


**MOTOROLA**


TESTING CERT # 2518.05

FCC ID: ABZ99FT5011

## DECLARATION OF COMPLIANCE SAR ASSESSMENT Part 2 of 3

Enterprise Mobility Solutions EME Test Laboratory Motorola Technology 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: 09/18/09 Report Revision: O Report ID: SAR rpt_PMUF1413A_Rev O 090918_SR7682
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**Responsible Engineer:** Veeramani Veerapan (EME Engineer) & PeiLoo Tey (Penang EME Lead Engineer)

**Report Author:** PeiLoo Tey (Penang EME Lead Engineer)

**Date/s Tested:** 8/14/09~9/6/09

**Manufacturer/Location** Penang

**Sector/Group/Div.:** GTDG

**Date submitted for test:** 7/29/09

**DUT Description:** 806-869MHz & 896-941MHz, 12.5k/25k, 1-2.5W, 32CH, PLAIN without GPS  
(Capable of analog FM transmission and digital TDMA transmission.)

**Test TX mode(s):** CW

**Max. Power output:** 3.0 Watts

**Nominal Power:** 2.5 Watts

**Tx Frequency Bands:** TMO: 806-824, DMO: 851-869 (800 band) & TMO: 896-902, DMO: 935-941 (900 band)

**Signaling type:** FM and TDMA 2:1

**Model(s) Tested:** PMUF1413A

**Model(s) Certified:** PMUF1413A

**Serial Number(s):** 777TKN0846

**Classification:** Occupational/Controlled

**Rule Part(s):** 90

**DUT Photo**  
(Refer to Exhibit 7B)

**Max. Calc. : 1-g Avg. SAR: 4.56 W/kg (Body); 10-g Avg. SAR: 3.15 W/kg (Body)**
**Max. Calc. : 1-g Avg. SAR: 1.30 W/kg (Face); 10-g Avg. SAR: 0.93 W/kg (Face)**

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

Signature on file – Deanna Zakharia

Deanna Zakharia  
EMS EME Lab Senior Resource Manager,  
Laboratory Director

**Certification Date:** 9/18/09

**Certification No.:** L1090942

**Approval Date:** 9/18/09

## **Appendix C**

### **Dipole Calibration Certificates**

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



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

Accredited by the Swiss Accreditation Service (SAS)  
 The Swiss Accreditation Service is one of the signatories to the EA  
 Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**Client **Motorola MY (Precision)**Certificate No: **D900V2-1d025\_Apr09**

## CALIBRATION CERTIFICATE

Object **D900V2 - SN: 1d025**
 Calibration procedure(s) **QA CAL-05.v7**  
 Calibration procedure for dipole validation kits
Calibration date: **April 14, 2009**Condition of the calibrated item **In Tolerance**

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

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

### Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter EPM-442A	GB37480704	08-Oct-08 (No. 217-00898)	Oct-09
Power sensor HP 8481A	US37292783	08-Oct-08 (No. 217-00898)	Oct-09
Reference 20 dB Attenuator	SN: 5086 (20g)	31-Mar-09 (No. 217-01025)	Mar-10
Type-N mismatch combination	SN: 5047.2 / 06327	31-Mar-09 (No. 217-01029)	Mar-10
Reference Probe ES3DV2	SN: 3025	28-Apr-08 (No. ES3-3025_Apr08)	Apr-09
DAE4	SN: 601	07-Mar-09 (No. DAE4-601_Mar09)	Mar-10

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power sensor HP 8481A	MY41092317	18-Oct-02 (in house check Oct-07)	In house check: Oct-09
RF generator R&S SMT-06	100005	4-Aug-99 (in house check Oct-07)	In house check: Oct-09
Network Analyzer HP 8753E	US37390585 S4206	18-Oct-01 (in house check Oct-08)	In house check: Oct-09

 Calibrated by: **Jeton Kastrati** **Laboratory Technician**



 Approved by: **Katja Pokovic** **Technical Manager**

Issued: April 23, 2009

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

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



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

Accredited by the Swiss Accreditation Service (SAS)  
 The Swiss Accreditation Service is one of the signatories to the EA  
 Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108**

#### **Glossary:**

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

#### **Calibration is Performed According to the Following Standards:**

- IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
- IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
- Federal Communications Commission Office of Engineering & Technology (FCC OET), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields; Additional Information for Evaluating Compliance of Mobile and Portable Devices with FCC Limits for Human Exposure to Radiofrequency Emissions", Supplement C (Edition 01-01) to Bulletin 65

#### **Additional Documentation:**

- DASY4/5 System Handbook

#### **Methods Applied and Interpretation of Parameters:**

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

**Measurement Conditions**

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

<b>DASY Version</b>	DASY5	V5.0
<b>Extrapolation</b>	Advanced Extrapolation	
<b>Phantom</b>	Modular Flat Phantom V4.9	
<b>Distance Dipole Center - TSL</b>	15 mm	with Spacer
<b>Zoom Scan Resolution</b>	dx, dy, dz = 5 mm	
<b>Frequency</b>	900 MHz $\pm$ 1 MHz	

**Head TSL parameters**

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
<b>Nominal Head TSL parameters</b>	22.0 °C	41.5	0.97 mho/m
<b>Measured Head TSL parameters</b>	(22.0 $\pm$ 0.2) °C	40.3 $\pm$ 6 %	0.95 mho/m $\pm$ 6 %
<b>Head TSL temperature during test</b>	(22.0 $\pm$ 0.2) °C	----	----

**SAR result with Head TSL**

<b>SAR averaged over 1 cm<sup>3</sup> (1 g) of Head TSL</b>	Condition	
SAR measured	250 mW input power	2.69 mW / g
SAR normalized	normalized to 1W	10.8 mW / g
SAR for nominal Head TSL parameters <sup>1</sup>	normalized to 1W	<b>10.9 mW /g <math>\pm</math> 17.0 % (k=2)</b>

<b>SAR averaged over 10 cm<sup>3</sup> (10 g) of Head TSL</b>	Condition	
SAR measured	250 mW input power	1.73 mW / g
SAR normalized	normalized to 1W	6.92 mW / g
SAR for nominal Head TSL parameters <sup>1</sup>	normalized to 1W	<b>6.97 mW /g <math>\pm</math> 16.5 % (k=2)</b>

<sup>1</sup> Correction to nominal TSL parameters according to d), chapter "SAR Sensitivities"

**Appendix****Antenna Parameters with Head TSL**

Impedance, transformed to feed point	50.9 $\Omega$ - 8.1 $j\Omega$
Return Loss	- 21.8 dB

**General Antenna Parameters and Design**

Electrical Delay (one direction)	1.404 ns
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After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

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

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

**Additional EUT Data**

Manufactured by	SPEAG
Manufactured on	February 08, 2005

**DASY5 Validation Report for Head TSL**

Date/Time: 14.04.2009 13:13:08

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole 900 MHz; Type: D900V2; Serial: D900V2 - SN:1d025**

Communication System: CW-900; Frequency: 900 MHz; Duty Cycle: 1:1

Medium: HSL 900 MHz

Medium parameters used:  $f = 900$  MHz;  $\sigma = 0.95$  mho/m;  $\epsilon_r = 40.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC)

DASY5 Configuration:

- Probe: ES3DV2 - SN3025; ConvF(5.78, 5.78, 5.78); Calibrated: 28.04.2008
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 07.03.2009
- Phantom: Flat Phantom 4.9L; Type: QD000P49AA; Serial: 1001
- Measurement SW: DASY5, V5.0 Build 120; SEMCAD X Version 13.4 Build 45

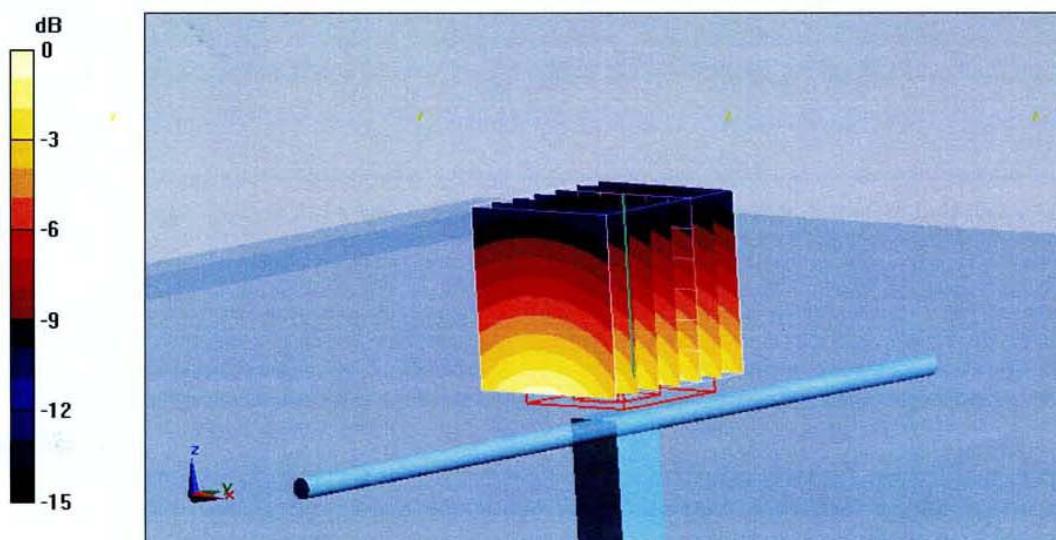
**Pin=250mW; dip=15mm/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 59.1 V/m; Power Drift = 0.026 dB

Peak SAR (extrapolated) = 4.01 W/kg

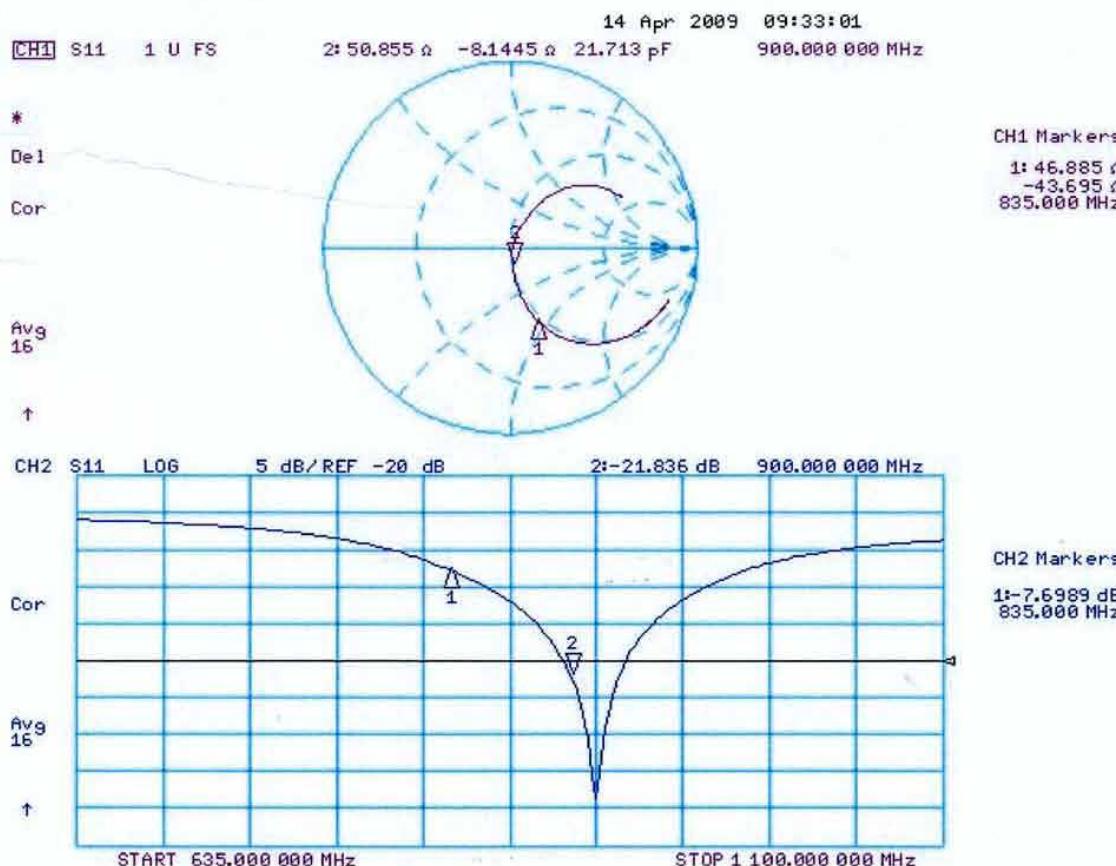
**SAR(1 g) = 2.69 mW/g; SAR(10 g) = 1.73 mW/g**

Maximum value of SAR (measured) = 3.14 mW/g



0 dB = 3.14mW/g

## Impedance Measurement Plot for Head TSL



## Appendix D

### Test System Verification Scans

The SAR result indicated on the Manufacturer's Calibrated certificate for dipole D900V2 S/N 1d025 was not used due to the following:

- The IEEE1528-2003 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 indicated that the allowed tolerance for this dipole is higher than +/- 10% (e.g. 10.9 +/- 17 % at k=2 for the D900V2 S/N 1d025).
- The allowed tolerance for the probes is also higher than +/- 10% (e.g. 11% at k=2 at 900MHz 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 the latest draft of IEC62209-2 (10/3/08) 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 the latest draft of IEC62209-2 (10/3/08) when uses 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. The System validation results included in this report was not averaged since there was only one probe available at the time when the System Validation targets were set for dipole D900V2 S/N 1d025.

Noted that the target set for the tested dipole, when used the simulated head tissue, meets the requirement for the system validation per IEEE1528-2003 the latest draft of IEC62209-2 (10/3/08) standards, and the difference between this result and the result from the manufacturer's dipole calibration certificate is 0.2% which is 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 Enterprise Mobility Solutions EME Laboratory**  
Date/Time: 8/14/2009 6:43:27 AM

Robot# / Run#: DASY4-PG-1 / PS-SYSP-900B-090814-01  
 Phantom# / Tissue Temp.: ELI4 1050 / 21.3 (C)  
 Dipole Model# / Serial#: D900V2 / 1d025  
 TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target: 10.88 mW/g (1g)  
 Calculated: 11.04 mW/g (1g)  
 Percent from Target (+/-): 1.50 % (1g)  
 Rotation (1D): 0.057 dB

Note: When Applicable  
 Prior to recording the calculated SAR values, the measured SAR values need to be adjusted/corrected in accordance with FCD-1868 for tissue frequencies from 150 MHz to 3 GHz.

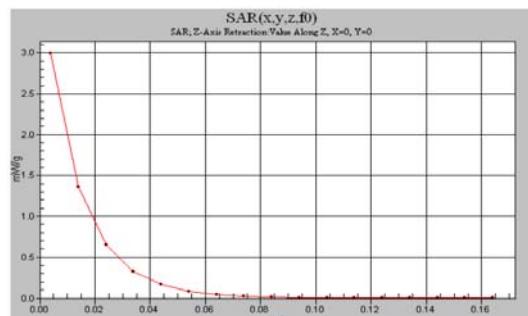
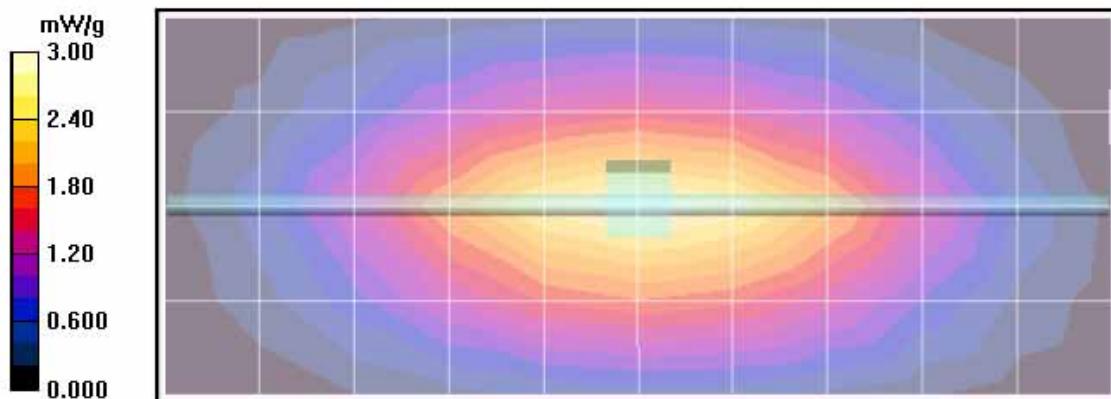
## Comments:

Probe: ES3DV3 - SN3122, Calibrated: 4/24/2009, ConvF(5.78, 5.78, 5.78)  
 Electronics: DAE4 Sn688, Calibrated: 4/28/2009  
 Duty Cycle: 1:1, Medium parameters used:  $f = 900$  MHz;  $\sigma = 1.07$  mho/m;  $\epsilon_r = 52.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**System Performance Check/0-Degree 5x5x7 Cube (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm  
 Reference Value = 53.4 V/m; Power Drift = 0.0138 dB  
 Peak SAR (extrapolated) = 4.12 W/kg  
 SAR(1 g) = 2.76 mW/g; SAR(10 g) = 1.78 mW/g  
 Maximum value of SAR (measured) = 2.99 mW/g

**System Performance Check/Dipole Area Scan 2 (5x11x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 2.98 mW/g

**System Performance Check/Z-Axis Retraction (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm  
 Maximum value of SAR (measured) = 3.00 mW/g



**Motorola Enterprise Mobility Solutions EME Laboratory**  
 Date/Time: 8/17/2009 7:07:37 AM

Robot# / Run#: DASY4-PG-1 / CcC-SYSP-900B-090817-01  
 Phantom# / Tissue Temp.: ELI4 1050 / 21.8 (C)  
 Dipole Model# / Serial#: D900V2 / 1d025  
 TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target: 10.88 mW/g (1g)  
 Calculated: 11.32 mW/g (1g)  
 Percent from Target (+/-): 4.00 % (1g)  
 Rotation (1D): 0.078 dB

Note: When Applicable  
 Prior to recording the calculated SAR values, the measured SAR values need to be adjusted/corrected in accordance with FCD-1868 for tissue frequencies from 150 MHz to 3 GHz.

## Comments:

Probe: ES3DV3 - SN3122, Calibrated: 4/24/2009, ConvF(5.78, 5.78, 5.78)

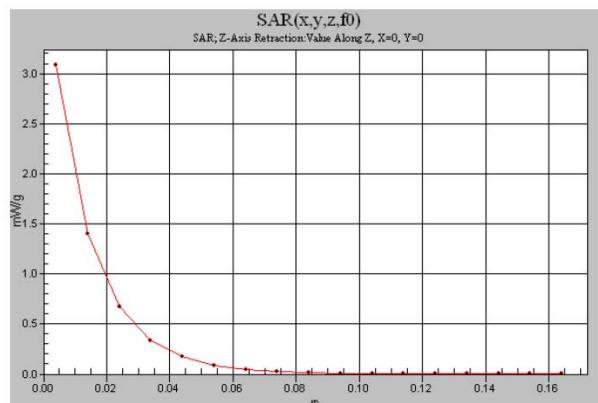
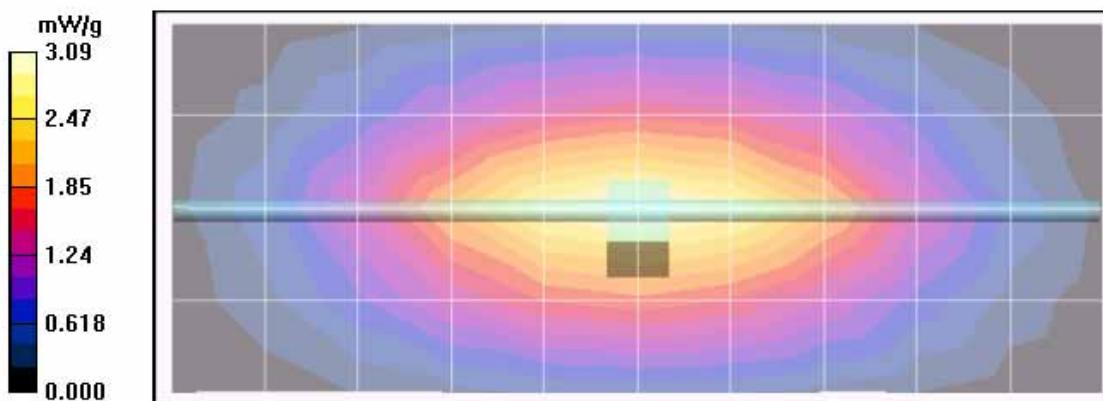
Electronics: DAE4 Sn688, Calibrated: 4/28/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 900$  MHz;  $\sigma = 1.08$  mho/m;  $\epsilon_r = 53.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**System Performance Check/0-Degree 5x5x7 Cube (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm  
 Reference Value = 53.7 V/m; Power Drift = -0.000524 dB  
 Peak SAR (extrapolated) = 4.24 W/kg  
 SAR(1 g) = 2.83 mW/g; SAR(10 g) = 1.83 mW/g  
 Maximum value of SAR (measured) = 3.06 mW/g

**System Performance Check/Dipole Area Scan 2 (5x11x1):** 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) = 3.09 mW/g



## Motorola Enterprise Mobility Solutions EME Laboratory

Date/Time: 8/18/2009 7:25:29 AM

Robot# / Run#: DASY4-PG-1 / CcC-SYSP-900B-090818-01

Phantom# / Tissue Temp.: ELI4 1050 / 21.7 (C)

Dipole Model# / Serial#: D900V2 / 1d025

TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target: 10.88 mW/g (1g)

Calculated: 11.16 mW/g (1g)

Percent from Target (+/-): 2.60 % (1g)

Rotation (1D): 0.079 dB

## Note: When Applicable

Prior to recording the calculated SAR values, the measured SAR values need to be adjusted/ corrected in accordance with FCD-1868 for tissue frequencies from 150 MHz to 3 GHz.

## Comments:

Probe: ES3DV3 - SN3122, Calibrated: 4/24/2009, ConvF(5.78, 5.78, 5.78)

Electronics: DAE4 Sn688, Calibrated: 4/28/2009

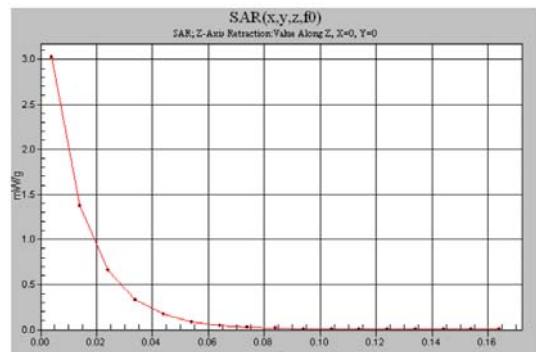
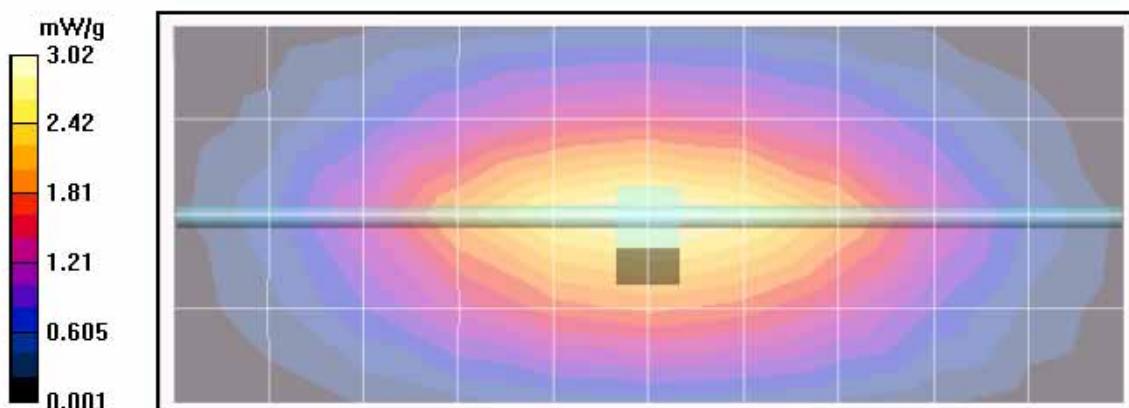
Duty Cycle: 1:1, Medium parameters used:  $f = 900$  MHz;  $\sigma = 1.07$  mho/m;  $\epsilon_r = 52.7$ ;  $\rho = 1000$  kg/m<sup>3</sup>**System Performance Check/0-Degree 5x5x7 Cube (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 53.7 V/m; Power Drift = -0.00188 dB

Peak SAR (extrapolated) = 4.15 W/kg

SAR(1 g) = 2.79 mW/g; SAR(10 g) = 1.8 mW/g

Maximum value of SAR (measured) = 3.02 mW/g

**System Performance Check/Dipole Area Scan 2 (5x11x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 3.01 mW/g**System Performance Check/Z-Axis Retraction (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

## Motorola Enterprise Mobility Solutions EME Laboratory

Date/Time: 8/19/2009 7:13:22 AM

Robot# / Run#: DASY4-PG-1 / CcC-SYSP-900B-090819-01

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

Dipole Model# / Serial#: D900V2 / 1d025

TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target: 10.88 mW/g (1g)

Calculated: 11.16 mW/g (1g)

Percent from Target (+/-): 2.60 % (1g)

Rotation (1D): 0.077 dB

Note: When Applicable

Prior to recording the calculated SAR values, the measured SAR values need to be adjusted/ corrected in accordance with FCD-1868 for tissue frequencies from 150 MHz to 3 GHz.

Comments:

Probe: ES3DV3 - SN3122, Calibrated: 4/24/2009, ConvF(5.78, 5.78, 5.78)

Electronics: DAE4 Sn688, Calibrated: 4/28/2009

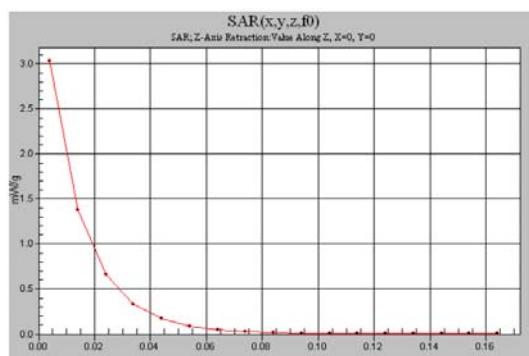
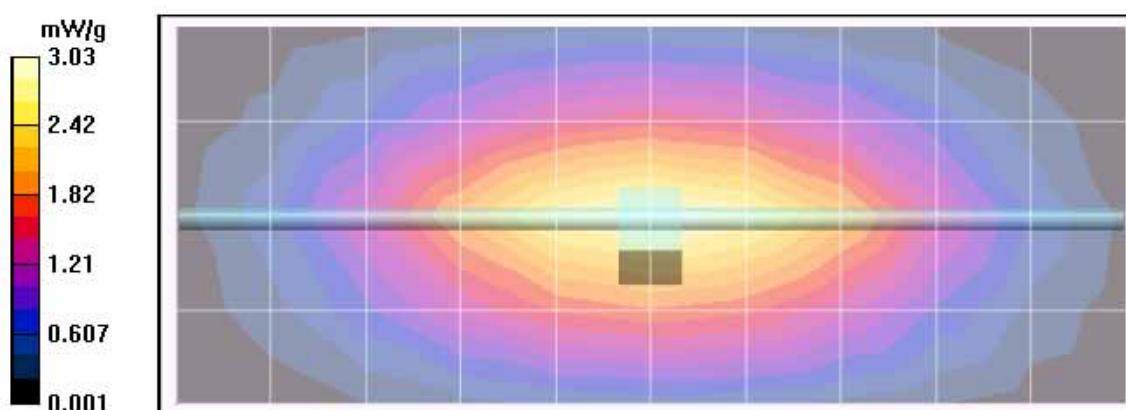
Duty Cycle: 1:1, Medium parameters used:  $f = 900$  MHz;  $\sigma = 1.07$  mho/m;  $\epsilon_r = 52.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>**System Performance Check/0-Degree 5x5x7 Cube (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 53.7 V/m; Power Drift = -0.00733 dB

Peak SAR (extrapolated) = 4.17 W/kg

SAR(1 g) = 2.79 mW/g; SAR(10 g) = 1.8 mW/g

Maximum value of SAR (measured) = 3.03 mW/g

**System Performance Check/Dipole Area Scan 2 (5x11x1):** Measurement grid: dx=15mm, dy=15mm**System Performance Check/Z-Axis Retraction (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm

## Motorola Enterprise Mobility Solutions EME Laboratory

Date/Time: 8/20/2009 7:01:46 AM

Robot# / Run#: DASY4-PG-1 / CcC-SYSP-900B-090820-01

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

Dipole Model# / Serial#: D900V2 / 1d025

TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target: 10.88 mW/g (1g)

Calculated: 11.04 mW/g (1g)

Percent from Target (+/-): 1.50 % (1g)

Rotation (1D): 0.079 dB

Note: When Applicable

Prior to recording the calculated SAR values, the measured SAR values need to be adjusted/ corrected in accordance with FCD-1868 for tissue frequencies from 150 MHz to 3 GHz.

Comments:

Probe: ES3DV3 - SN3122, Calibrated: 4/24/2009, ConvF(5.78, 5.78, 5.78)

Electronics: DAE4 Sn688, Calibrated: 4/28/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 900$  MHz;  $\sigma = 1.06$  mho/m;  $\epsilon_r = 53$ ;  $\rho = 1000$  kg/m<sup>3</sup>**System Performance Check/0-Degree 5x5x7 Cube (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 53.5 V/m; Power Drift = -0.00801 dB

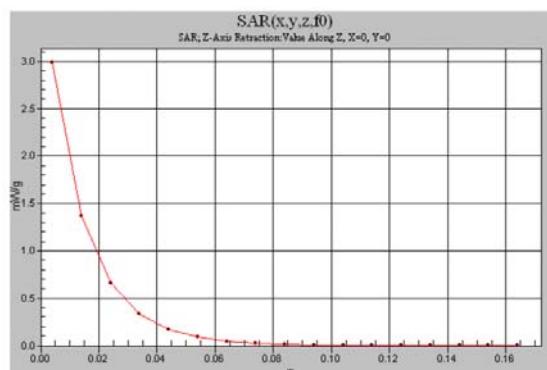
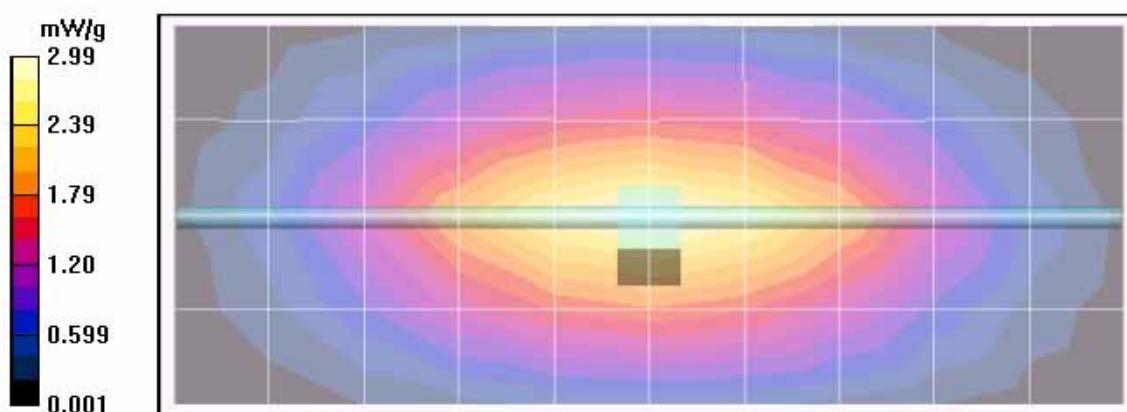
Peak SAR (extrapolated) = 4.09 W/kg

SAR(1 g) = 2.76 mW/g; SAR(10 g) = 1.78 mW/g

Maximum value of SAR (measured) = 2.99 mW/g

**System Performance Check/Dipole Area Scan 2 (5x11x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 3.00 mW/g

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

**Motorola Enterprise Mobility Solutions EME Laboratory**  
 Date/Time: 8/21/2009 7:12:56 AM

Robot# / Run#: DASY4-PG-1 / CcC-SYSP-900B-090821-01

Phantom# / Tissue Temp.: ELI4 1050 / 21.8 (C)

Dipole Model# / Serial#: D900V2 / 1d025

TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target: 10.88 mW/g (1g)

Calculated: 11.08 mW/g (1g)

Percent from Target (+/-): 1.80 % (1g)

Rotation (1D): 0.079 dB

Note: When Applicable

Prior to recording the calculated SAR values, the measured SAR values need to be adjusted/corrected in accordance with FCD-1868 for tissue frequencies from 150 MHz to 3 GHz.

Comments:

Probe: ES3DV3 - SN3122, Calibrated: 4/24/2009, ConvF(5.78, 5.78, 5.78)

Electronics: DAE4 Sn688, Calibrated: 4/28/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 900$  MHz;  $\sigma = 1.06$  mho/m;  $\epsilon_r = 53.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 53.6 V/m; Power Drift = 0.00476 dB

Peak SAR (extrapolated) = 4.13 W/kg

SAR(1 g) = 2.77 mW/g; SAR(10 g) = 1.79 mW/g

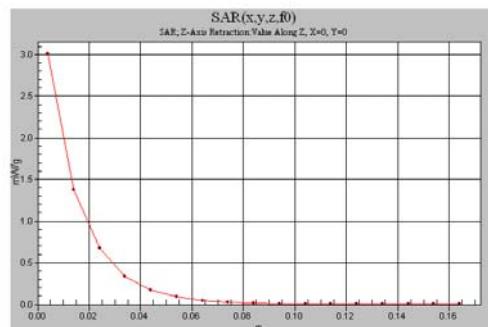
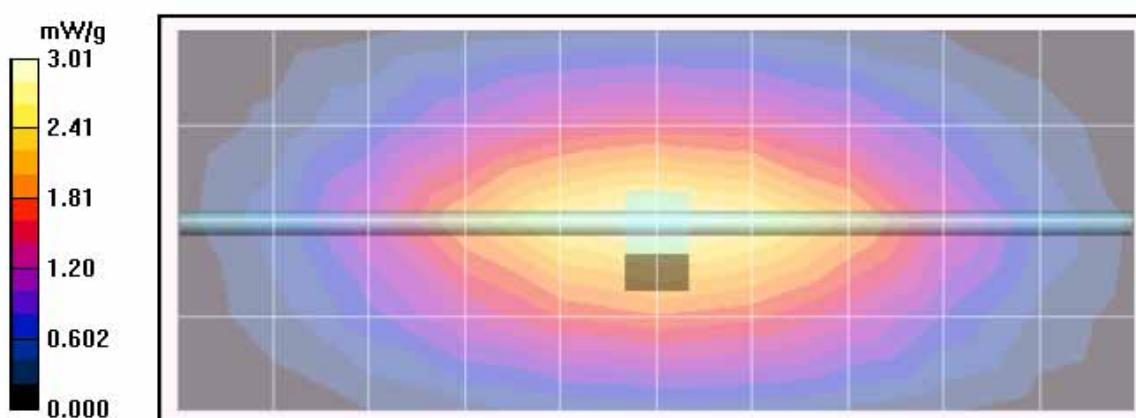
Maximum value of SAR (measured) = 3.00 mW/g

**System Performance Check/Dipole Area Scan 2 (5x11x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.99 mW/g

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

Maximum value of SAR (measured) = 3.01 mW/g



**Motorola Enterprise Mobility Solutions EME Laboratory**  
 Date/Time: 8/22/2009 8:07:14 AM

Robot# / Run#: DASY4-PG-1 / CcC-SYSP-900H-090822-01

Phantom# / Tissue Temp.: ELI4 1037 / 21.6 (C)

Dipole Model# / Serial#: D900V2 / 1d025

TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target: 10.92 mW/g (1g)

Calculated: 11.04 mW/g (1g)

Percent from Target (+/-): 1.10 % (1g)

Rotation (1D): 0.077 dB

Note: When Applicable

Prior to recording the calculated SAR values, the measured SAR values need to be adjusted/ corrected in accordance with FCD-1868 for tissue frequencies from 150 MHz to 3 GHz.

Comments:

Probe: ES3DV3 - SN3122, Calibrated: 4/24/2009, ConvF(5.78, 5.78, 5.78)

Electronics: DAE4 Sn688, Calibrated: 4/28/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 900$  MHz;  $\sigma = 0.99$  mho/m;  $\epsilon_r = 41.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 55.4 V/m; Power Drift = -0.00146 dB

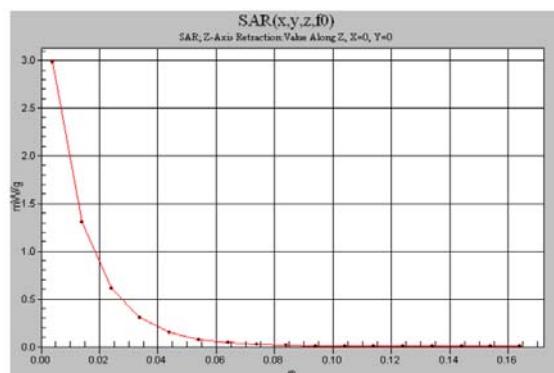
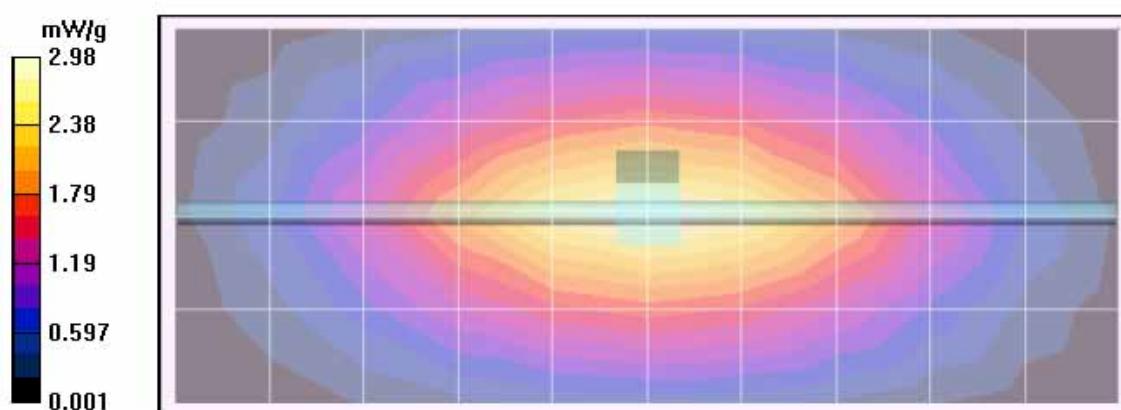
Peak SAR (extrapolated) = 4.19 W/kg

SAR(1 g) = 2.76 mW/g; SAR(10 g) = 1.76 mW/g

Maximum value of SAR (measured) = 3.00 mW/g

**System Performance Check/Dipole Area Scan 2 (5x11x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 2.99 mW/g

**System Performance Check/Z-Axis Retraction (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm  
 Maximum value of SAR (measured) = 2.98 mW/g



**Motorola Enterprise Mobility Solutions EME Laboratory**  
 Date/Time: 8/23/2009 7:49:53 AM

Robot# / Run#: DASY4-PG-1 / CcC-SYSP-900H-090823-01  
 Phantom# / Tissue Temp.: ELI4 1037 / 21.7 (C)  
 Dipole Model# / Serial#: D900V2 / 1d025  
 TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target: 10.92 mW/g (1g)  
 Calculated: 11.00 mW/g (1g)  
 Percent from Target (+/-): 0.70 % (1g)  
 Rotation (1D): 0.071 dB

**Note: When Applicable**

Prior to recording the calculated SAR values, the measured SAR values need to be adjusted/ corrected in accordance with FCD-1868 for tissue frequencies from 150 MHz to 3 GHz.

**Comments:**

Probe: ES3DV3 - SN3122, Calibrated: 4/24/2009, ConvF(5.78, 5.78, 5.78)

Electronics: DAE4 Sn688, Calibrated: 4/28/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 900$  MHz;  $\sigma = 0.99$  mho/m;  $\epsilon_r = 41.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 55.4 V/m; Power Drift = -0.00493 dB

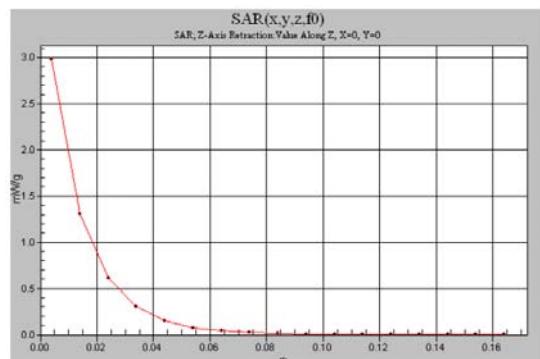
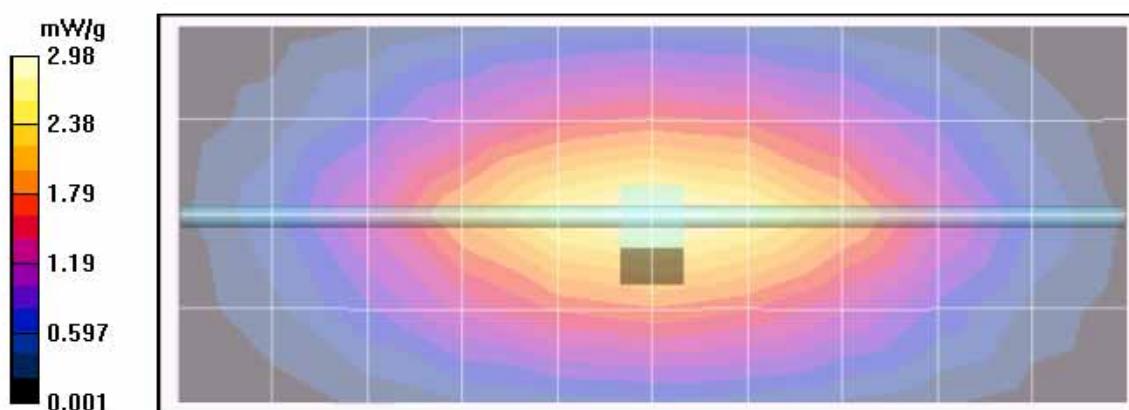
Peak SAR (extrapolated) = 4.16 W/kg

SAR(1 g) = 2.75 mW/g; SAR(10 g) = 1.76 mW/g

Maximum value of SAR (measured) = 2.98 mW/g

**System Performance Check/Dipole Area Scan 2 (5x11x1):** Measurement grid: dx=15mm, dy=15mm

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



## Motorola Enterprise Mobility Solutions EME Laboratory

Date/Time: 8/28/2009 6:32:22 AM

Robot# / Run#: DASY4-PG-1 / PS-SYSP-900B-090828-01

Phantom# / Tissue Temp.: ELI4 1050 / 21.2 (C)

Dipole Model# / Serial#: D900V2 / 1d025

TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target: 10.92 mW/g (1g)

Calculated: 10.88 mW/g (1g)

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

Rotation (1D): 0.069 dB

Note: When Applicable

Prior to recording the calculated SAR values, the measured SAR values need to be adjusted/ corrected in accordance with FCD-1868 for tissue frequencies from 150 MHz to 3 GHz.

Comments:

Probe: ES3DV3 - SN3122, Calibrated: 4/24/2009, ConvF(5.78, 5.78, 5.78)

Electronics: DAE4 Sn688, Calibrated: 4/28/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 900$  MHz;  $\sigma = 1.06$  mho/m;  $\epsilon_r = 53.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 53.3 V/m; Power Drift = 0.00161 dB

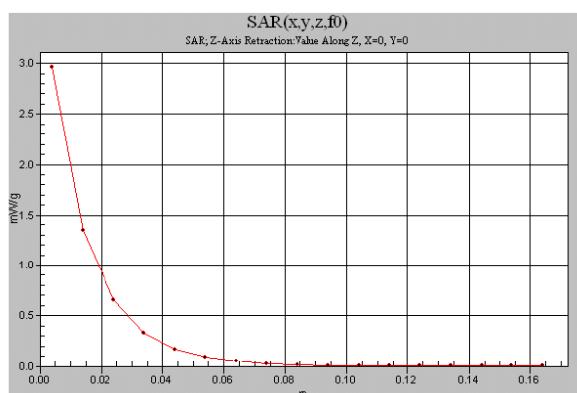
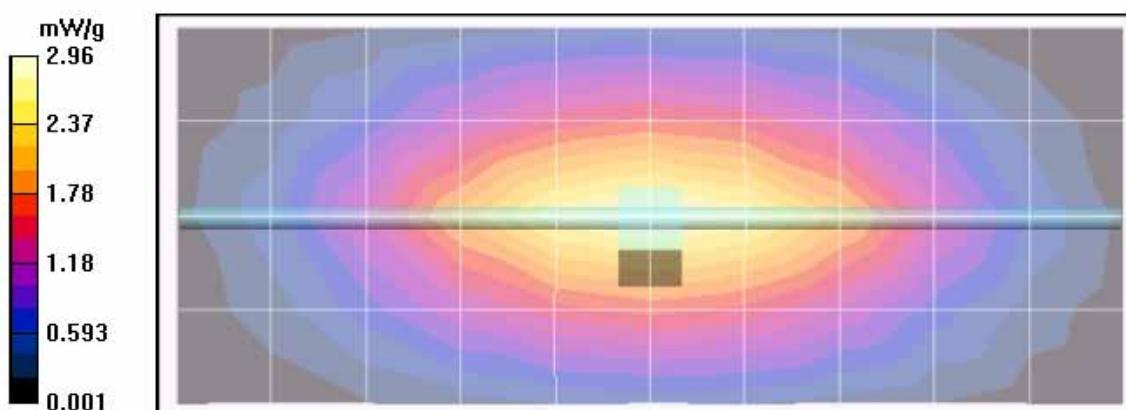
Peak SAR (extrapolated) = 4.07 W/kg

SAR(1 g) = 2.73 mW/g; SAR(10 g) = 1.76 mW/g

Maximum value of SAR (measured) = 2.96 mW/g

**System Performance Check/Dipole Area Scan 2 (5x11x1):** Measurement grid: dx=15mm, dy=15mm

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



**Motorola Enterprise Mobility Solutions EME Laboratory**  
 Date/Time: 9/3/2009 11:14:43 AM

Robot# / Run#: DASY4-PG-1 / PS-SYSP-900H-090903-02

Phantom# / Tissue Temp.: ELI4 1037 / 21.4 (C)

Dipole Model# / Serial#: D900V2 / 1d025

TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target: 10.92 mW/g (1g)

Calculated: 10.84 mW/g (1g)

Percent from Target (+/-): 0.7 % (1g)

Rotation (1D): 0.057 dB

Note: When Applicable

Prior to recording the calculated SAR values, the measured SAR values need to be adjusted/corrected in accordance with FCD-1868 for tissue frequencies from 150 MHz to 3 GHz.

Comments:

Probe: ES3DV3 - SN3122, Calibrated: 4/24/2009, ConvF(5.78, 5.78, 5.78)

Electronics: DAE4 Sn688, Calibrated: 4/28/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 900$  MHz;  $\sigma = 0.98$  mho/m;  $\epsilon_r = 40.7$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 55.4 V/m; Power Drift = -0.0164 dB

Peak SAR (extrapolated) = 4.13 W/kg

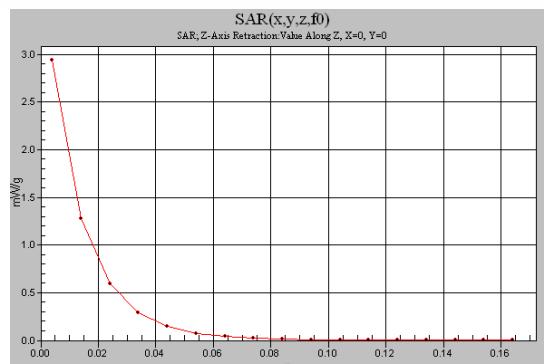
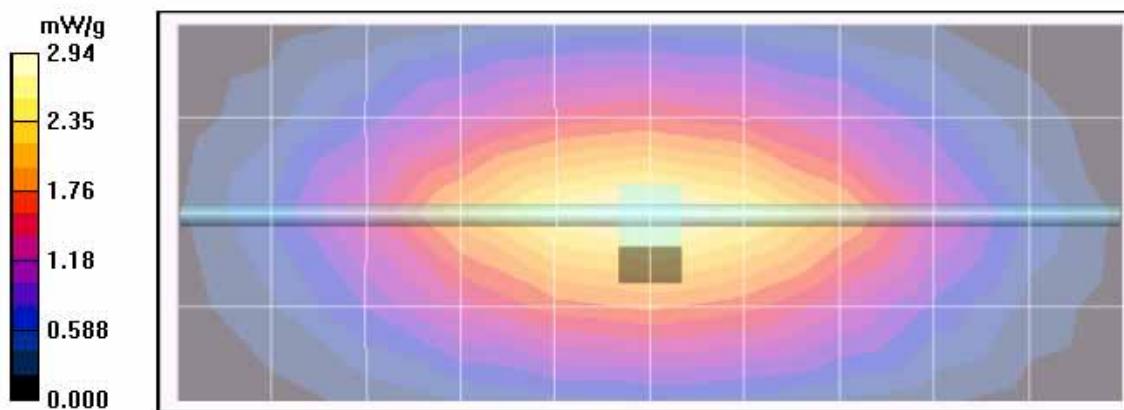
SAR(1 g) = 2.71 mW/g; SAR(10 g) = 1.73 mW/g

Maximum value of SAR (measured) = 2.94 mW/g

**System Performance Check/Dipole Area Scan 2 (5x11x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.95 mW/g

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



**Motorola Enterprise Mobility Solutions EME Laboratory**  
 Date/Time: 9/4/2009 10:05:54 AM

Robot# / Run#: DASY4-PG-1 / PS-SYSP-900B-090904-01

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

Dipole Model# / Serial#: D900V2 / 1d025

TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target: 10.88 mW/g (1g)

Calculated: 11.04 mW/g (1g)

Percent from Target (+/-): 1.5 % (1g)

Rotation (1D): 0.061 dB

Note: When Applicable

Prior to recording the calculated SAR values, the measured SAR values need to be adjusted/corrected in accordance with FCD-1868 for tissue frequencies from 150 MHz to 3 GHz.

Comments:

Probe: ES3DV3 - SN3122, Calibrated: 4/24/2009, ConvF(5.78, 5.78, 5.78)

Electronics: DAE4 Sn688, Calibrated: 4/28/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 900$  MHz;  $\sigma = 1.06$  mho/m;  $\epsilon_r = 53.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 53.5 V/m; Power Drift = 0.00478 dB

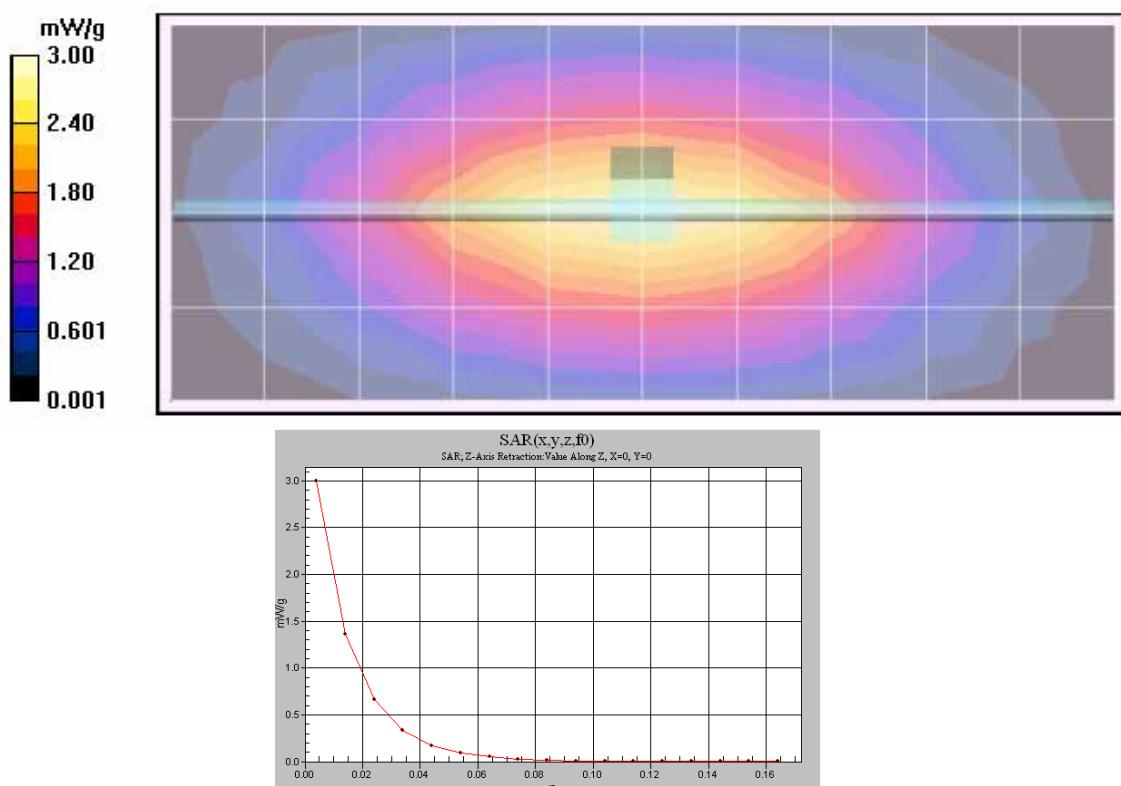
Peak SAR (extrapolated) = 4.14 W/kg

SAR(1 g) = 2.76 mW/g; SAR(10 g) = 1.78 mW/g

Maximum value of SAR (measured) = 3.00 mW/g

**System Performance Check/Dipole Area Scan 2 (5x11x1):** Measurement grid: dx=15mm, dy=15mm  
 Maximum value of SAR (measured) = 2.97 mW/g

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



**Motorola Enterprise Mobility Solutions EME Laboratory**  
 Date/Time: 9/5/2009 6:26:41 AM

Robot# / Run#: DASY4-PG-1 / PS-SYSP-900B-090905-01

Phantom# / Tissue Temp.: ELI4 1050 / 21.4 (C)

Dipole Model# / Serial#: D900V2 / 1d025

TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target: 10.88 mW/g (1g)

Calculated: 11.00 mW/g (1g)

Percent from Target (+/-): 1.1 % (1g)

Rotation (1D): 0.064 dB

Note: When Applicable

Prior to recording the calculated SAR values, the measured SAR values need to be adjusted/corrected in accordance with FCD-1868 for tissue frequencies from 150 MHz to 3 GHz.

Comments:

Probe: ES3DV3 - SN3122, Calibrated: 4/24/2009, ConvF(5.78, 5.78, 5.78)

Electronics: DAE4 Sn688, Calibrated: 4/28/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 900$  MHz;  $\sigma = 1.06$  mho/m;  $\epsilon_r = 53.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 53.6 V/m; Power Drift = 0.00257 dB

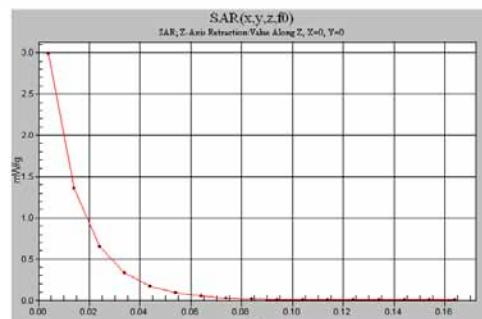
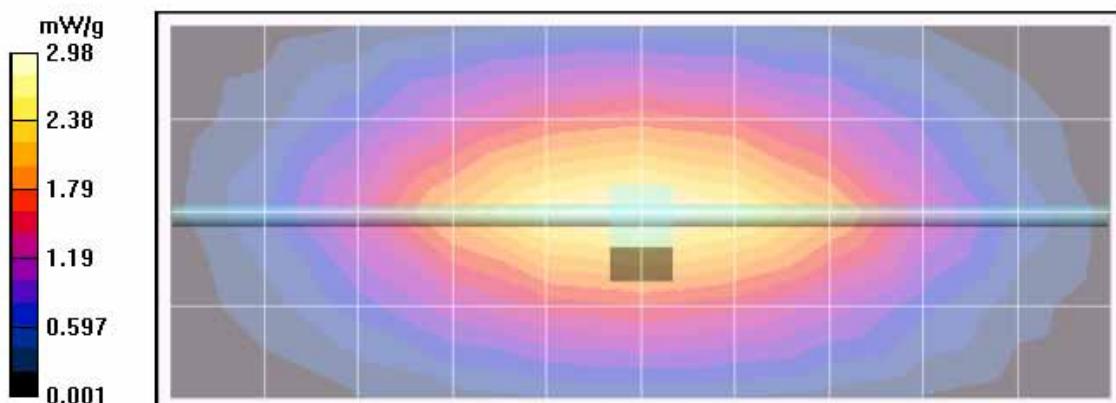
Peak SAR (extrapolated) = 4.13 W/kg

SAR(1 g) = 2.75 mW/g; SAR(10 g) = 1.77 mW/g

Maximum value of SAR (measured) = 2.99 mW/g

**System Performance Check/Dipole Area Scan 2 (5x11x1):** 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) = 2.98 mW/g



## Motorola Enterprise Mobility Solutions EME Laboratory

Date/Time: 9/6/2009 6:30:21 AM

Robot# / Run#: DASY4-PG-1 / PS-SYSP-900B-090906-01

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

Dipole Model# / Serial#: D900V2 / 1d025

TX Freq. / Start power: 900 (MHz) / 250 (mW)

Target: 10.88 mW/g (1g)

Calculated: 10.88 mW/g (1g)

Percent from Target (+/-): 0.0 % (1g)

Rotation (1D): 0.064 dB

Note: When Applicable

Prior to recording the calculated SAR values, the measured SAR values need to be adjusted/ corrected in accordance with FCD-1868 for tissue frequencies from 150 MHz to 3 GHz.

Comments:

Probe: ES3DV3 - SN3122, Calibrated: 4/24/2009, ConvF(5.78, 5.78, 5.78)

Electronics: DAE4 Sn688, Calibrated: 4/28/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 900$  MHz;  $\sigma = 1.06$  mho/m;  $\epsilon_r = 53.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 53.2 V/m; Power Drift = 0.00262 dB

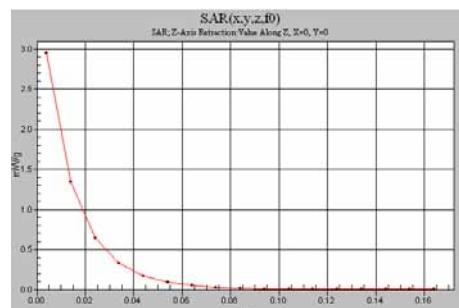
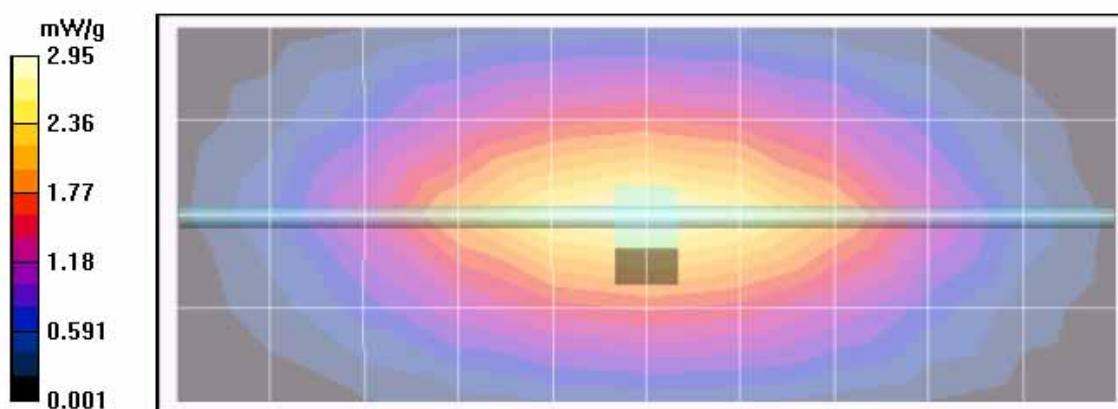
Peak SAR (extrapolated) = 4.08 W/kg

SAR(1 g) = 2.72 mW/g; SAR(10 g) = 1.75 mW/g

Maximum value of SAR (measured) = 2.96 mW/g

**System Performance Check/Dipole Area Scan 2 (5x11x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 2.95 mW/g

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



DIPOLE SAR TARGET - HEAD

Date:	<b>05/25/09</b>	Frequency (MHz):	<b>900</b>
Lab Location:	<b>PG-G&amp;PS</b>	Mixture Type:	<b>IEEE Head</b>
DAE Serial #:	<b>688</b>	Ambient Temp.(°C):	<b>21.3</b>

Tissue Characteristics			
Permitivity:	<b>40.0</b>	Phantom Type/SN:	<b>ELI4 1037</b>
Conductivity:	<b>0.98</b>	Distance (mm):	<b>15</b>
Tissue Temp.(°C):	<b>20.2</b>		

Reference Source:	<b>Dipole</b>	Power to Dipole:	<b>250</b> mW
Reference SN:	<b>1d025</b>		

<b>Target 1g-SAR Value (mW/g, normalized to 1.0 W):</b>	<b>Difference from Target</b>
<b>10.9</b>	<b>0.18% (1g-SAR)</b>

**New Target:**

Average 1g-SAR Value (mW/g):	<b>10.92</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
<b>3122</b>	<b>10.92</b>	<b>0.0%</b>	Rx
<b>2</b>		#DIV/0!	Rx
<b>3</b>		#DIV/0!	Rx
<b>4</b>		#DIV/0!	Rx
<b>5</b>		#DIV/0!	Rx
<b>Average</b>	<b>10.9200</b>	New Measured SAR Value	
(normalized to 1.0 W)			

Test performed by: CC Chang Initial: C C C. C H N

DIPOLE SAR TARGET - BODY

Date:	<u>05/25/09</u>	Frequency (MHz):	<u>900</u>
Lab Location:	<u>PG-G&amp;PS</u>	Mixture Type:	<u>FCC Body</u>
DAE Serial #:	<u>688</u>	Ambient Temp.(°C):	<u>21.3</u>

## Tissue Characteristics

Permitivity:	<u>53.6</u>	Phantom Type/SN:	<u>ELI4 1028</u>
Conductivity:	<u>1.08</u>	Distance (mm):	<u>15</u>
Tissue Temp.(°C):	<u>20.0</u>		

Reference Source:	<u>Dipole</u>	Power to Dipole:	<u>250</u> mW
Reference SN:	<u>1d025</u>		

## New Target:

Average Measured SAR Value: 10.88 mW/g(1g avg.),

Probe SN #s	1-G Cube	Diff from Ave	Robot
3122	10.88	0.0%	Rx
2		-100.0%	Rx
3		-100.0%	Rx
4		-100.0%	Rx
5		-100.0%	Rx
Average	<b>10.8800</b>	New Measured SAR Value	

(normalized to 1.0 W)

Test performed by: CC Chang Initial: C.C. (05.25.09)

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

**Shortened Scan Result**  
**Motorola Enterprise Mobility Solutions EME Laboratory**  
 Date/Time: 8/21/2009 3:00:19 PM

Robot # / Run #: DASY4-PG-1 / PS-AB-090821-10  
 Phantom # / Tissue Temp: ELI4 1050 / 21.2 (C)  
 Model # / Serial#: PMUF1413A / 777TKN0846  
 Antenna / TX Freq: PMAF4003A / 899.000 MHz  
 Battery: PMNN4069A  
 Carry Acc. / Cable Acc.: RLN4570A / NONE  
 Start power: 2.94 W

## Note:

Prior to recording the calculated SAR values, the measured SAR values need to be adjusted/corrected in accordance with FCD-1868 for tissue frequencies from 150 MHz to 3 GHz.

Calculated: 7.68 mW/g (1g); 5.36 mW/g (10g)

Comments: Shorten scan.

Probe: ES3DV3 - SN3122, Calibrated: 4/24/2009, ConvF(5.78, 5.78, 5.78)

Electronics: DAE4 Sn688, Calibrated: 4/28/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 899$  MHz;  $\sigma = 1.06$  mho/m;  $\epsilon_r = 53.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 93.4 V/m; Power Drift = -0.576 dB

Peak SAR (extrapolated) = 10.4 W/kg

SAR(1 g) = 7.68 mW/g; SAR(10 g) = 5.36 mW/g

Maximum value of SAR (measured) = 8.18 mW/g

**Ab Scan/Area Scan (61x211x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 67.4 V/m; Power Drift = -0.582 dB

Motorola Fast SAR: SAR(1 g) = 7.23 mW/g; SAR(10 g) = 4.94 mW/g

Maximum value of SAR (interpolated) = 7.73 mW/g

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

Reference Value = 67.4 V/m; Power Drift = -0.628 dB

Peak SAR (extrapolated) = 7.35 W/kg

Motorola Fast SAR: SAR(1 g) = 6.93 mW/g; SAR(10 g) = 4.73 mW/g

Maximum value of SAR (interpolated) = 7.35 mW/g

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

Maximum value of SAR (measured) = 7.30 mW/g

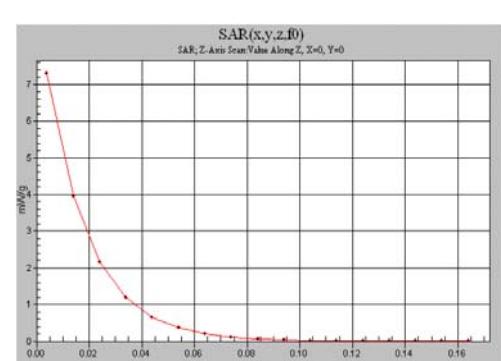
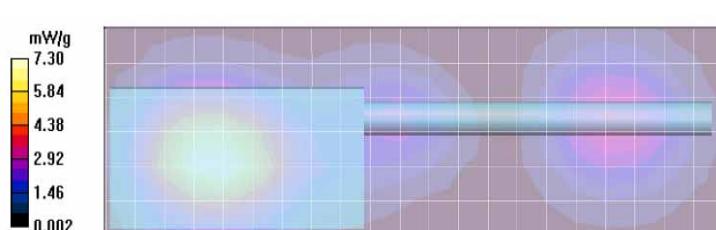
Shortened scan reflect highest SAR producing configuration; Run time 17 minutes.

Representative zoom scan run time was 25 minutes.

“Shortened” scan max calculated SAR using SAR drift: 1-g Avg. = 4.47 mW/g; 10-g Avg. = 3.12 mW/g

Zoom scan max calculated SAR using SAR drift: 1-g Avg. = 4.56 mW/g; 10-g Avg. = 3.15 mW/g

(see part 1 of 3 section 13.3 run # CcC-AB-090817-04)



**Body Highest SAR Configuration Result**  
**Motorola Enterprise Mobility Solutions EME Laboratory**  
 Date/Time: 8/17/2009 9:44:44 AM

Robot # / Run #: DASY4-PG-1 / CcC-AB-090817-04  
 Phantom # / Tissue Temp: ELI4 1050 / 21.3 (C)  
 Model # / Serial#: PMUF1413A / 777TKN0846  
 Antenna / TX Freq: PMAF4003A / 899.000 MHz  
 Battery: PMNN4069A  
 Carry Acc. / Cable Acc.: RLN4570A / NONE  
 Start power: 2.90 W

## Note:

Prior to recording the calculated SAR values, the measured SAR values need to be adjusted/corrected in accordance with FCD-1868 for tissue frequencies from 150 MHz to 3 GHz.

Calculated: 7.27 mW/g (1g); 5.03 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3122, Calibrated: 4/24/2009, ConvF(5.78, 5.78, 5.78)

Electronics: DAE4 Sn688, Calibrated: 4/28/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 899$  MHz;  $\sigma = 1.08$  mho/m;  $\epsilon_r = 53.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 60.1 V/m; Power Drift = -0.833 dB

Peak SAR (extrapolated) = 9.89 W/kg

SAR(1 g) = 7.27 mW/g; SAR(10 g) = 5.03 mW/g

Maximum value of SAR (measured) = 7.79 mW/g

**Ab Scan/Area Scan (61x211x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 60.1 V/m; Power Drift = -0.651 dB

**Motorola Fast SAR:** SAR(1 g) = 8.02 mW/g; SAR(10 g) = 5.47 mW/g

Maximum value of SAR (interpolated) = 8.59 mW/g

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

Reference Value = 60.1 V/m; Power Drift = -0.709 dB

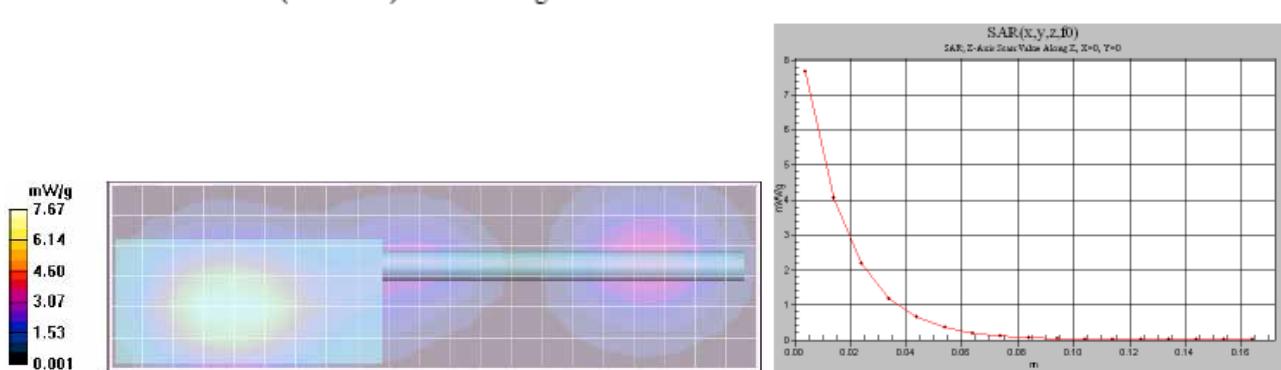
Peak SAR (extrapolated) = 7.95 W/kg

**Motorola Fast SAR:** SAR(1 g) = 7.52 mW/g; SAR(10 g) = 5.12 mW/g

Maximum value of SAR (interpolated) = 7.95 mW/g

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

Maximum value of SAR (measured) = 7.67 mW/g



## Face Highest SAR Configuration Result

**Motorola Enterprise Mobility Solutions EME Laboratory**

Date/Time: 8/23/2009 8:35:16 AM

Robot # / Run #: DASY4-PG-1 / CcC-FACE-090823-02

Phantom # / Tissue Temp: ELI4 1037 / 21.5 (C)

Model # / Serial#: PMUF1413A / 777TKN0846

Antenna / TX Freq: PMAF4003A / 935.000 MHz

Battery: PMNN4077C

Carry Acc. / Cable Acc.: NONE / RLN5878A

Start power: 3.14 W

**Note:**

Prior to recording the calculated SAR values, the measured SAR values need to be adjusted/ corrected in accordance with FCD-1868 for tissue frequencies from 150 MHz to 3 GHz.

Calculated: 1.98 mW/g (1g); 1.42 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3122, Calibrated: 4/24/2009, ConvF(5.78, 5.78, 5.78)

Electronics: DAE4 Sn688, Calibrated: 4/28/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 938$  MHz;  $\sigma = 1.03$  mho/m;  $\epsilon_r = 40.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 41.7 V/m; Power Drift = -1.17 dB

Peak SAR (extrapolated) = 2.64 W/kg

SAR(1 g) = 1.98 mW/g; SAR(10 g) = 1.42 mW/g

Maximum value of SAR (measured) = 2.10 mW/g

**Face Scan/Area Scan (61x211x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 41.7 V/m; Power Drift = -0.806 dB

**Motorola Fast SAR:** SAR(1 g) = 2.19 mW/g; SAR(10 g) = 1.55 mW/g

Maximum value of SAR (interpolated) = 2.32 mW/g

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

Reference Value = 41.7 V/m; Power Drift = -0.893 dB

Peak SAR (extrapolated) = 2.18 W/kg

**Motorola Fast SAR:** SAR(1 g) = 2.07 mW/g; SAR(10 g) = 1.46 mW/g

Maximum value of SAR (interpolated) = 2.18 mW/g

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

Maximum value of SAR (measured) = 2.00 mW/g

