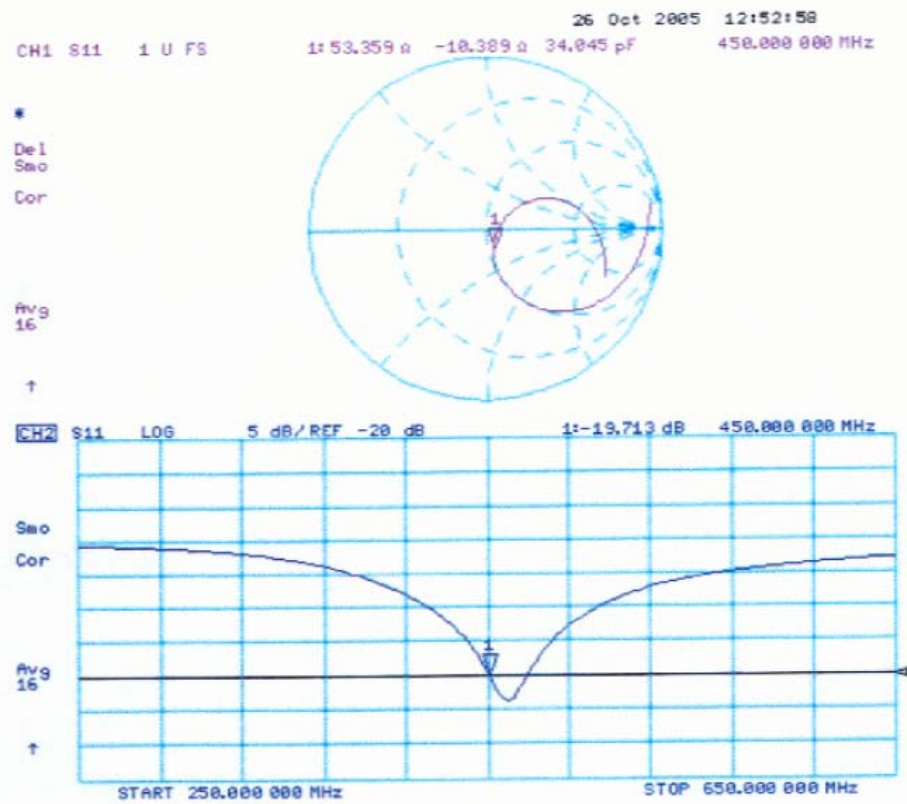


Impedance Measurement Plot for Head TSL

APPENDIX D - TEST SYSTEM VERIFICATIONS SCANS

Liquid Measurement Result

2006-04-11

Simulant	Freq [MHz]	Parameters	Liquid Temp [°C]	Target Value	Measured Value	Deviation [%]	Limits [%]
Body	450	ϵ	22	58.7	57.3	-2.39	± 5
		σ	22	0.94	0.95	1.06	± 5
		1g SAR	22	4.874	4.68	-3.98	± 10
Head	450	ϵ	22	43.5	43.0	-1.61	± 5
		σ	22	0.87	0.86	-1.15	± 5
		1g SAR	22	4.9	5.12	4.49	± 10

ϵ_r = relative permittivity, σ = conductivity and $\rho=1000\text{kg/m}^3$

Date/Time: 4/7/2006 12:29:03 PM

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)

System Validation for Body da4**DUT: Dipole 450 MHz; Type: D450V2; Serial: D450V2 -**

Communication System: CW; Frequency: 450 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 450 \text{ MHz}$; $\sigma = 0.95 \text{ mho/m}$; $\epsilon_r = 57.3$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1604; ConvF(7.54, 7.54, 7.54); Calibrated: 3/18/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 10/18/2005
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

d=15mm, Pin=1W/Area Scan (61x201x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 4.97 mW/g

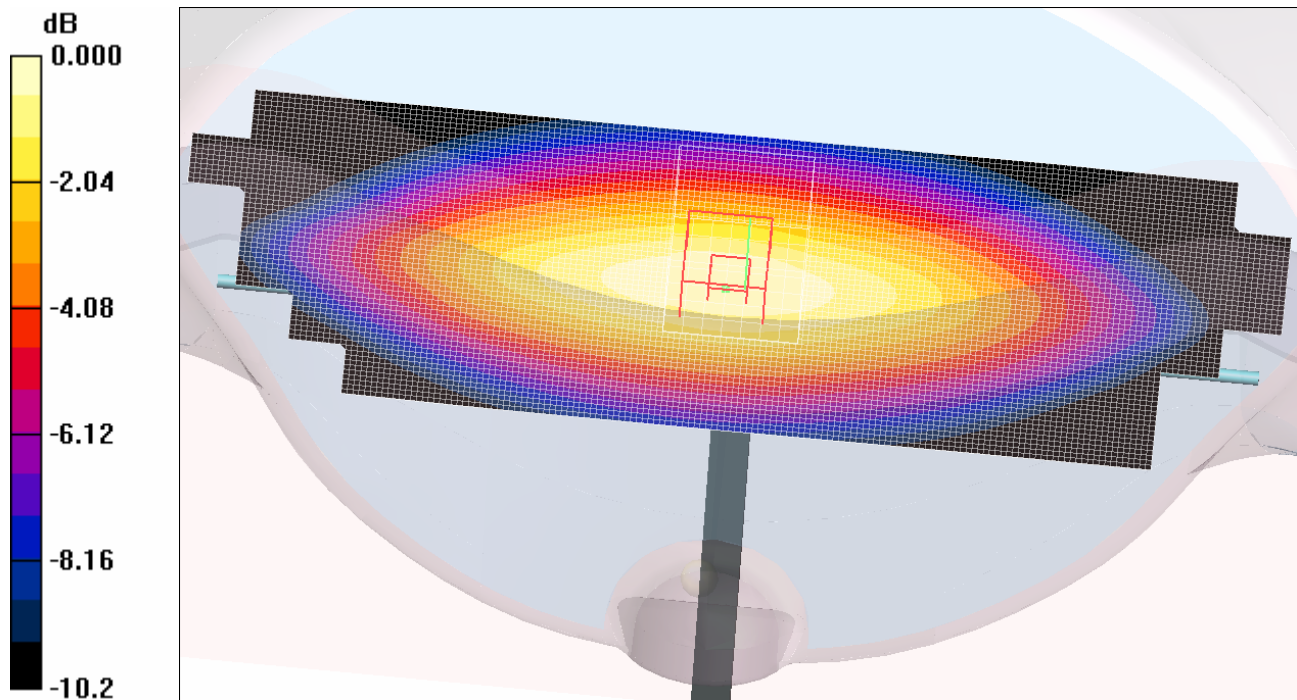
d=15mm, Pin=1W/Zoom Scan (5x5x5)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 71.9 V/m; Power Drift = -0.013 dB

Peak SAR (extrapolated) = 7.37 W/kg

SAR(1 g) = 4.68 mW/g; SAR(10 g) = 3.17 mW/g

Maximum value of SAR (measured) = 4.95 mW/g



0 dB = 4.95mW/g

Date/Time: 4/7/2006 11:06:20 AM

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)**System Validation for Head****DUT: Dipole 450 MHz; Type: D450V2; Serial: D450V2**

Communication System: CW; Frequency: 450 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 450 \text{ MHz}$; $\sigma = 0.86 \text{ mho/m}$; $\epsilon_r = 43$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1604; ConvF(8.1, 8.1, 8.1); Calibrated: 3/18/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 10/18/2005
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

d=15mm, Pin=1W/Area Scan (61x201x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 5.31 mW/g

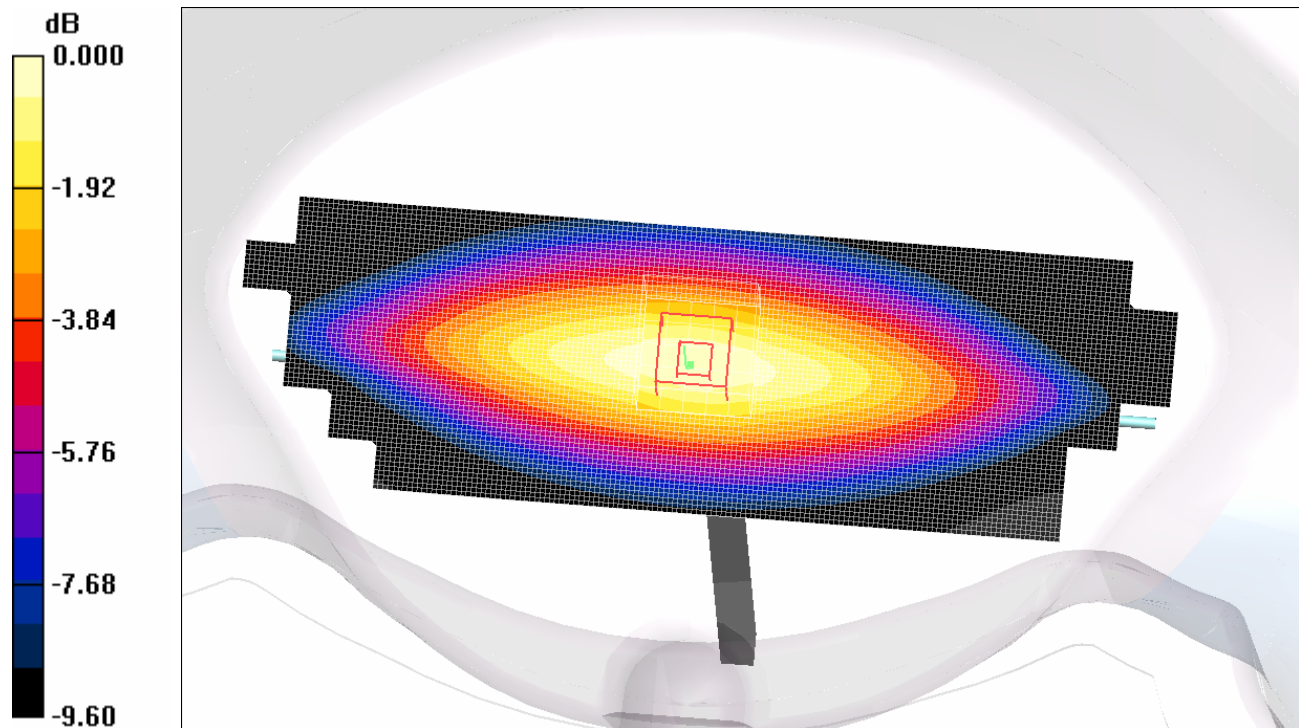
d=15mm, Pin=1W/Zoom Scan (5x5x5)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 78.5 V/m; Power Drift = -0.001 dB

Peak SAR (extrapolated) = 8.81 W/kg

SAR(1 g) = 5.12 mW/g; SAR(10 g) = 3.33 mW/g

Maximum value of SAR (measured) = 5.36 mW/g



0 dB = 5.36mW/g

APPENDIX E - EUT SCANS

Date/Time: 4/7/2006 4:28:23 PM

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)**Body worn****DUT: Qixiang 3308; Type: 2 Way Radio; Serial: 0603A0778**

Communication System: FM; Frequency: 420.125 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 420.125 \text{ MHz}$; $\sigma = 0.93 \text{ mho/m}$; $\epsilon_r = 57.5$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1604; ConvF(7.54, 7.54, 7.54); Calibrated: 3/18/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 10/18/2005
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Body Worn/Area Scan : Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$

Maximum value of SAR (interpolated) = 7.00 mW/g

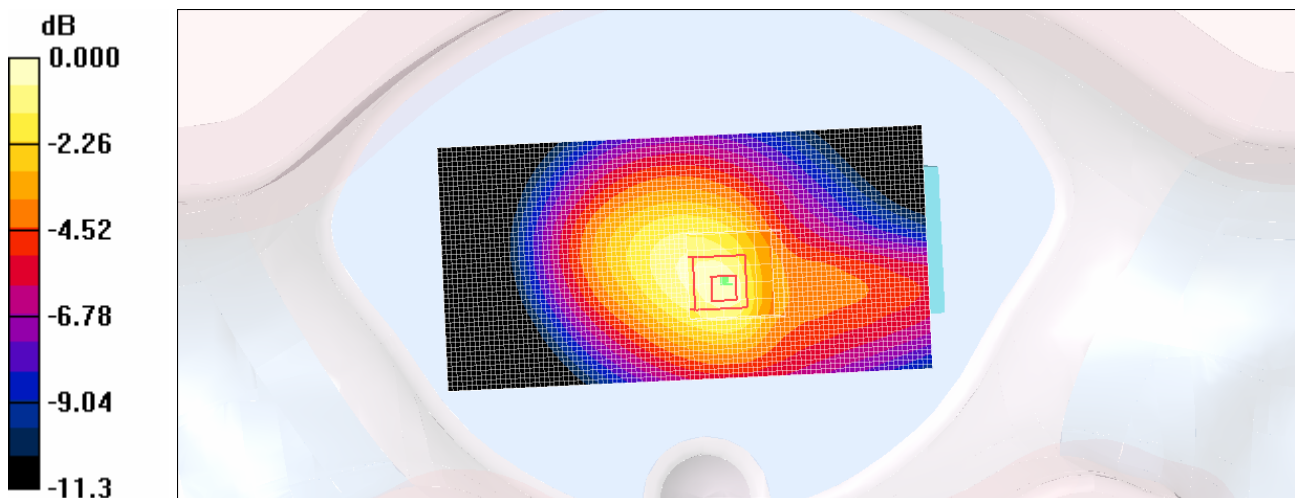
Body Worn/Zoom Scan (5x5x58)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 73.9 V/m; Power Drift = 0.095dB

Peak SAR (extrapolated) = 10.9 W/kg

SAR(1 g) = 5.75 mW/g; SAR(10 g) = 3.67 mW/g

Maximum value of SAR (measured) = 6.11 mW/g



0 dB = 6.11mW/g

Plot #1

Date/Time: 4/7/2006 3:47:31 PM

Test Laboratory: Bay Area Compliance Lab Corp.(BACL)**Face_2.5cm****DUT: Qixiang 3308; Type: 2 Way radio; Serial: 0603A0778**

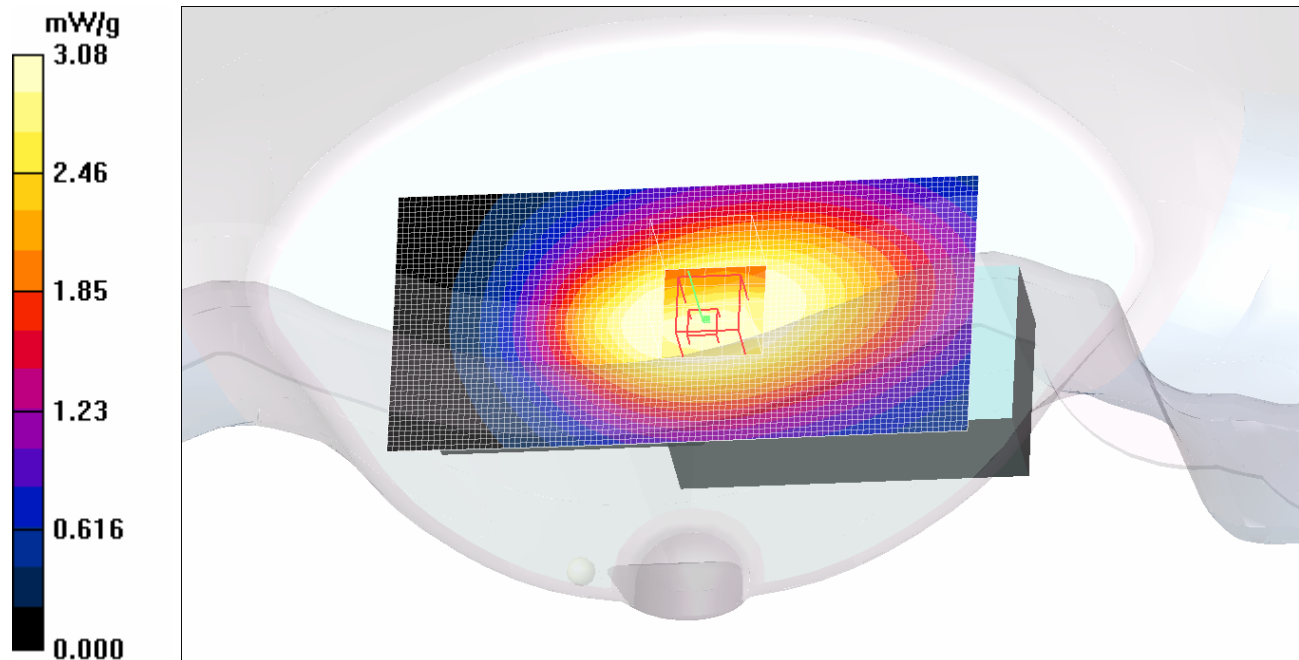
Communication System: FM; Frequency: 420.125 MHz; Duty Cycle: 1:1

Medium parameters used: $f = 420.125 \text{ MHz}$; $\sigma = 0.83 \text{ mho/m}$; $\epsilon_r = 42.8$; $\rho = 1000 \text{ kg/m}^3$

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1604; ConvF(8.1, 8.1, 8.1); Calibrated: 3/18/2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn456; Calibrated: 10/18/2005
- Phantom: SAM with CRP; Type: Twin SAM; Serial: TP-1032
- Measurement SW: DASY4, V4.6 Build 23; Postprocessing SW: SEMCAD, V1.8 Build 161

Face position_2.5cm /Area Scan: Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$ Maximum value of SAR (interpolated) = 3.50 mW/g **Face position_2.5cm /Zoom Scan (5x5x5)/Cube 0:** Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$ Reference Value = 66.3 V/m ; Power Drift = 0.125 dB Peak SAR (extrapolated) = 4.19 W/kg **SAR(1 g) = 2.94 mW/g ; SAR(10 g) = 2.14 mW/g** Maximum value of SAR (measured) = 3.08 mW/g **Plot #2**

APPENDIX F – CONDUCTED OUTPUT POWER MEASUREMENT

Provision Applicable

The measured peak output power should be greater and within 5% than EMI measurement.

Test Procedure

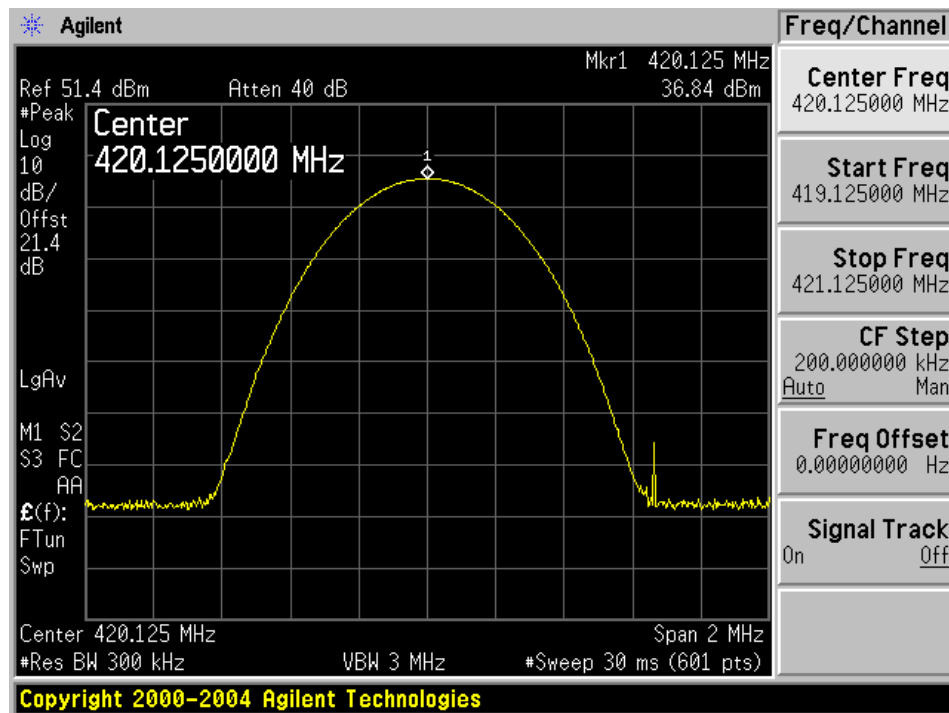
The RF output of the transmitter was connected to the input of the spectrum analyzer through sufficient attenuation.

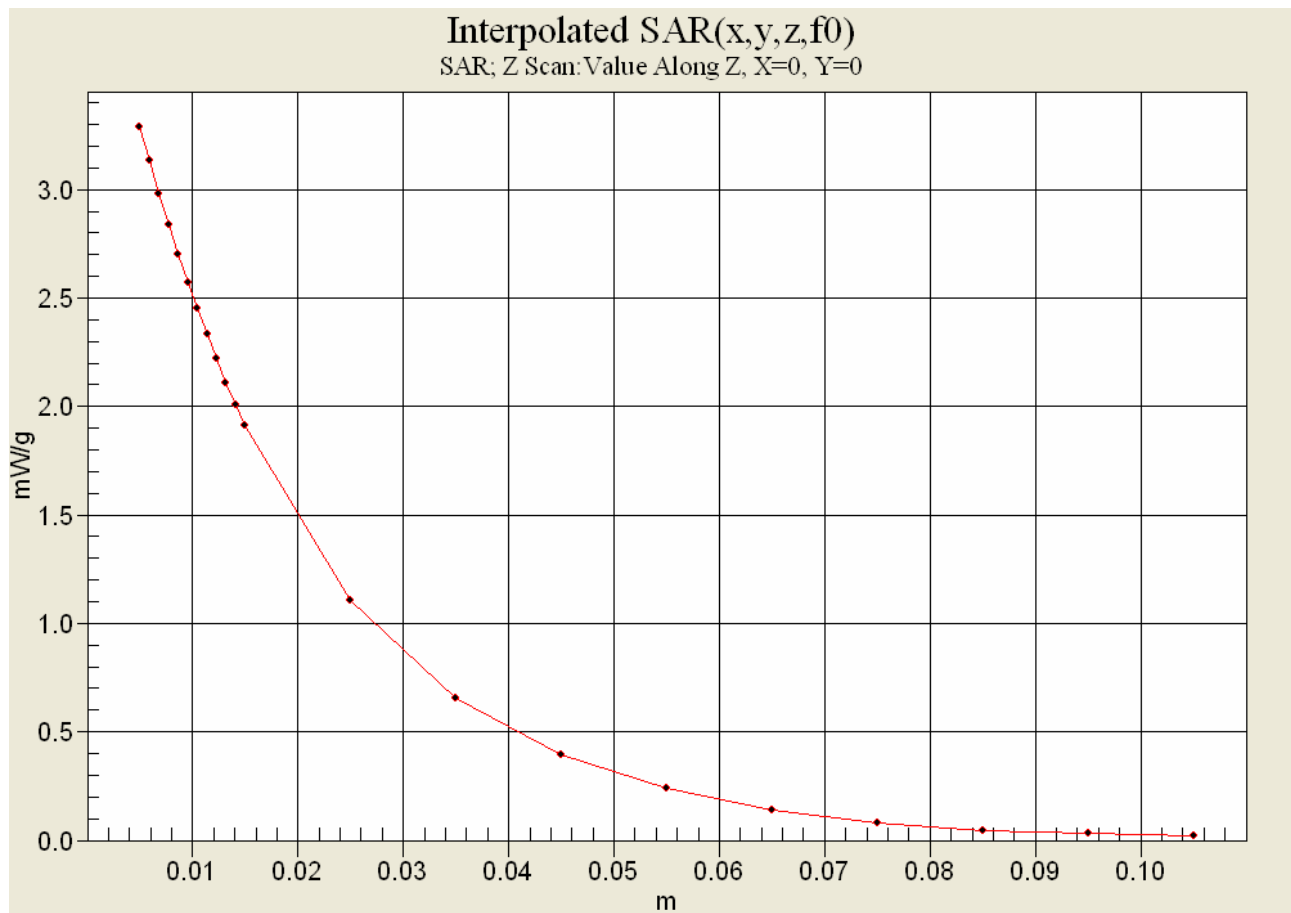
Test equipment

Agilent E4446A Spectrum Analyzer, calibrated 06/03/2006, Calibration Due Date: 2007-3-6

Test Results

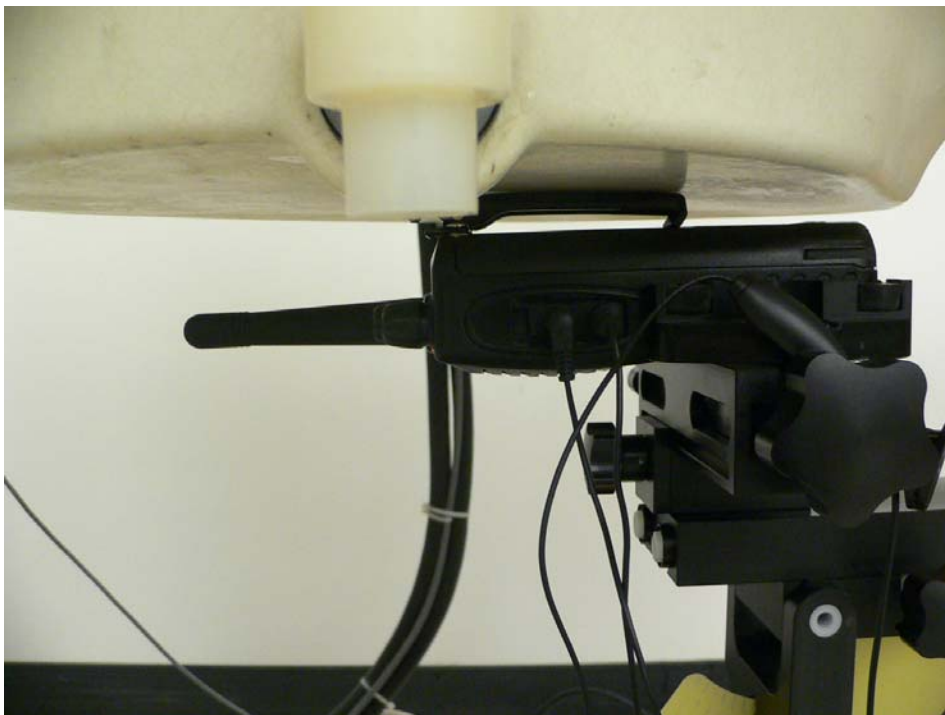
Frequency (MHz)	Output Power in dBm	Output Power in W
420.125	36.84	4.83



APPENDIX G – Z-AXIS PLOT

APPENDIX H – EUT TEST POSITION PHOTOS

Body Position



Face 2.5cm Position



APPENDIX I – EUT & ACCESSORIES PHOTOS

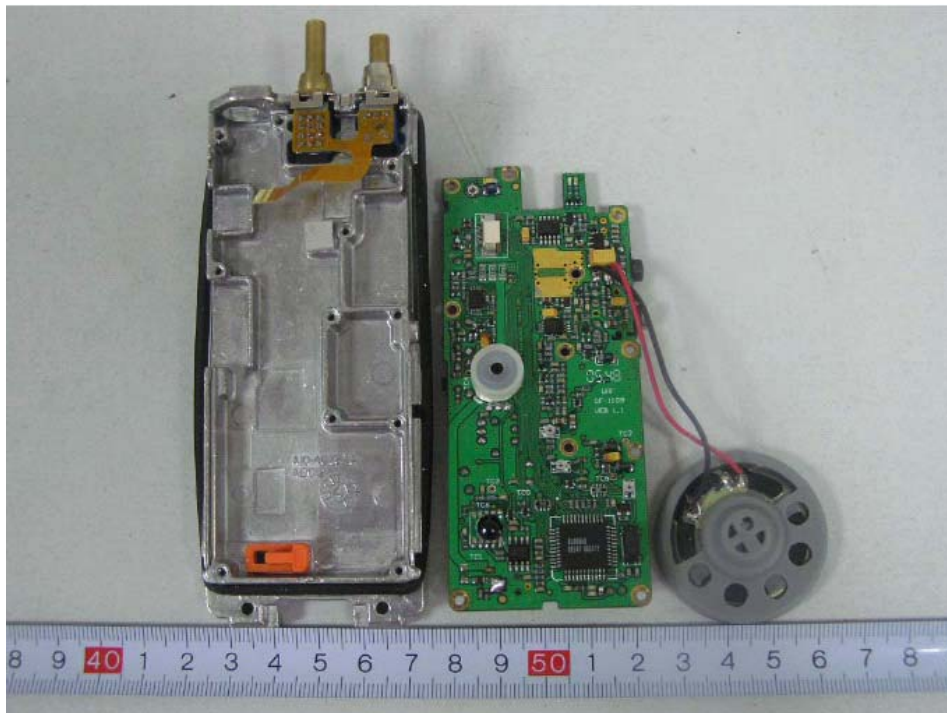
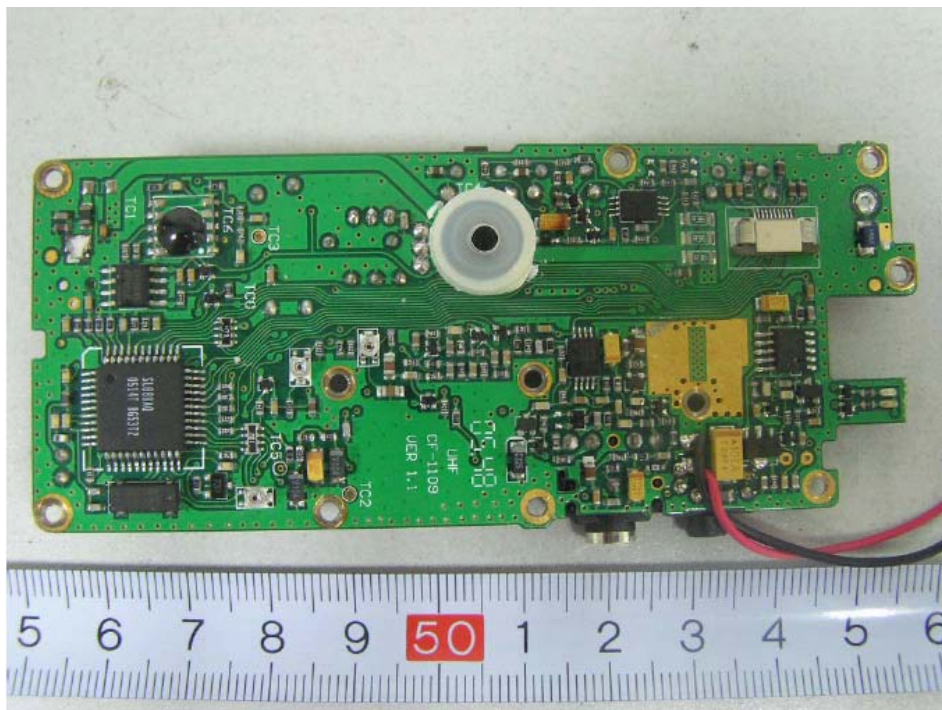
Model 3308: EUT – Front View

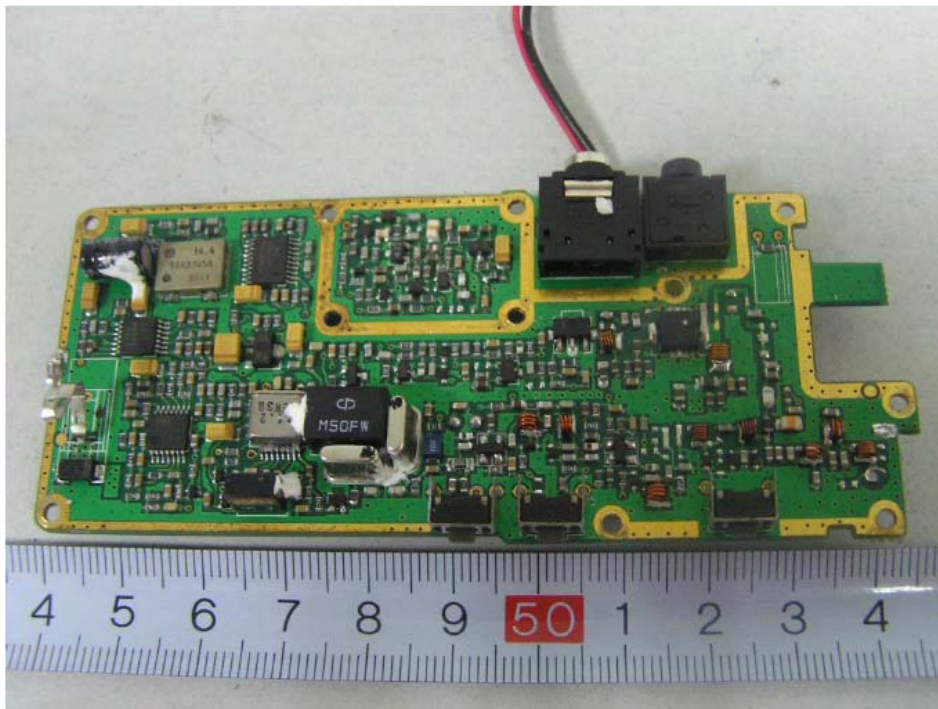


Model 3308: EUT – Rear View



EUT – Uncovered View**EUT – Uncovered View**

EUT – Uncover View**EUT – Main PCB Side 1 View**

EUT – Main PCB Site 2 View

APPENDIX J - INFORMATIVE REFERENCES

- [1] Federal Communications Commission, \Report and order: Guidelines for evaluating the environmental effects of radiofrequency radiation", Tech. Rep. FCC 96-326, FCC, Washington, D.C. 20554, 1996.
- [2] David L. Means Kwok Chan, Robert F. Cleveland, \Evaluating compliance with FCC guidelines for human exposure to radiofrequency electromagnetic fields", Tech. Rep., Federal Communication Commission, Office of Engineering & Technology, Washington, DC, 1997.
- [3] Thomas Schmid, Oliver Egger, and Niels Kuster, \Automated E-field scanning system for dosimetric assessments", IEEE Transactions on Microwave Theory and Techniques, vol. 44, pp. 105{113, Jan. 1996.
- [4] Niels Kuster, Ralph Kastle, and Thomas Schmid, \Dosimetric evaluation of mobile communications equipment with known precision", IEICE Transactions on Communications, vol. E80-B, no. 5, pp. 645{652, May 1997.
- [5] CENELEC, \Considerations for evaluating of human exposure to electromagnetic fields (EMFs) from mobile telecommunication equipment (MTE) in the frequency range 30MHz - 6GHz", Tech. Rep., CENELEC, European Committee for Electrotechnical Standardization, Brussels, 1997.
- [6] ANSI, 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, The Institute of Electrical and Electronics Engineers, Inc., New York, NY 10017, 1992.
- [7] Katja Pokovic, Thomas Schmid, and Niels Kuster, \Robust setup for precise calibration of E-field probes in tissue simulating liquids at mobile communications frequencies", in ICECOM _ 97, Dubrovnik, October 15{17, 1997, pp. 120-24.
- [8] Katja Pokovic, Thomas Schmid, and Niels Kuster, \E-field probe with improved isotropy in brain simulating liquids", in Proceedings of the ELMAR, Zadar, Croatia, 23{25 June, 1996, pp. 172-175.
- [9] Volker Hombach, Klaus Meier, Michael Burkhardt, Eberhard Kuhn, and Niels Kuster, \The dependence of EM energy absorption upon human head modeling at 900 MHz", IEEE Transactions on Microwave Theory and Techniques, vol. 44, no. 10, pp. 1865-1873, Oct. 1996.
- [10] Klaus Meier, Ralf Kastle, Volker Hombach, Roger Tay, and Niels Kuster, \The dependence of EM energy absorption upon human head modeling at 1800 MHz", IEEE Transactions on Microwave Theory and Techniques, Oct. 1997, in press.
- [11] W. Gander, Computermathematik, Birkhaeuser, Basel, 1992.
- [12] W. H. Press, S. A. Teukolsky, W. T. Vetterling, and B. P. Flannery, Numerical Recipes in C, The Art of Scientific Computing, Second Edition, Cambridge University Press, 1992. Dosimetric Evaluation of Sample device, month 1998 9
- [13] NIS81 NAMAS, \The treatment of uncertainty in EMC measurement", Tech. Rep., NAMAS Executive, National Physical Laboratory, Teddington, Middlesex, England, 1994.
- [14] Barry N. Taylor and Christ E. Kuyatt, \Guidelines for evaluating and expressing the uncertainty of NIST measurement results", Tech. Rep., National Institute of Standards and Technology, 1994. Dosimetric Evaluation of Sample device, month 1998 10.