


**MOTOROLA**


TESTING CERT # 2518.05

**DECLARATION OF COMPLIANCE SAR ASSESSMENT Part 2 of 2**

|   |   |
|---|---|
| <b>Enterprise Mobility Solutions</b><br><b>EME Test Laboratory</b><br><b>Motorola Technology Sdn Bhd (455657-H)</b><br><b>Customer Solution Center</b><br><b>Plot 2, Bayan Lepas Technoplex Industrial Park,</b><br><b>Mukim 12 SWD 11900 Bayan Lepas Penang, Malaysia.</b> | <b>Date of Report:</b> 8/9/2010<br><b>Report Revision:</b> O<br><b>Report ID:</b> SAR rpt_PMUF1473A_Rev O<br><b></b><br><b></b> |
|---|---|

**Responsible Engineer:** Veeramani Veerapan (Senior EME Engineer)  
**Report Author:** Veeramani Veerapan (Senior EME Engineer)  
**Date/s Tested:** 6/10/10~7/22/10  
**Manufacturer/Location:** Motorola, Penang  
**Sector/Group/Div.:** EMS  
**Date submitted for test:** 6/08/10  
**DUT Description:** XPR 6580 IS 806-870MHz & 896-941MHz, 12.5k/25k, 1W, 160CH, FKP w GPS (Capable of analog FM transmission and digital TDMA transmission.)  
**Test TX mode(s):** CW (PTT)  
**Max. Power output:** 1.2 Watts  
**Nominal Power:** 1.0 Watts  
**Tx Frequency Bands:** TMO: 806-825, DMO: 851-870 (800 band) & TMO: 896-902, DMO: 935-941 (900 band)  
**Signaling type:** FM and TDMA 2:1  
**Model(s) Tested:** PMUF1473A  
**Model(s) Certified:** PMUF1473A  
**Serial Number(s):** 477TLL0008, 477TLL0009  
**Classification:** Occupational/Controlled  
**Rule ID:** ABZ99FT5012; Rule part 90 (806-824, 851-869, 896-901 & 935-940MHz)  
**IC ID:** 109AB-99FT5012

**\* Refer to section 15 of part 1 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 results are 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 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.**

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

**Approval Date:** 8/18/2010

**Certification Date:** 6/24/2010

**Certification No.:** L1100650P

**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&amp;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: | Name           | Function              | Signature |
|----------------|----------------|-----------------------|-----------|
|                | 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 &amp; Partner

Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland



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

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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 108****Glossary:**

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

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

- IEEE Std 1528-2003, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003
- 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>         | $dx, dy, dz = 5 \text{ mm}$         |             |
| <b>Frequency</b>                    | $900 \text{ MHz} \pm 1 \text{ MHz}$ |             |

## 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>     | $(22.0 \pm 0.2) \text{ °C}$ | $40.3 \pm 6 \text{ %}$ | $0.95 \text{ mho/m} \pm 6 \text{ %}$ |
| <b>Head TSL temperature during test</b> | $(22.0 \pm 0.2) \text{ °C}$ | ---                    | ---                                  |

## SAR result with Head TSL

| SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL | 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 17.0 \text{ % (k=2)}</math></b> |

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

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

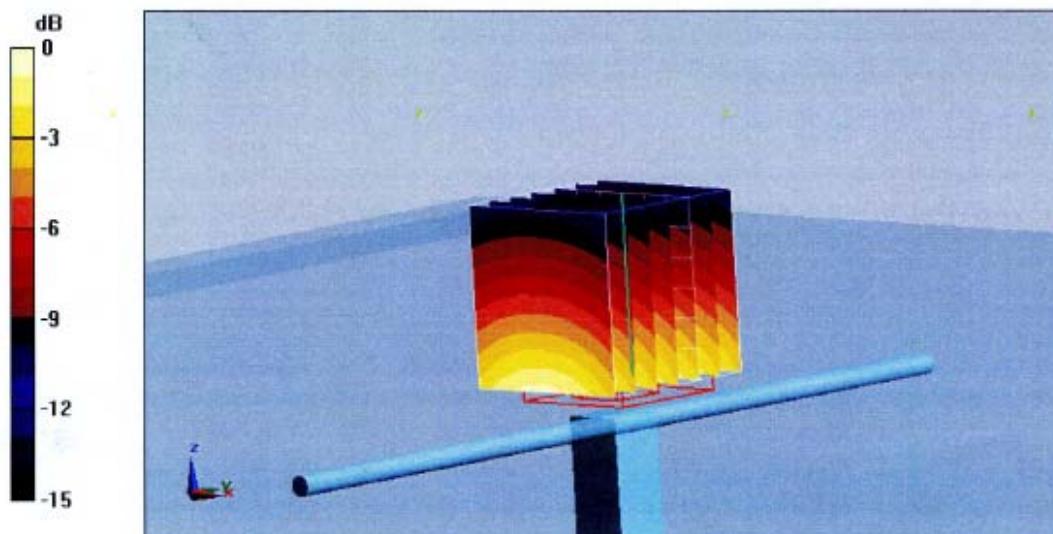
**Pin=250mW; dip=15mm/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

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

Peak SAR (extrapolated) = 4.01 W/kg

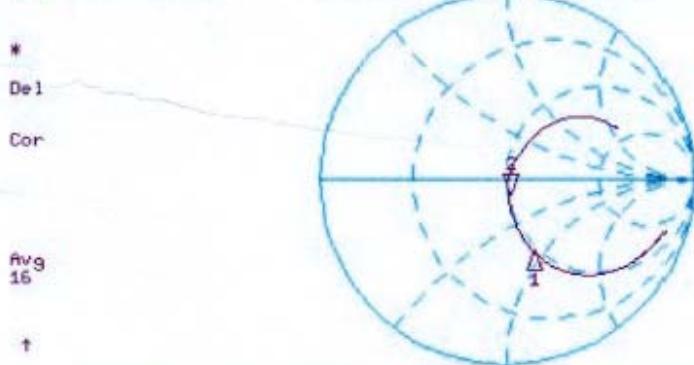
**SAR(1 g) = 2.69 mW/g; SAR(10 g) = 1.73 mW/g**

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

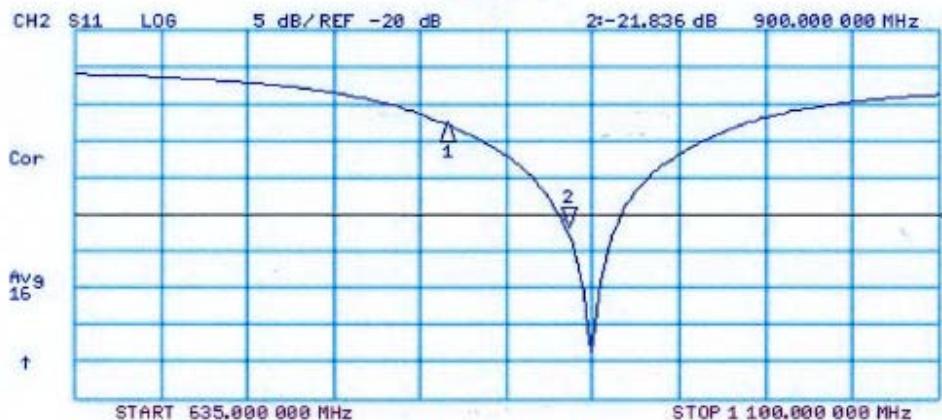


## Impedance Measurement Plot for Head TSL

CH1 S11 1 U FS 14 Apr 2009 09:33:01  
 $2: 50.855 \Omega$   $-8.1445 \angle$   $21.713 \text{ pF}$  900.000 000 MHz



CH1 Markers  
 1:  $46.885 \Omega$   
 $-43.695 \angle$   
 835.000 MHz



CH2 Markers  
 1:  $-7.6989 \text{ dB}$   
 835.000 MHz

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Accreditation No.: **SCS 108**Client **Motorola MY (Precision)**Certificate No: **D900V2\_1d026\_Dec09**

## CALIBRATION CERTIFICATE

Object **D900V2 - SN: 1d026**

Calibration procedure(s) **QA CAL-05.v7**  
 Calibration procedure for dipole validation kits

Calibration date: **December 07, 2009**

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  $(22 \pm 3)^\circ\text{C}$  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         | 06-Oct-09 (No. 217-01086)         | Oct-10                 |
| Power sensor HP 8481A       | US37292783         | 06-Oct-09 (No. 217-01086)         | Oct-10                 |
| 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 ES3DV3      | SN: 3205           | 26-Jun-09 (No. ES3-3205_Jun09)    | Jun-10                 |
| 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-09) | In house check: Oct-11 |
| RF generator R&S SMT-06     | 100005             | 4-Aug-99 (in house check Oct-09)  | In house check: Oct-11 |
| Network Analyzer HP 8753E   | US37390585 S4206   | 18-Oct-01 (in house check Oct-09) | In house check: Oct-10 |

| Calibrated by: | Name           | Function              | Signature |
|----------------|----------------|-----------------------|-----------|
|                | Jeton Kastrati | Laboratory Technician |           |
| Approved by:   | Katja Pokovic  | Technical Manager     |           |

Issued: December 7, 2009

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**S** Servizio svizzero di taratura  
**Swiss Calibration Service**

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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                     | V5.2        |
| <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>      | 22.2 °C             | 41.5           | 0.97 mho/m           |
| <b>Measured Head TSL parameters</b>     | (22.0 $\pm$ 0.2) °C | 40.7 $\pm$ 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

| SAR averaged over 1 cm <sup>3</sup> (1 g) of Head TSL | Condition          |                                |
|---|--------------------|--------------------------------|
| SAR measured  | 250 mW input power | 2.72 mW / g                    |
| SAR normalized  | normalized to 1W   | 10.9 mW / g                    |
| SAR for nominal Head TSL parameters                   | normalized to 1W   | 11.0 mW / g $\pm$ 17.0 % (k=2) |

| SAR averaged over 10 cm <sup>3</sup> (10 g) of Head TSL | Condition          |                                |
|---|--------------------|--------------------------------|
| SAR measured  | 250 mW input power | 1.74 mW / g                    |
| SAR normalized  | normalized to 1W   | 6.96 mW / g                    |
| SAR for nominal Head TSL parameters                     | normalized to 1W   | 7.02 mW / g $\pm$ 16.5 % (k=2) |

## Appendix

### Antenna Parameters with Head TSL

|                                      |                               |
|--------------------------------------|-------------------------------|
| Impedance, transformed to feed point | 50.0 $\Omega$ - 7.4 $j\Omega$ |
| Return Loss                          | - 22.7 dB                     |

### General Antenna Parameters and Design

|                                  |          |
|----------------------------------|----------|
| Electrical Delay (one direction) | 1.399 ns |
|----------------------------------|----------|

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

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

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

### Additional EUT Data

|                 |                   |
|-----------------|-------------------|
| Manufactured by | SPEAG             |
| Manufactured on | February 08, 2005 |

## DASY5 Validation Report for Head TSL

Date/Time: 07.12.2009 11:55:00

Test Laboratory: SPEAG, Zurich, Switzerland

**DUT: Dipole 900 MHz; Type: D900V2; Serial: D900V2 - SN:1d026**

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

Medium: HSL900

Medium parameters used:  $f = 900$  MHz;  $\sigma = 0.95$  mho/m;  $\epsilon_r = 40.7$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: ES3DV3 - SN3205; ConvF(5.88, 5.88, 5.88); Calibrated: 26.06.2009
- 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, V5.2 Build 157; SEMCAD X Version 14.0 Build 57

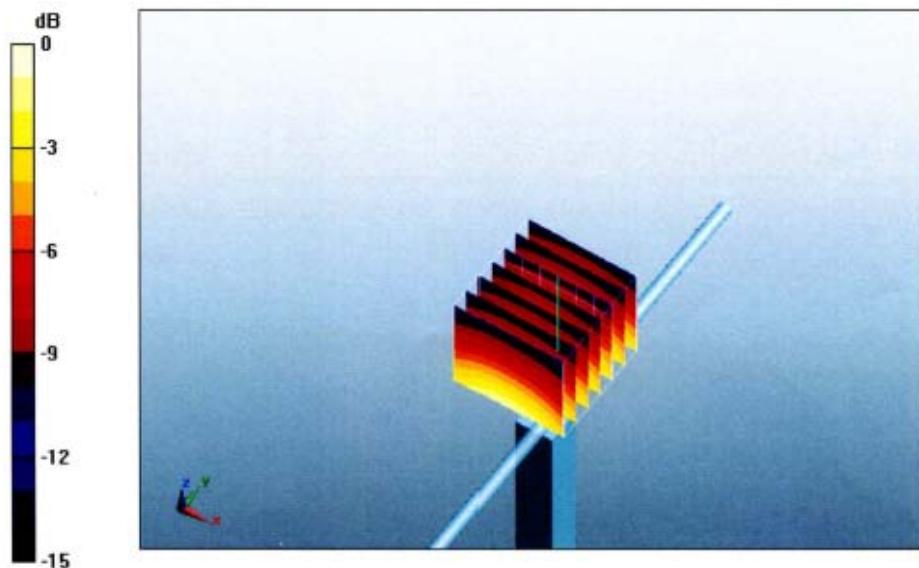
**Pin=250 mW /d=15mm, dist=3.0mm (ES-Probe) 2/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 59.6 V/m; Power Drift = -0.013 dB

Peak SAR (extrapolated) = 4.11 W/kg

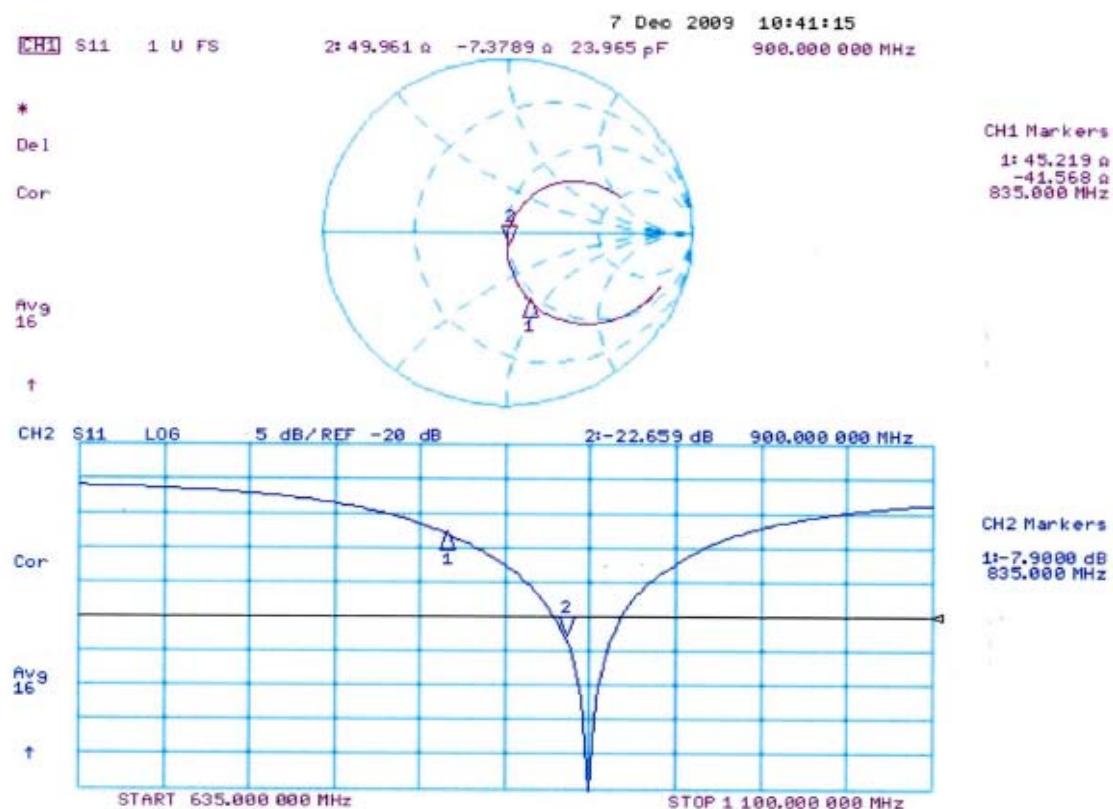
**SAR(1 g) = 2.72 mW/g; SAR(10 g) = 1.74 mW/g**

Maximum value of SAR (measured) = 3.18 mW/g



0 dB = 3.18mW/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 and D900V2 S/N 1d026 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 and 11.0 +/-17 % at k=2 for the D900V2 S/N 1d026).
- 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.

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% for the D900V2 S/N 1d025 and 1.82% for D900V2 S/N 1d026 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 Enterprise Mobility Solutions EME Laboratory**  
Date/Time: 6/10/2010 7:36:21 AM

Robot# / Run#: DASY4-PG-1 / PS-SYSP-900B-100610-01

Phantom# / Tissue Temp.: ELL4 1037 / 20.5 (C)

Dipole Model# / Serial#: D900V2 / 1d026

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

Target SAR (1W): 10.84 mW/g (1g)

Adjusted SAR (1W): 11.24 mW/g (1g)

Percent from Target (+/-): 3.70 % (1g)

Rotation (1D): 0.14 dB

Note: When Applicable

Prior to recording the reported SAR values below, the measured SAR values need to be corrected in accordance with FCD-1868 for tissue frequencies from 136 MHz to 3 GHz.

Reported: 2.810 mW/g (1g); 1.800 mW/g (10g)

Comments:

Probe: ES3DV3 - SN3096, Calibrated: 12/14/2009, ConvF(5.6, 5.6, 5.6)

Electronics: DAE4 Sn684, Calibrated: 12/9/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 900$  MHz;  $\sigma = 1.06$  mho/m;  $\epsilon_r = 53.1$ ;  $\rho = 1000$  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 = 54.1 V/m; Power Drift = -0.00702 dB

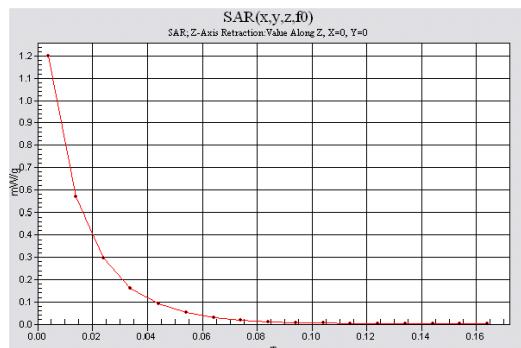
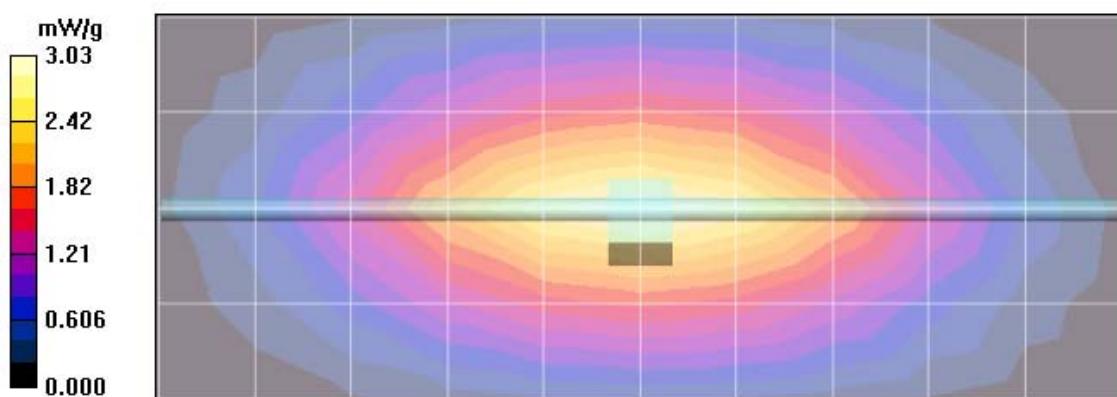
Peak SAR (extrapolated) = 4.22 W/kg

SAR(1 g) = 2.81 mW/g; SAR(10 g) = 1.8 mW/g

Maximum value of SAR (measured) = 3.04 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) = 3.03 mW/g



**Motorola Enterprise Mobility Solutions EME Laboratory**  
Date/Time: 6/11/2010 6:58:49 AM

Robot# / Run#: DASY4-PG-1 / CcC-SYSP-900B-100611-01

Phantom# / Tissue Temp.: ELI4 1037 / 20.9 (C)

Dipole Model# / Serial#: D900V2 / 1d026

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

Target SAR (1W): 10.84 mW/g (1g)

Adjusted SAR (1W): 11.12 mW/g (1g)

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

Rotation (1D): 0.14 dB

Note: When Applicable

Prior to recording the reported SAR values below, the measured SAR values need to be corrected in accordance with FCD-1868 for tissue frequencies from 136 MHz to 3 GHz.

Reported: 2.780 mW/g (1g); 1.790 mW/g (10g)

Comments:

Probe: ES3DV3 - SN3096, Calibrated: 12/14/2009, ConvF(5.6, 5.6, 5.6)

Electronics: DAE4 Sn684, Calibrated: 12/9/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 900$  MHz;  $\sigma = 1.06$  mho/m;  $\epsilon_r = 53.1$ ;  $\rho = 1000$  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 = 53.8 V/m; Power Drift = 0.00187 dB

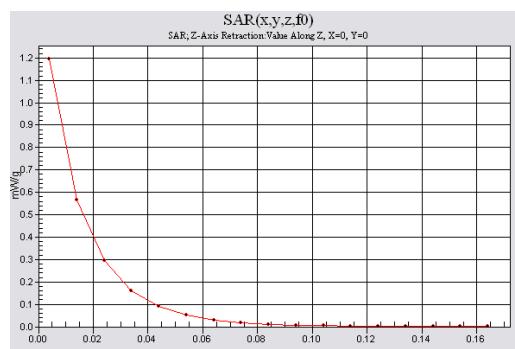
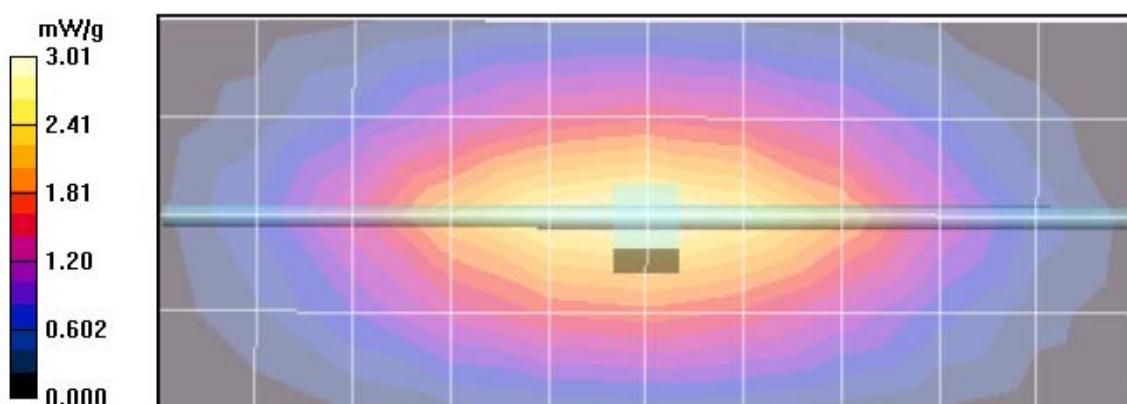
Peak SAR (extrapolated) = 4.17 W/kg

SAR(1 g) = 2.78 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

**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: 6/14/2010 7:14:19 AM

Robot# / Run#: DASY4-PG-1 / PS-SYSP-900B-100614-01

Phantom# / Tissue Temp.: ELI4 1037 / 21.2 (C)

Dipole Model# / Serial#: D900V2 / 1d026

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

Target SAR (1W): 10.84 mW/g (1g)

Adjusted SAR (1W): 11.08 mW/g (1g)

Percent from Target (+/-): 2.20 % (1g)

Rotation (1D): 0.13 dB

Note: When Applicable

Prior to recording the reported SAR values below, the measured SAR values need to be corrected in accordance with FCD-1868 for tissue frequencies from 136 MHz to 3 GHz.

Reported: 2.770 mW/g (1g); 1.770 mW/g (10g)

Comments:

Probe: ES3DV3 - SN3096, Calibrated: 12/14/2009, ConvF(5.6, 5.6, 5.6)

Electronics: DAE4 Sn684, Calibrated: 12/9/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 900$  MHz;  $\sigma = 1.06$  mho/m;  $\epsilon_r = 52.9$ ;  $\rho = 1000$  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 = 53.8 V/m; Power Drift = -0.000344 dB

Peak SAR (extrapolated) = 4.18 W/kg

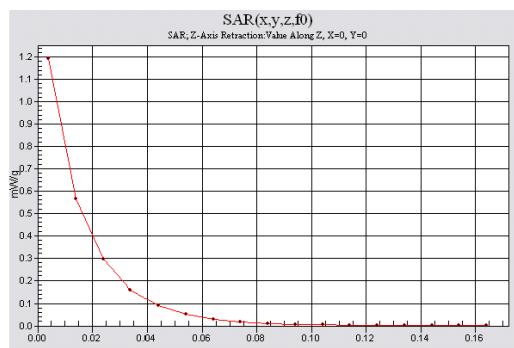
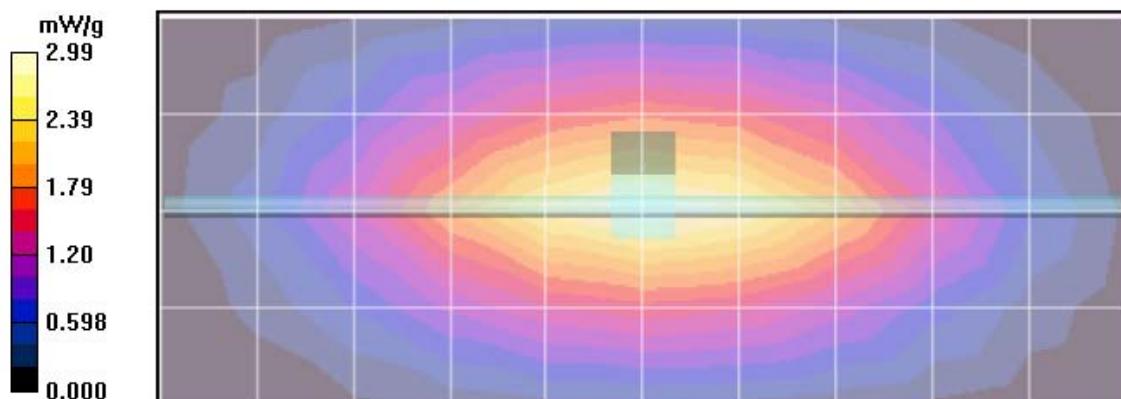
SAR(1 g) = 2.77 mW/g; SAR(10 g) = 1.77 mW/g

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



**Motorola Enterprise Mobility Solutions EME Laboratory**  
Date/Time: 6/15/2010 6:52:36 AM

Robot# / Run#: DASY4-PG-1 / PS-SYSP-900B-100615-01

Phantom# / Tissue Temp.: ELI4 1037 / 21.3 (C)

Dipole Model# / Serial#: D900V2 / 1d026

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

Target SAR (1W): 10.84 mW/g (1g)

Adjusted SAR (1W): 11.16 mW/g (1g)

Percent from Target (+/-): 3.00 % (1g)

Rotation (1D): 0.13 dB

Note: When Applicable

Prior to recording the reported SAR values below, the measured SAR values need to be corrected in accordance with FCD-1868 for tissue frequencies from 136 MHz to 3 GHz.

Reported: 2.790 mW/g (1g); 1.790 mW/g (10g)

Comments:

Probe: ES3DV3 - SN3096, Calibrated: 12/14/2009, ConvF(5.6, 5.6, 5.6)

Electronics: DAE4 Sn684, Calibrated: 12/9/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 900$  MHz;  $\sigma = 1.06$  mho/m;  $\epsilon_r = 52.8$ ;  $\rho = 1000$  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 = 54.2 V/m; Power Drift = -0.0108 dB

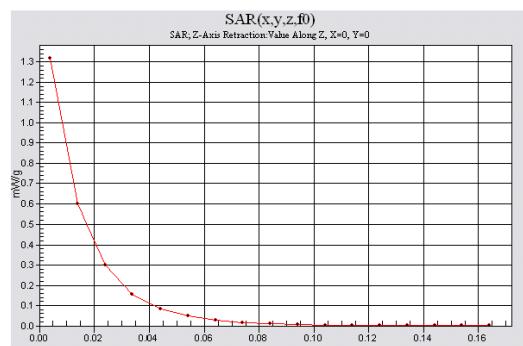
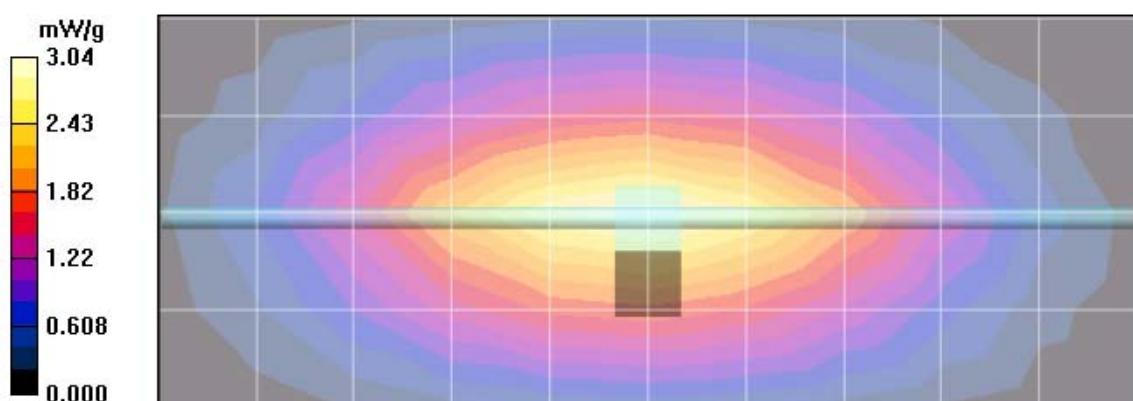
Peak SAR (extrapolated) = 4.22 W/kg

SAR(1 g) = 2.79 mW/g; SAR(10 g) = 1.79 mW/g

Maximum value of SAR (measured) = 3.04 mW/g

**System Performance Check/Dipole Area Scan 2 (5x11x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 3.02 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: 6/16/2010 6:43:13 AM

Robot# / Run#: DASY4-PG-1 / PS-SYSP-900H-100616-01

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

Dipole Model# / Serial#: D900V2 / 1d026

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

Target SAR (1W): 10.80 mW/g (1g)

Adjusted SAR (1W): 10.92 mW/g (1g)

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

Rotation (1D): 0.13 dB

Note: When Applicable

Prior to recording the reported SAR values below, the measured SAR values need to be corrected in accordance with FCD-1868 for tissue frequencies from 136 MHz to 3 GHz.

Reported: 2.730 mW/g (1g); 1.740 mW/g (10g)

Comments:

Probe: ES3DV3 - SN3096, Calibrated: 12/14/2009, ConvF(5.71, 5.71, 5.71)

Electronics: DAE4 Sn684, Calibrated: 12/9/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 900$  MHz;  $\sigma = 0.97$  mho/m;  $\epsilon_r = 40.2$ ;  $\rho = 1000$  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 = 55.6 V/m; Power Drift = 0.00449 dB

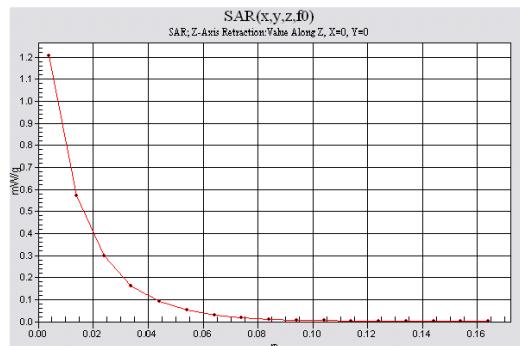
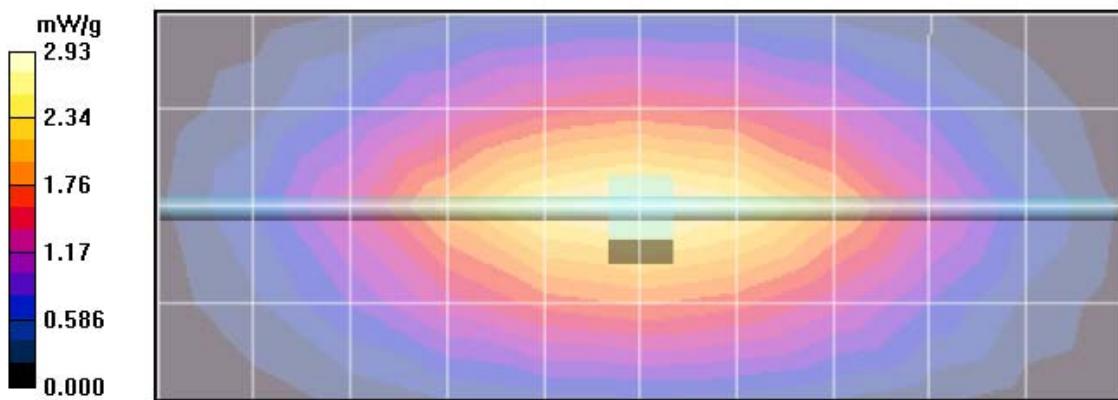
Peak SAR (extrapolated) = 4.19 W/kg

SAR(1 g) = 2.73 mW/g; SAR(10 g) = 1.74 mW/g

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

**System Performance Check/Dipole Area Scan 2 (5x11x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 2.93 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: 6/23/2010 3:41:41 PM

Robot# / Run#: DASY4-PG-1 / CcC-SYSP-900B-100623-08

Phantom# / Tissue Temp.: ELI4 1037 / 21.2 (C)

Dipole Model# / Serial#: D900V2 / 1d025

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

Target SAR (1W): 10.92 mW/g (1g)

Adjusted SAR (1W): 11.44 mW/g (1g)

Percent from Target (+/-): 4.80 % (1g)

Rotation (1D): 0.063 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: 2.860 mW/g (1g); 1.840 mW/g (10g)

**Comments:**

Probe: ES3DV3 - SN3122, Calibrated: 4/23/2010, ConvF(5.89, 5.89, 5.89)

Electronics: DAE4 Sn688, Calibrated: 4/21/2010

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 Cube (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm  
 Reference Value = 54.5 V/m; Power Drift = 0.000935 dB

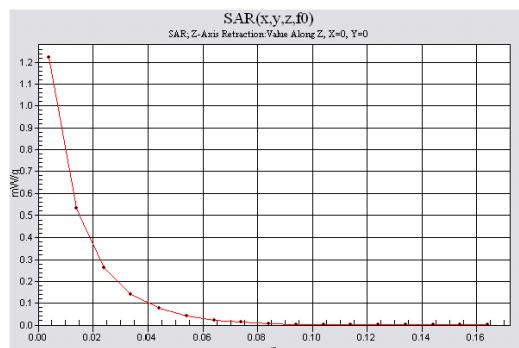
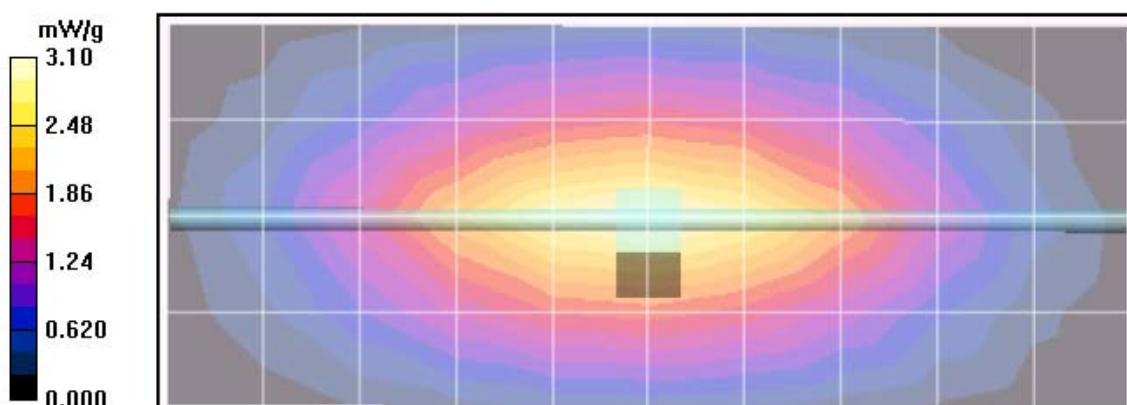
Peak SAR (extrapolated) = 4.25 W/kg

SAR(1 g) = 2.86 mW/g; SAR(10 g) = 1.84 mW/g

Maximum value of SAR (measured) = 3.10 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: 6/24/2010 11:02:46 AM

Robot# / Run#: DASY4-PG-1 / PS-SYSP-900B-100624-02

Phantom# / Tissue Temp.: ELI4 1037 / 21.2 (C)

Dipole Model# / Serial#: D900V2 / 1d025

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

Target SAR (1W): 10.92 mW/g (1g)

Adjusted SAR (1W): 11.40 mW/g (1g)

Percent from Target (+/-): 4.40 % (1g)

Rotation (1D): 0.065 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: 2.850 mW/g (1g); 1.830 mW/g (10g)

**Comments:**

Probe: ES3DV3 - SN3122, Calibrated: 4/23/2010, ConvF(5.89, 5.89, 5.89)

Electronics: DAE4 Sn688, Calibrated: 4/21/2010

Duty Cycle: 1:1, Medium parameters used:  $f = 900$  MHz;  $\sigma = 1.07$  mho/m;  $\epsilon_r = 52.8$ ;  $\rho = 1000$  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 = 54.4 V/m; Power Drift = -0.0145 dB

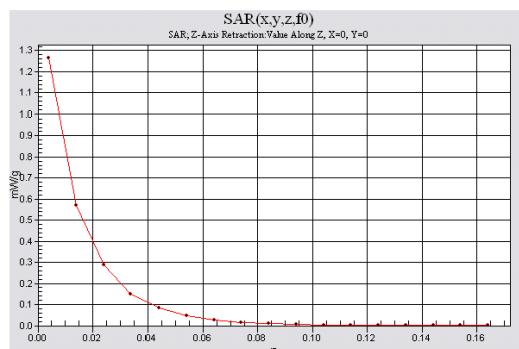
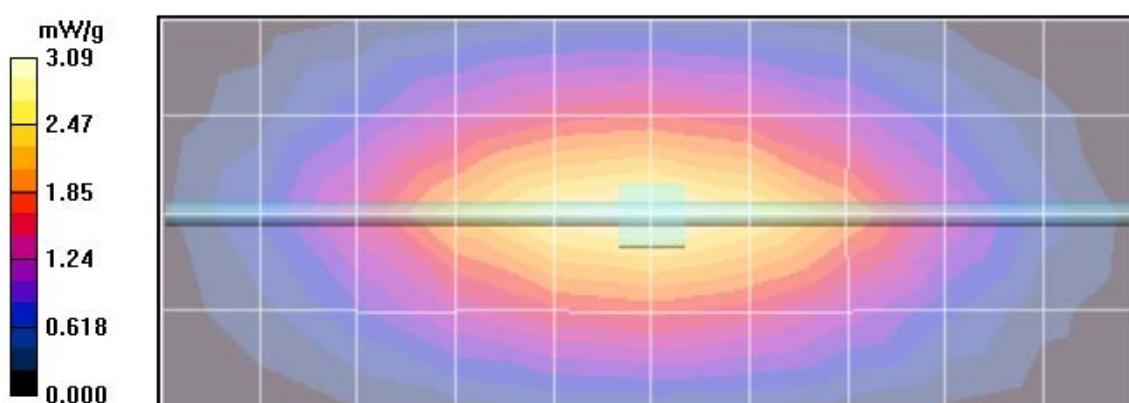
Peak SAR (extrapolated) = 4.27 W/kg

SAR(1 g) = 2.85 mW/g; SAR(10 g) = 1.83 mW/g

Maximum value of SAR (measured) = 3.10 mW/g

**System Performance Check/Dipole Area Scan 2 (5x11x1):** Measurement grid: dx=15mm, dy=15mm  
Maximum value of SAR (measured) = 3.09 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: 7/22/2010 6:54:38 AM

Robot# / Run#: DASY4-PG-1 / PS-SYSP-900B-100722-01

Phantom# / Tissue Temp.: ELI4 1028 / 21.3 (C)

Dipole Model# / Serial#: D900V2 / 1d025

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

Target SAR (1W): 10.92 mW/g (1g)

Adjusted SAR (1W): 10.92 mW/g (1g)

Percent from Target (+/-): 0.00 % (1g)

Rotation (1D): 0.064 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: 2.730 mW/g (1g); 1.760 mW/g (10g)

**Comments:**

Probe: ES3DV3 - SN3122, Calibrated: 4/23/2010, ConvF(5.89, 5.89, 5.89)

Electronics: DAE4 Sn688, Calibrated: 4/21/2010

Duty Cycle: 1:1, Medium parameters used:  $f = 900$  MHz;  $\sigma = 1.06$  mho/m;  $\epsilon_r = 52.8$ ;  $\rho = 1000$  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 = 53.3 V/m; Power Drift = -0.000991 dB

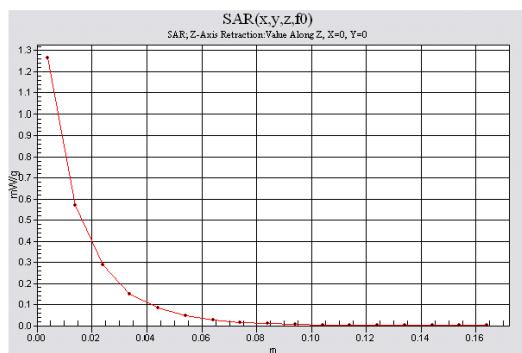
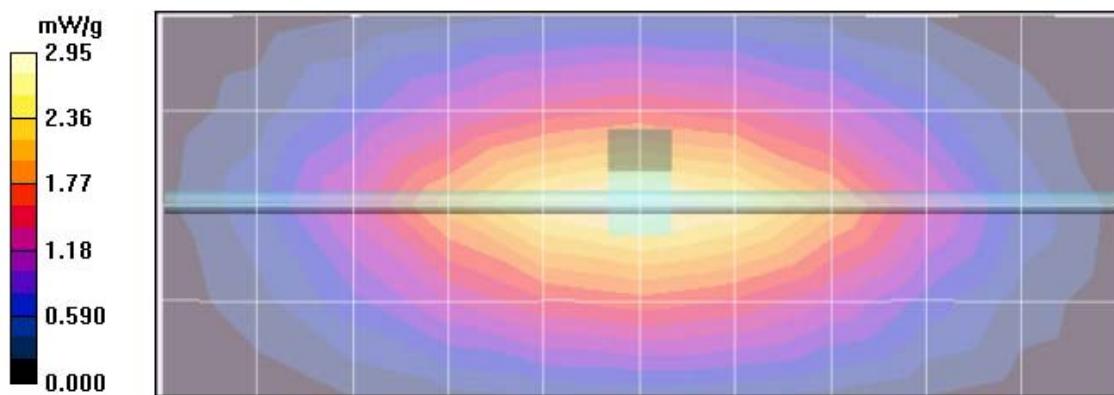
Peak SAR (extrapolated) = 4.08 W/kg

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



**DIPOLE SAR TARGET - BODY**

Date: 12/24/09  
 Lab Location: PG-EMS  
 DAE Serial #: 684

Frequency (MHz): 900  
 Mixture Type: Body  
 Ambient Temp.(°C): 22.1

## Tissue Characteristics

Permitivity: 52.9  
 Conductivity: 1.07  
 Tissue Temp.(°C): 20.8

Phantom Type/SN: ELI4 1028  
 Distance (mm): 15

Reference Source: Dipole  
 Reference SN: 1d026

Power to Dipole: 250 mW

**New Target:**

Average Measured SAR Value: 10.84 mW/g(1g avg.),

| Probe SN #s | 1-G Cube     | Diff from Ave | Robot                  |
|-------------|--------------|---------------|------------------------|
| <u>3096</u> | <u>10.84</u> | <u>0.0%</u>   | <u>R1</u>              |
| Average     |              |               | New Measured SAR Value |

(normalized to 1.0 W)

Test performed by:

CC Chang

Initial: C.C 12-24-09

**DIPOLE SAR TARGET - HEAD**

|               |                 |                    |                  |
|---------------|-----------------|--------------------|------------------|
| Date:         | <b>12/28/09</b> | Frequency (MHz):   | <b>900</b>       |
| Lab Location: | PG-EMS          | Mixture Type:      | <b>IEEE Head</b> |
| DAE Serial #: | 684             | Ambient Temp.(°C): | 22.1             |

|                        |      |                                    |                 |
|------------------------|------|------------------------------------|-----------------|
| Tissue Characteristics |      | Phantom Type/SN:<br>Distance (mm): | ELI4 1037<br>15 |
| Permitivity:           | 40.5 |                                    |                 |
| Conductivity:          | 0.98 |                                    |                 |
| Tissue Temp.(°C):      | 20.9 |                                    |                 |

|                   |              |                  |        |
|-------------------|--------------|------------------|--------|
| Reference Source: | Dipole       | Power to Dipole: | 250 mW |
| Reference SN:     | <b>1d026</b> |                  |        |

|  |             |                        |
|--|-------------|------------------------|
| Target 1g-SAR Value (mW/g, normalized to 1.0 W): | <b>10.9</b> | Difference from Target |
|  |             | -0.92% (1g-SAR)        |

|                              |              |                   |
|------------------------------|--------------|-------------------|
| New Target:                  |              |                   |
| Average 1g-SAR Value (mW/g): | <b>10.80</b> | <b>Passes K=2</b> |

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

| Probe<br>SN #s         | 1g-SAR<br>(Cube) | Diff from Ave          | Robot |
|------------------------|------------------|------------------------|-------|
| <b>3096</b>            | 10.80            | 0.0%                   | R1    |
| Average <b>10.8000</b> |                  | New Measured SAR Value |       |

(normalized to 1.0 W)

Test performed by: **Patrick Saw** Initial: ED-28-01

**DIPOLE SAR TARGET - BODY**

|               |                 |                    |             |
|---------------|-----------------|--------------------|-------------|
| Date:         | <b>06/09/10</b> | Frequency (MHz):   | <b>900</b>  |
| Lab Location: | PG-EMS          | Mixture Type:      | <b>Body</b> |
| DAE Serial #: | 688             | Ambient Temp.(°C): | 21.8        |

## Tissue Characteristics

|                   |      |                  |                  |
|-------------------|------|------------------|------------------|
| Permitivity:      | 53.2 | Phantom Type/SN: | <b>ELI4 1050</b> |
| Conductivity:     | 1.06 | Distance (mm):   | 15               |
| Tissue Temp.(°C): | 21.2 |                  |                  |

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

**New Target:**

Average Measured SAR Value: **10.92** mW/g(1g avg.),

| Probe SN #s | 1-G Cube | Diff from Ave | Robot                  |
|-------------|----------|---------------|------------------------|
| 3122        | 10.92    | 0.0%          | R1                     |
| Average     |          |               | New Measured SAR Value |

(normalized to 1.0 W)

Test performed by:

**Patrick Saw**Initial: PS 06-09-10

**DIPOLE SAR TARGET - HEAD**

Date: 06/04/10  
 Lab Location: PG-EMS  
 DAE Serial #: 688

Frequency (MHz): 900  
 Mixture Type: IEEE Head  
 Ambient Temp.(°C): 21.8

## Tissue Characteristics

Permitivity: 39.8  
 Conductivity: 0.97  
 Tissue Temp.(°C): 21.3

Phantom Type/SN: ELI4 1037  
 Distance (mm): 15

Reference Source: Dipole  
 Reference SN: 1d025

Power to Dipole: 250 mW

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

**10.9**

## Difference from Target

**0.18% (1g-SAR)**

## New Target:

Average 1g-SAR Value (mW/g): **10.92**

**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>            | 10.92         | 0.0%                   | R1    |
| Average <b>10.9200</b> |               | New Measured SAR Value |       |

(normalized to 1.0 W)

Test performed by:

**CC Chang**

Initial: C.C. 06-04-10

**Appendix E**  
**FCC Part 90 (806-824MHz, 851-869MHz, 896-901MHz & 935-940MHz)**  
**DUT Scans (Shortened Scan and Highest SAR configurations)**

## Shortened Scan Result (Section 13.5, Table 28)

**Motorola Enterprise Mobility Solutions EME Laboratory**  
Date/Time: 6/24/2010 1:20:25 PM

Robot# / Run#: DASY4-PG-1 / PS-AB-100624-04  
Phantom# / Tissue Temp.: ELI4 1037 / 21.4 (C)  
DUT Model# / Serial#: PMUF1473A / 477TLL0009  
Antenna / TX Freq.: PMAF4003A / 869.000 (MHz)  
Battery: NNTN7789A  
Carry Acc. / Cable Acc.: NONE / PMMN4067A  
Start Power: 1.19 (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: 1.530 mW/g (1g); 1.080 mW/g (10g)

Comments: Shortened. Radio back @ antenna 2.5cm.

Probe: ES3DV3 - SN3122, Calibrated: 4/23/2010, ConvF(5.89, 5.89, 5.89)

Electronics: DAE4 Sn688, Calibrated: 4/21/2010

Duty Cycle: 1:1, Medium parameters used:  $f = 860.5$  MHz;  $\sigma = 1.02$  mho/m;  $\epsilon_r = 53.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/1-Area Scan (61x221x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 40.2 V/m; Power Drift = -0.267 dB

**Motorola Fast SAR:** SAR(1 g) = 1.5 mW/g; SAR(10 g) = 1.04 mW/g

Maximum value of SAR (interpolated) = 1.60 mW/g

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

Reference Value = 40.2 V/m; Power Drift = -0.284 dB

Peak SAR (extrapolated) = 1.58 W/kg

**Motorola Fast SAR:** SAR(1 g) = 1.5 mW/g; SAR(10 g) = 1.04 mW/g

Maximum value of SAR (interpolated) = 1.58 mW/g

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

Reference Value = 40.9 V/m; Power Drift = -0.155 dB

Peak SAR (extrapolated) = 2.06 W/kg

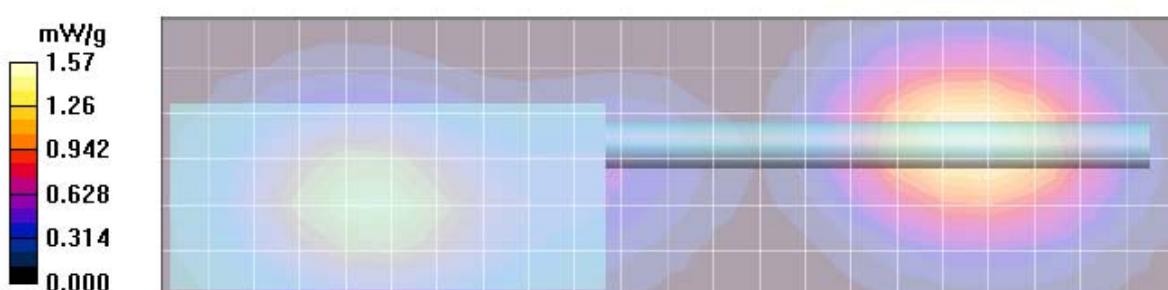
SAR(1 g) = 1.53 mW/g; SAR(10 g) = 1.08 mW/g

Maximum value of SAR (measured) = 1.63 mW/g

Shortened scan reflect highest SAR producing configuration; approximate run time 10 minutes. Representative full scan run time was 25 minutes.

“Shortened” scan max calculated SAR using SAR drift: 1-g Avg = 0.80mW/g; 10-g Avg = 0.56mW/g

Zoom scan max calculated SAR using drift (see part 1 section 13.2): 1-g Avg = 0.81mW/g; 10-g Avg = 0.57mW/g



## Body Highest SAR Configuration Result (Section 13.5, Table 28)

**Motorola Enterprise Mobility Solutions EME Laboratory**  
Date/Time: 6/24/2010 11:38:19 AM

Robot# / Run#: DASY4-PG-1 / PS-AB-100624-03  
 Phantom# / Tissue Temp.: ELI4 1037 / 21.2 (C)  
 DUT Model# / Serial#: PMUF1473A / 477TLL0009  
 Antenna / TX Freq.: PMAF4003A / 869.000 (MHz)  
 Battery: NNTN7789A  
 Carry Acc. / Cable Acc.: NONE / PMMN4067A  
 Start Power: 1.20 (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: 1.510 mW/g (1g); 1.060 mW/g (10g)

Comments: Radio back @ antenna 2.5cm.

Probe: ES3DV3 - SN3122, Calibrated: 4/23/2010, ConvF(5.89, 5.89, 5.89)

Electronics: DAE4 Sn688, Calibrated: 4/21/2010

Duty Cycle: 1:1, Medium parameters used:  $f = 860.5$  MHz;  $\sigma = 1.02$  mho/m;  $\epsilon_r = 53.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/1-Area Scan (61x221x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 41.0 V/m; Power Drift = -0.221 dB

**Motorola Fast SAR:** SAR(1 g) = 1.54 mW/g; SAR(10 g) = 1.07 mW/g

Maximum value of SAR (interpolated) = 1.64 mW/g

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

Reference Value = 41.0 V/m; Power Drift = -0.201 dB

Peak SAR (extrapolated) = 1.64 W/kg

**Motorola Fast SAR:** SAR(1 g) = 1.55 mW/g; SAR(10 g) = 1.08 mW/g

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

Reference Value = 41.0 V/m; Power Drift = -0.310 dB

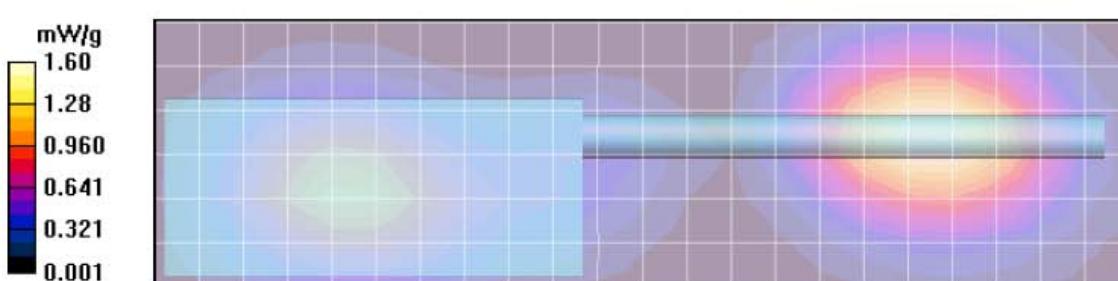
Peak SAR (extrapolated) = 2.04 W/kg

SAR(1 g) = 1.51 mW/g; SAR(10 g) = 1.06 mW/g

Maximum value of SAR (measured) = 1.62 mW/g

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

Maximum value of SAR (measured) = 1.60 mW/g



## Face Highest SAR Configuration Result (Section 13.4, Table 27)

### Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 7/22/2010 11:35:33 AM

Robot# / Run#: DASY4-PG-1 / PS-FACE-100722-05  
 Phantom# / Tissue Temp.: ELI4 1028 / 21.1 (C)  
 DUT Model# / Serial#: PMUF1473A / 477TLL0008  
 Antenna / TX Freq.: PMAF4003A / 940.000 (MHz)  
 Battery: NNTN7789A  
 Carry Acc. / Cable Acc.: NONE / NONE  
 Start Power: 1.19 (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: 0.825 mW/g (1g); 0.589 mW/g (10g)

#### Comments:

Probe: ES3DV3 - SN3122, Calibrated: 4/23/2010, ConvF(5.87, 5.87, 5.87)  
 Electronics: DAE4 Sn688, Calibrated: 4/21/2010  
 Duty Cycle: 1:1, Medium parameters used:  $f = 938$  MHz;  $\sigma = 1.01$  mho/m;  $\epsilon_r = 39.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

#### Face Scan/1-Area Scan (61x221x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 27.8 V/m; Power Drift = -0.513 dB  
 Motorola Fast SAR: SAR(1 g) = 0.859 mW/g; SAR(10 g) = 0.607 mW/g  
 Maximum value of SAR (interpolated) = 0.908 mW/g

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

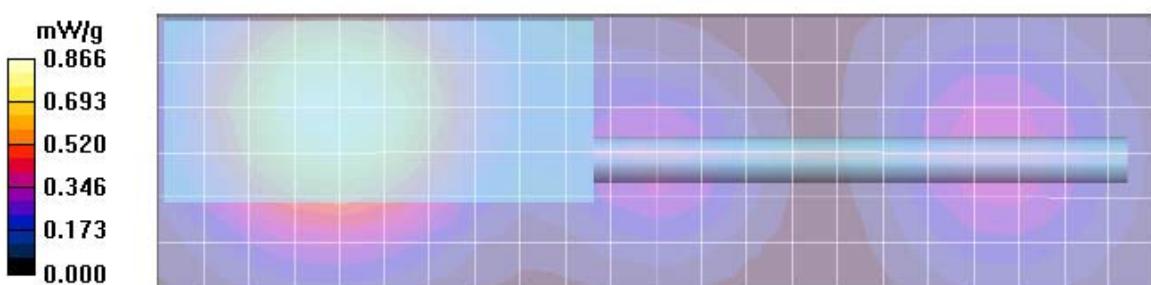
Reference Value = 27.8 V/m; Power Drift = -0.553 dB  
 Peak SAR (extrapolated) = 0.884 W/kg  
 Motorola Fast SAR: SAR(1 g) = 0.837 mW/g; SAR(10 g) = 0.591 mW/g  
 Maximum value of SAR (interpolated) = 0.884 mW/g

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

Reference Value = 27.8 V/m; Power Drift = -0.622 dB  
 Peak SAR (extrapolated) = 1.12 W/kg  
 SAR(1 g) = 0.825 mW/g; SAR(10 g) = 0.589 mW/g  
 Maximum value of SAR (measured) = 0.875 mW/g

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

Maximum value of SAR (measured) = 0.866 mW/g



**Appendix F**  
**DUT Scans**

**FCC Part 90 (806-824MHz, 851-869MHz, 896-901MHz & 935-940MHz)**

## Section 1.0 (806-824MHz band)

### Assessment at the Body (CW mode) – audio accessory PMMN4067A and offered body worn accessories (Section 13.1 Table 12)

#### Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 6/10/2010 11:31:49 AM

Robot# / Run#: DASY4-PG-1 / PS-AB-100610-04  
 Phantom# / Tissue Temp.: ELI4 1037 / 20.9 (C)  
 DUT Model# / Serial#: PMUF1473A / 477TLL0008  
 Antenna / TX Freq.: PMAF4003A / 815.500 (MHz)  
 Battery: NNTN7789A  
 Carry Acc. / Cable Acc.: PMLN5134A / PMMN4067A  
 Start Power: 1.23 (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: 0.452 mW/g (1g); 0.337 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3096, Calibrated: 12/14/2009, ConvF(5.6, 5.6, 5.6)

Electronics: DAE4 Sn684, Calibrated: 12/9/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 815.5$  MHz;  $\sigma = 0.97$  mho/m;  $\epsilon_r = 53.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/Area Scan (61x221x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 23.2 V/m; Power Drift = -0.236 dB

Motorola Fast SAR: SAR(1 g) = 0.462 mW/g; SAR(10 g) = 0.331 mW/g

Maximum value of SAR (interpolated) = 0.488 mW/g

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

Reference Value = 23.2 V/m; Power Drift = -0.258 dB

Peak SAR (extrapolated) = 0.481 W/kg

Motorola Fast SAR: SAR(1 g) = 0.457 mW/g; SAR(10 g) = 0.327 mW/g

Maximum value of SAR (interpolated) = 0.481 mW/g

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

Maximum value of SAR (measured) = 0.473 mW/g

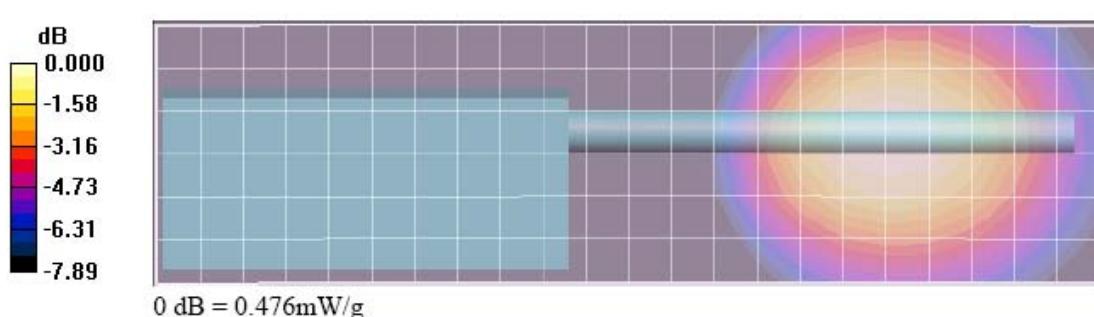
**Ab Scan/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 23.2 V/m; Power Drift = -0.318 dB

Peak SAR (extrapolated) = 0.585 W/kg

SAR(1 g) = 0.452 mW/g; SAR(10 g) = 0.337 mW/g

Maximum value of SAR (measured) = 0.476 mW/g



**Section 2.0**  
**(806-824MHz band)**  
**Assessment at the Body (CW mode) – Other Frequency Channels**  
**(Section 13.1 Table 13)**

**Motorola Enterprise Mobility Solutions EME Laboratory**  
 Date/Time: 6/11/2010 12:00:30 PM

Robot# / Run#: DASY4-PG-1 / CcC-AB-100611-08  
 Phantom# / Tissue Temp.: ELI4 1037 / 21.1 (C)  
 DUT Model# / Serial#: PMUF1473A / 477TLL0008  
 Antenna / TX Freq.: PMAF4003A / 824.000 (MHz)  
 Battery: NNTN7789A  
 Carry Acc. / Cable Acc.: PMLN5134A / PMMN4067A  
 Start Power: 1.21 (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: 0.475 mW/g (1g); 0.353 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3096, Calibrated: 12/14/2009, ConvF(5.6, 5.6, 5.6)

Electronics: DAE4 Sn684, Calibrated: 12/9/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 815.5$  MHz;  $\sigma = 0.97$  mho/m;  $\epsilon_r = 53.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/Area Scan (61x221x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 23.8 V/m; Power Drift = -0.226 dB

Motorola Fast SAR: SAR(1 g) = 0.486 mW/g; SAR(10 g) = 0.348 mW/g

Maximum value of SAR (interpolated) = 0.514 mW/g

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

Reference Value = 23.8 V/m; Power Drift = -0.259 dB

Peak SAR (extrapolated) = 0.504 W/kg

Motorola Fast SAR: SAR(1 g) = 0.480 mW/g; SAR(10 g) = 0.344 mW/g

Maximum value of SAR (interpolated) = 0.504 mW/g

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

Maximum value of SAR (measured) = 0.497 mW/g

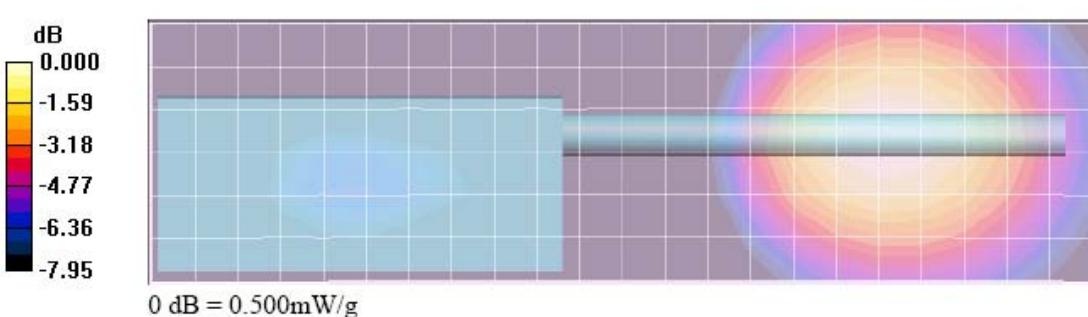
**Ab Scan/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 23.8 V/m; Power Drift = -0.314 dB

Peak SAR (extrapolated) = 0.615 W/kg

SAR(1 g) = 0.475 mW/g; SAR(10 g) = 0.353 mW/g

Maximum value of SAR (measured) = 0.500 mW/g



**Section 3.0**  
**(806-824MHz band)**  
**Assessment at 2.5cm without body worn accessory (CW mode)**  
**(Section 13.1 Table 14)**

**Motorola Enterprise Mobility Solutions EME Laboratory**  
 Date/Time: 6/11/2010 12:37:53 PM

Robot# / Run#: DASY4-PG-1 / CcC-AB-100611-09  
 Phantom# / Tissue Temp.: ELI4 1037 / 21.2 (C)  
 DUT Model# / Serial#: PMUF1473A / 477TLL0008  
 Antenna / TX Freq.: PMAF4003A / 824.000 (MHz)  
 Battery: NNTN7789A  
 Carry Acc. / Cable Acc.: NONE / PMMN4067A  
 Start Power: 1.21 (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: 1.460 mW/g (1g); 1.040 mW/g (10g)

Comments: Full scan. Radio back @ antenna 2.5cm.

Probe: ES3DV3 - SN3096, Calibrated: 12/14/2009, ConvF(5.6, 5.6, 5.6)

Electronics: DAE4 Sn684, Calibrated: 12/9/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 815.5$  MHz;  $\sigma = 0.97$  mho/m;  $\epsilon_r = 53.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/Area Scan (61x221x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 41.8 V/m; Power Drift = -0.241 dB

Motorola Fast SAR: SAR(1 g) = 1.5 mW/g; SAR(10 g) = 1.05 mW/g

Maximum value of SAR (interpolated) = 1.60 mW/g

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

Reference Value = 41.8 V/m; Power Drift = -0.274 dB

Peak SAR (extrapolated) = 1.57 W/kg

Motorola Fast SAR: SAR(1 g) = 1.48 mW/g; SAR(10 g) = 1.03 mW/g

Maximum value of SAR (interpolated) = 1.57 mW/g

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

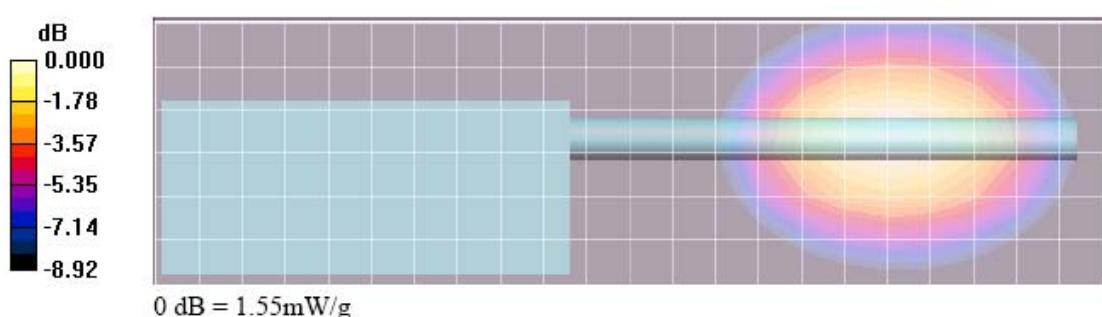
Maximum value of SAR (measured) = 1.54 mW/g

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

Reference Value = 41.8 V/m; Power Drift = -0.334 dB

Peak SAR (extrapolated) = 1.95 W/kg

SAR(1 g) = 1.46 mW/g; SAR(10 g) = 1.04 mW/g



**Section 4.0**  
**(806-824MHz band)**  
**Assessment at the Face (CW mode)**  
**(Section 13.1 Table 15)**

**Motorola Enterprise Mobility Solutions EME Laboratory**  
 Date/Time: 6/15/2010 5:41:51 PM

Robot# / Run#: DASY4-PG-1 / CcC-FACE-100615-11  
 Phantom# / Tissue Temp.: ELI4 1050 / 21.1 (C)

DUT Model# / Serial#: PMUF1473A/ 477TLL0008  
 Antenna / TX Freq.: PMAF4003A / 824.000 (MHz)  
 Battery: NNTN7789A  
 Carry Acc. / Cable Acc.: NONE / NONE  
 Start Power: 1.21 (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: 0.538 mW/g (1g); 0.390 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3096, Calibrated: 12/14/2009, ConvF(5.71, 5.71, 5.71)

Electronics: DAE4 Sn684, Calibrated: 12/9/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 815.5$  MHz;  $\sigma = 0.89$  mho/m;  $\epsilon_r = 41$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Face Scan/Area Scan (61x221x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 26.0 V/m; Power Drift = -0.228 dB

Motorola Fast SAR: SAR(1 g) = 0.552 mW/g; SAR(10 g) = 0.394 mW/g

Maximum value of SAR (interpolated) = 0.583 mW/g

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

Reference Value = 26.0 V/m; Power Drift = -0.249 dB

Peak SAR (extrapolated) = 0.571 W/kg

Motorola Fast SAR: SAR(1 g) = 0.540 mW/g; SAR(10 g) = 0.386 mW/g

Maximum value of SAR (interpolated) = 0.571 mW/g

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

Maximum value of SAR (measured) = 0.563 mW/g

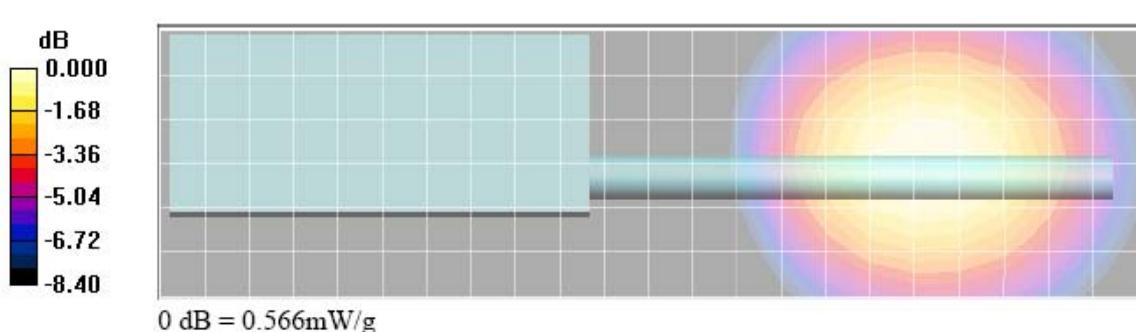
**Face Scan/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 26.0 V/m; Power Drift = -0.293 dB

Peak SAR (extrapolated) = 0.708 W/kg

SAR(1 g) = 0.535 mW/g; SAR(10 g) = 0.389 mW/g

Maximum value of SAR (measured) = 0.566 mW/g



## Section 5.0 (851-869MHz band)

### Assessment at the Body (CW mode) – audio accessory PMMN4067A and offered body worn accessories (Section 13.2 Table 16)

#### Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 6/11/2010 2:44:06 PM

Robot# / Run#: DASY4-PG-1 / PS-AB-100611-12  
 Phantom# / Tissue Temp.: ELI4 1037 / 21.0 (C)  
 DUT Model# / Serial#: PMUF1473A / 477TLL0008  
 Antenna / TX Freq.: PMAF4003A / 860.500 (MHz)  
 Battery: NNTN7789A  
 Carry Acc. / Cable Acc.: PMLN5134A / PMMN4067A  
 Start Power: 1.19 (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: 0.892 mW/g (1g); 0.641 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3096, Calibrated: 12/14/2009, ConvF(5.6, 5.6, 5.6)

Electronics: DAE4 Sn684, Calibrated: 12/9/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 860.5$  MHz;  $\sigma = 1.02$  mho/m;  $\epsilon_r = 53.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/Area Scan (61x221x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 23.3 V/m; Power Drift = -0.265 dB

Motorola Fast SAR: SAR(1 g) = 0.924 mW/g; SAR(10 g) = 0.645 mW/g

Maximum value of SAR (interpolated) = 0.983 mW/g

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

Reference Value = 23.3 V/m; Power Drift = -0.289 dB

Peak SAR (extrapolated) = 0.951 W/kg

Motorola Fast SAR: SAR(1 g) = 0.900 mW/g; SAR(10 g) = 0.627 mW/g

Maximum value of SAR (interpolated) = 0.951 mW/g

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

Maximum value of SAR (measured) = 0.940 mW/g

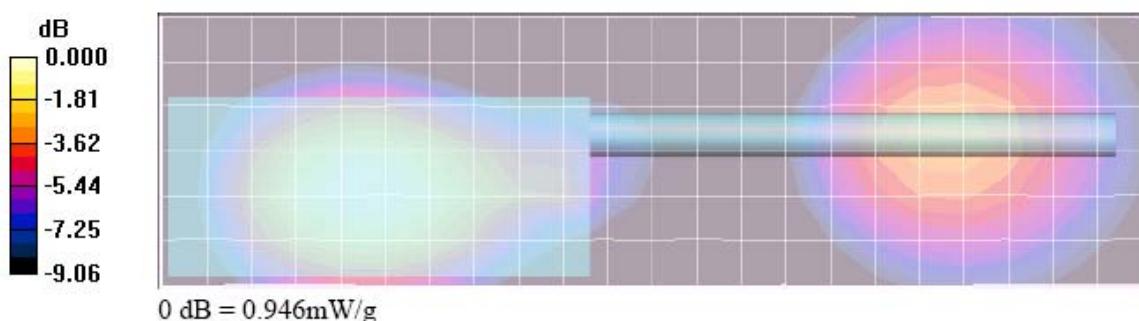
**Ab Scan/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 23.3 V/m; Power Drift = -0.337 dB

Peak SAR (extrapolated) = 1.17 W/kg

SAR(1 g) = 0.892 mW/g; SAR(10 g) = 0.641 mW/g

Maximum value of SAR (measured) = 0.946 mW/g



**Section 6.0**  
**(851-869MHz band)**  
**Assessment at the Body (CW mode) – Other Frequency Channels**  
**(Section 13.2 Table 17)**

**Motorola Enterprise Mobility Solutions EME Laboratory**  
 Date/Time: 6/11/2010 7:39:01 PM

Robot# / Run#: DASY4-PG-1 / PS-AB-100611-19  
 Phantom# / Tissue Temp.: ELI4 1037 / 21.1 (C)  
 DUT Model# / Serial#: PMUF1473A / 477TLL0008  
 Antenna / TX Freq.: PMAF4003A / 869.000 (MHz)  
 Battery: NNTN7789A  
 Carry Acc. / Cable Acc.: PMLN5134A / PMMN4067A  
 Start Power: 1.19 (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: 0.946 mW/g (1g); 0.678 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3096, Calibrated: 12/14/2009, ConvF(5.6, 5.6, 5.6)

Electronics: DAE4 Sn684, Calibrated: 12/9/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 860.5$  MHz;  $\sigma = 1.02$  mho/m;  $\epsilon_r = 53.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/Area Scan (61x221x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 24.5 V/m; Power Drift = -0.206 dB

Motorola Fast SAR: SAR(1 g) = 0.979 mW/g; SAR(10 g) = 0.682 mW/g

Maximum value of SAR (interpolated) = 1.04 mW/g

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

Reference Value = 24.5 V/m; Power Drift = -0.249 dB

Peak SAR (extrapolated) = 1.01 W/kg

Motorola Fast SAR: SAR(1 g) = 0.958 mW/g; SAR(10 g) = 0.666 mW/g

Maximum value of SAR (interpolated) = 1.01 mW/g

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

Maximum value of SAR (measured) = 0.997 mW/g

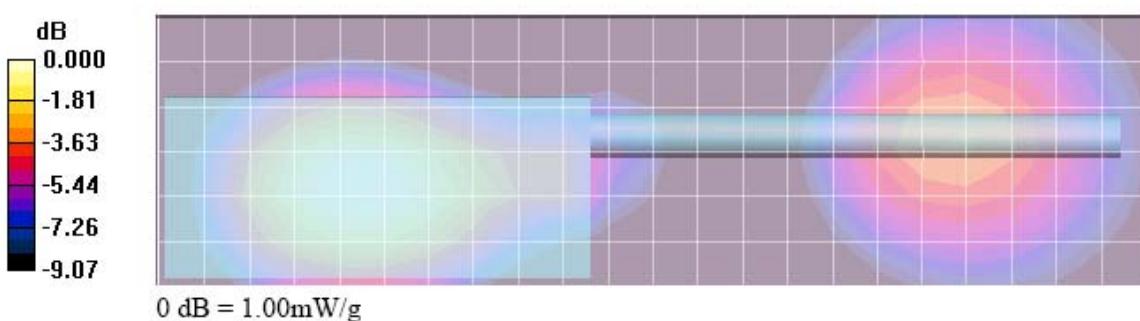
**Ab Scan/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 24.5 V/m; Power Drift = -0.270 dB

Peak SAR (extrapolated) = 1.24 W/kg

SAR(1 g) = 0.946 mW/g; SAR(10 g) = 0.678 mW/g

Maximum value of SAR (measured) = 1.00 mW/g



## Section 7.0

### (851-869MHz band)

#### Assessment at 2.5cm without body worn accessory (CW mode) (Section 13.2 Table 18)

**Motorola Enterprise Mobility Solutions EME Laboratory**

Date/Time: 6/24/2010 11:38:19 AM

Robot# / Run#: DASY4-PG-1 / PS-AB-100624-03  
 Phantom# / Tissue Temp.: ELI4 1037 / 21.2 (C)  
 DUT Model# / Serial#: PMUF1473A / 477TLL0009  
 Antenna / TX Freq.: PMAF4003A / 869.000 (MHz)  
 Battery: NNTN7789A  
 Carry Acc. / Cable Acc.: NONE / PMMN4067A  
 Start Power: 1.20 (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: 1.510 mW/g (1g); 1.060 mW/g (10g)

Comments: Radio back @ antenna 2.5cm.

Probe: ES3DV3 - SN3122, Calibrated: 4/23/2010, ConvF(5.89, 5.89, 5.89)

Electronics: DAE4 Sn688, Calibrated: 4/21/2010

Duty Cycle: 1:1, Medium parameters used:  $f = 860.5$  MHz;  $\sigma = 1.02$  mho/m;  $\epsilon_r = 53.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

#### Ab Scan/1-Area Scan (61x221x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 41.0 V/m; Power Drift = -0.221 dB

Motorola Fast SAR: SAR(1 g) = 1.54 mW/g; SAR(10 g) = 1.07 mW/g

Maximum value of SAR (interpolated) = 1.64 mW/g

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

Reference Value = 41.0 V/m; Power Drift = -0.201 dB

Peak SAR (extrapolated) = 1.64 W/kg

Motorola Fast SAR: SAR(1 g) = 1.55 mW/g; SAR(10 g) = 1.08 mW/g

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

Reference Value = 41.0 V/m; Power Drift = -0.310 dB

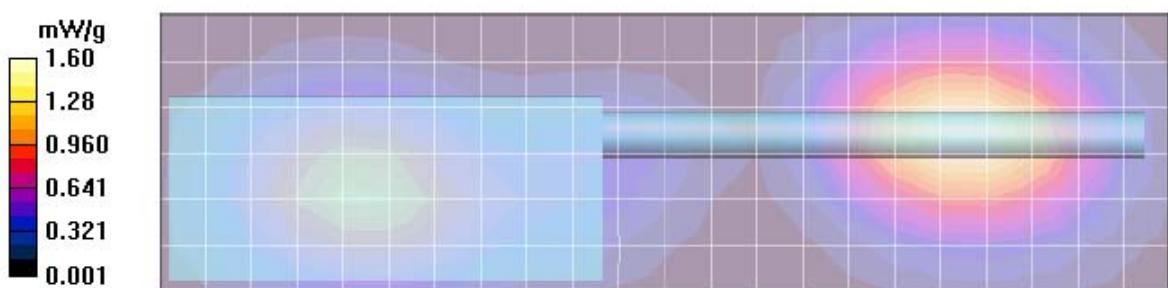
Peak SAR (extrapolated) = 2.04 W/kg

SAR(1 g) = 1.51 mW/g; SAR(10 g) = 1.06 mW/g

Maximum value of SAR (measured) = 1.62 mW/g

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

Maximum value of SAR (measured) = 1.60 mW/g



**Section 8.0**  
**(851-869MHz band)**  
**Assessment at the Face (CW mode)**  
**(Section 13.2 Table 19)**

**Motorola Enterprise Mobility Solutions EME Laboratory**  
 Date/Time: 6/15/2010 6:18:29 PM

Robot# / Run#: DASY4-PG-1 / CcC-FACE-100615-12  
 Phantom# / Tissue Temp.: ELI4 1050 / 21.0 (C)  
 DUT Model# / Serial#: PMUF1473A/477TLL0008  
 Antenna / TX Freq.: PMAF4003A / 851.0125 (MHz)  
 Battery: NNTN7789A  
 Carry Acc. / Cable Acc.: NONE / NONE  
 Start Power: 1.19 (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: 0.605 mW/g (1g); 0.438 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3096, Calibrated: 12/14/2009, ConvF(5.71, 5.71, 5.71)

Electronics: DAE4 Sn684, Calibrated: 12/9/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 860.5$  MHz;  $\sigma = 0.94$  mho/m;  $\epsilon_r = 40.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Face Scan/Area Scan (61x221x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 26.5 V/m; Power Drift = -0.212 dB

Motorola Fast SAR: SAR(1 g) = 0.617 mW/g; SAR(10 g) = 0.440 mW/g

Maximum value of SAR (interpolated) = 0.653 mW/g

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

Reference Value = 26.5 V/m; Power Drift = -0.217 dB

Peak SAR (extrapolated) = 0.637 W/kg

Motorola Fast SAR: SAR(1 g) = 0.605 mW/g; SAR(10 g) = 0.432 mW/g

Maximum value of SAR (interpolated) = 0.637 mW/g

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

Maximum value of SAR (measured) = 0.640 mW/g

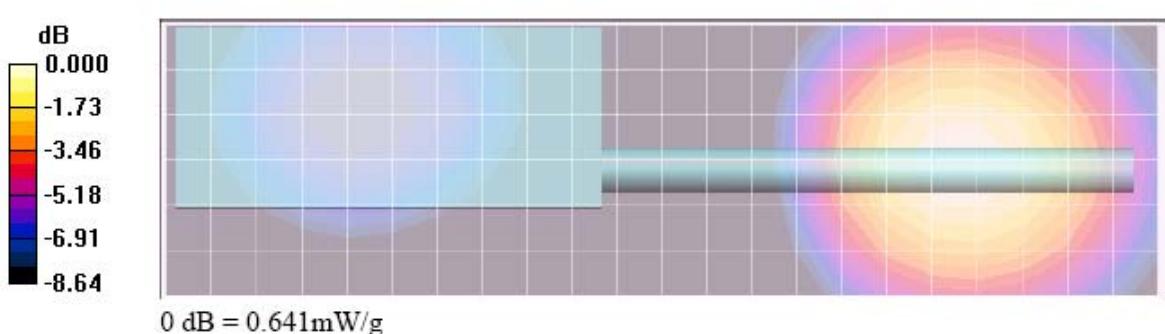
**Face Scan/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 26.5 V/m; Power Drift = -0.237 dB

Peak SAR (extrapolated) = 0.807 W/kg

SAR(1 g) = 0.605 mW/g; SAR(10 g) = 0.438 mW/g

Maximum value of SAR (measured) = 0.641 mW/g



## Section 9.0 (896-901MHz band)

### Assessment at the Body (CW mode) – audio accessory PMMN4067A and offered body worn accessories (Section 13.3 Table 20)

#### Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 6/14/2010 8:37:03 AM

Robot# / Run#: DASY4-PG-1 / PS-AB-100614-03  
 Phantom# / Tissue Temp.: ELI4 1037 / 21.3 (C)  
 DUT Model# / Serial#: PMUF1473A / 477TLL0008  
 Antenna / TX Freq.: PMAF4003A / 899.000 (MHz)  
 Battery: NNTN7789A  
 Carry Acc. / Cable Acc.: PMLN5134A / PMMN4067A  
 Start Power: 1.21 (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: 1.480 mW/g (1g); 1.060 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3096, Calibrated: 12/14/2009, ConvF(5.6, 5.6, 5.6)

Electronics: DAE4 Sn684, Calibrated: 12/9/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 899$  MHz;  $\sigma = 1.06$  mho/m;  $\epsilon_r = 52.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/Area Scan (61x221x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 31.1 V/m; Power Drift = -0.282 dB

Motorola Fast SAR: SAR(1 g) = 1.56 mW/g; SAR(10 g) = 1.08 mW/g

Maximum value of SAR (interpolated) = 1.66 mW/g

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

Reference Value = 31.1 V/m; Power Drift = -0.310 dB

Peak SAR (extrapolated) = 1.60 W/kg

Motorola Fast SAR: SAR(1 g) = 1.51 mW/g; SAR(10 g) = 1.04 mW/g

Maximum value of SAR (interpolated) = 1.60 mW/g

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

Maximum value of SAR (measured) = 1.56 mW/g

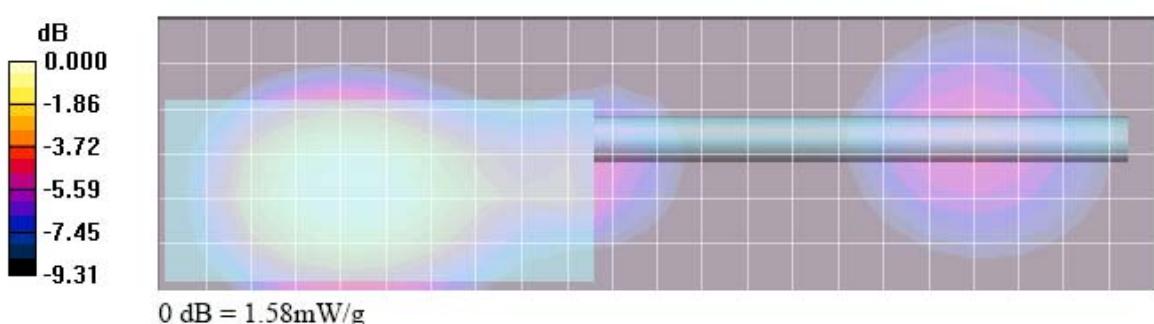
**Ab Scan/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 31.1 V/m; Power Drift = -0.386 dB

Peak SAR (extrapolated) = 1.95 W/kg

SAR(1 g) = 1.48 mW/g; SAR(10 g) = 1.06 mW/g

Maximum value of SAR (measured) = 1.58 mW/g



**Section 10.0**  
**(896-901MHz band)**  
**Assessment at the Body (CW mode) – Other Frequency Channels**  
**(Section 13.3 Table 21)**

**Motorola Enterprise Mobility Solutions EME Laboratory**  
 Date/Time: 6/14/2010 11:55:25 AM

Robot# / Run#: DASY4-PG-1 / PS-AB-100614-08  
 Phantom# / Tissue Temp.: ELI4 1037 / 21.2 (C)  
 DUT Model# / Serial#: PMUF1473A / 477TLL0008  
 Antenna / TX Freq.: PMAF4003A / 896.000 (MHz)  
 Battery: NNTN7789A  
 Carry Acc. / Cable Acc.: PMLN5134A / PMMN4067A  
 Start Power: 1.20 (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: 1.430 mW/g (1g); 1.020 mW/g (10g)

Comments: Full scan.

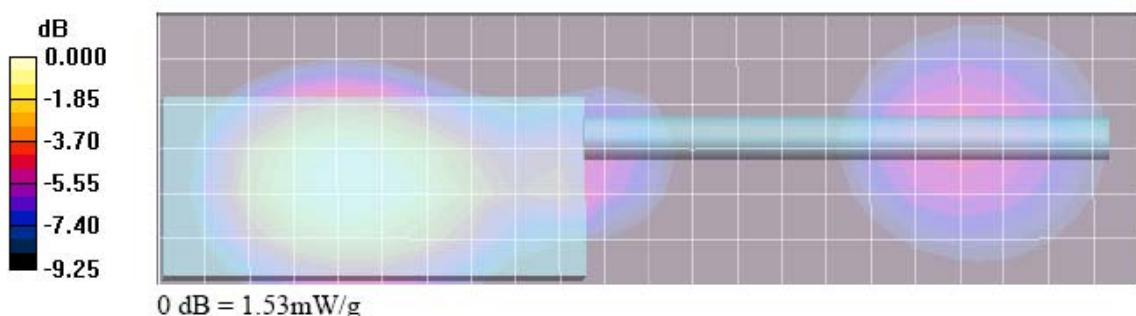
Probe: ES3DV3 - SN3096, Calibrated: 12/14/2009, ConvF(5.6, 5.6, 5.6)  
 Electronics: DAE4 Sn684, Calibrated: 12/9/2009  
 Duty Cycle: 1:1, Medium parameters used:  $f = 899$  MHz;  $\sigma = 1.06$  mho/m;  $\epsilon_r = 52.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/Area Scan (61x221x1):** Measurement grid: dx=15mm, dy=15mm  
 Reference Value = 30.7 V/m; Power Drift = -0.313 dB  
**Motorola Fast SAR:** SAR(1 g) = 1.51 mW/g; SAR(10 g) = 1.05 mW/g  
 Maximum value of SAR (interpolated) = 1.61 mW/g

**Ab Scan/Volume 2D Scan (41x41x1):** Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm  
 Reference Value = 30.7 V/m; Power Drift = -0.331 dB  
 Peak SAR (extrapolated) = 1.54 W/kg  
**Motorola Fast SAR:** SAR(1 g) = 1.46 mW/g; SAR(10 g) = 1.01 mW/g  
 Maximum value of SAR (interpolated) = 1.54 mW/g

**Ab Scan/Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm  
 Maximum value of SAR (measured) = 1.50 mW/g

**Ab Scan/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm  
 Reference Value = 30.7 V/m; Power Drift = -0.404 dB  
 Peak SAR (extrapolated) = 1.89 W/kg  
**SAR(1 g) = 1.43 mW/g; SAR(10 g) = 1.02 mW/g**  
 Maximum value of SAR (measured) = 1.53 mW/g



**Section 11.0**  
**(896-901MHz band)**  
**Assessment at 2.5cm without body worn accessory (CW mode)**  
**(Section 13.3 Table 22)**

**Motorola Enterprise Mobility Solutions EME Laboratory**  
 Date/Time: 6/14/2010 1:33:24 PM

Robot# / Run#: DASY4-PG-1 / PS-AB-100614-10  
 Phantom# / Tissue Temp.: ELI4 1037 / 21.2 (C)  
 DUT Model# / Serial#: PMUF1473A / 477TLL0008  
 Antenna / TX Freq.: PMAF4003A / 899.000 (MHz)  
 Battery: NNTN7789A  
 Carry Acc. / Cable Acc.: NONE / PMMN4067A  
 Start Power: 1.21 (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: 1.370 mW/g (1g); 0.958 mW/g (10g)

Comments: Full scan. Radio Back @ Ant. 2.5cm.

Probe: ES3DV3 - SN3096, Calibrated: 12/14/2009, ConvF(5.6, 5.6, 5.6)

Electronics: DAE4 Sn684, Calibrated: 12/9/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 899$  MHz;  $\sigma = 1.06$  mho/m;  $\epsilon_r = 52.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/Area Scan (61x221x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 38.1 V/m; Power Drift = -0.296 dB

Motorola Fast SAR: SAR(1 g) = 1.43 mW/g; SAR(10 g) = 0.987 mW/g

Maximum value of SAR (interpolated) = 1.52 mW/g

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

Reference Value = 38.1 V/m; Power Drift = -0.324 dB

Peak SAR (extrapolated) = 1.47 W/kg

Motorola Fast SAR: SAR(1 g) = 1.4 mW/g; SAR(10 g) = 0.965 mW/g

Maximum value of SAR (interpolated) = 1.47 mW/g

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

Maximum value of SAR (measured) = 1.45 mW/g

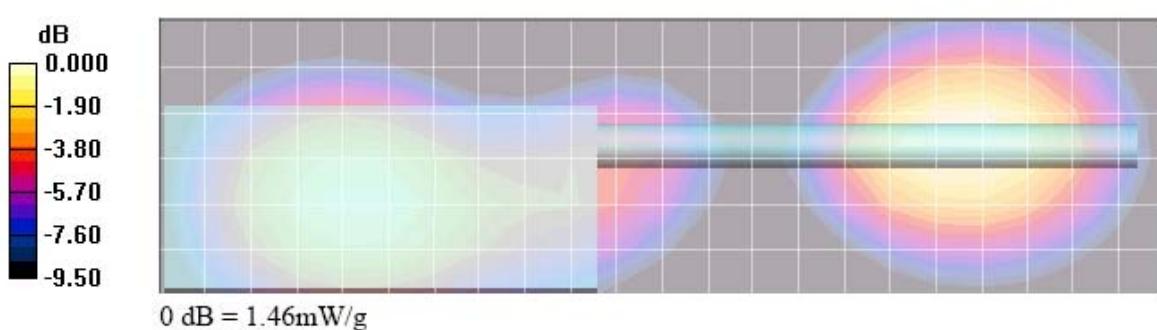
**Ab Scan/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 38.1 V/m; Power Drift = -0.379 dB

Peak SAR (extrapolated) = 1.87 W/kg

SAR(1 g) = 1.37 mW/g; SAR(10 g) = 0.958 mW/g

Maximum value of SAR (measured) = 1.46 mW/g



**Section 12.0**  
**(896-901MHz band)**  
**Assessment at the Face (CW mode)**  
**(Section 13.3 Table 23)**

**Motorola Enterprise Mobility Solutions EME Laboratory**  
 Date/Time: 6/15/2010 8:38:16 PM

Robot# / Run#: DASY4-PG-1 / CcC-FACE-100615-16  
 Phantom# / Tissue Temp.: ELI4 1050 / 21.1 (C)  
 DUT Model# / Serial#: PMUF1473A/ 477TLL0008  
 Antenna / TX Freq.: PMAF4003A / 896.000 (MHz)  
 Battery: NNTN7789A  
 Carry Acc. / Cable Acc.: NONE / NONE  
 Start Power: 1.19 (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: 0.538 mW/g (1g); 0.385 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3096, Calibrated: 12/14/2009, ConvF(5.71, 5.71, 5.71)

Electronics: DAE4 Sn684, Calibrated: 12/9/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 899$  MHz;  $\sigma = 0.97$  mho/m;  $\epsilon_r = 40.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Face Scan/Area Scan (61x221x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 23.3 V/m; Power Drift = -0.248 dB

**Motorola Fast SAR:** SAR(1 g) = 0.556 mW/g; SAR(10 g) = 0.394 mW/g

Maximum value of SAR (interpolated) = 0.588 mW/g

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

Reference Value = 23.3 V/m; Power Drift = -0.272 dB

Peak SAR (extrapolated) = 0.573 W/kg

**Motorola Fast SAR:** SAR(1 g) = 0.544 mW/g; SAR(10 g) = 0.387 mW/g

Maximum value of SAR (interpolated) = 0.573 mW/g

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

Maximum value of SAR (measured) = 0.566 mW/g

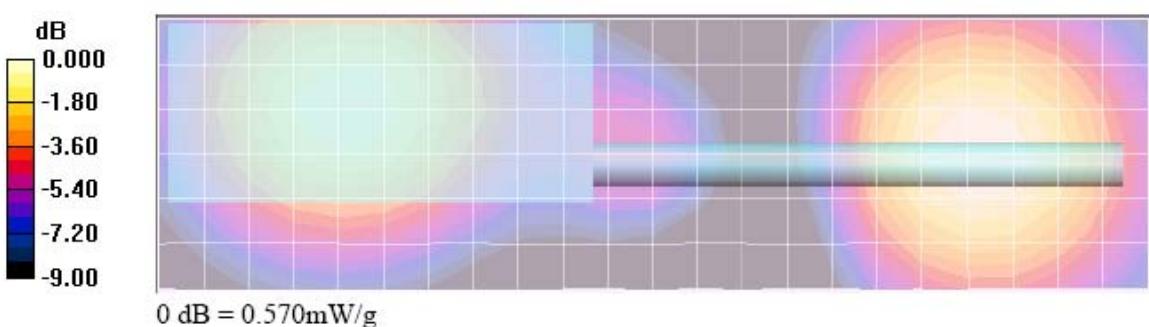
**Face Scan/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 23.3 V/m; Power Drift = -0.316 dB

Peak SAR (extrapolated) = 0.727 W/kg

SAR(1 g) = 0.538 mW/g; SAR(10 g) = 0.385 mW/g

Maximum value of SAR (measured) = 0.570 mW/g



### Section 13.0 (935-940MHz band)

#### Assessment at the Body (CW mode) – audio accessory PMMN4067A and offered body worn accessories (Section 13.4 Table 24)

**Motorola Enterprise Mobility Solutions EME Laboratory**  
Date/Time: 6/14/2010 3:35:29 PM

Robot# / Run#: DASY4-PG-1 / CcC-AB-100614-13  
Phantom# / Tissue Temp.: ELI4 1037 / 21.1 (C)  
DUT Model# / Serial#: PMUF1473A / 477TLL0008  
Antenna / TX Freq.: PMAF4003A / 938.000 (MHz)  
Battery: NNTN7789A  
Carry Acc. / Cable Acc.: PMLN5134A / PMMN4067A  
Start Power: 1.19 (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: 1.160 mW/g (1g); 0.825 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3096, Calibrated: 12/14/2009, ConvF(5.6, 5.6, 5.6)

Electronics: DAE4 Sn684, Calibrated: 12/9/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 938$  MHz;  $\sigma = 1.11$  mho/m;  $\epsilon_r = 52.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/Area Scan (61x241x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 28.5 V/m; Power Drift = -0.327 dB

Motorola Fast SAR: SAR(1 g) = 1.23 mW/g; SAR(10 g) = 0.847 mW/g

Maximum value of SAR (interpolated) = 1.31 mW/g

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

Reference Value = 28.5 V/m; Power Drift = -0.373 dB

Peak SAR (extrapolated) = 1.26 W/kg

Motorola Fast SAR: SAR(1 g) = 1.19 mW/g; SAR(10 g) = 0.815 mW/g

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

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

Maximum value of SAR (measured) = 1.23 mW/g

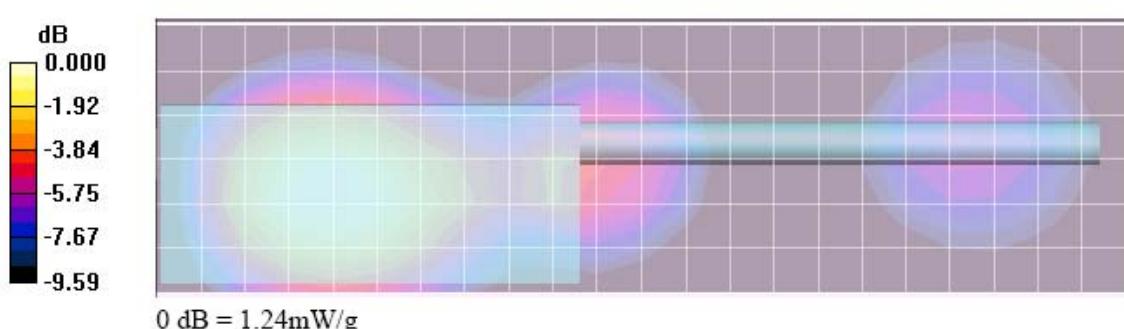
**Ab Scan/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 28.5 V/m; Power Drift = -0.431 dB

Peak SAR (extrapolated) = 1.54 W/kg

SAR(1 g) = 1.16 mW/g; SAR(10 g) = 0.825 mW/g

Maximum value of SAR (measured) = 1.24 mW/g



## Section 14.0 (935-940MHz band)

### Assessment at the Body (CW mode) – Other Frequency Channels (Section 13.4 Table 25)

#### Motorola Enterprise Mobility Solutions EME Laboratory

Date/Time: 7/22/2010 9:38:20 AM

Robot# / Run#: DASY4-PG-1 / PS-AB-100722-03  
 Phantom# / Tissue Temp.: ELI4 1028 / 21.4 (C)  
 DUT Model# / Serial#: PMUF1473A / 477TLL0008  
 Antenna / TX Freq.: PMAF4003A / 940.000 (MHz)  
 Battery: NNTN7789A  
 Carry Acc. / Cable Acc.: PMLN5134A / PMMN4067A  
 Start Power: 1.20 (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: 0.963 mW/g (1g); 0.687 mW/g (10g)

**Comments:**

Probe: ES3DV3 - SN3122, Calibrated: 4/23/2010, ConvF(5.89, 5.89, 5.89)

Electronics: DAE4 Sn688, Calibrated: 4/21/2010

Duty Cycle: 1:1, Medium parameters used:  $f = 938$  MHz;  $\sigma = 1.11$  mho/m;  $\epsilon_r = 52.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/1-Area Scan (61x221x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 26.4 V/m; Power Drift = -0.397 dB

Motorola Fast SAR: SAR(1 g) = 1.03 mW/g; SAR(10 g) = 0.713 mW/g

Maximum value of SAR (interpolated) = 1.10 mW/g

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

Reference Value = 26.4 V/m; Power Drift = -0.448 dB

Peak SAR (extrapolated) = 1.04 W/kg

Motorola Fast SAR: SAR(1 g) = 0.985 mW/g; SAR(10 g) = 0.681 mW/g

Maximum value of SAR (interpolated) = 1.04 mW/g

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

Reference Value = 26.4 V/m; Power Drift = -0.530 dB

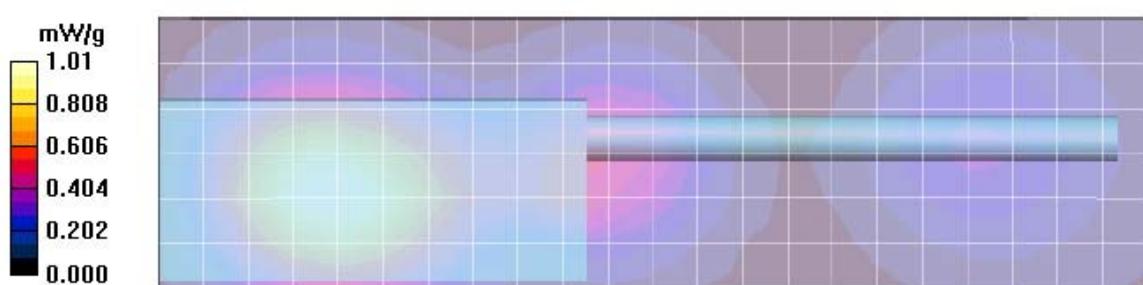
Peak SAR (extrapolated) = 1.27 W/kg

SAR(1 g) = 0.963 mW/g; SAR(10 g) = 0.687 mW/g

Maximum value of SAR (measured) = 1.02 mW/g

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

Maximum value of SAR (measured) = 1.01 mW/g



**Section 15.0**  
**(935-940MHz band)**

**Assessment at 2.5cm without body worn accessory (CW mode)**  
**(Section 13.4 Table 26)**

**Motorola Enterprise Mobility Solutions EME Laboratory**  
 Date/Time: 6/15/2010 7:27:11 AM

Robot# / Run#: DASY4-PG-1 / PS-AB-100615-02  
 Phantom# / Tissue Temp.: ELI4 1037 / 21.3 (C)  
 DUT Model# / Serial#: PMUF1473A / 477TLL0008  
 Antenna / TX Freq.: PMAF4003A / 938.000 (MHz)  
 Battery: NNTN7789A  
 Carry Acc. / Cable Acc.: NONE / PMMN4067A  
 Start Power: 1.21 (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: 0.501 mW/g (1g); 0.365 mW/g (10g)

Comments: Full scan. Radio Front @ 2.5cm.

Probe: ES3DV3 - SN3096, Calibrated: 12/14/2009, ConvF(5.6, 5.6, 5.6)

Electronics: DAE4 Sn684, Calibrated: 12/9/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 938$  MHz;  $\sigma = 1.1$  mho/m;  $\epsilon_r = 52.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/Area Scan (61x221x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 20.4 V/m; Power Drift = -0.425 dB

**Motorola Fast SAR:** SAR(1 g) = 0.521 mW/g; SAR(10 g) = 0.369 mW/g

Maximum value of SAR (interpolated) = 0.550 mW/g

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

Reference Value = 20.4 V/m; Power Drift = -0.461 dB

Peak SAR (extrapolated) = 0.534 W/kg

**Motorola Fast SAR:** SAR(1 g) = 0.507 mW/g; SAR(10 g) = 0.360 mW/g

Maximum value of SAR (interpolated) = 0.534 mW/g

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

Maximum value of SAR (measured) = 0.524 mW/g

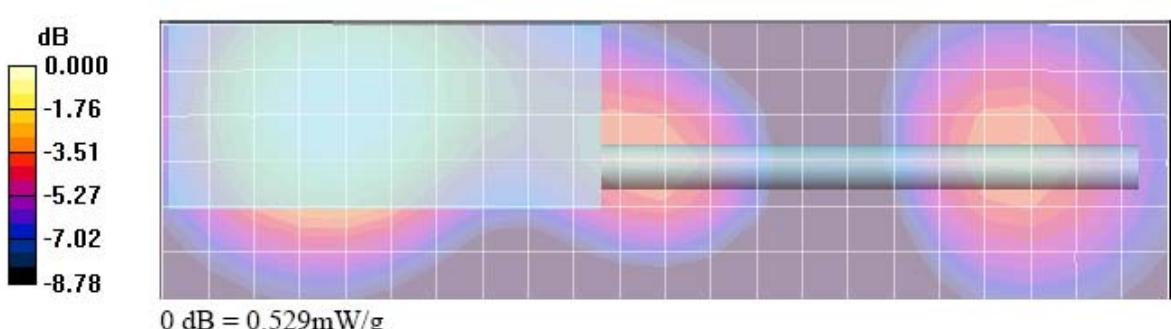
**Ab Scan/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 20.4 V/m; Power Drift = -0.518 dB

Peak SAR (extrapolated) = 0.662 W/kg

SAR(1 g) = 0.501 mW/g; SAR(10 g) = 0.365 mW/g

Maximum value of SAR (measured) = 0.529 mW/g



**Section 16.0**  
**(935-940MHz band)**  
**Assessment at the Face (CW mode)**  
**(Section 13.4 Table 27)**

**Motorola Enterprise Mobility Solutions EME Laboratory**

Date/Time: 7/22/2010 11:35:33 AM

Robot# / Run#: DASY4-PG-1 / PS-FACE-100722-05  
 Phantom# / Tissue Temp.: ELI4 1028 / 21.1 (C)  
 DUT Model# / Serial#: PMUF1473A / 477TLL0008  
 Antenna / TX Freq.: PMAF4003A / 940.000 (MHz)  
 Battery: NNTN7789A  
 Carry Acc. / Cable Acc.: NONE / NONE  
 Start Power: 1.19 (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: 0.825 mW/g (1g); 0.589 mW/g (10g)

**Comments:**

Probe: ES3DV3 - SN3122, Calibrated: 4/23/2010, ConvF(5.87, 5.87, 5.87)

Electronics: DAE4 Sn688, Calibrated: 4/21/2010

Duty Cycle: 1:1, Medium parameters used:  $f = 938$  MHz;  $\sigma = 1.01$  mho/m;  $\epsilon_r = 39.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Face Scan/1-Area Scan (61x221x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 27.8 V/m; Power Drift = -0.513 dB

Motorola Fast SAR: SAR(1 g) = 0.859 mW/g; SAR(10 g) = 0.607 mW/g

Maximum value of SAR (interpolated) = 0.908 mW/g

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

Reference Value = 27.8 V/m; Power Drift = -0.553 dB

Peak SAR (extrapolated) = 0.884 W/kg

Motorola Fast SAR: SAR(1 g) = 0.837 mW/g; SAR(10 g) = 0.591 mW/g

Maximum value of SAR (interpolated) = 0.884 mW/g

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

Reference Value = 27.8 V/m; Power Drift = -0.622 dB

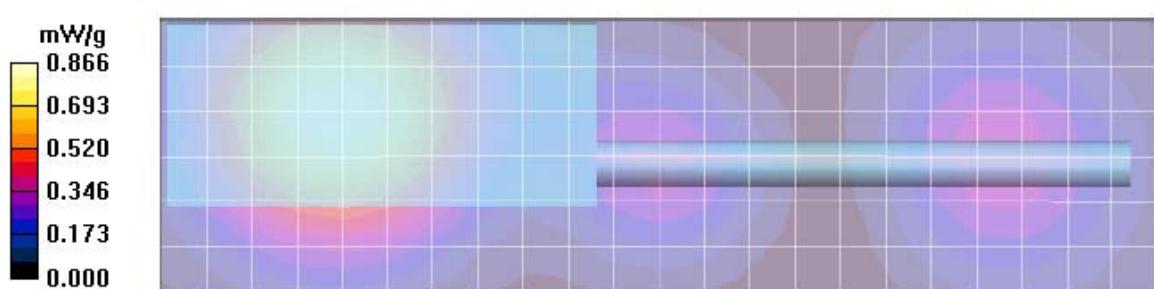
Peak SAR (extrapolated) = 1.12 W/kg

SAR(1 g) = 0.825 mW/g; SAR(10 g) = 0.589 mW/g

Maximum value of SAR (measured) = 0.875 mW/g

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

Maximum value of SAR (measured) = 0.866 mW/g



**Appendix G**  
**DUT Scans (824-825, 869-870, 901-902 & 940-941)**  
**Data enclosed for this appendix is not applicable for FCC Part 90**

**Section 1.0**  
**(806-825MHz band)**  
**Assessment at the Body (CW mode) – Other Frequency Channels**  
**(Section 13.1 Table 13)**

**Motorola Enterprise Mobility Solutions EME Laboratory**  
 Date/Time: 6/11/2010 11:25:51 AM

Robot# / Run#: DASY4-PG-1 / CcC-AB-100611-07  
 Phantom# / Tissue Temp.: ELI4 1037 / 21.4 (C)  
 DUT Model# / Serial#: PMUF1473A / 477TLL0008  
 Antenna / TX Freq.: PMAF4003A / 825.000 (MHz)  
 Battery: NNTN7789A  
 Carry Acc. / Cable Acc.: PMLN5134A / PMMN4067A  
 Start Power: 1.22 (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: 0.471 mW/g (1g); 0.349 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3096, Calibrated: 12/14/2009, ConvF(5.6, 5.6, 5.6)

Electronics: DAE4 Sn684, Calibrated: 12/9/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 815.5$  MHz;  $\sigma = 0.97$  mho/m;  $\epsilon_r = 53.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/Area Scan (61x221x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 23.6 V/m; Power Drift = -0.254 dB

Motorola Fast SAR: SAR(1 g) = 0.484 mW/g; SAR(10 g) = 0.346 mW/g

Maximum value of SAR (interpolated) = 0.512 mW/g

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

Reference Value = 23.6 V/m; Power Drift = -0.287 dB

Peak SAR (extrapolated) = 0.502 W/kg

Motorola Fast SAR: SAR(1 g) = 0.477 mW/g; SAR(10 g) = 0.340 mW/g

Maximum value of SAR (interpolated) = 0.502 mW/g

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

Maximum value of SAR (measured) = 0.490 mW/g

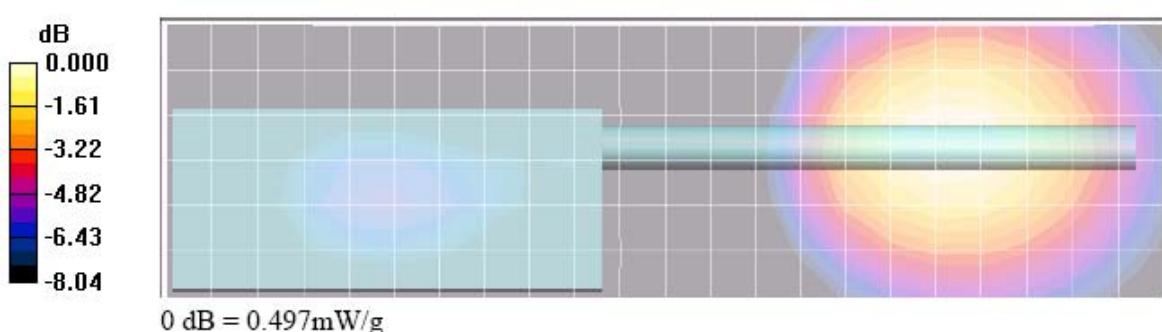
**Ab Scan/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 23.6 V/m; Power Drift = -0.341 dB

Peak SAR (extrapolated) = 0.614 W/kg

SAR(1 g) = 0.471 mW/g; SAR(10 g) = 0.349 mW/g

Maximum value of SAR (measured) = 0.497 mW/g



**Section 2.0**  
**(806-825MHz band)**  
**Assessment at the Face (CW mode)**  
**(Section 13.1 Table 15)**

**Motorola Enterprise Mobility Solutions EME Laboratory**  
 Date/Time: 6/15/2010 5:07:47 PM

Robot# / Run#: DASY4-PG-1 / CcC-FACE-100615-10  
 Phantom# / Tissue Temp.: ELI4 1050 / 20.9 (C)  
 DUT Model# / Serial#: PMUF1473A/477TLL0008  
 Antenna / TX Freq.: PMAF4003A / 825.000 (MHz)  
 Battery: NNTN7789A  
 Carry Acc. / Cable Acc.: NONE / NONE  
 Start Power: 1.22 (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: 0.534 mW/g (1g); 0.389 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3096, Calibrated: 12/14/2009, ConvF(5.71, 5.71, 5.71)

Electronics: DAE4 Sn684, Calibrated: 12/9/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 815.5$  MHz;  $\sigma = 0.89$  mho/m;  $\epsilon_r = 41$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Face Scan/Area Scan (61x221x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 26.1 V/m; Power Drift = -0.239 dB

**Motorola Fast SAR:** SAR(1 g) = 0.551 mW/g; SAR(10 g) = 0.393 mW/g

Maximum value of SAR (interpolated) = 0.582 mW/g

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

Reference Value = 26.1 V/m; Power Drift = -0.270 dB

Peak SAR (extrapolated) = 0.569 W/kg

**Motorola Fast SAR:** SAR(1 g) = 0.539 mW/g; SAR(10 g) = 0.385 mW/g

Maximum value of SAR (interpolated) = 0.569 mW/g

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

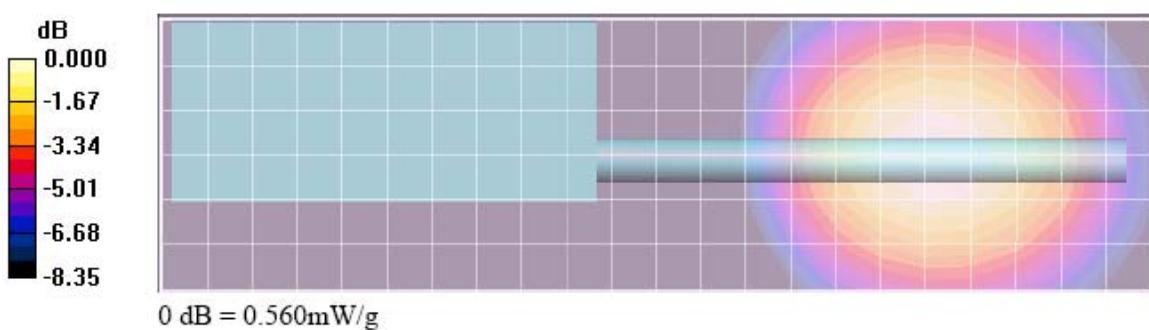
Maximum value of SAR (measured) = 0.560 mW/g

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

Reference Value = 26.1 V/m; Power Drift = -0.323 dB

Peak SAR (extrapolated) = 0.701 W/kg

SAR(1 g) = 0.531 mW/g; SAR(10 g) = 0.388 mW/g



**Section 3.0**  
**(851-870MHz band)**  
**Assessment at the Body (CW mode) – Other Frequency Channels**  
**(Section 13.2 Table 17)**

**Motorola Enterprise Mobility Solutions EME Laboratory**  
 Date/Time: 6/11/2010 6:57:10 PM

Robot# / Run#: DASY4-PG-1 / PS-AB-100611-18  
 Phantom# / Tissue Temp.: ELI4 1037 / 21.1 (C)  
 DUT Model# / Serial#: PMUF1473A / 477TLL0008  
 Antenna / TX Freq.: PMAF4003A / 870.000 (MHz)  
 Battery: NNTN7789A  
 Carry Acc. / Cable Acc.: PMLN5134A / PMMN4067A  
 Start Power: 1.20 (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: 1.130 mW/g (1g); 0.807 mW/g (10g)

Comments: Full scan.

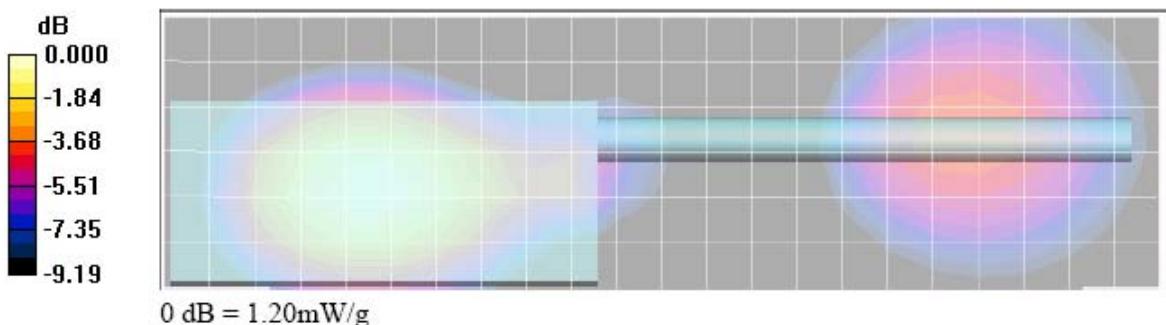
Probe: ES3DV3 - SN3096, Calibrated: 12/14/2009, ConvF(5.6, 5.6, 5.6)  
 Electronics: DAE4 Sn684, Calibrated: 12/9/2009  
 Duty Cycle: 1:1, Medium parameters used:  $f = 860.5$  MHz;  $\sigma = 1.02$  mho/m;  $\epsilon_r = 53.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/Area Scan (61x221x1):** Measurement grid: dx=15mm, dy=15mm  
 Reference Value = 25.9 V/m; Power Drift = -0.251 dB  
**Motorola Fast SAR:** SAR(1 g) = 1.17 mW/g; SAR(10 g) = 0.812 mW/g  
 Maximum value of SAR (interpolated) = 1.24 mW/g

**Ab Scan/Volume 2D Scan (41x41x1):** Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm  
 Reference Value = 25.9 V/m; Power Drift = -0.270 dB  
 Peak SAR (extrapolated) = 1.20 W/kg  
**Motorola Fast SAR:** SAR(1 g) = 1.13 mW/g; SAR(10 g) = 0.788 mW/g  
 Maximum value of SAR (interpolated) = 1.20 mW/g

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

**Ab Scan/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm  
 Reference Value = 25.9 V/m; Power Drift = -0.297 dB  
 Peak SAR (extrapolated) = 1.48 W/kg  
**SAR(1 g) = 1.13 mW/g; SAR(10 g) = 0.807 mW/g**  
 Maximum value of SAR (measured) = 1.20 mW/g



**Section 4.0**  
**(851-870MHz band)**  
**Assessment at 2.5cm without body worn accessory (CW mode)**  
**(Section 13.2 Table 18)**

**Motorola Enterprise Mobility Solutions EME Laboratory**  
Date/Time: 6/11/2010 8:16:50 PM

Robot# / Run#: DASY4-PG-1 / PS-AB-100611-20  
Phantom# / Tissue Temp.: ELI4 1037 / 21.1 (C)  
DUT Model# / Serial#: PMUF1473A / 477TLL0008  
Antenna / TX Freq.: PMAF4003A / 870.000 (MHz)  
Battery: NNTN7789A  
Carry Acc. / Cable Acc.: NONE / PMMN4067A  
Start Power: 1.20 (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: 1.410 mW/g (1g); 0.995 mW/g (10g)

Comments: Full scan. Radio Back @ Ant. 2.5cm.

Probe: ES3DV3 - SN3096, Calibrated: 12/14/2009, ConvF(5.6, 5.6, 5.6)

Electronics: DAE4 Sn684, Calibrated: 12/9/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 860.5$  MHz;  $\sigma = 1.02$  mho/m;  $\epsilon_r = 53.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/Area Scan (61x221x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 40.0 V/m; Power Drift = -0.287 dB

Motorola Fast SAR: SAR(1 g) = 1.47 mW/g; SAR(10 g) = 1.02 mW/g

Maximum value of SAR (interpolated) = 1.56 mW/g

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

Reference Value = 40.0 V/m; Power Drift = -0.314 dB

Peak SAR (extrapolated) = 1.52 W/kg

Motorola Fast SAR: SAR(1 g) = 1.44 mW/g; SAR(10 g) = 0.996 mW/g

Maximum value of SAR (interpolated) = 1.52 mW/g

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

Maximum value of SAR (measured) = 1.50 mW/g

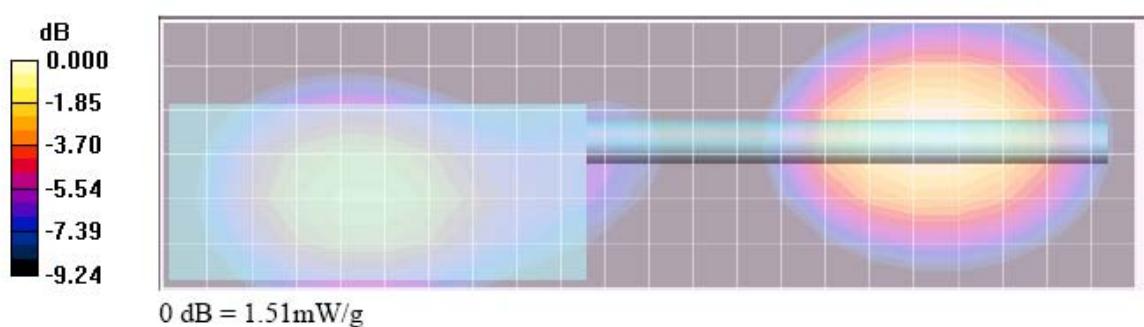
**Ab Scan/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 40.0 V/m; Power Drift = -0.368 dB

Peak SAR (extrapolated) = 1.91 W/kg

SAR(1 g) = 1.41 mW/g; SAR(10 g) = 0.995 mW/g

Maximum value of SAR (measured) = 1.51 mW/g



**Section 5.0**  
**(851-870MHz band)**  
**Assessment at the Face (CW mode)**  
**(Section 13.2 Table 19)**

**Motorola Enterprise Mobility Solutions EME Laboratory**  
 Date/Time: 6/15/2010 7:28:41 PM

Robot# / Run#: DASY4-PG-1 / CcC-FACE-100615-14  
 Phantom# / Tissue Temp.: ELI4 1050 / 20.9 (C)  
 DUT Model# / Serial#: PMUF1473A/ 477TLL0008  
 Antenna / TX Freq.: PMAF4003A / 870.000 (MHz)  
 Battery: NNTN7789A  
 Carry Acc. / Cable Acc.: NONE / NONE  
 Start Power: 1.20 (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: 0.596 mW/g (1g); 0.429 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3096, Calibrated: 12/14/2009, ConvF(5.71, 5.71, 5.71)

Electronics: DAE4 Sn684, Calibrated: 12/9/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 860.5$  MHz;  $\sigma = 0.94$  mho/m;  $\epsilon_r = 40.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Face Scan/Area Scan (61x221x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 25.7 V/m; Power Drift = -0.168 dB

Motorola Fast SAR: SAR(1 g) = 0.604 mW/g; SAR(10 g) = 0.430 mW/g

Maximum value of SAR (interpolated) = 0.638 mW/g

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

Reference Value = 25.7 V/m; Power Drift = -0.197 dB

Peak SAR (extrapolated) = 0.635 W/kg

Motorola Fast SAR: SAR(1 g) = 0.603 mW/g; SAR(10 g) = 0.429 mW/g

Maximum value of SAR (interpolated) = 0.635 mW/g

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

Maximum value of SAR (measured) = 0.625 mW/g

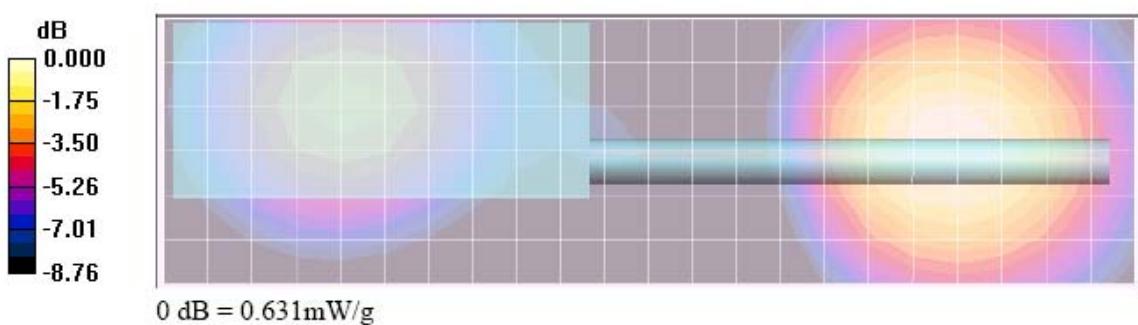
**Face Scan/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 25.7 V/m; Power Drift = -0.219 dB

Peak SAR (extrapolated) = 0.800 W/kg

SAR(1 g) = 0.596 mW/g; SAR(10 g) = 0.429 mW/g

Maximum value of SAR (measured) = 0.631 mW/g



**Section 6.0**  
**(896-902MHz band)**  
**Assessment at the Body (CW mode) – Other Frequency Channels**  
**(Section 13.3 Table 21)**

**Motorola Enterprise Mobility Solutions EME Laboratory**  
 Date/Time: 6/14/2010 12:50:40 PM

Robot# / Run#: DASY4-PG-1 / PS-AB-100614-09  
 Phantom# / Tissue Temp.: ELI4 1037 / 21.2 (C)  
 DUT Model# / Serial#: PMUF1473A / 477TLL0008  
 Antenna / TX Freq.: PMAF4003A / 902.000 (MHz)  
 Battery: NNTN7789A  
 Carry Acc. / Cable Acc.: PMLN5134A / PMMN4067A  
 Start Power: 1.21 (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: 1.430 mW/g (1g); 1.010 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3096, Calibrated: 12/14/2009, ConvF(5.6, 5.6, 5.6)

Electronics: DAE4 Sn684, Calibrated: 12/9/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 899$  MHz;  $\sigma = 1.06$  mho/m;  $\epsilon_r = 52.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/Area Scan (61x221x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 29.2 V/m; Power Drift = -0.340 dB

Motorola Fast SAR: SAR(1 g) = 1.51 mW/g; SAR(10 g) = 1.04 mW/g

Maximum value of SAR (interpolated) = 1.61 mW/g

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

Reference Value = 29.2 V/m; Power Drift = -0.376 dB

Peak SAR (extrapolated) = 1.54 W/kg

Motorola Fast SAR: SAR(1 g) = 1.45 mW/g; SAR(10 g) = 1 mW/g

Maximum value of SAR (interpolated) = 1.54 mW/g

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

Maximum value of SAR (measured) = 1.50 mW/g

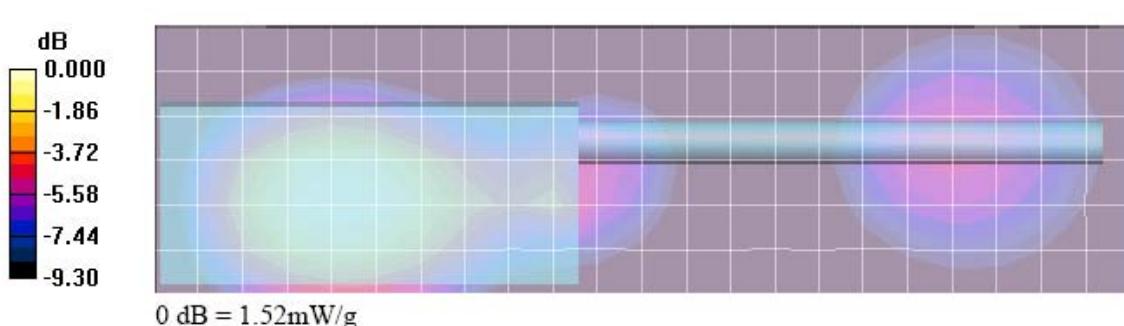
**Ab Scan/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 29.2 V/m; Power Drift = -0.441 dB

Peak SAR (extrapolated) = 1.87 W/kg

SAR(1 g) = 1.43 mW/g; SAR(10 g) = 1.01 mW/g

Maximum value of SAR (measured) = 1.52 mW/g



**Section 7.0**  
**(896-902MHz band)**  
**Assessment at the Face (CW mode)**  
**(Section 13.3 Table 23)**

**Motorola Enterprise Mobility Solutions EME Laboratory**  
 Date/Time: 6/16/2010 7:15:53 AM

Robot# / Run#: DASY4-PG-1 / PS-FACE-100616-02  
 Phantom# / Tissue Temp.: ELI4 1050 / 21.3 (C)  
 DUT Model# / Serial#: PMUF1473A/477TLL0008  
 Antenna / TX Freq.: PMAF4003A / 902.000 (MHz)  
 Battery: NNTN7789A  
 Carry Acc. / Cable Acc.: NONE / NONE  
 Start Power: 1.22 (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: 0.543 mW/g (1g); 0.393 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3096, Calibrated: 12/14/2009, ConvF(5.71, 5.71, 5.71)

Electronics: DAE4 Sn684, Calibrated: 12/9/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 899$  MHz;  $\sigma = 0.97$  mho/m;  $\epsilon_r = 40.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Face Scan/Area Scan (61x221x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 22.9 V/m; Power Drift = -0.281 dB

Motorola Fast SAR: SAR(1 g) = 0.560 mW/g; SAR(10 g) = 0.399 mW/g

Maximum value of SAR (interpolated) = 0.592 mW/g

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

Reference Value = 22.9 V/m; Power Drift = -0.306 dB

Peak SAR (extrapolated) = 0.579 W/kg

Motorola Fast SAR: SAR(1 g) = 0.549 mW/g; SAR(10 g) = 0.391 mW/g

Maximum value of SAR (interpolated) = 0.579 mW/g

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

Maximum value of SAR (measured) = 0.569 mW/g

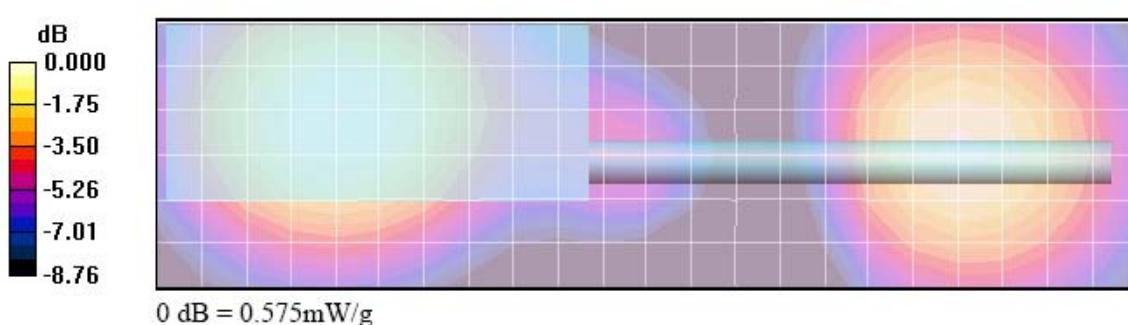
**Face Scan/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 22.9 V/m; Power Drift = -0.354 dB

Peak SAR (extrapolated) = 0.724 W/kg

SAR(1 g) = 0.543 mW/g; SAR(10 g) = 0.393 mW/g

Maximum value of SAR (measured) = 0.575 mW/g



**Section 8.0**  
**(935-941MHz band)**  
**Assessment at the Body (CW mode) – Other Frequency Channels**  
**(Section 13.4 Table 25)**

**Motorola Enterprise Mobility Solutions EME Laboratory**  
 Date/Time: 6/14/2010 7:24:38 PM

Robot# / Run#: DASY4-PG-1 / CcC-AB-100614-19  
 Phantom# / Tissue Temp.: ELI4 1037 / 21.0 (C)  
 DUT Model# / Serial#: PMUF1473A / 477TLL0008  
 Antenna / TX Freq.: PMAF4003A / 941.000 (MHz)  
 Battery: NNTN7789A  
 Carry Acc. / Cable Acc.: PMLN5134A / PMMN4067A  
 Start Power: 1.19 (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: 1.090 mW/g (1g); 0.775 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3096, Calibrated: 12/14/2009, ConvF(5.6, 5.6, 5.6)

Electronics: DAE4 Sn684, Calibrated: 12/9/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 938$  MHz;  $\sigma = 1.11$  mho/m;  $\epsilon_r = 52.5$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Ab Scan/Area Scan (61x221x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 27.6 V/m; Power Drift = -0.429 dB

Motorola Fast SAR: SAR(1 g) = 1.17 mW/g; SAR(10 g) = 0.806 mW/g

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

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

Reference Value = 27.6 V/m; Power Drift = -0.458 dB

Peak SAR (extrapolated) = 1.17 W/kg

Motorola Fast SAR: SAR(1 g) = 1.11 mW/g; SAR(10 g) = 0.766 mW/g

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

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

Maximum value of SAR (measured) = 1.15 mW/g

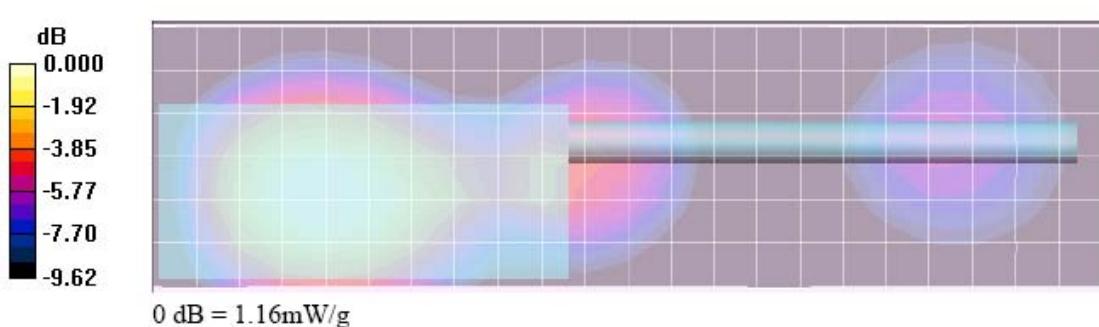
**Ab Scan/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 27.6 V/m; Power Drift = -0.529 dB

Peak SAR (extrapolated) = 1.44 W/kg

SAR(1 g) = 1.09 mW/g; SAR(10 g) = 0.775 mW/g

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



**Section 9.0**  
**(935-941MHz band)**  
**Assessment at the Face (CW mode)**  
**(Section 13.4 Table 27)**

**Motorola Enterprise Mobility Solutions EME Laboratory**  
 Date/Time: 6/16/2010 9:23:25 AM

Robot# / Run#: DASY4-PG-1 / PS-FACE-100616-05  
 Phantom# / Tissue Temp.: ELI4 1050 / 21.2 (C)  
 DUT Model# / Serial#: PMUF1473A/ 477TLL0008  
 Antenna / TX Freq.: PMAF4003A / 941.000 (MHz)  
 Battery: NNTN7789A  
 Carry Acc. / Cable Acc.: NONE / NONE  
 Start Power: 1.20 (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: 0.776 mW/g (1g); 0.556 mW/g (10g)

Comments: Full scan.

Probe: ES3DV3 - SN3096, Calibrated: 12/14/2009, ConvF(5.71, 5.71, 5.71)

Electronics: DAE4 Sn684, Calibrated: 12/9/2009

Duty Cycle: 1:1, Medium parameters used:  $f = 938$  MHz;  $\sigma = 1.01$  mho/m;  $\epsilon_r = 39.7$ ;  $\rho = 1000$  kg/m<sup>3</sup>

**Face Scan/Area Scan (61x221x1):** Measurement grid: dx=15mm, dy=15mm

Reference Value = 26.9 V/m; Power Drift = -0.421 dB

**Motorola Fast SAR:** SAR(1 g) = 0.808 mW/g; SAR(10 g) = 0.572 mW/g

Maximum value of SAR (interpolated) = 0.855 mW/g

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

Reference Value = 26.9 V/m; Power Drift = -0.456 dB

Peak SAR (extrapolated) = 0.835 W/kg

**Motorola Fast SAR:** SAR(1 g) = 0.791 mW/g; SAR(10 g) = 0.559 mW/g

Maximum value of SAR (interpolated) = 0.835 mW/g

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

Maximum value of SAR (measured) = 0.817 mW/g

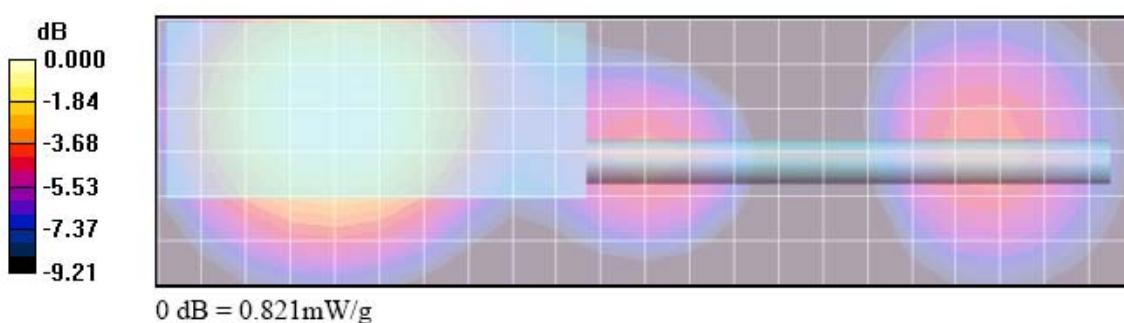
**Face Scan/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 26.9 V/m; Power Drift = -0.528 dB

Peak SAR (extrapolated) = 1.05 W/kg

SAR(1 g) = 0.776 mW/g; SAR(10 g) = 0.556 mW/g

Maximum value of SAR (measured) = 0.821 mW/g



## Appendix H

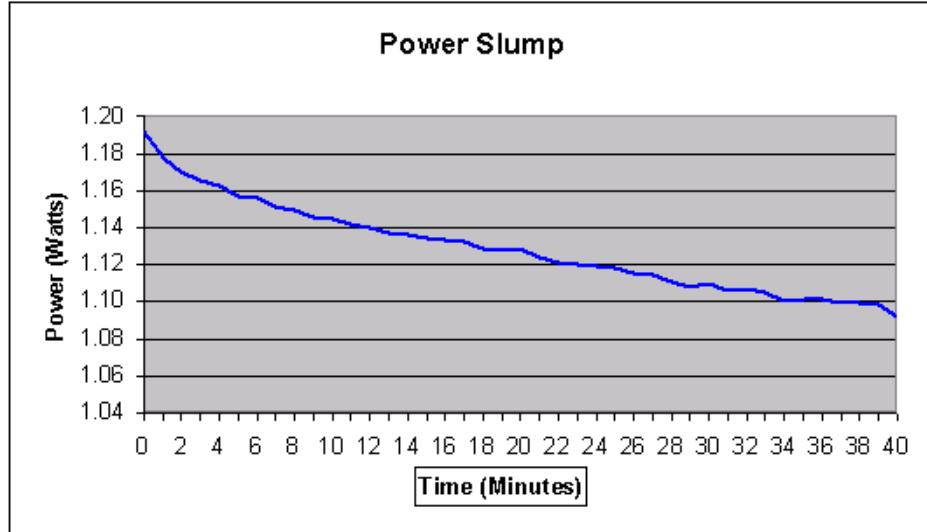
### DUT Supplementary Data (Power Slump)

**Power Slump Model # :** PMUF1473A  
**Serial # :** 477TLL0009

**Battery:** NNTN7789A      **Transmit Mode:** CW  
**Frequency:** 869 MHz      **Audio Accessory:** PMMN4067A  
**Date:** 06/29/2010

**Tx Time**      **Measure Power**  
  (Minutes)      (Watts)

|      |      |
|------|------|
| 0.0  | 1.19 |
| 1.0  | 1.18 |
| 2.0  | 1.17 |
| 3.0  | 1.17 |
| 4.0  | 1.16 |
| 5.0  | 1.16 |
| 6.0  | 1.16 |
| 7.0  | 1.15 |
| 8.0  | 1.15 |
| 9.0  | 1.15 |
| 10.0 | 1.14 |
| 11.0 | 1.14 |
| 12.0 | 1.14 |
| 13.0 | 1.14 |
| 14.0 | 1.14 |
| 15.0 | 1.13 |
| 16.0 | 1.13 |
| 17.0 | 1.13 |
| 18.0 | 1.13 |
| 19.0 | 1.13 |
| 20.0 | 1.13 |
| 21.0 | 1.12 |
| 22.0 | 1.12 |
| 23.0 | 1.12 |
| 24.0 | 1.12 |
| 25.0 | 1.12 |
| 26.0 | 1.12 |
| 27.0 | 1.11 |
| 28.0 | 1.11 |
| 29.0 | 1.11 |
| 30.0 | 1.11 |
| 31.0 | 1.11 |
| 32.0 | 1.11 |
| 33.0 | 1.10 |
| 34.0 | 1.10 |
| 35.0 | 1.10 |
| 36.0 | 1.10 |
| 37.0 | 1.10 |
| 38.0 | 1.10 |
| 39.0 | 1.10 |
| 40.0 | 1.09 |



## **Appendix I**

### **DUT Test Position Photos**

**Photos available in Exhibit 7B**

**Appendix J**  
**DUT and Body worn Accessory Photos**

**Photos available in Exhibit 7B**