



MOTOROLA SOLUTIONS



TESTING CERT # 2518.05

## DECLARATION OF COMPLIANCE SAR ASSESSMENT Part 2 of 2

**Enterprise Mobility Solutions**  
**EME Test Laboratory**  
 Motorola Solutions Malaysia Sdn Bhd (455657-H)  
 Customer Solution Center  
 Plot 2, Bayan Lepas Technoplex Industrial Park,  
 Mukim 12 SWD 11900 Bayan Lepas Penang, Malaysia.

**Date of Report:** 10/14/2011  
**Report Revision:** A  
**Report ID:** SAR rpt\_PMUE3681A\_Rev.A  
 \_111014\_SR9664

**Responsible Engineer:** Veeramani Veerapan (Senior EME Engineer)  
**Report Author:** Veeramani Veerapan (Senior EME Engineer)  
**Date/s Tested:** 6/9/2011 – 7/14/2011  
**Manufacturer/Location:** Motorola, Penang  
**Sector/Group/Div.:** EMS  
**Date submitted for test:** 6/03/2011  
**DUT Description:** 403-527 MHz 4W, 2.402-2.480 GHz (Bluetooth), NKP w/BT/GPS GOB  
**Test TX mode(s):** CW (PTT) for UHF; CW (76.1% duty cycle for Bluetooth)  
**Max. Power output:** 4.8 W for UHF; 10 mW for Bluetooth  
**Nominal Power:** 4.0 W for UHF; 2.5 mW for Bluetooth  
**Tx Frequency Bands:** 403-527 MHz, 2402-2480 MHz  
**Signaling type:** FM (UHF); FHSS (Bluetooth)  
**Model(s) Tested:** PMUE3681A  
**Model(s) Certified:** PMUE3681A  
**Serial Number(s):** 807TMK0007  
**Classification:** Occupational/Controlled  
**FCC ID:** ABZ99FT4086; Rule part 90 (406.1 - 512 MHz); Rule part 15 (2402-2480 MHz)  
**IC:** 109AB-99FT4086

\* Refer to section 15 of part 1 for highest SAR summary results.

The test results clearly demonstrate compliance with FCC Occupational/Controlled RF Exposure limits of 8 W/kg averaged over 1 gram per the requirements of 47 CFR 2.1093(d). The 10 grams result is not applicable to FCC filing.

The test results clearly demonstrate compliance with ICNIRP (1998) Guidelines for limiting exposure in time-varying electric, magnetic, and electromagnetic fields (up to 300 GHz), Health Physics 74, 494-522 RF Exposure limits of 10 W/kg averaged over 10grams of contiguous tissue.

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 3.0 of this report. This report shall not be reproduced without written approval from an officially designated representative of the Motorola Solutions Inc, 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 suggested guidelines of the TIA TSB-150 December 2004. The results and statements contained in this report pertain only to the device(s) evaluated.

**Deanna Zakharia**  
 EMS EME Lab Senior Resource Manager,  
 Laboratory Director

**Approval Date:** 10/17/2011

**Certification Date:** 8/7/2011

**Certification No.:** L1110808P

## Appendix D

### Test System Verification Scans

The SAR result indicated on the Manufacture's Calibrated certificates for dipoles D2450V2 S/N 782 and D450V3 S/N 1053, D450V3 S/N 1054 was not used due to the following:

- The IEEE 1528-2003 and the FCC OET-65 Supplement C, System Verification section indicated that "The measured 1-g SAR should be within 10% of the expected target values specified for the specific phantom and RF source used in the system verification measurement."
- SPEAG calibration certificate indicates that the allowed tolerance for this dipole is higher than +/-10% (e.g. 4.79 +/-18.1 % at k=2 for the D450V3 S/N 1053, 4.81 +/- 17% at k=2 for the D450V3 S/N 1054 and 53.7 +/- 17% at k=2 for the D2450V2 S/N 782).
- The allowed tolerance for the probes is also higher than +/- 10% (e.g. 13.4 % at k=2 at 450 MHz and 12% k=2 at 2450MHz for the probe being used to assess this product).

Due to probe, dipole and system tolerances noted above, the lab averages dipole results across multiple probes to establish a set of averaged targets for each dipole using the following procedure:

- The System Validation was conducted per IEEE1528-2003 and IEC62209-2 Edition 1.0 2010-03 standards using the simulated head tissue and multiple probes that are available and applicable for the dipole under test to verify the System Validation. Results for this dipole are within the measurement system uncertainty of the reference SAR values indicated within IEC62209-2 Edition 1.0 2010-03 when using flat phantom with 2mm thickness is used. These results then are averaged and used as the target for the daily system performance check when the simulated head tissue is used.
- The dipole targets for the body are set immediately following the same process noted above. Since there is no standard referencing the SAR values for the System Validation using the simulated body tissue, the compliant System Validation results using the simulated head tissue are used to justify the use of the System Validation results using the simulated body tissue due to the same setup except for the simulated tissue type.

The targets set in this report were conducted following the above process.

Note that the targets set for the tested dipole, when using the simulated head tissue, meets the requirement for the system validation per IEEE1528-2003, IEC62209-2 Edition 1.0 2010-03 standards, and the difference between this result and the result from the manufacture's dipole calibration certificate is up to 9.15 % for the 450 MHz and 5 % for 2450 MHz dipole which are well within the measurement uncertainty of the measurement system at k=2.

To assess the isotropic characteristics of the measurement probe, a probe rotation was performed using the "Rotation (1D)" function in the DASY software with a measured isotropy tolerance of +/- 0.5dB.

**Motorola Solutions, Inc. EME Laboratory**  
**Date/Time: 6/9/2011 9:47:33 AM**

Robot# / Run#: DASY4-PG-1 / Lee-SYSP-450B-110609-01  
 Phantom# / Tissue Temp.: ELI4 1103 / 21.5 (C)  
 Dipole Model# / Serial#: D450V3 / 1054  
 TX Freq. / Start power: 450 (MHz) / 250(mW)

Target SAR (1W): 4.38 mW/g (1g)  
 Adjusted SAR (1W): 4.00 mW/g (1g)  
 Percent from Target (+/-): 8.7 % (1g)  
 Rotation (1D): 0.035 dB

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 1.000 mW/g (1g); 0.663 mW/g (10g)

**Comments:**

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.93$  mho/m;  $\epsilon_r = 54.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 33.7 V/m; Power Drift = 0.0203 dB

Peak SAR (extrapolated) = 1.53 W/kg

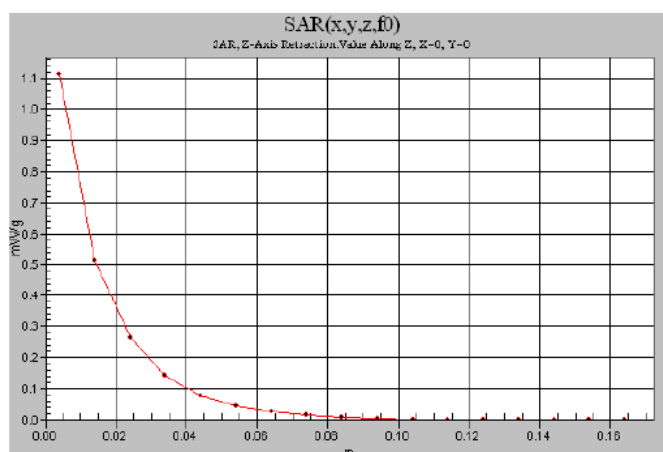
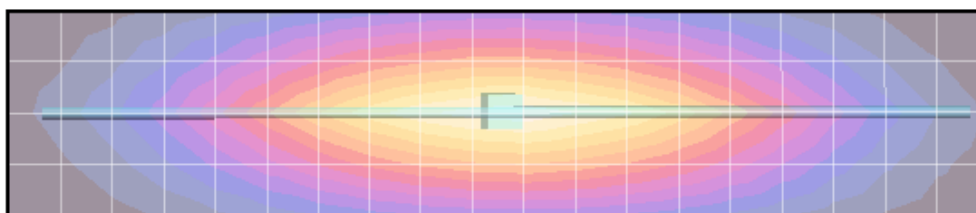
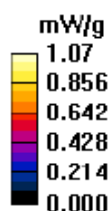
SAR(1 g) = 0.995 mW/g; SAR(10 g) = 0.661 mW/g

Maximum value of SAR (measured) = 1.06 mW/g

**System Performance Check/Dipole Area Scan 2 (5x20x1):** Measurement grid: dx=15mm, dy=15mm

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

Maximum value of SAR (measured) = 1.07 mW/g



# Motorola Solutions, Inc. EME Laboratory

Date/Time: 6/10/2011 7:31:19 AM

Robot# / Run#: DASY4-PG-1 / PS-SYSP-450B-110610-01

Phantom# / Tissue Temp.: ELI4 1103 / 21.3 (C)

Dipole Model# / Serial#: D450V3 / 1054

TX Freq. / Start power: 450 (MHz) / 250(mW)

Target SAR (1W): 4.38 mW/g (1g)

Adjusted SAR (1W): 4.18 mW/g (1g)

Percent from Target (+/-): 4.5 % (1g)

Rotation (1D): 0.04 dB

## Note:

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 1.046 mW/g (1g); 0.693 mW/g (10g)

## Comments:

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.93$  mho/m;  $\epsilon_r = 54.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 34.6 V/m; Power Drift = 0.018 dB

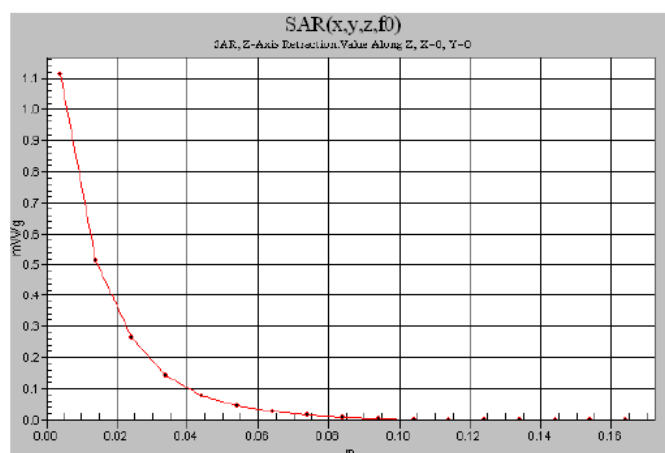
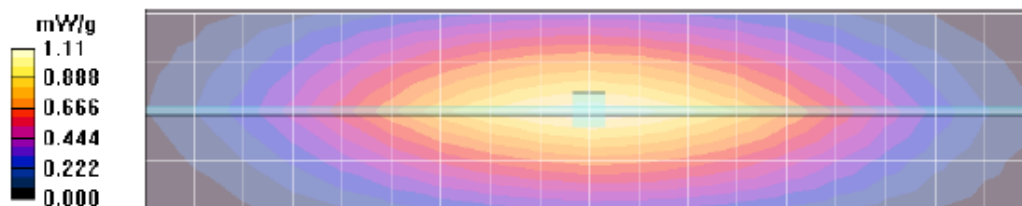
Peak SAR (extrapolated) = 1.60 W/kg

SAR(1 g) = 1.04 mW/g; SAR(10 g) = 0.691 mW/g

Maximum value of SAR (measured) = 1.11 mW/g

**System Performance Check/Dipole Area Scan 2 (5x19x1):** Measurement grid: dx=15mm, dy=15mm

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



# Motorola Solutions, Inc. EME Laboratory

Date/Time: 6/11/2011 7:44:00 AM

Robot# / Run#: DASY4-PG-1 / CcC-SYSP-450B-110611-01

Phantom# / Tissue Temp.: ELI4 1103 / 21.2 (C)

Dipole Model# / Serial#: D450V3 / 1053

TX Freq. / Start power: 450 (MHz) / 250(mW)

Target SAR (1W): 4.48 mW/g (1g)

Adjusted SAR (1W): 4.42 mW/g (1g)

Percent from Target (+/-): 1.30 % (1g)

Rotation (1D): 0.037 dB

## Note:

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 1.106 mW/g (1g); 0.737 mW/g (10g)

## Comments:

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.93$  mho/m;  $\epsilon_r = 54.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 35.7 V/m; Power Drift = 0.0074 dB

Peak SAR (extrapolated) = 1.70 W/kg

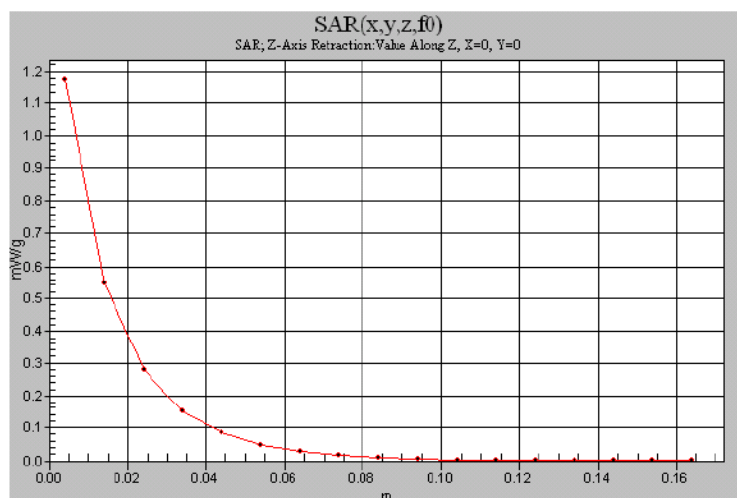
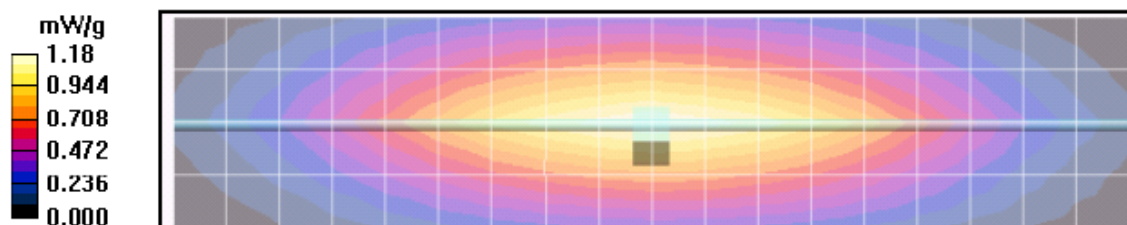
SAR(1 g) = 1.1 mW/g; SAR(10 g) = 0.735 mW/g

Maximum value of SAR (measured) = 1.18 mW/g

**System Performance Check/Dipole Area Scan 2 (5x19x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.19 mW/g

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



**Motorola Solutions, Inc. EME Laboratory**  
**Date/Time: 6/12/2011 7:37:57 AM**

Robot# / Run#: DASY4-PG-1 / PS-SYSP-450B-110612-01  
 Phantom# / Tissue Temp.: ELI4 1103 / 21.6 (C)  
 Dipole Model# / Serial#: D450V3 / 1053  
 TX Freq. / Start power: 450 (MHz) / 250(mW)

Target SAR (1W): 4.48 mW/g (1g)  
 Adjusted SAR (1W): 4.42 mW/g (1g)  
 Percent from Target (+/-): 1.30 % (1g)  
 Rotation (1D): 0.03 dB

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 1.106 mW/g (1g); 0.737 mW/g (10g)

**Comments:**

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.93$  mho/m;  $\epsilon_r = 54.7$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 35.5 V/m; Power Drift = 0.00361 dB

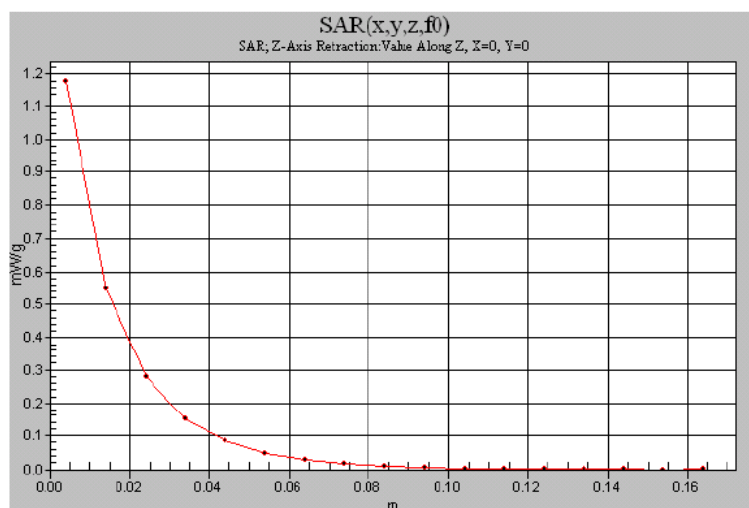
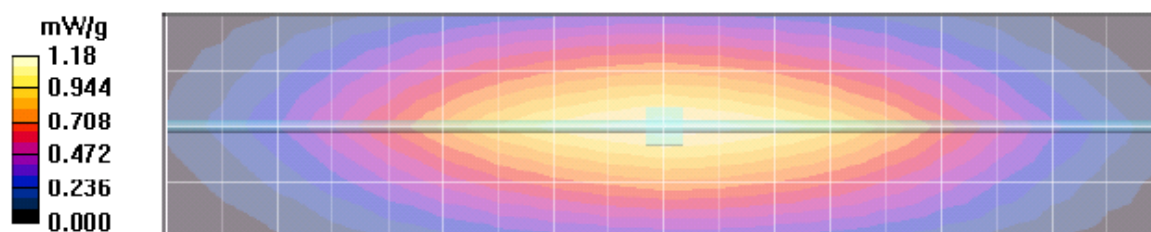
Peak SAR (extrapolated) = 1.70 W/kg

SAR(1 g) = 1.1 mW/g; SAR(10 g) = 0.735 mW/g

Maximum value of SAR (measured) = 1.18 mW/g

**System Performance Check/Dipole Area Scan 2 (5x19x1):** Measurement grid: dx=15mm, dy=15mm

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





# Motorola Solutions, Inc. EME Laboratory

Date/Time: 6/13/2011 7:15:17 AM

Robot# / Run#: DASY4-PG-1 / CcC-SYSP-450B-110613-01

Phantom# / Tissue Temp.: ELI4 1103 / 21.3 (C)

Dipole Model# / Serial#: D450V3 / 1053

TX Freq. / Start power: 450 (MHz) / 250(mW)

Target SAR (1W): 4.48 mW/g (1g)

Adjusted SAR (1W): 4.42 mW/g (1g)

Percent from Target (+/-): 1.30 % (1g)

Rotation (1D): 0.035 dB

## Note:

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 1.106 mW/g (1g); 0.732 mW/g (10g)

## Comments:

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.93$  mho/m;  $\epsilon_r = 54.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 35.6 V/m; Power Drift = -0.00638 dB

Peak SAR (extrapolated) = 1.69 W/kg

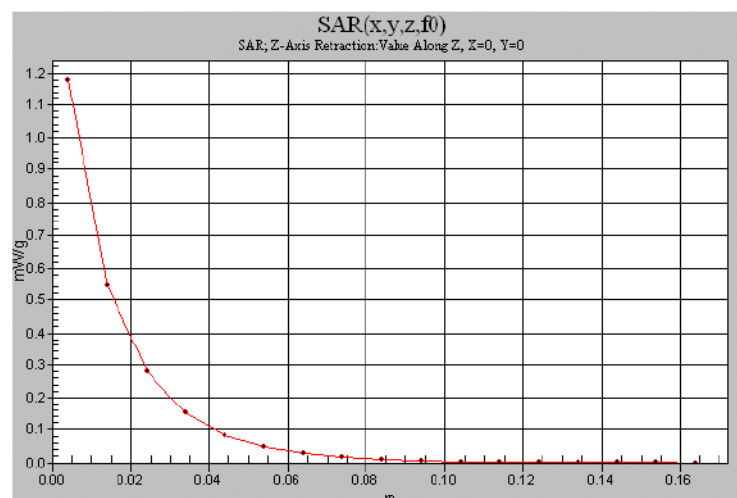
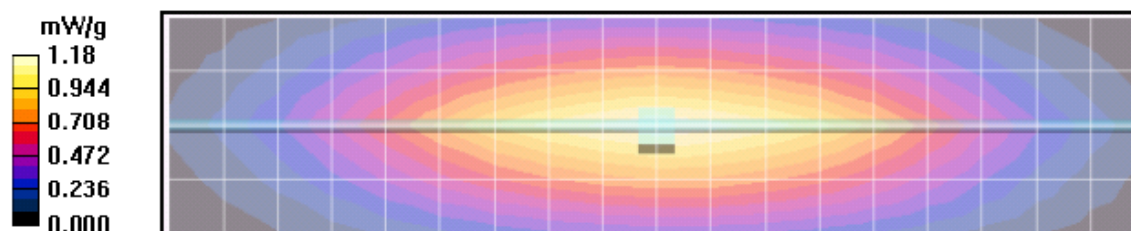
SAR(1 g) = 1.1 mW/g; SAR(10 g) = 0.730 mW/g

Maximum value of SAR (measured) = 1.17 mW/g

**System Performance Check/Dipole Area Scan 2 (5x19x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.18 mW/g

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



## Motorola Solutions, Inc. EME Laboratory

Date/Time: 6/14/2011 10:45:06 AM

Robot# / Run#: DASY4-PG-1 / Lee-SYSP-450B-110614-01

Phantom# / Tissue Temp.: ELI4 1103 / 21.0 (C)

Dipole Model# / Serial#: D450V3 / 1053

TX Freq. / Start power: 450 (MHz) / 250(mW)

Target SAR (1W): 4.48 mW/g (1g)

Adjusted SAR (1W): 4.42 mW/g (1g)

Percent from Target (+/-): 1.30 % (1g)

Rotation (1D): 0.038 dB

## Note:

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 1.106 mW/g (1g); 0.735 mW/g (10g)

## Comments:

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.93$  mho/m;  $\epsilon_r = 54.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>**System Performance Check/0-Degree Cube (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 35.5 V/m; Power Drift = -0.00114 dB

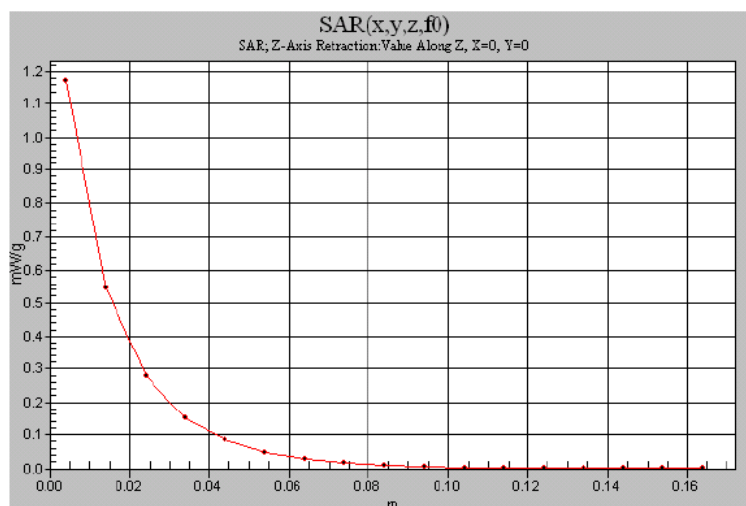
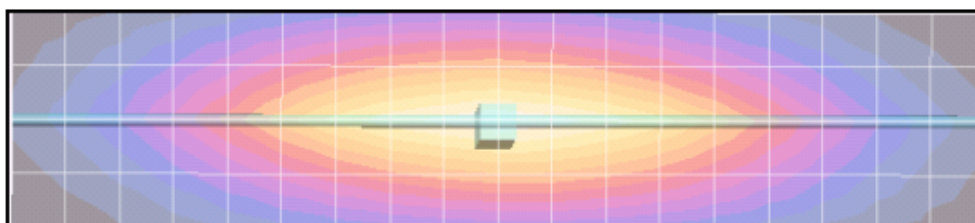
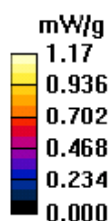
Peak SAR (extrapolated) = 1.70 W/kg

SAR(1 g) = 1.1 mW/g; SAR(10 g) = 0.733 mW/g

Maximum value of SAR (measured) = 1.18 mW/g

**System Performance Check/Dipole Area Scan 2 (5x19x1):** Measurement grid: dx=15mm, dy=15mm**System Performance Check/Z-Axis Retraction (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 1.17 mW/g





# Motorola Solutions, Inc. EME Laboratory

Date/Time: 6/15/2011 7:04:33 AM

Robot# / Run#: DASY4-PG-1 / CcC-SYSP-450B-110615-01

Phantom# / Tissue Temp.: ELI4 1103 / 21.1 (C)

Dipole Model# / Serial#: D450V3 / 1053

TX Freq. / Start power: 450 (MHz) / 250(mW)

Target SAR (1W): 4.48 mW/g (1g)

Adjusted SAR (1W): 4.46 mW/g (1g)

Percent from Target (+/-): 0.40 % (1g)

Rotation (1D): 0.035 dB

## Note:

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 1.116 mW/g (1g); 0.739 mW/g (10g)

## Comments:

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.93$  mho/m;  $\epsilon_r = 54.7$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 35.6 V/m; Power Drift = 0.00224 dB

Peak SAR (extrapolated) = 1.72 W/kg

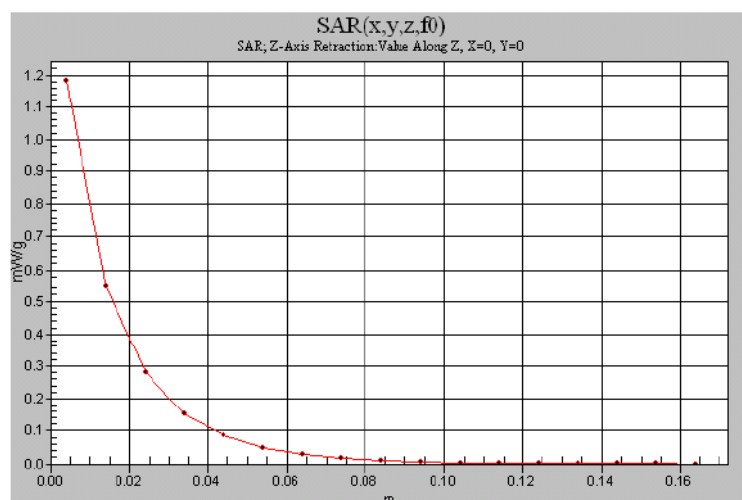
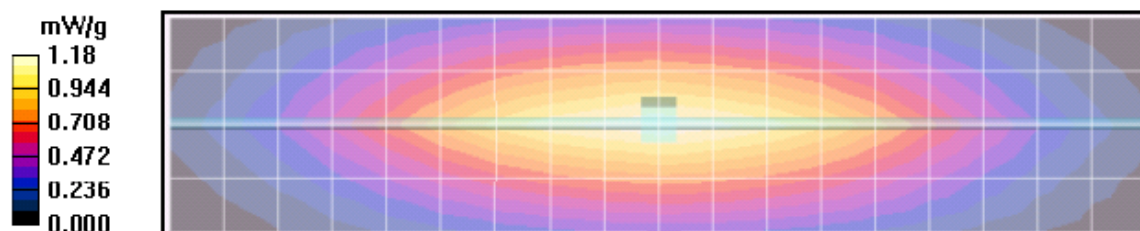
SAR(1 g) = 1.11 mW/g; SAR(10 g) = 0.737 mW/g

Maximum value of SAR (measured) = 1.19 mW/g

**System Performance Check/Dipole Area Scan 2 (5x19x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.18 mW/g

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



**Motorola Solutions, Inc. EME Laboratory**  
**Date/Time: 6/16/2011 7:01:46 AM**

Robot# / Run#: DASY4-PG-1 / CcC-SYSP-450B-110616-01  
 Phantom# / Tissue Temp.: ELI4 1103 / 21.2 (C)  
 Dipole Model# / Serial#: D450V3 / 1053  
 TX Freq. / Start power: 450 (MHz) / 250(mW)

Target SAR (1W): 4.48 mW/g (1g)  
 Adjusted SAR (1W): 4.50 mW/g (1g)  
 Percent from Target (+/-): 0.50 % (1g)  
 Rotation (1D): 0.035 dB

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 1.126 mW/g (1g); 0.747 mW/g (10g)

**Comments:**

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.93$  mho/m;  $\epsilon_r = 54.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 35.7 V/m; Power Drift = 0.00365 dB

Peak SAR (extrapolated) = 1.72 W/kg

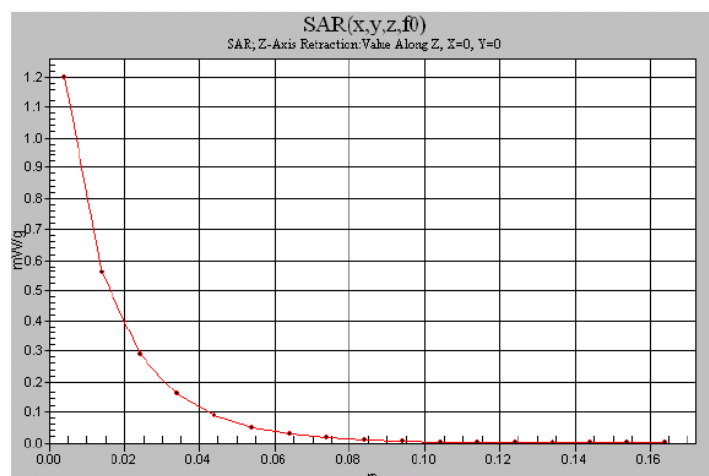
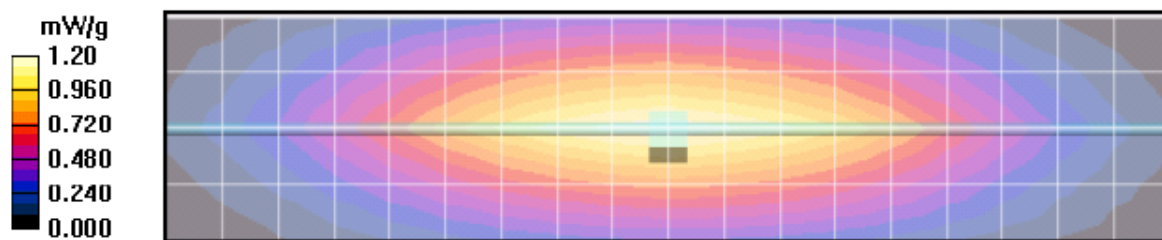
SAR(1 g) = 1.12 mW/g; SAR(10 g) = 0.745 mW/g

Maximum value of SAR (measured) = 1.19 mW/g

**System Performance Check/Dipole Area Scan 2 (5x19x1):** Measurement grid: dx=15mm, dy=15mm

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

Maximum value of SAR (measured) = 1.20 mW/g



# Motorola Solutions, Inc. EME Laboratory

Date/Time: 6/17/2011 7:05:04 AM

Robot# / Run#: DASY4-PG-1 / CcC-SYSP-450B-110617-01

Phantom# / Tissue Temp.: ELI4 1103 / 21.4 (C)

Dipole Model# / Serial#: D450V3 / 1053

TX Freq. / Start power: 450 (MHz) / 250(mW)

Target SAR (1W): 4.48 mW/g (1g)

Adjusted SAR (1W): 4.46 mW/g (1g)

Percent from Target (+/-): 0.40 % (1g)

Rotation (1D): 0.031 dB

## Note:

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 1.116 mW/g (1g); 0.741 mW/g (10g)

## Comments:

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.93$  mho/m;  $\epsilon_r = 54.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 35.7 V/m; Power Drift = 0.00953 dB

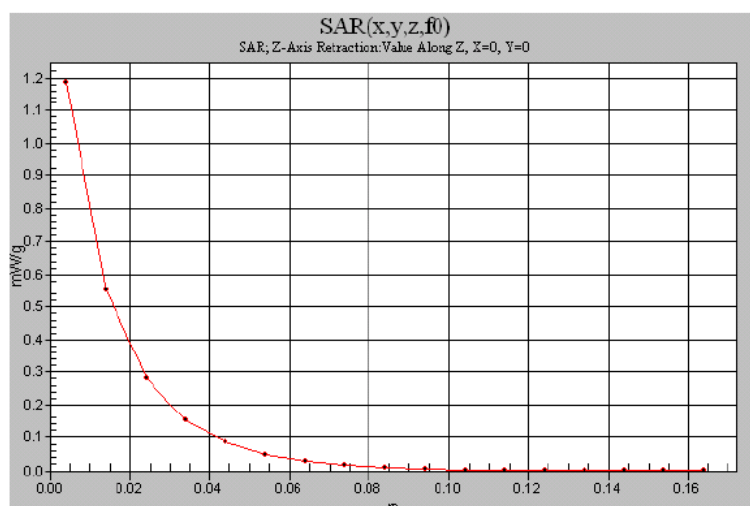
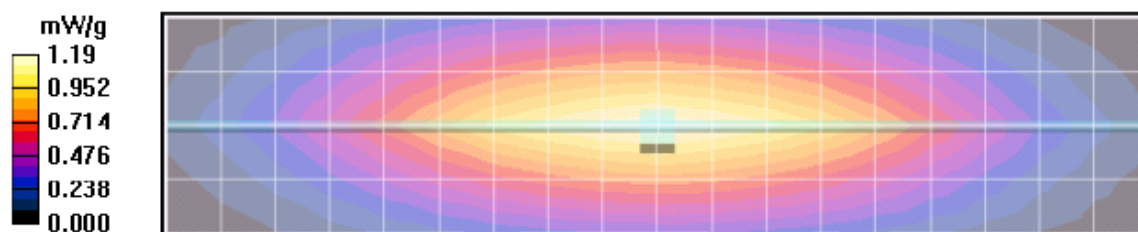
Peak SAR (extrapolated) = 1.71 W/kg

SAR(1 g) = 1.11 mW/g; SAR(10 g) = 0.739 mW/g

Maximum value of SAR (measured) = 1.19 mW/g

**System Performance Check/Dipole Area Scan 2 (5x19x1):** Measurement grid: dx=15mm, dy=15mm

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



# Motorola Solutions, Inc. EME Laboratory

Date/Time: 6/20/2011 7:22:37 AM

Robot# / Run#: DASY4-PG-1 / PS-SYSP-450B-110620-01

Phantom# / Tissue Temp.: ELI4 1103 / 20.6 (C)

Dipole Model# / Serial#: D450V3 / 1053

TX Freq. / Start power: 450 (MHz) / 250(mW)

Target SAR (1W): 4.48 mW/g (1g)

Adjusted SAR (1W): 4.38 mW/g (1g)

Percent from Target (+/-): 2.10 % (1g)

Rotation (1D): 0.034 dB

## Note:

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 1.096 mW/g (1g); 0.724 mW/g (10g)

## Comments:

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.93$  mho/m;  $\epsilon_r = 55.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 35.2 V/m; Power Drift = -0.0011 dB

Peak SAR (extrapolated) = 1.69 W/kg

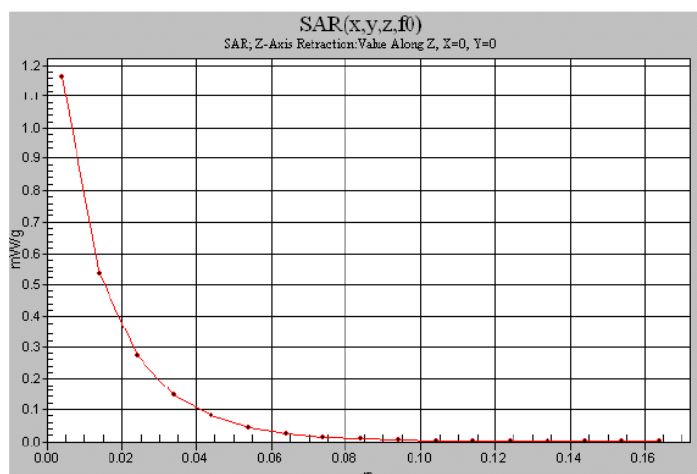
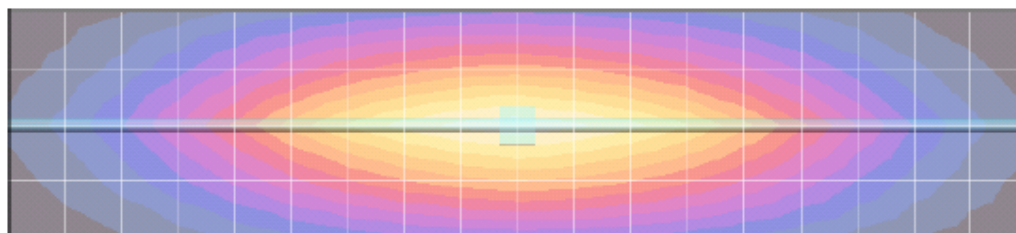
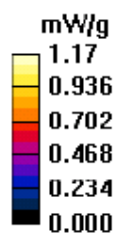
SAR(1 g) = 1.09 mW/g; SAR(10 g) = 0.722 mW/g

Maximum value of SAR (measured) = 1.16 mW/g

## System Performance Check/Dipole Area Scan 2 (5x19x1): Measurement grid: dx=15mm, dy=15mm

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

Maximum value of SAR (measured) = 1.17 mW/g





# Motorola Solutions, Inc. EME Laboratory

Date/Time: 6/21/2011 7:30:14 AM

Robot# / Run#: DASY4-PG-1 / PS-SYSP-450B-110621-01

Phantom# / Tissue Temp.: ELI4 1103 / 21.2 (C)

Dipole Model# / Serial#: D450V3 / 1053

TX Freq. / Start power: 450 (MHz) / 250(mW)

Target SAR (1W): 4.48 mW/g (1g)

Adjusted SAR (1W): 4.46 mW/g (1g)

Percent from Target (+/-): 0.40 % (1g)

Rotation (1D): 0.037 dB

## Note:

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 1.116 mW/g (1g); 0.737 mW/g (10g)

## Comments:

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.93$  mho/m;  $\epsilon_r = 55.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 35.7 V/m; Power Drift = 0.010 dB

Peak SAR (extrapolated) = 1.72 W/kg

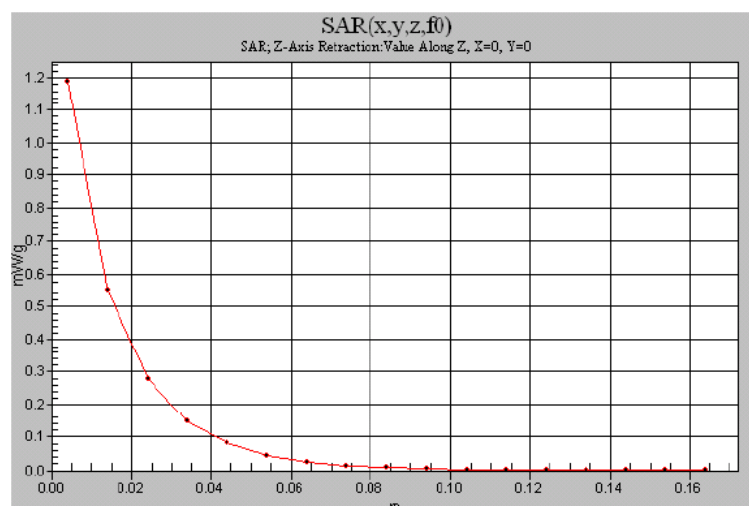
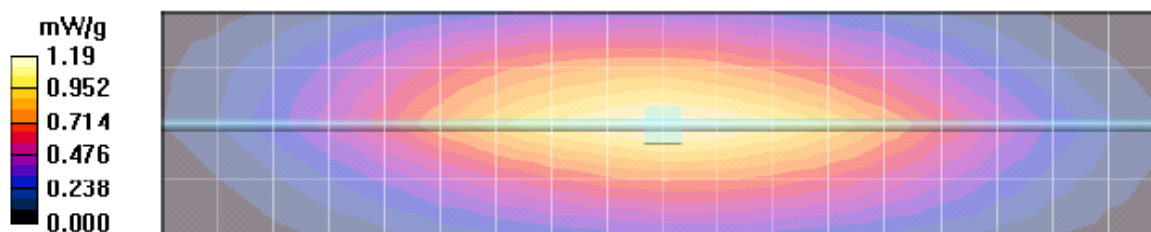
SAR(1 g) = 1.11 mW/g; SAR(10 g) = 0.735 mW/g

Maximum value of SAR (measured) = 1.19 mW/g

**System Performance Check/Dipole Area Scan 2 (5x19x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.18 mW/g

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



# Motorola Solutions, Inc. EME Laboratory

Date/Time: 6/22/2011 7:25:50 AM

Robot# / Run#: DASY4-PG-1 / PS-SYSP-450B-110622-01

Phantom# / Tissue Temp.: ELI4 1103 / 21.1 (C)

Dipole Model# / Serial#: D450V3 / 1053

TX Freq. / Start power: 450 (MHz) / 250(mW)

Target SAR (1W): 4.48 mW/g (1g)

Adjusted SAR (1W): 4.46 mW/g (1g)

Percent from Target (+/-): 0.40 % (1g)

Rotation (1D): 0.035 dB

## Note:

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 1.116 mW/g (1g); 0.738 mW/g (10g)

## Comments:

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.93$  mho/m;  $\epsilon_r = 55.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 35.7 V/m; Power Drift = -0.0139 dB

Peak SAR (extrapolated) = 1.71 W/kg

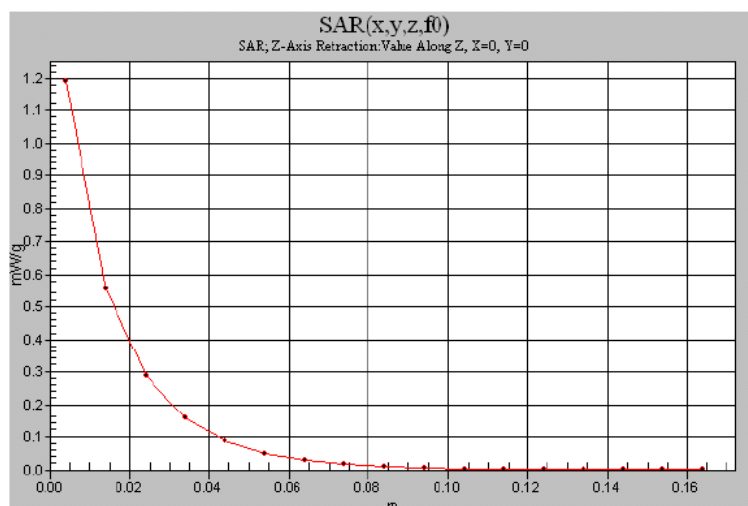
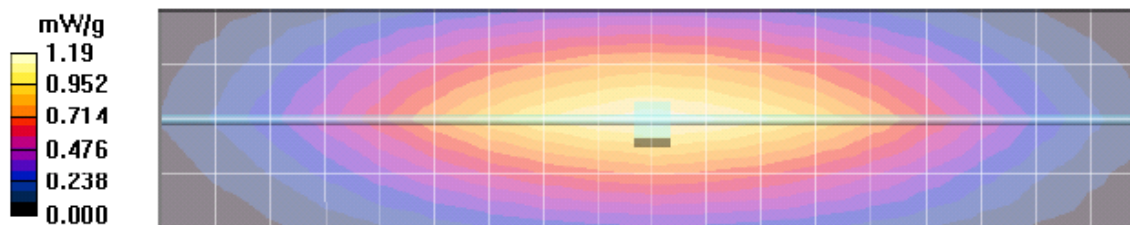
SAR(1 g) = 1.11 mW/g; SAR(10 g) = 0.736 mW/g

Maximum value of SAR (measured) = 1.19 mW/g

**System Performance Check/Dipole Area Scan 2 (5x19x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.18 mW/g

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





# Motorola Solutions, Inc. EME Laboratory

Date/Time: 6/23/2011 7:10:42 AM

Robot# / Run#: DASY4-PG-1 / PS-SYSP-450B-110623-01

Phantom# / Tissue Temp.: ELI4 1103 / 21.1 (C)

Dipole Model# / Serial#: D450V3 / 1053

TX Freq. / Start power: 450 (MHz) / 250(mW)

Target SAR (1W): 4.48 mW/g (1g)

Adjusted SAR (1W): 4.42 mW/g (1g)

Percent from Target (+/-): 1.30 % (1g)

Rotation (1D): 0.035 dB

## Note:

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 1.106 mW/g (1g); 0.736 mW/g (10g)

## Comments:

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.93$  mho/m;  $\epsilon_r = 55$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 35.6 V/m; Power Drift = -0.0188 dB

Peak SAR (extrapolated) = 1.70 W/kg

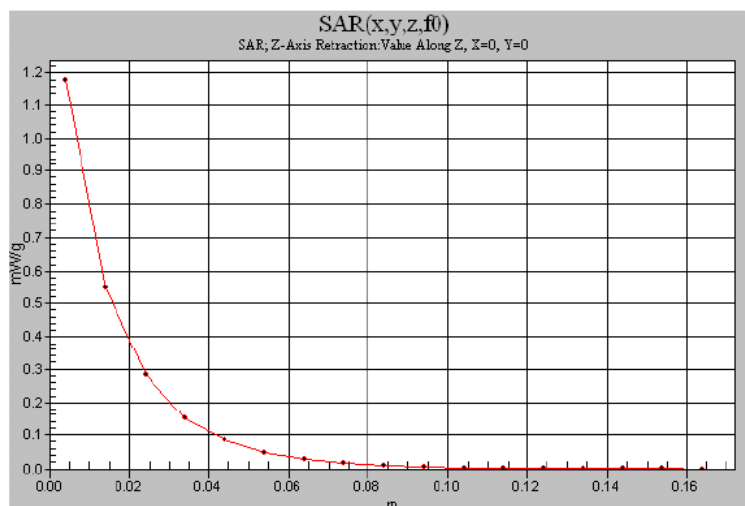
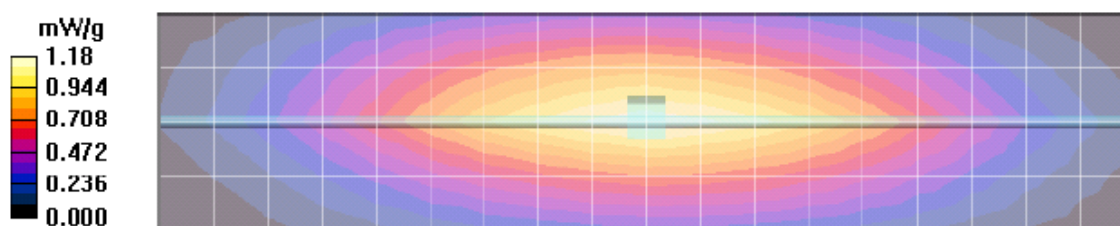
SAR(1 g) = 1.1 mW/g; SAR(10 g) = 0.734 mW/g

Maximum value of SAR (measured) = 1.18 mW/g

## System Performance Check/Dipole Area Scan 2 (5x19x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.17 mW/g

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



**Motorola Solutions, Inc. EME Laboratory**  
**Date/Time: 6/24/2011 6:40:35 AM**

Robot# / Run#: DASY4-PG-1 / PS-SYSP-450B-110624-01  
 Phantom# / Tissue Temp.: ELI4 1103 / 21.4 (C)  
 Dipole Model# / Serial#: D450V3 / 1053  
 TX Freq. / Start power: 450 (MHz) / 250(mW)

Target SAR (1W): 4.48 mW/g (1g)  
 Adjusted SAR (1W): 4.46 mW/g (1g)  
 Percent from Target (+/-): 0.40 % (1g)  
 Rotation (1D): 0.034 dB

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 1.116 mW/g (1g); 0.742 mW/g (10g)

**Comments:**

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.93$  mho/m;  $\epsilon_r = 54.7$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 35.8 V/m; Power Drift = 0.00646 dB

Peak SAR (extrapolated) = 1.72 W/kg

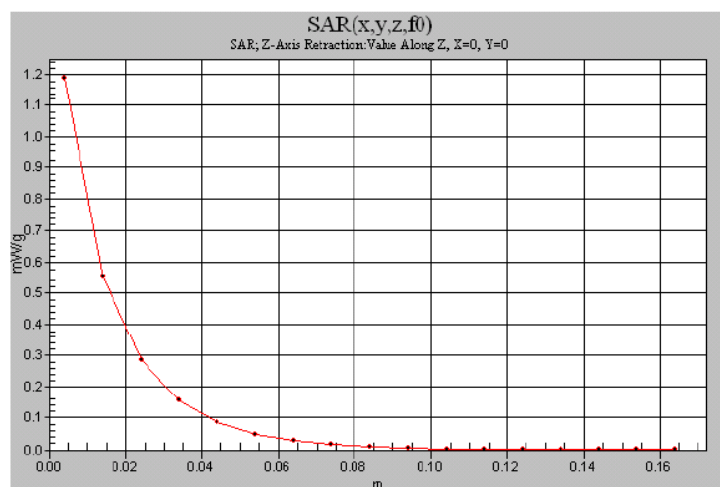
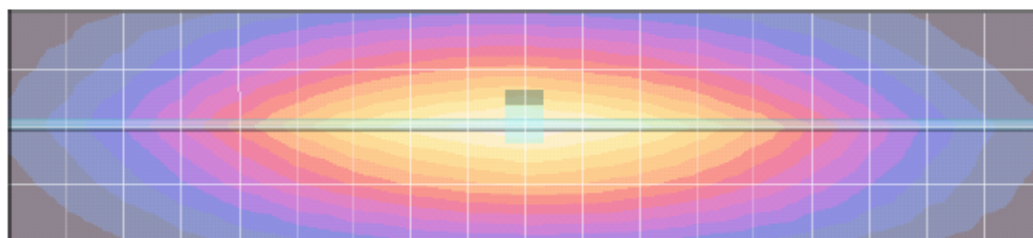
SAR(1 g) = 1.11 mW/g; SAR(10 g) = 0.740 mW/g

Maximum value of SAR (measured) = 1.19 mW/g

**System Performance Check/Dipole Area Scan 2 (5x19x1):** Measurement grid: dx=15mm, dy=15mm

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

mW/g  
 1.19  
 0.952  
 0.714  
 0.476  
 0.238  
 0.000



**Motorola Solutions, Inc. EME Laboratory**  
**Date/Time: 6/25/2011 8:16:56 AM**

Robot# / Run#: DASY4-PG-1 /Lee-SYSP-450B-110625-01  
 Phantom# / Tissue Temp.: ELI4 1103 / 21.5 (C)  
 Dipole Model# / Serial#: D450V3 / 1053  
 TX Freq. / Start power: 450 (MHz) / 250(mW)

Target SAR (1W): 4.48 mW/g (1g)  
 Adjusted SAR (1W): 4.38 mW/g (1g)  
 Percent from Target (+/-): 2.10 % (1g)  
 Rotation (1D): 0.038 dB

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 1.096 mW/g (1g); 0.729 mW/g (10g)

**Comments:**

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.93$  mho/m;  $\epsilon_r = 54.7$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 35.4 V/m; Power Drift = -0.00568 dB

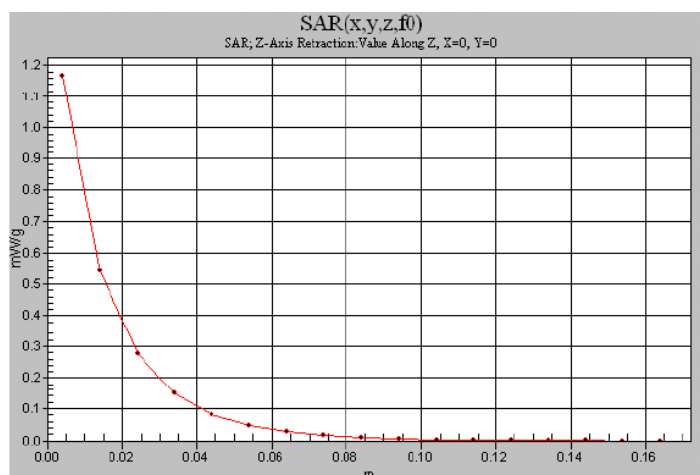
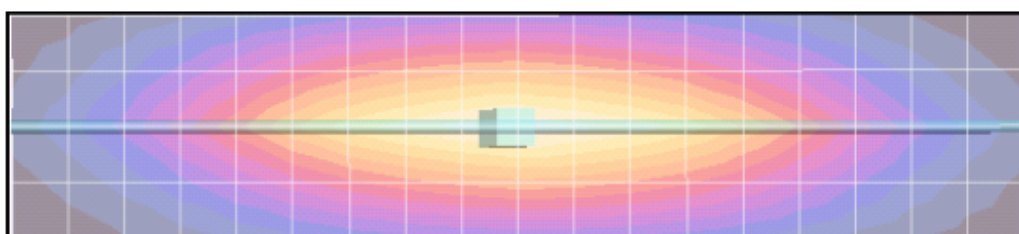
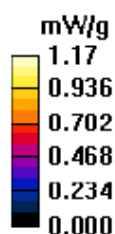
Peak SAR (extrapolated) = 1.69 W/kg

SAR(1 g) = 1.09 mW/g; SAR(10 g) = 0.727 mW/g

Maximum value of SAR (measured) = 1.17 mW/g

**System Performance Check/Dipole Area Scan 2 (5x19x1):** Measurement grid: dx=15mm, dy=15mm

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



**Motorola Solutions, Inc. EME Laboratory**  
**Date/Time: 6/26/2011 6:46:22 AM**

Robot# / Run#: DASY4-PG-1 / PS-SYSP-450B-110626-01

Phantom# / Tissue Temp.: ELI4 1103 / 21.5 (C)

Dipole Model# / Serial#: D450V3 / 1053

TX Freq. / Start power: 450 (MHz) / 250(mW)

Target SAR (1W): 4.48 mW/g (1g)

Adjusted SAR (1W): 4.46 mW/g (1g)

Percent from Target (+/-): 0.40 % (1g)

Rotation (1D): 0.039 dB

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 1.116 mW/g (1g); 0.742 mW/g (10g)

**Comments:**

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.93$  mho/m;  $\epsilon_r = 54.7$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 35.7 V/m; Power Drift = 0.000472 dB

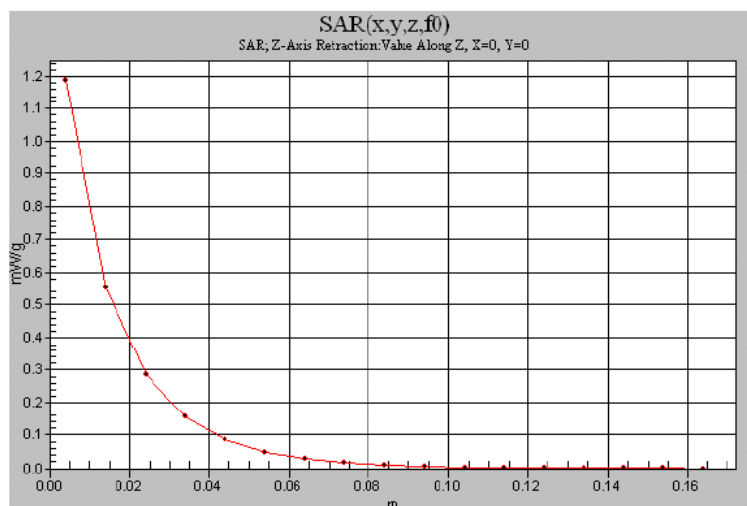
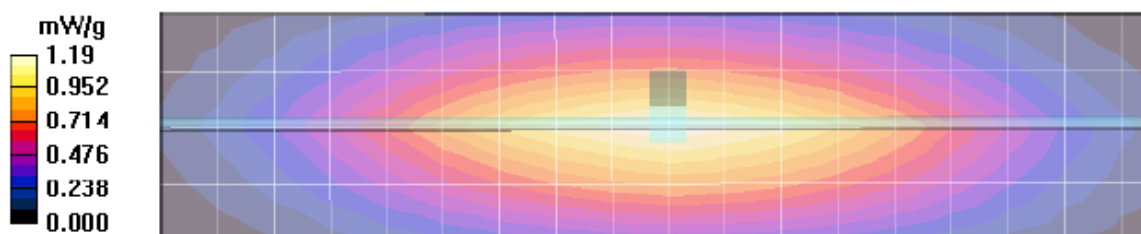
Peak SAR (extrapolated) = 1.71 W/kg

SAR(1 g) = 1.11 mW/g; SAR(10 g) = 0.740 mW/g

Maximum value of SAR (measured) = 1.19 mW/g

**System Performance Check/Dipole Area Scan 2 (5x19x1):** Measurement grid: dx=15mm, dy=15mm

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



**Motorola Solutions, Inc. EME Laboratory**  
**Date/Time: 6/27/2011 7:09:58 AM**

Robot# / Run#: DASY4-PG-1 / CcC-SYSP-450B-110627-01

Phantom# / Tissue Temp.: ELI4 1103 / 21.4 (C)

Dipole Model# / Serial#: D450V3 / 1053

TX Freq. / Start power: 450 (MHz) / 250(mW)

Target SAR (1W): 4.48 mW/g (1g)

Adjusted SAR (1W): 4.42 mW/g (1g)

Percent from Target (+/-): 1.30 % (1g)

Rotation (1D): 0.025 dB

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 1.106 mW/g (1g); 0.731 mW/g (10g)

**Comments:**

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.93$  mho/m;  $\epsilon_r = 55$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 35.5 V/m; Power Drift = 0.00148 dB

Peak SAR (extrapolated) = 1.69 W/kg

SAR(1 g) = 1.1 mW/g; SAR(10 g) = 0.729 mW/g

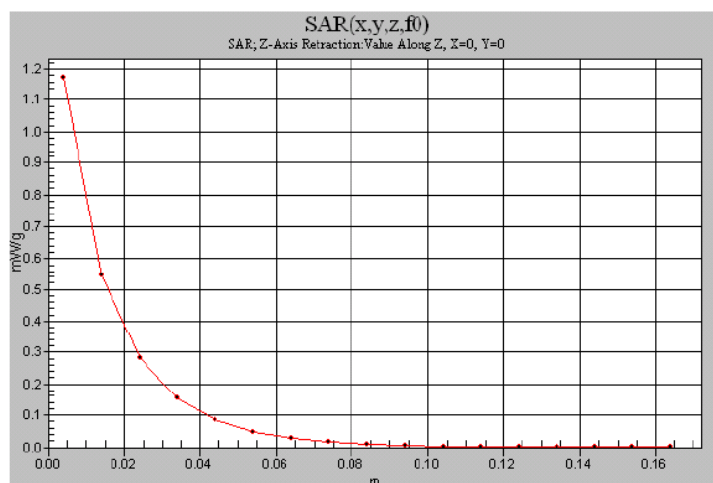
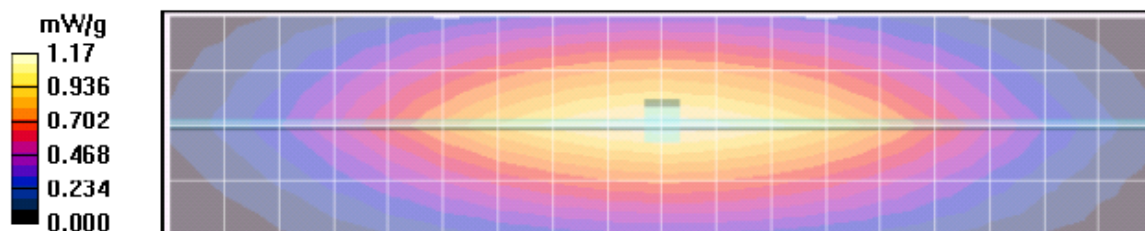
Maximum value of SAR (measured) = 1.18 mW/g

**System Performance Check/Dipole Area Scan 2 (5x19x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.16 mW/g

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

Maximum value of SAR (measured) = 1.17 mW/g





**Motorola Solutions, Inc. EME Laboratory**  
**Date/Time: 6/29/2011 6:56:21 AM**

Robot# / Run#: DASY4-PG-1 / CcC-SYSP-450H-110629-01  
 Phantom# / Tissue Temp.: ELI4 1037 / 21.1 (C)  
 Dipole Model# / Serial#: D450V3 / 1053  
 TX Freq. / Start power: 450 (MHz) / 250(mW)

Target SAR (1W): 4.59 mW/g (1g)  
 Adjusted SAR (1W): 4.79 mW/g (1g)  
 Percent from Target (+/-): 4.40 % (1g)  
 Rotation (1D): 0.034 dB

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 1.198 mW/g (1g); 0.796 mW/g (10g)

**Comments:**

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.43, 6.43, 6.43)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.87$  mho/m;  $\epsilon_r = 44.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 38.4 V/m; Power Drift = -0.0389 dB

Peak SAR (extrapolated) = 1.80 W/kg

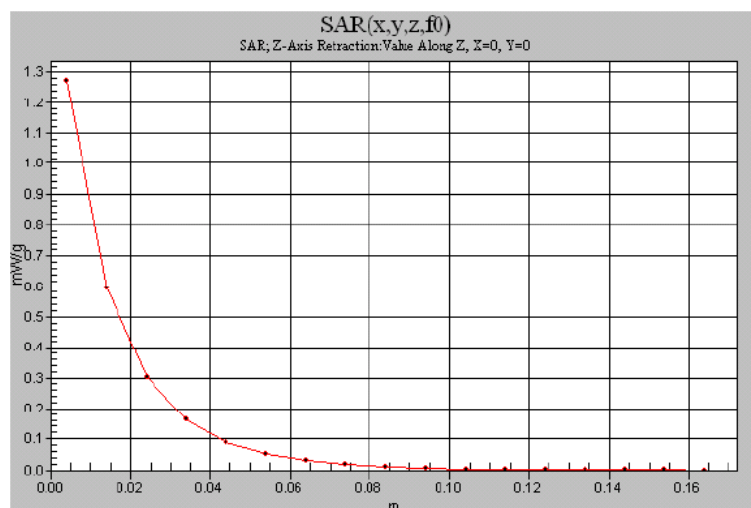
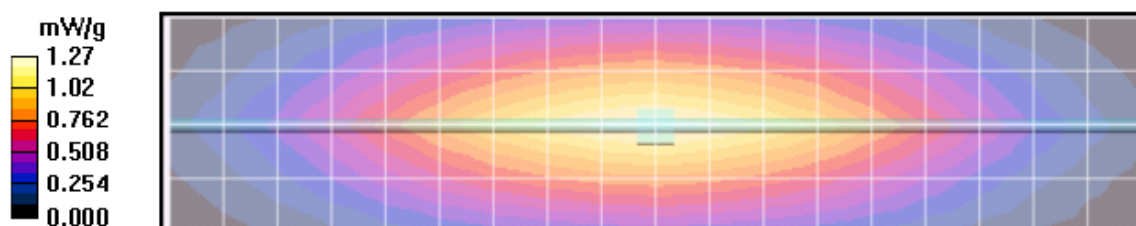
SAR(1 g) = 1.19 mW/g; SAR(10 g) = 0.792 mW/g

Maximum value of SAR (measured) = 1.27 mW/g

**System Performance Check/Dipole Area Scan 2 (5x19x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.26 mW/g

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





**Motorola Solutions, Inc. EME Laboratory**  
**Date/Time: 7/8/2011 8:53:56 AM**

Robot# / Run#: DASY4-PG-1 / PS-SYSP-450B-110708-01

Phantom# / Tissue Temp.: ELI4 1050 / 21.3 (C)

Dipole Model# / Serial#: D450V3 / 1053

TX Freq. / Start power: 450 (MHz) / 250(mW)

Target SAR (1W): 4.48 mW/g (1g)

Adjusted SAR (1W): 4.46 mW/g (1g)

Percent from Target (+/-): 0.40 % (1g)

Rotation (1D): 0.032 dB

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 1.116 mW/g (1g); 0.745 mW/g (10g)

**Comments:**

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.93$  mho/m;  $\epsilon_r = 55.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 35.8 V/m; Power Drift = -0.0158 dB

Peak SAR (extrapolated) = 1.72 W/kg

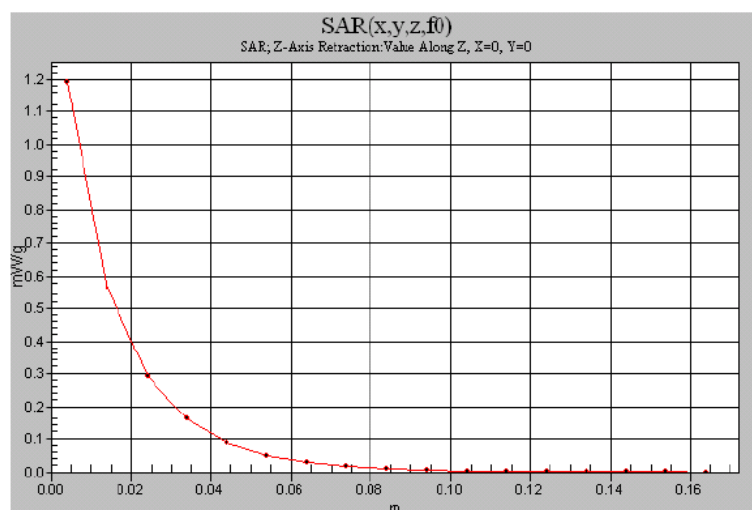
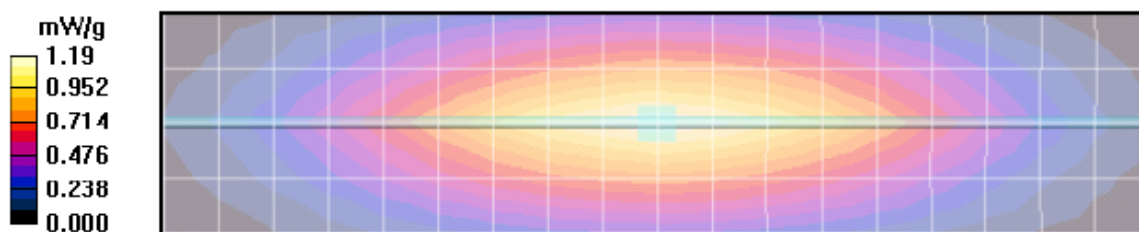
SAR(1 g) = 1.11 mW/g; SAR(10 g) = 0.743 mW/g

Maximum value of SAR (measured) = 1.19 mW/g

**System Performance Check/Dipole Area Scan 2 (5x19x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.20 mW/g

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



**Motorola Solutions, Inc. EME Laboratory**  
**Date/Time: 7/9/2011 6:41:29 AM**

Robot# / Run#: DASY4-PG-1 / CcC-SYSP-450B-110709-01

Phantom# / Tissue Temp.: ELI4 1050 / 21.3 (C)

Dipole Model# / Serial#: D450V3 / 1053

TX Freq. / Start power: 450 (MHz) / 250(mW)

Target SAR (1W): 4.48 mW/g (1g)

Adjusted SAR (1W): 4.46 mW/g (1g)

Percent from Target (+/-): 0.40 % (1g)

Rotation (1D): 0.033 dB

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 1.116 mW/g (1g); 0.745 mW/g (10g)

**Comments:**

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.93$  mho/m;  $\epsilon_r = 55$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 35.7 V/m; Power Drift = 0.00913 dB

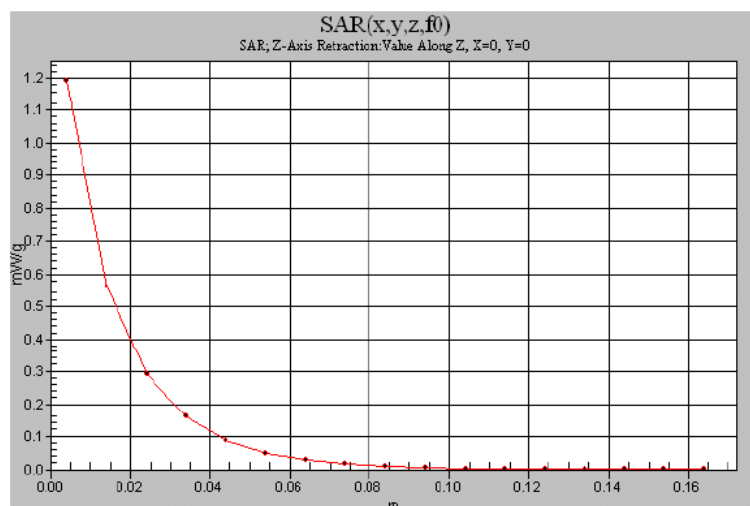
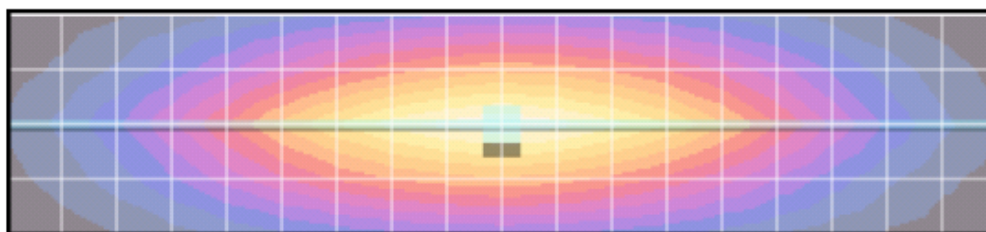
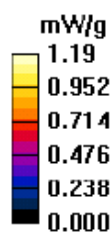
Peak SAR (extrapolated) = 1.71 W/kg

SAR(1 g) = 1.11 mW/g; SAR(10 g) = 0.743 mW/g

**System Performance Check/Dipole Area Scan 2 (5x19x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.19 mW/g

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



# Motorola Solutions, Inc. EME Laboratory

Date/Time: 7/10/2011 6:37:47 AM

Robot# / Run#: DASY4-PG-1 / PS-SYSP-450B-110710-01

Phantom# / Tissue Temp.: ELI4 1050 / 21.6 (C)

Dipole Model# / Serial#: D450V3 / 1053

TX Freq. / Start power: 450 (MHz) / 250(mW)

Target SAR (1W): 4.48 mW/g (1g)

Adjusted SAR (1W): 4.46 mW/g (1g)

Percent from Target (+/-): 0.40 % (1g)

Rotation (1D): 0.029 dB

## Note:

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 1.116 mW/g (1g); 0.741 mW/g (10g)

## Comments:

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 450$  MHz,  $\sigma = 0.93$  mho/m;  $\epsilon_r = 55.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 35.7 V/m; Power Drift = -0.00712 dB

Peak SAR (extrapolated) = 1.70 W/kg

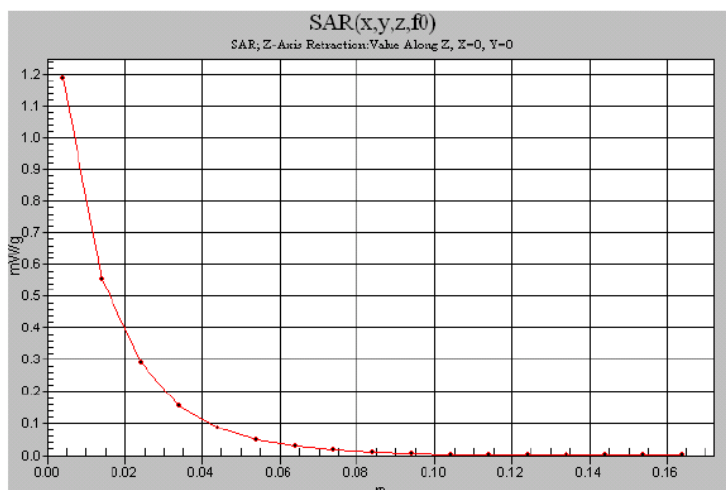
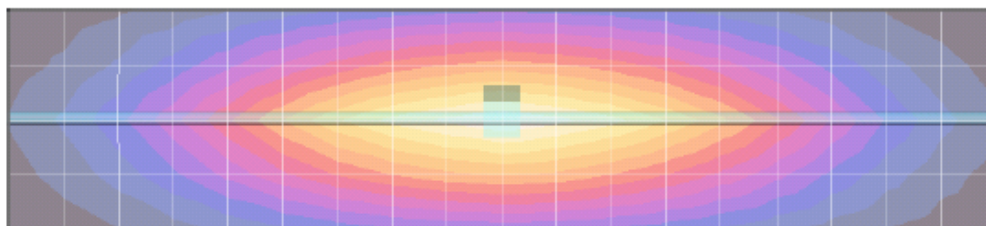
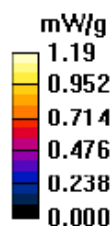
SAR(1 g) = 1.11 mW/g; SAR(10 g) = 0.739 mW/g

Maximum value of SAR (measured) = 1.18 mW/g

**System Performance Check/Dipole Area Scan 2 (5x19x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.19 mW/g

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



**Motorola Solutions, Inc. EME Laboratory**  
**Date/Time: 7/11/2011 10:29:11 AM**

Robot# / Run#: DASY4-PG-1 / CcC-SYSP-450H-110711-01  
 Phantom# / Tissue Temp.: ELI4 1103 / 21.4 (C)  
 Dipole Model# / Serial#: D450V3 / 1053  
 TX Freq. / Start power: 450 (MHz) / 250(mW)

Target SAR (1W): 4.59 mW/g (1g)  
 Adjusted SAR (1W): 4.68 mW/g (1g)  
 Percent from Target (+/-): 2.00% (1g)  
 Rotation (1D): 0.038 dB

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 1.170 mW/g (1g); 0.778 mW/g (10g)

**Comments:**

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.43, 6.43, 6.43)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.87$  mho/m;  $\epsilon_r = 43.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 38.2 V/m; Power Drift = 0.0163 dB

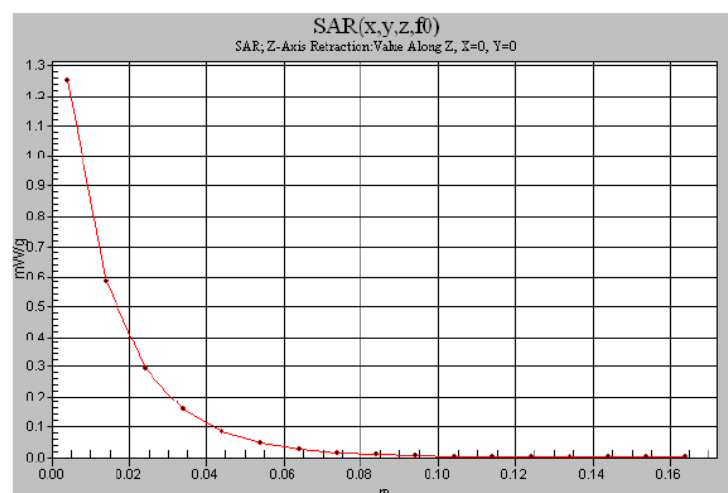
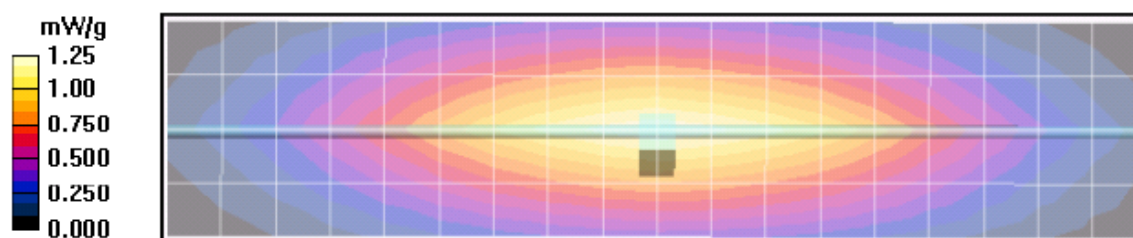
Peak SAR (extrapolated) = 1.76 W/kg

SAR(1 g) = 1.17 mW/g; SAR(10 g) = 0.778 mW/g

Maximum value of SAR (measured) = 1.25 mW/g

**System Performance Check/Dipole Area Scan 2 (5x19x1):** Measurement grid: dx=15mm, dy=15mm

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



## Motorola Solutions, Inc. EME Laboratory

Date/Time: 7/13/2011 3:56:41 PM

Robot# / Run#: DASY4-PG-1 / Lee-SYSP-2450B-110713-08

Phantom# / Tissue Temp.: ELI4 1028 / 21.8 (C)

Dipole Model# / Serial#: D2450V2 / 782

TX Freq. / Start power: 2450 (MHz) / 250(mW)

Target SAR (1W): 52.00 mW/g (1g)

Adjusted SAR (1W): 56.40 mW/g (1g)

Percent from Target (+/-): 8.50 % (1g)

Rotation (1D): 0.035 dB

## Note:

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 14.100 mW/g (1g); 6.460 mW/g (10g)

## Comments:

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(4.15, 4.15, 4.15)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 2450$  MHz;  $\sigma = 2$  mho/m;  $\epsilon_r = 47.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>**System Performance Check/0-Degree Cube (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 90.5 V/m; Power Drift = -0.0192 dB

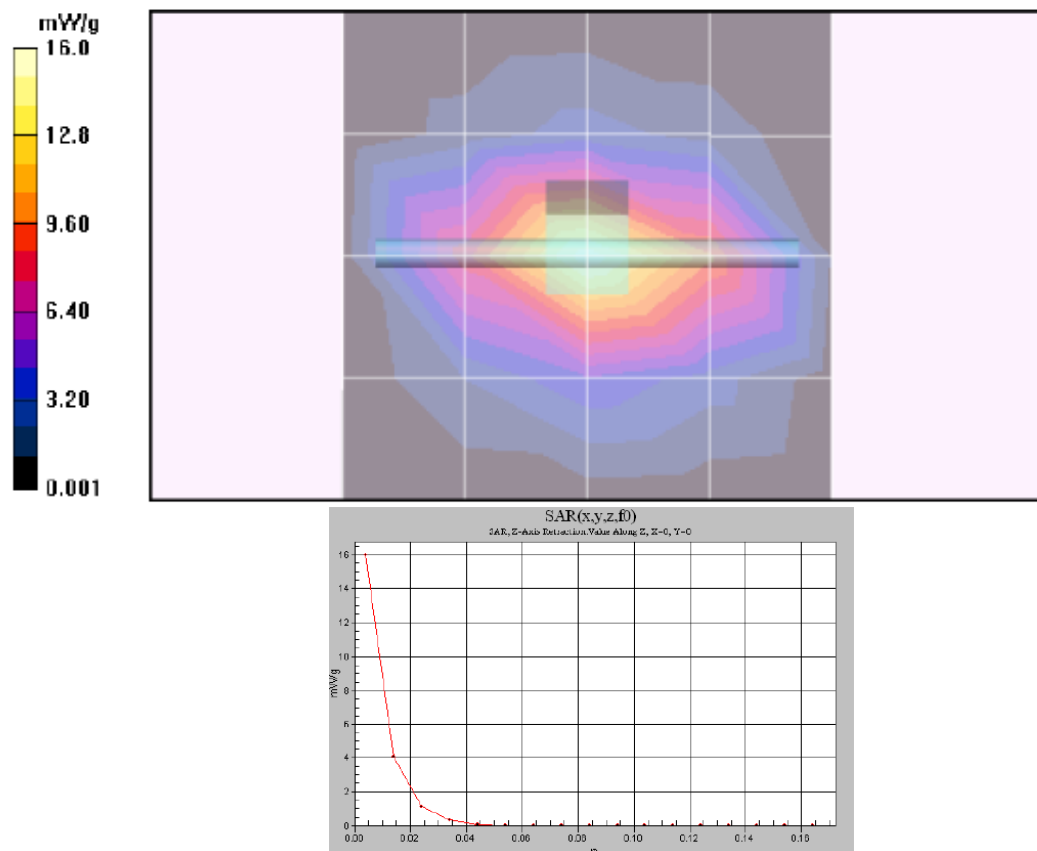
Peak SAR (extrapolated) = 30.2 W/kg

SAR(1 g) = 14.1 mW/g; SAR(10 g) = 6.46 mW/g

Maximum value of SAR (measured) = 15.9 mW/g

**System Performance Check/Dipole Area Scan 2 (5x5x1):** Measurement grid: dx=15mm, dy=15mm**System Performance Check/Z-Axis Retraction (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 16.0 mW/g





**Motorola Solutions, Inc. EME Laboratory**  
**Date/Time: 7/14/2011 7:37:11 AM**

Robot# / Run#: DASY4-PG-1 / CcC-SYSP-450B-110714-01  
 Phantom# / Tissue Temp.: ELI4 1050 / 20.8 (C)  
 Dipole Model# / Serial#: D450V3 / 1053  
 TX Freq. / Start power: 450 (MHz) / 250(mW)

Target SAR (1W): 4.48 mW/g (1g)  
 Adjusted SAR (1W): 4.46 mW/g (1g)  
 Percent from Target (+/-): 0.40 % (1g)  
 Rotation (1D): 0.048 dB

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 1.116 mW/g (1g); 0.745 mW/g (10g)

**Comments:**

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.93$  mho/m;  $\epsilon_r = 55.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 35.8 V/m; Power Drift = -0.020 dB

Peak SAR (extrapolated) = 1.71 W/kg

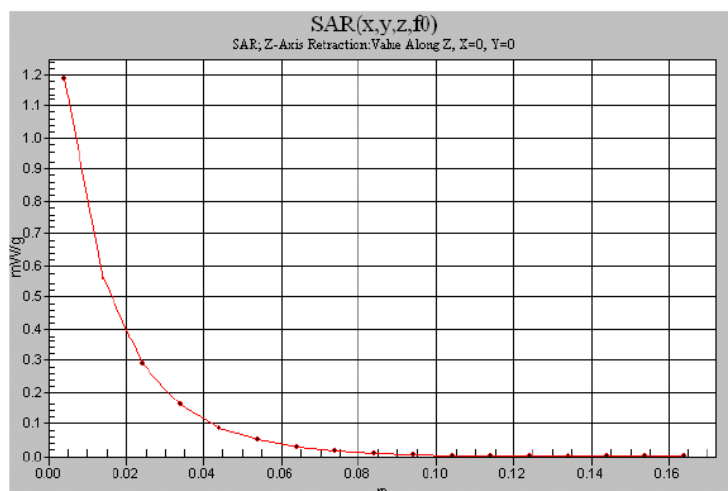
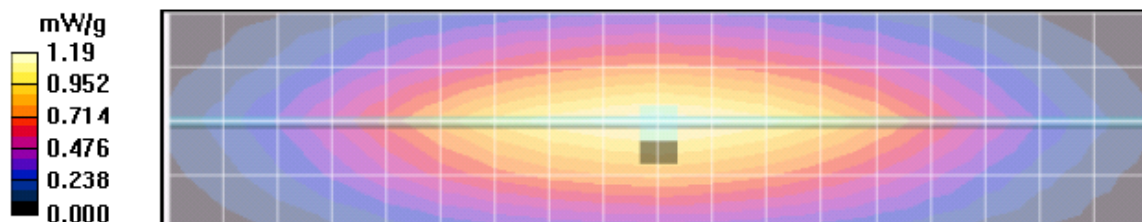
SAR(1 g) = 1.11 mW/g; SAR(10 g) = 0.743 mW/g

Maximum value of SAR (measured) = 1.19 mW/g

**System Performance Check/Dipole Area Scan 2 (5x19x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.18 mW/g

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





## System Validation 2010

DIPOLE SAR TARGET - HEAD

Date: 09/01/10 Frequency (MHz): 2450  
 Lab Location: PG Mixture Type: IEEE Head  
 DAE Serial #: 688 Ambient Temp.(°C): 22.1

Tissue Characteristics  
 Permittivity: 36.2 Phantom Type/SN: ELI4 1037  
 Conductivity: 1.88 Distance (mm): 10  
 Tissue Temp.(°C): 21.2

Reference Source: Dipole Power to Dipole: 250 mW  
 Reference SN: 782

Target 1g-SAR Value (mW/g, normalized to 1.0 W):

**52.4**

Difference from Target

**5.34% (1g-SAR)**

New Target:

Average 1g-SAR Value (mW/g): **55.20****Passes K=2**

Percent Difference From Target (MUST be within k=2 Uncertainty):

Probe SN #s	1g-SAR (Cube)	Diff from Ave	Robot
<b>3122</b>	55.20	0.0%	R1
Average <b>55.2000</b> New Measured SAR Value			

(normalized to 1.0 W)

Test performed by: CC Chang Initial: C.C.C. 09-01-10

## System Validation 2010

### DIPOLE SAR TARGET - BODY

Date:	09/01/10	Frequency (MHz):	2450
Lab Location:	PG	Mixture Type:	Body
DAE Serial #:	688	Ambient Temp.(°C):	22.2

#### Tissue Characteristics

Permittivity:	49.3	Phantom Type/SN:	ELI4 1050
Conductivity:	2.03	Distance (mm):	10
Tissue Temp.(°C):	21.9		

Reference Source:	Dipole	Power to Dipole:	250 mW
Reference SN:	782		

#### New Target:

Average Measured SAR Value: 53.60 mW/g(1g avg.),

Probe SN #s	1-G Cube	Diff from Ave	Robot
3122	53.60	0.0%	R1
Average		New Measured SAR Value	

(normalized to 1.0 W)

Test performed by: CC Chang Initial: C.C. 09-01-10

## System Validation 2011

### DIPOLE SAR TARGET - HEAD

Date:	05/12/11	Frequency (MHz):	2450
Lab Location:	PG-EMS	Mixture Type:	IEEE Head
DAE Serial #:	374	Ambient Temp.(°C):	21.6

Tissue Characteristics			
Permittivity:	37.8	Phantom Type/SN:	ELI4 1028
Conductivity:	1.88	Distance (mm):	15
Tissue Temp.(°C):	21.7		

Reference Source:	Dipole	Power to Dipole:	250 mW
Reference SN:	782		

Target 1g-SAR Value (mW/g, normalized to 1.0 W):

52.4
------

Difference from Target

7.25% (1g-SAR)
----------------

New Target:

Average 1g-SAR Value (mW/g):	56.20
------------------------------	-------

Passes K=2
------------

Percent Difference From Target (MUST be within k=2 Uncertainty):

Probe SN #s	1g-SAR (Cube)	Diff from Ave	Robot
3096	56.40	0.4%	R2
3122	56.00	-0.4%	R2
Average	56.2000	New Measured SAR Value	

(normalized to 1.0 W)

Test performed by: Patrick Saw Initial: AS-12-11

## System Validation 2011

### DIPOLE SAR TARGET - BODY

Date: 05/12/11 Frequency (MHz): 2450  
 Lab Location: PG-EMS Mixture Type: Body  
 DAE Serial #: 374 Ambient Temp.(°C): 21.7

#### Tissue Characteristics

Permittivity: 48.3 Phantom Type/SN: ELI4 1050  
 Conductivity: 1.95 Distance (mm): 15  
 Tissue Temp.(°C): 22

Reference Source: Dipole Power to Dipole: 250 mW  
 Reference SN: 782

#### New Target:

Average Measured SAR Value: 52.00 mW/g(1g avg.),

Probe SN #s	1-G Cube	Diff from Ave	Robot
3096	49.20	-5.4%	R2
3122	54.80	5.4%	R2
Average		New Measured SAR Value	

(normalized to 1.0 W)

Test performed by: Patrick Saw Initial: 

## System Validation 2011

DIPOLE SAR TARGET - HEAD

Date: 05/09/11 Frequency (MHz): 450  
 Lab Location: PG-EMS Mixture Type: IEEE Head  
 DAE Serial #: 374 Ambient Temp.(°C): 21.5

Tissue Characteristics  
 Permittivity: 43.6 Phantom Type/SN: ELI4 1050  
 Conductivity: 0.84 Distance (mm): 15  
 Tissue Temp.(°C): 21.5

Reference Source: Dipole Power to Dipole: 250 mW  
 Reference SN: 1053

Target 1g-SAR Value (mW/g, normalized to 1.0 W):

**4.58**

Difference from Target

**0.22% (1g-SAR)**

New Target:

Average 1g-SAR Value (mW/g):

**4.59****Passes K=2**

Percent Difference From Target (MUST be within k=2 Uncertainty):

Probe SN #s	1g-SAR (Cube)	Diff from Ave	Robot
<b>3096</b>	4.63	0.9%	R2
<b>3122</b>	4.55	-0.9%	R2
<b>Average 4.5900</b>			

(normalized to 1.0 W)

New Measured SAR Value

Test performed by:

**Lee Soon Hock**

Initial:

ll 05.09.11

## System Validation 2011

DIPOLE SAR TARGET - BODY

Date: 05/09/11 Frequency (MHz): 450  
 Lab Location: PG-EMS Mixture Type: Body  
 DAE Serial #: 374 Ambient Temp.(°C): 21.6

## Tissue Characteristics

Permittivity: 55.7 Phantom Type/SN: ELI4 1103  
 Conductivity: 0.93 Distance (mm): 15  
 Tissue Temp.(°C): 21.2

Reference Source: Dipole Power to Dipole: 250 mW  
 Reference SN: 1053

## New Target:

Average Measured SAR Value: 4.48 mW/g(1g avg.),

Probe SN #s	1-G Cube	Diff from Ave	Robot
3096	4.58	2.2%	R2
3122	4.38	-2.2%	R2
Average		New Measured SAR Value	

(normalized to 1.0 W)

Test performed by: Patrick Saw Initial: AS, 09.11



## System Validation 2010

### DIPOLE SAR TARGET - HEAD

Date:	<u>06/03/10</u>	Frequency (MHz):	<u>450</u>
Lab Location:	<u>PG-EMS</u>	Mixture Type:	<u>IEEE Head</u>
DAE Serial #:	<u>688</u>	Ambient Temp.(°C):	<u>21.7</u>

Tissue Characteristics			
Permittivity:	<u>43.3</u>	Phantom Type/SN:	<u>ELI4 1037</u>
Conductivity:	<u>0.87</u>	Distance (mm):	<u>15</u>
Tissue Temp.(°C):	<u>21</u>		

Reference Source:	<u>Dipole</u>	Power to Dipole:	<u>250</u> mW
Reference SN:	<u>1054</u>		

**Target 1g-SAR Value (mW/g, normalized to 1.0 W):**

<b>4.58</b>
-------------

**Difference from Target**

<b>2.18% (1g-SAR)</b>
-----------------------

**New Target:**

Average 1g-SAR Value (mW/g):	<b>4.68</b>
------------------------------	-------------

<b>Passes K=2</b>
-------------------

Percent Difference From Target (MUST be within k=2 Uncertainty):

Probe SN #s	1g-SAR (Cube)	Diff from Ave	Robot
3122	4.68	0.0%	R1
Average	4.6800	New Measured SAR Value	

(normalized to 1.0 W)

Test performed by: Patrick Saw Initial: AS 06-03-10

## System Validation 2010

DIPOLE SAR TARGET - BODY

Date: 06/03/10 Frequency (MHz): 450  
 Lab Location: PG-EMS Mixture Type: Body  
 DAE Serial #: 688 Ambient Temp.(°C): 21.8

Tissue Characteristics  
 Permittivity: 54.6 Phantom Type/SN: ELI4 1037  
 Conductivity: 0.93 Distance (mm): 15  
 Tissue Temp.(°C): 21.0

Reference Source: Dipole Power to Dipole: 250 mW  
 Reference SN: 1054

**New Target:**

Average Measured SAR Value: 4.54 mW/g(1g avg.),

Probe SN #s	1-G Cube	Diff from Ave	Robot
3122	4.54	0.0%	R1
Average		New Measured SAR Value	

(normalized to 1.0 W)

Test performed by: CC Chang Initial: CC. 06-03-10

## System Validation 2011

DIPOLE SAR TARGET - HEAD

Date: 05/09/11 Frequency (MHz): 450  
 Lab Location: PG-EMS Mixture Type: IEEE Head  
 DAE Serial #: 374 Ambient Temp.(°C): 21.6

Tissue Characteristics  
 Permittivity: 43.6 Phantom Type/SN: ELI4 1028  
 Conductivity: 0.84 Distance (mm): 15  
 Tissue Temp.(°C): 21.3

Reference Source: Dipole Power to Dipole: 250 mW  
 Reference SN: 1054

Target 1g-SAR Value (mW/g, normalized to 1.0 W):

**4.58**

Difference from Target

**-4.59% (1g-SAR)**

New Target:

Average 1g-SAR Value (mW/g):

**4.37****Passes K=2**

Percent Difference From Target (MUST be within k=2 Uncertainty):

Probe SN #s	1g-SAR (Cube)	Diff from Ave	Robot
<b>3096</b>	4.31	-1.4%	R2
<b>3122</b>	4.43	1.4%	R2
<b>Average 4.3700</b>			

(normalized to 1.0 W)

New Measured SAR Value

Test performed by:

**Lee Soon Hock**

Initial:

ll 05.09.11

# System Validation 2011

## DIPOLE SAR TARGET - BODY

Date: 05/09/11 Frequency (MHz): 450  
 Lab Location: PG-EMS Mixture Type: Body  
 DAE Serial #: 374 Ambient Temp.(°C): 21.6

### Tissue Characteristics

Permittivity: 55.7 Phantom Type/SN: ELI4 1103  
 Conductivity: 0.93 Distance (mm): 15  
 Tissue Temp.(°C): 21.6

Reference Source: Dipole Power to Dipole: 250 mW  
 Reference SN: 1054

### New Target:

Average Measured SAR Value: 4.38 mW/g(1g avg.),

Probe SN #s	I-G Cube	Diff from Ave	Robot
3096	4.42	0.9%	R2
3122	4.34	-0.9%	R2
Average		New Measured SAR Value	

(normalized to 1.0 W)

Test performed by: Patrick Saw Initial: PS - 05-09-11

**Appendix E**  
**FCC Part 90 (406.1 – 512 MHz)**  
**DUT Scans (Shortened Scan and Highest SAR configurations)**



## Shortened Scan Result (Section 13.16, Table 37)

**Motorola Solutions, Inc. EME Laboratory**  
Date/Time: 7/11/2011 1:17:03 PM

Robot# / Run#: DASY4-PG-1 / CcC-AB-110711-06  
Phantom# / Tissue Temp.: ELI4 1050 / 21.3 (C)  
DUT Model# / Serial#: PMUE3681A / 807TMK0015  
Antenna / TX Freq.: PMAE4070A / 465.000 (MHz)  
Battery: PMNN4407A  
Carry Acc. / Cable Acc.: RLN4570A / NONE  
Start Power: 4.78 (W)

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 14.109 mW/g (1g); 10.204 mW/g (10g)

Comments: Shorten scan.

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 465$  MHz;  $\sigma = 0.94$  mho/m;  $\epsilon_r = 54.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/1-Area Scan (61x151x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 123.8 V/m; Power Drift = -0.425 dB

**Motorola Fast SAR: SAR(1 g) = 13.6 mW/g; SAR(10 g) = 10 mW/g**

Maximum value of SAR (interpolated) = 14.4 mW/g

**Ab Scan/2-Volume 2D Scan (41x41x1):** Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 123.8 V/m; Power Drift = -0.500 dB

Peak SAR (extrapolated) = 13.9 W/kg

**Motorola Fast SAR: SAR(1 g) = 13.2 mW/g; SAR(10 g) = 9.65 mW/g**

Maximum value of SAR (interpolated) = 13.9 mW/g

**Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 129.1 V/m; Power Drift = -0.348 dB

Peak SAR (extrapolated) = 19.8 W/kg

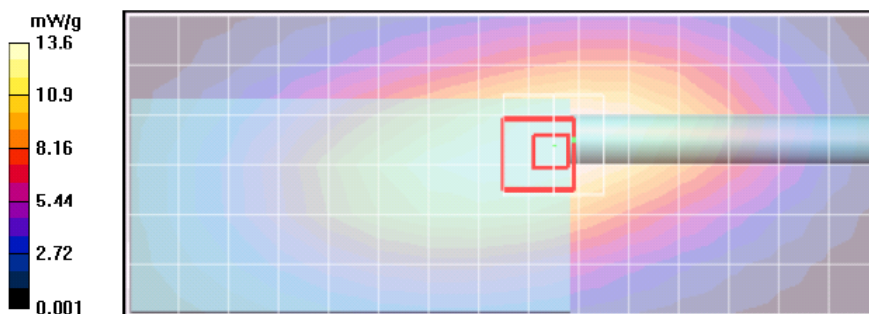
**SAR(1 g) = 14.1 mW/g; SAR(10 g) = 10.2 mW/g**

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

Representative full scan run time was 20 minutes.

“Shortened” scan max calculated SAR using SAR drift: 1-g Avg.= 7.68 mW/g; 10-g Avg.= 5.55 mW/g

Full scan max calculated SAR using SAR drift (see part 1 section 13.6): 1-g Avg.=7.41 mW/g; 10-g Avg.=5.36 mW/g



## Highest SAR Configuration Result for Body (Section 13.9, Table 29)

Motorola Solutions, Inc. EME Laboratory

Date/Time: 7/11/2011 12:42:51 PM

Robot# / Run#: DASY4-PG-1 / CcC-AB-110711-05  
Phantom# / Tissue Temp.: ELI4 1050 / 21.5 (C)  
DUT Model# / Serial#: PMUE3681A / 807TMK0015  
Antenna / TX Freq.: PMAE4070A / 465.000 (MHz)  
Battery: PMNN4407A  
Carry Acc. / Cable Acc.: RLN4570A / NONE  
Start Power: 4.83 (W)

### Note:

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 12.708 mW/g (1g); 9.193 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 465$  MHz;  $\sigma = 0.94$  mho/m;  $\epsilon_r = 54.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/1-Area Scan (61x151x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 123.8 V/m; Power Drift = -0.486 dB

Motorola Fast SAR: SAR(1 g) = 13.5 mW/g; SAR(10 g) = 9.91 mW/g

Maximum value of SAR (interpolated) = 14.2 mW/g

**Ab Scan/2-Volume 2D Scan (41x41x1):** Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 123.8 V/m; Power Drift = -0.567 dB

Peak SAR (extrapolated) = 13.7 W/kg

Motorola Fast SAR: SAR(1 g) = 13 mW/g; SAR(10 g) = 9.49 mW/g

Maximum value of SAR (interpolated) = 13.7 mW/g

**Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 123.8 V/m; Power Drift = -0.669 dB

Peak SAR (extrapolated) = 17.9 W/kg

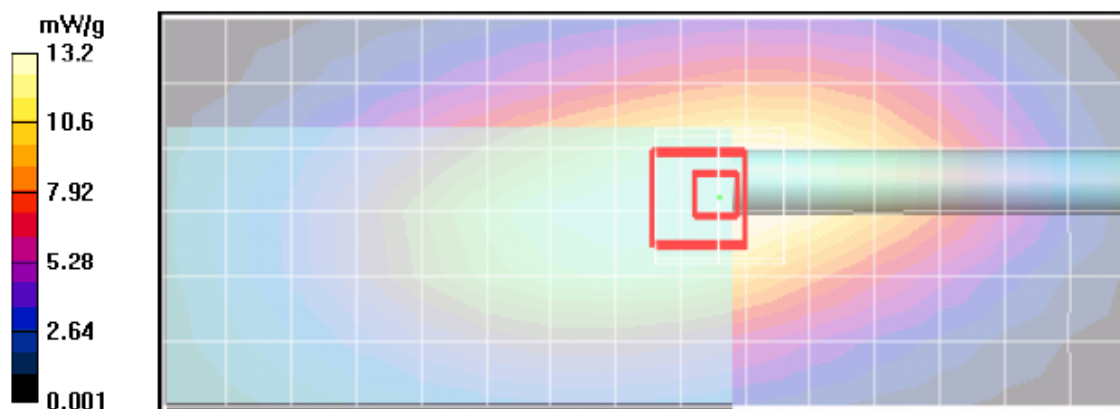
SAR(1 g) = 12.7 mW/g; SAR(10 g) = 9.19 mW/g

**Warning:** Maximum averaged SAR over 10 g is located on the boundary of the measurement cube. This cube might not incorporate the absolute averaged SAR. Please consider a refinement of the Area Scan measurement.

Maximum value of SAR (measured) = 13.4 mW/g

**Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 13.2 mW/g



## Highest SAR Configuration Result for Face (Section 13.13, Table 33)

Motorola Solutions, Inc. EME Laboratory

Date/Time: 6/29/2011 1:24:05 PM

Robot# / Run#: DASY4-PG-1 / CcC-FACE-110629-10  
Phantom# / Tissue Temp.: ELI4 1037/ 21.0 (C)  
DUT Model# / Serial#: PMUE3681A / 807TMK0007  
Antenna / TX Freq.: PMAE4070A / 465.000 (MHz)  
Battery: PMNN4407A  
Carry Acc. / Cable Acc.: NONE / NONE  
Start Power: 4.84 (W)

### Note:

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 7.169 mW/g (1g); 5.347 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.43, 6.43, 6.43)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 465$  MHz;  $\sigma = 0.88$  mho/m;  $\epsilon_r = 43.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Face Scan/1-Area Scan (61x151x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 95.2 V/m; Power Drift = -0.400 dB

Motorola Fast SAR: SAR(1 g) = 7.63 mW/g; SAR(10 g) = 5.65 mW/g

Maximum value of SAR (interpolated) = 8.02 mW/g

**Face Scan/2-Volume Scan 2D (41x41x1):** Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 95.2 V/m; Power Drift = -0.464 dB

Peak SAR (extrapolated) = 7.63 W/kg

Motorola Fast SAR: SAR(1 g) = 7.29 mW/g; SAR(10 g) = 5.4 mW/g

Maximum value of SAR (interpolated) = 7.63 mW/g

**Face Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 95.2 V/m; Power Drift = -0.561 dB

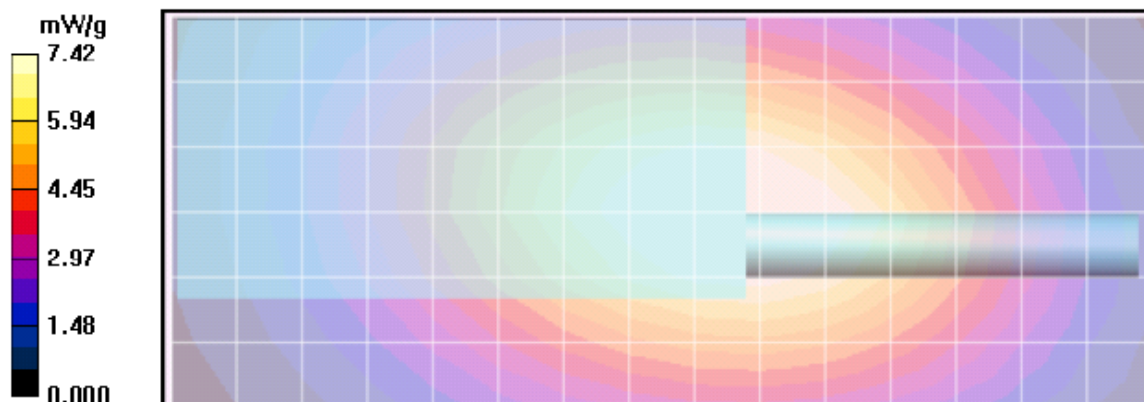
Peak SAR (extrapolated) = 9.40 W/kg

SAR(1 g) = 7.14 mW/g; SAR(10 g) = 5.33 mW/g

Maximum value of SAR (measured) = 7.50 mW/g

**Face Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 7.42 mW/g



**Appendix F**  
**DUT Scans – FCC Part 90 (406.1-512 MHz)**

## Section 13.2 (Table 16)

### Assessments at the Body with body worn PMLN4651A

**Motorola Solutions, Inc. EME Laboratory**

Date/Time: 6/11/2011 12:49:27 PM

Robot# / Run#: DASY4-PG-1 / CcC-AB-110611-05  
 Phantom# / Tissue Temp.: ELI4 1103 / 21.2 (C)  
 DUT Model# / Serial#: PMUE3681A / 807TMK0007  
 Antenna / TX Freq.: PMAE4070A / 458.000 (MHz)  
 Battery: PMNN4407A  
 Carry Acc. / Cable Acc.: PMLN4651A / PMMN4024A  
 Start Power: 4.87 (W)

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 9.061 mW/g (1g); 6.441 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 458$  MHz;  $\sigma = 0.93$  mho/m;  $\epsilon_r = 54.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/1-Area Scan (61x151x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 98.2 V/m; Power Drift = -0.304 dB

Motorola Fast SAR: SAR(1 g) = 9.47 mW/g; SAR(10 g) = 6.83 mW/g

Maximum value of SAR (interpolated) = 10.1 mW/g

**Ab Scan/2-Volume 2D Scan (41x41x1):** Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 98.2 V/m; Power Drift = -0.362 dB

Peak SAR (extrapolated) = 9.77 W/kg

Motorola Fast SAR: SAR(1 g) = 9.24 mW/g; SAR(10 g) = 6.65 mW/g

Maximum value of SAR (interpolated) = 9.77 mW/g

**Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 98.2 V/m; Power Drift = -0.462 dB

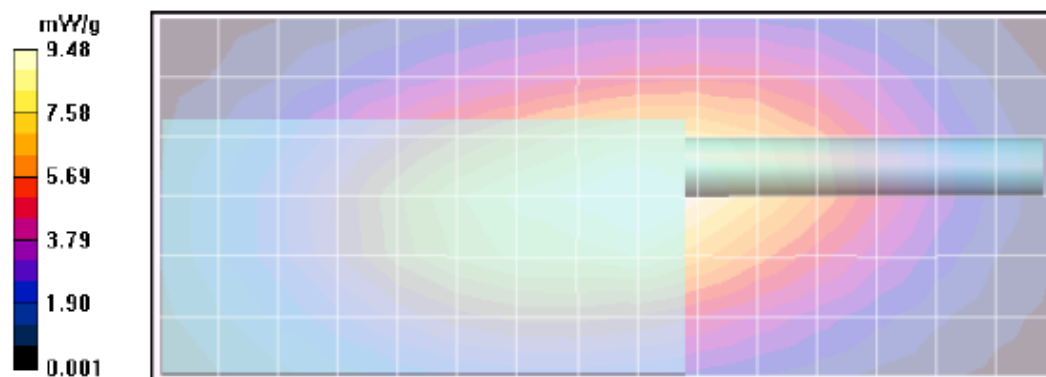
Peak SAR (extrapolated) = 13.0 W/kg

SAR(1 g) = 9.01 mW/g; SAR(10 g) = 6.42 mW/g

Maximum value of SAR (measured) = 9.57 mW/g

**Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 9.48 mW/g





## Section 13.2 (Table 17)

### Assessments at the Body with body worn PMLN4651A (additional batteries)

**Motorola Solutions, Inc. EME Laboratory**

Date/Time: 6/12/2011 1:36:45 PM

Robot# / Run#: DASY4-PG-1 / PS-AB-110612-10  
 Phantom# / Tissue Temp.: ELI4 1103 / 21.3 (C)  
 DUT Model# / Serial#: PMUE3681A / 807TMK0007  
 Antenna / TX Freq.: PMAE4070A / 465.000 (MHz)  
 Battery: PMNN4412A  
 Carry Acc. / Cable Acc.: PMLN4651A / PMMN4024A  
 Start Power: 4.69 (W)

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 7.863 mW/g (1g); 5.632 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 465$  MHz;  $\sigma = 0.94$  mho/m;  $\epsilon_r = 54.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/1-Area Scan (61x151x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 91.1 V/m; Power Drift = -0.459 dB

**Motorola Fast SAR: SAR(1 g) = 8.07 mW/g; SAR(10 g) = 5.83 mW/g**

Maximum value of SAR (interpolated) = 8.58 mW/g

**Ab Scan/2-Volume 2D Scan (41x41x1):** Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 91.1 V/m; Power Drift = -0.478 dB

Peak SAR (extrapolated) = 8.46 W/kg

**Motorola Fast SAR: SAR(1 g) = 8 mW/g; SAR(10 g) = 5.75 mW/g**

Maximum value of SAR (interpolated) = 8.46 mW/g

**Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 91.1 V/m; Power Drift = -0.495 dB

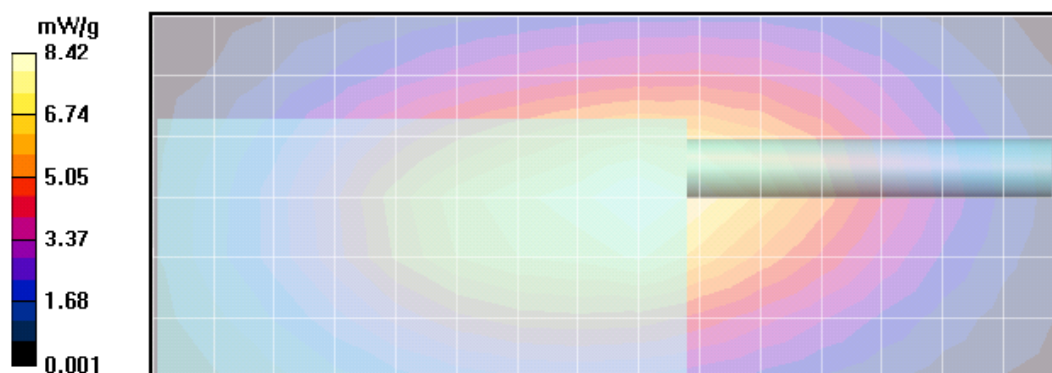
Peak SAR (extrapolated) = 11.2 W/kg

**SAR(1 g) = 7.86 mW/g; SAR(10 g) = 5.63 mW/g**

Maximum value of SAR (measured) = 8.34 mW/g

**Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 8.42 mW/g



## Section 13.3 (Table 18)

### Assessments at the Body with battery body worn PMLN7008A

**Motorola Solutions, Inc. EME Laboratory**

Date/Time: 6/13/2011 9:50:03 AM

Robot# / Run#: DASY4-PG-1 / CcC-AB-110613-04  
 Phantom# / Tissue Temp.: ELI4 1103 / 21.3 (C)  
 DUT Model# / Serial#: PMUE3681A / 807TMK0007  
 Antenna / TX Freq.: PMAE4070A / 465.000 (MHz)  
 Battery: PMNN4407A  
 Carry Acc. / Cable Acc.: PMLN7008A / PMMN4024A  
 Start Power: 4.82 (W)

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 8.565 mW/g (1g); 6.082 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 465$  MHz;  $\sigma = 0.94$  mho/m;  $\epsilon_r = 54.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/1-Area Scan (61x151x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 97.5 V/m; Power Drift = -0.496 dB

Motorola Fast SAR: SAR(1 g) = 9.17 mW/g; SAR(10 g) = 6.62 mW/g

Maximum value of SAR (interpolated) = 9.75 mW/g

**Ab Scan/2-Volume 2D Scan (41x41x1):** Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 97.5 V/m; Power Drift = -0.554 dB

Peak SAR (extrapolated) = 9.36 W/kg

Motorola Fast SAR: SAR(1 g) = 8.88 mW/g; SAR(10 g) = 6.36 mW/g

Maximum value of SAR (interpolated) = 9.36 mW/g

**Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 97.5 V/m; Power Drift = -0.697 dB

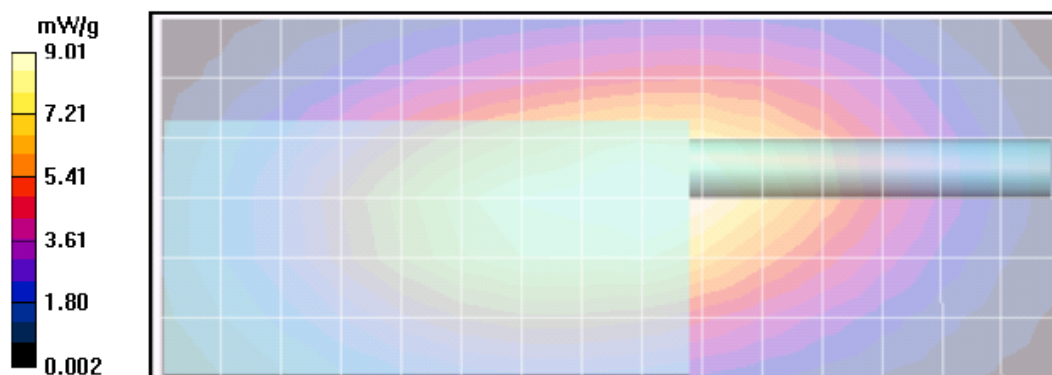
Peak SAR (extrapolated) = 12.4 W/kg

SAR(1 g) = 8.56 mW/g; SAR(10 g) = 6.08 mW/g

Maximum value of SAR (measured) = 9.05 mW/g

**Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 9.01 mW/g



## Section 13.3 (Table 19)

### Assessments at the Body with body worn PMLN7008A (additional batteries)

**Motorola Solutions, Inc. EME Laboratory**

Date/Time: 6/13/2011 3:02:09 PM

Robot# / Run#: DASY4-PG-1 / Lee-AB-110613-12  
 Phantom# / Tissue Temp.: ELI4 1103 / 21.2 (C)  
 DUT Model# / Serial#: PMUE3681A / 807TMK0007  
 Antenna / TX Freq.: PMAE4070A / 465.000 (MHz)  
 Battery: PMNN4412A  
 Carry Acc. / Cable Acc.: PMLN7008A / PMMN4024A  
 Start Power: 4.73 (W)

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 7.865 mW/g (1g); 5.602 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 465$  MHz;  $\sigma = 0.94$  mho/m;  $\epsilon_r = 54.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/1-Area Scan (61x151x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 91.3 V/m; Power Drift = -0.450 dB

Motorola Fast SAR: SAR(1 g) = 8.03 mW/g; SAR(10 g) = 5.83 mW/g

Maximum value of SAR (interpolated) = 8.52 mW/g

**Ab Scan/2-Volume 2D Scan (41x41x1):** Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 91.3 V/m; Power Drift = -0.486 dB

Peak SAR (extrapolated) = 8.45 W/kg

Motorola Fast SAR: SAR(1 g) = 8 mW/g; SAR(10 g) = 5.74 mW/g

Maximum value of SAR (interpolated) = 8.45 mW/g

**Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 91.3 V/m; Power Drift = -0.548 dB

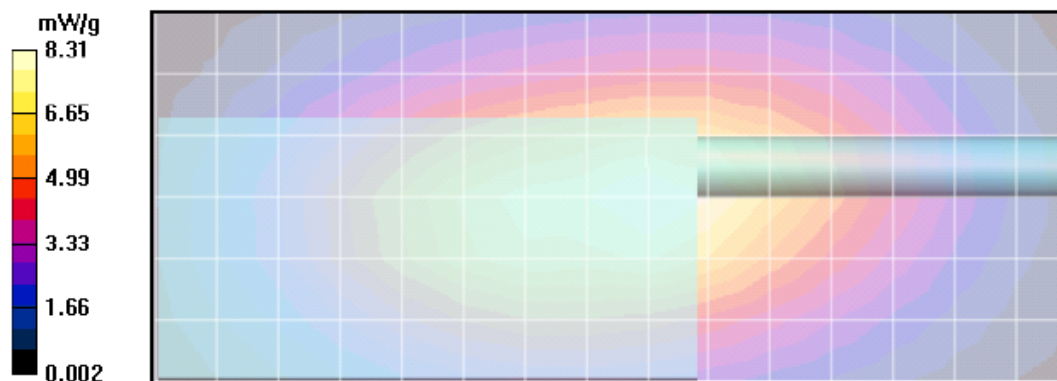
Peak SAR (extrapolated) = 11.3 W/kg

SAR(1 g) = 7.86 mW/g; SAR(10 g) = 5.6 mW/g

Maximum value of SAR (measured) = 8.29 mW/g

**Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 8.31 mW/g



## Section 13.4 (Table 20)

### Assessments at the Body with body worn PMLN5845A

**Motorola Solutions, Inc. EME Laboratory**

Date/Time: 6/13/2011 7:03:06 PM

Robot# / Run#: DASY4-PG-1 / PS-AB-110613-18  
 Phantom# / Tissue Temp.: ELI4 1103 / 20.9 (C)  
 DUT Model# / Serial#: PMUE3681A / 807TMK0007  
 Antenna / TX Freq.: PMAE4070A / 465.000 (MHz)  
 Battery: PMNN4407A  
 Carry Acc. / Cable Acc.: PMLN5845A / PMMN4024A  
 Start Power: 4.88 (W)

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 8.165 mW/g (1g); 6.032 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 465$  MHz;  $\sigma = 0.94$  mho/m;  $\epsilon_r = 54.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/1-Area Scan (61x151x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 98.2 V/m; Power Drift = -0.494 dB

Motorola Fast SAR: SAR(1 g) = 8.71 mW/g; SAR(10 g) = 6.43 mW/g

Maximum value of SAR (interpolated) = 9.15 mW/g

**Ab Scan/2-Volume 2D Scan (41x41x1):** Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 98.2 V/m; Power Drift = -0.558 dB

Peak SAR (extrapolated) = 8.72 W/kg

Motorola Fast SAR: SAR(1 g) = 8.31 mW/g; SAR(10 g) = 6.14 mW/g

Maximum value of SAR (interpolated) = 8.72 mW/g

**Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 98.2 V/m; Power Drift = -0.675 dB

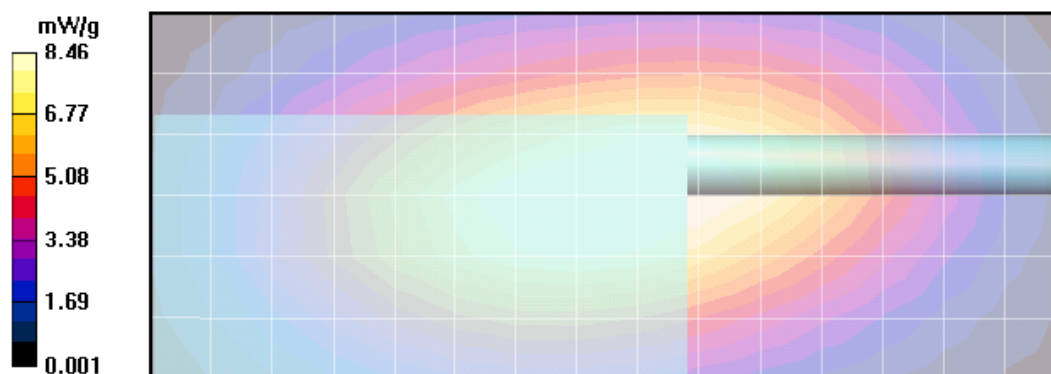
Peak SAR (extrapolated) = 11.1 W/kg

SAR(1 g) = 8.16 mW/g; SAR(10 g) = 6.03 mW/g

Maximum value of SAR (measured) = 8.57 mW/g

**Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 8.46 mW/g





## Section 13.4 (Table 21)

### Assessments at the Body with body worn PMLN5845A (additional batteries)

Motorola Solutions, Inc. EME Laboratory

Date/Time: 6/14/2011 2:24:29 PM

Robot# / Run#: DASY4-PG-1 / Lee-AB-110614-06  
 Phantom# / Tissue Temp.: ELI4 1103 / 20.9 (C)  
 DUT Model# / Serial#: PMUE3681A / 807TMK0007  
 Antenna / TX Freq.: PMAE4070A / 465.000 (MHz)  
 Battery: PMNN4412A  
 Carry Acc. / Cable Acc.: PMLN5845A / PMMN4024A  
 Start Power: 4.78 (W)

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 7.265 mW/g (1g); 5.402 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 465$  MHz;  $\sigma = 0.94$  mho/m;  $\epsilon_r = 54.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/1-Area Scan (61x151x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 91.3 V/m; Power Drift = -0.504 dB

Motorola Fast SAR: SAR(1 g) = 7.58 mW/g; SAR(10 g) = 5.6 mW/g

Maximum value of SAR (interpolated) = 7.98 mW/g

**Ab Scan/2-Volume 2D Scan (41x41x1):** Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 91.3 V/m; Power Drift = -0.534 dB

Peak SAR (extrapolated) = 7.78 W/kg

Motorola Fast SAR: SAR(1 g) = 7.42 mW/g; SAR(10 g) = 5.47 mW/g

Maximum value of SAR (interpolated) = 7.78 mW/g

**Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 91.3 V/m; Power Drift = -0.629 dB

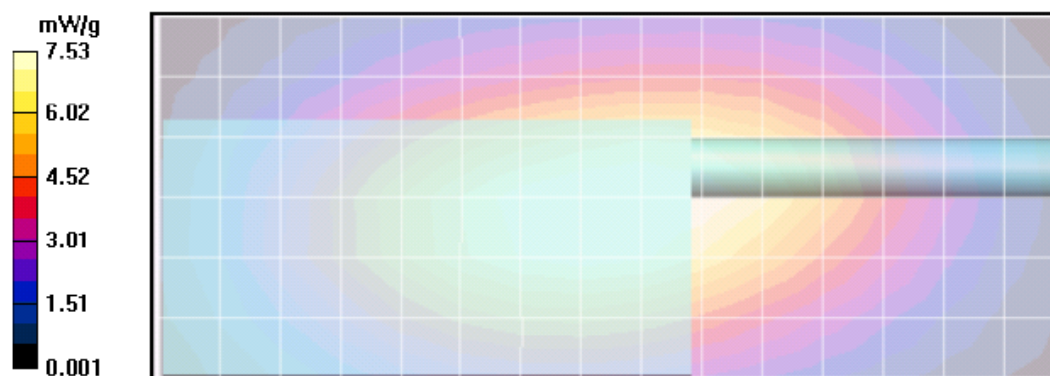
Peak SAR (extrapolated) = 9.85 W/kg

SAR(1 g) = 7.26 mW/g; SAR(10 g) = 5.4 mW/g

Maximum value of SAR (measured) = 7.61 mW/g

**Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 7.53 mW/g





## Section 13.5 (Table 22)

### Assessments at the Body with body worn RLN4815A

**Motorola Solutions, Inc. EME Laboratory**  
Date/Time: 6/14/2011 5:02:52 PM

Robot# / Run#: DASY4-PG-1 / PS-AB-110614-10  
Phantom# / Tissue Temp.: ELI4 1103 / 21.2 (C)  
DUT Model# / Serial#: PMUE3681A / 807TMK0007  
Antenna / TX Freq.: PMAE4070A / 465.000 (MHz)  
Battery: PMNN4407A  
Carry Acc. / Cable Acc.: RLN4815A / PMMN4024A  
Start Power: 4.86 (W)

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 6.304 mW/g (1g); 4.672 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 465$  MHz;  $\sigma = 0.94$  mho/m;  $\epsilon_r = 54.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/1-Area Scan (61x151x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 83.4 V/m; Power Drift = -0.468 dB

Motorola Fast SAR: SAR(1 g) = 6.67 mW/g; SAR(10 g) = 4.93 mW/g

Maximum value of SAR (interpolated) = 7.01 mW/g

**Ab Scan/2-Volume 2D Scan (41x41x1):** Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 83.4 V/m; Power Drift = -0.534 dB

Peak SAR (extrapolated) = 6.74 W/kg

Motorola Fast SAR: SAR(1 g) = 6.44 mW/g; SAR(10 g) = 4.75 mW/g

Maximum value of SAR (interpolated) = 6.74 mW/g

**Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 83.4 V/m; Power Drift = -0.655 dB

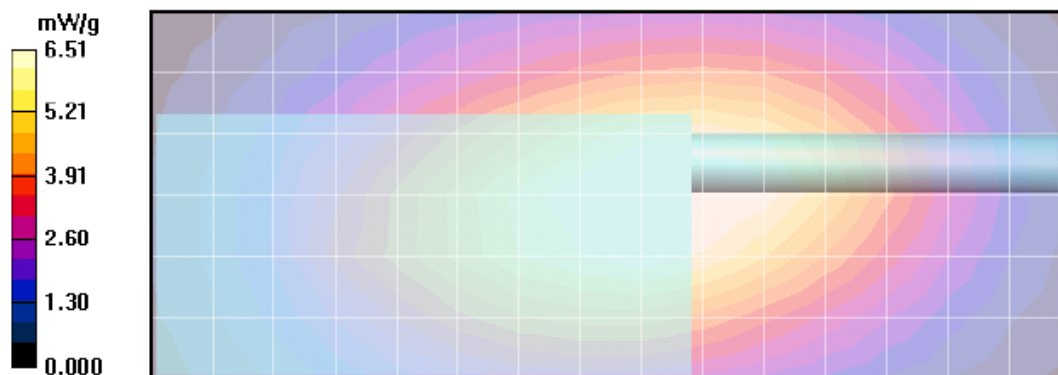
Peak SAR (extrapolated) = 8.51 W/kg

SAR(1 g) = 6.3 mW/g; SAR(10 g) = 4.67 mW/g

Maximum value of SAR (measured) = 6.60 mW/g

**Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 6.51 mW/g



## Section 13.5 (Table 23)

### Assessments at the Body with body worn RLN4815A (additional batteries)

Motorola Solutions, Inc. EME Laboratory

Date/Time: 7/14/2011 8:10:35 AM

Robot# / Run#: DASY4-PG-1 / CcC-AB-110714-02  
 Phantom# / Tissue Temp.: ELI4 1050 / 21.1 (C)  
 DUT Model# / Serial#: PMUE3681A / 807TMK0007  
 Antenna / TX Freq.: PMAE4070A / 465.000 (MHz)  
 Battery: PMNN4406A  
 Carry Acc. / Cable Acc.: RLN4815A / PMMN4024A  
 Start Power: 4.81 (W)

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 5.874 mW/g (1g); 4.372 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 465$  MHz;  $\sigma = 0.94$  mho/m;  $\epsilon_r = 54.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/1-Area Scan (61x151x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 82.2 V/m; Power Drift = -0.503 dB

Motorola Fast SAR: SAR(1 g) = 6.26 mW/g; SAR(10 g) = 4.63 mW/g

Maximum value of SAR (interpolated) = 6.58 mW/g

**Ab Scan/2-Volume 2D Scan (41x41x1):** Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 82.2 V/m; Power Drift = -0.564 dB

Peak SAR (extrapolated) = 6.28 W/kg

Motorola Fast SAR: SAR(1 g) = 6.01 mW/g; SAR(10 g) = 4.44 mW/g

Maximum value of SAR (interpolated) = 6.28 mW/g

**Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 82.2 V/m; Power Drift = -0.711 dB

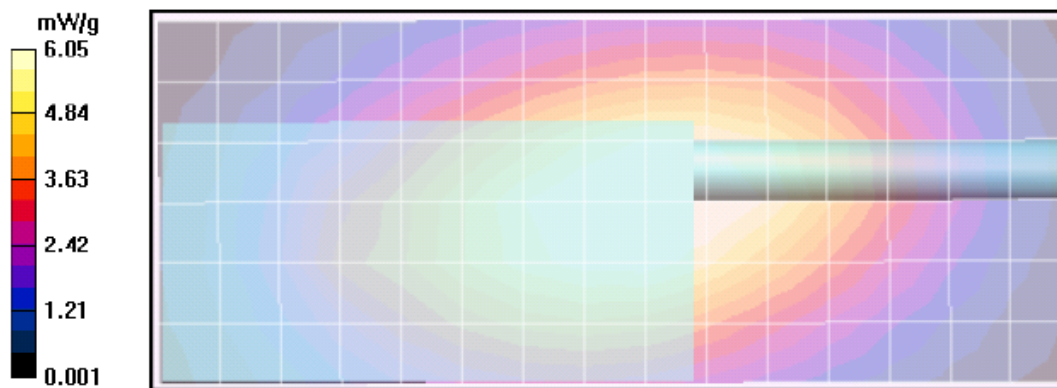
Peak SAR (extrapolated) = 7.89 W/kg

SAR(1 g) = 5.87 mW/g; SAR(10 g) = 4.37 mW/g

Maximum value of SAR (measured) = 6.17 mW/g

**Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 6.05 mW/g



## Section 13.6 (Table 24)

### Assessments at the Body with body worn RLN4570A

Motorola Solutions, Inc. EME Laboratory

Date/Time: 6/16/2011 9:04:30 AM

Robot# / Run#: DASY4-PG-1 / CcC-AB-110616-05  
 Phantom# / Tissue Temp.: ELI4 1103 / 21.3 (C)  
 DUT Model# / Serial#: PMUE3681A / 807TMK0007  
 Antenna / TX Freq.: PMAE4071A / 470.000 (MHz)  
 Battery: PMNN4407A  
 Carry Acc. / Cable Acc.: RLN4570A / PMMN4024A  
 Start Power: 4.80 (W)

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 12.010 mW/g (1g); 8.554 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 470$  MHz;  $\sigma = 0.94$  mho/m;  $\epsilon_r = 54.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/1-Area Scan (61x151x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 123.1 V/m; Power Drift = -0.494 dB

**Motorola Fast SAR: SAR(1 g) = 12.8 mW/g; SAR(10 g) = 9.38 mW/g**

Maximum value of SAR (interpolated) = 13.5 mW/g

**Ab Scan/2-Volume 2D Scan (41x41x1):** Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 123.1 V/m; Power Drift = -0.564 dB

Peak SAR (extrapolated) = 13.0 W/kg

**Motorola Fast SAR: SAR(1 g) = 12.4 mW/g; SAR(10 g) = 9.02 mW/g**

Maximum value of SAR (interpolated) = 13.0 mW/g

**Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 123.1 V/m; Power Drift = -0.697 dB

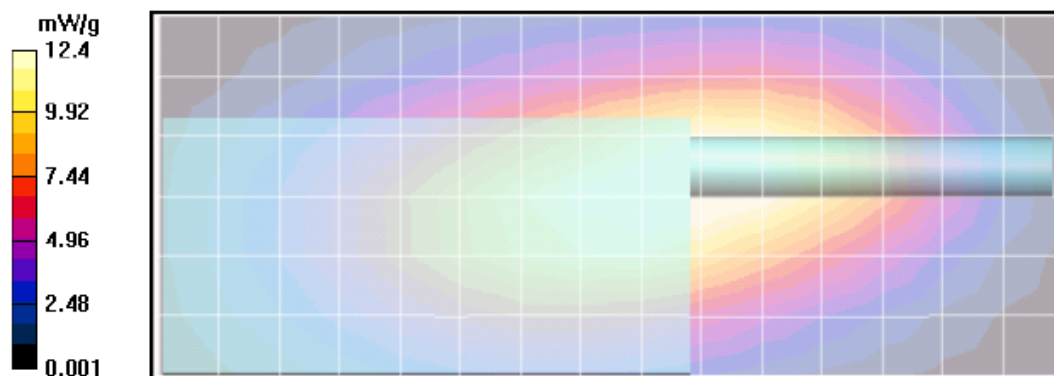
Peak SAR (extrapolated) = 17.3 W/kg

**SAR(1 g) = 12 mW/g; SAR(10 g) = 8.55 mW/g**

Maximum value of SAR (measured) = 12.7 mW/g

**Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 12.4 mW/g



## Section 13.6 (Table 25)

### Assessments at the Body with body worn RLN4570A (additional batteries)

Motorola Solutions, Inc. EME Laboratory

Date/Time: 6/17/2011 6:26:22 PM

Robot# / Run#: DASY4-PG-1 / PS-AB-110617-19  
 Phantom# / Tissue Temp.: ELI4 1103 / 20.5 (C)  
 DUT Model# / Serial#: PMUE3681A / 807TMK0007  
 Antenna / TX Freq.: PMAE4071A / 470.000 (MHz)  
 Battery: PMNN4412A  
 Carry Acc. / Cable Acc.: RLN4570A / PMMN4024A  
 Start Power: 4.77 (W)

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 10.700 mW/g (1g); 7.760 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 470$  MHz;  $\sigma = 0.95$  mho/m;  $\epsilon_r = 54.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/1-Area Scan (61x151x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 114.6 V/m; Power Drift = -0.557 dB

Motorola Fast SAR: SAR(1 g) = 11.4 mW/g; SAR(10 g) = 8.37 mW/g

Maximum value of SAR (interpolated) = 12.0 mW/g

**Ab Scan/2-Volume 2D Scan (41x41x1):** Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 114.6 V/m; Power Drift = -0.621 dB

Peak SAR (extrapolated) = 11.6 W/kg

Motorola Fast SAR: SAR(1 g) = 11 mW/g; SAR(10 g) = 8.07 mW/g

Maximum value of SAR (interpolated) = 11.6 mW/g

**Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 114.6 V/m; Power Drift = -0.803 dB

Peak SAR (extrapolated) = 14.9 W/kg

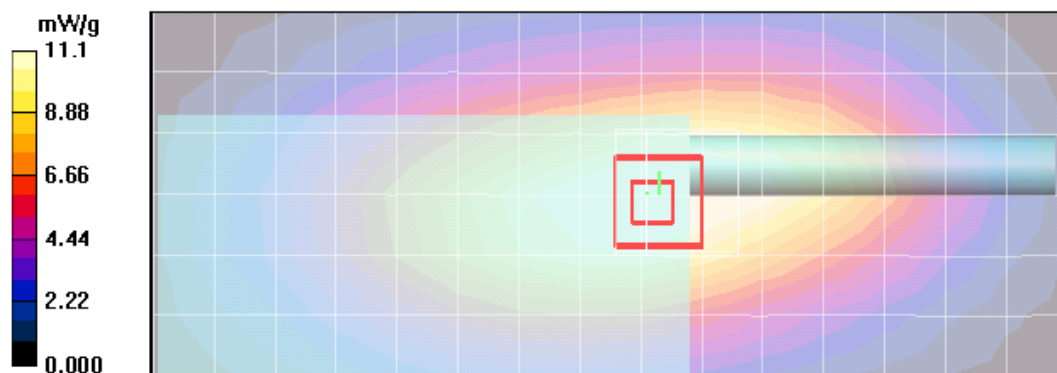
SAR(1 g) = 10.7 mW/g; SAR(10 g) = 7.76 mW/g

**Warning:** Maximum averaged SAR over 10 g is located on the boundary of the measurement cube. This cube might not incorporate the absolute averaged SAR. Please consider a refinement of the Area Scan measurement.

Maximum value of SAR (measured) = 11.3 mW/g

**Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 11.1 mW/g





## Section 13.7 (Table 26)

### Assessments at the Body with body worn HLN6602A

Motorola Solutions, Inc. EME Laboratory

Date/Time: 6/21/2011 1:06:50 PM

Robot# / Run#: DASY4-PG-1 / PS-AB-110621-09  
 Phantom# / Tissue Temp.: ELI4 1103 / 21.6 (C)  
 DUT Model# / Serial#: PMUE3681A / 807TMK0007  
 Antenna / TX Freq.: PMAE4071A / 470.000 (MHz)  
 Battery: PMNN4407A  
 Carry Acc. / Cable Acc.: HLN6602A / PMMN4024A  
 Start Power: 4.79 (W)

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 10.800 mW/g (1g); 7.690 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 470$  MHz;  $\sigma = 0.95$  mho/m;  $\epsilon_r = 54.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/1-Area Scan (61x151x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 114.8 V/m; Power Drift = -0.510 dB

Motorola Fast SAR: SAR(1 g) = 11.6 mW/g; SAR(10 g) = 8.46 mW/g

Maximum value of SAR (interpolated) = 12.2 mW/g

**Ab Scan/2-Volume 2D Scan (41x41x1):** Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 114.8 V/m; Power Drift = -0.595 dB

Peak SAR (extrapolated) = 11.6 W/kg

Motorola Fast SAR: SAR(1 g) = 11.1 mW/g; SAR(10 g) = 8.08 mW/g

Maximum value of SAR (interpolated) = 11.6 mW/g

**Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 114.8 V/m; Power Drift = -0.731 dB

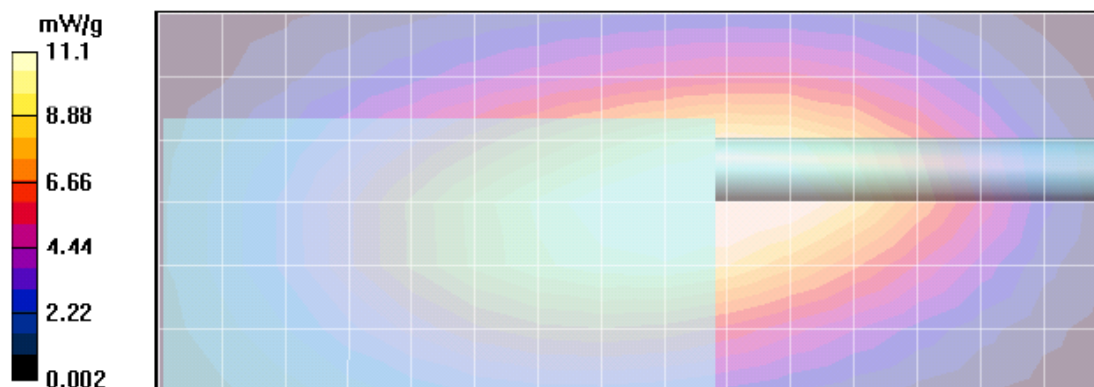
Peak SAR (extrapolated) = 15.3 W/kg

SAR(1 g) = 10.8 mW/g; SAR(10 g) = 7.69 mW/g

Maximum value of SAR (measured) = 11.3 mW/g

**Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 11.1 mW/g





## Section 13.7 (Table 27)

### Assessments at the Body with body worn HLN6602A (additional batteries)

**Motorola Solutions, Inc. EME Laboratory**

Date/Time: 6/22/2011 12:41:14 PM

Robot# / Run#: DASY4-PG-1 / PS-AB-110622-09  
 Phantom# / Tissue Temp.: ELI4 1103 / 20.8 (C)  
 DUT Model# / Serial#: PMUE3681A / 807TMK0007  
 Antenna / TX Freq.: PMAE4071A / 470.000 (MHz)  
 Battery: PMNN4412A  
 Carry Acc. / Cable Acc.: HLN6602A / PMMN4024A  
 Start Power: 4.74 (W)

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 9.608 mW/g (1g); 6.993 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 470$  MHz;  $\sigma = 0.94$  mho/m;  $\epsilon_r = 54.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/1-Area Scan (61x151x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 105.7 V/m; Power Drift = -0.526 dB

Motorola Fast SAR: SAR(1 g) = 10 mW/g; SAR(10 g) = 7.38 mW/g

Maximum value of SAR (interpolated) = 10.6 mW/g

**Ab Scan/2-Volume 2D Scan (41x41x1):** Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 105.7 V/m; Power Drift = -0.564 dB

Peak SAR (extrapolated) = 10.2 W/kg

Motorola Fast SAR: SAR(1 g) = 9.73 mW/g; SAR(10 g) = 7.15 mW/g

Maximum value of SAR (interpolated) = 10.2 mW/g

**Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 105.7 V/m; Power Drift = -0.648 dB

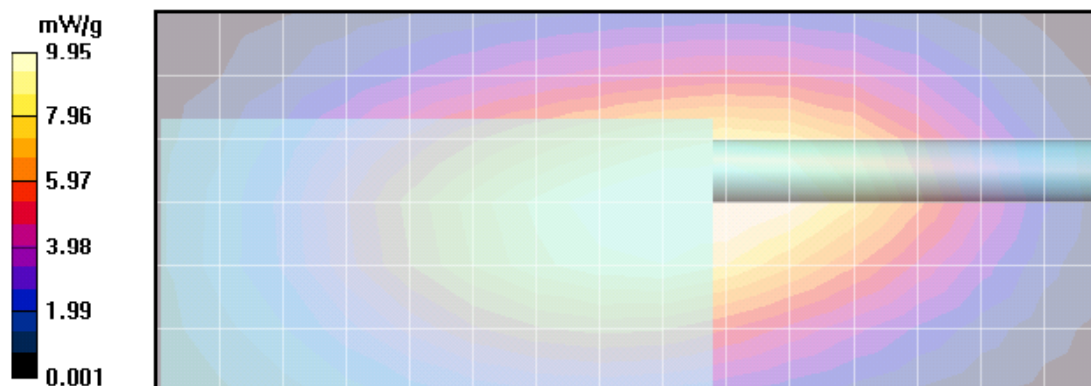
Peak SAR (extrapolated) = 13.4 W/kg

SAR(1 g) = 9.6 mW/g; SAR(10 g) = 6.99 mW/g

Maximum value of SAR (measured) = 10.1 mW/g

**Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 9.95 mW/g



## Section 13.8 (Table 28)

### Assessments at the Body with body worn RLN4570A

**Motorola Solutions, Inc. EME Laboratory**

Date/Time: 6/26/2011 10:20:01 AM

Robot# / Run#: DASY4-PG-1 / PS-AB-110626-07  
 Phantom# / Tissue Temp.: ELI4 1103 / 21.3 (C)  
 DUT Model# / Serial#: PMUE3681A / 807TMK0007  
 Antenna / TX Freq.: PMAE4070A / 458.000 (MHz)  
 Battery: PMNN4407A  
 Carry Acc. / Cable Acc.: RLN4570A / PMLN5111A  
 Start Power: 4.83 (W)

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 12.604 mW/g (1g); 8.922 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 458$  MHz;  $\sigma = 0.94$  mho/m;  $\epsilon_r = 54.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/1-Area Scan (61x151x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 121.0 V/m; Power Drift = -0.434 dB

Motorola Fast SAR: SAR(1 g) = 13.3 mW/g; SAR(10 g) = 9.71 mW/g

Maximum value of SAR (interpolated) = 14.1 mW/g

**Ab Scan/2-Volume 2D Scan (41x41x1):** Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 121.0 V/m; Power Drift = -0.494 dB

Peak SAR (extrapolated) = 13.5 W/kg

Motorola Fast SAR: SAR(1 g) = 12.9 mW/g; SAR(10 g) = 9.33 mW/g

Maximum value of SAR (interpolated) = 13.5 mW/g

**Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 121.0 V/m; Power Drift = -0.600 dB

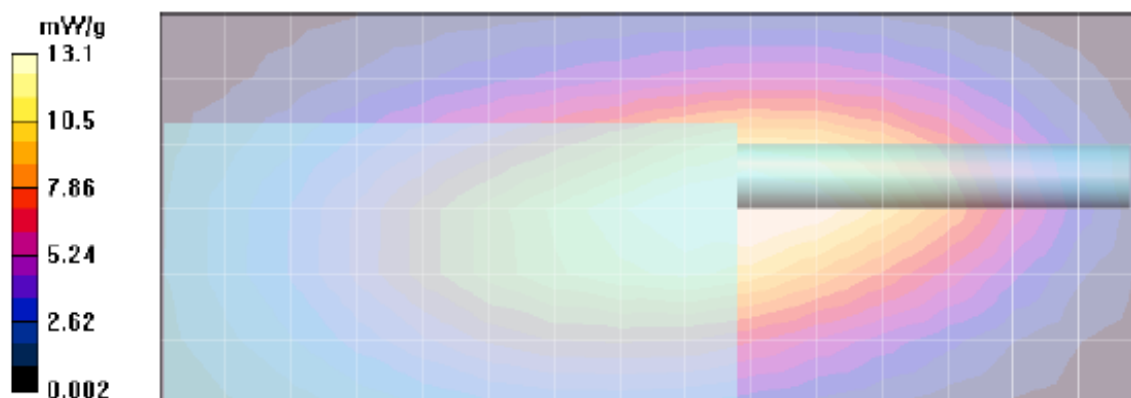
Peak SAR (extrapolated) = 18.0 W/kg

SAR(1 g) = 12.6 mW/g; SAR(10 g) = 8.92 mW/g

Maximum value of SAR (measured) = 13.3 mW/g

**Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 13.1 mW/g



## Section 13.9 (Table 29)

### Assessments at accessory PMLN5845A with carry strap NTN5243A

#### Motorola Solutions, Inc. EME Laboratory

Date/Time: 7/9/2011 12:01:41 PM

Robot# / Run#: DASY4-PG-1 / CcC-AB-110709-10  
 Phantom# / Tissue Temp.: ELI4 1050 / 21.2 (C)  
 DUT Model# / Serial#: PMUE3681A / 807TMK0007  
 Antenna / TX Freq.: PMAE4071A / 470.000 (MHz)  
 Battery: PMNN4407A  
 Carry Acc. / Cable Acc.: NTN5243A w/ PMLN5845A / PMMN4024A  
 Start Power: 4.81 (W)

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 9.328 mW/g (1g); 6.733 mW/g (10g)

Comments: Full scan. Radio back against phantom.

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 470$  MHz;  $\sigma = 0.94$  mho/m;  $\epsilon_r = 54.7$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/1-Area Scan (61x151x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 99.7 V/m; Power Drift = -0.430 dB

Motorola Fast SAR: SAR(1 g) = 10.1 mW/g; SAR(10 g) = 7.31 mW/g

Maximum value of SAR (interpolated) = 10.7 mW/g

**Ab Scan/2-Volume 2D Scan (41x41x1):** Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 99.7 V/m; Power Drift = -0.504 dB

Peak SAR (extrapolated) = 10.3 W/kg

Motorola Fast SAR: SAR(1 g) = 9.63 mW/g; SAR(10 g) = 6.96 mW/g

Maximum value of SAR (interpolated) = 10.3 mW/g

**Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 99.7 V/m; Power Drift = -0.634 dB

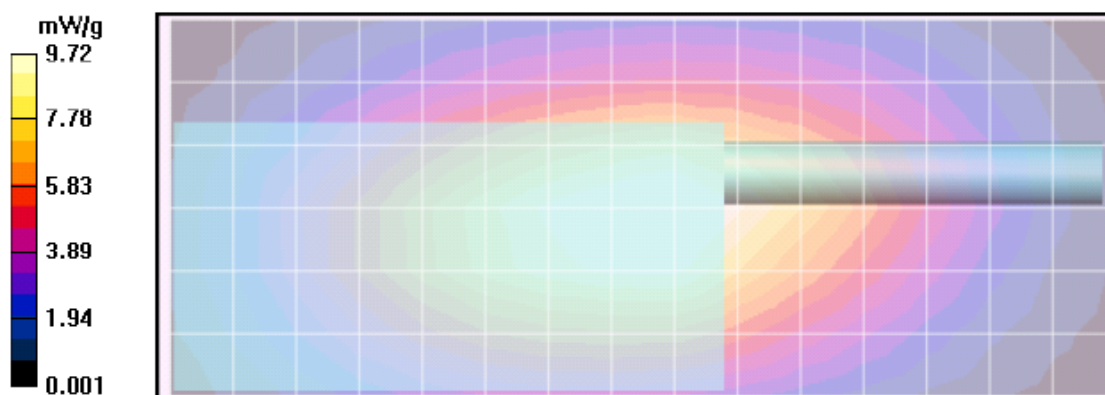
Peak SAR (extrapolated) = 13.3 W/kg

SAR(1 g) = 9.32 mW/g; SAR(10 g) = 6.73 mW/g

Maximum value of SAR (measured) = 9.75 mW/g

**Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 9.72 mW/g



## Section 13.10 (Table 30)

### Assessment of wireless BT configuration

**Motorola Solutions, Inc. EME Laboratory**

Date/Time: 7/11/2011 12:42:51 PM

Robot# / Run#: DASY4-PG-1 / CcC-AB-110711-05  
 Phantom# / Tissue Temp.: ELI4 1050 / 21.5 (C)  
 DUT Model# / Serial#: PMUE3681A / 807TMK0015  
 Antenna / TX Freq.: PMAE4070A / 465.000 (MHz)  
 Battery: PMNN4407A  
 Carry Acc. / Cable Acc.: RLN4570A / NONE  
 Start Power: 4.83 (W)

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 12.708 mW/g (1g); 9.193 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 465$  MHz;  $\sigma = 0.94$  mho/m;  $\epsilon_r = 54.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/1-Area Scan (61x151x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 123.8 V/m; Power Drift = -0.486 dB

Motorola Fast SAR: SAR(1 g) = 13.5 mW/g; SAR(10 g) = 9.91 mW/g

Maximum value of SAR (interpolated) = 14.2 mW/g

**Ab Scan/2-Volume 2D Scan (41x41x1):** Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 123.8 V/m; Power Drift = -0.567 dB

Peak SAR (extrapolated) = 13.7 W/kg

Motorola Fast SAR: SAR(1 g) = 13 mW/g; SAR(10 g) = 9.49 mW/g

Maximum value of SAR (interpolated) = 13.7 mW/g

**Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 123.8 V/m; Power Drift = -0.669 dB

Peak SAR (extrapolated) = 17.9 W/kg

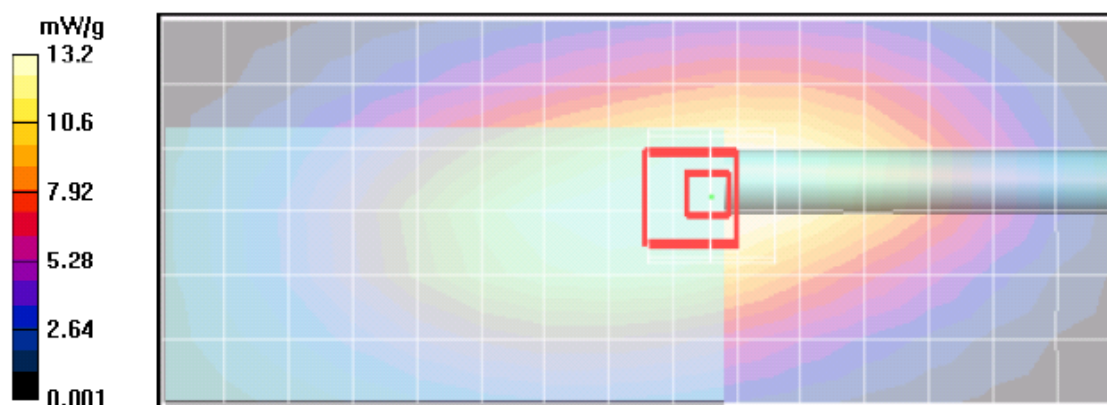
SAR(1 g) = 12.7 mW/g; SAR(10 g) = 9.19 mW/g

**Warning:** Maximum averaged SAR over 10 g is located on the boundary of the measurement cube. This cube might not incorporate the absolute averaged SAR. Please consider a refinement of the Area Scan measurement.

Maximum value of SAR (measured) = 13.4 mW/g

**Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 13.2 mW/g





## Section 13.13 (Table 33)

### Assessments at the Face

#### Motorola Solutions, Inc. EME Laboratory

Date/Time: 6/29/2011 1:24:05 PM

Robot# / Run#: DASY4-PG-1 / CcC-FACE-110629-10  
 Phantom# / Tissue Temp.: ELI4 1037/ 21.0 (C)  
 DUT Model# / Serial#: PMUE3681A / 807TMK0007  
 Antenna / TX Freq.: PMAE4070A / 465.000 (MHz)  
 Battery: PMNN4407A  
 Carry Acc. / Cable Acc.: NONE / NONE  
 Start Power: 4.84 (W)

#### Note:

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 7.169 mW/g (1g); 5.347 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.43, 6.43, 6.43)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 465$  MHz;  $\sigma = 0.88$  mho/m;  $\epsilon_r = 43.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Face Scan/1-Area Scan (61x151x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 95.2 V/m; Power Drift = -0.400 dB

Motorola Fast SAR: SAR(1 g) = 7.63 mW/g; SAR(10 g) = 5.65 mW/g

Maximum value of SAR (interpolated) = 8.02 mW/g

**Face Scan/2-Volume Scan 2D (41x41x1):** Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 95.2 V/m; Power Drift = -0.464 dB

Peak SAR (extrapolated) = 7.63 W/kg

Motorola Fast SAR: SAR(1 g) = 7.29 mW/g; SAR(10 g) = 5.4 mW/g

Maximum value of SAR (interpolated) = 7.63 mW/g

**Face Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 95.2 V/m; Power Drift = -0.561 dB

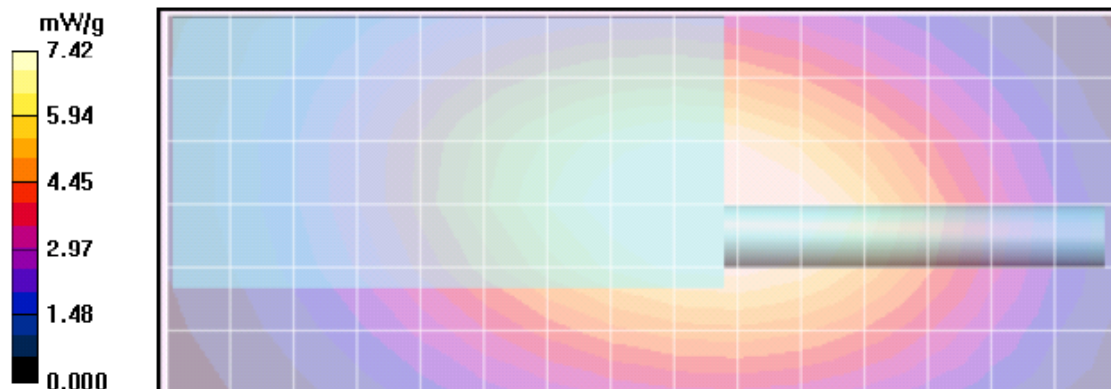
Peak SAR (extrapolated) = 9.40 W/kg

SAR(1 g) = 7.14 mW/g; SAR(10 g) = 5.33 mW/g

Maximum value of SAR (measured) = 7.50 mW/g

**Face Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 7.42 mW/g



## Section 13.13 (Table 34)

### Assessments at the Face (additional batteries)

#### Motorola Solutions, Inc. EME Laboratory

Date/Time: 7/10/2011 12:35:12 PM

Robot# / Run#: DASY4-PG-1 / PS-FACE-110710-10  
 Phantom# / Tissue Temp.: ELI4 1103 / 21.2 (C)  
 DUT Model# / Serial#: PMUE3681A / 807TMK0007  
 Antenna / TX Freq.: PMAE4070A / 465.000 (MHz)  
 Battery: PMNN4406A  
 Carry Acc. / Cable Acc.: NONE / NONE  
 Start Power: 4.81 (W)

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 6.630 mW/g (1g); 4.900 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.43, 6.43, 6.43)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 465$  MHz;  $\sigma = 0.88$  mho/m;  $\epsilon_r = 43.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Face Scan/1-Area Scan (61x151x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 92.0 V/m; Power Drift = -0.513 dB

Motorola Fast SAR: SAR(1 g) = 7 mW/g; SAR(10 g) = 5.2 mW/g

Maximum value of SAR (interpolated) = 7.34 mW/g

**Face Scan/2-Volume Scan 2D (41x41x1):** Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 92.0 V/m; Power Drift = -0.589 dB

Peak SAR (extrapolated) = 6.94 W/kg

Motorola Fast SAR: SAR(1 g) = 6.64 mW/g; SAR(10 g) = 4.93 mW/g

Maximum value of SAR (interpolated) = 6.94 mW/g

**Face Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 92.0 V/m; Power Drift = -0.614 dB

Peak SAR (extrapolated) = 8.86 W/kg

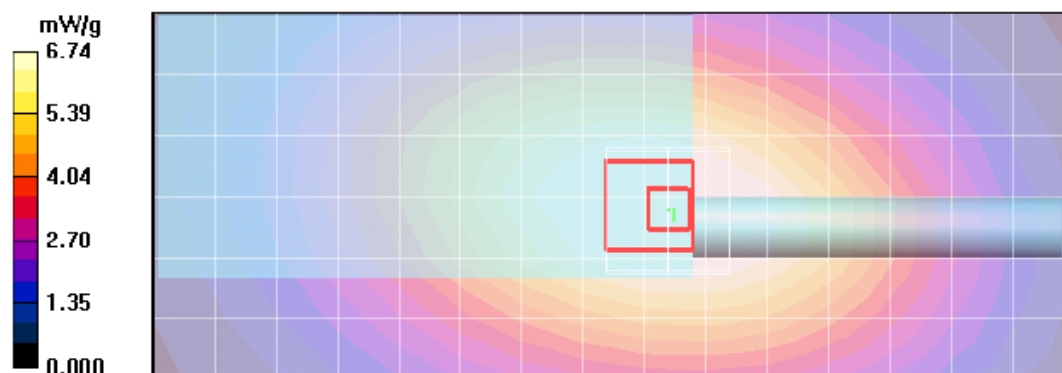
SAR(1 g) = 6.63 mW/g; SAR(10 g) = 4.9 mW/g

**Warning:** Maximum averaged SAR over 10 g is located on the boundary of the measurement cube. This cube might not incorporate the absolute averaged SAR. Please consider a refinement of the Area Scan measurement.

Maximum value of SAR (measured) = 7.03 mW/g

**Face Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 6.74 mW/g





**Section 13.15 (Table 36)**  
**Assessments of BT band**

**Motorola Solutions, Inc. EME Laboratory**  
Date/Time: 7/13/2011 5:28:39 PM

Robot# / Run#: DASY4-PG-1 / Lee-AB-110713-10  
Phantom# / Tissue Temp.: ELI4 1028 / 21.4 (C)  
DUT Model# / Serial#: PMUE3681A / 807TMK0015  
Antenna / TX Freq.: PMAE4070A / 2441.000 (MHz)  
Battery: PMNN4407A  
Carry Acc. / Cable Acc.: RLN4570A / NONE  
Start Power: 0.008 (W)

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 0.00709 mW/g (1g); 0.00309 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(4.15, 4.15, 4.15)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 2441$  MHz;  $\sigma = 1.98$  mho/m;  $\epsilon_r = 47.7$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/1-Area Scan (61x151x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 1.19 V/m; Power Drift = -0.965 dB

Motorola Fast SAR: SAR(1 g) = 0.00976 mW/g; SAR(10 g) = 0.00446 mW/g

Maximum value of SAR (interpolated) = 0.014 mW/g

**Ab Scan/2-Volume 2D Scan (41x41x1):** Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 1.19 V/m; Power Drift = -1.45 dB

Peak SAR (extrapolated) = 0.010 W/kg

Motorola Fast SAR: SAR(1 g) = 0.0084 mW/g; SAR(10 g) = 0.00375 mW/g

**Warning:** Maximum averaged SAR over 10 g is located on the boundary of the measurement cube. This cube might not incorporate the absolute averaged SAR. Please consider a refinement of the Area Scan measurement.

Maximum value of SAR (interpolated) = 0.010 mW/g

**Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 1.19 V/m; Power Drift = -0.721 dB

Peak SAR (extrapolated) = 0.015 W/kg

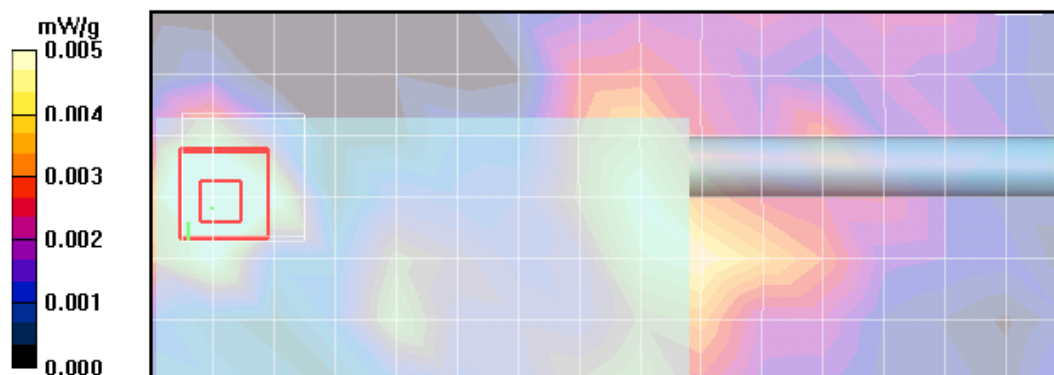
SAR(1 g) = 0.00709 mW/g; SAR(10 g) = 0.00309 mW/g

**Warning:** Maximum averaged SAR over 10 g is located on the boundary of the measurement cube. This cube might not incorporate the absolute averaged SAR. Please consider a refinement of the Area Scan measurement.

Maximum value of SAR (measured) = 0.008 mW/g

**Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 0.005 mW/g



**Appendix G**  
**DUT Scans Outside Part 90 (403-527 MHz)**  
**Data enclosed for this appendix is not applicable for FCC part 90**

**Section 13.11 (Table 31)**

## Outside FCC Part 90 at the Body

**Motorola Solutions, Inc. EME Laboratory**

Date/Time: 7/8/2011 4:56:30 PM

Robot# / Run#: DASY4-PG-1 / CcC-AB-110708-08  
 Phantom# / Tissue Temp.: ELI4 1050 / 21.2 (C)  
 DUT Model# / Serial#: PMUE3681A / 807TMK0008  
 Antenna / TX Freq.: PMAE4068A / 403.000 (MHz)  
 Battery: PMNN4407A  
 Carry Acc. / Cable Acc.: RLN4570A / NONE  
 Start Power: 4.72 (W)

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 9.051 mW/g (1g); 6.476 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.91, 6.91, 6.91)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 403$  MHz;  $\sigma = 0.89$  mho/m;  $\epsilon_r = 56$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/1-Area Scan (61x191x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 105.5 V/m; Power Drift = -0.281 dB

Motorola Fast SAR: SAR(1 g) = 9.15 mW/g; SAR(10 g) = 6.73 mW/g

Maximum value of SAR (interpolated) = 9.65 mW/g

**Ab Scan/2-Volume 2D Scan (41x41x1):** Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 105.5 V/m; Power Drift = -0.330 dB

Peak SAR (extrapolated) = 9.42 W/kg

Motorola Fast SAR: SAR(1 g) = 8.99 mW/g; SAR(10 g) = 6.59 mW/g

Maximum value of SAR (interpolated) = 9.42 mW/g

**Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 105.5 V/m; Power Drift = -0.396 dB

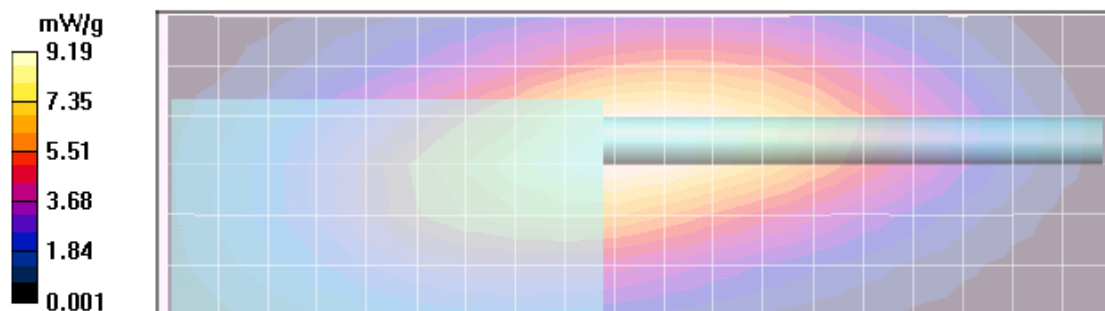
Peak SAR (extrapolated) = 12.4 W/kg

SAR(1 g) = 8.86 mW/g; SAR(10 g) = 6.4 mW/g

Maximum value of SAR (measured) = 9.34 mW/g

**Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 9.19 mW/g



## Section 13.14 (Table 35)

### Outside FCC Part 90 at the Face

**Motorola Solutions, Inc. EME Laboratory**  
Date/Time: 6/29/2011 6:25:44 PM

Robot# / Run#: DASY4-PG-1 / PS-FACE-110629-18  
Phantom# / Tissue Temp.: ELI4 1103/ 20.7 (C)  
DUT Model# / Serial#: PMUE3681A / 807TMK0008  
Antenna / TX Freq.: PMAE4071A / 527.000 (MHz)  
Battery: PMNN4407A  
Carry Acc. / Cable Acc.: NONE / NONE  
Start Power: 4.88 (W)

**Note:**

Prior to recording the Reported SAR values below, the Measured SAR values were corrected for tissue frequencies from 136 MHz to 3 GHz.

Reported SAR: 4.120 mW/g (1g); 3.080 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3122, Calibrated: 4/14/2011, ConvF(6.43, 6.43, 6.43)

Electronics: DAE3 Sn374, Calibrated: 2/23/2011

Duty Cycle: 1:1, Medium parameters used:  $f = 527$  MHz;  $\sigma = 0.91$  mho/m;  $\epsilon_r = 42$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Face Scan/1-Area Scan (61x151x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 74.4 V/m; Power Drift = -0.632 dB

Motorola Fast SAR: SAR(1 g) = 4.7 mW/g; SAR(10 g) = 3.49 mW/g

Maximum value of SAR (interpolated) = 4.93 mW/g

**Face Scan/2-Volume Scan 2D (41x41x1):** Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 74.4 V/m; Power Drift = -0.726 dB

Peak SAR (extrapolated) = 4.65 W/kg

Motorola Fast SAR: SAR(1 g) = 4.44 mW/g; SAR(10 g) = 3.29 mW/g

Maximum value of SAR (interpolated) = 4.65 mW/g

**Face Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 74.4 V/m; Power Drift = -1.08 dB

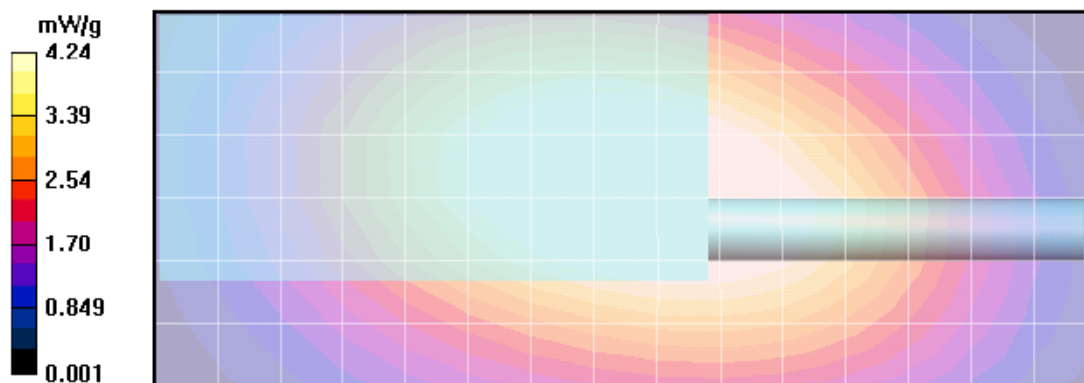
Peak SAR (extrapolated) = 5.43 W/kg

SAR(1 g) = 4.12 mW/g; SAR(10 g) = 3.08 mW/g

Maximum value of SAR (measured) = 4.33 mW/g

**Face Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 4.24 mW/g



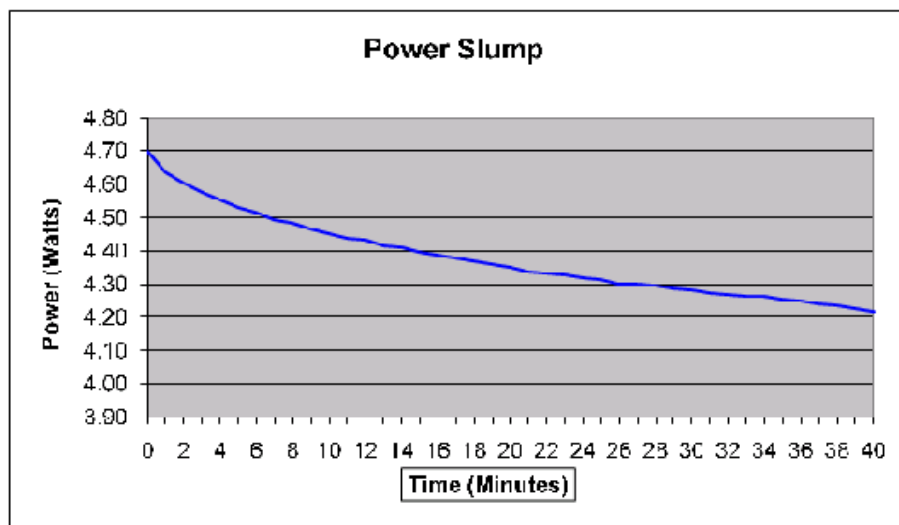
## Appendix H

### DUT Supplementary Data (Power slump)

**Power Slump Model # :** PMUE3681A  
**Serial # :** 807TMK0015

**Battery:** PMNN4407A      **Transmit Mode:** CW  
**Frequency:** 465 MHz      **Audio Accessory:** NONE  
**Date:** 7/14/2011

Tx Time (Minutes)	Measure Power (Watts)
0.0	4.70
1.0	4.64
2.0	4.60
3.0	4.58
4.0	4.55
5.0	4.53
6.0	4.51
7.0	4.50
8.0	4.48
9.0	4.47
10.0	4.45
11.0	4.44
12.0	4.43
13.0	4.42
14.0	4.41
15.0	4.40
16.0	4.39
17.0	4.38
18.0	4.37
19.0	4.36
20.0	4.35
21.0	4.34
22.0	4.33
23.0	4.33
24.0	4.32
25.0	4.31
26.0	4.30
27.0	4.30
28.0	4.30
29.0	4.29
30.0	4.28
31.0	4.27
32.0	4.27
33.0	4.26
34.0	4.26
35.0	4.25
36.0	4.25
37.0	4.24
38.0	4.24
39.0	4.23
40.0	4.22





## **Appendix I**

### **DUT Test Position Photos**

Photos available in Exhibit 7B

## **Appendix J**

### **DUT and Body worn Accessory Photos**

Photos available in Exhibit 7B