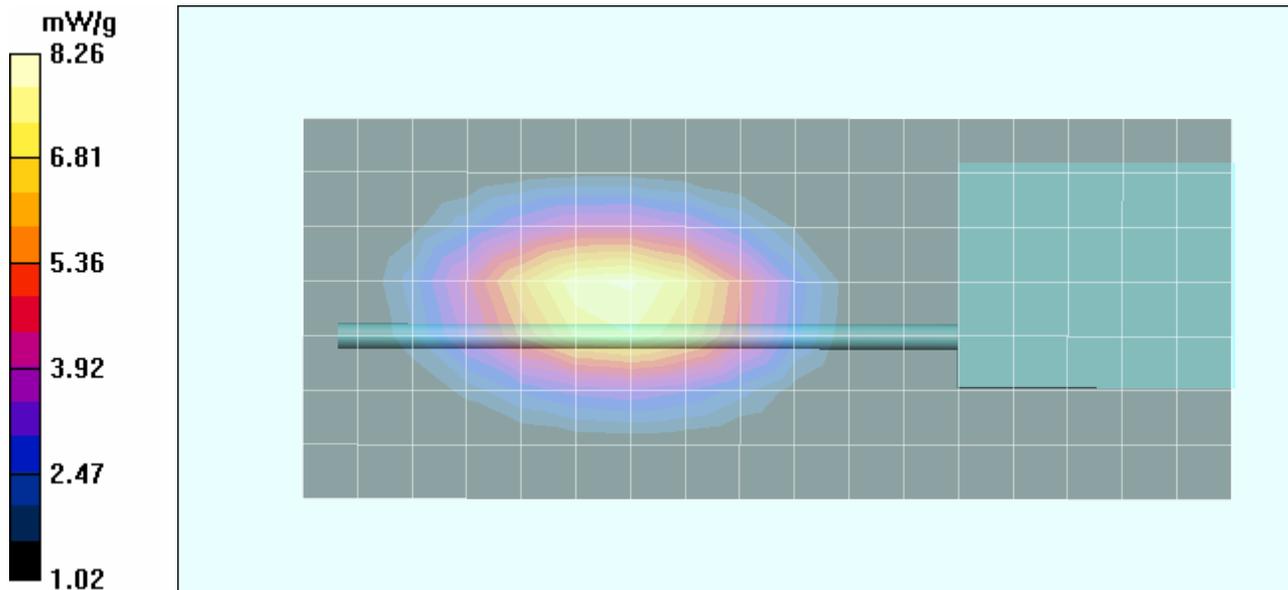
Ambient Temp: 23.8 °C; Fluid Temp: 23.0 °C; Barometric Pressure: 100.9 kPa; Humidity: 30%

Communication System: FM
 Frequency: 815 MHz; Duty Cycle: 1:1
 RF Output Power: 3.2 Watts (Conducted)
 7.5V NiCd High Capacity Battery (P/N: BKB 191 203)
 Medium: MSL815 ($\sigma = 0.96$ mho/m; $\epsilon_r = 54.8$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(6.47, 6.47, 6.47); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Body-Worn SAR - 1.5 cm Lapel-Clip Separation Distance to Planar Phantom - Mid Channel Area Scan (8x18x1): Measurement grid: dx=15mm, dy=15mm

Body-Worn SAR - 1.5 cm Lapel-Clip Separation Distance to Planar Phantom - Mid Channel Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 19.0 V/m; Power Drift = 0.0571 dB
 Peak SAR (extrapolated) = 10.4 W/kg
SAR(1 g) = 7.71 mW/g; SAR(10 g) = 5.37 mW/g



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Date Tested: 03/23/2006

Body-Worn SAR - 815 MHz - NiCd Extra High Capacity Battery - 1/4-Wave Antenna (P/N: KRE 101 1223/01)

DUT: M/A-COM Model: LPE-200; Type: Scan Radio with FM PTT Speaker-Microphone Antenna Version (P/N: KRY 101 1617/74)

Body-Worn Accessory: Lapel-Clip; Audio Accessory: None

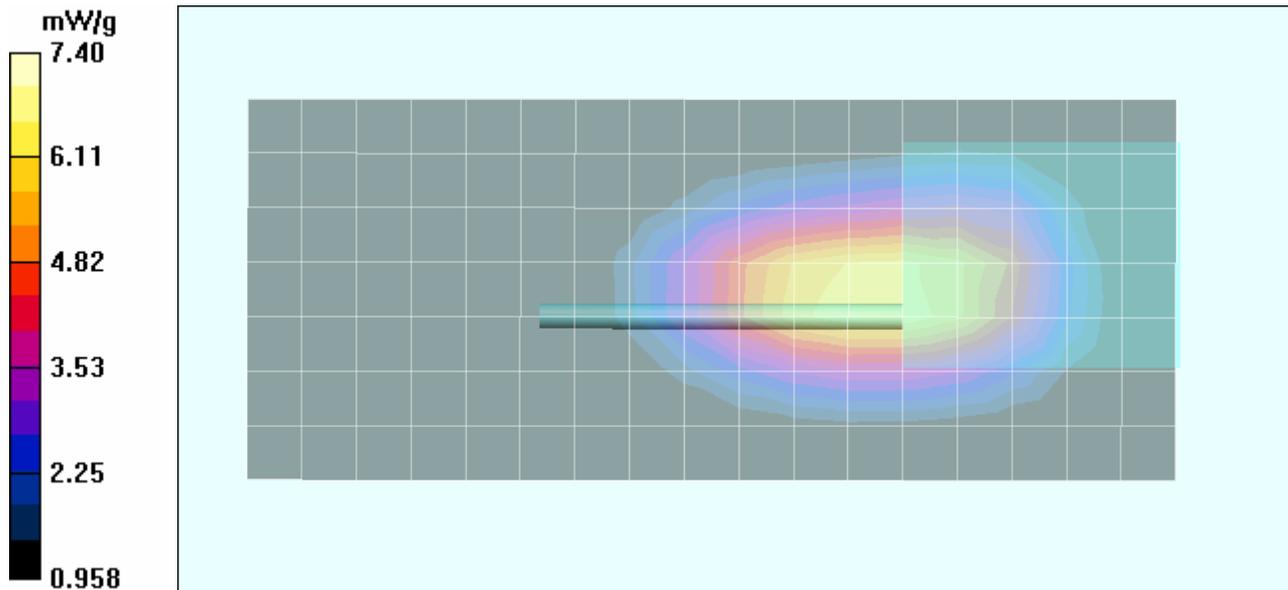
Ambient Temp: 23.8 °C; Fluid Temp: 23.0 °C; Barometric Pressure: 100.9 kPa; Humidity: 30%

Communication System: FM
 Frequency: 815 MHz; Duty Cycle: 1:1
 RF Output Power: 3.2 Watts (Conducted)
 7.5V NiCd Extra High Capacity Battery (P/N: BKB 191 202)
 Medium: MSL815 ($\sigma = 0.96 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$)

- Probe: ET3DV6 - SN1590; ConvF(6.47, 6.47, 6.47); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASy4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Body-Worn SAR - 1.5 cm Lapel-Clip Separation Distance to Planar Phantom - Mid Channel Area Scan (8x18x1): Measurement grid: dx=15mm, dy=15mm

Body-Worn SAR - 1.5 cm Lapel-Clip Separation Distance to Planar Phantom - Mid Channel Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 86.4 V/m; Power Drift = -0.455 dB
 Peak SAR (extrapolated) = 9.23 W/kg
SAR(1 g) = 6.92 mW/g; SAR(10 g) = 4.89 mW/g



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):		806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093 IC RSS-102 Issue 2

Date Tested: 03/23/2006

Body-Worn SAR - 815 MHz - NiCd High Capacity Battery - 1/4-Wave Antenna (P/N: KRE 101 1223/01)

DUT: M/A-COM Model: LPE-200; Type: Scan Radio with FM PTT Speaker-Microphone Antenna Version (P/N: KRY 101 1617/74)

Body-Worn Accessory: Lapel-Clip; Audio Accessory: None

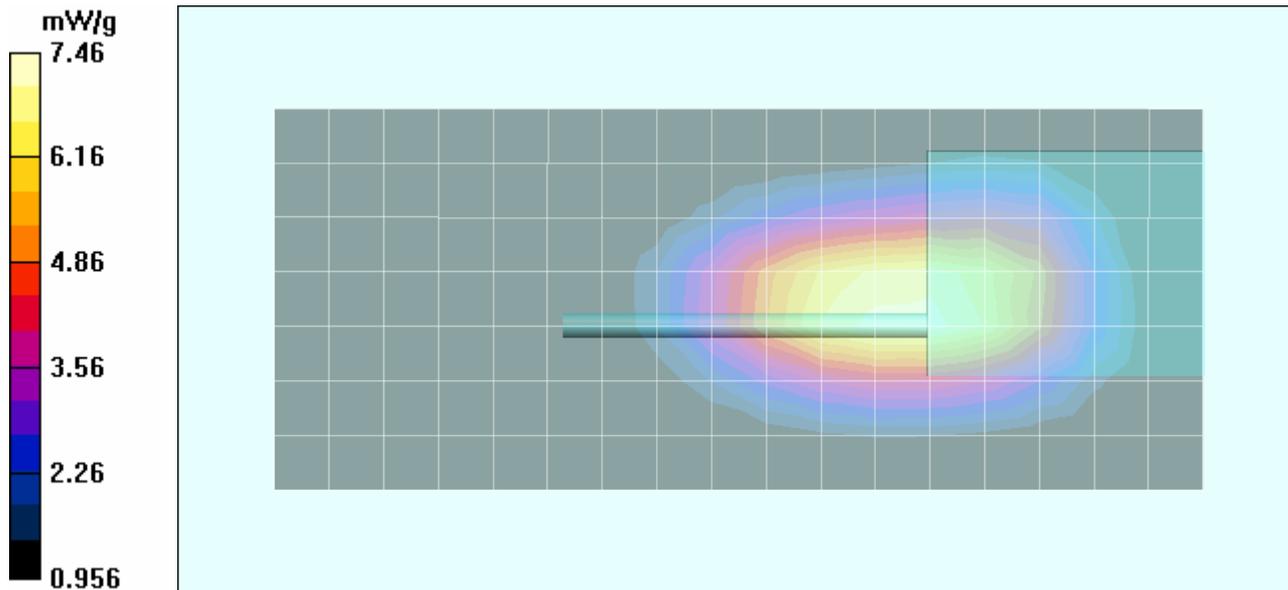
Ambient Temp: 23.8 °C; Fluid Temp: 23.0 °C; Barometric Pressure: 100.9 kPa; Humidity: 30%

Communication System: FM
 Frequency: 815 MHz; Duty Cycle: 1:1
 RF Output Power: 3.2 Watts (Conducted)
 7.5V NiCd High Capacity Battery (P/N: BKB 191 203)
 Medium: MSL815 ($\sigma = 0.96 \text{ mho/m}$; $\epsilon_r = 54.8$; $\rho = 1000 \text{ kg/m}^3$)

- Probe: ET3DV6 - SN1590; ConvF(6.47, 6.47, 6.47); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Body-Worn SAR - 1.5 cm Lapel-Clip Separation Distance to Planar Phantom - Mid Channel Area Scan (8x18x1): Measurement grid: dx=15mm, dy=15mm

Body-Worn SAR - 1.5 cm Lapel-Clip Separation Distance to Planar Phantom - Mid Channel Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 86.6 V/m; Power Drift = -0.509 dB
 Peak SAR (extrapolated) = 9.31 W/kg
SAR(1 g) = 6.94 mW/g; SAR(10 g) = 4.89 mW/g



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz					
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Date Tested: 03/28/2006

Body-Worn SAR - 806 MHz - NiCd Extra High Capacity Battery - 1/4-Wave Antenna (P/N: KRE 101 1223/01)

DUT: M/A-COM Model: LPE-200; Type: Portable FM PTT Radio Transceiver (System Radio P/N: KRD 103 103/A204); Serial: 9794057

Body-Worn Accessory: Aluminum Belt-Clip (P/N: CC23894); Audio Accessory: Speaker-Microphone (P/N: KRY 101 1617/73)

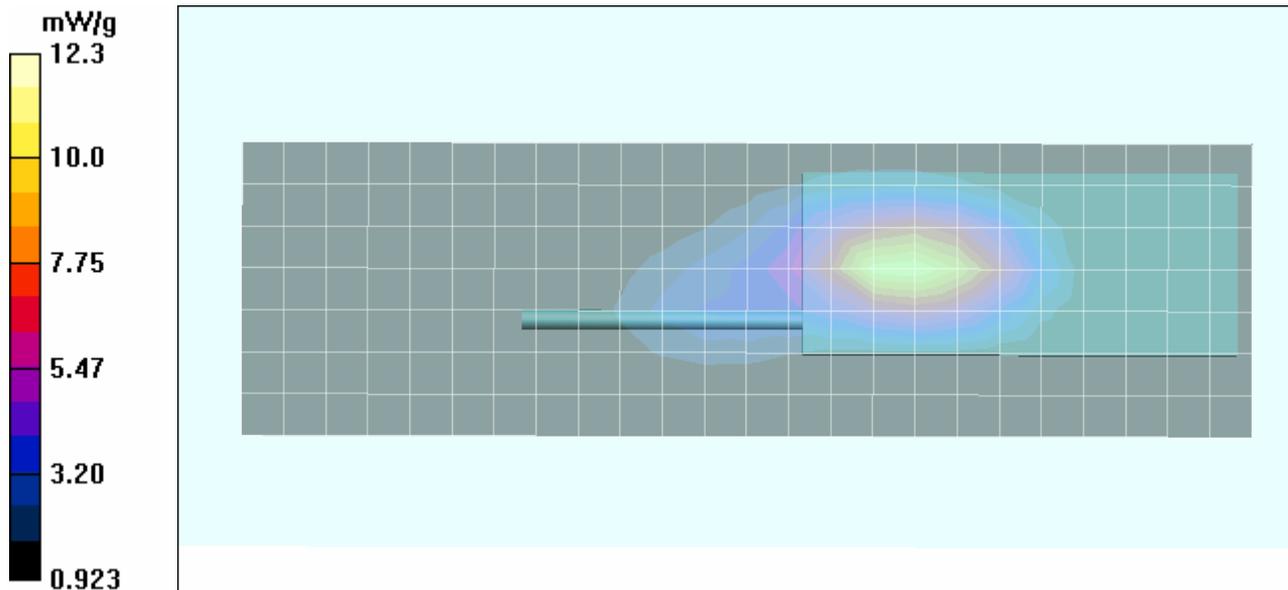
Ambient Temp: 23.9 °C; Fluid Temp: 22.9 °C; Barometric Pressure: 101.9 kPa; Humidity: 30%

Communication System: FM
 Frequency: 806 MHz; Duty Cycle: 1:1
 RF Output Power: 3.3 Watts (Conducted)
 7.5V NiCd Extra High Capacity Battery (P/N: BKB 191 202)
 Medium: MSL815 ($\sigma = 0.93 \text{ mho/m}$; $\epsilon_r = 54.7$; $\rho = 1000 \text{ kg/m}^3$)

- Probe: ET3DV6 - SN1590; ConvF(6.47, 6.47, 6.47); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

Body-Worn SAR - 1.1 cm Belt-Clip Separation Distance to Planar Phantom - Low Channel Area Scan (8x25x1): Measurement grid: dx=15mm, dy=15mm

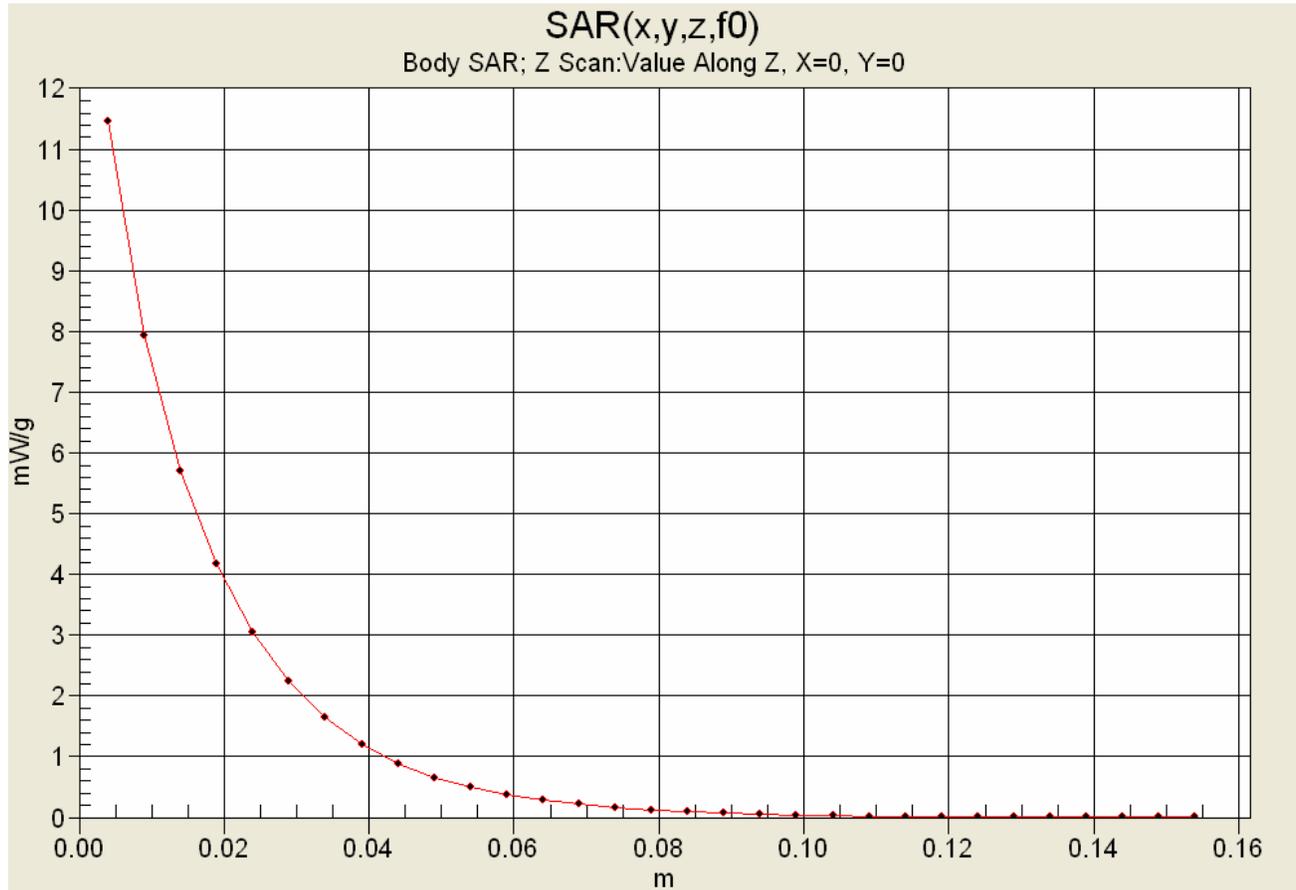
Body-Worn SAR - 1.1 cm Belt-Clip Separation Distance to Planar Phantom - Low Channel Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 79.6 V/m; Power Drift = -0.717 dB
 Peak SAR (extrapolated) = 16.9 W/kg
SAR(1 g) = 11.7 mW/g; SAR(10 g) = 7.59 mW/g



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):		806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

Z-Axis Scan



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver	Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz					
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Date Tested: 03/28/2006

Body-Worn SAR - 806 MHz - NiCd Extra High Capacity Battery - 1/4-Wave Antenna (P/N: KRE 101 1223/01)

DUT: M/A-COM Model: LPE-200; Type: Portable FM PTT Radio Transceiver (System Radio P/N: KRD 103 103/A204); Serial: 9794057

Body-Worn Accessory: Aluminum Belt-Clip (P/N: CC23894); Audio Accessory: Over-the-Head Headset (P/N: OT-V4-10073)

Ambient Temp: 23.9 °C; Fluid Temp: 22.9 °C; Barometric Pressure: 101.9 kPa; Humidity: 30%

Communication System: FM

Frequency: 806 MHz; Duty Cycle: 1:1

RF Output Power: 3.3 Watts (Conducted)

7.5V NiCd Extra High Capacity Battery (P/N: BKB 191 202)

Medium: MSL815 ($\sigma = 0.93$ mho/m; $\epsilon_r = 54.7$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(6.47, 6.47, 6.47); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: Side Planar; Type: Plexiglas; Serial: 161
- Measurement SW: DASy4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

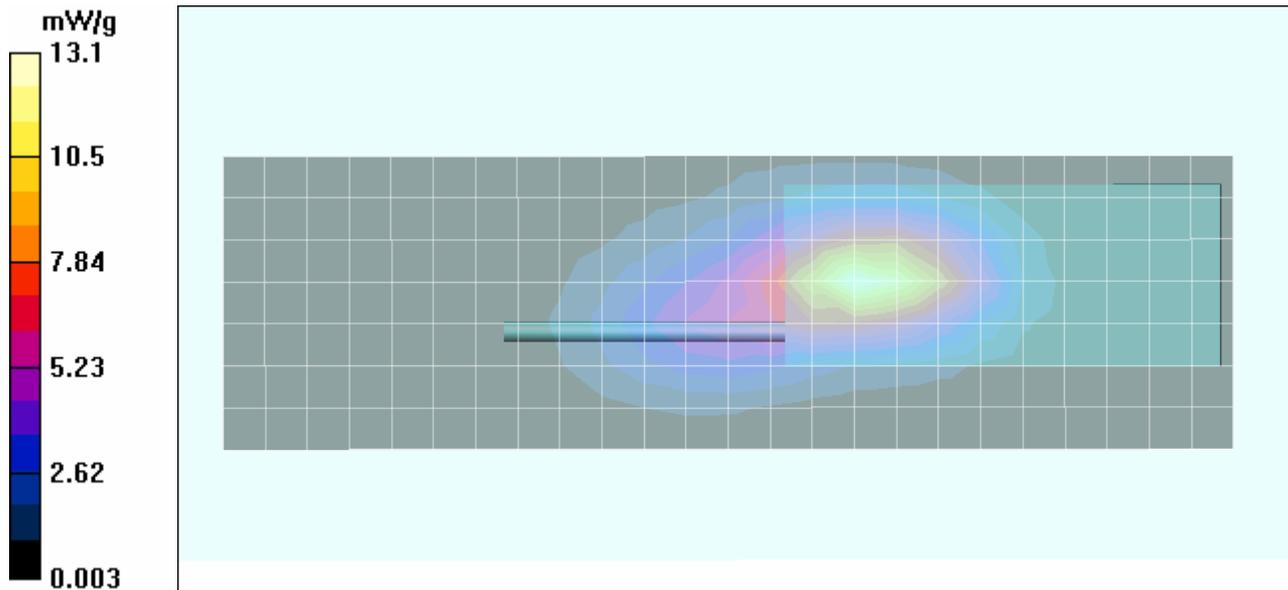
Body-Worn SAR - 1.1 cm Belt-Clip Separation Distance to Planar Phantom - Low Channel Area Scan (8x25x1): Measurement grid: dx=15mm, dy=15mm

Body-Worn SAR - 1.1 cm Belt-Clip Separation Distance to Planar Phantom - Low Channel Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 83.0 V/m; Power Drift = -0.697 dB

Peak SAR (extrapolated) = 15.3 W/kg

SAR(1 g) = 10.0 mW/g; SAR(10 g) = 6.66 mW/g



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):		806 - 824 MHz / 851 - 869 MHz			
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

APPENDIX B - SYSTEM PERFORMANCE CHECK DATA

Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093 IC RSS-102 Issue 2

Date Time: 03/21/2006

System Performance Check (Body) - 835 MHz Dipole

DUT: Dipole 835 MHz; Body: D835V2; Type: System Performance Check; Serial: 411; Calibrated: 04/12/2005

Ambient Temp: 23.1 °C; Fluid Temp: 23.0 °C; Barometric Pressure: 100.9 kPa; Humidity: 30%

Communication System: CW
 Forward Conducted Power: 250 mW
 Frequency: 835 MHz; Duty Cycle: 1:1
 Medium: M835 ($\sigma = 0.95$ mho/m; $\epsilon_r = 55.3$; $\rho = 1000$ kg/m³)

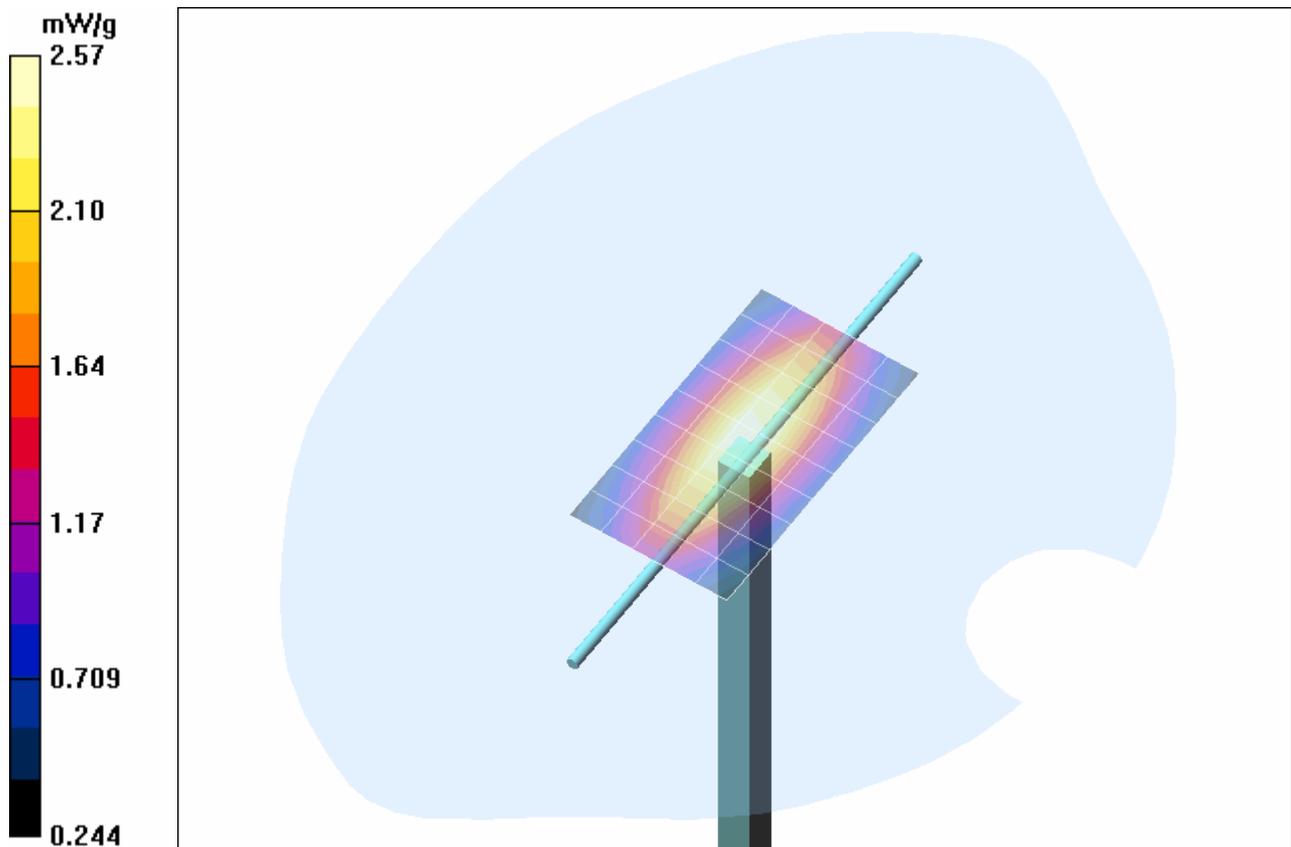
- Probe: ET3DV6 - SN1590; ConvF(6.47, 6.47, 6.47); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: SAM 4.0; Type: Fiberglas; Serial: 1033
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

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

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

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

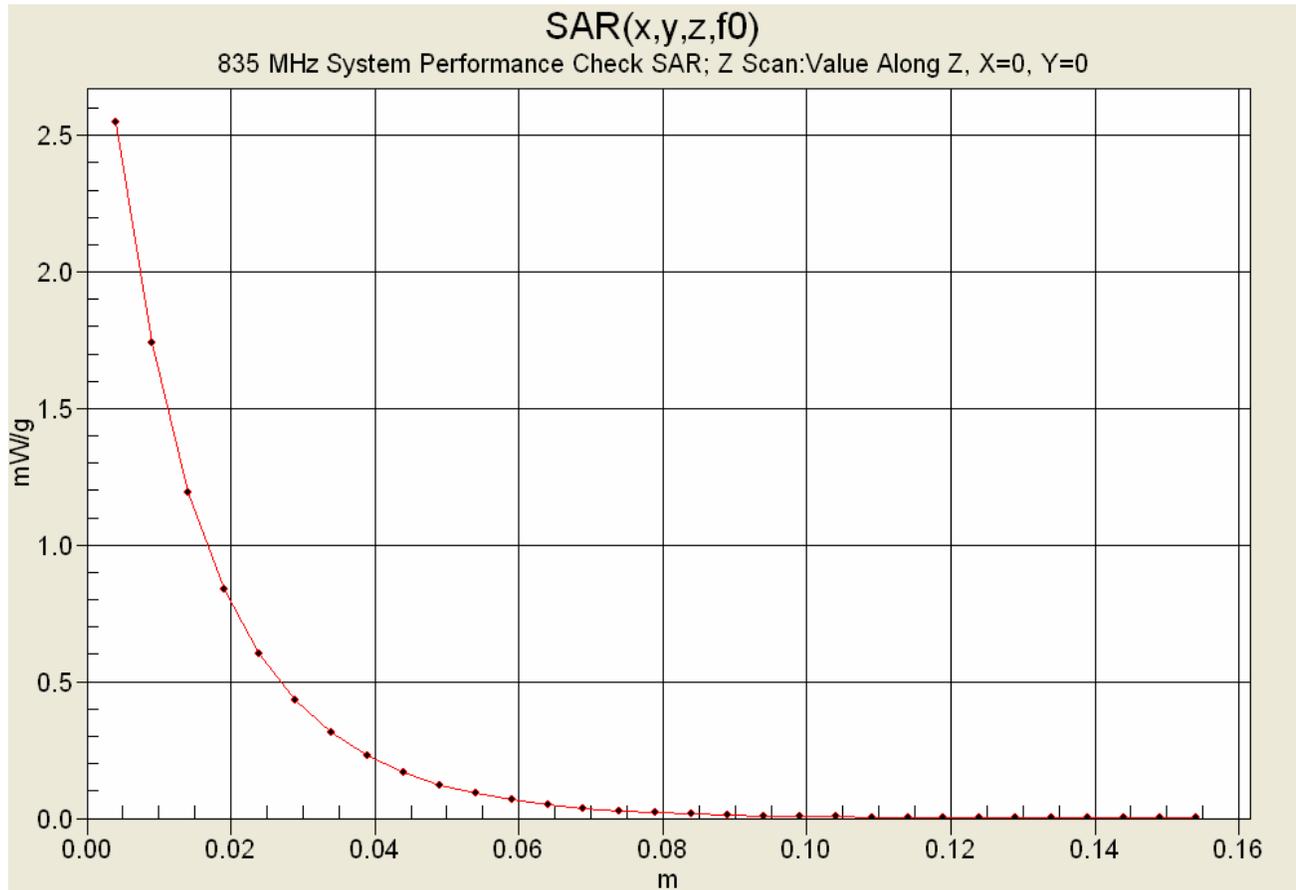
Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Reference Value = 53.7 V/m; Power Drift = -0.049 dB
 Peak SAR (extrapolated) = 3.45 W/kg
SAR(1 g) = 2.39 mW/g; SAR(10 g) = 1.57 mW/g



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz					
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Z-Axis Scan



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver	Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz					
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093 IC RSS-102 Issue 2

Date Tested: 03/23/2006

System Performance Check (Brain) - 835 MHz Dipole

DUT: Dipole 835 MHz; Model: D835V2; Type: System Performance Check; Serial: 411; Calibrated: 03/30/2005

Ambient Temp: 21.5 °C; Fluid Temp: 23.5 °C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: CW

Forward Conducted Power: 250 mW

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL835 ($\sigma = 0.88$ mho/m; $\epsilon_r = 39.7$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(6.67, 6.67, 6.67); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: SAM 4.0; Type: Fiberglas; Serial: 1033
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

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

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

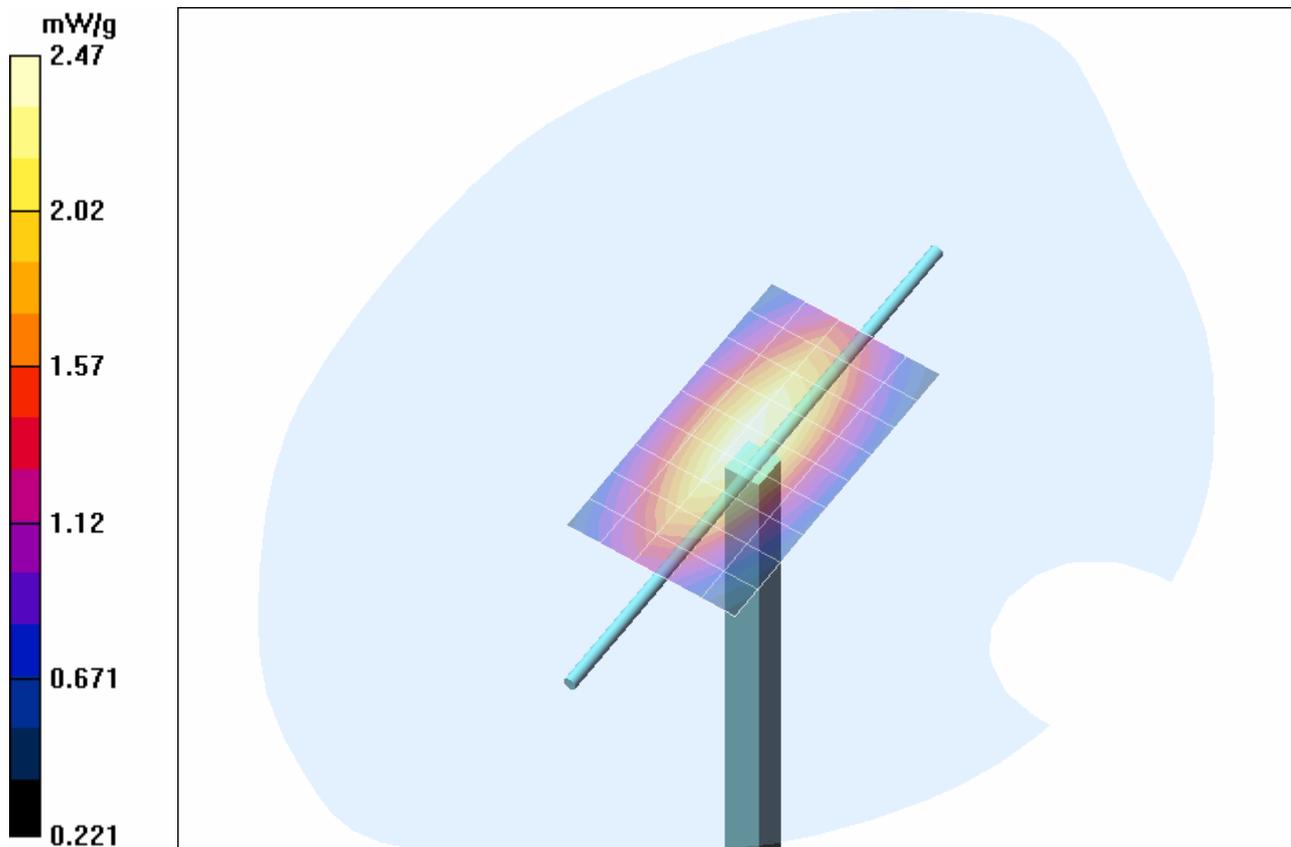
835 MHz Dipole - System Performance Check/Zoom Scan (7x7x7)/Cube 0:

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

Reference Value = 54.3 V/m; Power Drift = -0.050 dB

Peak SAR (extrapolated) = 3.36 W/kg

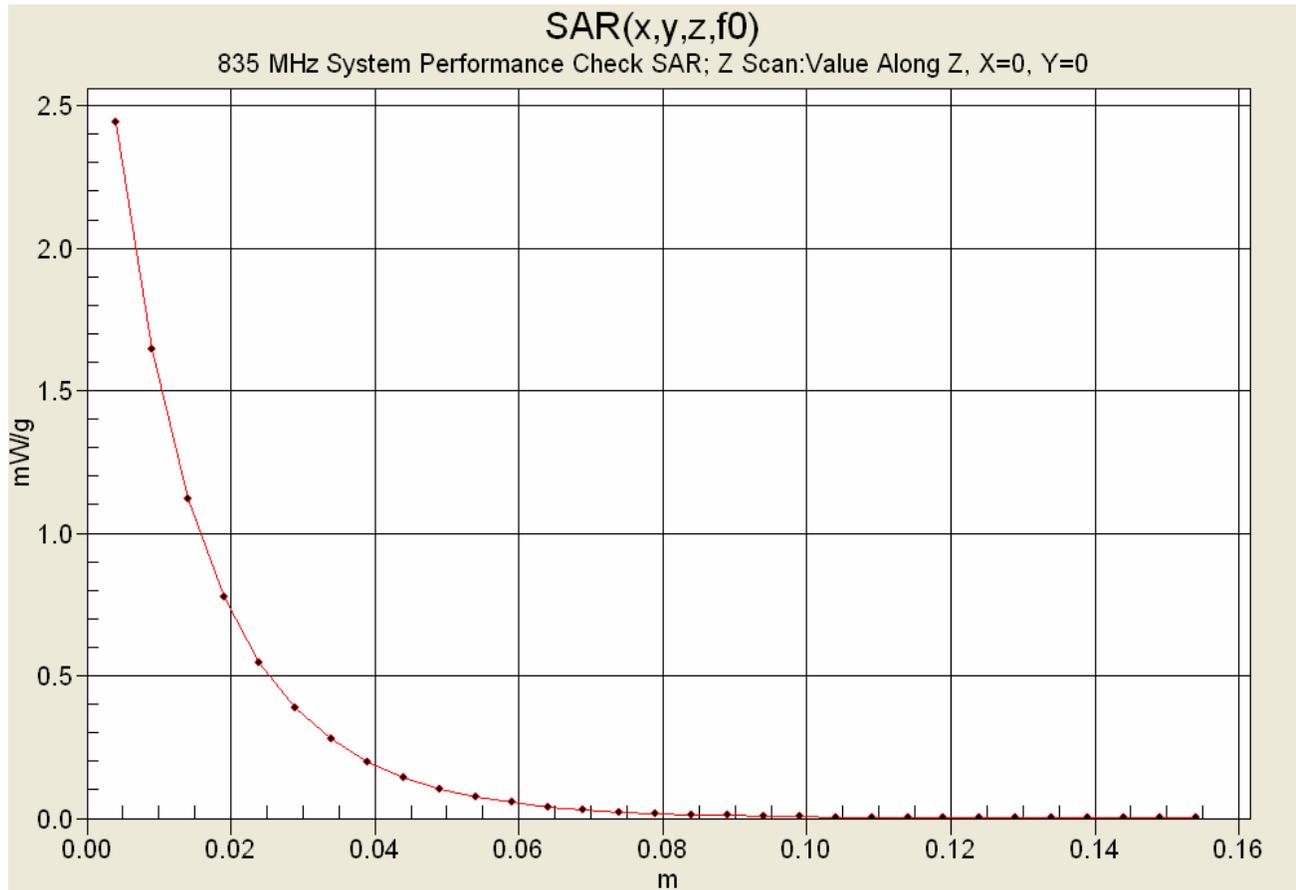
SAR(1 g) = 2.28 mW/g; SAR(10 g) = 1.49 mW/g



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

Z-Axis Scan



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver	Frequency Range(s):		806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Date Tested: 03/24/2006

System Performance Check (Brain) - 835 MHz Dipole

DUT: Dipole 835 MHz; Model: D835V2; Type: System Performance Check; Serial: 411; Calibrated: 03/30/2005

Ambient Temp: 23.3 °C; Fluid Temp: 21.8 °C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: CW

Forward Conducted Power: 250 mW

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL835 ($\sigma = 0.87$ mho/m; $\epsilon_r = 39.5$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(6.67, 6.67, 6.67); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: SAM 4.0; Type: Fiberglass; Serial: 1033
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

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

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

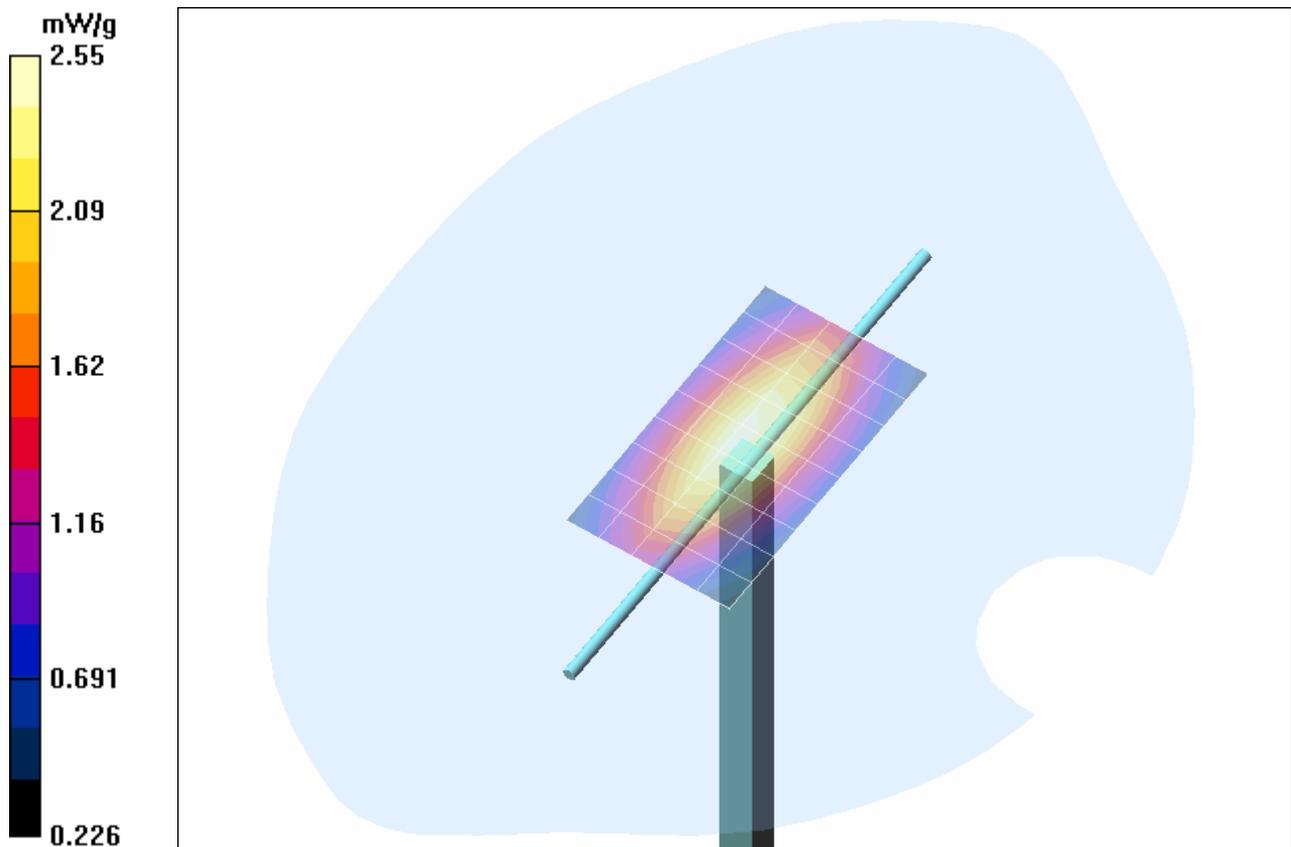
835 MHz Dipole - System Performance Check/Zoom Scan (7x7x7)/Cube 0:

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

Reference Value = 55.5 V/m; Power Drift = -0.023 dB

Peak SAR (extrapolated) = 3.55 W/kg

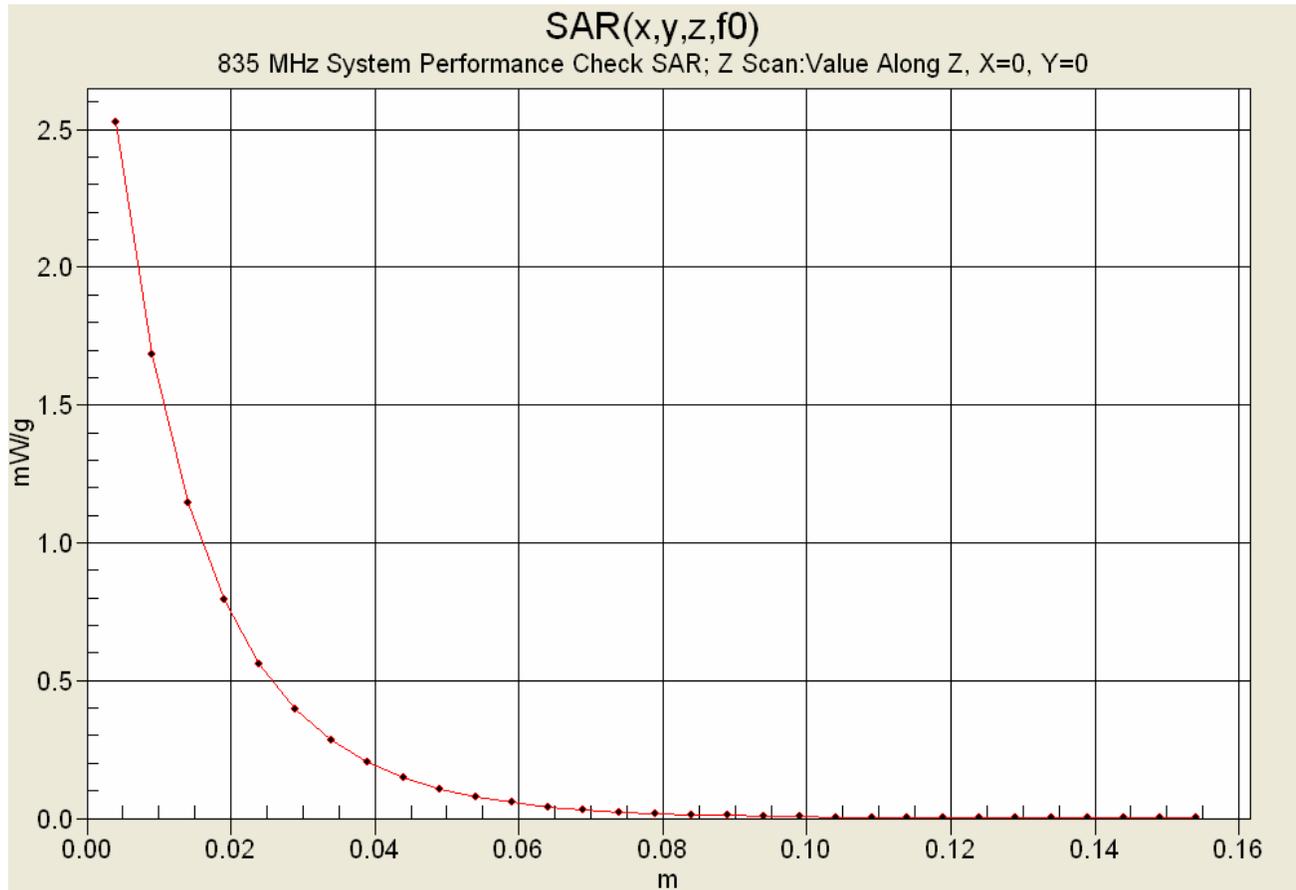
SAR(1 g) = 2.37 mW/g; SAR(10 g) = 1.54 mW/g



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver	Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz						
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Z-Axis Scan



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver	Frequency Range(s):		806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Date Tested: 03/27/2006

System Performance Check (Body) - 835 MHz Dipole

DUT: Dipole 835 MHz; Model: D835V2; Type: System Performance Check; Serial: 411; Calibrated: 04/12/2005

Ambient Temp: 22.6 °C; Fluid Temp: 20.6 °C; Barometric Pressure: 101.8 kPa; Humidity: 30%

Communication System: CW
 Forward Conducted Power: 250 mW
 Frequency: 835 MHz; Duty Cycle: 1:1
 Medium: M835 ($\sigma = 0.94$ mho/m; $\epsilon_r = 53.7$; $\rho = 1000$ kg/m³)

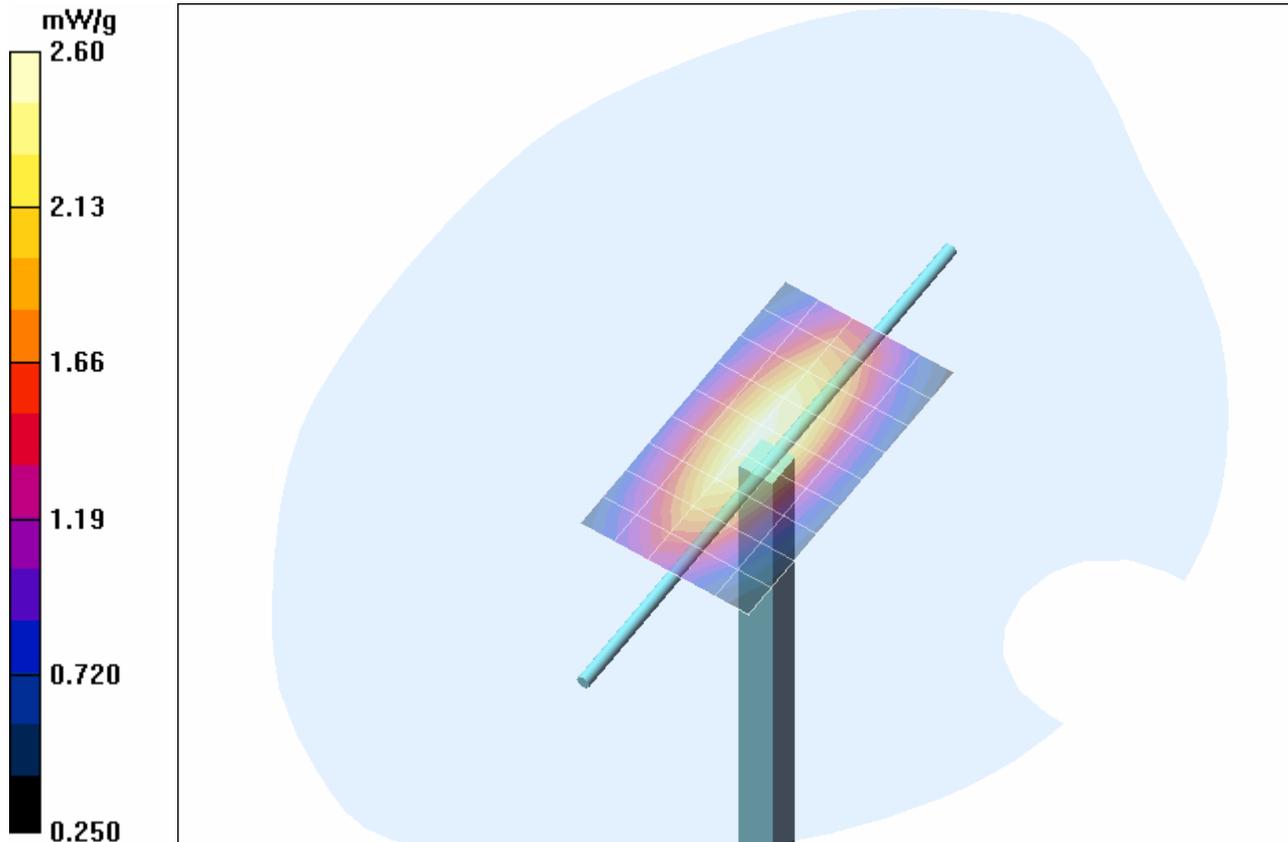
- Probe: ET3DV6 - SN1590; ConvF(6.47, 6.47, 6.47); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: SAM 4.0; Type: Fiberglass; Serial: 1033
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

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

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

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

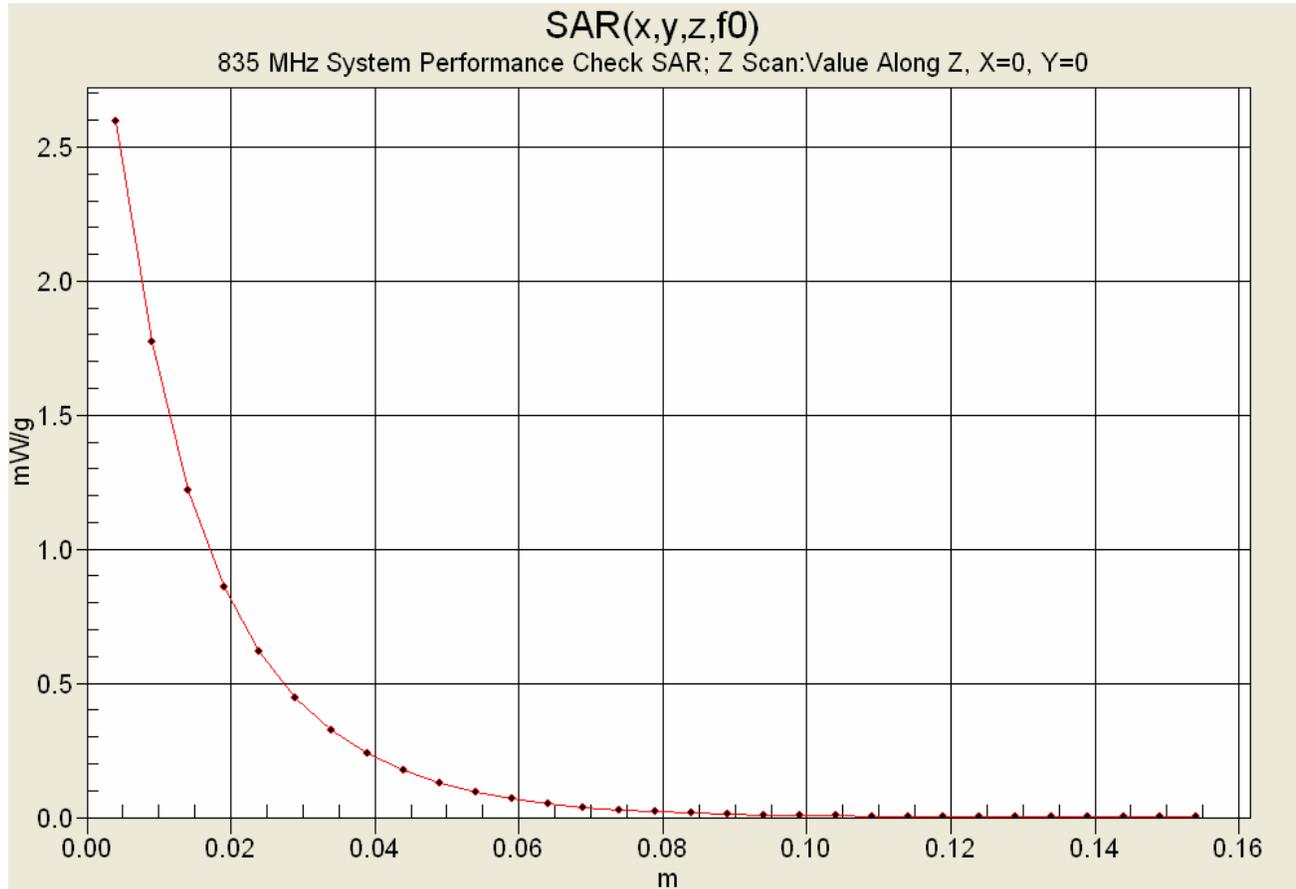
Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Reference Value = 54.3 V/m; Power Drift = -0.053 dB
 Peak SAR (extrapolated) = 3.50 W/kg
SAR(1 g) = 2.40 mW/g; SAR(10 g) = 1.58 mW/g



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz					
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Z-Axis Scan



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver	Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz					
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093 IC RSS-102 Issue 2

Date Tested: 03/28/2006

System Performance Check (Brain) - 835 MHz Dipole

DUT: Dipole 835 MHz; Model: D835V2; Type: System Performance Check; Serial: 411; Calibrated: 03/30/2005

Ambient Temp: 22.6 °C; Fluid Temp: 20.8 °C; Barometric Pressure: 101.8 kPa; Humidity: 30%

Communication System: CW

Forward Conducted Power: 250 mW

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL835 ($\sigma = 0.91$ mho/m; $\epsilon_r = 42.1$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(6.67, 6.67, 6.67); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: SAM 4.0; Type: Fiberglass; Serial: 1033
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

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

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

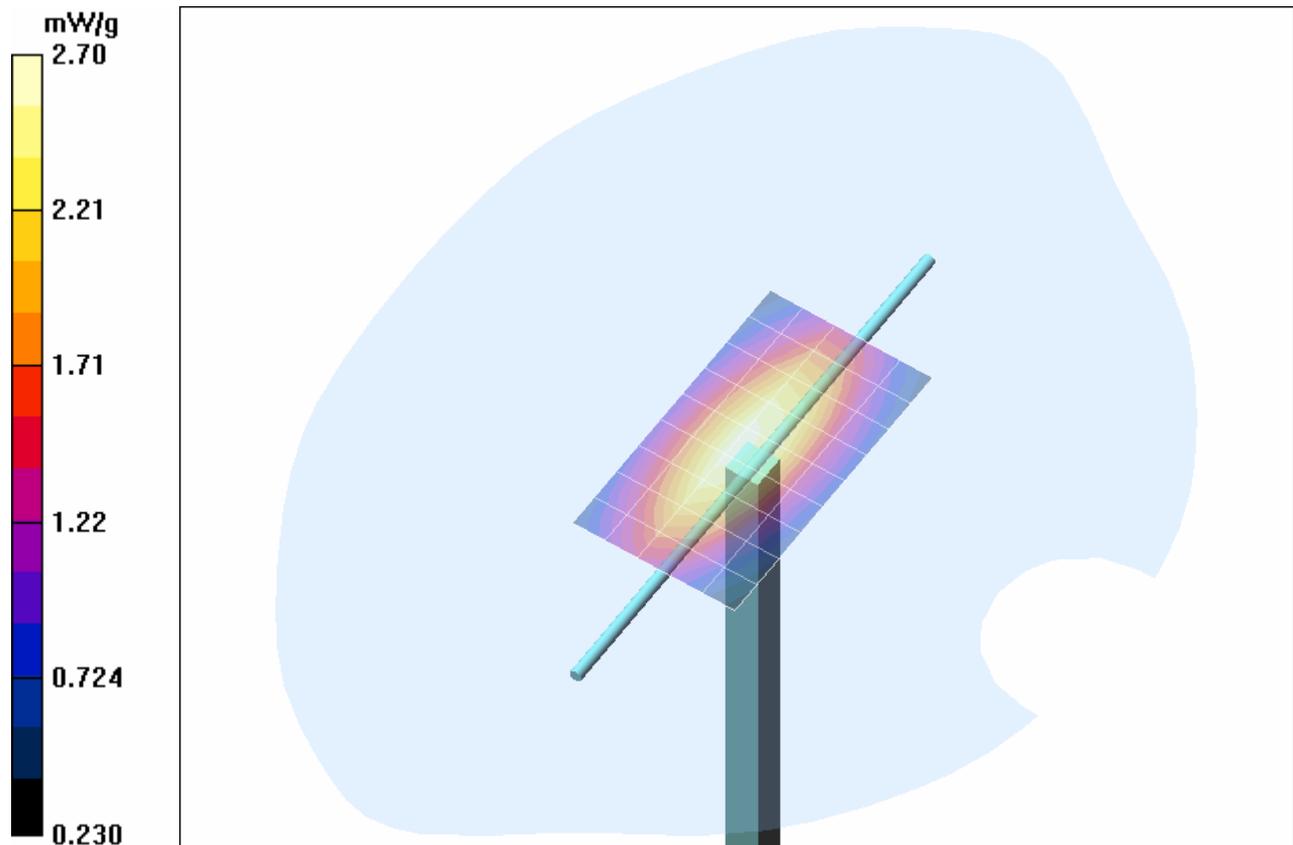
835 MHz Dipole - System Performance Check/Zoom Scan (7x7x7)/Cube 0:

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

Reference Value = 56.2 V/m; Power Drift = -0.038 dB

Peak SAR (extrapolated) = 3.78 W/kg

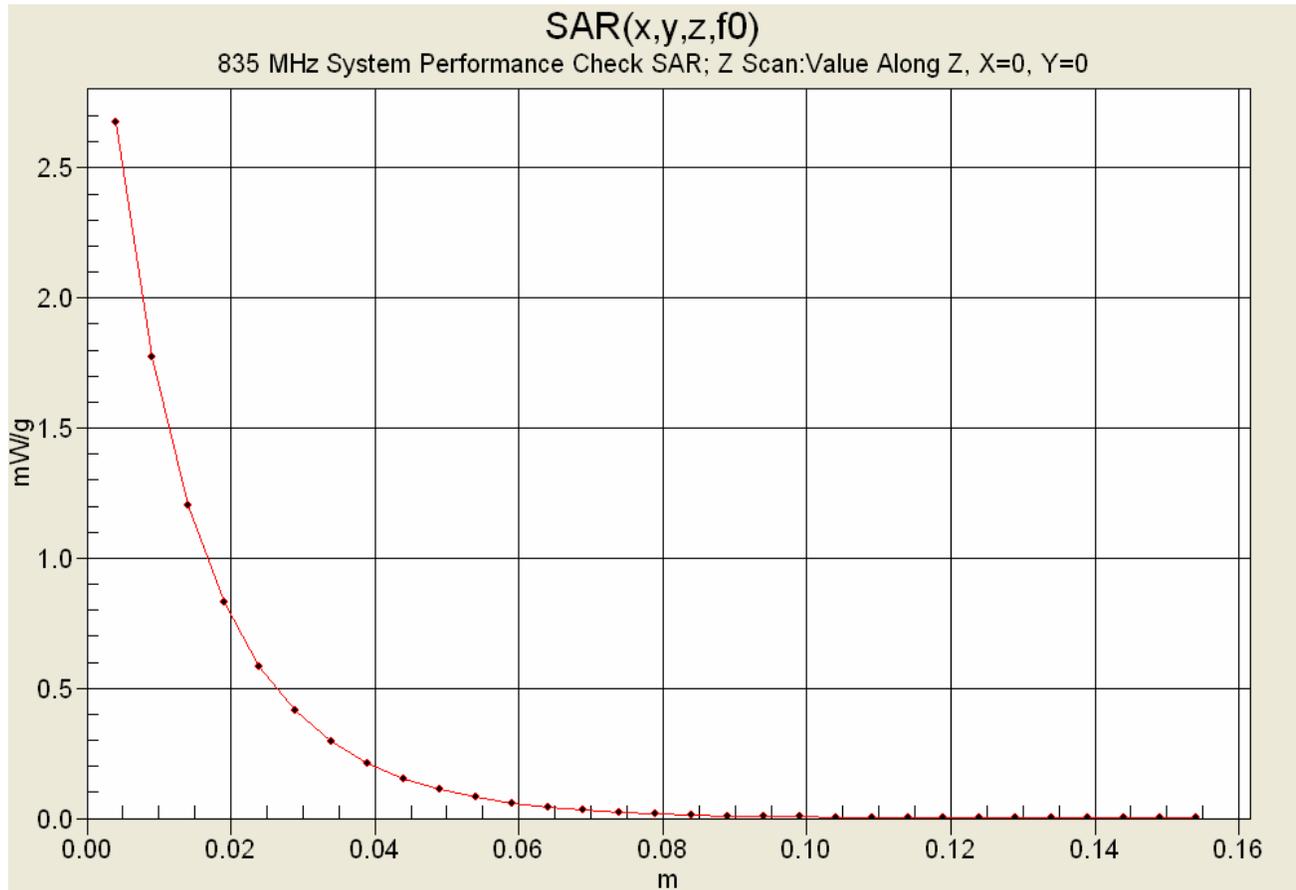
SAR(1 g) = 2.50 mW/g; SAR(10 g) = 1.62 mW/g



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver	Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz						
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Z-Axis Scan



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Date Tested: 03/29/2006

System Performance Check (Brain) - 835 MHz Dipole

DUT: Dipole 835 MHz; Model: D835V2; Type: System Performance Check; Serial: 411; Calibrated: 03/30/2005

Ambient Temp: 21.8 °C; Fluid Temp: 21.6 °C; Barometric Pressure: 101.1 kPa; Humidity: 30%

Communication System: CW

Forward Conducted Power: 250 mW

Frequency: 835 MHz; Duty Cycle: 1:1

Medium: HSL835 ($\sigma = 0.90$ mho/m; $\epsilon_r = 40.8$; $\rho = 1000$ kg/m³)

- Probe: ET3DV6 - SN1590; ConvF(6.67, 6.67, 6.67); Calibrated: 20/05/2005
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE4 Sn353; Calibrated: 15/06/2005
- Phantom: SAM 4.0; Type: Fiberglass; Serial: 1033
- Measurement SW: DASY4, V4.6 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 159

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

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

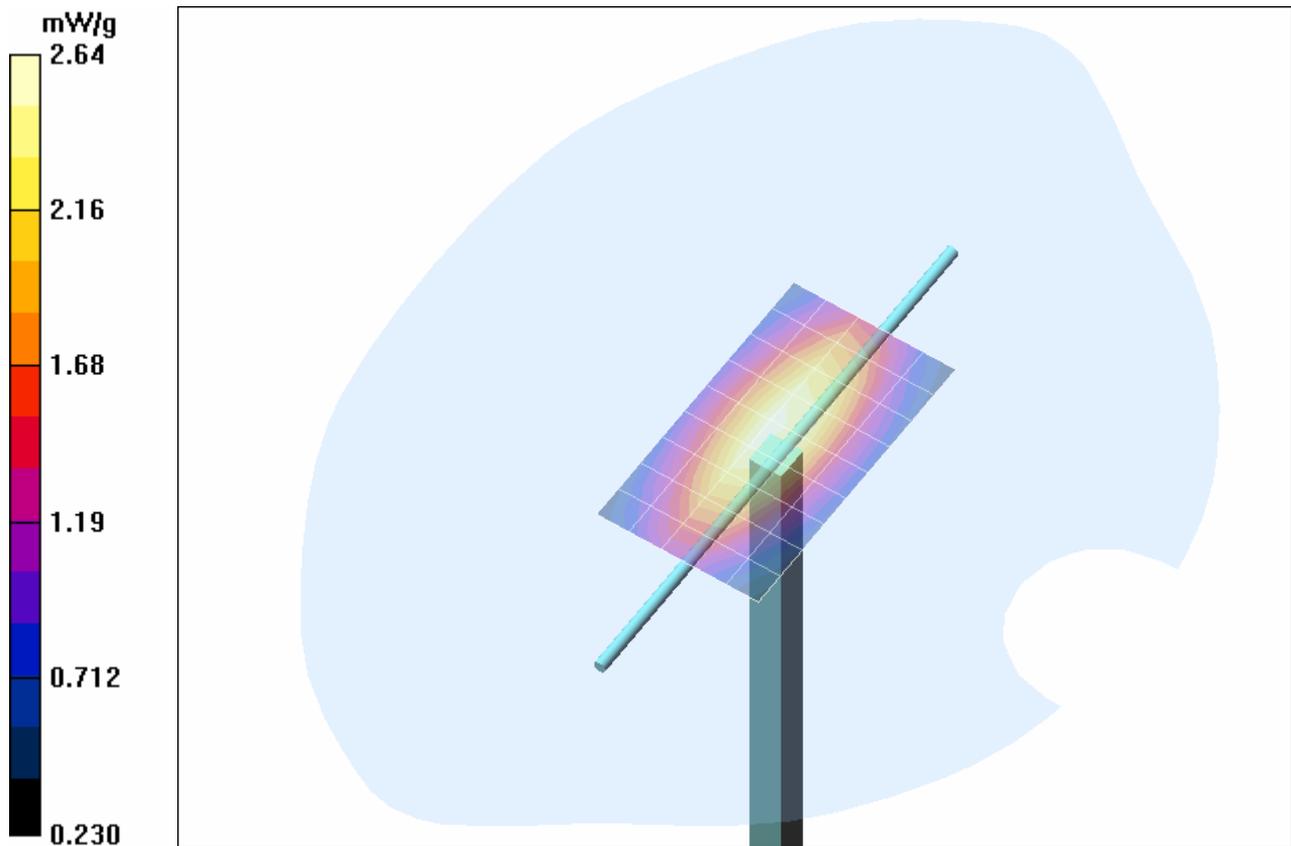
835 MHz Dipole - System Performance Check/Zoom Scan (7x7x7)/Cube 0:

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

Reference Value = 55.8 V/m; Power Drift = -0.081 dB

Peak SAR (extrapolated) = 3.69 W/kg

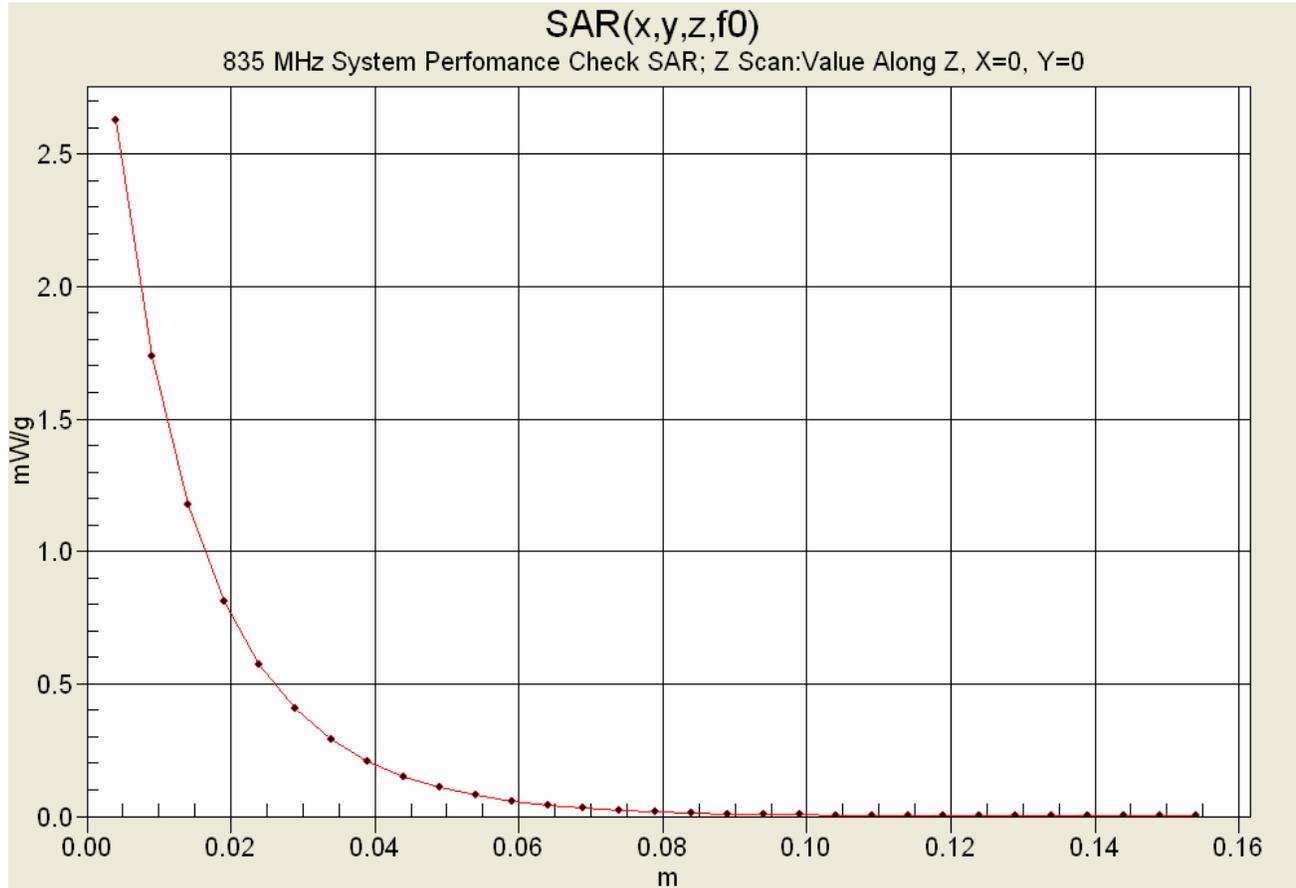
SAR(1 g) = 2.44 mW/g; SAR(10 g) = 1.58 mW/g



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver	Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz					
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

Z-Axis Scan



Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver	Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz					
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

APPENDIX C - MEASURED FLUID DIELECTRIC PARAMETERS

Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

835 MHz System Performance Check & 815 MHz DUT Evaluation (Body)

Celltech Labs Inc.
 Test Result for UIM Dielectric Parameter
 Tue 21/Mar/2006
 Frequency(GHz)
 FCC_eHFCC Bulletin 65 Supplement C (June 2001) Limits for Head Epsilon
 FCC_sHFCC Bulletin 65 Supplement C (June 2001) Limits for Head Sigma
 FCC_eB FCC Limits for Body Epsilon
 FCC_sB FCC Limits for Body Sigma
 Test_e Epsilon of UIM
 Test_s Sigma of UIM

Freq	FCC_eB	FCC_sB	Test_e	Test_s
0.7350	55.59	0.96	56.28	0.87
0.7450	55.55	0.96	56.11	0.87
0.7550	55.51	0.96	55.90	0.88
0.7650	55.47	0.96	55.84	0.89
0.7750	55.43	0.97	55.69	0.90
0.7850	55.39	0.97	55.67	0.91
0.7950	55.36	0.97	55.49	0.91
0.8050	55.32	0.97	55.41	0.93
0.8150	55.28	0.97	55.31	0.94
0.8250	55.24	0.97	55.23	0.94
0.8350	55.20	0.97	55.26	0.95
0.8450	55.17	0.98	55.22	0.96
0.8550	55.14	0.99	55.12	0.97
0.8650	55.11	1.01	54.94	0.97
0.8750	55.08	1.02	55.00	0.98
0.8850	55.05	1.03	54.65	0.99
0.8950	55.02	1.04	54.66	1.00
0.9050	55.00	1.05	54.66	1.00
0.9150	55.00	1.06	54.53	1.01
0.9250	54.98	1.06	54.31	1.02
0.9350	54.96	1.07	54.43	1.03

Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver			Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

835 MHz System Performance Check (Brain)

Celltech Labs Inc.

Test Result for UIM Dielectric Parameter

Thu 23/Mar/2006

Frequency(GHz)

FCC_eHFCC OET 65 Supplement C (June 2001) Limits for Head Epsilon

FCC_sHFCC OET 65 Supplement C (June 2001) Limits for Head Sigma

Test_e Epsilon of UIM

Test_s Sigma of UIM

Freq	FCC_eHFCC_sH	Test_e	Test_s	
0.7350	42.02	0.89	40.77	0.80
0.7450	41.97	0.89	40.58	0.80
0.7550	41.92	0.89	40.49	0.81
0.7650	41.86	0.89	40.31	0.81
0.7750	41.81	0.90	40.15	0.83
0.7850	41.76	0.90	40.06	0.84
0.7950	41.71	0.90	39.99	0.84
0.8050	41.66	0.90	39.86	0.85
0.8150	41.60	0.90	39.77	0.86
0.8250	41.55	0.90	39.79	0.87
0.8350	41.50	0.90	39.66	0.88
0.8450	41.50	0.91	39.45	0.89
0.8550	41.50	0.92	39.23	0.90
0.8650	41.50	0.93	39.03	0.91
0.8750	41.50	0.94	39.03	0.92
0.8850	41.50	0.95	38.89	0.93
0.8950	41.50	0.96	38.68	0.94
0.9050	41.50	0.97	38.57	0.95
0.9150	41.50	0.98	38.40	0.95
0.9250	41.48	0.98	38.46	0.97
0.9350	41.46	0.99	38.29	0.97

Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver			Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz			
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

815 MHz DUT Evaluation (Body)

Celltech Labs Inc.
 Test Result for UIM Dielectric Parameter
 Thu 23/Mar/2006
 Frequency(GHz)
 FCC_eHFCC Bulletin 65 Supplement C (June 2001) Limits for Head Epsilon
 FCC_sHFCC Bulletin 65 Supplement C (June 2001) Limits for Head Sigma
 FCC_eB FCC Limits for Body Epsilon
 FCC_sB FCC Limits for Body Sigma
 Test_e Epsilon of UIM
 Test_s Sigma of UIM

Freq	FCC_eB	FCC_sB	Test_e	Test_s
0.7350	55.59	0.96	55.53	0.88
0.7450	55.55	0.96	55.35	0.89
0.7550	55.51	0.96	55.36	0.90
0.7650	55.47	0.96	55.18	0.91
0.7750	55.43	0.97	55.12	0.93
0.7850	55.39	0.97	55.00	0.93
0.7950	55.36	0.97	55.07	0.94
0.8050	55.32	0.97	54.94	0.95
0.8150	55.28	0.97	54.83	0.96
0.8250	55.24	0.97	54.73	0.97
0.8350	55.20	0.97	54.68	0.97
0.8450	55.17	0.98	54.48	0.99
0.8550	55.14	0.99	54.17	1.01
0.8650	55.11	1.01	54.22	1.02
0.8750	55.08	1.02	54.06	1.03
0.8850	55.05	1.03	54.01	1.04
0.8950	55.02	1.04	53.87	1.05
0.9050	55.00	1.05	53.65	1.06
0.9150	55.00	1.06	53.62	1.06
0.9250	54.98	1.06	53.67	1.08
0.9350	54.96	1.07	53.35	1.09

Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver			Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

835 MHz System Performance Check (Brain)

Celltech Labs Inc.

Test Result for UIM Dielectric Parameter

Fri 24/Mar/2006

Frequency(GHz)

FCC_eHFCC OET 65 Supplement C (June 2001) Limits for Head Epsilon

FCC_sHFCC OET 65 Supplement C (June 2001) Limits for Head Sigma

Test_e Epsilon of UIM

Test_s Sigma of UIM

Freq	FCC_eHFCC	FCC_sHFCC	Test_e	Test_s
0.7350	42.02	0.89	40.63	0.79
0.7450	41.97	0.89	40.47	0.79
0.7550	41.92	0.89	40.48	0.81
0.7650	41.86	0.89	40.29	0.81
0.7750	41.81	0.90	40.11	0.82
0.7850	41.76	0.90	39.95	0.82
0.7950	41.71	0.90	39.86	0.83
0.8050	41.66	0.90	39.64	0.84
0.8150	41.60	0.90	39.67	0.85
0.8250	41.55	0.90	39.62	0.86
0.8350	41.50	0.90	39.49	0.87
0.8450	41.50	0.91	39.39	0.88
0.8550	41.50	0.92	39.06	0.89
0.8650	41.50	0.93	39.26	0.90
0.8750	41.50	0.94	39.02	0.91
0.8850	41.50	0.95	38.85	0.91
0.8950	41.50	0.96	38.74	0.92
0.9050	41.50	0.97	38.75	0.93
0.9150	41.50	0.98	38.46	0.94
0.9250	41.48	0.98	38.53	0.94
0.9350	41.46	0.99	38.33	0.95

Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver			Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

815 MHz DUT Evaluation (Face)

Celltech Labs Inc.
 Test Result for UIM Dielectric Parameter
 Fri 24/Mar/2006
 Frequency(GHz)
 FCC_eHFCC OET 65 Supplement C (June 2001) Limits for Head Epsilon
 FCC_sHFCC OET 65 Supplement C (June 2001) Limits for Head Sigma
 Test_e Epsilon of UIM
 Test_s Sigma of UIM

Freq	FCC_eHFCC	FCC_sHFCC	Test_e	Test_s
0.7350	42.02	0.89	42.23	0.82
0.7450	41.97	0.89	42.11	0.82
0.7550	41.92	0.89	42.03	0.84
0.7650	41.86	0.89	41.94	0.84
0.7750	41.81	0.90	41.80	0.86
0.7850	41.76	0.90	41.75	0.86
0.7950	41.71	0.90	41.65	0.87
0.8050	41.66	0.90	41.38	0.88
0.8150	41.60	0.90	41.34	0.89
0.8250	41.55	0.90	41.23	0.90
0.8350	41.50	0.90	41.11	0.90
0.8450	41.50	0.91	40.97	0.91
0.8550	41.50	0.92	40.87	0.93
0.8650	41.50	0.93	40.78	0.94
0.8750	41.50	0.94	40.68	0.94
0.8850	41.50	0.95	40.60	0.95
0.8950	41.50	0.96	40.45	0.96
0.9050	41.50	0.97	40.27	0.98
0.9150	41.50	0.98	40.09	0.98
0.9250	41.48	0.98	40.11	1.00
0.9350	41.46	0.99	40.05	1.00

Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

835 MHz System Performance Check (Body)

Cellech Labs Inc.
 Test Result for UIM Dielectric Parameter
 Mon 27/Mar/2006
 Frequency(GHz)
 FCC_eHFCC Bulletin 65 Supplement C (June 2001) Limits for Head Epsilon
 FCC_sHFCC Bulletin 65 Supplement C (June 2001) Limits for Head Sigma
 FCC_eB FCC Limits for Body Epsilon
 FCC_sB FCC Limits for Body Sigma
 Test_e Epsilon of UIM
 Test_s Sigma of UIM

Freq	FCC_eB	FCC_sB	Test_e	Test_s
0.7350	55.59	0.96	54.23	0.86
0.7450	55.55	0.96	54.00	0.87
0.7550	55.51	0.96	54.00	0.88
0.7650	55.47	0.96	54.04	0.89
0.7750	55.43	0.97	53.97	0.90
0.7850	55.39	0.97	54.01	0.90
0.7950	55.36	0.97	53.96	0.91
0.8050	55.32	0.97	53.85	0.92
0.8150	55.28	0.97	53.79	0.93
0.8250	55.24	0.97	53.69	0.94
0.8350	55.20	0.97	53.68	0.94
0.8450	55.17	0.98	53.35	0.95
0.8550	55.14	0.99	53.18	0.96
0.8650	55.11	1.01	53.25	0.98
0.8750	55.08	1.02	53.26	0.98
0.8850	55.05	1.03	53.11	0.99
0.8950	55.02	1.04	53.11	1.00
0.9050	55.00	1.05	52.96	1.01
0.9150	55.00	1.06	52.91	1.02
0.9250	54.98	1.06	52.93	1.03
0.9350	54.96	1.07	52.58	1.03

Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz					
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

815 MHz DUT Evaluation (Face)

Celltech Labs Inc.
 Test Result for UIM Dielectric Parameter
 Mon 27/Mar/2006
 Frequency(GHz)
 FCC_eHFCC OET 65 Supplement C (June 2001) Limits for Head Epsilon
 FCC_sHFCC OET 65 Supplement C (June 2001) Limits for Head Sigma
 Test_e Epsilon of UIM
 Test_s Sigma of UIM

Freq	FCC_eHFCC	FCC_sHFCC	Test_e	Test_s
0.7350	42.02	0.89	40.93	0.81
0.7450	41.97	0.89	40.66	0.81
0.7550	41.92	0.89	40.58	0.81
0.7650	41.86	0.89	40.42	0.82
0.7750	41.81	0.90	40.30	0.83
0.7850	41.76	0.90	40.15	0.84
0.7950	41.71	0.90	40.19	0.85
0.8050	41.66	0.90	39.88	0.86
0.8150	41.60	0.90	39.80	0.87
0.8250	41.55	0.90	39.78	0.88
0.8350	41.50	0.90	39.63	0.89
0.8450	41.50	0.91	39.46	0.90
0.8550	41.50	0.92	39.42	0.91
0.8650	41.50	0.93	39.40	0.91
0.8750	41.50	0.94	39.38	0.92
0.8850	41.50	0.95	39.17	0.93
0.8950	41.50	0.96	39.04	0.95
0.9050	41.50	0.97	38.77	0.95
0.9150	41.50	0.98	38.63	0.96
0.9250	41.48	0.98	38.62	0.97
0.9350	41.46	0.99	38.49	0.98

Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

835 MHz System Performance Check (Brain)

Celltech Labs Inc.

Test Result for UIM Dielectric Parameter

Tue 28/Mar/2006

Frequency(GHz)

FCC_eHFCC OET 65 Supplement C (June 2001) Limits for Head Epsilon

FCC_sHFCC OET 65 Supplement C (June 2001) Limits for Head Sigma

Test_e Epsilon of UIM

Test_s Sigma of UIM

Freq	FCC_eHFCC	FCC_sHFCC	Test_e	Test_s
0.7350	42.02	0.89	43.49	0.82
0.7450	41.97	0.89	43.10	0.83
0.7550	41.92	0.89	43.12	0.84
0.7650	41.86	0.89	43.02	0.85
0.7750	41.81	0.90	42.80	0.85
0.7850	41.76	0.90	42.61	0.87
0.7950	41.71	0.90	42.54	0.87
0.8050	41.66	0.90	42.36	0.88
0.8150	41.60	0.90	42.31	0.89
0.8250	41.55	0.90	42.30	0.90
0.8350	41.50	0.90	42.08	0.91
0.8450	41.50	0.91	42.10	0.91
0.8550	41.50	0.92	41.77	0.93
0.8650	41.50	0.93	41.80	0.94
0.8750	41.50	0.94	41.56	0.94
0.8850	41.50	0.95	41.47	0.95
0.8950	41.50	0.96	41.35	0.96
0.9050	41.50	0.97	41.29	0.96
0.9150	41.50	0.98	41.16	0.97
0.9250	41.48	0.98	41.05	0.98
0.9350	41.46	0.99	41.03	0.99

Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093 IC RSS-102 Issue 2

815 MHz DUT Evaluation {Body}

Celltech Labs Inc.
 Test Result for UIM Dielectric Parameter
 Tue 28/Mar/2006
 Frequency(GHz)
 FCC_eHFCC Bulletin 65 Supplement C (June 2001) Limits for Head Epsilon
 FCC_sHFCC Bulletin 65 Supplement C (June 2001) Limits for Head Sigma
 FCC_eB FCC Limits for Body Epsilon
 FCC_sB FCC Limits for Body Sigma
 Test_e Epsilon of UIM
 Test_s Sigma of UIM

Freq	FCC_eB	FCC_sB	Test_e	Test_s
0.7350	55.59	0.96	55.40	0.86
0.7450	55.55	0.96	54.96	0.87
0.7550	55.51	0.96	55.04	0.88
0.7650	55.47	0.96	54.95	0.89
0.7750	55.43	0.97	54.89	0.89
0.7850	55.39	0.97	54.97	0.90
0.7950	55.36	0.97	54.76	0.91
0.8050	55.32	0.97	54.66	0.92
0.8150	55.28	0.97	54.71	0.93
0.8250	55.24	0.97	54.51	0.94
0.8350	55.20	0.97	54.28	0.94
0.8450	55.17	0.98	54.30	0.96
0.8550	55.14	0.99	54.17	0.96
0.8650	55.11	1.01	54.07	0.97
0.8750	55.08	1.02	53.95	0.98
0.8850	55.05	1.03	53.98	0.99
0.8950	55.02	1.04	53.85	1.00
0.9050	55.00	1.05	53.87	1.00
0.9150	55.00	1.06	53.76	1.01
0.9250	54.98	1.06	53.73	1.02
0.9350	54.96	1.07	53.68	1.03

Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz					
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure	SAR	FCC 47 CFR §2.1093

835 MHz System Performance Check (Brain) & 815 MHz DUT Evaluation (Face)

Celltech Labs Inc.
 Test Result for UIM Dielectric Parameter
 Wed 29/Mar/2006
 Frequency(GHz)
 FCC_eHFCC OET 65 Supplement C (June 2001) Limits for Head Epsilon
 FCC_sHFCC OET 65 Supplement C (June 2001) Limits for Head Sigma
 Test_e Epsilon of UIM
 Test_s Sigma of UIM

Freq	FCC_eHFCC	FCC_sHFCC	Test_e	Test_s
0.7350	42.02	0.89	42.14	0.82
0.7450	41.97	0.89	41.94	0.83
0.7550	41.92	0.89	41.84	0.83
0.7650	41.86	0.89	41.64	0.84
0.7750	41.81	0.90	41.48	0.85
0.7850	41.76	0.90	41.45	0.86
0.7950	41.71	0.90	41.32	0.87
0.8050	41.66	0.90	41.17	0.88
0.8150	41.60	0.90	41.17	0.89
0.8250	41.55	0.90	40.88	0.89
0.8350	41.50	0.90	40.79	0.90
0.8450	41.50	0.91	40.74	0.91
0.8550	41.50	0.92	40.60	0.93
0.8650	41.50	0.93	40.29	0.93
0.8750	41.50	0.94	40.23	0.95
0.8850	41.50	0.95	40.12	0.95
0.8950	41.50	0.96	40.05	0.96
0.9050	41.50	0.97	39.83	0.97
0.9150	41.50	0.98	39.83	0.97
0.9250	41.48	0.98	39.82	0.98
0.9350	41.46	0.99	39.62	0.99

Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA		
DUT Type:	Portable FM PTT Radio Transceiver			Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz				
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	Test Report Serial No.:	032106AXA-T734-S90F	Test Report Issue No.:	S734F-040606-T-R0
	Date(s) of Evaluation:	March 21, 23-24, 27-29, 2006	Test Report Issue Date:	April 06, 2006
	Description of Tests:	RF Exposure SAR	FCC 47 CFR §2.1093	IC RSS-102 Issue 2

APPENDIX G - SAM PHANTOM CERTIFICATE OF CONFORMITY

Company:	M/A-COM, Inc.	Model:	LPE-200	FCC ID:	AXATR-336-A	IC ID:	287194340NA	
DUT Type:	Portable FM PTT Radio Transceiver		Frequency Range(s):	806 - 824 MHz / 851 - 869 MHz				
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Schmid & Partner Engineering AG

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

Certificate of conformity / First Article Inspection

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

Tests

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

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

Standards

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

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

Conformity

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

Date 18.11.2001

Signature / Stamp

**Schmid & Partner
Engineering AG**

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