
 MOTOROLA	 TESTING CERT # 2518.01
---	--

FCC ID: IHDT56HG1
DECLARATION OF COMPLIANCE SAR ASSESSMENT Part 2 of 2

Networks & Enterprise EME Test Laboratory 8000 West Sunrise Blvd Fort Lauderdale, FL. 33322	Date of Report: June 20, 2007 Report Revision: O Report ID: i290_Rev O_070620_SR5032
--	---

<p>Responsible Engineer: Stephen C. Whalen (EME Principle Staff Engineer) Date/s Tested: 6/11/2007-6/15/2007 Manufacturer/Location: Motorola – Plantation Sector/Group/Div.: iDEN MD Subscriber Date submitted for test: 6/6/07 DUT Description: TDMA: 236:310 WiDEN (76.1%), 81:120, 2:6, 1:12, and 1:6; 64 QAM, 16QAM, and QPSK Modulations; 0.6 W Pulse Avg, MOTotalk: 114:120 8FSK; 0.85 W nominal (GPS capable) Test TX mode(s): 1:3, 1:6, 114:120, 236:310, 81:120 Max. Power output: 640 mW pulsed average (iDEN/WiDEN/NBPCS);0.891 W (MOTotalk) Nominal Power: 0.6 W Pulse Average Conducted Power (iDEN/WiDEN/NBPCS); 0.85 W (MOTotalk) Tx Frequency Bands: 806-825, 896-901 MHz (iDEN/WiDEN); 901-902MHz (NBPCS) 902-928 MHz (MOTotalk) Signaling type: TDMA: iDEN; WiDEN, NBPCS, MOTotalk - (FHSS 8FSK) Model(s) Tested: H98XAH6JR4AN / NWF1278A Model(s) Certified: H98XAH6JR4AN / NWF1278A Serial Number(s): 364VHEMLN6, 364VHEMMVQ Classification: General Population/Uncontrolled Rule Part(s): 15, 24 & 90</p> <p>Approved Accessories: Antenna(s): 8571054M01 (806-825MHz internal ¼ wave antenna, -1.76Bd, 896-902MHz; -1.76dBd, 902-928MHz; -1.81dBd) Battery(ies): SNN5784A (Slim Li-Ion Battery), NTN2421A (Slim Battery Door), SNN5754A (Extended Li-Ion Battery), NTN2422A (Extended Battery Door) Body worn accessory(ies): NNTN7138A (Swivel carry holster) Audio/Data cable accessory(ies): NNTN5330B (PTT Headset, Earbud), NNTN5004B (PTT headset, Over-the-Ear), NNTN5005B (PTT headset, Over-the-Head), NNTN5006B (PTT headset, Flexible Earwrap), NNTN5211B (2-Wire Surveillance Headset), NNTN6312A (3-Wire Surveillance Headset), NNTN6531A (Data cable), SKN6371C (Data cable)</p> <p style="text-align: center;">Max. Calc. : 1-g Avg. SAR: 1.48 W/kg (Body); 10-g Avg. SAR: 1.08 W/kg (Body) Max. Calc. : 1-g Avg. SAR: 1.18 W/kg (Face); 10-g Avg. SAR: 0.84 W/kg (Face) Max. Calc. : 1-g Avg. SAR: 1.54 W/kg (Head); 10-g Avg. SAR: 1.08 W/kg (Head)</p>	<div style="border: 1px solid black; padding: 5px; transform: rotate(-45deg); width: fit-content; margin: auto;"> DUT Photo (Refer to Exhibit 7B) </div>
---	---

Based on the information and the testing results provided herein, the undersigned certifies that when used as stated in the operating instructions supplied, said product complies with the national and international reference standards and guidelines listed in section 2.0 of this report. This report shall not be reproduced without written approval from an officially designated representative of the Motorola EME Laboratory.

I attest to the accuracy of the data and assume full responsibility for the completeness of these measurements.
 This reporting format is consistent with the test report guidelines of the TIA TSB-150 December 2004
 The results and statements contained in this report pertain only to the device(s) evaluated.

Signature on file Deanna Zakharia N&E EME Lab Senior Resource Manager, Laboratory Director, Approval Date: 6/20/07	Certification Date: 6/20/07 Certification No.: L1070671P
--	---

Appendix C
Dipole Calibration Certificates

Calibration Laboratory of
 Schmid & Partner
 Engineering AG
 Zeughausstrasse 43, 8004 Zurich, Switzerland



S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Federal Office of Metrology and Accreditation
 The Swiss Accreditation Service is one of the signatories to the EA
 Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Client **Motorola CGISS**

Certificate No: **D900V2-084_Apr06**

CALIBRATION CERTIFICATE

Object **D900V2 - SN: 084**

Calibration procedure(s) **QA CAL-05.v6
 Calibration procedure for dipole validation kits**

Calibration date: **April 21, 2006**

Condition of the calibrated item **In Tolerance**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
 The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	04-Oct-05 (METAS, No. 251-00516)	Oct-06
Power sensor HP 8481A	US37292783	04-Oct-05 (METAS, No. 251-00516)	Oct-06
Reference 20 dB Attenuator	SN: 5086 (20g)	11-Aug-05 (METAS, No 251-00498)	Aug-06
Reference 10 dB Attenuator	SN: 5047.2 (10r)	11-Aug-05 (METAS, No 251-00498)	Aug-06
Reference Probe ET3DV6	SN 1507	28-Oct-05 (SPEAG, No. ET3-1507_Oct05)	Oct-06
DAE4	SN 601	15-Dec-05 (SPEAG, No. DAE4-601_Jan05)	Dec-06
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (SPEAG, in house check Oct-05)	In house check: Oct-07
RF generator Agilent E4421B	MY41000675	11-May-05 (SPEAG, in house check Nov-05)	In house check: Nov-07
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (SPEAG, in house check Nov-05)	In house check: Nov-06

	Name	Function	Signature
Calibrated by:	Marcel Fehr	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: April 21, 2006

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland



S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Federal Office of Metrology and Accreditation
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
- CENELEC EN 50361, "Basic standard for the measurement of Specific Absorption Rate related to human exposure to electromagnetic fields from mobile phones (300 MHz - 3 GHz), July 2001
- Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

Additional Documentation:

- DASY4 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- SAR measured:* SAR measured at the stated antenna input power.
- SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY4	V4.7
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom V4.9	
Distance Dipole Center - TSL	15 mm	with Spacer
Area Scan resolution	dx, dy = 15 mm	
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	900 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	41.5	0.97 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	41.8 ± 6 %	0.96 mho/m ± 6 %
Head TSL temperature during test	(21.5 ± 0.2) °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm ³ (1 g) of Head TSL	condition	
SAR measured	250 mW input power	2.71 mW / g
SAR normalized	normalized to 1W	10.8 mW / g
SAR for nominal Head TSL parameters ¹	normalized to 1W	11.0 mW /g ± 17.0 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.73 mW / g
SAR normalized	normalized to 1W	6.92 mW / g
SAR for nominal Head TSL parameters ¹	normalized to 1W	6.97 mW /g ± 16.5 % (k=2)

¹ Correction to nominal TSL parameters according to d), chapter "SAR Sensitivities"

Appendix

Antenna Parameters with Head TSL

Impedance, transformed to feed point	50.1 Ω - 5.6 $j\Omega$
Return Loss	-25.1 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.388 ns
----------------------------------	----------

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	September 20, 2000

DASY4 Validation Report for Head TSL

Date/Time: 21.04.2006 14:29:27

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 900 MHz; Type: D900V2; Serial: D900V2 - SN:084

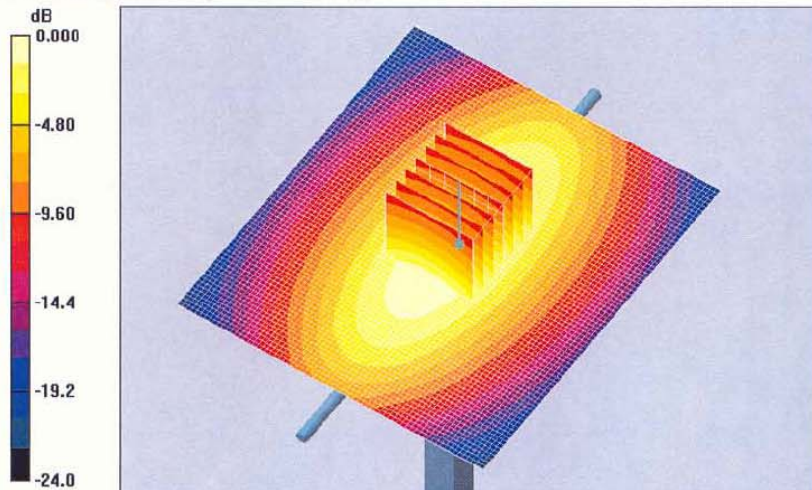
Communication System: CW; Frequency: 900 MHz; Duty Cycle: 1:1
 Medium: HSL U10 BB;
 Medium parameters used: $f = 900 \text{ MHz}$; $\sigma = 0.954 \text{ mho/m}$; $\epsilon_r = 41.7$; $\rho = 1000 \text{ kg/m}^3$
 Phantom section: Flat Section
 Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507 (HF); ConvF(5.8, 5.8, 5.8); Calibrated: 28.10.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 15.12.2005
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; ;
- Measurement SW: DASY4, V4.7 Build 16; Postprocessing SW: SEMCAD, V1.8 Build 161

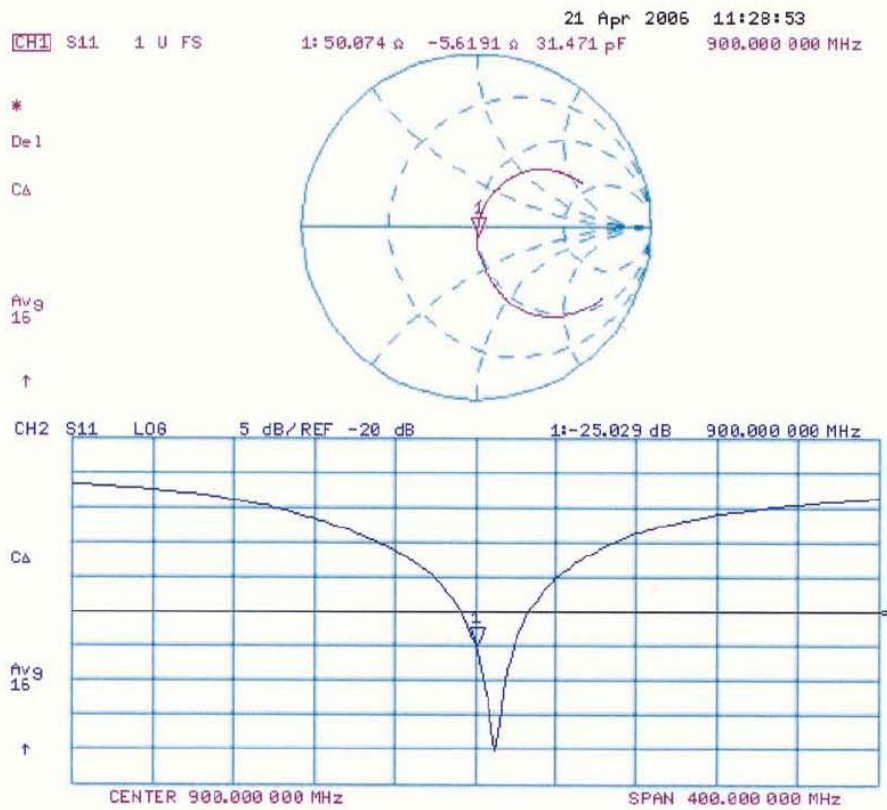
Pin = 250 mW; d = 10 mm/Area Scan (71x81x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (interpolated) = 2.94 mW/g

Pin = 250 mW; d = 10 mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Reference Value = 57.9 V/m; Power Drift = -0.037 dB
 Peak SAR (extrapolated) = 4.09 W/kg
SAR(1 g) = 2.71 mW/g; SAR(10 g) = 1.73 mW/g
 Maximum value of SAR (measured) = 2.92 mW/g



0 dB = 2.92mW/g

Impedance Measurement Plot for Head TSL



Appendix D

Test System Verification Scans

Dipole validation scans at the head from SPEAG are provided in APPENDIX C. NE's EME lab validates its' dipole(s) to the applicable IEEE system performance targets. A system validation was performed using FCC body tissue parameters to generate the system performance target values for body at the applicable frequency. Dipoles are assessed using multiple probes and measurements were performed using the isotropic assessment procedure mentioned below.

To assess the isotropic characteristics of the measurement probe, two system performance zoom scans (0 and 90 degrees) were measured. The results were averaged together and adjusted to account for the power drift in order to obtain the final calculated 1 and 10 gram results. The results obtained from each probe were then averaged together to determine the new measured SAR target.

Motorola N&E EME Laboratory

Date/Time: 6/11/2007 12:12:30 PM

Robot# / Run#: DASY4-FL-1 / JsT-SYSP-900H-070611-01
Phantom# / Tissue Temp.: SAMTP1022 / 20.3 (C)
Dipole Model# / Serial#: D900V2 / 084
TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target: 10.47 mW/g (1g); 6.67 mW/g (10g)
Calculated: 10.87 mW/g (1g); 7.01 mW/g (10g)
Percent from Target (+/-): 3.85 % (1g); 5.15 % (10g)
(Including Drift)

Probe: ET3DV6 - SN1383, Calibrated: 2/15/2007, ConvF(6.31, 6.31, 6.31)
Electronics: DAE3 Sn374, Calibrated: 2/14/2007

Duty Cycle: 1:1, Medium parameters used: f = 900 MHz; $\sigma = 0.97$ mho/m; $\epsilon_r = 40.5$; $\rho = 1000$ kg/m³

System Performance/0-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 56.0 V/m; Power Drift = -0.160 dB

Peak SAR (extrapolated) = 4.00 W/kg

SAR(1 g) = 2.63 mW/g; SAR(10 g) = 1.69 mW/g

Maximum value of SAR (measured) = 2.85 mW/g

System Performance/90-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 56.0 V/m; Power Drift = -0.160 dB

Peak SAR (extrapolated) = 3.91 W/kg

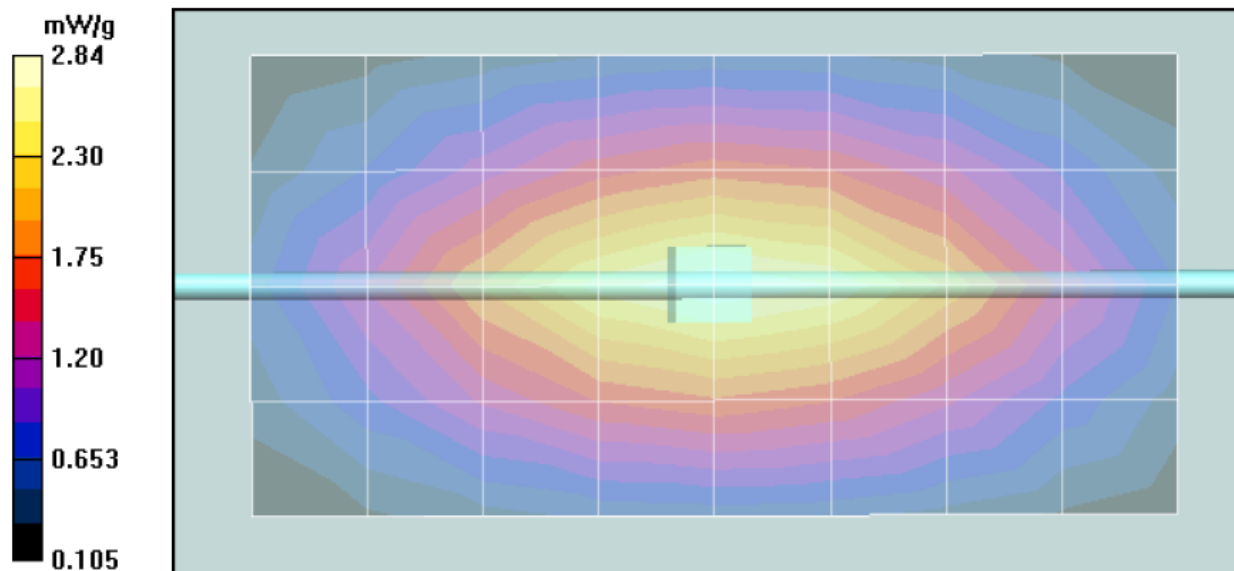
SAR(1 g) = 2.61 mW/g; SAR(10 g) = 1.69 mW/g

Maximum value of SAR (measured) = 2.82 mW/g

System Performance/Dipole Area Scan (5x9x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.84 mW/g

System Performance/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm



Motorola N&E EME Laboratory

Date/Time: 6/12/2007 7:10:55 AM

Robot# / Run#: DASY4-FL-1 / ErC-SYSP-900H-070612-01
Phantom# / Tissue Temp.: SAMTP1022 / 20.3 (C)
Dipole Model# / Serial#: D900V2 / 084
TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target: 10.47 mW/g (1g); 6.67 mW/g (10g)
Calculated: 10.79 mW/g (1g); 6.98 mW/g (10g)
Percent from Target (+/-): 3.08 % (1g); 4.59 % (10g)
(Including Drift)

Probe: ET3DV6 - SN1383, Calibrated: 2/15/2007, ConvF(6.31, 6.31, 6.31)
Electronics: DAE3 Sn374, Calibrated: 2/14/2007

Duty Cycle: 1:1, Medium parameters used: $f = 900$ MHz; $\sigma = 0.97$ mho/m; $\epsilon_r = 40.8$; $\rho = 1000$ kg/m³

System Performance/0-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 56.5 V/m; Power Drift = -0.111 dB
Peak SAR (extrapolated) = 3.95 W/kg
SAR(1 g) = 2.62 mW/g; SAR(10 g) = 1.69 mW/g
Maximum value of SAR (measured) = 2.83 mW/g

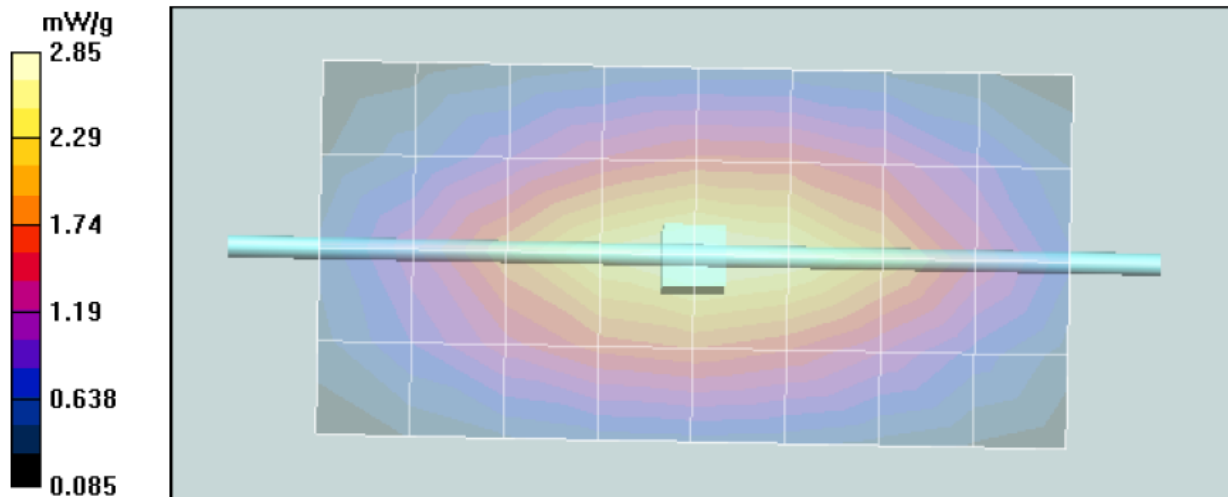
System Performance/90-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 56.5 V/m; Power Drift = -0.111 dB
Peak SAR (extrapolated) = 3.95 W/kg
SAR(1 g) = 2.64 mW/g; SAR(10 g) = 1.71 mW/g
Maximum value of SAR (measured) = 2.84 mW/g

System Performance/Dipole Area Scan (5x9x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.85 mW/g

System Performance/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm



Motorola N&E EME Laboratory
Date/Time: 6/13/2007 8:24:43 AM

Robot# / Run#: DASY4-FL-1 / JsT-SYSP-900H-070613-01
Phantom# / Tissue Temp.: SAMTP1022 / 20.5 (C)
Dipole Model# / Serial#: D900V2 / 084
TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target: 10.47 mW/g (1g); 6.67 mW/g (10g)
Calculated: 10.42 mW/g (1g); 6.74 mW/g (10g)
Percent from Target (+/-): 0.50 % (1g); 1.12 % (10g)
(Including Drift)

Probe: ET3DV6 - SN1383, Calibrated: 2/15/2007, ConvF(6.31, 6.31, 6.31)
Electronics: DAE3 Sn374, Calibrated: 2/14/2007

Duty Cycle: 1:1, Medium parameters used: f = 900 MHz; sigma = 0.96 mho/m; epsilon_r = 39.9; rho = 1000 kg/m^3

System Performance/0-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 56.3 V/m; Power Drift = -0.0158 dB
Peak SAR (extrapolated) = 3.90 W/kg
SAR(1 g) = 2.59 mW/g; SAR(10 g) = 1.68 mW/g
Maximum value of SAR (measured) = 2.80 mW/g

System Performance/90-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

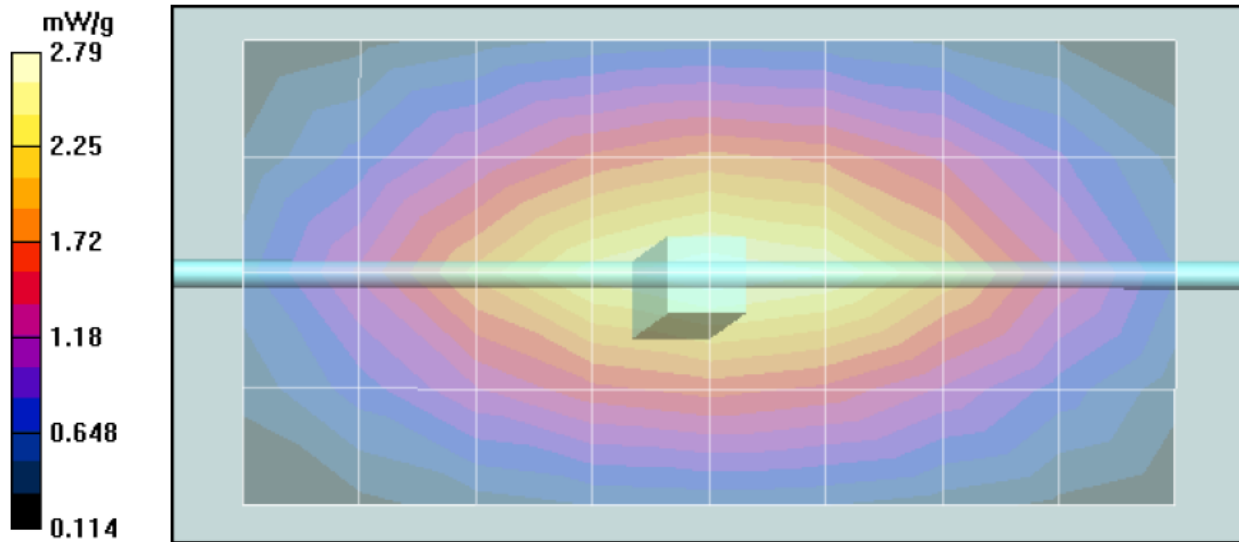
Reference Value = 56.3 V/m; Power Drift = -0.0158 dB
Peak SAR (extrapolated) = 3.87 W/kg
SAR(1 g) = 2.6 mW/g; SAR(10 g) = 1.68 mW/g

System Performance/Dipole Area Scan (5x9x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.79 mW/g

System Performance/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 2.78 mW/g



Motorola N&E EME Laboratory

Date/Time: 6/14/2007 6:41:23 AM

Robot# / Run#: DASY4-FL-1 / ErC-SYSP-900B-070614-01
Phantom# / Tissue Temp.: 80302002D-S15 / 20.7 (C)
Dipole Model# / Serial#: D900V2 / 084
TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target: 11.06 mW/g (1g); 7.15 mW/g (10g)
Calculated: 10.38 mW/g (1g); 6.87 mW/g (10g)
Percent from Target (+/-): 6.18 % (1g); 3.90 % (10g)
(Including Drift)

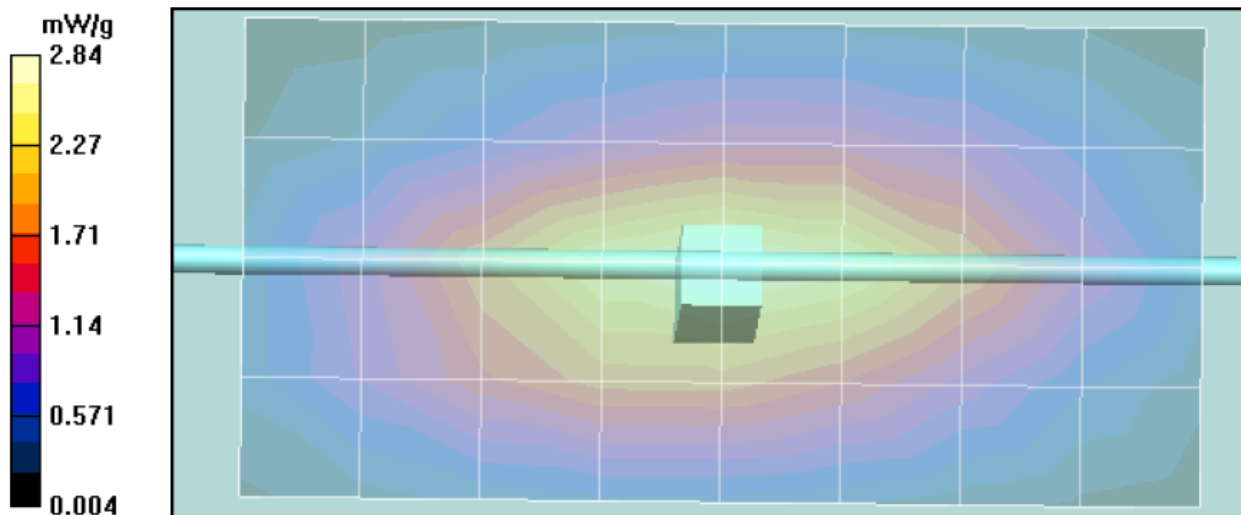
Probe: ET3DV6 - SN1383, Calibrated: 2/15/2007, ConvF(6.03, 6.03, 6.03)
Electronics: DAE3 Sn374, Calibrated: 2/14/2007
Duty Cycle: 1:1, Medium parameters used: f = 900 MHz; sigma = 1.05 mho/m; epsilon = 52.7; rho = 1000 kg/m^3

System Performance/0-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 55.4 V/m; Power Drift = 0.0182 dB
Peak SAR (extrapolated) = 3.47 W/kg
SAR(1 g) = 2.61 mW/g; SAR(10 g) = 1.73 mW/g
Maximum value of SAR (measured) = 2.88 mW/g

System Performance/90-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 55.4 V/m; Power Drift = 0.0182 dB
Peak SAR (extrapolated) = 3.42 W/kg
SAR(1 g) = 2.6 mW/g; SAR(10 g) = 1.72 mW/g
Maximum value of SAR (measured) = 2.86 mW/g

System Performance/Dipole Area Scan (5x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.79 mW/g

System Performance/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 2.84 mW/g



Motorola N&E EME Laboratory
Date/Time: 6/15/2007 7:19:51 AM

Robot# / Run#: DASY4-FL-1 / ErC-SYSP-900B-070615-01
Phantom# / Tissue Temp.: 80302002D-S15 / 20.7 (C)
Dipole Model# / Serial#: D900V2 / 084
TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target: 11.06 mW/g (1g); 7.15 mW/g (10g)
Calculated: 10.37 mW/g (1g); 6.89 mW/g (10g)
Percent from Target (+/-): 6.23 % (1g); 3.68 % (10g)
(Including Drift)

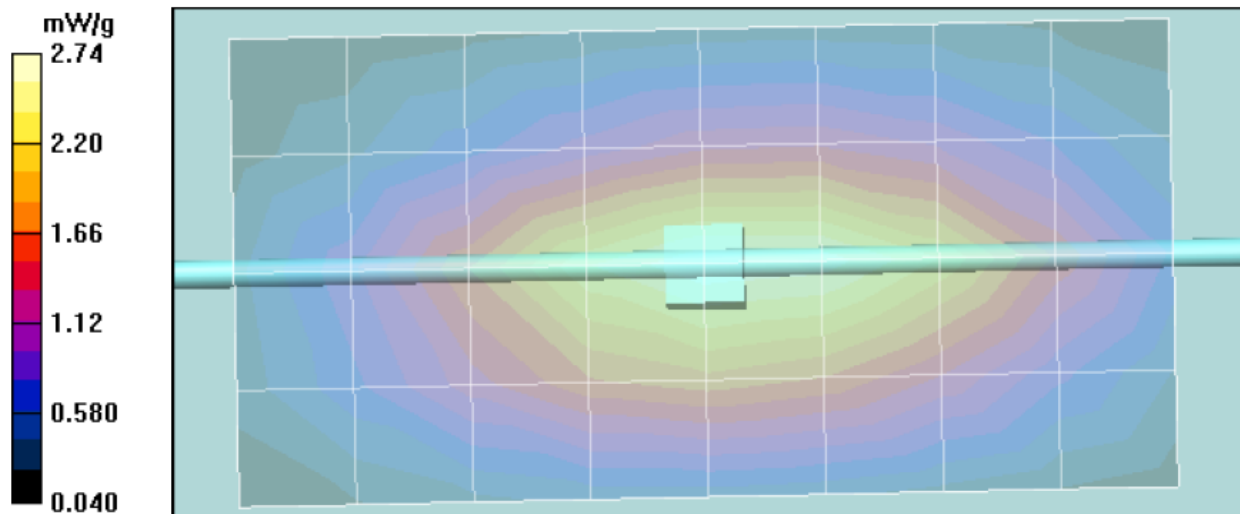
Probe: ET3DV6 - SN1383, Calibrated: 2/15/2007, ConvF(6.03, 6.03, 6.03)
Electronics: DAE3 Sn374, Calibrated: 2/14/2007
Duty Cycle: 1:1, Medium parameters used: f = 900 MHz; $\sigma = 1.04$ mho/m; $\epsilon_r = 52.7$; $\rho = 1000$ kg/m³

System Performance/0-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 55.0 V/m; Power Drift = -0.0298 dB
Peak SAR (extrapolated) = 3.40 W/kg
SAR(1 g) = 2.58 mW/g; SAR(10 g) = 1.71 mW/g
Maximum value of SAR (measured) = 2.82 mW/g

System Performance/90-Degree 5x5x7 Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 55.0 V/m; Power Drift = -0.0298 dB
Peak SAR (extrapolated) = 3.38 W/kg
SAR(1 g) = 2.57 mW/g; SAR(10 g) = 1.71 mW/g
Maximum value of SAR (measured) = 2.80 mW/g

System Performance/Dipole Area Scan (5x9x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 2.74 mW/g

System Performance/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm



DIPOLE SAR TARGET - HEAD

Date: 03/13/07 Frequency (MHz): 900
 Lab Location: NE Mixture Type: IEEE Head
 DAE Serial #: 401 Ambient Temp.(°C): 22.1

Tissue Characteristics
 Permittivity: 41.6 Phantom Type/SN: SAMTP1234
 Conductivity: 1.00 Distance (mm): 15
 Tissue Temp.(°C): 21.9

Reference Source: Dipole Power to Dipole: 250 mW
 Reference SN: 84

Target SAR Value: 10.8 mW/g (1g avg.), 6.9 mW/g (10g avg.)
 (normalized to 1.0 W)

New Target:

Average Measured SAR Value: 10.47 mW/g (1g avg.), 6.67 mW/g (10g avg.)

Percent Difference From Target (MUST be within k=2 Uncertainty): -3.03% (1g ave)
-3.30% (10g ave)

Test performed by: Gene Von Holten Initial: HvH

Probe SN #s	1-G Cube	Diff from Ave	10-G Cube	Diff from Ave	Robot
1547	10.38	-0.88%	6.63	-0.64%	R2
1384	10.68	1.98%	6.80	1.91%	R2
1383	10.49	0.17%	6.66	-0.19%	R2
1545	10.34	-1.27%	6.60	-1.09%	R2
5		-100.00%		-100.00%	R2
Average	10.4725		6.6725		New Measured SAR Value
(normalized to 1.0 W, including drift)					

DIPOLE SAR TARGET - BODY

Date: 03/13/07 Frequency (MHz): 900
 Lab Location: NE Mixture Type: FCC Body
 DAE Serial #: 401 Ambient Temp.(°C): _____

Tissue Characteristics

Permittivity: 52.4 Phantom Type/SN: 80302002B-S8
 Conductivity: 1.07 Distance (mm): 15
 Tissue Temp.(°C): 21.3

Reference Source: Dipole Power to Dipole: 250 mW
 Reference SN: 84

New Target:

Average Measured SAR Value: 11.06 mW/g(1g avg.), 7.15 mW/g (10g avg.)

Test performed by: Gene Von Holten Initial: HvH

Probe SN #s	1-G Cube	Diff from Ave	10-G Cube	Diff from Ave	Robot
1545	11.10	0.4%	7.17	0.3%	R2
1547	10.88	-1.6%	7.05	-1.4%	R2
1384	10.99	-0.6%	7.11	-0.5%	R2
1383	11.25	1.8%	7.26	1.6%	R2
5		-100.0%		-100.0%	R2
Average	11.0550		7.1475	New Measured SAR Value	
(normalized to 1.0 W, including drift)					

Appendix E
DUT Scans (Shortened Scans and Highest SAR configurations)

Shortened Scan Results

Motorola N&E EME Laboratory

Date/Time: 6/15/2007 2:48:45 PM

Robot# / Run#: DASY4-FL-1 / JsT-Lear-070615-07
 Phantom# / Tissue Temp.: SAMTP1022 / 20.3 (C)
 DUT Model# / Serial#: H98XAH6JR4AN-NWF1278A / 364VHEMLN6
 Antenna / TX Freq.: Internal / 901.0000 (MHz)
 Battery: SNN5754A w/ NTN2422A
 Carry Acc. / Cable Acc.: None / None
 Start Power: 0.658 (W)

Comments: Short Scan at Left Ear Touch Position

Shortened scan reflect highest SAR producing configuration; Run time 7 minutes.

Representative "normal" scan run time was 20 minutes

"Shortened" scan max calculated SAR using SAR drift: 1-g Avg. = 1.46mW/g; 10-g Avg. = 1.03mW/g

"Normal" scan max calculated SAR using SAR drift: 1-g Avg. = 1.54mW/g; 10-g Avg. = 1.08mW/g
(see part 1 of 2 section 9.0 run # JsT-Lear-070612-14)

Probe: ET3DV6 - SN1383, Calibrated: 2/15/2007, ConvF(6.31, 6.31, 6.31)

Electronics: DAE3 Sn374, Calibrated: 2/14/2007

Duty Cycle: 1:3, Medium parameters used: f = 901.5 MHz; $\sigma = 0.96$ mho/m; $\epsilon_r = 39.9$; $\rho = 1000$ kg/m³

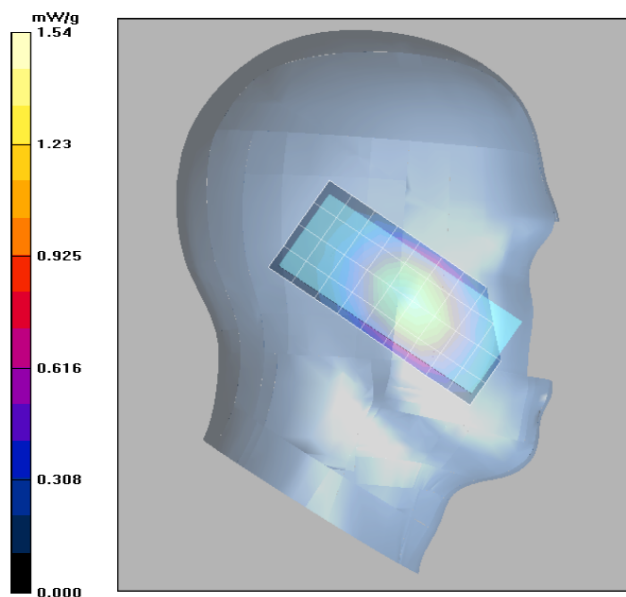
Left Ear-Touch position/5x5x7 Zoom Scan (5x5x7)/Cube 0:

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

Reference Value = 38.8 V/m; Power Drift = -0.143 dB

Peak SAR (extrapolated) = 1.88 W/kg

SAR(1 g) = 1.41 mW/g; SAR(10 g) = 0.997 mW/g



Highest SAR Configurations Results

Motorola N&E EME Laboratory

Date/Time: 6/12/2007 1:12:31 PM

Robot# / Run#: DASY4-FL-1 / JsT-Lear-070612-14
 Phantom# / Tissue Temp.: SAMTP1022 / 20.1 (C)
 DUT Model# / Serial#: H98XAH6JR4AN-NWF1278A / 364VHEMLN6
 Antenna / TX Freq.: Internal / 901.0000 (MHz)
 Battery: SNN5754A w/ NTN2422A
 Carry Acc. / Cable Acc.: None / None
 Start Power: 0.648 (W)

Comments: Full Scan; Touch

Probe: ET3DV6 - SN1383, Calibrated: 2/15/2007, ConvF(6.31, 6.31, 6.31)
 Electronics: DAE3 Sn374, Calibrated: 2/14/2007
 Duty Cycle: 1:3, Medium parameters used: $f = 901.5$ MHz; $\sigma = 0.97$ mho/m; $\epsilon_r = 40.8$; $\rho = 1000$ kg/m³

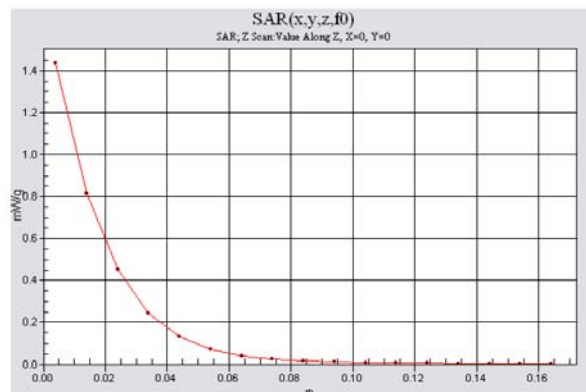
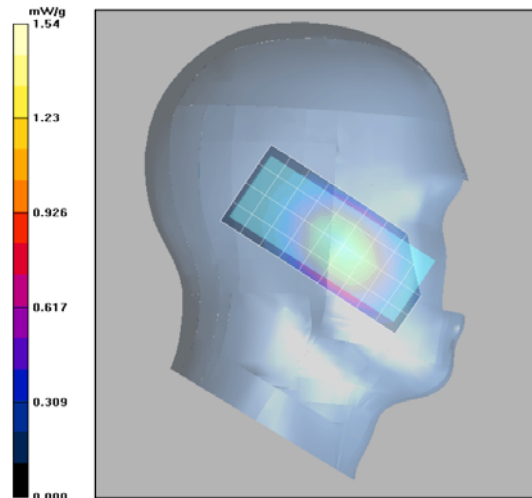
Left Ear-Touch position/7x7x7 Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
 Reference Value = 38.5 V/m; Power Drift = -0.282 dB
 Peak SAR (extrapolated) = 2.05 W/kg

SAR(1 g) = 1.44 mW/g; SAR(10 g) = 1.01 mW/g
 Maximum value of SAR (measured) = 1.56 mW/g

Left Ear-Touch position/Z Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 1.44 mW/g



Motorola N&E EME Laboratory

Date/Time: 6/15/2007 11:59:43 AM

Robot# / Run#: DASY4-FL-1 / JsT-Face-070615-04
Phantom# / Tissue Temp.: SAMTP1022 / 20.5 (C)
DUT Model# / Serial#: H98XAH6JR4AN-NWF1278A / 364VHEMLN6
Antenna / TX Freq.: Internal / 902.5250 (MHz)
Battery: SNN5754A w/ NTN2422A
Carry Acc. / Cable Acc.: None / None
Start Power: 0.927 (W)

Comments: Full Scan

Probe: ET3DV6 - SN1383, Calibrated: 2/15/2007, ConvF(6.31, 6.31, 6.31)
Electronics: DAE3 Sn374, Calibrated: 2/14/2007
Duty Cycle: 1:1.05, Medium parameters used: $f = 915$ MHz; $\sigma = 0.97$ mho/m; $\epsilon_r = 39.7$; $\rho = 1000$ kg/m³

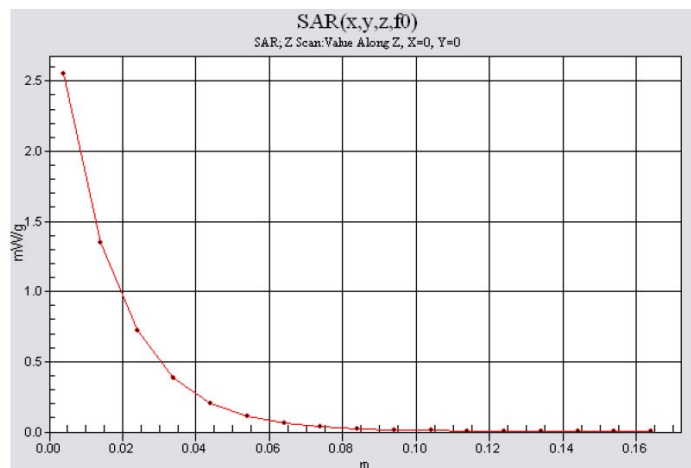
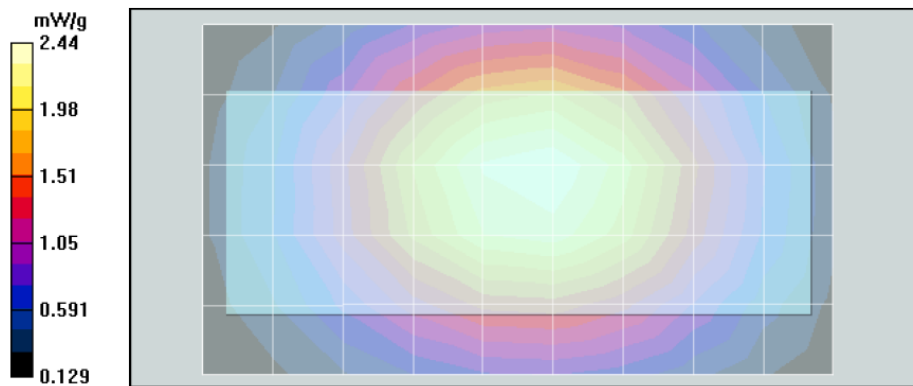
Face Scan/7x7x7 Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 48.6 V/m; Power Drift = 0.139 dB

Peak SAR (extrapolated) = 3.24 W/kg

SAR(1 g) = 2.36 mW/g; SAR(10 g) = 1.68 mW/g

Maximum value of SAR (measured) = 2.51 mW/g



Motorola N&E EME Laboratory

Date/Time: 6/13/2007 3:29:49 PM

Robot# / Run#: DASY4-FL-1 / JsT-Ab-070613-18
Phantom# / Tissue Temp.: 80302002D-S15 / 20.6 (C)
DUT Model# / Serial#: H98XAH6JR4AN-NWF1278A / 364VHEMLN6
Antenna / TX Freq.: Internal / 901.0000 (MHz)
Battery: SNN5784A w/ NTN2421A
Carry Acc. / Cable Acc.: NNTN7138A (Rev.2) / None
Start Power: 0.652 (W)

Comments: Full Scan

Probe: ET3DV6 - SN1383, Calibrated: 2/15/2007, ConvF(6.03, 6.03, 6.03)

Electronics: DAE3 Sn374, Calibrated: 2/14/2007

Duty Cycle: 1:1.33, Medium parameters used: $f = 901.5$ MHz; $\sigma = 1.05$ mho/m; $\epsilon_r = 53$; $\rho = 1000$ kg/m³

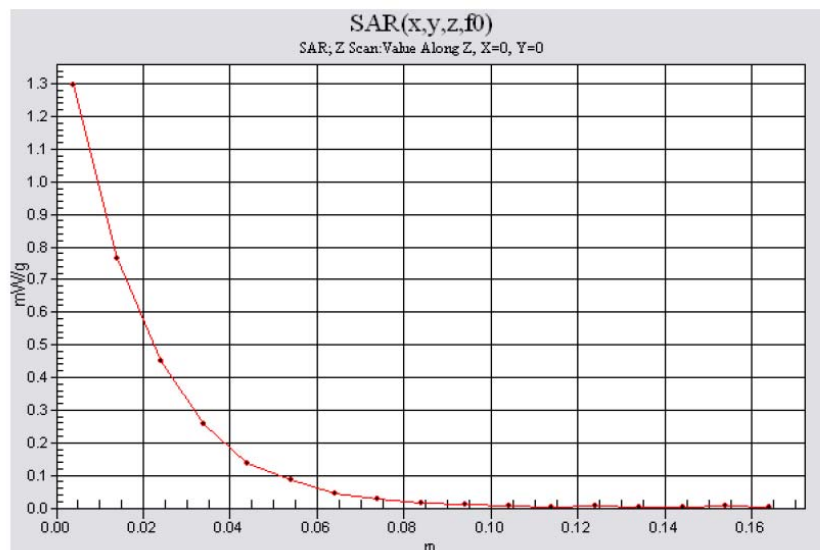
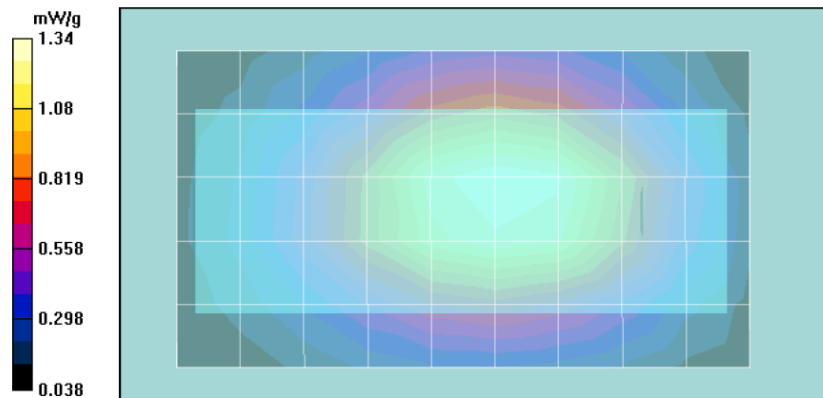
Ab Scan/7x7x7 Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 39.1 V/m; Power Drift = -0.591 dB

Peak SAR (extrapolated) = 1.68 W/kg

SAR(1 g) = 1.29 mW/g; SAR(10 g) = 0.945 mW/g

Maximum value of SAR (measured) = 1.39 mW/g



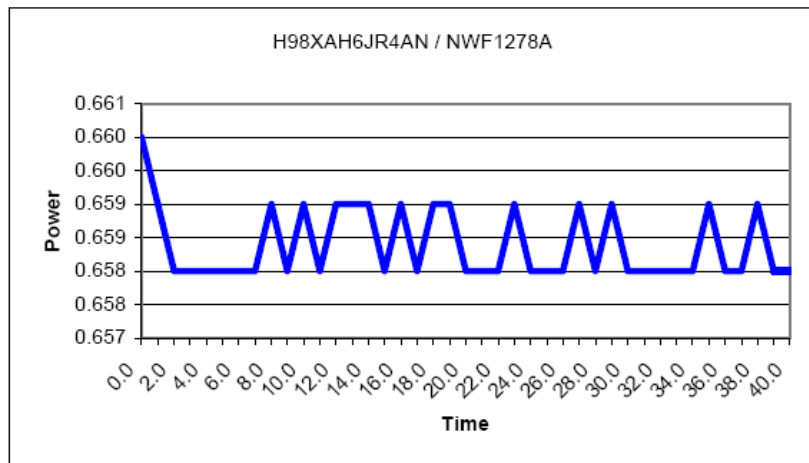
APPENDIX F
DUT Supplementary Data (Power slump)

Model #H98XAH6JR4AN / NWF1278A
Serial #364VHEMLN6

Battery	#SNN5754A	Transmit Mode	1:3
Frequency	901.0000 MHz	Audio Accessory	None
Date	6/15/2007		

TX TIME **Measured Power**
(Minutes) **(Watts)**

0.0	0.660
1.0	0.659
2.0	0.658
3.0	0.658
4.0	0.658
5.0	0.658
6.0	0.658
7.0	0.658
8.0	0.659
9.0	0.658
10.0	0.659
11.0	0.658
12.0	0.659
13.0	0.659
14.0	0.659
15.0	0.658
16.0	0.659
17.0	0.658
18.0	0.659
19.0	0.659
20.0	0.658
21.0	0.658
22.0	0.658
23.0	0.659
24.0	0.658
25.0	0.658
26.0	0.658
27.0	0.659
28.0	0.658
29.0	0.659
30.0	0.658
31.0	0.658
32.0	0.658
33.0	0.658
34.0	0.658
35.0	0.659
36.0	0.658
37.0	0.658
38.0	0.659
39.0	0.658
40.0	0.658



Appendix G
DUT Test Position Photos

Photos are available in Exhibit 7B

Appendix H
DUT Accessory Photos

The sample that was used in the following photos represents the product used to obtain the results presented herein.

Photos are available in Exhibit 7B

Appendix I

DUT Separation Distances and Offered Accessory Test Status

The following table(s) summarizes the separation distances and test status provided by each of the applicable accessory(ies):

Carry Case Models	Tested ?	Min. Separation distances between DUT antenna and phantom surface. (mm)	Comments
NNTN7138A	Yes	22-23	NA

Audio Acc. Models	Tested ?	Separation distances between DUT and phantom surface. (mm)	Comments
NNTN5330B	Yes	NA	NA
NNTN5004B	Yes	NA	NA
NNTN5005B	Yes	NA	NA
NNTN5006B	Yes	NA	NA
NNTN5211B	Yes	NA	NA
NNTN6312A	Yes	NA	NA

Data cable Models	Tested ?	Separation distances between DUT and phantom surface. (mm)	Comments
NNTN6531A	Yes	NA	NA
SKN6371C	Yes	NA	NA