Exhibit 10

Magic 9000

Schlumberger Technologies

FCC ID: NIQM9KMOBITEX

SAR Report
(With Test Set-up Photographs)

APREL Laboratories

Certification Report on

Specific Absorption Rate (SAR) Experimental Analysis

Schlumberger Technologies

MagIC(TM) 9000, Point of Sale Device with RIM R902M-2-O Radio Modem

Test Date: 31 May, 2000

Telecommunications Approval Board - Spectrum Sciences Institute -
SAR Certified
APREL Laboratories
A061-MagIC 9000

SLBB-MagIC 9000-3455

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CERTIFICATION REPORT

Subject:	**Specific Absorption Rate (SAR) Experimental Analysis**
Product:	Point of Sale Device with a Research in Motion R902M Radio Modem (Mobitex Network)
Model:	MagIC(TM) 9000
Client:	Schlumberger Technologies
Address:	1601 Schlumberger Drive Moorestown, N.J. 08057, USA
Project #:	SLBB-MagIC9000-3455
Prepared by:	APREL Laboratories 51 Spectrum Way Nepean, Ontario K2R 1E6

Telecommunications Approval Board · Spectrum Sciences Institute · SAR Certified · APREL Laboratories · A061-MagIC 9000

Tested by Delia Zapata BSE Date: 26 June 00
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Submitted by Paul G Cardinal Date: 03 July 00
Dr. Paul G. Cardinal
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Approved by Date: July 5/2000
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FCC ID: N1QM9KM0BITEX
Applicant: Schlumberger Technologies
Equipment: Point of Sale device
Model: MagIC 9000 with a Research in Motion R902M radio modem
Standard: FCC 96 –326, Guidelines for Evaluating the Environmental Effects of Radio-Frequency Radiation

ENGINEERING SUMMARY

This report contains the results of the engineering evaluation performed on a Schlumberger Technologies MagIC(TM) 9000 Point of Sale Device with a Research in Motion R902M Radio Modem (Mobitex Network). The measurements were carried out in accordance with FCC 96-326. The Point of Sale device was evaluated at its maximum nominal power level, 2 W (33 dBm). The duty factor of the production devices will be controlled to be intrinsically restricted to 25% (see Appendix F).

The Point of Sale device was tested at high, middle, and low frequencies on the keyboard, battery, antenna and left side. The maximum SAR was found to coincide with the peak performance RF output power of channel 0880 (high, 896 MHz) for the antenna side of the device. Test data and graphs are presented in this report.

Based on the test results and on how the device will be used, it is certified that the product meets the requirements as set forth in the above specifications, for an uncontrolled RF exposure environment for extremities (hand).

The manual for this unit will require a warning to keep the antenna at least 24 mm away from any part of the body other than the extremities of either users or bystanders, and to warn the user against putting his hand on the antenna.

The results presented in this report relate only to the sample tested.

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1. INTRODUCTION

Tests were conducted to determine the Specific Absorption Rate (SAR) of a sample of a Schlumberger MagIC(TM) 9000 point of sale device, which incorporates a Research in Motion R902M-2-0 radio modem. These tests were conducted at APREL Laboratories' facility located at 51 Spectrum Way, Nepean, Ontario, Canada. A view of the SAR measurement setup can be seen in Appendix A Figure 1. This report describes the results obtained.

2. APPLICABLE DOCUMENTS

The following documents are applicable to the work performed:

1) FCC 96-326, Guidelines for Evaluating the Environmental Effects of Radio-Frequency Radiation

2) ANSI/IEEE C95.1-1992, IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

3) ANSI/IEEE C95.3-1992, IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields – RF and Microwave.

4) OET Bulletin 65 (Edition 97-01) Supplement C (Edition 97-01), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields".

3. EQUIPMENT UNDER TEST

- Schlumberger Technologies MagIC(TM) 9000 Point of Sale Device with a Research in Motion R902M Radio Modem (Mobitex Network), ESN 031/11/003802, received on May 29, 2000.

The Point of Sale device will be called DUT (device under test) in the following.

The antenna consists of a ½ wavelength helical stub antenna with a 50Ω antenna matching transformer fully integrated into the antenna radome base. The antenna

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radiation pattern is omnidirectional (0 – 3 dBi for $0 < \alpha < 360$ °). A photograph of the DUT and the antenna can be found in Appendix B. See the manufacturer's submission documentation for drawings and more design details.

4. TEST EQUIPMENT

- APREL Triangular Dosimetric Probe Model E-009, s/n 115, Asset # 301420
- CRS Robotics A255 articulated robot arm, s/n RA2750, Asset # 301335
- CRS Robotics C500 robotic system controller, s/n RC584, Asset # 301334
- R&S NRVS power meter, s/n 864268/017, Asset # 100851
- R&S NRV-Z7 power sensor, s/n 862 509/006, Asset # 100852
- APREL F-1, flat manikin, s/n 001
- Tissue Recipe and Calibration Requirements, APREL procedure SSI/DRB-TP-D01-033
- HP 8920A, 0.4 – 1000 MHz RF Communications Test Set, s/n 3344A03488, Asset # 301289
- APREL D-835S Dipole Antenna, s/n 101
- RIM Wireless Typetest Tool
- RIM 2181 DSP Card

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5. TEST METHODOLOGY

1. The test methodology utilised in the certification of the DUT complies with the requirements of FCC 96-326 and ANSI/IEEE C95.3-1992.

2. The E-field is measured with a small isotropic probe (output voltage proportional to E^2).

3. The probe is moved precisely from one point to the next using the robot (10 mm increments for wide area scanning, 5 mm increments for zoom scanning, and 2.5 mm increments for the final depth profile measurement).

4. The probe travels in the homogeneous liquid simulating human tissue. Appendix D contains information about the recipe and properties of the simulated tissue used for these measurements.

5. The liquid is contained in a manikin simulating a portion of the human body.

6. The DUT is positioned in such a way that it touches the bottom of the phantom with its top, its bottom, or its sides.

7. All tests were performed with the highest power available from the sample DUT, under transmit conditions.

More detailed descriptions of the test method is given in Section 6 when appropriate.

6. TEST RESULTS

6.1. TRANSMITTER CHARACTERISTICS

The battery-powered DUT will consume energy from its batteries, which may affect the DUT's transmission characteristics. In order to gage this effect the output of the transmitter is sampled before and after each SAR run. In the case of this DUT, the radiated power was sampled. A power meter was connected to an antenna adjacent to a fixture to hold the transmitter in a reproducible position. The following table shows the radiated RF power sampled before and after each of the eight sets of data used for the worst case SAR in this report.

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Scan		Radiatated Power Readings (dBm)		D (dBm)	Battery #
Type	Height (mm)	Before	After		
Area	2.5	-12.46	-12.58	-0.12	1
Area	12.5	-	-	-	-
Zoom	2.5	-11.87	-12.53	-0.66	4
Zoom	7.5	-11.12	-12.41	-1.29	1
Zoom	12.5	-11.57	-12.02	-0.45	2
Zoom	17.5	-11.78	-12.41	-0.63	3
Zoom	22.5	-10.98	-11.36	-0.38	4
Depth	2.5 – 22.5	-11.44	-12.28	-0.84	1

6.2. SAR MEASUREMENTS

1) RF exposure is expressed as a Specific Absorption Rate (SAR). SAR is calculated from the E-field, measured in a grid of test points as shown in Appendix A Figure 2. SAR is expressed as RF power per kilogram of mass, averaged in 10 grams of tissue for the extremities and 1 gram of tissue elsewhere.

2) The DUT was put into test mode for the SAR measurements via communications software supplied by the radio modem manufacturer running on a PC to control the channel and the maximum operating power (nominally 33 dBm).

3) Figure 3 in Appendix A shows a contour plot of the SAR measurements for the DUT (0880_h, 901 MHz, high). The presented values were taken 2.5 mm into the simulated tissue from the flat phantom's solid inner surface. Figures 1 and 2 in Appendix A show the phantom used in the measurements. A grid is shown inside of the phantom indicating the orientation of the x-y grid used, with the co-ordinates (0,0) on the top left (orange dot). The y-axis is positive towards the right and the x-axis is positive towards the bottom. In this position the antenna is located on top of the DUT.

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A different presentation of the same data is shown in Appendix A Figure 4. This is a surface plot, where the measured SAR values provide the vertical dimension, which is useful as a visualisation aid.

Similar data was obtained 12.5 mm into the simulated. These measurements are presented as a contour plot in Appendix A Figure 5 and surface plot in Figure 6.

Figure 12 in Appendix A shows an overlay of the DUT's outlines, superimposed onto a contour plot similar to that previously shown as Figure 3.

Figures 3 through 6 in Appendix A show that there is a dominant peak, in the contour plots, that diminishes in magnitude with depth into the tissue simulation.

4) Wide area scans were performed for the middle channel (0720_h, 899 MHz) with the DUT's keyboard, battery, antenna and left side facing the tissue. Wide area scans were also performed for the low (0480_h, 896 MHz) and high (0880_h, 901 MHz) channels with the worst side of the device facing the tissue. These scans were done at 100% duty factor. The peak single point SAR for the scans were:

DUT Orientation	**Channel**			**Highest SAR [W/kg]**
	L/M/H	**#**	**Frequency [MHz]**	
Keyboard	middle	0720_h	899	2.61
Battery side	middle	0720_h	899	2.29
Antenna side	middle	0720_h	899	20.43
Left side	middle	0720_h	899	1.11
Antenna side	low	0480_h	896	20.263
Antenna side	**high**	**0880_h**	**901**	**25.812**

All subsequent testing was performed with the antenna side of the DUT against the phantom and with the DUT operating with a 25% duty factor.

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5) Wide area scans were also performed for the high channel (0880_h, 901 MHz) versus separation. The peak single point SAR for the scans were:

Channel			Antenna housing to phantom's inner surface separation mm	Highest local SAR W/kg
	#	MHz		
High	0880_h	901	3	10.31
			13	4.549
			19	2.349
			25	1.395

Figure 14 in Appendix A shows the data plotted as a function of separation and the exponential curve fit to them.

6) The high channel (0880_h, 901 MHz) SAR peak was then explored on a refined 0.5 mm grid in three dimensions. Figures 7, 8, 9, 10 and 11 show the measurements made at 2.5, 7.5, 12.5, 17.5, and 22.5 mm respectively. The SAR value averaged over 10 grams was determined from these measurements by averaging the 125 points (5x5x5) comprising a 2 cm cube. The maximum SAR value measured averaged over 10 grams was determined from these measurements to be 3.67 W/kg.

7) To extrapolate the maximum SAR value averaged over 10 grams to the inner surface of the phantom a series of measurements were made at a few (x,y) co-ordinates within the refined grid as a function of depth, with 2.5 mm spacing. Figure 13 in Appendix A shows the data gathered and the exponential curves fit to them. The average exponential coefficient was determined to be (-0.094± 0.004) / mm.

The distance from the probe tip to the inner surface of the phantom for the lowest point is 2.5 mm. The distance from the probe tip to the tip of the measuring dipole within the APREL Triangular Dosimetric Probe Model E-009 is 2.3 mm. The total extrapolation distance is 4.8 mm, the sum of these two.

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Applying the exponential coefficient over the 4.8 mm to the maximum SAR value averaged over 10 grams that was determined previously, we obtain **the maximum SAR value at the surface averaged over 10 grams** of 5.75 W/kg.

7. ANALYSIS

The measurements of highest local SAR versus separation of the antenna housing from the bottom of the phantom (Section 6.2.5) will enable the maximum 10g SAR for a separation of 0 mm (previous section) to be interpolated for other separations.

If the data for Figure 14 is fitted to an exponential equation we get:

$$\text{Peak Local SAR} = 15.43\, e^{-0.0956 * (\text{separation})}$$

A similar equation will exist for the maximum 10g SAR versus separation:

$$\text{Maximum 10g SAR} = k\, e^{-0.0956 * (\text{separation})}$$

Using this equation with the previous section's data:

Maximum 10g SAR at the surface = 5.75 W/kg
Tissue – antenna housing separation = 3 mm,

results in a k = 7.662 W/kg, which corresponds to the maximum 10g SAR when the separation is 0 mm. A conservative maximum 10g SAR of 3.13 W/kg (4 W/kg reduced by our measurement uncertainty) would occur for a separation of 9.4 mm from the antenna to the tissue.

8. BYSTANDER

The measurements from the previous section can be used to determine the bystander exposure during operation.

The SAR value averaged over 1 gram was determined from the 2.5, 7.5, and 12.5 mm zoom scans (section 6.2.6) by averaging the 27 points (3x3x3) comprising a 1 cm cube. The maximum measured SAR valued averaged over 1 gram was determined from these measurements to be 5.79 W/kg.

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Applying the exponential coefficient over the 4.8 mm (section 6.2.7) to the maximum SAR value averaged over 1 gram determined above, we obtain **the maximum SAR value at the surface averaged over 1 gram** of 9.08 W/kg.

The measurements of highest local SAR versus separation of the antenna housing from the bottom of the phantom (Section 6.2.5) will enable the peak 1g SAR for a separation of 0 mm to be interpolated for other separations.

A similar equation to that determined in the previous section for the 10g SAR will exist for the maximum 1g SAR versus separation (see Figure 15):

$$\text{Maximum 1g SAR} = k\, e^{-0.0956 * (\text{separation})}$$

Using this equation with the data earlier in this section:

Maximum 1g SAR at surface = 9.08 W/kg
Tissue – antenna housing separation = 3 mm,

results in a k = 12.094 W/kg, which corresponds to the peak 1g SAR when the separation is 0 mm. A conservative peak 1g SAR of 1.25 W/kg (1.6 W/kg reduced by our measurement uncertainty) would occur for a separation of 23.7 mm from the antenna to the tissue.

9. DISCUSSION

The Point of Sale device has its maximum 10g SAR hot spot over the central part of the antenna, next to one of the pivot points (no metal) for the paper roll cover. Figure 16 shows an overlay of the antenna side of the device over the 10g SAR contour plot. The 10g SAR is over 3.13 W/kg on a small portion of the body of the device, at the top of the paper roll holder, within 0.5 cm of the antenna sleeve. Since the user will be holding the device with his hand under the keypad and display, no portion of the user's hand or thumb will be exposed to levels of SAR exceeding the FCC 96-326 safety guidelines.

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10. CONCLUSIONS

The maximum Specific Absorption Rate (SAR) averaged over 10 g, determined at 901 MHz (0880 channel, 480), of a Schlumberger Technologies MagIC(TM) 9000 Point of Sale Device with a Research in Motion R902M Radio Modem (Mobitex Network), is 5.75 W/kg. The overall margin of uncertainty for this measurement is ± 21.6 % (Appendix C). The SAR limit given in the FCC 96-326 safety guideline is 4 W/kg.

For a bystander (or user) exposing a part of the body other than the extremities, the maximum Specific Absorption Rate (SAR) averaged over 1g is 9.08 W/kg. The overall margin of uncertainty for this measurement is ± 21.6 % (Appendix C). The SAR limit given in the FCC 96-326 safety guideline is 1.6 W/kg.

This unit as tested, and as it will be marketed and used (with a warning in the manual to keep bystanders at least 23.7 mm, and the user's hand at least 9.4 mm from the central portion of the antenna, is found to be compliant with this requirement.

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APPENDIX A

Figure 1

Figure 2

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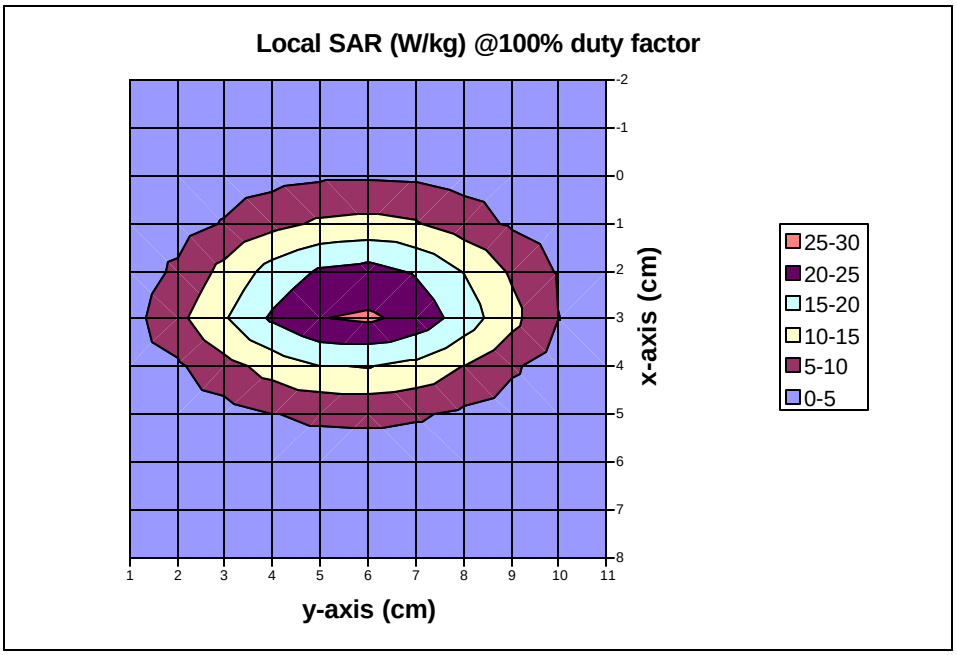

Figure 3. Area Scan 2.5mm Above Surface

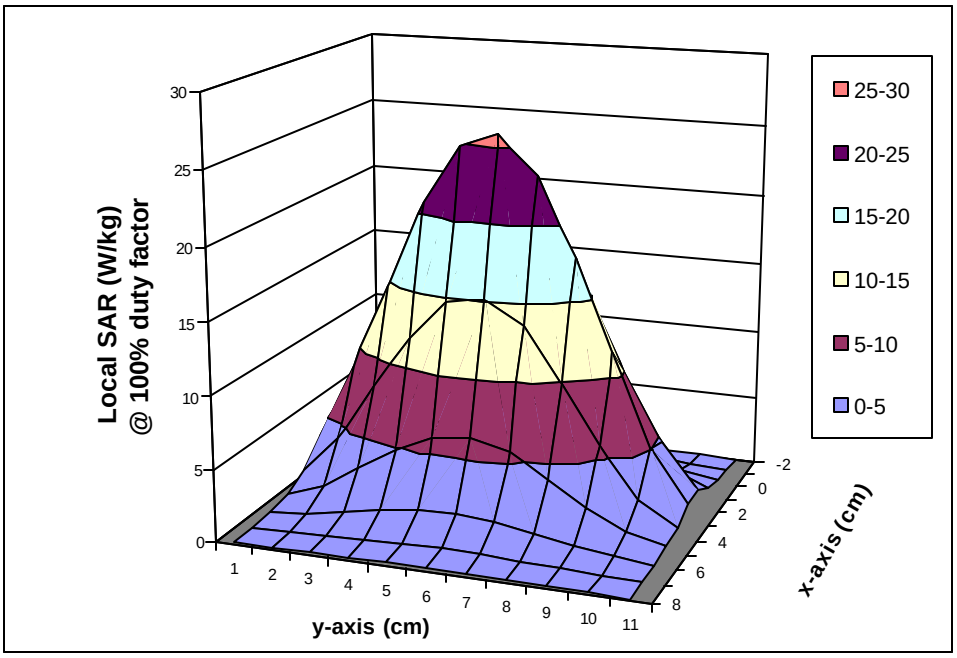

Figure 4. Area Scan 2.5mm Above Surface

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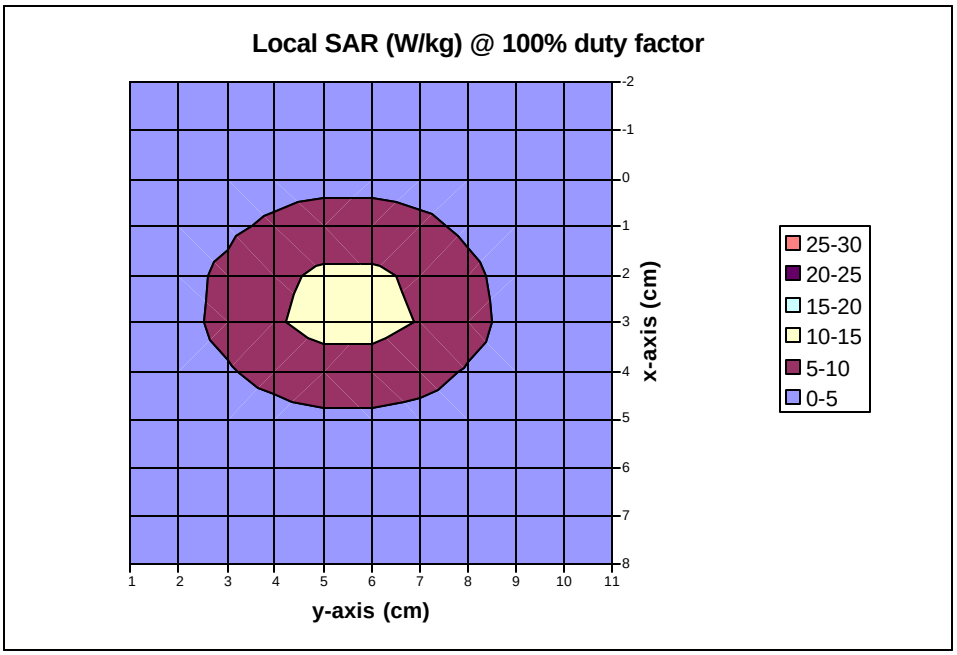

Figure 5. Area Scan 12.5mm Above Surface

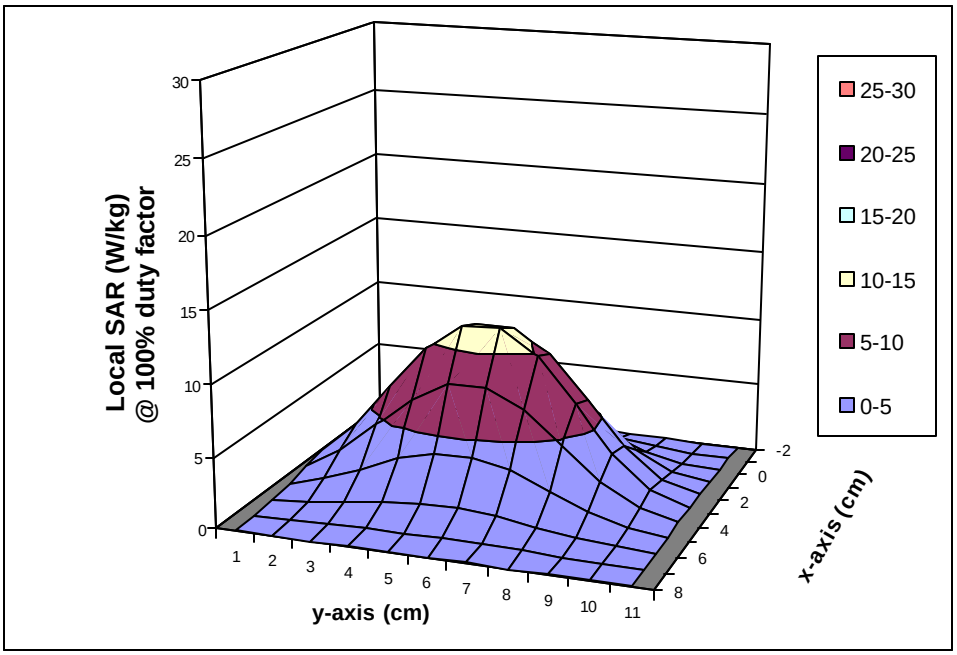

Figure 6. Area Scan 12.5mm Above Surface

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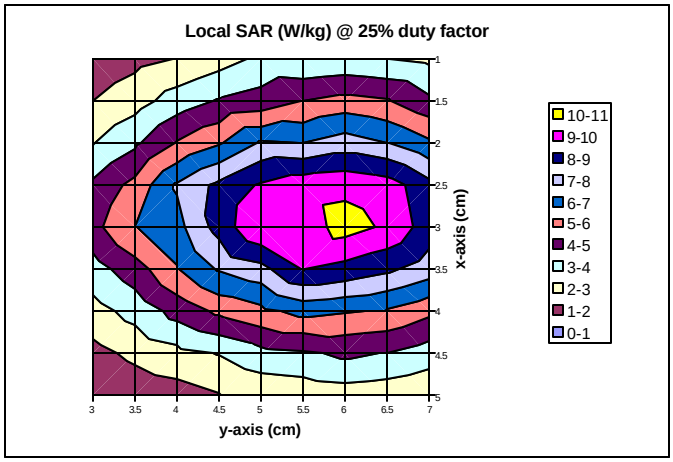

Figure 7. Zoom Scan 2.5mm Above Surface

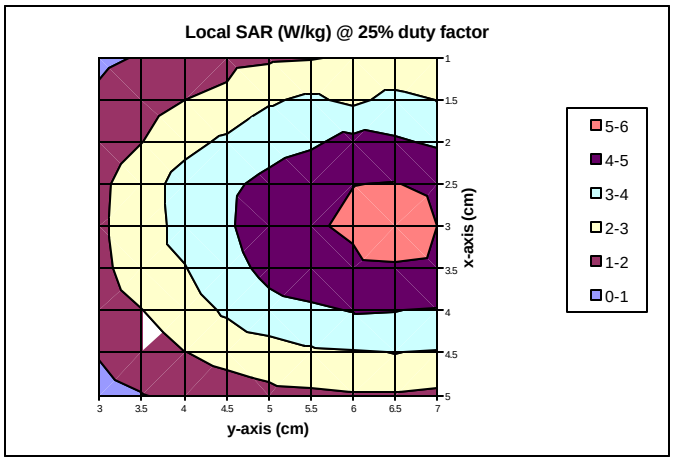

Figure 8. Zoom Scan 7.5mm Above Surface

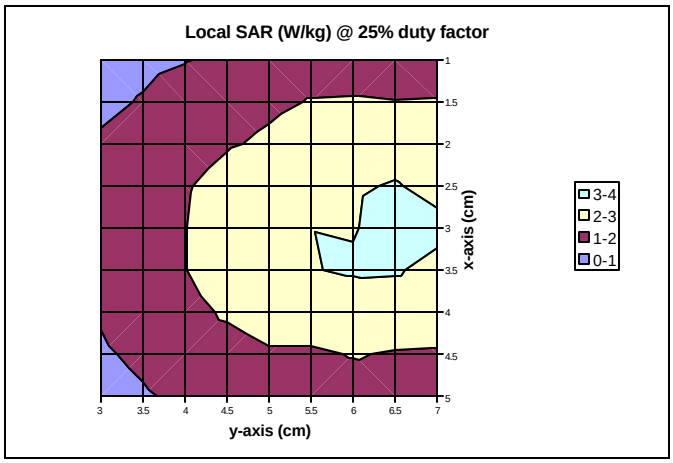

Figure 9. Zoom Scan 12.5mm Above Surface

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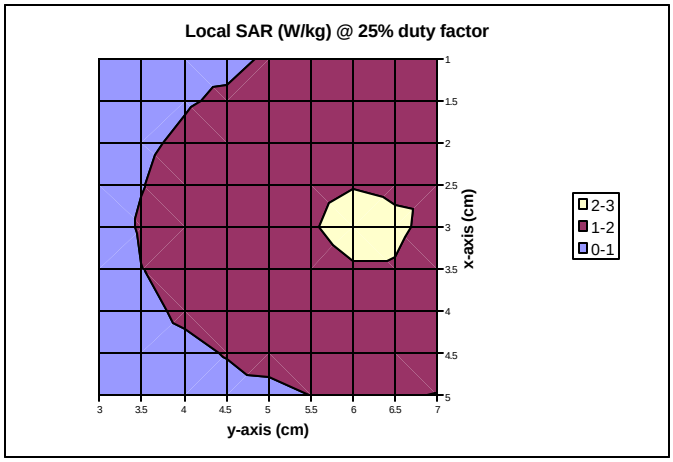

Figure 10. Zoom Scan 17.5mm Above Surface

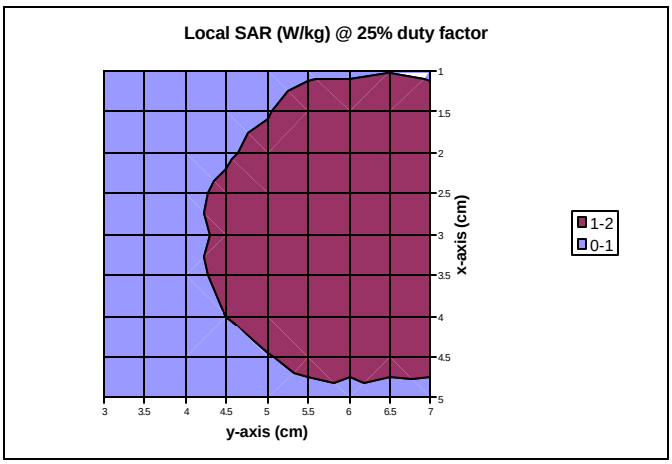

Figure 11. Zoom Scan 22.5mm Above Surface

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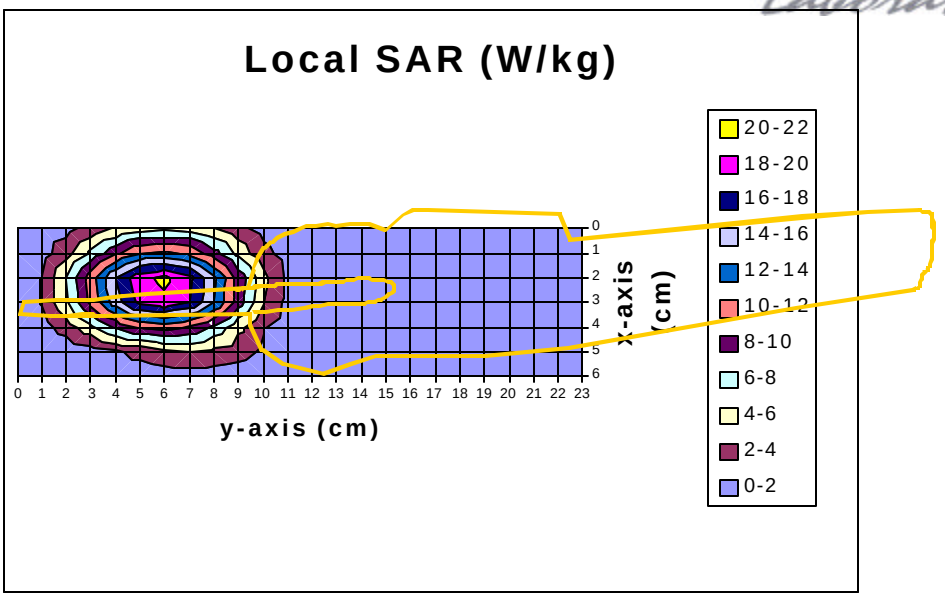

Figure 12

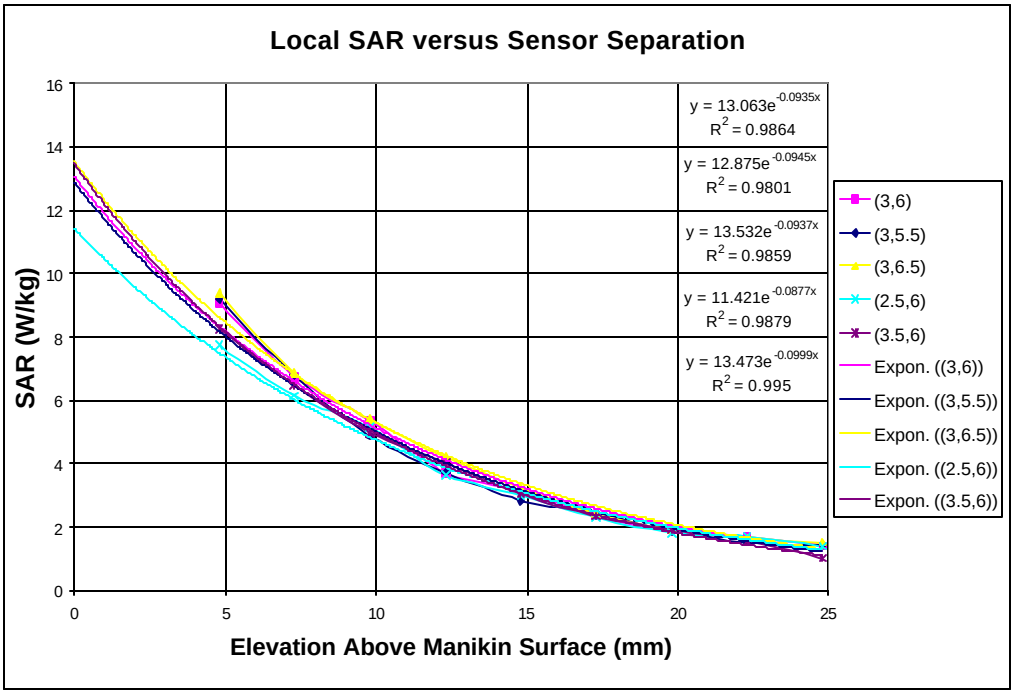

Figure 13

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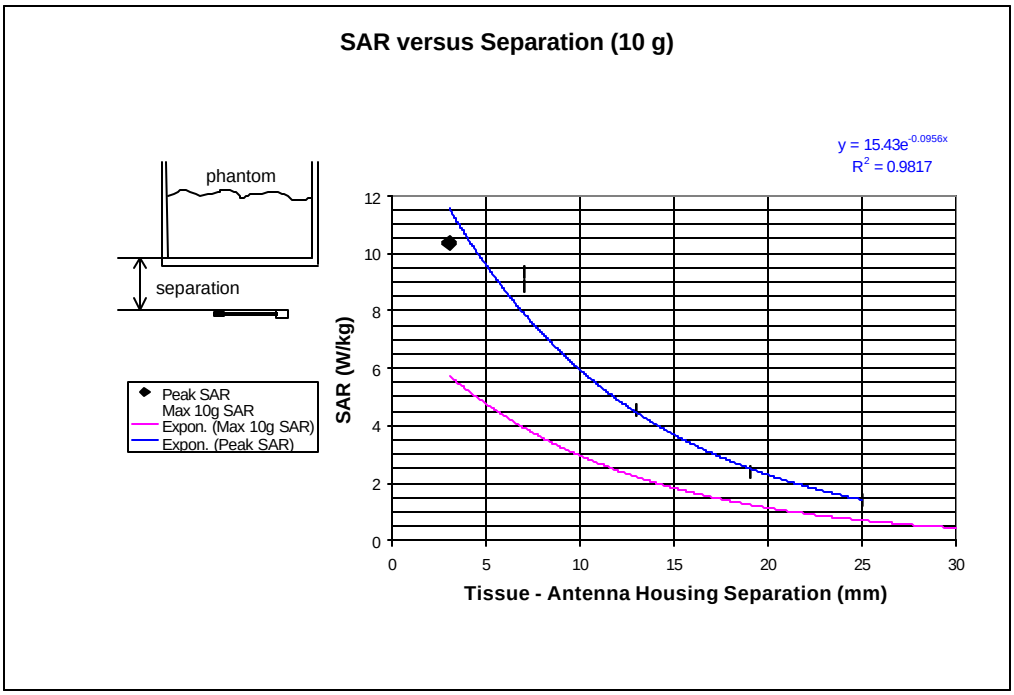

Figure 14

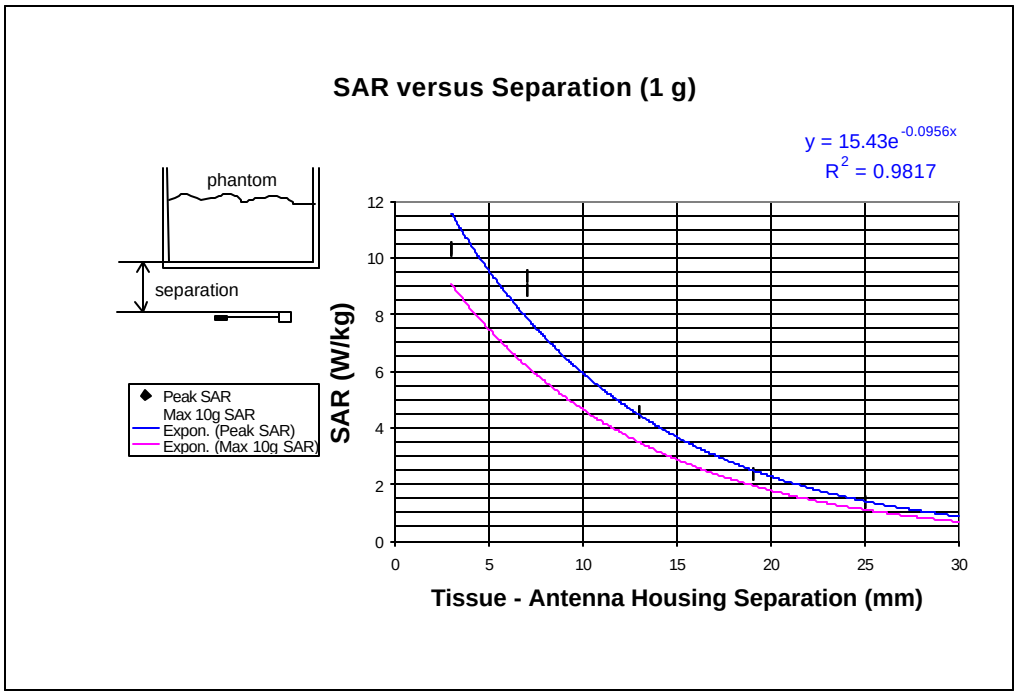

Figure 15

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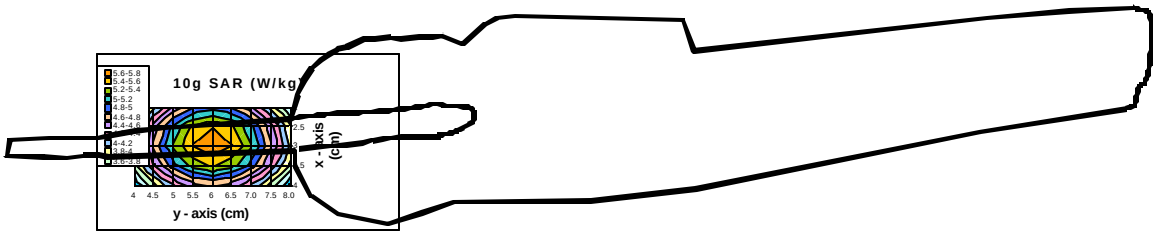

Figure 16

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APPENDIX B

Manufacturer's Antenna Specifications

(See manufacturer's submission documentation for drawings and more design details)

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APPENDIX C

Uncertainty Budget

Uncertainties Contributing to the Overall Uncertainty

Type of Uncertainty	Specific to	Uncertainty	
Power variation due to battery condition	DUT	16.0%	
Extrapolation due to curve fit of SAR vs depth	DUT	9.3%	
Extrapolation due to depth measurement	setup	4.6%	
Conductivity	setup	6.0%	
Density	setup	2.6%	
Tissue enhancement factor	setup	7.0%	
Voltage measurement	setup	1.0%	
Probe sensitivity factor	setup	3.5%	
		21.6%	**RSS**

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APPENDIX D

Simulated Tissue Material and Calibration Technique

The mixture used was based on that presented SSI/DRB-TP-D01-033, "Tissue Recipe and Calibration Requirements".

De-ionised water	52.8 %
Sugar	45.3 %
Salt	1.5 %
HEC	0.3 %
Bactericide	0.1 %

Mass density, ρ	1.30 g/ml (The density used to determine SAR from the measurements was the recommended 1040 kg/m^3 found in Appendix C of Supplement C to OET Bulletin 65, Edition 97-01)

Dielectric parameters of the simulated tissue material were determined using a Hewlett Packard 8510 Network Analyser, a Hewlett Packard 809B Slotted Line Carriage, and an APREL SLP-001 Slotted Line Probe.

The dielectric properties are:

@ 899 MHz	APREL	OET 65 Supplement	Δ / % (OET)
Dielectric constant, ε_r	53.8	55.96	-3.9%
Conductivity, σ/ [S/m]	1.11	0.969	15.8%
Tissue Conversion Factor, γ	9.6	-	-

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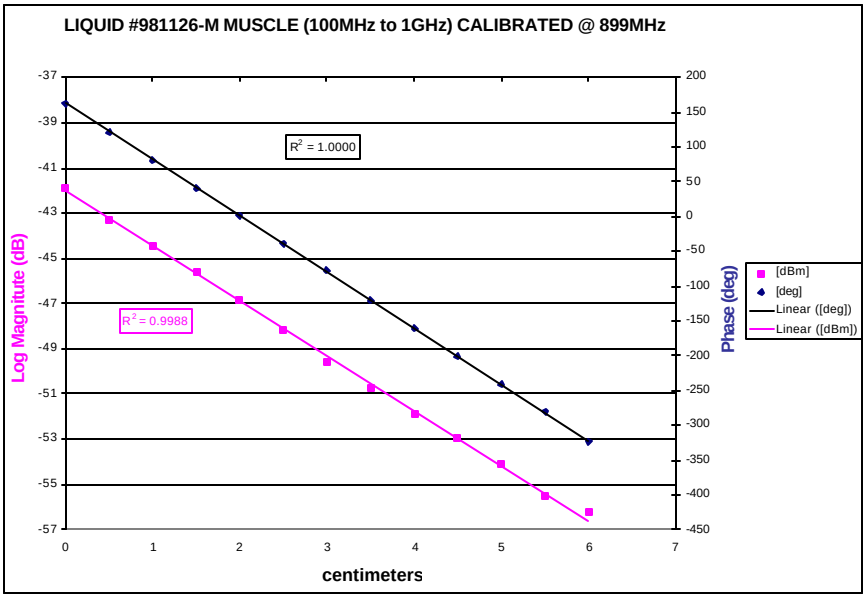
SIMULATION FLUID #	**981126-M**
CALIBRATION DATE	**26-May-00**
CALIBRATED BY	**Delia Zapata**
Frequency Range	**100MHz-1GHz**
Frequency Calibrated	**899 MHz**
Tissue Type	**Muscle**

Position [cm]	Amplitude [dBm]	Phase [deg]	[deg]
0	-41.893	163.2	163.2
0.5	-43.293	121.11	121.11
1	-44.443	81.551	81.551
1.5	-45.617	41.033	41.033
2	-46.803	2.292	2.292
2.5	-48.199	-38.559	-38.559
3	-49.568	-77.711	-77.711
3.5	-50.736	-120.22	-120.22
4	-51.861	-161.11	-161.11
4.5	-52.951	159.53	-200.47
5	-54.133	119.07	-240.93
5.5	-55.504	79.812	-280.188
6	-56.223	37.168	-322.832
ΔdB_1	-7.675	Δdeg_1	-240.911
ΔdB_2	-7.443	Δdeg_2	-241.33
ΔdB_3	-7.418	Δdeg_3	-242.661
ΔdB_4	-7.334	Δdeg_4	-241.503
ΔdB_5	-7.33	Δdeg_5	-243.222
ΔdB_6	-7.305	Δdeg_6	-241.629
ΔdB_7	-6.655	Δdeg_7	-245.121
ΔdB_{AVG} [dB]	-7.31	$D deg_{AVG}$ [deg]	-242.3395714
dB_{AVG} (α_{AVG}) [dB/cm]	-2.44	deg_{AVG} (β_{AVG}) [deg/cm	-80.77985714
(α_{AVG}) [NP/cm]	-0.280476794	(β_{AVG}) [rad/cm]	-1.409874476

f [Hz]	8.99E+08
μ [H/cm]	1.25664E-08
ε_0 [F/cm]	8.854E-14

			D
e_r	**53.8**		-3.9%
$s_{effective}$	**1.11**	**S/m**	15.0%



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899 MHz Data (Tonv & Heike) MUSCLE with E-115

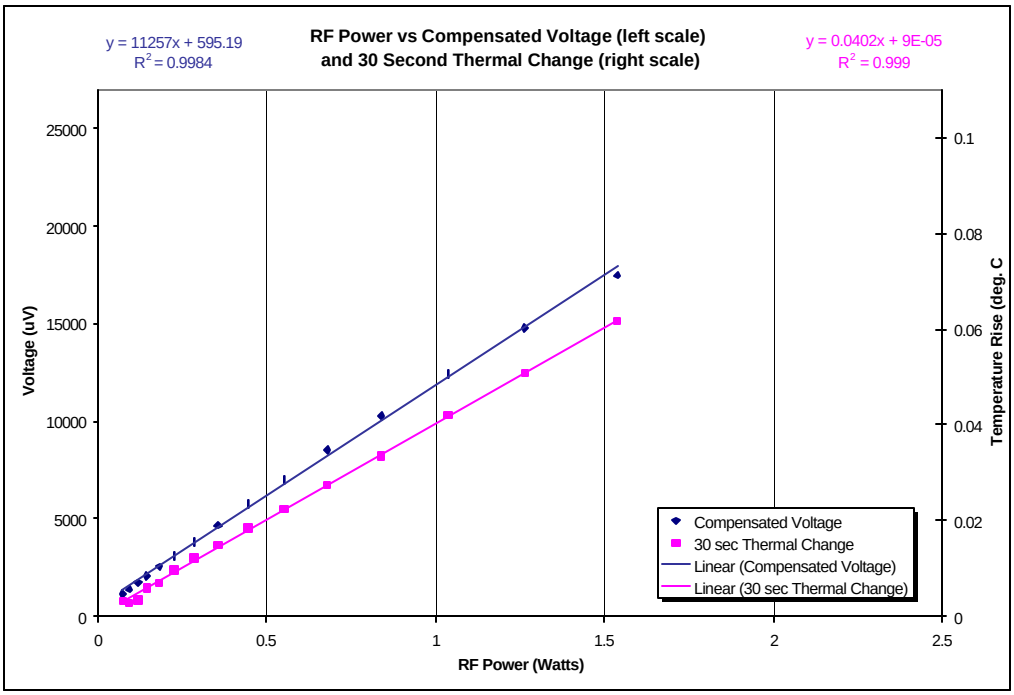
RF Power			Ch0	Ch1	Ch2	delta T (30 sec	Sum Vi/Ei	Thermal SAR
W	dBm	R&S	uV	uV	uV	deg. C		W/kg
0.072611	18.61	-26.74	317	708	1831	0.0033	11735	0.31
0.090991	19.59	-25.76	342	830	2246	0.0028	14045	0.26
0.115345	20.62	-24.73	391	1001	2808	0.0034	17259	0.31
0.143549	21.57	-23.78	439	1221	3418	0.006	20867	0.56
0.179887	22.55	-22.8	513	1465	4224	0.0071	25487	0.66
0.224905	23.52	-21.83	610	1807	5225	0.0096	31404	0.89
0.283792	24.53	-20.82	732	2222	6421	0.0122	38526	1.13
0.353183	25.48	-19.87	854	2710	7861	0.015	4695	1.39
0.442588	26.46	-18.89	1025	3345	9717	0.0184	57889	1.70
0.548277	27.39	-17.96	1221	4077	11719	0.0225	69928	2.08
0.677642	28.31	-17.04	1489	5005	14233	0.0275	85172	2.54
0.837529	29.23	-16.12	1782	6079	17114	0.0334	10263	3.09
1.037528	30.16	-15.19	2173	7422	20605	0.042	12409	3.89
1.264736	31.02	-14.33	2612	8936	24390	0.0509	14767	4.71
1.538155	31.87	-13.48	3149	10693	28711	0.0617	17485	5.71

Directional Coupler factor 25.35 dB (Asset 100251 cal file data (Janusz, 21 Jul 96))
Additional inline attenuation 20 dB

Sensitivity (e) 1.619 1.633 1.619 - Sensor Sensitivity in mV/ (mW/cm^2): 899 MHz cal (HW, 2 Jul 99)
η = 1.50 e 2.4285 2.4495 2.4285

Density	1.3	g/cm^3	1300	kg/m^3	- Marcin, summer 97
Conductivity	11.7	mS/cm	1.17	S/m	- Heike 19-Apr-99
Heat Capacity (c)	2.775	J/C/g	2775	J/C/kg	- average of Balzano (2.7) and Kuster (2.85) values
Exposure Time	30	seconds	30	seconds	
Slope of Measure Voltage (m_v)	11257	uV/W	0.0113	V/W	
- standard error or m_v	126.2	uV/W	0.0001	V/W	1.1%
Slope of Measure Temp Change (m_T)	0.0402	C/W	0.0402	C/W	
- standard error or m_T	0.0003	C/W	0.0003	C/W	0.9%

Tissue Conversion Factor (η)	9.6



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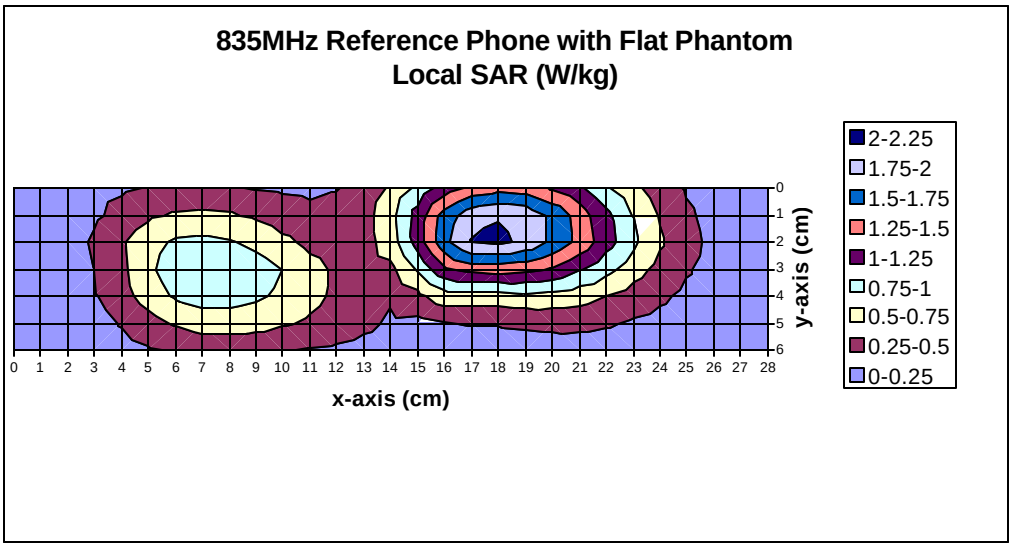
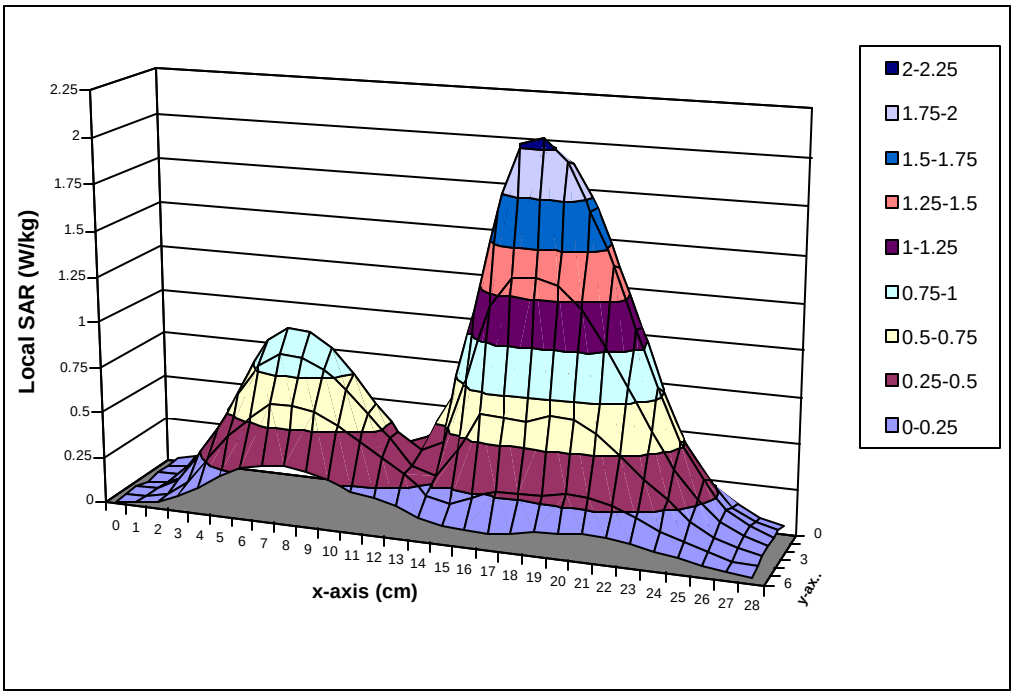
APPENDIX E

Validation Scans





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APPENDIX F

Duty Factor Limiting Algorithm for the OEM Radio Module R902M-2-O

The duty factor limiting algorithm for the OEM radio module R902M-2-O is a firmware algorithm that directly inhibits the radio firmware that generates transmit pulses. This algorithm will be permanently integrated with the radio firmware and installed at time of manufacture in the production facility. The algorithm cannot be modified or disabled by the user.

The radio module operates on a packet data network. The network controls the timing of most aspects of the radio signalling protocol. The shortest transmit event over which the mobile device has timing control is an entire uplink (transmit) transaction which is a series of transmit pulses. From the perspective of the mobile device this in an "atomic" event, i.e. the network controls the timing of the signalling within the transaction and the transaction can not be broken into smaller independent sub-parts.

Research in Motion Ltd. has implemented and tested a duty factor limiting algorithm for the radio module to comply with the requirement for limiting the duty factor at all times. To limit the duty factor at all times the algorithm controls the timing of when uplink (transmit) transactions are initiated. When an uplink (transmit) transaction occurs the algorithm accrues the actual transmit time. The algorithm ensures that the idle (transmitter off) time is sufficient to ensure the duty factor is less than the limit (25%) before the next uplink (transmit) transaction is initiated. This ensures that the duty factor is limited to the maximum allowable over all times.

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