CERTIFICATE OF COMPLIANCE
SAR EVALUATION

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Applicant Information:
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3315 Old Forest Road
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FCC Rule Part(s):	**2.1093; ET Docket 96-326**
FCC ID:	**OWDTR-0014-E**
Model(s):	**Jaguar 725P**
EUT Type(s):	**Portable FM PTT Radio Transceiver (RU101219V1)**
Modulation:	**FM**
Tx Frequency Range(s):	**806-821 MHz (Repeater Input mode)** **821-824 MHz (NPSPAC, Repeater Input mode)** **851-866 MHz (Talk-Around mode)** **866-869 MHz (NPSPAC, Talk-Around mode)**
Conducted Output Power:	**3.2 Watts**
Antenna Type(s):	**1: Elevated Feed Gain Antenna (KRE1011216/01)** **2: Flexible Gain Antenna (KRE1011506/01)** **3: Whip Antenna (KRE1011223/01)**
Battery Type(s):	**1. High Capacity NICAD Battery (BKB191210/3)** **2. Extra High Capacity NIMH Battery (BKB191210/4)**
Accessories Tested:	**Speaker Microphone Antenna Version Plus (OT-V2-10120)** **Metal Belt-Clip (KRY1011647/1)** **Leather Belt-Loop (19B226627G2) & Swivel Socket (19B233243G3)** **T-Strap Belt-Loop (KRY1011656/1)**

Celltech Research Inc. declares under its sole responsibility that this device was found to be in compliance with the Specific Absorption Rate (SAR) RF exposure requirements specified in OET Bulletin 65, Supplement C (Edition 01-01), and was tested in accordance with the appropriate measurement standards, guidelines, and recommended practices specified in American National Standards Institute C95.1-1992.

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

Shawn McMillen
General Manager
Celltech Research Inc.

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1.0 INTRODUCTION

This measurement report shows that the M/A-COM PRS INC. Model: Jaguar 725P Portable FM PTT Radio Transceiver FCC ID: OWDTR-0014-E with three alternate antennas complies with the regulations and procedures specified in FCC Rule Part 2.1093, ET Docket 96-326 for mobile and portable devices (controlled exposure). The test procedures, as described in American National Standards Institute C95.1-1992 (See Reference [1]), and FCC OET Bulletin 65, Supplement C (Edition 01-01) (See Reference [2]) were employed. A description of the product, 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 Equipment Under Test (EUT)

Rule Part(s)	FCC 2.1093; ET Docket 96-326	**Modulation**	FM
EUT Type	Portable FM PTT Radio Transceiver	**Tx Frequency Range**	806-821 MHz (Repeater Input mode) 821-824 MHz (NPSPAC, Repeater Input mode) 851-866 MHz (Talk-Around mode) 866-869 MHz (NPSPAC, Talk-Around mode)
FCC ID	OWDTR-0014-E	**RF Conducted Output Power**	3.2 Watts
Model(s)	Jaguar 725P	**Antenna Type(s)**	1. Elevated Feed Gain (KRE1011216/01) 2. Flexible Gain (KRE1011506/01) 3. Whip (KRE1011223/01)
Serial No.	Pre-production	**Battery Type(s)**	1. 7.5 VDC Nickel Cadmium (BKB191210/3) 2. 7.5 VDC Nickel Metal Hydride (BKB191210/4)
Accessories Tested		1. Speaker Microphone Antenna Version Plus (OT-V2-10120) 2. Metal Belt-Clip (KRY1011647/1) 3. Leather Belt-Loop (19B226627G2) & Swivel Socket (19B233243G3) 4. T-Strap Belt-Loop (KRY1011656/1)	

3.0 SAR MEASUREMENT SYSTEM

Celltech Research SAR measurement facility utilizes the Dosimetric Assessment System (DASY™) manufactured by Schmid & Partner Engineering AG (SPEAG™) of Zurich, Switzerland. The DASY system is comprised of the robot controller, computer, near-field probe, probe alignment sensor, specific anthropomorphic mannequin (SAM) phantom, and various planar phantoms for brain 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 PC plug-in card. The DAE3 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 PC-card 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. They are also used for mechanical surface detection and probe collision detection. The robot uses its own controller with a built in VME-bus computer.

DASY3 SAR Measurement System with small planar phantom

4.0 MEASUREMENT SUMMARY

The measurement results were obtained with the EUT tested in the conditions described in this report. Detailed measurement data and plots showing the maximum SAR location of the EUT are reported in Appendix A.

Face-Held SAR Measurements – EUT with Elevated Feed Gain Antenna (KRE1011216/01)

Freq. (MHz)	Chan.	Mode	Cond. Power Before (W)	Cond. Power After (W)	Battery Type	Antenna P/N	Separation Distance (cm)	SAR (w/kg)	
								100% Duty Cycle	50% Duty Cycle
806.000	Low	CW	3.2	3.2	NiCd	KRE1011216/01	2.5	3.37	1.69
815.000	Mid	CW	3.2	3.1	NiCd	KRE1011216/01	2.5	3.37	1.69
823.975	High	CW	3.2	3.2	NiCd	KRE1011216/01	2.5	3.59	1.80
850.970	Low	CW	3.2	3.2	NiCd	KRE1011216/01	2.5	2.52	1.26
860.520	Mid	CW	3.2	3.1	NiCd	KRE1011216/01	2.5	1.99	1.00
868.970	High	CW	3.2	3.2	NiCd	KRE1011216/01	2.5	1.84	0.92
823.975	High	CW	3.2	3.2	NiMH	KRE1011216/01	2.5	3.48	1.74
Mixture Type: Brain Dielectric Constant: 41.2 Conductivity: 0.90					**ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Controlled Exposure / Occupational BRAIN: 8.0 W/kg (averaged over 1 gram)**				

Notes:

1. The SAR values found were below the maximum limit of 8.0 w/kg (controlled exposure).
2. The highest face-held SAR value found was 3.59 w/kg (100% duty cycle).
3. The EUT was tested for face-held SAR with a 2.5 cm separation distance between the front of the EUT and the outer surface of the planar phantom.
4. Test Date: October 15, 2001
5. Ambient TEMPERATURE: 23.0 °C
   Relative HUMIDITY: 57.4 %
   Atmospheric PRESSURE: 100.3 kPa
6. Fluid Temperature 23.0 °C
7. During the entire test the conducted power was maintained to within 5% of the initial conducted power.

Face-Held SAR Measurements – EUT with Flexible Gain Antenna (KRE1011506/01)

Freq. (MHz)	Chan.	Mode	Cond. Power Before (W)	Cond. Power After (W)	Battery Type	Antenna P/N	Separation Distance (cm)	SAR (w/kg)	
								100% Duty Cycle	50% Duty Cycle
806.000	Low	CW	3.2	3.2	NiCd	KRE1011506/01	2.5	2.45	1.23
815.000	Mid	CW	3.2	3.2	NiCd	KRE1011506/01	2.5	2.58	1.29
823.975	High	CW	3.2	3.2	NiCd	KRE1011506/01	2.5	2.53	1.23
850.970	Low	CW	3.2	3.1	NiCd	KRE1011506/01	2.5	2.21	1.11
860.520	Mid	CW	3.2	3.2	NiCd	KRE1011506/01	2.5	2.06	1.03
868.970	High	CW	3.2	3.2	NiCd	KRE1011506/01	2.5	1.88	0.94
815.000	Mid	CW	3.2	3.1	NiMH	KRE1011506/01	2.5	2.41	1.21
Mixture Type: Brain Dielectric Constant: 41.2 Conductivity: 0.90					**ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Controlled Exposure / Occupational BRAIN: 8.0 W/kg (averaged over 1 gram)**				

Notes:

1. The SAR values found were below the maximum limit of 8.0 w/kg (controlled exposure).
2. The highest face-held SAR value found was 2.58 w/kg (100% duty cycle).
3. The EUT was tested for face-held SAR with a 2.5 cm separation distance between the front of the EUT and the outer surface of the planar phantom.
4. Test Date: October 15, 2001
5. Ambient TEMPERATURE: 23.0 °C
   Relative HUMIDITY: 57.4 %
   Atmospheric PRESSURE: 100.3 kPa
6. Fluid Temperature 23.0 °C
7. During the entire test the conducted power was maintained to within 5% of the initial conducted power.

Face-Held SAR Measurements – EUT with Whip Antenna (KRE1011223/01)

Freq. (MHz)	Chan.	Mode	Cond. Power Before (W)	Cond. Power After (W)	Battery Type	Antenna P/N	Separation Distance (cm)	SAR (w/kg)	
								100% Duty Cycle	50% Duty Cycle
806.000	Low	CW	3.2	3.2	NiCd	KRE1011223/01	2.5	2.93	1.47
815.000	Mid	CW	3.2	3.2	NiCd	KRE1011223/01	2.5	3.02	1.51
823.975	High	CW	3.2	3.2	NiCd	KRE1011223/01	2.5	2.37	1.19
850.970	Low	CW	3.2	3.1	NiCd	KRE1011223/01	2.5	2.06	1.03
860.520	Mid	CW	3.2	3.1	NiCd	KRE1011223/01	2.5	1.88	0.94
868.970	High	CW	3.2	3.1	NiCd	KRE1011223/01	2.5	1.63	0.82
815.000	Mid	CW	3.2	3.2	NiMH	KRE1011223/01	2.5	2.95	1.48
Mixture Type: Brain Dielectric Constant: 41.2 Conductivity: 0.90					**ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Controlled Exposure / Occupational BRAIN: 8.0 W/kg (averaged over 1 gram)**				

Notes:

1. The SAR values found were below the maximum limit of 8.0 w/kg (controlled exposure).
2. The highest face-held SAR value found was 3.02 w/kg (100% duty cycle).
3. The EUT was tested for face-held SAR with a 2.5 cm separation distance between the front of the EUT and the outer surface of the planar phantom.
4. Test Date: October 15, 2001
5. Ambient TEMPERATURE: 23.0 °C
   Relative HUMIDITY: 57.4 %
   Atmospheric PRESSURE: 100.3 kPa
6. Fluid Temperature 23.0 °C
7. During the entire test the conducted power was maintained to within 5% of the initial conducted power.

Face-Held SAR Measurements – Speaker Microphone Antenna Version Plus (OT-V2-10120)

with Elevated Feed Gain Antenna (KRE1011216/01)

Freq. (MHz)	Chan.	Mode	Cond. Power Before (W)	Cond. Power After (W)	Battery Type	Antenna P/N	Separation Distance (cm)	SAR (w/kg)	
								100% Duty Cycle	50% Duty Cycle
806.000	Low	CW	3.2	3.1	NiCd	KRE1011216/01	2.5	4.25	2.13
815.000	Mid	CW	3.2	3.2	NiCd	KRE1011216/01	2.5	5.82	2.91
823.975	High	CW	3.2	3.1	NiCd	KRE1011216/01	2.5	5.38	2.69
850.970	Low	CW	3.2	3.2	NiCd	KRE1011216/01	2.5	5.77	2.89
860.520	Mid	CW	3.2	3.2	NiCd	KRE1011216/01	2.5	4.58	2.29
868.970	High	CW	3.2	3.1	NiCd	KRE1011216/01	2.5	4.04	2.02
Mixture Type: Brain Dielectric Constant: 41.1 Conductivity: 0.90					**ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Controlled Exposure / Occupational BRAIN: 8.0 W/kg (averaged over 1 gram)**				

Notes:

1. The SAR values found were below the maximum limit of 8.0 w/kg (controlled exposure).
2. The highest face-held SAR value found was 5.82 w/kg (100% duty cycle).
3. The EUT was tested for face-held SAR with a 2.5 cm separation distance between the front of the EUT and the outer surface of the planar phantom.
4. Test Date: October 16, 2001
5. Ambient TEMPERATURE: 23.2 °C
   Relative HUMIDITY: 57.1 %
   Atmospheric PRESSURE: 100.2 kPa
6. Fluid Temperature 23.0 °C
7. During the entire test the conducted power was maintained to within 5% of the initial conducted power.

Face-Held SAR Measurements – Speaker Microphone Antenna Version Plus (OT-V2-10120)

with Flexible Gain Antenna (KRE1011506/01)

Freq. (MHz)	Chan.	Mode	Cond. Power Before (W)	Cond. Power After (W)	Battery Type	Antenna P/N	Separation Distance (cm)	SAR (w/kg)	
								100% Duty Cycle	50% Duty Cycle
806.000	Low	CW	3.2	3.2	NiCd	KRE1011506/01	2.5	3.06	1.53
815.000	Mid	CW	3.2	3.1	NiCd	KRE1011506/01	2.5	3.91	1.96
823.975	High	CW	3.2	3.2	NiCd	KRE1011506/01	2.5	3.95	1.98
850.970	Low	CW	3.2	3.2	NiCd	KRE1011506/01	2.5	4.42	2.21
860.520	Mid	CW	3.2	3.2	NiCd	KRE1011506/01	2.5	4.02	2.01
868.970	High	CW	3.2	3.2	NiCd	KRE1011506/01	2.5	3.87	1.94
Mixture Type: Brain Dielectric Constant: 41.1 Conductivity: 0.90					**ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Controlled Exposure / Occupational BRAIN: 8.0 W/kg (averaged over 1 gram)**				

Notes:

1. The SAR values found were below the maximum limit of 8.0 w/kg (controlled exposure).
2. The highest face-held SAR value found was 4.42 w/kg (100% duty cycle).
3. The EUT was tested for face-held SAR with a 2.5 cm separation distance between the front of the EUT and the outer surface of the planar phantom.
4. Test Date: October 16, 2001
5. Ambient TEMPERATURE: 23.2 °C
   Relative HUMIDITY: 57.1 %
   Atmospheric PRESSURE: 100.2 kPa
6. Fluid Temperature 23.0 °C
7. During the entire test the conducted power was maintained to within 5% of the initial conducted power.

Face-Held SAR Measurements – Speaker Microphone Antenna Version Plus (OT-V2-10120)

with Whip Antenna (KRE1011223/01)

Freq. (MHz)	Chan.	Mode	Cond. Power Before (W)	Cond. Power After (W)	Battery Type	Antenna P/N	Separation Distance (cm)	SAR (w/kg)	
								100% Duty Cycle	50% Duty Cycle
806.000	Low	CW	3.2	3.2	NiCd	KRE1011223/01	2.5	2.26	1.13
815.000	Mid	CW	3.2	3.2	NiCd	KRE1011223/01	2.5	3.36	1.68
823.975	High	CW	3.2	3.2	NiCd	KRE1011223/01	2.5	1.93	0.97
850.970	Low	CW	3.2	3.2	NiCd	KRE1011223/01	2.5	2.12	1.06
860.520	Mid	CW	3.2	3.1	NiCd	KRE1011223/01	2.5	2.36	1.18
868.970	High	CW	3.2	3.1	NiCd	KRE1011223/01	2.5	2.48	1.24
Mixture Type: Brain Dielectric Constant: 41.1 Conductivity: 0.90					**ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Controlled Exposure / Occupational BRAIN: 8.0 W/kg (averaged over 1 gram)**				

Notes:

1. The SAR values found were below the maximum limit of 8.0 w/kg (controlled exposure).
2. The highest face-held SAR value found was 3.36 w/kg (100% duty cycle).
3. The EUT was tested for face-held SAR with a 2.5 cm separation distance between the front of the EUT and the outer surface of the planar phantom.
4. Test Date: October 16, 2001
5. Ambient TEMPERATURE: 23.2 °C
   Relative HUMIDITY: 57.1 %
   Atmospheric PRESSURE: 100.2 kPa
6. Fluid Temperature 23.0 °C
7. During the entire test the conducted power was maintained to within 5% of the initial conducted power.

Body-Worn SAR Measurements – Speaker Microphone Antenna Version Plus (OT-V2-10120)

with Elevated Feed Gain Antenna (KRE1011216/01)

Freq. (MHz)	Chan.	Mode	Cond. Power Before (W)	Cond. Power After (W)	Battery Type	Antenna P/N	Metal Clip Separation Distance (cm)	SAR (w/kg)	
								100% Duty Cycle	50% Duty Cycle
806.000	Low	CW	3.2	3.2	NiCd	KRE1011216/01	1.4	3.50	1.75
815.000	Mid	CW	3.2	3.2	NiCd	KRE1011216/01	1.4	4.31	2.16
823.975	High	CW	3.2	3.1	NiCd	KRE1011216/01	1.4	5.51	2.76
850.970	Low	CW	3.2	3.2	NiCd	KRE1011216/01	1.4	5.05	2.53
860.520	Mid	CW	3.2	3.2	NiCd	KRE1011216/01	1.4	3.98	1.99
868.970	High	CW	3.2	3.2	NiCd	KRE1011216/01	1.4	3.45	1.73
Mixture Type: Body Dielectric Constant: 55.0 Conductivity: 0.96					**ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Controlled Exposure / Occupational BODY: 8.0 W/kg (averaged over 1 gram)**				

Notes:

1. The SAR values found were below the maximum limit of 8.0 w/kg (controlled exposure).
2. The highest body-worn SAR value found was 5.51 w/kg (100% duty cycle).
3. The EUT was tested for body-worn SAR with the attached metal clip providing a 1.4 cm separation distance between the back of the EUT and the outer surface of the planar phantom.
4. Test Date: October 16, 2001
5. Ambient TEMPERATURE: 23.2 °C
   Relative HUMIDITY: 57.1 %
   Atmospheric PRESSURE: 100.2 kPa
6. Fluid Temperature 23.0 °C
7. During the entire test the conducted power was maintained to within 5% of the initial conducted power.

Body-Worn SAR Measurements – Speaker Microphone Antenna Version Plus (OT-V2-10120)

with Flexible Gain Antenna (KRE1011506/01)

Freq. (MHz)	Chan.	Mode	Cond. Power Before (W)	Cond. Power After (W)	Battery Type	Antenna P/N	Metal Clip Separation Distance (cm)	SAR (w/kg)	
								100% Duty Cycle	50% Duty Cycle
806.000	Low	CW	3.2	3.2	NiCd	KRE1011506/01	1.4	2.98	1.49
815.000	Mid	CW	3.2	3.1	NiCd	KRE1011506/01	1.4	3.57	1.79
823.975	High	CW	3.2	3.2	NiCd	KRE1011506/01	1.4	4.26	2.13
850.970	Low	CW	3.2	3.1	NiCd	KRE1011506/01	1.4	3.80	1.90
860.520	Mid	CW	3.2	3.2	NiCd	KRE1011506/01	1.4	3.57	1.79
868.970	High	CW	3.2	3.2	NiCd	KRE1011506/01	1.4	3.53	1.78
Mixture Type: Body Dielectric Constant: 55.0 Conductivity: 0.96					**ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Controlled Exposure / Occupational BODY: 8.0 W/kg (averaged over 1 gram)**				

Notes:

1. The SAR values found were below the maximum limit of 8.0 w/kg (controlled exposure).
2. The highest body-worn SAR value found was 4.26 w/kg (100% duty cycle).
3. The EUT was tested for body-worn SAR with the attached metal clip providing a 1.4 cm separation distance between the back of the EUT and the outer surface of the planar phantom.
4. Test Date: October 16, 2001
5. Ambient TEMPERATURE: 23.2 °C
   Relative HUMIDITY: 57.1 %
   Atmospheric PRESSURE: 100.2 kPa
6. Fluid Temperature 23.0 °C
7. During the entire test the conducted power was maintained to within 5% of the initial conducted power.

Body-Worn SAR Measurements – Speaker Microphone Antenna Version Plus (OT-V2-10120)

with Whip Antenna (KRE1011223/01)

Freq. (MHz)	Chan.	Mode	Cond. Power Before (W)	Cond. Power After (W)	Battery Type	Antenna P/N	Metal Clip Separation Distance (cm)	SAR (w/kg)	
								100% Duty Cycle	50% Duty Cycle
806.000	Low	CW	3.2	3.2	NiCd	KRE1011223/01	1.4	4.88	2.44
815.000	Mid	CW	3.2	3.1	NiCd	KRE1011223/01	1.4	3.11	1.56
823.975	High	CW	3.2	3.2	NiCd	KRE1011223/01	1.4	2.78	1.39
850.970	Low	CW	3.2	3.2	NiCd	KRE1011223/01	1.4	2.62	1.31
860.520	Mid	CW	3.2	3.2	NiCd	KRE101123/01	1.4	3.03	1.52
868.970	High	CW	3.2	3.2	NiCd	KRE1011223/01	1.4	3.29	1.65
Mixture Type: Body Dielectric Constant: 55.0 Conductivity: 0.96					**ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Controlled Exposure / Occupational BODY: 8.0 W/kg (averaged over 1 gram)**				

Notes:

1. The SAR values found were below the maximum limit of 8.0 w/kg (controlled exposure).
2. The highest body-worn SAR value found was 4.88 w/kg (100% duty cycle).
3. The EUT was tested for body-worn SAR with the attached metal belt-clip providing a 1.4 cm separation distance between the back of the EUT and the outer surface of the planar phantom.
4. Test Date: October 16, 2001
5. Ambient TEMPERATURE: 23.2 °C
   Relative HUMIDITY: 57.1 %
   Atmospheric PRESSURE: 100.2 kPa
6. Fluid Temperature 23.0 °C
7. During the entire test the conducted power was maintained to within 5% of the initial conducted power.

Body-Worn SAR Measurements – EUT with Elevated Feed Gain Antenna (KRE1011216/01)

With Metal Belt-Clip (KRY1011647/1)

Freq. (MHz)	Chan.	Mode	Cond. Power Before (W)	Cond. Power After (W)	Battery Type	Antenna P/N	Belt-Clip Separation Distance (cm)	SAR (w/kg)	
								100% Duty Cycle	50% Duty Cycle
806.000	Low	CW	3.2	3.2	NiCd	KRE1011216/01	1.1	9.39	4.70
815.000	Mid	CW	3.2	3.2	NiCd	KRE1011216/01	1.1	12.8	6.40
823.975	High	CW	3.2	3.2	NiCd	KRE1011216/01	1.1	13.1	6.55
850.970	Low	CW	3.2	3.1	NiCd	KRE1011216/01	1.1	10.5	5.25
860.520	Mid	CW	3.2	3.2	NiCd	KRE1011216/01	1.1	9.23	4.62
868.970	High	CW	3.2	3.2	NiCd	KRE1011216/01	1.1	7.47	3.74
823.975	High	CW	3.2	3.2	NiMH	KRE1011216/01	1.1	12.1	6.05
Mixture Type: Body Dielectric Constant: 55.0 Conductivity: 0.96					**ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Controlled Exposure / Occupational BODY: 8.0 W/kg (averaged over 1 gram)**				

Notes:

1. The SAR values found were below the maximum limit of 8.0 w/kg (controlled exposure, 50% duty cycle).
2. The highest body-worn SAR value found was 6.55 w/kg (50% duty cycle).
3. The EUT was tested for body-worn SAR with the attached metal belt-clip providing a 1.1 cm separation distance between the back of the EUT and the outer surface of the planar phantom.
4. Test Date: October 05, 2001
5. Ambient TEMPERATURE: 23.5°C
   Relative HUMIDITY: 57.5 %
   Atmospheric PRESSURE: 100.6 kPa
6. Fluid Temperature 23.0 °C
7. During the entire test the conducted power was maintained to within 5% of the initial conducted power.

Body-Worn SAR Measurements – EUT with Flexible Gain Antenna (KRE1011506/01)

With Metal Belt-Clip (KRY1011647/1)

Freq. (MHz)	Chan.	Mode	Cond. Power Before (W)	Cond. Power After (W)	Battery Type	Antenna P/N	Belt-Clip Separation Distance (cm)	SAR (w/kg)	
								100% Duty Cycle	50% Duty Cycle
806.000	Low	CW	3.2	3.2	NiCd	KRE1011506/01	1.1	7.53	3.77
815.000	Mid	CW	3.2	3.2	NiCd	KRE1011506/01	1.1	6.65	3.33
823.975	High	CW	3.2	3.2	NiCd	KRE1011506/01	1.1	8.79	4.40
850.970	Low	CW	3.2	3.2	NiCd	KRE1011506/01	1.1	7.69	3.85
860.520	Mid	CW	3.2	3.2	NiCd	KRE1011506/01	1.1	8.53	4.27
868.970	High	CW	3.2	3.1	NiCd	KRE1011506/01	1.1	7.76	3.88
823.975	High	CW	3.2	3.2	NiMH	KRE1011506/01	1.1	8.65	4.33
Mixture Type: Body Dielectric Constant: 55.0 Conductivity: 0.96					**ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Controlled Exposure / Occupational BODY: 8.0 W/kg (averaged over 1 gram)**				

Notes:

1. The SAR values found were below the maximum limit of 8.0 w/kg (controlled exposure, 50% duty cycle).
2. The highest body-worn SAR value found was 4.40 w/kg (50% duty cycle).
3. The EUT was tested for body-worn SAR with the attached metal belt-clip providing a 1.1 cm separation distance between the back of the EUT and the outer surface of the planar phantom.
4. Test Date: October 05, 2001
5. Ambient TEMPERATURE: 23.5 °C
   Relative HUMIDITY: 57.5 %
   Atmospheric PRESSURE: 100.6 kPa
6. Fluid Temperature 23.0 °C
7. During the entire test the conducted power was maintained to within 5% of the initial conducted power.

Body-Worn SAR Measurements – EUT with Whip Antenna (KRE1011223/01)

With Metal Belt-Clip (KRY1011647/1)

Freq. (MHz)	Chan.	Mode	Cond. Power Before (W)	Cond. Power After (W)	Battery Type	Antenna P/N	Belt-Clip Separation Distance (cm)	SAR (w/kg)	
								100% Duty Cycle	50% Duty Cycle
806.000	Low	CW	3.2	3.2	NiCd	KRE1011223/01	1.1	8.16	4.08
815.000	Mid	CW	3.2	3.2	NiCd	KRE1011223/01	1.1	6.80	3.40
823.975	High	CW	3.2	3.1	NiCd	KRE1011223/01	1.1	7.11	3.56
850.970	Low	CW	3.2	3.2	NiCd	KRE1011223/01	1.1	6.15	3.08
860.520	Mid	CW	3.2	3.2	NiCd	KRE1011223/01	1.1	5.78	2.89
868.970	High	CW	3.2	3.2	NiCd	KRE1011223/01	1.1	4.85	2.43
806.000	Low	CW	3.2	3.2	NiMH	KRE1011223/01	1.1	6.50	3.25
Mixture Type: Body Dielectric Constant: 55.0 Conductivity: 0.96					**ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Controlled Exposure / Occupational BODY: 8.0 W/kg (averaged over 1 gram)**				

Notes:

1. The SAR values found were below the maximum limit of 8.0 w/kg (controlled exposure, 50% duty cycle).
2. The highest body-worn SAR value found was 4.08 w/kg (50% duty cycle).
3. The EUT was tested for body-worn SAR with the attached metal belt-clip providing a 1.1 cm separation distance between the back of the EUT and the outer surface of the planar phantom.
4. Test Date: October 05, 2001
5. Ambient TEMPERATURE: 23.5 °C
   Relative HUMIDITY: 57.5 %
   Atmospheric PRESSURE: 100.6 kPa
6. Fluid Temperature 23.0 °C
7. During the entire test the conducted power was maintained to within 5% of the initial conducted power.

Body-Worn SAR Measurements – EUT with Elevated Feed Gain Antenna (KRE1011216/01)

With Leather Belt-Loop (19B226627G2) & Swivel Socket (19B233243G3)

Freq. (MHz)	Chan.	Mode	Cond. Power Before (W)	Cond. Power After (W)	Battery Type	Antenna P/N	Belt-Loop & Swivel Separation Distance (cm)	SAR (w/kg)	
								100% Duty Cycle	50% Duty Cycle
806.000	Low	CW	3.2	3.2	NiCd	KRE1011216/01	3.3	3.80	1.90
815.000	Mid	CW	3.2	3.2	NiCd	KRE1011216/01	3.3	3.88	1.94
823.975	High	CW	3.2	3.1	NiCd	KRE1011216/01	3.3	4.00	2.00
850.970	Low	CW	3.2	3.2	NiCd	KRE1011216/01	3.3	3.02	1.51
860.520	Mid	CW	3.2	3.1	NiCd	KRE1011216/01	3.3	2.72	1.36
868.970	High	CW	3.2	3.1	NiCd	KRE1011216/01	3.3	2.25	1.13
823.975	High	CW	3.2	3.2	NiMH	KRE1011216/01	3.3	3.80	1.90
Mixture Type: Body Dielectric Constant: 55.0 Conductivity: 0.96					**ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Controlled Exposure / Occupational BODY: 8.0 W/kg (averaged over 1 gram)**				

Notes:

1. The SAR values found were below the maximum limit of 8.0 w/kg (controlled exposure).
2. The highest body-worn SAR value found was 4.00 w/kg (100% duty cycle).
3. The EUT was tested for body-worn SAR with the attached leather belt-loop and swivel socket providing a 3.3 cm separation distance between the back of the EUT and the outer surface of the planar phantom.
4. Test Date: October 10, 2001
5. Ambient TEMPERATURE: 23.4 °C
   Relative HUMIDITY: 57.3 %
   Atmospheric PRESSURE: 100.4 kPa
6. Fluid Temperature 23.0 °C
7. During the entire test the conducted power was maintained to within 5% of the initial conducted power.

Body-Worn SAR Measurements – EUT with Flexible Gain Antenna (KRE1011506/01)

With Leather Belt-Loop (19B226627G2) & Swivel Socket (19B233243G3)

Freq. (MHz)	Chan.	Mode	Cond. Power Before (W)	Cond. Power After (W)	Battery Type	Antenna P/N	Belt-Loop & Swivel Separation Distance (cm)	SAR (w/kg)	
								100% Duty Cycle	50% Duty Cycle
806.000	Low	CW	3.2	3.2	NiCd	KRE1011506/01	3.3	2.48	1.24
815.000	Mid	CW	3.2	3.2	NiCd	KRE1011506/01	3.3	2.68	1.34
823.975	High	CW	3.2	3.2	NiCd	KRE1011506/01	3.3	2.62	1.31
850.970	Low	CW	3.2	3.1	NiCd	KRE1011506/01	3.3	2.17	1.09
860.520	Mid	CW	3.2	3.2	NiCd	KRE1011506/01	3.3	1.92	0.96
868.970	High	CW	3.2	3.2	NiCd	KRE1011506/01	3.3	1.82	0.91
815.000	Mid	CW	3.2	3.2	NiMH	KRE1011506/01	3.3	2.20	1.10
Mixture Type: Body Dielectric Constant: 55.0 Conductivity: 0.96					**ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Controlled Exposure / Occupational BODY: 8.0 W/kg (averaged over 1 gram)**				

Notes:

1. The SAR values found were below the maximum limit of 8.0 w/kg (controlled exposure).
2. The highest body-worn SAR value found was 2.68 w/kg (100% duty cycle).
3. The EUT was tested for body-worn SAR with the attached leather belt-loop and swivel socket providing a 3.3 cm separation distance between the back of the EUT and the outer surface of the planar phantom.
4. Test Date: October 10, 2001
5. Ambient TEMPERATURE: 23.4 °C
   Relative HUMIDITY: 57.3 %
   Atmospheric PRESSURE: 100.4 kPa
6. Fluid Temperature 23.0°C
7. During the entire test the conducted power was maintained to within 5% of the initial conducted power.

Body-Worn SAR Measurements – EUT with Whip Antenna (KRE1011223/01)

With Leather Belt-Loop (19B226627G2) & Swivel Socket (19B233243G3)

Freq. (MHz)	Chan.	Mode	Cond. Power Before (W)	Cond. Power After (W)	Battery Type	Antenna P/N	Belt-Loop & Swivel Separation Distance (cm)	SAR (w/kg)	
								100% Duty Cycle	50% Duty Cycle
806.000	Low	CW	3.2	3.2	NiCd	KRE1011223/01	3.3	2.39	1.20
815.000	Mid	CW	3.2	3.2	NiCd	KRE1011223/01	3.3	2.40	1.20
823.975	High	CW	3.2	3.2	NiCd	KRE1011223/01	3.3	2.26	1.13
850.970	Low	CW	3.2	3.1	NiCd	KRE1011223/01	3.3	2.19	1.10
860.520	Mid	CW	3.2	3.2	NiCd	KRE1011223/01	3.3	2.03	1.02
868.970	High	CW	3.2	3.2	NiCd	KRE1011223/01	3.3	1.74	0.87
815.000	Mid	CW	3.2	3.2	NiMH	KRE1011223/01	3.3	2.35	1.18
Mixture Type: Body Dielectric Constant: 55.0 Conductivity: 0.96					**ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Controlled Exposure / Occupational BODY: 8.0 W/kg (averaged over 1 gram)**				

Notes:

1. The SAR values found were below the maximum limit of 8.0 w/kg (controlled exposure).
2. The highest body-worn SAR value found was 2.40 w/kg (100% duty cycle).
3. The EUT was tested for body-worn SAR with the attached leather belt-loop and swivel socket providing a 3.3 cm separation distance between the back of the EUT and the outer surface of the planar phantom.
4. Test Date: October 10, 2001
5. Ambient TEMPERATURE: 23.4 °C
   Relative HUMIDITY: 57.3 %
   Atmospheric PRESSURE: 100.4 kPa
6. Fluid Temperature 23.0 °C
7. During the entire test the conducted power was maintained to within 5% of the initial conducted power.

Body-Worn SAR Measurements – EUT with Elevated Feed Gain Antenna (KRE1011216/01)

With T-Strap (KRY1011656/1)

Freq. (MHz)	Chan.	Mode	Cond. Power Before (W)	Cond. Power After (W)	Battery Type	Antenna P/N	T-Strap Separation Distance (cm)	SAR (w/kg)	
								100% Duty Cycle	50% Duty Cycle
806.000	Low	CW	3.2	3.2	NiCd	KRE1011216/01	1.6	11.3	5.65
815.000	Mid	CW	3.2	3.2	NiCd	KRE1011216/01	1.6	10.3	5.15
823.975	High	CW	3.2	3.2	NiCd	KRE1011216/01	1.6	10.9	5.45
850.970	Low	CW	3.2	3.1	NiCd	KRE1011216/01	1.6	10.7	5.35
860.520	Mid	CW	3.2	3.2	NiCd	KRE1011216/01	1.6	9.21	4.61
868.970	High	CW	3.2	3.1	NiCd	KRE1011216/01	1.6	6.59	3.30
806.000	Low	CW	3.2	3.2	NiMH	KRE1011216/01	1.6	10.9	5.45
Mixture Type: Body Dielectric Constant: 55.0 Conductivity: 0.96					**ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Controlled Exposure / Occupational BODY: 8.0 W/kg (averaged over 1 gram)**				

Notes:

1. The SAR values found were below the maximum limit of 8.0 w/kg (controlled exposure, 50% duty cycle).
2. The highest body-worn SAR value found was 5.65 w/kg (50% duty cycle).
3. The EUT was tested for body-worn SAR with the attached T-strap providing a 1.6 cm separation distance between the back of the EUT and the outer surface of the planar phantom.
4. Test Date: October 09, 2001
5. Ambient TEMPERATURE: 23.3 °C
   Relative HUMIDITY: 57.4 %
   Atmospheric PRESSURE: 100.2 kPa
6. Fluid Temperature 23.0 °C
7. During the entire test the conducted power was maintained to within 5% of the initial conducted power.

Body-Worn SAR Measurements – EUT with Flexible Gain Antenna (KRE1011506/01)

With T-Strap (KRY1011656/1)

Freq. (MHz)	Chan.	Mode	Cond. Power Before (W)	Cond. Power After (W)	Battery Type	Antenna P/N	T-Strap Separation Distance (cm)	SAR (w/kg)	
								100% Duty Cycle	50% Duty Cycle
806.000	Low	CW	3.2	3.2	NiCd	KRE1011506/01	1.6	9.83	4.92
815.000	Mid	CW	3.2	3.2	NiCd	KRE1011506/01	1.6	7.57	3.79
823.975	High	CW	3.2	3.1	NiCd	KRE1011506/01	1.6	6.75	3.38
850.970	Low	CW	3.2	3.2	NiCd	KRE1011506/01	1.6	7.07	3.54
860.520	Mid	CW	3.2	3.2	NiCd	KRE1011506/01	1.6	5.99	3.00
868.970	High	CW	3.2	3.1	NiCd	KRE1011506/01	1.6	4.64	2.32
806.000	Low	CW	3.2	3.2	NiMH	KRE1011506/01	1.6	7.74	3.87
Mixture Type: Body Dielectric Constant: 55.0 Conductivity: 0.96					**ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Controlled Exposure / Occupational BODY: 8.0 W/kg (averaged over 1 gram)**				

Notes:

1. The SAR values found were below the maximum limit of 8.0 w/kg (controlled exposure, 50% duty cycle).
2. The highest body-worn SAR value found was 4.92 w/kg (50% duty cycle).
3. The EUT was tested for body-worn SAR with the attached T-strap providing a 1.6 cm separation distance between the back of the EUT and the outer surface of the planar phantom.
4. Test Date: October 09, 2001
5. Ambient TEMPERATURE: 23.3 °C
   Relative HUMIDITY: 57.4 %
   Atmospheric PRESSURE: 100.2 kPa
6. Fluid Temperature 23.0 °C
7. During the entire test the conducted power was maintained to within 5% of the initial conducted power.

Body-Worn SAR Measurements – EUT with Whip Antenna (KRE1011223/01)

With T-Strap (KRY1011656/1)

Freq. (MHz)	Chan.	Mode	Cond. Power Before (W)	Cond. Power After (W)	Battery Type	Antenna P/N	T-Strap Separation Distance (cm)	SAR (w/kg)	
								100% Duty Cycle	50% Duty Cycle
806.000	Low	CW	3.2	3.2	NiCd	KRE1011223/01	1.6	6.64	3.32
815.000	Mid	CW	3.2	3.2	NiCd	KRE1011223/01	1.6	9.69	4.85
823.975	High	CW	3.2	3.2	NiCd	KRE1011223/01	1.6	8.40	4.20
850.970	Low	CW	3.2	3.1	NiCd	KRE1011223/01	1.6	8.71	4.36
860.520	Mid	CW	3.2	3.2	NiCd	KRE1011223/01	1.6	8.84	4.42
868.970	High	CW	3.2	3.2	NiCd	KRE1011223/01	1.6	7.21	3.61
815.000	Mid	CW	3.2	3.2	NiMH	KRE1011223/01	1.6	7.67	3.84
Mixture Type: Body Dielectric Constant: 55.0 Conductivity: 0.96					**ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Controlled Exposure / Occupational BODY: 8.0 W/kg (averaged over 1 gram)**				

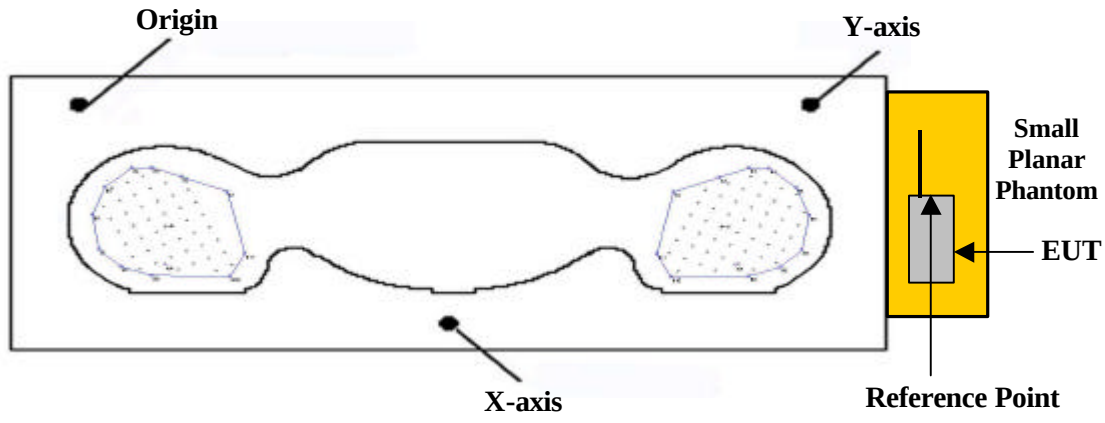
Notes:

1. The SAR values found were below the maximum limit of 8.0 w/kg (controlled exposure, 50% duty cycle).
2. The highest body-worn SAR value found was 4.85 w/kg (50% duty cycle).
3. The EUT was tested for body-worn SAR with the attached T-strap providing a 1.6 cm separation distance between the back of the EUT and the outer surface of the planar phantom.
4. Test Date: October 09, 2001
5. Ambient TEMPERATURE: 23.3 °C
   Relative HUMIDITY: 57.4 %
   Atmospheric PRESSURE: 100.2 kPa
6. Fluid Temperature 23.0 °C
7. During the entire test the conducted power was maintained to within 5% of the initial conducted power.

5.0 DETAILS OF SAR EVALUATION

The M/A-COM PRS INC. Model: Jaguar 725P Portable FM PTT Radio Transceiver FCC ID: OWDTR-0014-E was found to be compliant for localized Specific Absorption Rate (Controlled Exposure) based on the following test provisions and conditions:

1. The EUT and speaker microphone with antenna were tested in a face-held configuration with the front of the device placed parallel to the outer surface of the small planar phantom and with a 2.5 cm separation distance.
2. The speaker microphone with antenna was tested in a body-worn configuration with the back of the EUT placed parallel to the outer surface of the small planar phantom, with the attached metal clip touching the outer surface of the small planar phantom and providing a 1.4 cm separation distance.
3. The EUT was tested in a body-worn configuration with the back of the EUT placed parallel to the outer surface of the small planar phantom, with the attached metal belt-clip touching the outer surface of the small planar phantom and providing a 1.1 cm separation distance.
4. The EUT was tested in a body-worn configuration with the back of the EUT placed parallel to the outer surface of the small planar phantom, with the attached leather belt-loop and swivel socket touching the outer surface of the small planar phantom, and providing a 3.3 cm separation distance.
5. The EUT was tested in a body-worn configuration with the back of the EUT placed parallel to the outer surface of the small planar phantom, with the attached T-strap touching the outer surface of the small planar phantom, and providing a 1.6 cm separation distance.
6. The EUT was evaluated for SAR at maximum power and the unit was operated for an appropriate period prior to the evaluation in order to minimize drift. The conducted power levels were checked before and after each test. If the conducted power level dropped more than 5% of the initial power level, then the EUT was retested. Any unusual anomalies over the course of the test also warranted a re-evaluation.
7. The conducted power was measured according to the procedures described in FCC Part 2.1046.
8. The device was operated continuously in the transmit mode for the duration of the test.
9. The location of the maximum spatial SAR distribution (Hot Spot) was determined relative to the device and its antenna.
10. The EUT was tested with NiCd & NiMH battery options (fully charged).



Phantom Reference Point & EUT Positioning

6.0 EVALUATION PROCEDURES

The Specific Absorption Rate (SAR) evaluation was performed in the following manner:

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 in accordance with FCC OET Bulletin 65, Supplement C (Edition 01-01) using the SAM phantom.
(ii) For body-worn and face-held devices a planar phantom was used. Depending on the phantom used for the evaluation, all other phantoms were drained of fluid.
b. The SAR was determined by a pre-defined procedure within the DASY3 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 20mm x 20mm.
c. A 5x5x7 matrix was performed around the greatest spatial SAR distribution found during the area scan of the applicable exposed region. SAR values were then calculated using a 3-D spline interpolation algorithm and averaged over spatial volumes of 1 and 10 grams.
d. The depth of the simulating tissue in the planar phantom used for the SAR evaluation was no less than 15.0 cm.
e. The target tissue parameters for 835MHz were used in the SAR evaluation software. If there was any appreciable variation in the measured tissue parameters from the target values specified then the SAR was adjusted using the sensitivities to SAR (see "Appendix D - SAR Sensitivities").
f. The E-field probe conversion factors for 835MHz were determined as follows:

- In brain and muscle tissue between 750MHz and 1GHz, the conversion factor decreases approximately 1.3% per 100MHz frequency increase.
- In brain and muscle tissue between 1.6GHz and 2GHz, the conversion factor decreases approximately 1% per 100MHz frequency increase.

7.0 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

Notes: 1. Uncontrolled environments are defined as locations where there is potential exposure of individuals who have no knowledge or control of their potential exposure.
2. 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.

8.0 SYSTEM VALIDATION

Prior to the assessment, the system was verified in the small planar phantom with a 900MHz dipole. A forward power of 250 mW was applied to the dipole and system was verified to a tolerance of ±10%. The applicable verifications are as follows (see Appendix B for validation test plots):

Dipole Validation Kit	Target SAR 1g (w/kg)	Measured SAR 1g (w/kg) & Validation Date				
D900V2	2.78	2.83 10/05/01	2.83 10/09/01	2.86 10/10/01	2.79 10/15/01	2.77 10/16/01

9.0 TISSUE PARAMETERS

The dielectric parameters of the fluids were verified prior to the SAR evaluation using an 85070C Dielectric Probe Kit and an 8753E Network Analyzer. The dielectric parameters of the fluid are as follows:

BRAIN TISSUE PARAMETERS FOR DIPOLE VALIDATION & EUT EVALUATION			
Equivalent Tissue	**Dielectric Constant e_r**	**Conductivity s (mho/m)**	**r (Kg/m^3)**
900MHz Brain (Target)	41.5 ±5%	0.97 ±5%	1000
835MHz Brain (Target)	41.5 ±5%	0.90 ±5%	
900MHz Brain (Measured) 10/05/01	41.3	0.97	1000
900MHz Brain (Measured) 10/09/01	41.4	0.96	1000
900MHz Brain (Measured) 10/10/01	41.6	0.98	1000
900MHz Brain (Measured) 10/15/01	41.2	0.97	1000
835MHz Brain (Measured)	41.2	0.90	
900MHz Brain (Measured) 10/16/01	41.1	0.97	1000
835MHz Brain (Measured)	41.1	0.90	

TISSUE PARAMETERS (Continued)

BODY TISSUE PARAMETERS FOR EUT EVALUATION			
Equivalent Tissue	**Dielectric Constant e_r**	**Conductivity s (mho/m)**	**r (Kg/m^3)**
835MHz Body (Target)	55.2 ±5%	0.97 ±5%	1000
10/05/01 835MHz Body (Measured)	55.0 ±5%	0.96 ±5%	1000
10/09/01 835MHz Body (Measured)	55.0 ±5%	0.96 ±5%	1000
10/10/01 835MHz Body (Measured)	55.0 ±5%	0.96 ±5%	1000
10/16/01 835MHz Body (Measured)	55.0 ±5%	0.96 ±5%	1000

10.0 EQUIVALENT TISSUES

The brain and body 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 (permitivity and conductivity).

TISSUE MIXTURE FOR DIPOLE VALIDATION & EUT EVALUATION		
INGREDIENT	**900MHz Validation & 835MHz Evaluation Brain Mixture (%)**	**835MHz Evaluation Body Mixture (%)**
Water	40.71	53.79
Sugar	56.63	45.13
Salt	1.48	0.98
HEC	0.99	-
Bactericide	0.19	0.1

11.0 ROBOT SYSTEM SPECIFICATIONS

Specifications

POSITIONER:	Stäubli Unimation Corp. Robot Model: RX60L
Repeatability:	0.02 mm
No. of axis:	6

Data Acquisition Electronic (DAE) System

Cell Controller

Processor:	Pentium III
Clock Speed:	450 MHz
Operating System:	Windows NT
Data Card:	DASY3 PC-Board

Data Converter

Features:	Signal Amplifier, multiplexer, A/D converter, and control logic
Software:	DASY3 software
Connecting Lines:	Optical downlink for data and status info. Optical uplink for commands and clock

PC Interface Card

Function:	24 bit (64 MHz) DSP for real time processing Link to DAE3 16-bit A/D converter for surface detection system serial link to robot direct emergency stop output for robot

E-Field Probe

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

Phantom Type(s)

Type 1:	SAM V4.0C
Shell Material:	Fiberglass
Thickness:	2.0 ±0.1 mm
Volume:	Approx. 20 liters
Type 2:	Small Planar Phantom
Shell Material:	Plexiglas
Bottom Thickness:	2.0 mm ±0.1mm
Dimensions:	Box: 36.5cm (L) x 22.5cm (W) x 20.3cm (H); Back Plane: 25.3cm (H)

12.0 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 ± 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)
Dynam. Rnge:	5 µW/g to >100 mW/g; Linearity: ±0.2 dB
Srfce. Detect.	±0.2 mm repeatability in air and clear liquids over diffuse reflecting surfaces
Dimensions:	Overall length: 330 mm Tip length: 16 mm Body diameter: 12 mm Tip diameter: 6.8 mm Distance from probe tip to dipole centers: 2.7 mm
Application:	General dosimetry up to 3 GHz Compliance tests of mobile phone

ET3DV6 E-Field Probe

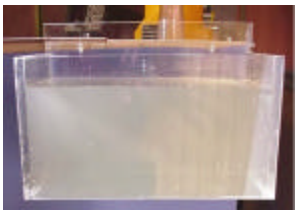
13.0 SAM PHANTOM V4.0C

The SAM phantom V4.0C is a fiberglass shell phantom with a 2.0 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.

SAM Phantom

14.0 SMALL PLANAR PHANTOM

The small planar phantom is constructed of Plexiglas material with a 2.0 mm shell thickness for face-held and body-worn SAR evaluations. The small planar phantom is mounted onto the outer left hand section of the DASY3 compact system.


Small Planar Phantom

15.0 DEVICE HOLDER

The DASY3 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

16.0 TEST EQUIPMENT LIST

SAR MEASUREMENT SYSTEM		
EQUIPMENT	***SERIAL NO.***	***CALIBRATION DATE***
DASY3 System -Robot -ET3DV6 E-Field Probe -DAE -900MHz Validation Dipole -1800MHz Validation Dipole -SAM Phantom V4.0C -Small Planar Phantom	 599396-01 1590 370 054 247 N/A N/A	 N/A Mar 2001 Sept 1999 June 2001 June 2001 N/A N/A
85070C Dielectric Probe Kit	N/A	N/A
Gigatronics 8652A Power Meter -Power Sensor 80701A -Power Sensor 80701A	1835272 1833535 1833542	Oct 1999 Jan 2001 Feb 2001
E4408B Spectrum Analyzer	US39240170	Nov 1999
8594E Spectrum Analyzer	3543A02721	Mar 2000
8753E Network Analyzer	US38433013	Nov 1999
8648D Signal Generator	3847A00611	N/A
5S1G4 Amplifier Research Power Amplifier	26235	N/A

17.0 MEASUREMENT UNCERTAINTIES

Uncertainty Description	Error	Distribution	Weight	Standard Deviation	Offset
Probe Uncertainty					
Axial isotropy	±0.2 dB	U-Shaped	0.5	±2.4 %	
Spherical isotropy	±0.4 dB	U-Shaped	0.5	±4.8 %	
Isotropy from gradient	±0.5 dB	U-Shaped	0	±	
Spatial resolution	±0.5 %	Normal	1	±0.5 %	
Linearity error	±0.2 dB	Rectangle	1	±2.7 %	
Calibration error	±3.3 %	Normal	1	±3.3 %	
SAR Evaluation Uncertainty					
Data acquisition error	±1 %	Rectangle	1	±0.6 %	
ELF and RF disturbances	±0.25 %	Normal	1	±0.25 %	
Conductivity assessment	±5 %	Rectangle	1	±5.8 %	
Spatial Peak SAR Evaluation Uncertainty					
Extrapolated boundary effect	±3 %	Normal	1	±3 %	±5 %
Probe positioning error	±0.1 mm	Normal	1	±1 %	
Integrated and cube orientation	±3 %	Normal	1	±3 %	
Cube Shape inaccuracies	±2 %	Rectangle	1	±1.2 %	
Device positioning	±6 %	Normal	1	±6 %	
Combined Uncertainties				±11.7 %	±5 %

Measurement uncertainties in SAR measurements are difficult to quantify due to several variables including biological, physiological, and environmental.

According to ANSI/IEEE C95.3, the overall uncertainties are difficult to assess and will vary with the type of meter and usage situation. However, accuracy's of ±1 to 3 dB can be expected in practice, with greater uncertainties in near-field situations and at higher frequencies (shorter wavelengths), or areas where large reflecting objects are present. Under optimum measurement conditions, SAR measurement uncertainties of at least ±2dB can be expected.

According to CENELEC, typical worst-case uncertainty of field measurements is ±5 dB.
For well-defined modulation characteristics the uncertainty can be reduced to ±3 dB.

18.0 REFERENCES

(1) ANSI, *ANSI/IEEE C95.1: IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3kHz to 300 Ghz, The Institute of Electrical and Electronics Engineers, Inc., New York, NY: 1992.*

(2) 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.

(3) Thomas Schmid, Oliver Egger, and Neils Kuster, "Automated E-field scanning system for dosimetric assessments", IEEE *Transaction on Microwave Theory and Techniques*, Vol. 44, pp. 105 – 113: January 1996.

(4) Niels Kuster, Ralph Kastle, and Thomas Schmid, "Dosimetric evaluation of mobile communications equipment with know precision", IEICE Transactions of Communications, vol. E80-B, no. 5, pp. 645 – 652: May 1997.

APPENDIX A - SAR MEASUREMENT DATA

For each handheld radio test configuration a complete area scan was performed in order to determine the location of the internal field gradients relative to the device. If, on the full area scan, the internal field distribution showed clear evidence that only one hot spot occurred, then only the region around the hot spot was investigated. For the whip antenna (KRE1011223/01) scans, two hot spot locations occurred when loaded onto the handheld radio, and in this case the entire device was evaluated.

<u>FACE SAR TEST PLOTS</u>

WITH HANDHELD RADIO & ELEVATED FEED GAIN ANTENNA (KRE1011216/01)

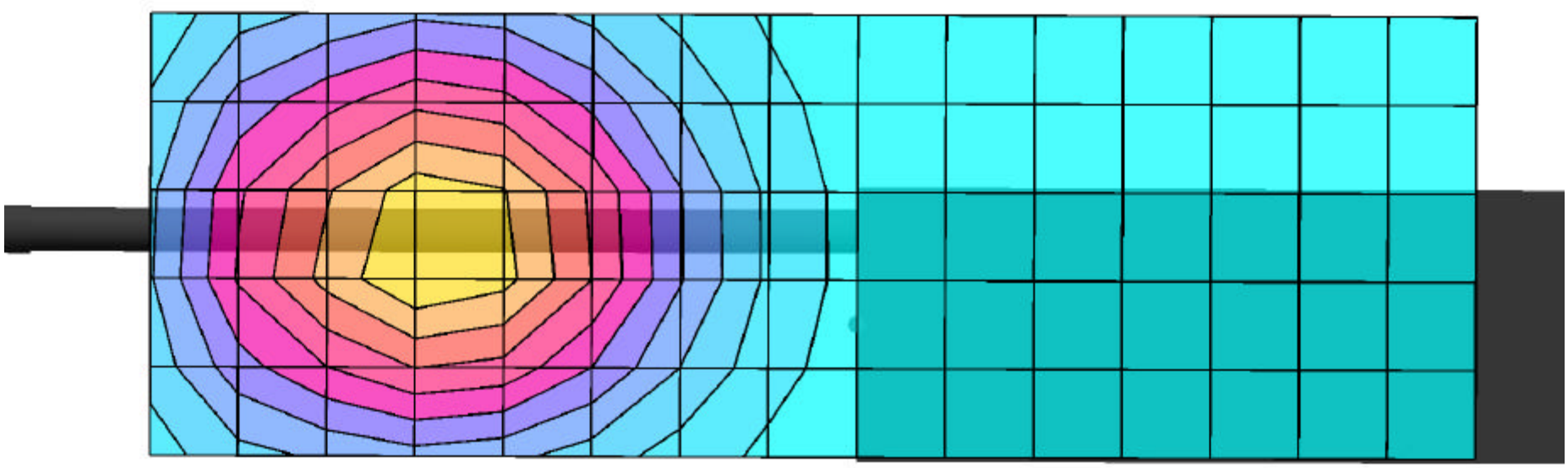
(2.5cm Separation Distance)

M/A-COM PRS INC. FCC ID: OWDTR-0014-E

Small Planar Phantom: Planar Section; Position: (90°,0°)
Probe: ET3DV6 - SN1590; ConvF(6.91,6.91,6.91); Crest factor: 1.0
835 MHz Brain: σ = 0.90 mho/m ε_r = 41.5 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0

This large area scan is intended to show the peak SAR location relative to the device

Face SAR at 2.5 cm Separation Distance - FULL AREA SCAN
Portable FM PTT Radio Transceiver
Elevated Feed Gain Antenna (KRE1011216/01)
Nickel Cadmium Battery (BKB191210/3)
M/A-Com Model: Jaguar 725P
Continuous Wave Mode
High Channel [823.975 MHz]
Conducted Power: 3.2 Watts
Date Tested: October 15, 2001



M/A-COM PRS INC. FCC ID: OWDTR-0014-E

Small Planar Phantom; Planar Section; Position: (90°,270°)
Probe: ET3DV6 - SN1590; ConvF(6.91,6.91,6.91); Crest factor: 1.0
835 MHz Brain: σ = 0.90 mho/m ε_r = 41.5 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Cube 5x5x7
SAR (1g): 3.37 mW/g, SAR (10g): 2.46 mW/g

Face SAR at 2.5 cm Separation Distance
Portable FM PTT Radio Transceiver
Elevated Feed Gain Antenna (KRE1011216/01)
Nickel Cadmium Battery (BKB191210/3)
M/A-Com Model: Jaguar 725P
Continuous Wave Mode
Low Channel [806.000 MHz]
Conducted Power: 3.2 Watts
Date Tested: October 15, 2001

M/A-COM PRS INC. FCC ID: OWDTR-0014-E

Small Planar Phantom; Planar Section; Position: (90°,270°)
Probe: ET3DV6 - SN1590; ConvF(6.91,6.91,6.91); Crest factor: 1.0
835 MHz Brain: σ = 0.90 mho/m ε_r = 41.5 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Cube 5x5x7
SAR (1g): 3.37 mW/g, SAR (10g): 2.45 mW/g

Face SAR at 2.5 cm Separation Distance
Portable FM PTT Radio Transceiver
Elevated Feed Gain Antenna (KRE1011216/01)
Nickel Cadmium Battery (BKB191210/3)
M/A-Com Model: Jaguar 725P
Continuous Wave Mode
Mid Channel [815.000 MHz]
Conducted Power: 3.2 Watts
Date Tested: October 15, 2001

M/A-COM PRS INC. FCC ID: OWDTR-0014-E

Small Planar Phantom; Planar Section; Position: (90°,270°)
Probe: ET3DV6 - SN1590; ConvF(6.91,6.91,6.91); Crest factor: 1.0
835 MHz Brain: σ = 0.90 mho/m ε_r = 41.5 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Cube 5x5x7
SAR (1g): 3.59 mW/g, SAR (10g): 2.62 mW/g

Face SAR at 2.5 cm Separation Distance
Portable FM PTT Radio Transceiver
Elevated Feed Gain Antenna (KRE1011216/01)
Nickel Cadmium Battery (BKB191210/3)
M/A-Com Model: Jaguar 725P
Continuous Wave Mode
High Channel [823.975 MHz]
Conducted Power: 3.2 Watts
Date Tested: October 15, 2001

M/A-COM PRS INC. FCC ID: OWDTR-0014-E

Small Planar Phantom; Planar Section; Position: (90°,270°)
Probe: ET3DV6 - SN1590; ConvF(6.91,6.91,6.91); Crest factor: 1.0
835 MHz Brain: σ = 0.90 mho/m ε_r = 41.5 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Cube 5x5x7
SAR (1g): 2.52 mW/g, SAR (10g): 1.82 mW/g

Face SAR at 2.5 cm Separation Distance
Portable FM PTT Radio Transceiver
Elevated Feed Gain Antenna (KRE1011216/01)
Nickel Cadmium Battery (BKB191210/3)
M/A-Com Model: Jaguar 725P
Continuous Wave Mode
Low Channel [850.970 MHz]
Conducted Power: 3.2 Watts
Date Tested: October 15, 2001

M/A-COM PRS INC. FCC ID: OWDTR-0014-E

Small Planar Phantom; Planar Section; Position: (90°,270°)
Probe: ET3DV6 - SN1590; ConvF(6.91,6.91,6.91); Crest factor: 1.0
835 MHz Brain: σ = 0.90 mho/m ε_r = 41.5 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Cube 5x5x7
SAR (1g): 1.99 mW/g, SAR (10g): 1.43 mW/g

Face SAR at 2.5 cm Separation Distance
Portable FM PTT Radio Transceiver
Elevated Feed Gain Antenna (KRE1011216/01)
Nickel Cadmium Battery (BKB191210/3)
M/A-Com Model: Jaguar 725P
Continuous Wave Mode
Mid Channel [860.520 MHz]
Conducted Power: 3.2 Watts
Date Tested: October 15, 2001

M/A-COM PRS INC. FCC ID: OWDTR-0014-E

Small Planar Phantom: Planar Section; Position: (90°,270°)
Probe: ET3DV6 - SN1590; ConvF(6.91,6.91,6.91); Crest factor: 1.0
835 MHz Brain: σ = 0.90 mho/m ε_r = 41.5 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Cube 5x5x7
SAR (1g): 1.84 mW/g, SAR (10g): 1.33 mW/g

Face SAR at 2.5 cm Separation Distance
Portable FM PTT Radio Transceiver
Elevated Feed Gain Antenna (KRE1011216/01)
Nickel Cadmium Battery (BKB191210/3)
M/A-Com Model: Jaguar 725P
Continuous Wave Mode
High Channel [868.970 MHz]
Conducted Power: 3.2 Watts
Date Tested: October 15, 2001

M/A-COM PRS INC. FCC ID: OWDTR-0014-E

Small Planar Phantom: Planar Section; Position: (90°,270°)
Probe: ET3DV6 - SN1590; ConvF(6.91,6.91,6.91); Crest factor: 1.0
835 MHz Brain: σ = 0.90 mho/m ε_r = 41.5 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Cube 5x5x7
SAR (1g): 3.48 mW/g, SAR (10g): 2.52 mW/g

Face SAR at 2.5 cm Separation Distance
Portable FM PTT Radio Transceiver
Elevated Feed Gain Antenna (KRE1011216/01)
Nickel Metal Hydride Battery (BKB191210/4)
M/A-Com Model: Jaguar 725P
Continuous Wave Mode
High Channel [823.975 MHz]
Conducted Power: 3.2 Watts
Date Tested: October 15, 2001

<u>FACE SAR TEST PLOTS</u>

WITH HANDHELD RADIO & FLEXIBLE GAIN ANTENNA (KRE1011506/01)

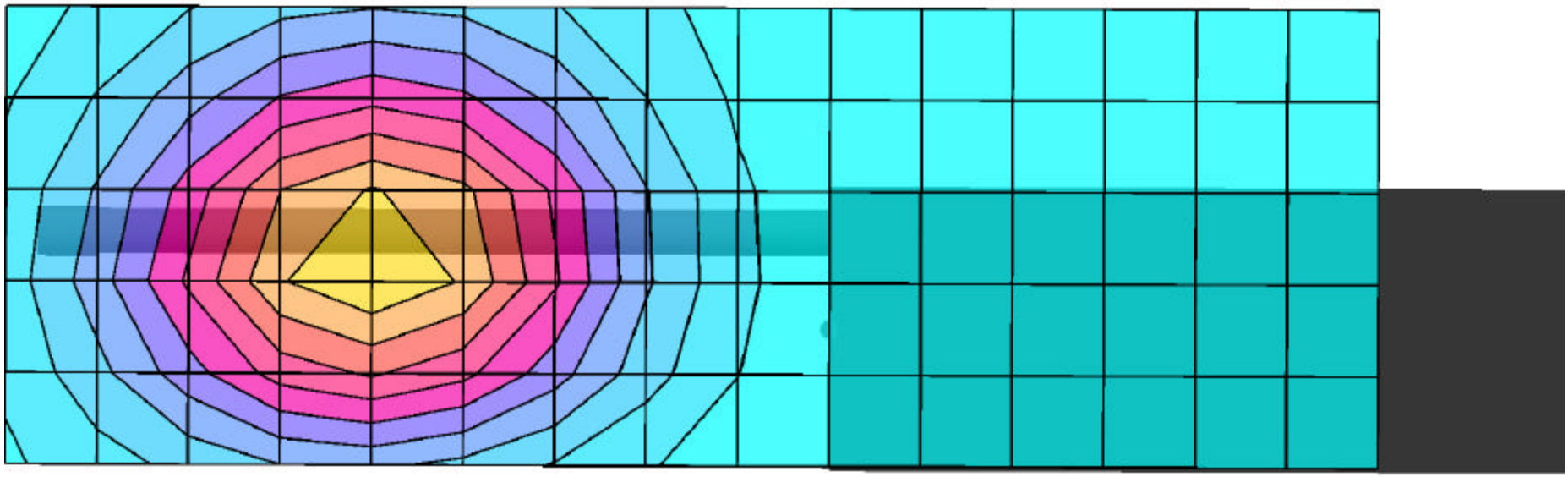
(2.5cm Separation Distance)

M/A-COM PRS INC. FCC ID: OWDTR-0014-E

Small Planar Phantom: Planar Section; Position: (90°,0°)
Probe: ET3DV6 - SN1590; ConvF(6.91,6.91,6.91); Crest factor: 1.0
835 MHz Brain: σ = 0.90 mho/m ε_r = 41.5 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0

This large area scan is intended to show the peak SAR location relative to the device

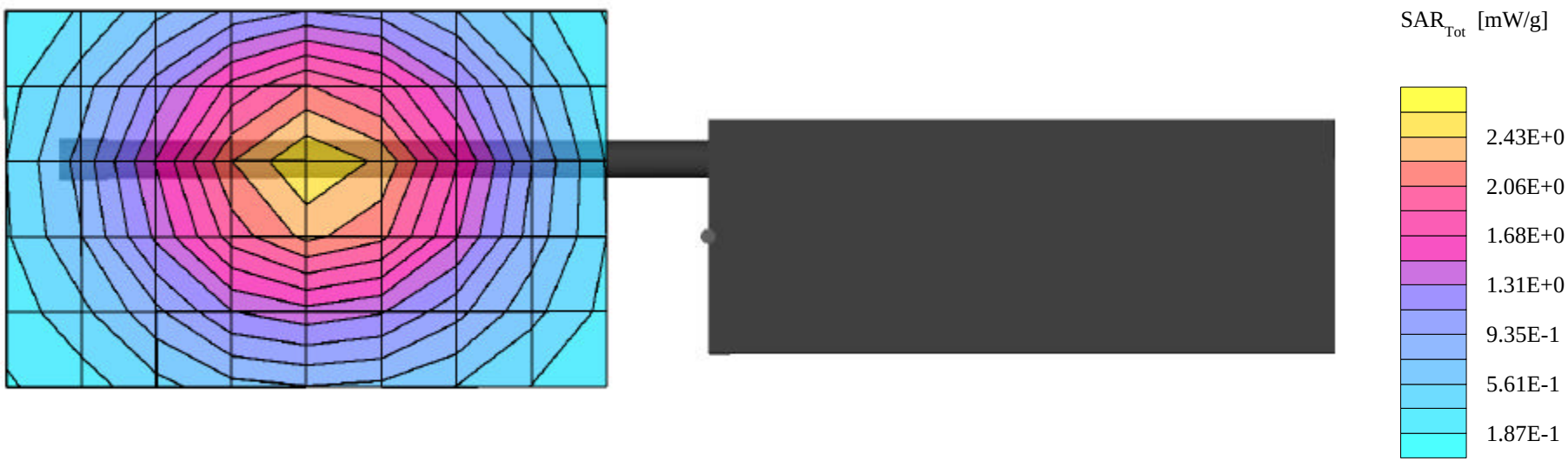
Face SAR at 2.5 cm Separation Distance - FULL AREA SCAN
Portable FM PTT Radio Transceiver
Flexible Gain Antenna (KRE1011506/01)
Nickel Cadmium Battery (BKB191210/3)
M/A-Com Model: Jaguar 725P
Continuous Wave Mode
Mid Channel [815.000 MHz]
Conducted Power: 3.2 Watts
Date Tested: October 15, 2001



M/A-COM PRS INC. FCC ID: OWDTR-0014-E

Small Planar Phantom; Planar Section; Position: (90°,270°)
Probe: ET3DV6 - SN1590; ConvF(6.91,6.91,6.91); Crest factor: 1.0
835 MHz Brain: σ = 0.90 mho/m ε_r = 41.5 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Cube 5x5x7
SAR (1g): 2.45 mW/g, SAR (10g): 1.77 mW/g

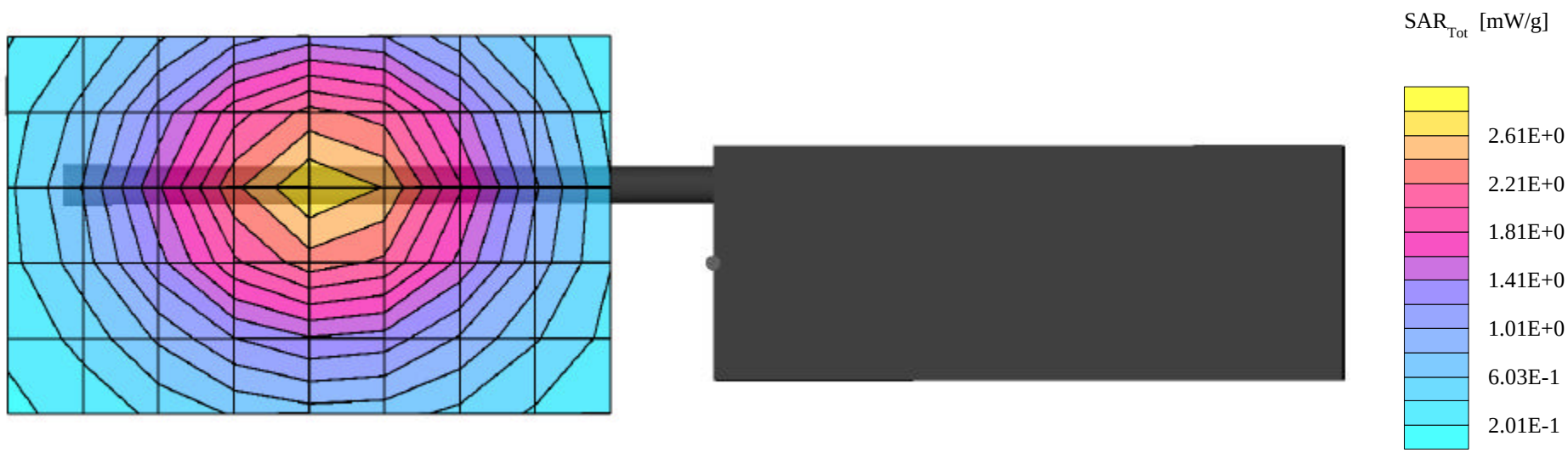
Face SAR at 2.5 cm Separation Distance
Portable FM PTT Radio Transceiver
Flexible Gain Antenna (KRE1011506/01)
Nickel Cadmium Battery (BKB191210/3)
M/A-Com Model: Jaguar 725P
Continuous Wave Mode
Low Channel [806.000 MHz]
Conducted Power: 3.2 Watts
Date Tested: October 15, 2001



M/A-COM PRS INC. FCC ID: OWDTR-0014-E

Small Planar Phantom; Planar Section; Position: (90°,270°)
Probe: ET3DV6 - SN1590; ConvF(6.91,6.91,6.91); Crest factor: 1.0
835 MHz Brain: σ = 0.90 mho/m ε_r = 41.5 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Cube 5x5x7
SAR (1g): 2.58 mW/g, SAR (10g): 1.88 mW/g

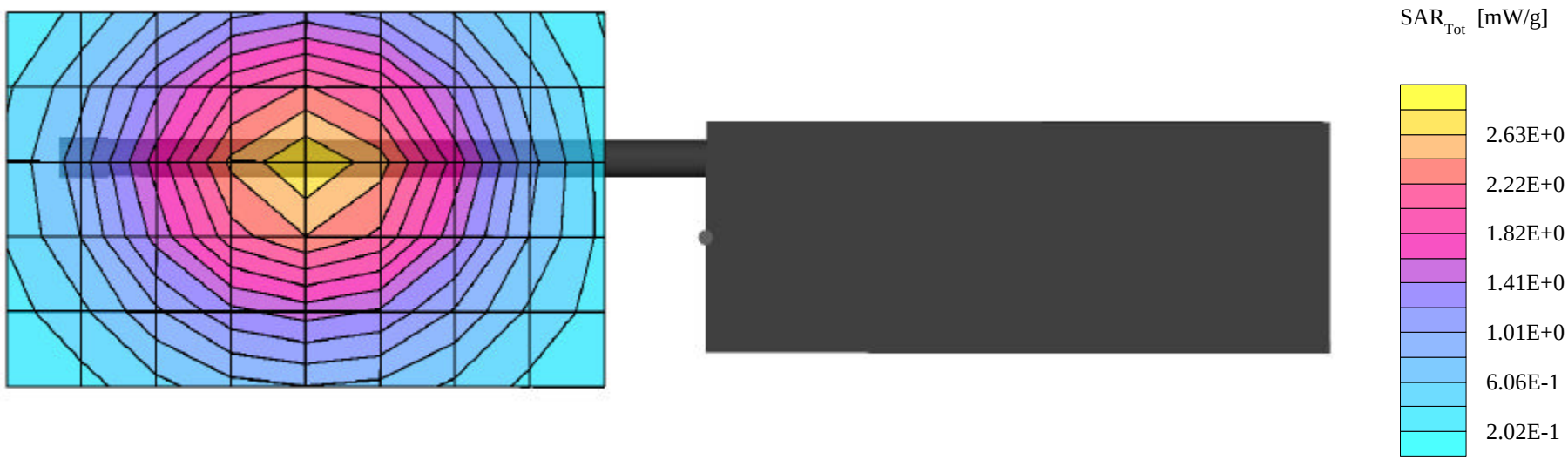
Face SAR at 2.5 cm Separation Distance
Portable FM PTT Radio Transceiver
Flexible Gain Antenna (KRE1011506/01)
Nickel Cadmium Battery (BKB191210/3)
M/A-Com Model: Jaguar 725P
Continuous Wave Mode
Mid Channel [815.000 MHz]
Conducted Power: 3.2 Watts
Date Tested: October 15, 2001



M/A-COM PRS INC. FCC ID: OWDTR-0014-E

Small Planar Phantom; Planar Section; Position: (90°,270°)
Probe: ET3DV6 - SN1590; ConvF(6.91,6.91,6.91); Crest factor: 1.0
835 MHz Brain: σ = 0.90 mho/m ε_r = 41.5 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Cube 5x5x7
SAR (1g): 2.53 mW/g, SAR (10g): 1.84 mW/g

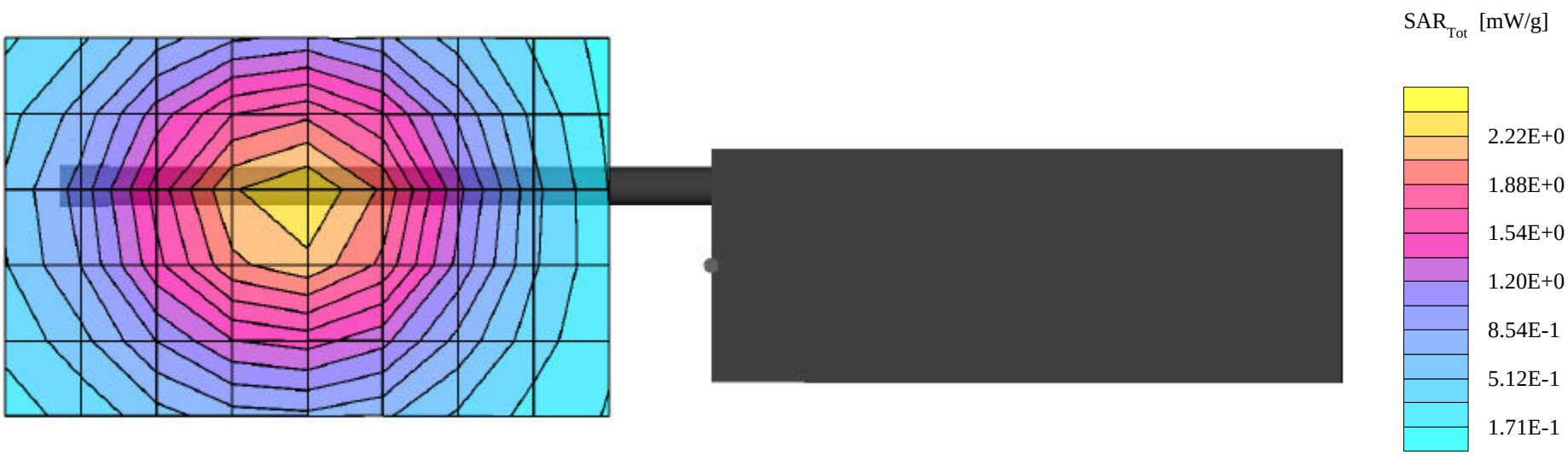
Face SAR at 2.5 cm Separation Distance
Portable FM PTT Radio Transceiver
Flexible Gain Antenna (KRE1011506/01)
Nickel Cadmium Battery (BKB191210/3)
M/A-Com Model: Jaguar 725P
Continuous Wave Mode
High Channel [823.975 MHz]
Conducted Power: 3.2 Watts
Date Tested: October 15, 2001



M/A-COM PRS INC. FCC ID: OWDTR-0014-E

Small Planar Phantom; Planar Section; Position: (90°,270°)
Probe: ET3DV6 - SN1590; ConvF(6.91,6.91,6.91); Crest factor: 1.0
835 MHz Brain: σ = 0.90 mho/m ε_r = 41.5 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Cube 5x5x7
SAR (1g): 2.21 mW/g, SAR (10g): 1.59 mW/g

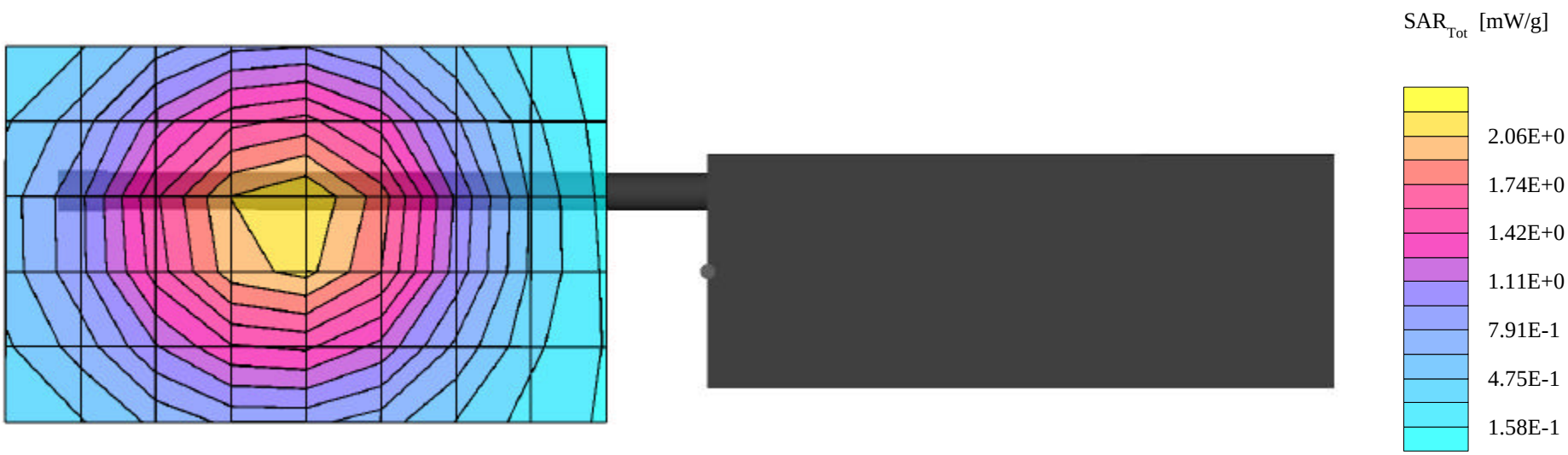
Face SAR at 2.5 cm Separation Distance
Portable FM PTT Radio Transceiver
Flexible Gain Antenna (KRE1011506/01)
Nickel Cadmium Battery (BKB191210/3)
M/A-Com Model: Jaguar 725P
Continuous Wave Mode
Low Channel [850.970 MHz]
Conducted Power: 3.2 Watts
Date Tested: October 15, 2001



M/A-COM PRS INC. FCC ID: OWDTR-0014-E

Small Planar Phantom; Planar Section; Position: (90°,270°)
Probe: ET3DV6 - SN1590; ConvF(6.91,6.91,6.91); Crest factor: 1.0
835 MHz Brain: σ = 0.90 mho/m ε_r = 41.5 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Cube 5x5x7
SAR (1g): 2.06 mW/g, SAR (10g): 1.48 mW/g

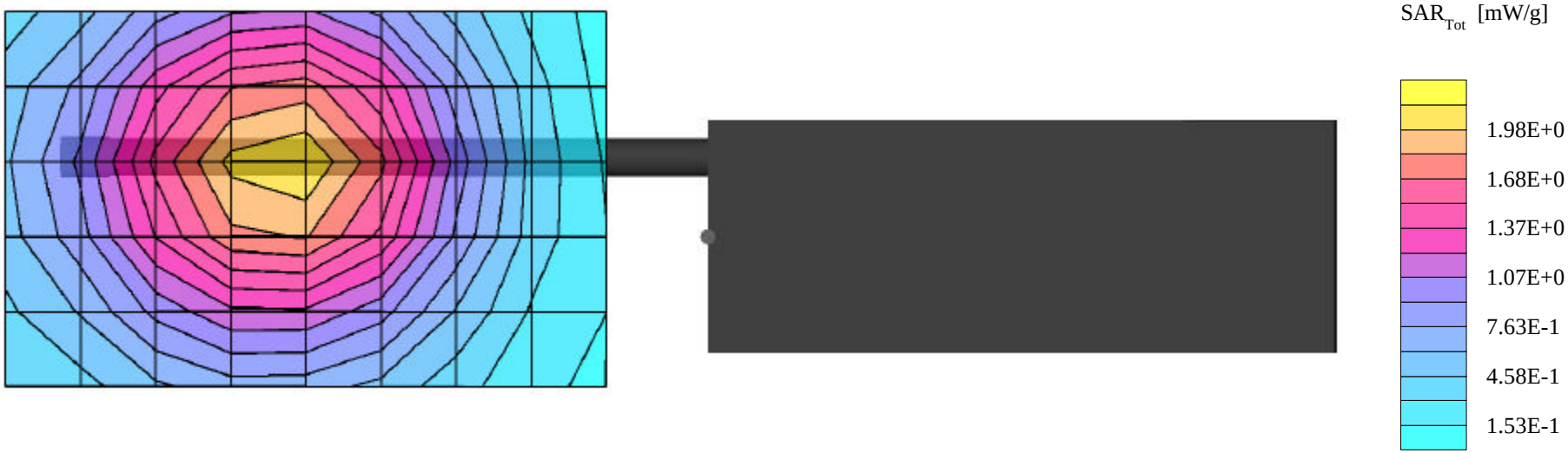
Face SAR at 2.5 cm Separation Distance
Portable FM PTT Radio Transceiver
Flexible Gain Antenna (KRE1011506/01)
Nickel Cadmium Battery (BKB191210/3)
M/A-Com Model: Jaguar 725P
Continuous Wave Mode
Mid Channel [860.520 MHz]
Conducted Power: 3.2 Watts
Date Tested: October 15, 2001



M/A-COM PRS INC. FCC ID: OWDTR-0014-E

Small Planar Phantom; Planar Section; Position: (90°,270°)
Probe: ET3DV6 - SN1590; ConvF(6.91,6.91,6.91); Crest factor: 1.0
835 MHz Brain: σ = 0.90 mho/m ε_r = 41.5 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Cube 5x5x7
SAR (1g): 1.88 mW/g, SAR (10g): 1.35 mW/g

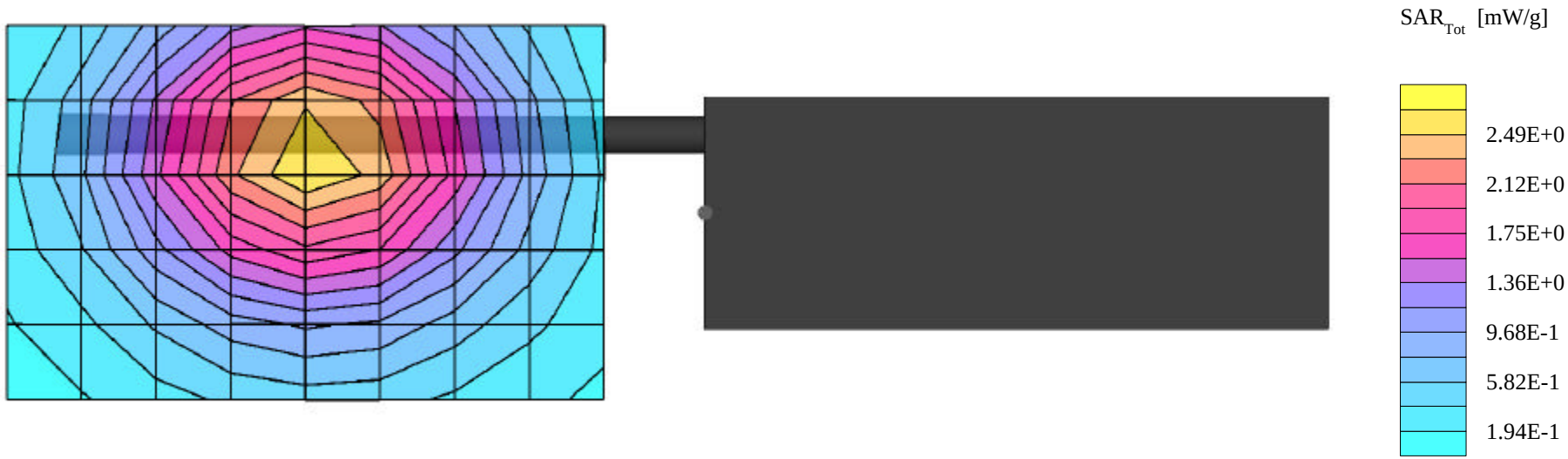
Face SAR at 2.5 cm Separation Distance
Portable FM PTT Radio Transceiver
Flexible Gain Antenna (KRE1011506/01)
Nickel Cadmium Battery (BKB191210/3)
M/A-Com Model: Jaguar 725P
Continuous Wave Mode
High Channel [868.970 MHz]
Conducted Power: 3.2 Watts
Date Tested: October 15, 2001



M/A-COM PRS INC. FCC ID: OWDTR-0014-E

Small Planar Phantom; Planar Section; Position: (90°,270°)
Probe: ET3DV6 - SN1590; ConvF(6.91,6.91,6.91); Crest factor: 1.0
835 MHz Brain: σ = 0.90 mho/m ε_r = 41.5 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Cube 5x5x7
SAR (1g): 2.41 mW/g, SAR (10g): 1.74 mW/g

Face SAR at 2.5 cm Separation Distance
Portable FM PTT Radio Transceiver
Flexible Gain Antenna (KRE1011506/01)
Nickel Metal Hydride Battery (BKB191210/4)
M/A-Com Model: Jaguar 725P
Continuous Wave Mode
Mid Channel [815.000 MHz]
Conducted Power: 3.2 Watts
Date Tested: October 15, 2001



<u>FACE SAR TEST PLOTS</u>

WITH HANDHELD RADIO & WHIP ANTENNA (KRE1011223/01)

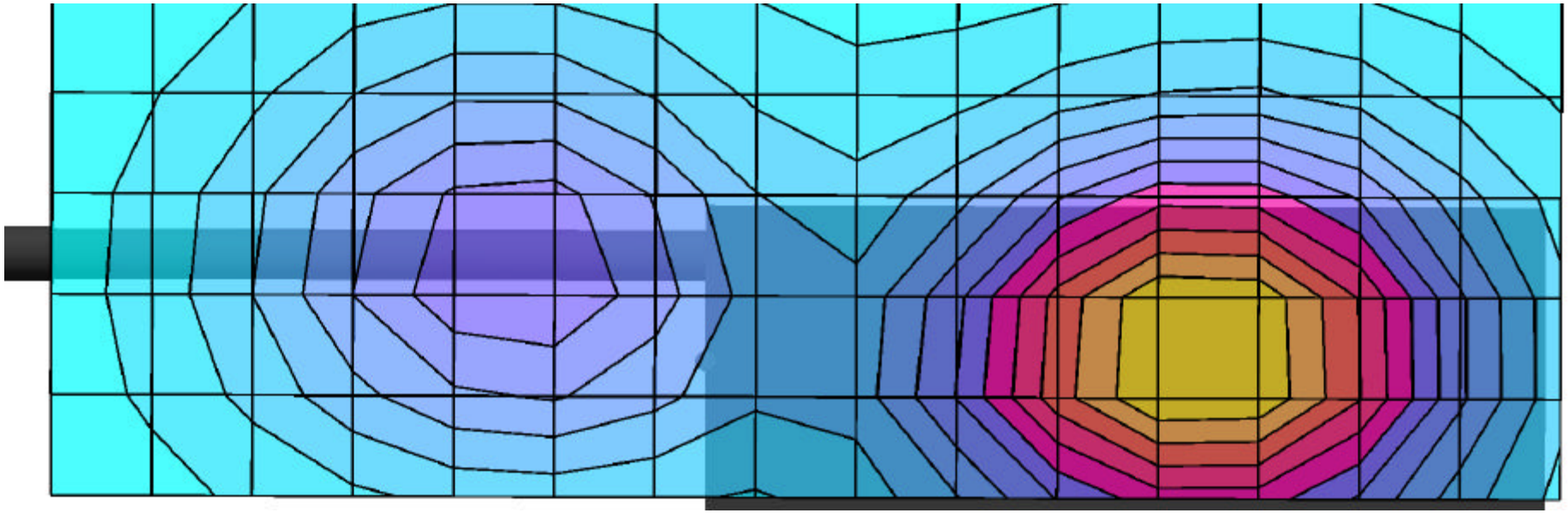
(2.5cm Separation Distance)

M/A-COM PRS INC. FCC ID: OWDTR-0014-E

Small Planar Phantom: Planar Section; Position: (90°,0°)
Probe: ET3DV6 - SN1590; ConvF(6.91,6.91,6.91); Crest factor: 1.0
835 MHz Brain: σ = 0.90 mho/m ε_r = 41.5 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0

This large area scan is intended to show the peak SAR location relative to the device

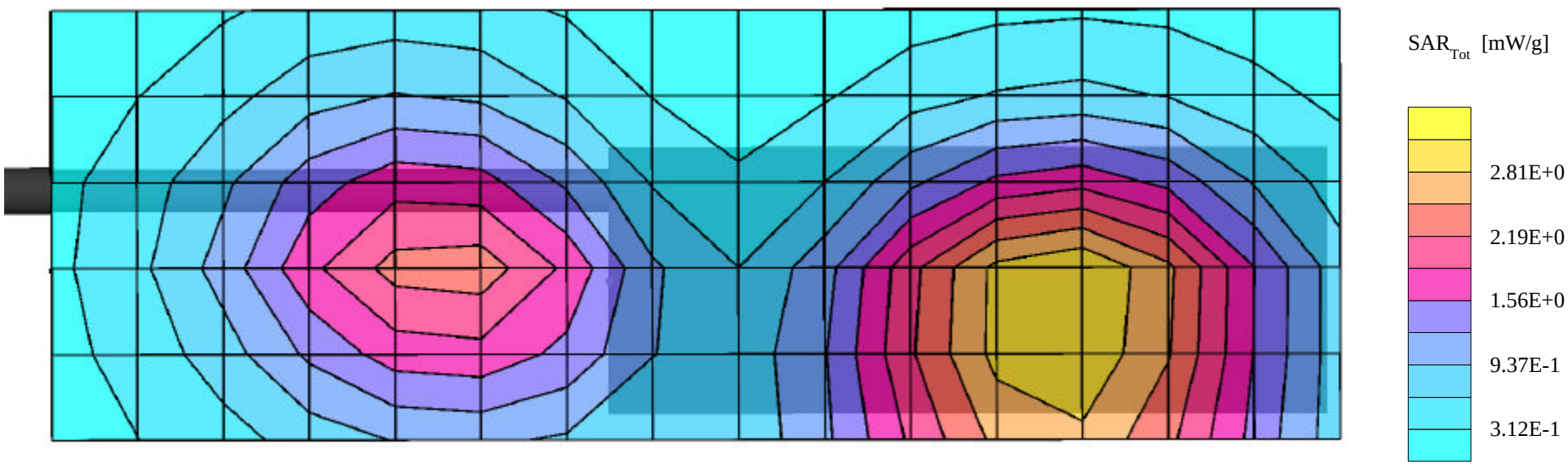
Face SAR at 2.5 cm Separation Distance - FULL AREA SCAN
Portable FM PTT Radio Transceiver
Whip Antenna (KRE1011223/01)
Nickel Cadmium Battery (BKB191210/3)
M/A-Com Model: Jaguar 725P
Continuous Wave Mode
Low Channel [806.000 MHz]
Conducted Power: 3.2 Watts
Date Tested: October 15, 2001



M/A-COM PRS INC. FCC ID: OWDTR-0014-E

Small Planar Phantom: Planar Section; Position: (90°,0°)
Probe: ET3DV6 - SN1590; ConvF(6.91,6.91,6.91); Crest factor: 1.0
835 MHz Brain: σ = 0.90 mho/m ε_r = 41.5 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Cube 5x5x7
SAR (1g): 2.93 mW/g, SAR (10g): 2.07 mW/g

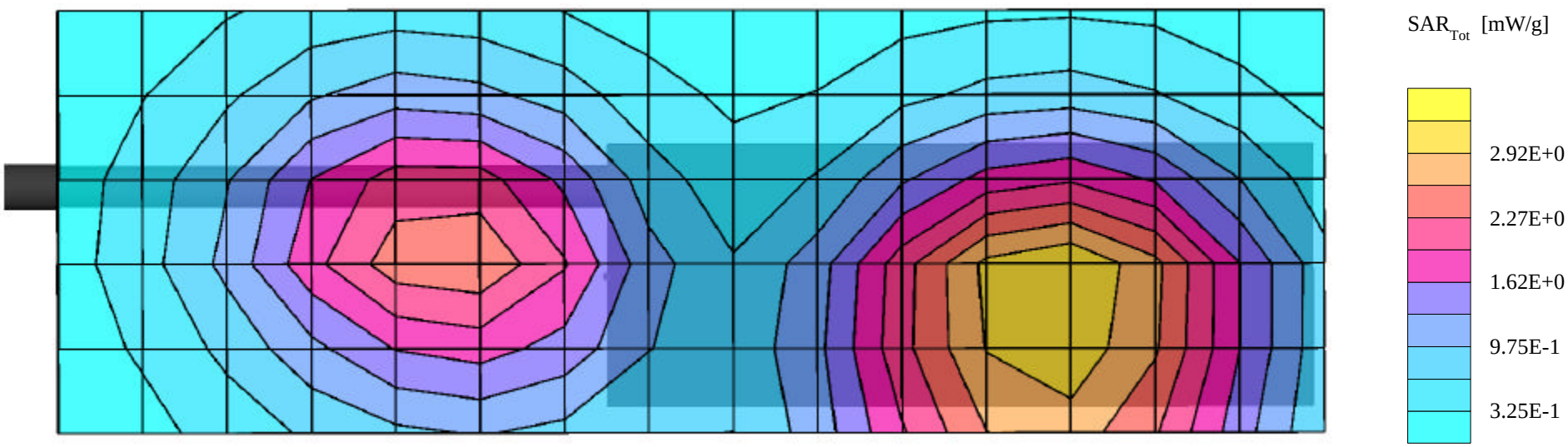
Face SAR at 2.5 cm Separation Distance
Portable FM PTT Radio Transceiver
Whip Antenna (KRE1011223/01)
Nickel Cadmium Battery (BKB191210/3)
M/A-Com Model: Jaguar 725P
Continuous Wave Mode
Low Channel [806.000 MHz]
Conducted Power: 3.2 Watts
Date Tested: October 15, 2001



M/A-COM PRS INC. FCC ID: OWDTR-0014-E

Small Planar Phantom: Planar Section; Position: (90°,0°)
Probe: ET3DV6 - SN1590; ConvF(6.91,6.91,6.91); Crest factor: 1.0
835 MHz Brain: σ = 0.90 mho/m ε_r = 41.5 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Cube 5x5x7
SAR (1g): 3.02 mW/g, SAR (10g): 2.14 mW/g

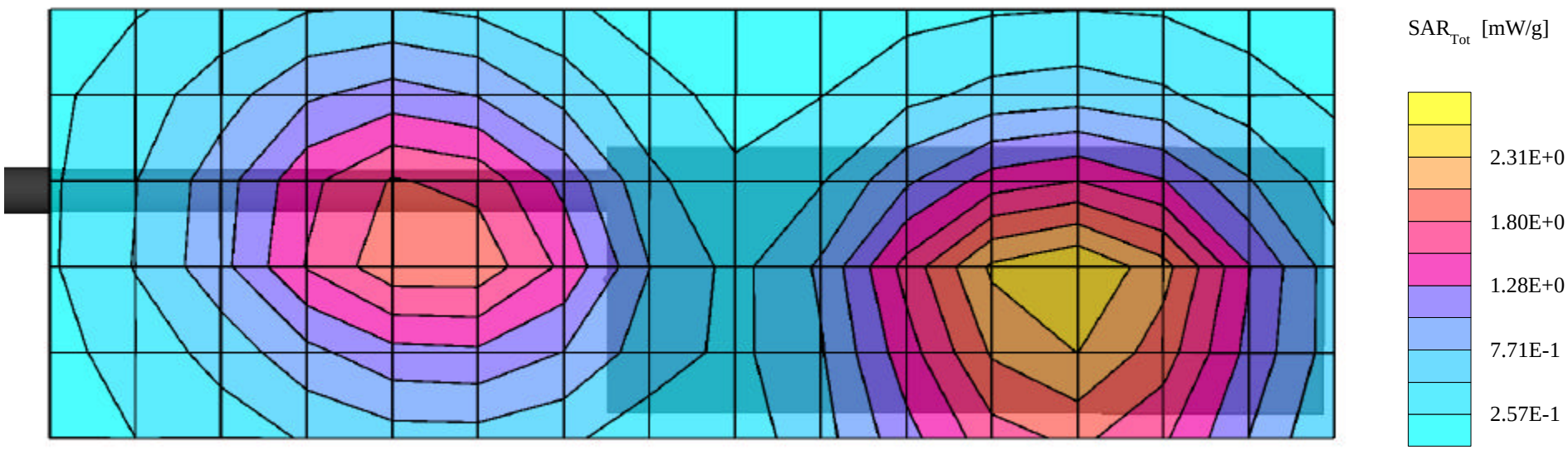
Face SAR at 2.5 cm Separation Distance
Portable FM PTT Radio Transceiver
Whip Antenna (KRE1011223/01)
Nickel Cadmium Battery (BKB191210/3)
M/A-Com Model: Jaguar 725P
Continuous Wave Mode
Mid Channel [815.000 MHz]
Conducted Power: 3.2 Watts
Date Tested: October 15, 2001



M/A-COM PRS INC. FCC ID: OWDTR-0014-E

Small Planar Phantom: Planar Section; Position: (90°,0°)
Probe: ET3DV6 - SN1590; ConvF(6.91,6.91,6.91); Crest factor: 1.0
835 MHz Brain: σ = 0.90 mho/m ε_r = 41.5 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Cube 5x5x7
SAR (1g): 2.37 mW/g, SAR (10g): 1.67 mW/g

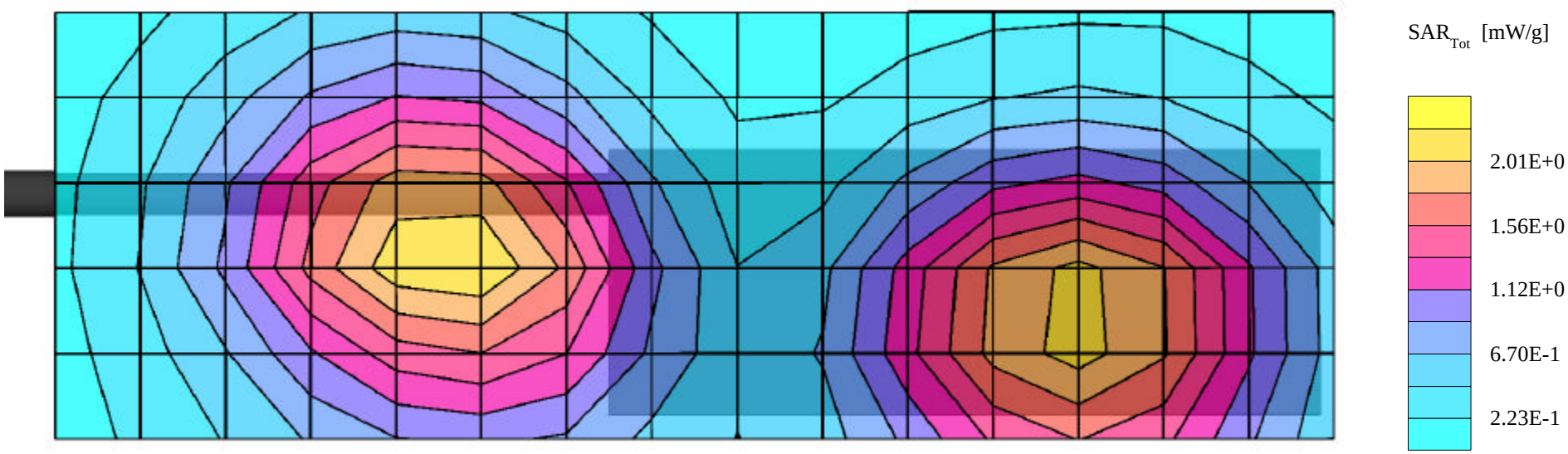
Face SAR at 2.5 cm Separation Distance
Portable FM PTT Radio Transceiver
Whip Antenna (KRE1011223/01)
Nickel Cadmium Battery (BKB191210/3)
M/A-Com Model: Jaguar 725P
Continuous Wave Mode
High Channel [823.975 MHz]
Conducted Power: 3.2 Watts
Date Tested: October 15, 2001



M/A-COM PRS INC. FCC ID: OWDTR-0014-E

Small Planar Phantom: Planar Section; Position: (90°,0°)
Probe: ET3DV6 - SN1590; ConvF(6.91,6.91,6.91); Crest factor: 1.0
835 MHz Brain: σ = 0.90 mho/m ε_r = 41.5 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Cube 5x5x7
SAR (1g): 2.06 mW/g, SAR (10g): 1.48 mW/g

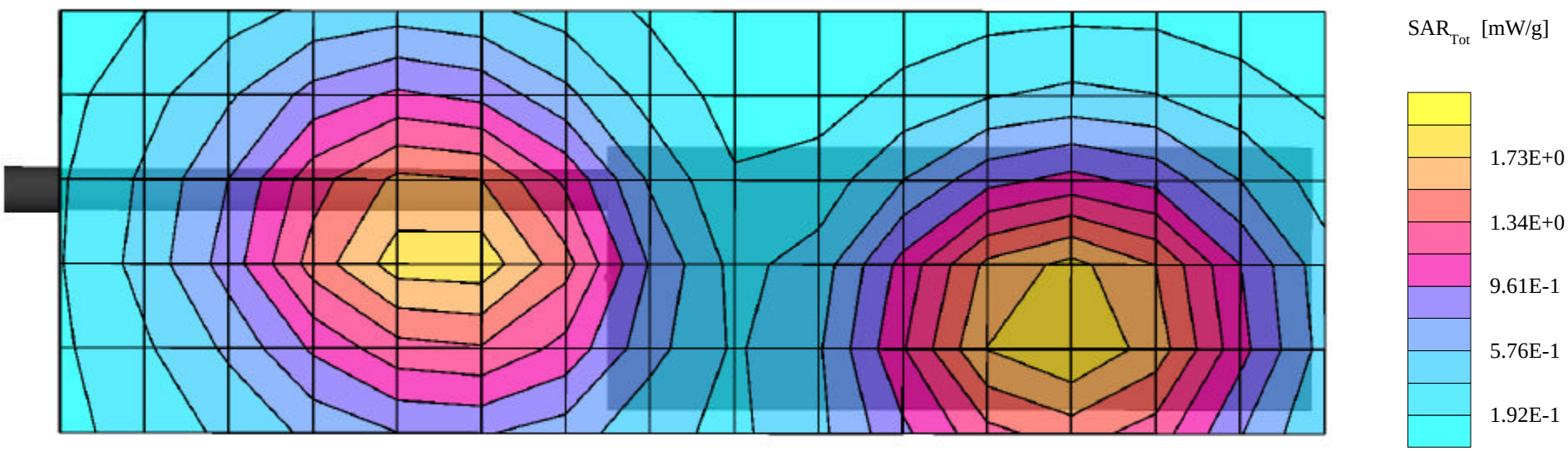
Face SAR at 2.5 cm Separation Distance
Portable FM PTT Radio Transceiver
Whip Antenna (KRE1011223/01)
Nickel Cadmium Battery (BKB191210/3)
M/A-Com Model: Jaguar 725P
Continuous Wave Mode
Low Channel [850.970 MHz]
Conducted Power: 3.2 Watts
Date Tested: October 15, 2001



M/A-COM PRS INC. FCC ID: OWDTR-0014-E

Small Planar Phantom: Planar Section; Position: (90°,0°)
Probe: ET3DV6 - SN1590; ConvF(6.91,6.91,6.91); Crest factor: 1.0
835 MHz Brain: σ = 0.90 mho/m ε_r = 41.5 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Cube 5x5x7
SAR (1g): 1.88 mW/g, SAR (10g): 1.33 mW/g

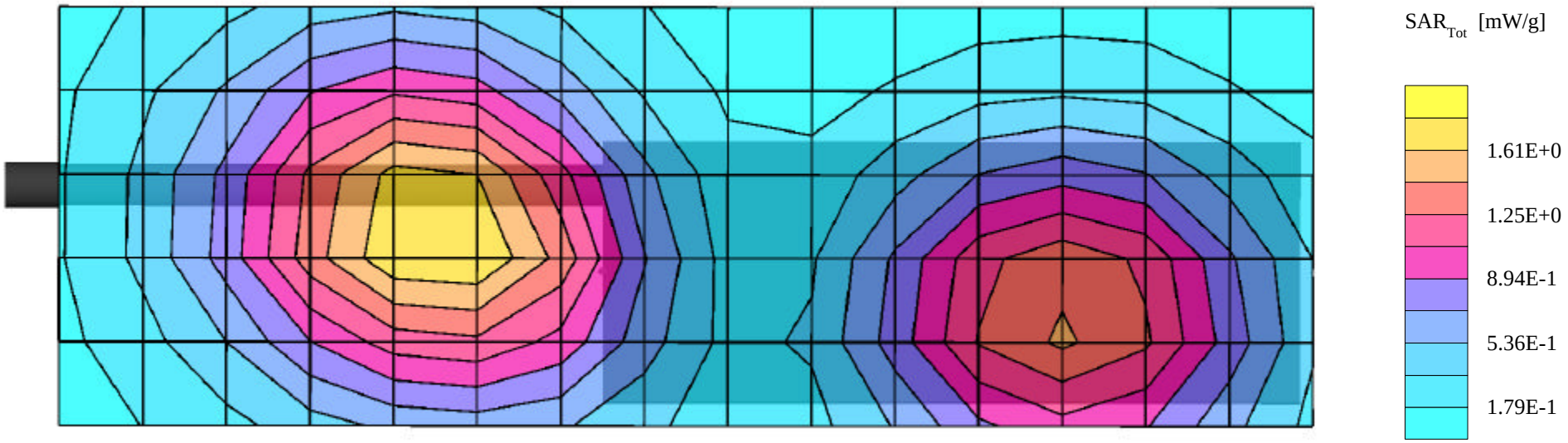
Face SAR at 2.5 cm Separation Distance
Portable FM PTT Radio Transceiver
Whip Antenna (KRE1011223/01)
Nickel Cadmium Battery (BKB191210/3)
M/A-Com Model: Jaguar 725P
Continuous Wave Mode
Mid Channel [860.520 MHz]
Conducted Power: 3.2 Watts
Date Tested: October 15, 2001



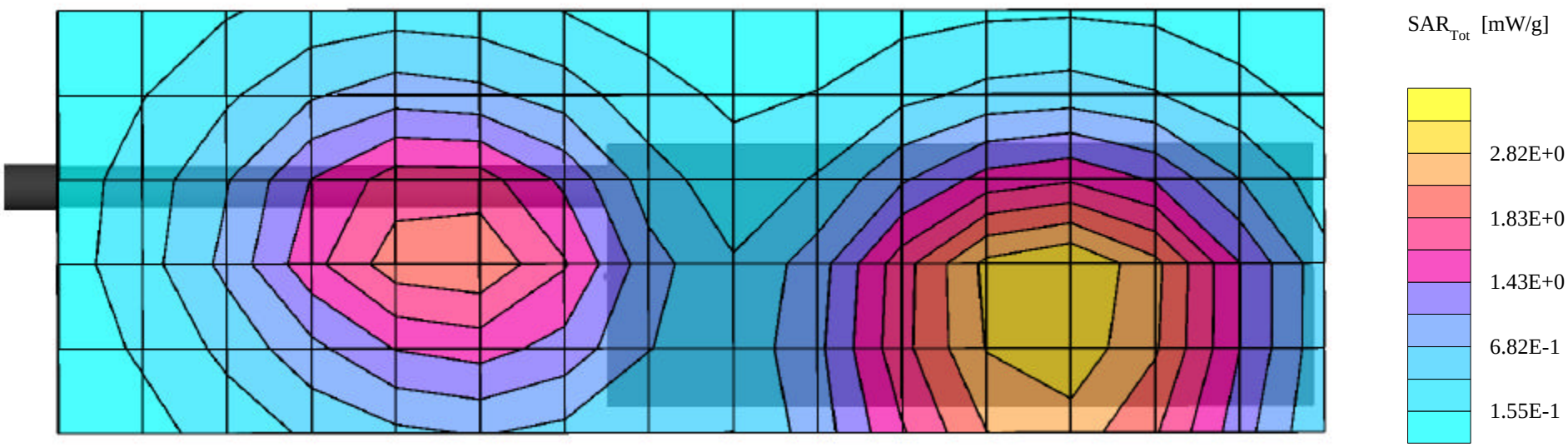
M/A-COM PRS INC. FCC ID: OWDTR-0014-E

Small Planar Phantom: Planar Section; Position: (90°,0°)
Probe: ET3DV6 - SN1590; ConvF(6.91,6.91,6.91); Crest factor: 1.0
835 MHz Brain: σ = 0.90 mho/m ε_r = 41.5 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Cube 5x5x7
SAR (1g): 1.63 mW/g, SAR (10g): 1.16 mW/g

Face SAR at 2.5 cm Separation Distance
Portable FM PTT Radio Transceiver
Whip Antenna (KRE1011223/01)
Nickel Cadmium Battery (BKB191210/3)
M/A-Com Model: Jaguar 725P
Continuous Wave Mode
High Channel [868.970 MHz]
Conducted Power: 3.2 Watts
Date Tested: October 15, 2001



M/A-COM PRS INC. FCC ID: OWDTR-0014-E

Small Planar Phantom: Planar Section; Position: (90°,0°)
Probe: ET3DV6 - SN1590; ConvF(6.91,6.91,6.91); Crest factor: 1.0
835 MHz Brain: σ = 0.90 mho/m ε_r = 41.5 ρ = 1.00 g/cm^3
Coarse: Dx = 20.0, Dy = 20.0, Dz = 10.0
Cube 5x5x7
SAR (1g): 2.95 mW/g, SAR (10g): 2.09 mW/g

Face SAR at 2.5 cm Separation Distance
Portable FM PTT Radio Transceiver
Whip Antenna (KRE1011223/01)
Nickel Metal Hydride Battery (BKB191210/3)
M/A-Com Model: Jaguar 725P
Continuous Wave Mode
Low Channel [806.000 MHz]
Conducted Power: 3.2 Watts
Date Tested: October 15, 2001