



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

Enterprise Mobility Solutions EME Test Laboratory 8000 West Sunrise Blvd Fort Lauderdale, FL. 33322. **Date of Report:** 9/21/2010

**Report Revision:** O

Report ID: SAR rpt\_ H98QDD9PW5AN (MNUE1005A)

\_Rev.O\_100921\_SR8653

Responsible Engineer:Kim Uong (Principal Staff Eng.)Report Author:Kim Uong (Principal Staff Eng.)Date/s Tested:7/27/10 - 9/02/10, 9/16/10, 9/20/10Manufacturer/Location:Motorola, Reynosa/Schaumburg

**Sector/Group/Div.:** G&PS **Date submitted for test:** 7/23/10

**DUT Description:** APX6000 UHF R1 380 – 470 MHz, 3-5.7W, 6.25K/12.5K/25K, Basic Top Display

Model. Capable of digital and analog FM transmission. Also capable of TDMA

transmission.

Test TX mode(s): CW (PTT)

Max. Power output: 5.7 Watts

Nominal Power: 5.0 Watts

Tx Frequency Bands: 380 - 470 MHz

Signaling type: FM and TDMA

Model(s) Tested:H98QDD9PW5AN (MNUE1005A)Model(s) Certified:H98QDD9PW5AN (MNUE1005A)Serial Number(s):NUE1006A0052, NUE1006A0043

Classification: Occupational/Controlled

**FCC ID:** AZ489FT4899

FCC Rule Part(s): 90 (406.1 - 470 MHz) IC: 109U-89FT4899

IC standard(s): RSS 102 issue 4; Safety Code 6

The test results clearly demonstrate compliance with FCC Occupational/Controlled RF Exposure limits of 8 W/kg averaged over 1 gram per the requirements of 47 CFR 2.1093(d). The 10 grams result is not applicable to FCC filing. The test results clearly demonstrate compliance with ICNIRP (1998) Guidelines for limiting exposure in time-varying electric, magnetic, and electromagnetic fields (up to 300 GHz), Health Physics 74, 494-522 RF Exposure limits of 10 W/kg averaged over 10grams of contiguous tissue.

Based on the information and the testing results provided herein, the undersigned certifies that when used as stated in the operating instructions supplied, said product complies with the national and international reference standards and guidelines listed in section 3.0 of this report. This report shall not be reproduced without written approval from an officially designated representative of the Motorola EME Laboratory.

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

Signature on file – Deanna Zakharia Deanna Zakharia SEME Lab Sonior Poscource Managa

EMS EME Lab Senior Resource Manager, Laboratory Director

**Approval Date:** 10/1/2010

**Certification Date:** 

**Certification No.:** 

<sup>\*</sup> Refer to section 15 of part 1 for highest SAR summary results.

# **Appendix D Test System Verification Scans**

The SAR result indicated on the Manufacture's Calibrated certificates for dipoles D450V2 S/N 1001 and D450V2 S/N 1002 were not used due to the following:

- -- The IEEE 1528-2003 and the FCC OET-65 Supplement C, System Verification section indicated that "The measured 1-g SAR should be within 10% of the expected target values specified for the specific phantom and RF source used in the system verification measurement."
- -- SPEAG calibration certificate indicates that the allowed tolerance for this dipole is higher than  $\pm$ 10% (e.g. 5.05  $\pm$ 18.1% at k=2 for the D450V2 S/N 1001, and 5.03  $\pm$ 18.1% at k=2 for the D450V2 S/N 1002).
- -- The allowed tolerance for the probes is also higher than  $\pm$ 10% (e.g. 13.3% at k=2 at 450 MHz for the probe being used to assess this product).

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

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

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

Note that the targets set for the tested dipole, when using the simulated head tissue, meets the requirement for the system validation per IEEE1528-2003, IEC62209-2 Edition 1.0 2010-03 standards, and the difference between this result and the result from the manufacture's dipole calibration certificate is up to 8.9% for 450 dipole which is well within the measurement uncertainty of the measurement system at k=2.

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

# Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 7/27/2010 1:38:04 PM

Robot# / Run#: DASY4-FL-2 / JsT-SYSP-450H-100727-01

Phantom# / Tissue Temp.: OVAL1011 / 20.9 (C) Dipole Model# / Serial#: D450V2 / 1002 TX Freq. / Start power: 450 (MHz) / 250 (mW)

Target SAR (1W): 4.58 mW/g (1g)
Adjusted SAR (1W): 4.44 mW/g (1g)
Percent from Target (+/-): 3.1 % (1g)
Rotation (1D): 0.031 dB

#### Note:

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

Reported SAR: 1.11 mW/g (1g); 0.730 mW/g (10g)

#### Comments:

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.43, 6.43, 6.43)

Electronics: DAE4 Sn729, Calibrated: 3/10/2010

Duty Cycle: 1:1, Medium parameters used: f = 450 MHz;  $\sigma = 0.87 \text{ mho/m}$ ;  $\epsilon_r = 42.4$ ;  $\rho = 1000 \text{ kg/m}^3$ 

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

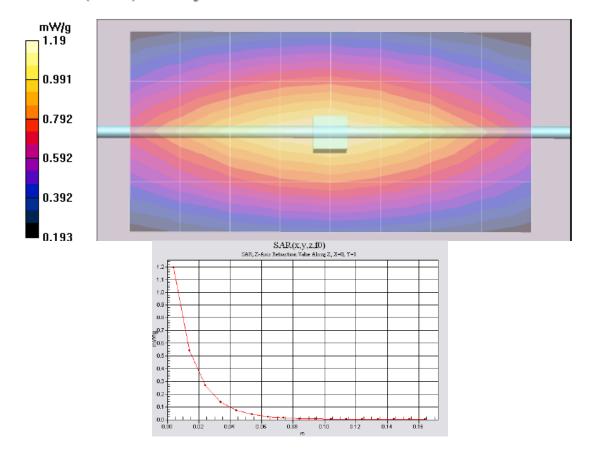
Reference Value = 37.1 V/m; Power Drift = 0.00537 dB

Peak SAR (extrapolated) = 1.70 W/kg

SAR(1 g) = 1.11 mW/g; SAR(10 g) = 0.730 mW/gMaximum value of SAR (measured) = 1.19 mW/g

System Performance Check/Dipole Area Scan 2 (5x9x1): Measurement grid: dx=15mm, dy=15mm System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

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



# Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 7/28/2010 6:21:25 AM

Robot# / Run#: DASY4-FL-2 / ErC-SYSP-450H-100728-01

Phantom# / Tissue Temp.: OVAL1011 / 20.5 (C) Dipole Model# / Serial#: D450V2 / 1002 TX Freq. / Start power: 450 (MHz) / 250 (mW)

Target SAR (1W): 4.58 mW/g (1g)
Adjusted SAR (1W): 4.48 mW/g (1g)
Percent from Target (+/-): 2.2 % (1g)
Rotation (1D): 0.039 dB

#### Note:

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

Reported SAR: 1.12 mW/g (1g); 0.736 mW/g (10g)

#### Comments:

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.43, 6.43, 6.43)

Electronics: DAE4 Sn729, Calibrated: 3/10/2010

Duty Cycle: 1:1, Medium parameters used: f = 450 MHz;  $\sigma = 0.86 \text{ mho/m}$ ;  $\epsilon_r = 42.1$ ;  $\rho = 1000 \text{ kg/m}^3$ 

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

Reference Value = 37.6 V/m; Power Drift = -0.00645 dB

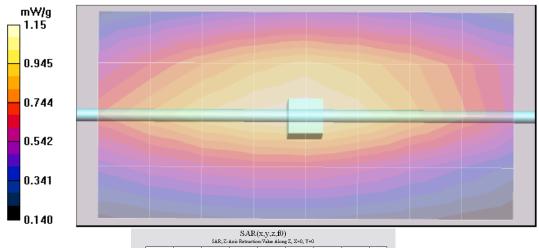
Peak SAR (extrapolated) = 1.70 W/kg

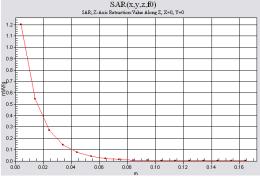
SAR(1 g) = 1.11 mW/g; SAR(10 g) = 0.734 mW/gMaximum value of SAR (measured) = 1.20 mW/g

#### System Performance Check/Dipole Area Scan 2 (5x9x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 1.15 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: 7/29/2010 11:33:57 AM

Robot# / Run#: DASY4-FL-2 / JsT-SYSP-450H-100729-01

Phantom# / Tissue Temp.: OVAL1011 / 20.4 (C) Dipole Model# / Serial#: D450V2 / 1002 TX Freq. / Start power: 450 (MHz) / 250 (mW)

Target SAR (1W): 4.58 mW/g (1g)
Adjusted SAR (1W): 4.56 mW/g (1g)
Percent from Target (+/-): 0.4 % (1g)
Rotation (1D): 0.036 dB

#### Note:

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

Reported SAR: 1.14 mW/g (1g); 0.746 mW/g (10g)

#### Comments:

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.43, 6.43, 6.43)

Electronics: DAE4 Sn729, Calibrated: 3/10/2010

Duty Cycle: 1:1, Medium parameters used: f = 450 MHz;  $\sigma = 0.87 \text{ mho/m}$ ;  $\epsilon_r = 42.4$ ;  $\rho = 1000 \text{ kg/m}^3$ 

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

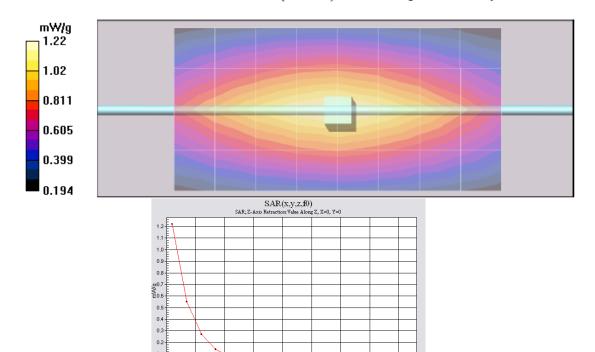
Reference Value = 37.7 V/m; Power Drift = -0.0156 dB

Peak SAR (extrapolated) = 1.74 W/kg

SAR(1 g) = 1.14 mW/g; SAR(10 g) = 0.746 mW/gMaximum value of SAR (measured) = 1.22 mW/g

System Performance Check/Dipole Area Scan 2 (5x9x1): 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: 7/30/2010 1:23:48 AM

Robot# / Run#: DASY4-FL-2 / MeC-SYSP-450H-100730-01 Phantom# / Tissue Temp.: OVAL1011 / 20.6 (C) Dipole Model# / Serial#: D450V2 / 1002 TX Freq. / Start power: 450 (MHz) / 250 (mW)

Target SAR (1W): 4.58 mW/g (1g) 4.60 mW/g (1g) Adjusted SAR (1W): Percent from Target (+/-): 0.4 % (1g) Rotation (1D): 0.034 dB

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

Reported SAR: 1.15 mW/g (1g); 0.754 mW/g (10g)

#### Comments:

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.43, 6.43, 6.43)

Electronics: DAE4 Sn729, Calibrated: 3/10/2010

Duty Cycle: 1:1, Medium parameters used: f = 450 MHz;  $\sigma = 0.88 \text{ mho/m}$ ;  $\epsilon_r = 42.6$ ;  $\rho = 1000 \text{ kg/m}^3$ 

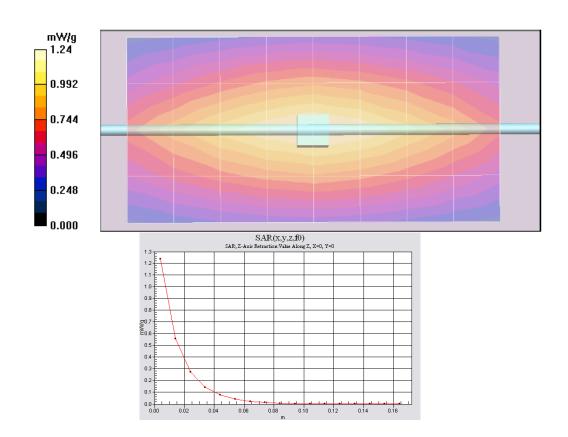
System Performance Check/0-Degree Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 37.6 V/m; Power Drift = -0.0273 dB

Peak SAR (extrapolated) = 1.75 W/kg

SAR(1 g) = 1.15 mW/g; SAR(10 g) = 0.754 mW/gMaximum value of SAR (measured) = 1.23 mW/g

System Performance Check/Dipole Area Scan 2 (41x81x1): Measurement grid: dx=15mm, dy=15mm System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm Maximum value of SAR (measured) = 1.24 mW/g



#### Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 7/31/2010 10:21:41 AM

Robot# / Run#: DASY4-FL-2 / MeC-SYSP-450H-100731-01

Phantom# / Tissue Temp.: OVAL1011 / 20.7 (C) Dipole Model# / Serial#: D450V2 / 1002 TX Freq. / Start power: 450 (MHz) / 250 (mW)

 $4.58\;m\mathrm{W/g}\;\;(1g)$ Target SAR (1W): Adjusted SAR (1W): 4.60 mW/g (1g)Percent from Target (+/-): 0.4 % (1g) Rotation (1D): 0.036 dB

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

Reported SAR: 1.15 mW/g (1g); 0.757 mW/g (10g)

#### Comments:

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.43, 6.43, 6.43)

Electronics: DAE4 Sn729, Calibrated: 3/10/2010

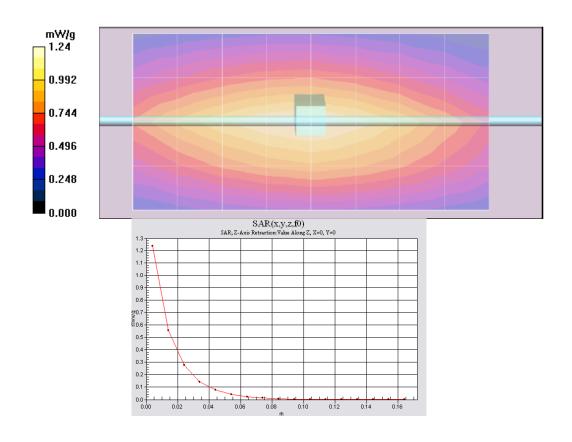
Duty Cycle: 1:1, Medium parameters used: f = 450 MHz;  $\sigma = 0.89 \text{ mho/m}$ ;  $\epsilon_r = 42.9$ ;  $\rho = 1000 \text{ kg/m}^3$ 

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

Reference Value = 37.4 V/m; Power Drift = 0.0339 dB

Peak SAR (extrapolated) = 1.76 W/kg

SAR(1 g) = 1.15 mW/g; SAR(10 g) = 0.757 mW/gMaximum value of SAR (measured) = 1.23 mW/g



## Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 8/1/2010 11:27:14 AM

Robot# / Run#: DASY4-FL-2 / MeC-SYSP-450B-100801-01

Phantom# / Tissue Temp.: OVAL1018 / 21.3 (C) Dipole Model# / Serial#: D450V2 / 1002 TX Freq. / Start power: 450 (MHz) / 250 (mW)

Target SAR (1W): 4.40 mW/g (1g)
Adjusted SAR (1W): 4.12 mW/g (1g)
Percent from Target (+/-): 6.4 % (1g)
Rotation (1D): 0.056 dB

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

Reported SAR: 1.03 mW/g (1g); 0.685 mW/g (10g)

#### Comments:

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.82, 6.82, 6.82)

Electronics: DAE4 Sn729, Calibrated: 3/10/2010

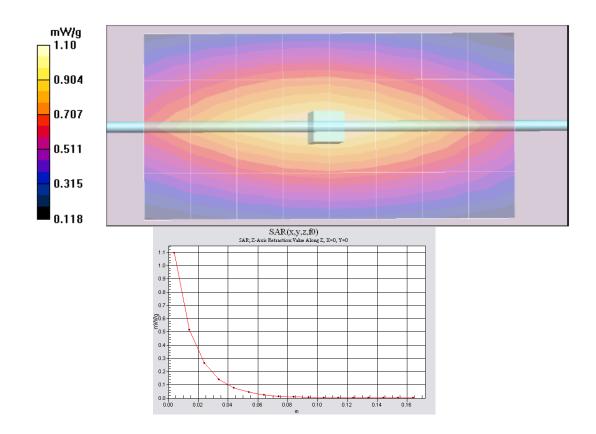
Duty Cycle: 1:1, Medium parameters used: f = 450 MHz;  $\sigma = 0.93$  mho/m;  $\epsilon_r = 56.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 34.7 V/m; Power Drift = -0.0124 dB

Peak SAR (extrapolated) = 1.52 W/kg

SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.683 mW/g Maximum value of SAR (measured) = 1.10 mW/g



### Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 8/2/2010 5:47:09 AM

Robot# / Run#: DASY4-FL-2 / ErC-SYSP-450B-100802-01

Phantom# / Tissue Temp.: OVAL1018 / 21.2 (C) Dipole Model# / Serial#: D450V2 / 1002 TX Freq. / Start power: 450 (MHz) / 250 (mW)

 $\begin{array}{lll} \mbox{Target SAR (1W):} & 4.40 \ \mbox{mW/g (1g)} \\ \mbox{Adjusted SAR (1W):} & 4.12 \ \mbox{mW/g (1g)} \\ \mbox{Percent from Target (+/-):} & 6.4 \ \% & (1g) \\ \mbox{Rotation (1D):} & 0.034 \ \mbox{dB} \end{array}$ 

#### 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: 1.03 mW/g (1g); 0.687 mW/g (10g)

#### Comments:

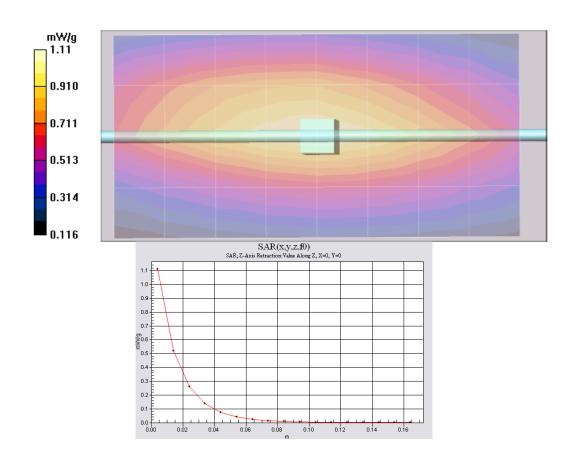
Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.82, 6.82, 6.82)

Electronics: DAE4 Sn729, Calibrated: 3/10/2010

Duty Cycle: 1:1, Medium parameters used: f = 450 MHz;  $\sigma = 0.95 \text{ mho/m}$ ;  $\epsilon_r = 56.3$ ;  $\rho = 1000 \text{ kg/m}^3$ 

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

Reference Value = 34.5 V/m; Power Drift = 0.0121 dB Peak SAR (extrapolated) = 1.53 W/kg SAR(1 g) = 1.03 mW/g; SAR(10 g) = 0.687 mW/g Maximum value of SAR (measured) = 1.11 mW/g



# Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 8/3/2010 6:01:55 AM

Robot# / Run#: DASY4-FL-2 / ErC-SYSP-450B-100803-01

Phantom# / Tissue Temp.: OVAL1018 / 20.9 (C) Dipole Model# / Serial#: D450V2 / 1002 TX Freq. / Start power: 450 (MHz) / 250 (mW)

Target SAR (1W): 4.40 mW/g (1g)
Adjusted SAR (1W): 4.24 mW/g (1g)
Percent from Target (+/-): 3.6 % (1g)
Rotation (1D): 0.056 dB

#### Note:

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

Reported SAR: 1.06 mW/g (1g); 0.706 mW/g (10g)

#### Comments:

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.82, 6.82, 6.82)

Electronics: DAE4 Sn729, Calibrated: 3/10/2010

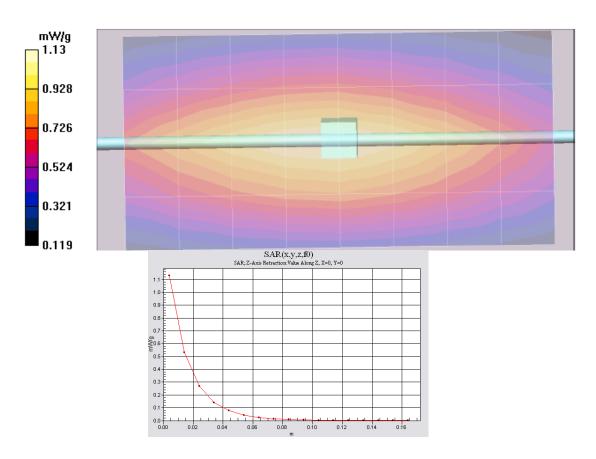
Duty Cycle: 1:1, Medium parameters used: f = 450 MHz;  $\sigma = 0.93 \text{ mho/m}$ ;  $\epsilon_r = 56.1$ ;  $\rho = 1000 \text{ kg/m}^3$ 

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

Reference Value = 35.3 V/m; Power Drift = 0.00741 dB

Peak SAR (extrapolated) = 1.56 W/kg

SAR(1 g) = 1.05 mW/g; SAR(10 g) = 0.704 mW/gMaximum value of SAR (measured) = 1.13 mW/g



# Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 8/4/2010 6:33:04 AM

Robot# / Run#: DASY4-FL-2 / ErC-SYSP-450B-100804-01

Phantom# / Tissue Temp.: OVAL1018 / 21.1 (C) Dipole Model# / Serial#: D450V2 / 1002 TX Freq. / Start power: 450 (MHz) / 250 (mW)

Target SAR (1W): 4.40 mW/g (1g)
Adjusted SAR (1W): 4.16 mW/g (1g)
Percent from Target (+/-): 5.5 % (1g)
Rotation (1D): 0.041 dB

#### Note:

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

Reported SAR: 1.04 mW/g (1g); 0.687 mW/g (10g)

#### Comments:

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.82, 6.82, 6.82)

Electronics: DAE4 Sn729, Calibrated: 3/10/2010

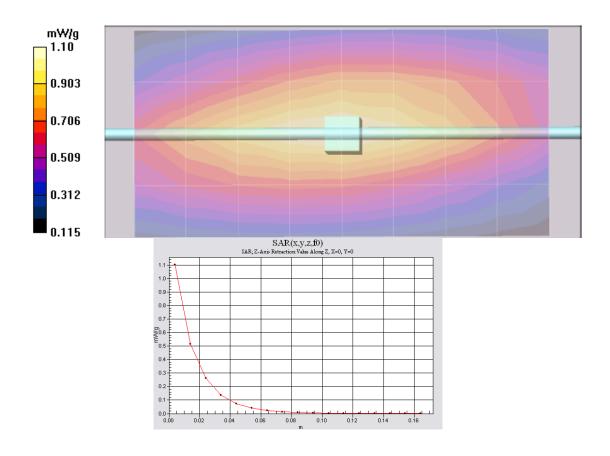
Duty Cycle: 1:1, Medium parameters used: f = 450 MHz;  $\sigma = 0.93 \text{ mho/m}$ ;  $\epsilon_r = 56.1$ ;  $\rho = 1000 \text{ kg/m}^3$ 

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

Reference Value = 34.7 V/m; Power Drift = -0.00185 dB

Peak SAR (extrapolated) = 1.52 W/kg

SAR(1 g) = 1.03 mW/g; SAR(10 g) = 0.685 mW/gMaximum value of SAR (measured) = 1.10 mW/g



# Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 8/5/2010 6:42:02 AM

Robot# / Run#: DASY4-FL-2 / JsT-SYSP-450B-100805-01

Phantom# / Tissue Temp.: OVAL1018 / 20.7 (C) Dipole Model# / Serial#: D450V2 / 1002 TX Freq. / Start power: 450 (MHz) / 250 (mW)

Target SAR (1W): 4.40 mW/g (1g)
Adjusted SAR (1W): 4.12 mW/g (1g)
Percent from Target (+/-): 6.4 % (1g)
Rotation (1D): 0.039 dB

#### Note:

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

Reported SAR: 1.03 mW/g (1g); 0.682 mW/g (10g)

#### Comments:

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.82, 6.82, 6.82)

Electronics: DAE4 Sn729, Calibrated: 3/10/2010

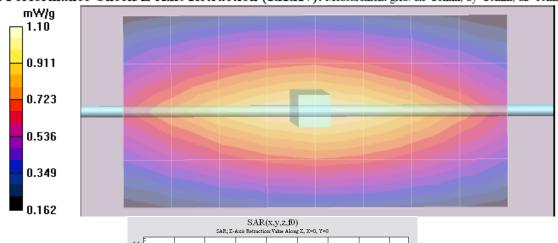
Duty Cycle: 1:1, Medium parameters used: f = 450 MHz;  $\sigma = 0.93 \text{ mho/m}$ ;  $\epsilon_r = 55.8$ ;  $\rho = 1000 \text{ kg/m}^3$ 

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

Reference Value = 34.7 V/m; Power Drift = -0.00831 dB

Peak SAR (extrapolated) = 1.52 W/kg

SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.680 mW/gMaximum value of SAR (measured) = 1.10 mW/g





# Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 8/6/2010 6:55:27 AM

Robot# / Run#: DASY4-FL-2 / JsT-SYSP-450B-100806-01

Phantom# / Tissue Temp.: OVAL1018 / 20.6 (C) Dipole Model# / Serial#: D450V2 / 1002 TX Freq. / Start power: 450 (MHz) / 250 (mW)

Target SAR (1W): 4.40 mW/g (1g)
Adjusted SAR (1W): 4.12 mW/g (1g)
Percent from Target (+/-): 6.4 % (1g)
Rotation (1D): 0.033 dB

#### Note:

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

Reported SAR: 1.03 mW/g (1g); 0.682 mW/g (10g)

#### Comments:

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.82, 6.82, 6.82)

Electronics: DAE4 Sn729, Calibrated: 3/10/2010

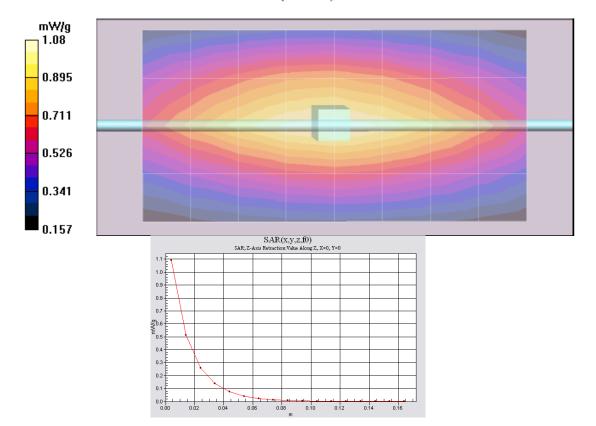
Duty Cycle: 1:1, Medium parameters used: f = 450 MHz;  $\sigma = 0.92 \text{ mho/m}$ ;  $\epsilon_r = 55.4$ ;  $\rho = 1000 \text{ kg/m}^3$ 

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

Reference Value = 34.7 V/m; Power Drift = 0.00979 dB

Peak SAR (extrapolated) = 1.51 W/kg

SAR(1 g) = 1.02 mW/g; SAR(10 g) = 0.678 mW/gMaximum value of SAR (measured) = 1.09 mW/g



# Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 9/2/2010 4:57:23 PM

Robot# / Run#: DASY4-FL-2 / MeC-SYSP-450H-100902-01

Phantom# / Tissue Temp.: OVAL1011 / 20.9 (C) Dipole Model# / Serial#: D450V2 / 1001 TX Freq. / Start power: 450 (MHz) / 250 (mW)

Target SAR (1W): 4.72 mW/g (1g)
Adjusted SAR (1W): 4.80 mW/g (1g)
Percent from Target (+/-): 1.7 % (1g)
Rotation (1D): 0.036 dB

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

Reported SAR: 1.20 mW/g (1g); 0.789 mW/g (10g)

#### Comments:

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.43, 6.43, 6.43)

Electronics: DAE4 Sn729, Calibrated: 3/10/2010

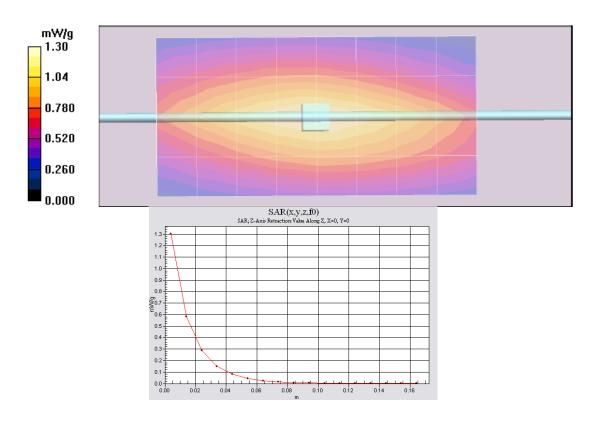
Duty Cycle: 1:1, Medium parameters used: f = 450 MHz;  $\sigma = 0.9$  mho/m;  $\epsilon_r = 41.9$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Reference Value = 38.1 V/m; Power Drift = 0.0491 dB

Peak SAR (extrapolated) = 1.87 W/kg

$$\begin{split} &\mathrm{SAR}(1~\mathrm{g}) = 1.2~\mathrm{mW/g}; \, \mathrm{SAR}(10~\mathrm{g}) = 0.789~\mathrm{mW/g} \\ &\mathrm{Maximum~value~of~SAR~(measured)} = 1.29~\mathrm{mW/g} \end{split}$$



## Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 9/16/2010 6:13:56 AM

Robot# / Run#: DASY4-FL-2 / JsT-SYSP-450B-100916-01

Phantom# / Tissue Temp.: OVAL1018 / 21.8 (C) Dipole Model# / Serial#: D450V2 / 1001 TX Freq. / Start power: 450 (MHz) / 250 (mW)

Target SAR (1W): 4.32 mW/g (1g)
Adjusted SAR (1W): 4.24 mW/g (1g)
Percent from Target (+/-): 1.9 % (1g)
Rotation (1D): 0.04 dB

#### Note:

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

Reported SAR: 1.06 mW/g (1g); 0.708 mW/g (10g)

#### Comments:

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.82, 6.82, 6.82)

Electronics: DAE3 Sn374, Calibrated: 4/15/2010

Duty Cycle: 1:1, Medium parameters used: f = 450 MHz;  $\sigma = 0.94$  mho/m;  $\epsilon_r = 54$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

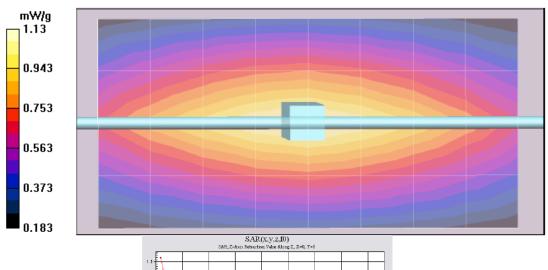
Reference Value = 35.0 V/m; Power Drift = 0.00791 dB

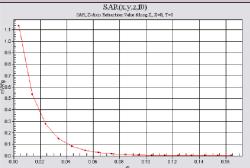
Peak SAR (extrapolated) = 1.56 W/kg

$$\begin{split} &\mathrm{SAR}(1\ g) = 1.06\ m\mathrm{W/g};\ \mathrm{SAR}(10\ g) = 0.708\ m\mathrm{W/g} \\ &\mathrm{Maximum\ value\ of\ SAR\ (measured)} = 1.13\ m\mathrm{W/g} \end{split}$$

System Performance Check/Dipole Area Scan 2 (5x9x1): Measurement grid: dx=15mm, dy=15mm

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





# Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 9/20/2010 8:27:26 AM

Robot# / Run#: DASY4-FL-2 / JsT-SYSP-450B-100920-01

Phantom# / Tissue Temp.: OVAL1018 / 20.7 (C) Dipole Model# / Serial#: D450V2 / 1001 TX Freq. / Start power: 450 (MHz) / 250 (mW)

Target SAR (1W): 4.32 mW/g (1g)
Adjusted SAR (1W): 4.36 mW/g (1g)
Percent from Target (+/-): 0.9 % (1g)
Rotation (1D): 0.039 dB

#### Note:

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

Reported SAR: 1.09 mW/g (1g); 0.730 mW/g (10g)

#### Comments:

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.82, 6.82, 6.82)

Electronics: DAE3 Sn374, Calibrated: 4/15/2010

Duty Cycle: 1:1, Medium parameters used: f = 450 MHz;  $\sigma = 0.96 \text{ mho/m}$ ;  $\epsilon_r = 54.6$ ;  $\rho = 1000 \text{ kg/m}^3$ 

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

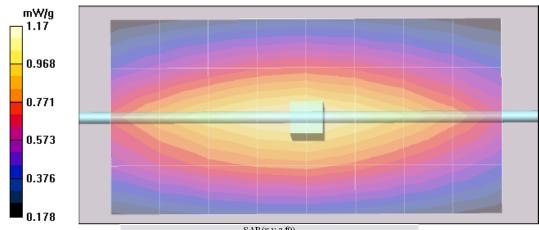
Reference Value = 35.3 V/m; Power Drift = 0.0215 dB

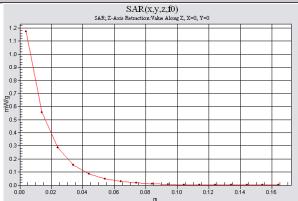
Peak SAR (extrapolated) = 1.61 W/kg

SAR(1 g) = 1.09 mW/g; SAR(10 g) = 0.730 mW/gMaximum value of SAR (measured) = 1.17 mW/g

System Performance Check/Dipole Area Scan 2 (5x9x1): Measurement grid: dx=15mm, dy=15mm

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





#### **DIPOLE SAR TARGET - HEAD**

Date:	10/28/09	Frequency (MHz):	450
Lab Location:	FL08-G&PS	Mixture Type:	<b>IEEE Head</b>
DAE Serial #:	850	Ambient Temp.(°C):	22
Tissue Characteristics		N	OV. 1
Permitivity: Conductivity:	43.6 0.87	Phantom Type/SN: Distance (mm):	OVAL1011
Tissue Temp.(°C):	20	Distance (mm).	
Reference Source:	Dipole 1002	Power to Dipole:	250 mW
	W/g, normalized to 1.0 W):		Difference from Target
4.	.58		0.00% (1g-SAR)
New Target:			
Average 1g-SAR Value (m	W/g): 4.58		Passes K=2
Percent Difference From T	arget (MUST be within k=2 U	Incertainty):	Reflect Committee

Probe SN #s	1g-SAR (Cube)	Diff from Ave	Robot
3007	4.60	0.4%	R1
3163	4.56	-0.4%	R1
Average	4.5800	New Measured SAR	Value

(normalized to 1.0 W)

Test performed by: Ed Church	Initial:	8,(	_
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#### DIPOLE SAR TARGET - BODY

Date:	10/28/09	Frequency (MHz):	450
Lab Location:	FL08-G&PS	Mixture Type:	Body
DAE Serial #:	850	Ambient Temp.(°C):	22
Tissue Characteristics			
Permitivity:	58.4	Phantom Type/SN:	OVAL1016
Conductivity:	0.97	Distance (mm):	15
Tissue Temp.(°C):	20.1	-	
Reference Source:	Dipole	Power to Dipole:	250 mW
Reference SN:	1002		
New Target:			
Average Measured SAR Valu	ue: <b>4.40</b>	mW/g(1g avg.),	

mW/g(1g avg.),

Probe SN #s	1-G Cube	Diff from Ave	Robot
3163	4.32	-1.8%	R1
3007	4.48	1.8%	R1
Average		New Measured SA	AR Value

(normalized to 1.0 W)

Average Measured SAR Value:

m c 11	Ed Chuuch	
Test performed by:	Ed Church	Initial: Es C

#### **DIPOLE SAR TARGET - HEAD**

Date:	06/09/10	Frequency (MHz):	450
Lab Location:	FL08	Mixture Type:	<b>IEEE Head</b>
DAE Serial #:	729	Ambient Temp.(°C):	22
Tissue Characteristics			
Permitivity:	42.6	Phantom Type/SN:	OVAL1021
Conductivity:	0.90	Distance (mm):	15
Tissue Temp.(°C):	20.5	-	
Reference Source:	Dipole	Power to Dipole:	250 mW
Reference SN:	1001		
Target 1g-SAR Value (mV	W/g, normalized to 1.0 W):	-	Difference from Target
4.	58		3.06% (1g-SAR)
New Target:			
Average 1g-SAR Value (m	W/g): 4.72		Passes K=2
		_	AL TOTAL LES

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

Probe SN #s	1g-SAR (Cube)	Diff from Ave	Robot
3147	4.60	-2.5%	R2
3007	4.84	2.5%	R2
3163	4.72	0.0%	R2
Average	4.7200	New Measured SAR	Value

(normalized to 1.0 W)

Test performed by:	Ed Church	Initial:	5,0
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#### **DIPOLE SAR TARGET - BODY**

Date:	06/09/10	Frequency (MHz):	<b>450</b>
Lab Location:	FL08	Mixture Type:	Body
DAE Serial #:	729	Ambient Temp.(°C):	21.8
Tissue Characteristics	54.9	Dhanton Tuna/CNI	OVAL 1018
Permitivity:	54.8	Phantom Type/SN:	OVAL1018
Conductivity:	0.91	Distance (mm):	15
Tissue Temp.(°C):	20.9	_	
Reference Source:	Dipole	Power to Dipole:	250 mW
Reference SN:	1001		
		_	
New Target:			

mW/g(1g avg.),

Probe SN #s	1-G Cube	Diff from Ave	Robot
3163	4.24	-1.9%	R2
3007	4.52	4.6%	R2
3147	4.20	-2.8%	R2
Average		New Measured SAR Value	

4.32

(normalized to 1.0 W)

Average Measured SAR Value:

Test performed by:	Ed Church	Initial:	E1 C

### Appendix E FCC Part 90 (406.1 – 470 MHz) DUT Scans (Shortened Scan and Highest SAR configurations)

# Shortened Scan Result (Section 13.3, Table 22)

# Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 9/2/2010 9:43:03 PM

Robot# / Run#: DASY4-FL-2 / MeC-Face-100902-06 Phantom# / Tissue Temp.: OVAL1011 / 21.1 (C)

DUT Model# / Serial#: H98QDD9PW5AN / NUE1006A0043

Antenna / TX Freq.: FAF5259A / 406.1250 (MHz)

Battery: PMMN4403A

Carry Acc. / Cable Acc.: None / None

Start Power: 5.64 (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: 10.90 mW/g (1g); 8.04 mW/g (10g)

Comments: Shorten Scan; Front DUT facing phantom.

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.43, 6.43, 6.43)

Electronics: DAE4 Sn729, Calibrated: 3/10/2010

Duty Cycle: 1:1, Medium parameters used: f = 422 MHz;  $\sigma = 0.88 \text{ mho/m}$ ;  $\epsilon_r = 42.7$ ;  $\rho = 1000 \text{ kg/m}^3$ 

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

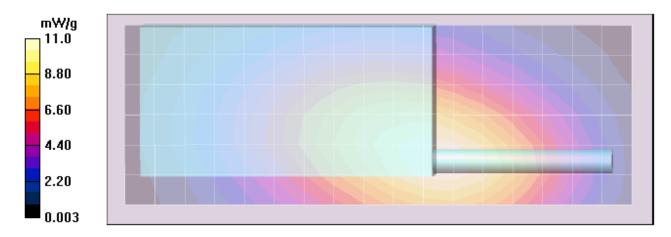
Reference Value = 118.0 V/m; Power Drift = -0.417 dB

Peak SAR (extrapolated) = 14.6 W/kg

SAR(1 g) = 10.9 mW/g; SAR(10 g) = 8.04 mW/gMaximum value of SAR (measured) = 11.5 mW/g

Shortened scan reflect highest SAR producing configuration; approximate run time 8 minutes. Representative full scan run time was 22 minutes

"Shortened" scan max calculated SAR using SAR drift: 1-g Avg. = 6.06 mW/g; 10-g Avg. = 4.47 mW/g Full scan max calculated SAR using SAR drift (see part 1 section 13.3): 1-g Avg. = 6.16 mW/g; 10-g Avg. = 4.60mW/g



# Body - Highest SAR Configuration Result for Body-worn (Section 13.2, Table 18)

## Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 9/20/2010 9:30:35 AM

Robot# / Run#: DASY4-FL-2 / JsT-Ab-100920-02 Phantom# / Tissue Temp.: OVAL1018 / 20.9 (C)

DUT Model# / Serial#: H98QDD9PW5AN / NUE1006A0043

Antenna / TX Freq.: FAF5259A / 406.1250 (MHz)

Battery: NNTN7038A

Carry Acc. / Cable Acc.: NTN9179A Belt Loop w/ D-Clip / RMN5058A

Start Power: 5.47 (W)

#### Note:

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

Reported SAR: 10.13 mW/g (1g); 3.97 mW/g (10g)

Comments: Full Scan; Rolled DUT so Extreme Inside and Middle Plastic Peaks between

Battery Contacts Closest to Robot Touching Phantom.

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.82, 6.82, 6.82)

Electronics: DAE3 Sn374, Calibrated: 4/15/2010

Duty Cycle: 1:1, Medium parameters used: f = 422 MHz;  $\sigma = 0.93 \text{ mho/m}$ ;  $\epsilon_r = 55.1$ ;  $\rho = 1000 \text{ kg/m}^3$ 

#### Ab Scan/1-Area Scan (61x171x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 65.2 V/m; Power Drift = -0.384 dB

Motorola Fast SAR: SAR(1 g) = 6.71 mW/g; SAR(10 g) = 4.17 mW/g

Maximum value of SAR (interpolated) = 8.94 mW/g

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

Reference Value = 65.2 V/m; Power Drift = -0.446 dB

Peak SAR (extrapolated) = 13.5 W/kg

Motorola Fast SAR: SAR(1 g) = 9.95 mW/g; SAR(10 g) = 5 mW/g

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

#### Ab Scan/3-Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 65.2 V/m; Power Drift = -0.619 dB

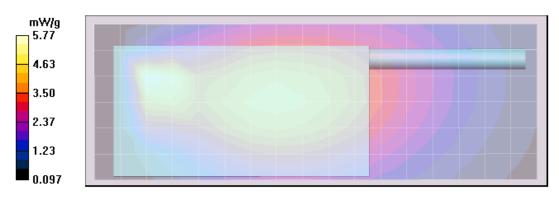
Peak SAR (extrapolated) = 37.2 W/kg

SAR(1 g) = 10.1 mW/g; SAR(10 g) = 3.96 mW/g

Maximum value of SAR (measured) = 12.8 mW/g

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

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



# Highest SAR Configuration Result for PSM (Section 13.2, Table 21)

### Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 9/16/2010 1:44:11 PM

Robot# / Run#: DASY4-FL-2 / JsT-Ab-100916-09 Phantom# / Tissue Temp.: OVAL1018 / 20.8 (C)

DUT Model# / Serial#: H98QDD9PW5AN (MNUE1005A) / NUE1006A0052

Antenna / TX Freq.: FAF5259A / 438.1250 (MHz)

Battery: PMNN4403A

Carry Acc. / Cable Acc.: 4205823V01 PSM Belt Clip / PMMN4059A

Start Power: 5.50 (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: 13.46 mW/g (1g); 8.38 mW/g (10g)

Comments: Full Scan; Tested with PMAE4065A Antenna on Radio;

"PSM" Power Output = 5.13 Watts

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.82, 6.82, 6.82)

Electronics: DAE3 Sn374, Calibrated: 4/15/2010

Duty Cycle: 1:1, Medium parameters used: f = 438 MHz;  $\sigma = 0.93 \text{ mho/m}$ ;  $\epsilon_r = 54.2$ ;  $\rho = 1000 \text{ kg/m}^3$ 

#### Ab Scan/1-Area Scan (61x131x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 120.4 V/m; Power Drift = -0.274 dB

Motorola Fast SAR: SAR(1 g) = 12.7 mW/g; SAR(10 g) = 9.18 mW/g

Maximum value of SAR (interpolated) = 14.0 mW/g

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

Reference Value = 120.4 V/m; Power Drift = -0.343 dB

Peak SAR (extrapolated) = 15.5 W/kg

Motorola Fast SAR: SAR(1 g) = 13.8 mW/g; SAR(10 g) = 9.12 mW/g

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

Maximum value of SAR (interpolated) = 15.5 mW/g

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

Reference Value = 120.4 V/m; Power Drift = -0.481 dB

Peak SAR (extrapolated) = 24.4 W/kg

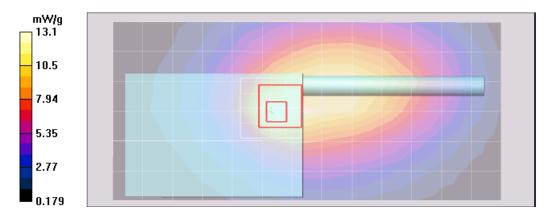
SAR(1 g) = 13.4 mW/g; SAR(10 g) = 8.36 mW/g

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

Maximum value of SAR (measured) = 14.8 mW/g

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

Maximum value of SAR (measured) = 13.1 mW/g



# Face - Highest SAR Configuration Result (Section 13.1, Table 13)

### Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 8/6/2010 6:25:25 PM

Robot# / Run#: DASY4-FL-2 / MeC-Face-100806-11 Phantom# / Tissue Temp.: OVAL1019 / 21.1 (C)

DUT Model# / Serial#: H98QDD9PW5AN / NUE1006A0043

Antenna / TX Freq.: FAF5259A / 406.1250 (MHz)

Battery: PMNN4403A

Carry Acc. / Cable Acc.: None / None

Start Power: 5.66 (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: 10.18 mW/g (1g); 7.59 mW/g (10g)

Comments: Full Scan; Front DUT facing phantom.

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.43, 6.43, 6.43)

Electronics: DAE4 Sn729, Calibrated: 3/10/2010

Duty Cycle: 1:1, Medium parameters used: f = 422 MHz;  $\sigma = 0.89 \text{ mho/m}$ ;  $\epsilon_r = 45.9$ ;  $\rho = 1000 \text{ kg/m}^3$ 

#### Face Scan/1-Area Scan (61x171x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 110.2 V/m; Power Drift = -0.525 dB

Motorola Fast SAR: SAR(1 g) = 11.2 mW/g; SAR(10 g) = 8.37 mW/g

Maximum value of SAR (interpolated) = 11.8 mW/g

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

Reference Value = 110.2 V/m; Power Drift = -0.623 dB

Peak SAR (extrapolated) = 10.8 W/kg

Motorola Fast SAR: SAR(1 g) = 10.3 mW/g; SAR(10 g) = 7.69 mW/g

Maximum value of SAR (interpolated) = 10.8 mW/g

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

Reference Value = 110.2 V/m; Power Drift = -0.801 dB

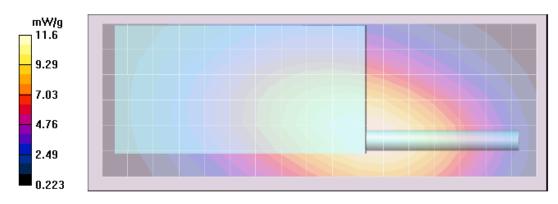
Peak SAR (extrapolated) = 13.2 W/kg

SAR(1 g) = 9.98 mW/g; SAR(10 g) = 7.47 mW/g

Maximum value of SAR (measured) = 10.4 mW/g

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

Maximum value of SAR (measured) = 10.3 mW/g



### Appendix F DUT Scans - FCC Part 90 (406.1-470 MHz)

# Section 1.0 Assessments at the Face (CW mode) with antenna FAF5259A (Section 13.1 Table 12)

# Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 7/28/2010 5:27:39 PM

Robot# / Run#: DASY4-FL-2 / MeC-Face-100728-03 Phantom# / Tissue Temp.: OVAL1011 / 20.7 (C)

DUT Model# / Serial#: H98QDD9PW5AN / NUE1006A0052

Antenna / TX Freq.: FAF5259A / 422.1250 (MHz)

Battery: PMNN4403A

Carry Acc. / Cable Acc.: None / None

Start Power: 5.62 (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: 7.49 mW/g (1g); 5.51 mW/g (10g)

Comments: Full Scan; Front DUT facing phantom.

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.43, 6.43, 6.43)

Electronics: DAE4 Sn729, Calibrated: 3/10/2010

Duty Cycle: 1:1, Medium parameters used: f = 422 MHz;  $\sigma = 0.84 \text{ mho/m}$ ;  $\epsilon_r = 42.9$ ;  $\rho = 1000 \text{ kg/m}^3$ 

#### Face Scan/1-Area Scan (61x171x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 93.9 V/m; Power Drift = -0.247 dB

Motorola Fast SAR: SAR(1 g) = 7.74 mW/g; SAR(10 g) = 5.77 mW/g

Maximum value of SAR (interpolated) = 8.11 mW/g

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

Reference Value = 93.9 V/m; Power Drift = -0.279 dB

Peak SAR (extrapolated) = 7.86 W/kg

Motorola Fast SAR: SAR(1 g) = 7.5 mW/g; SAR(10 g) = 5.59 mW/g

Maximum value of SAR (interpolated) = 7.86 mW/g

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

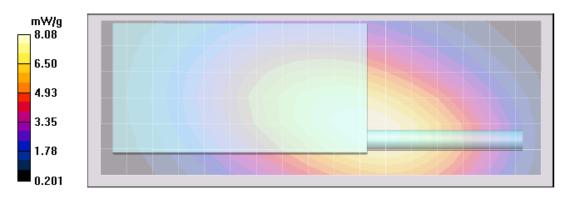
Reference Value = 93.9 V/m; Power Drift = -0.336 dB

Peak SAR (extrapolated) = 9.93 W/kg

SAR(1 g) = 7.39 mW/g; SAR(10 g) = 5.47 mW/gMaximum value of SAR (measured) = 7.77 mW/g

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

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



# Section 2.0 Assessments at the Face (CW mode) with antenna FAF5259A – Other Frequency channels (Section 13.1 Table 13)

(Same scan as indicated in Appendix E: Face - Highest SAR Configuration Result)

# Section 3.0 Assessments at the Face (CW mode) with antenna PMAE4065A (Section 13.1 Table 14)

# Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 7/29/2010 11:52:37 PM

Robot# / Run#: DASY4-FL-2 / MeC-Face-100729-09 Phantom# / Tissue Temp.: OVAL1011 / 20.7 (C)

DUT Model# / Serial#: H98QDD9PW5AN / NUE1006A0052

Antenna / TX Freq.: PMAE4065A / 422.1250 (MHz)

Battery: PMNN4403A

Carry Acc. / Cable Acc.: None / None

Start Power: 5.62 (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: 7.19 mW/g (1g); 5.31 mW/g (10g)

Comments: Full Scan; Front DUT facing phantom.

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.43, 6.43, 6.43)

Electronics: DAE4 Sn729, Calibrated: 3/10/2010

Duty Cycle: 1:1, Medium parameters used: f = 422 MHz;  $\sigma = 0.84 \text{ mho/m}$ ;  $\epsilon_r = 43.2$ ;  $\rho = 1000 \text{ kg/m}^3$ 

#### Face Scan/1-Area Scan (61x201x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 89.1 V/m; Power Drift = -0.214 dB

Motorola Fast SAR: SAR(1 g) = 7.32 mW/g; SAR(10 g) = 5.46 mW/g

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

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

Reference Value = 89.1 V/m; Power Drift = -0.235 dB

Peak SAR (extrapolated) = 7.46 W/kg

Motorola Fast SAR: SAR(1 g) = 7.15 mW/g; SAR(10 g) = 5.33 mW/g

Maximum value of SAR (interpolated) = 7.46 mW/g

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

Reference Value = 89.1 V/m; Power Drift = -0.257 dB

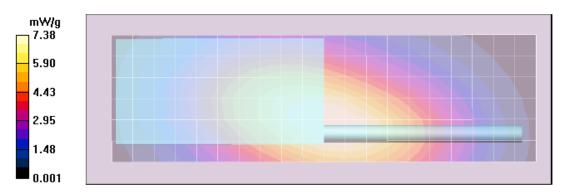
Peak SAR (extrapolated) = 9.48 W/kg

SAR(1 g) = 7.09 mW/g; SAR(10 g) = 5.27 mW/g

Maximum value of SAR (measured) = 7.44 mW/g

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

Maximum value of SAR (measured) = 7.38 mW/g



#### Section 4.0

# Assessments at the Face (CW mode) with antenna PMAE4065A – Other Frequency channels (Section 13.1 Table 15)

### Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 9/2/2010 6:18:20 PM

Robot# / Run#: DASY4-FL-2 / MeC-Face-100902-03 Phantom# / Tissue Temp.: OVAL1011 / 21.1 (C)

DUT Model# / Serial#: H98QDD9PW5AN / NUE1006A0052

Antenna / TX Freq.: PMAE4065A / 406.0125 (MHz)

Battery: PMNN4403A

Carry Acc. / Cable Acc.: None / None

Start Power: 5.57 (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: 8.01 mW/g (1g); 5.84 mW/g (10g)

Comments: Full Scan; Front DUT facing phantom.

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.43, 6.43, 6.43)

Electronics: DAE4 Sn729, Calibrated: 3/10/2010

Duty Cycle: 1:1, Medium parameters used: f = 422 MHz;  $\sigma = 0.88 \text{ mho/m}$ ;  $\epsilon_r = 42.7$ ;  $\rho = 1000 \text{ kg/m}^3$ 

#### Face Scan/1-Area Scan (61x201x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 95.8 V/m; Power Drift = -0.319 dB

Motorola Fast SAR: SAR(1 g) = 8.71 mW/g; SAR(10 g) = 6.5 mW/g

Maximum value of SAR (interpolated) = 9.14 mW/g

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

Reference Value = 95.8 V/m; Power Drift = -0.399 dB

Peak SAR (extrapolated) = 8.61 W/kg

Motorola Fast SAR: SAR(1 g) = 8.22 mW/g; SAR(10 g) = 6.12 mW/g

Maximum value of SAR (interpolated) = 8.61 mW/g

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

Reference Value = 95.8 V/m; Power Drift = -0.484 dB

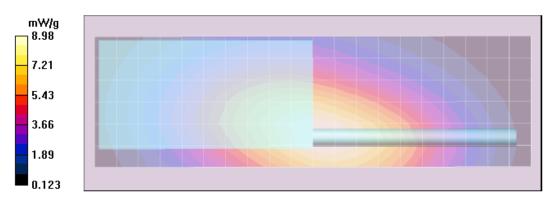
Peak SAR (extrapolated) = 11.0 W/kg

SAR(1 g) = 8.01 mW/g; SAR(10 g) = 5.84 mW/g

Maximum value of SAR (measured) = 8.43 mW/g

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

Maximum value of SAR (measured) = 8.49 mW/g



#### Section 5.0

# Assessments at the Face (CW mode) with PSM PMMN4059A and antenna FAF5259A (Section 13.1 Table 16)

# Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 7/31/2010 11:57:53 AM

Robot# / Run#: DASY4-FL-2 / MeC-Face-100731-04 Phantom# / Tissue Temp.: OVAL1011 / 20.8 (C)

DUT Model# / Serial#: H98QDD9PW5AN / NUE1006A0052

Antenna / TX Freq.: FAF5259A / 453.9875 (MHz)

Battery: PMNN4403A

Carry Acc. / Cable Acc.: None / PMMN4059A

Start Power: 5.62 (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: 6.55 mW/g (1g); 4.74 mW/g (10g)

Comments: Full Scan; Front of PSM facing phantom.

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.43, 6.43, 6.43)

Electronics: DAE4 Sn729, Calibrated: 3/10/2010

Duty Cycle: 1:1, Medium parameters used: f = 454 MHz;  $\sigma = 0.9 \text{ mho/m}$ ;  $\epsilon_r = 42.8$ ;  $\rho = 1000 \text{ kg/m}^3$ 

#### Face Scan/1-Area Scan (61x131x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 87.8 V/m; Power Drift = -0.171 dB

Motorola Fast SAR: SAR(1 g) = 6.92 mW/g; SAR(10 g) = 5.1 mW/g

Maximum value of SAR (interpolated) = 7.28 mW/g

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

Reference Value = 87.8 V/m; Power Drift = -0.228 dB

Peak SAR (extrapolated) = 7.07 W/kg

Motorola Fast SAR: SAR(1 g) = 6.75 mW/g; SAR(10 g) = 4.98 mW/g

Maximum value of SAR (interpolated) = 7.07 mW/g

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

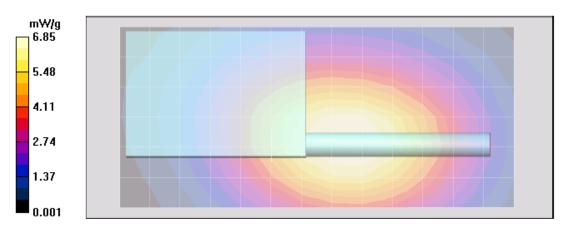
Reference Value = 87.8 V/m; Power Drift = -0.350 dB

Peak SAR (extrapolated) = 8.92 W/kg

SAR(1 g) = 6.55 mW/g; SAR(10 g) = 4.74 mW/g Maximum value of SAR (measured) = 6.90 mW/g

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

Maximum value of SAR (measured) = 6.85 mW/g



#### Section 6.0 Assessments at the Body (CW mode) with antenna FAF5259A (Section 13.2 Table 17)

## Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 8/2/2010 5:29:37 PM

Robot# / Run#: DASY4-FL-2 / MeC-Ab-100802-17 Phantom# / Tissue Temp.: OVAL1018 / 21.5 (C)

DUT Model# / Serial#: H98QDD9PW5AN / NUE1006A0052

Antenna / TX Freq.: FAF5259A / 422.1250 (MHz)
Battery: NNTN7038A
Carry Acc. / Cable Acc.: NTN9179A / RMN5058A

Start Power: 5.66 (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: 5.46 mW/g (1g); 2.53 mW/g (10g)

Comments: Full Scan; Back of DUT facing phantom.

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.82, 6.82, 6.82)

Electronics: DAE4 Sn729, Calibrated: 3/10/2010

Duty Cycle: 1:1, Medium parameters used: f = 422 MHz;  $\sigma = 0.92 \text{ mho/m}$ ;  $\epsilon_r = 56.9$ ;  $\rho = 1000 \text{ kg/m}^3$ 

#### Ab Scan/1-Area Scan (61x171x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 51.0 V/m; Power Drift = -0.173 dB

Motorola Fast SAR: SAR(1 g) = 3.84 mW/g; SAR(10 g) = 2.61 mW/g

Maximum value of SAR (interpolated) = 4.23 mW/g

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

Reference Value = 51.0 V/m; Power Drift = -0.198 dB

Peak SAR (extrapolated) = 6.98 W/kg

Motorola Fast SAR: SAR(1 g) = 5.28 mW/g; SAR(10 g) = 2.99 mW/g

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

Maximum value of SAR (interpolated) = 6.98 mW/g

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

Reference Value = 51.0 V/m; Power Drift = -0.236 dB

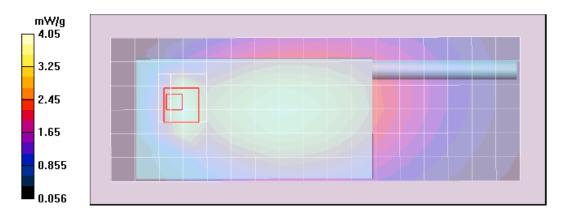
Peak SAR (extrapolated) = 16.9 W/kg

SAR(1 g) = 5.42 mW/g; SAR(10 g) = 2.52 mW/g

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

Maximum value of SAR (measured) = 6.37 mW/g

#### Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm Maximum value of SAR (measured) = 6.60 mW/g



# Section 7.0 Assessments at the Body (CW mode) with antenna FAF5259A – Other Frequency channels (Section 13.2 Table 18)

(Same scan as indicated in Appendix E: Body - Highest SAR Configuration Result for Body-worn)

# Section 8.0 Assessments at the Body (CW mode) with antenna PMAE4065A (Section 13.2 Table 19)

### Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 8/4/2010 8:17:35 PM

Robot# / Run#: DASY4-FL-2 / MeC-Ab-100804-12 Phantom# / Tissue Temp.: OVAL1018 / 21.0 (C)

DUT Model# / Serial#: H98QDD9PW5AN / NUE1006A0052

Antenna / TX Freq.: PMAE4065A / 422.1250 (MHz)

Battery: NNTN7038A

Carry Acc. / Cable Acc.: NTN9179A / RMN5058A

Start Power: 5.68 (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: 5.95 mW/g (1g); 2.36 mW/g (10g)

Comments: Full Scan; Back of DUT facing phantom.

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.82, 6.82, 6.82)

Electronics: DAE4 Sn729, Calibrated: 3/10/2010

Duty Cycle: 1:1, Medium parameters used: f = 422 MHz;  $\sigma = 0.9$  mho/m;  $\epsilon_r = 56.8$ ;  $\rho = 1000$  kg/m<sup>3</sup>

#### Ab Scan/1-Area Scan (61x201x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 50.3 V/m; Power Drift = -0.0968 dB

Motorola Fast SAR: SAR(1 g) = 4.53 mW/g; SAR(10 g) = 2.64 mW/g

Maximum value of SAR (interpolated) = 5.42 mW/g

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

Reference Value = 50.3 V/m; Power Drift = -0.165 dB

Peak SAR (extrapolated) = 8.03 W/kg

Motorola Fast SAR: SAR(1 g) = 5.76 mW/g; SAR(10 g) = 2.84 mW/g

Maximum value of SAR (interpolated) = 8.03 mW/g

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

Reference Value = 50.3 V/m; Power Drift = -0.152 dB

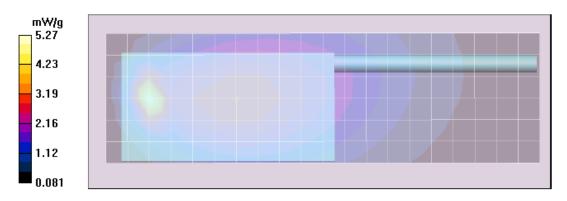
Peak SAR (extrapolated) = 21.6 W/kg

SAR(1 g) = 5.84 mW/g; SAR(10 g) = 2.34 mW/g

Maximum value of SAR (measured) = 6.30 mW/g

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

Maximum value of SAR (measured) = 7.15 mW/g



#### Section 9.0

#### Assessments at the Body (CW mode) with antenna PMAE4065A - Other Frequency channels **(Section 13.2 Table 20)**

#### Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 8/5/2010 3:56:03 PM

Robot# / Run#: DASY4-FL-2 / MeC-Ab-100805-10 Phantom# / Tissue Temp.: OVAL1018 / 20.3 (C)

DUT Model# / Serial#: H98QDD9PW5AN / NUE1006A0052

Antenna / TX Freq.: PMAE4065A / 406.1250 (MHz)

Battery: NNTN7038A

Carry Acc. / Cable Acc.: NTN9179A Belt Loop w/ D-Clip / RMN5058A

Start Power: 5.74 (W)

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

Reported SAR: 7.92 mW/g (1g); 3.18 mW/g (10g)

Comments: Full Scan; Back of DUT facing phantom.

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.82, 6.82, 6.82)

Electronics: DAE4 Sn729, Calibrated: 3/10/2010

Duty Cycle: 1:1, Medium parameters used: f = 422 MHz;  $\sigma = 0.9 \text{ mho/m}$ ;  $\varepsilon_r = 56.4$ ;  $\rho = 1000 \text{ kg/m}^3$ 

#### Ab Scan/1-Area Scan (61x201x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 57.5 V/m; Power Drift = -0.118 dB

Motorola Fast SAR: SAR(1 g) = 6.98 mW/g; SAR(10 g) = 3.76 mW/g

Maximum value of SAR (interpolated) = 8.98 mW/g

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

Reference Value = 57.5 V/m; Power Drift = -0.112 dB

Peak SAR (extrapolated) = 10.9 W/kg

Motorola Fast SAR: SAR(1 g) = 7.88 mW/g; SAR(10 g) = 3.89 mW/g

Maximum value of SAR (interpolated) = 10.9 mW/g

#### Ab Scan/3-Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

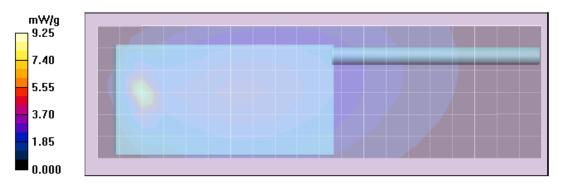
Reference Value = 57.5 V/m; Power Drift = -0.282 dB

Peak SAR (extrapolated) = 28.2 W/kg

SAR(1 g) = 7.78 mW/g; SAR(10 g) = 3.15 mW/g Maximum value of SAR (measured) = 8.16 mW/g

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

Maximum value of SAR (measured) = 9.25 mW/g



#### Section 10.0 Assessments at the Body (CW mode) with PSM PMMN4059A and antenna FAF5259A (Section 13.2 Table 21)

(Same scan as indicated in Appendix E: Highest SAR Configuration Result for PSM)

### APPENDIX G DUT Scans (380-470 MHz)

Data enclosed for this appendix is not applicable for FCC part 90

# Section 1.0 Assessments at the Face (CW mode) with antenna FAF5259A (Section 13.1 Table 12)

## Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 7/28/2010 4:37:55 PM

Robot# / Run#: DASY4-FL-2 / MeC-Face-100728-02 Phantom# / Tissue Temp.: OVAL1011 / 20.7 (C)

DUT Model# / Serial#: H98QDD9PW5AN / NUE1006A0052

Antenna / TX Freq.: FAF5259A / 395.0000 (MHz)

Battery: PMNN4403A

Carry Acc. / Cable Acc.: None / None

Start Power: 5.68 (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: 7.84 mW/g (1g); 5.76 mW/g (10g)

Comments: Full Scan; Front DUT facing phantom.

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.43, 6.43, 6.43)

Electronics: DAE4 Sn729, Calibrated: 3/10/2010

Duty Cycle: 1:1, Medium parameters used: f = 395 MHz;  $\sigma = 0.83 \text{ mho/m}$ ;  $\epsilon_r = 43.8$ ;  $\rho = 1000 \text{ kg/m}^3$ 

#### Face Scan/1-Area Scan (61x171x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 101.7 V/m; Power Drift = -0.503 dB

Motorola Fast SAR: SAR(1 g) = 8.56 mW/g; SAR(10 g) = 6.4 mW/g

Maximum value of SAR (interpolated) = 8.98 mW/g

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

Reference Value = 101.7 V/m; Power Drift = -0.600 dB

Peak SAR (extrapolated) = 8.38 W/kg

Motorola Fast SAR: SAR(1 g) = 8 mW/g; SAR(10 g) = 5.95 mW/g

Maximum value of SAR (interpolated) = 8.38 mW/g

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

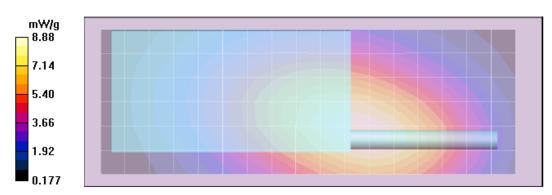
Reference Value = 101.7 V/m; Power Drift = -0.768 dB

Peak SAR (extrapolated) = 10.3 W/kg

SAR(1 g) = 7.71 mW/g; SAR(10 g) = 5.71 mW/gMaximum value of SAR (measured) = 8.09 mW/g

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

Maximum value of SAR (measured) = 7.93 mW/g



# Section 2.0 Assessments at the Face (CW mode) with antenna FAF5259A – Other Frequency channels (Section 13.1 Table 13)

(Same scan as indicated in Appendix E: Face - Highest SAR Configuration Result)

# Section 3.0 Assessments at the Face (CW mode) with antenna PMAE4065A (Section 13.1 Table 14)

## Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 7/29/2010 11:16:52 PM

Robot# / Run#: DASY4-FL-2 / MeC-Face-100729-08 Phantom# / Tissue Temp.: OVAL1011 / 20.7 (C)

DUT Model# / Serial#: H98QDD9PW5AN / NUE1006A0052

Antenna / TX Freq.: PMAE4065A / 395.0000 (MHz)

Battery: PMNN4403A

Carry Acc. / Cable Acc.: None / None

Start Power: 5.67 (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: 7.91 mW/g (1g); 5.82 mW/g (10g)

Comments: Full Scan; Front DUT facing phantom.

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.43, 6.43, 6.43)

Electronics: DAE4 Sn729, Calibrated: 3/10/2010

Duty Cycle: 1:1, Medium parameters used: f = 395 MHz;  $\sigma = 0.84 \text{ mho/m}$ ;  $\epsilon_r = 44.1$ ;  $\rho = 1000 \text{ kg/m}^3$ 

#### Face Scan/1-Area Scan (71x201x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 98.8 V/m; Power Drift = -0.547 dB

Motorola Fast SAR: SAR(1 g) = 8.72 mW/g; SAR(10 g) = 6.51 mW/g

Maximum value of SAR (interpolated) = 9.14 mW/g

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

Reference Value = 98.8 V/m; Power Drift = -0.619 dB

Peak SAR (extrapolated) = 8.44 W/kg

Motorola Fast SAR: SAR(1 g) = 8.04 mW/g; SAR(10 g) = 5.99 mW/g

Maximum value of SAR (interpolated) = 8.44 mW/g

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

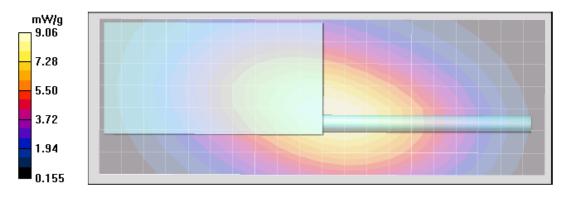
Reference Value = 98.8 V/m; Power Drift = -0.772 dB Peak SAR (extrapolated) = 10.4 W/kg

SAR(1 g) = 7.81 mW/g; SAR(10 g) = 5.79 mW/g

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

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

Maximum value of SAR (measured) = 8.08 mW/g



# Section 4.0 Assessments at the Face (CW mode) with antenna PMAE4065A – Other Frequency channels (Section 13.1 Table 15)

(Same scan as indicated in Appendix  $F-Section\ 4.0$ )

### Section 5.0 Assessments at the Face (CW mode) with PSM PMMN4059A and antenna FAF5259A (Section 13.1 Table 16)

(Same scan as indicated in Appendix F – Section 5.0)

# Section 6.0 Assessments at the Body (CW mode) with antenna FAF5259A (Section 13.2 Table 17)

## Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 8/2/2010 12:32:44 PM

Robot# / Run#: DASY4-FL-2 / MeC-Ab-100802-10 Phantom# / Tissue Temp.: OVAL1018 / 21.5 (C)

DUT Model# / Serial#: H98QDD9PW5AN / NUE1006A0052

Antenna / TX Freq.: FAF5259A / 395.0000 (MHz)

Battery: NNTN7038A

Carry Acc. / Cable Acc.: HLN6875A / RMN5058A

Start Power: 5.67 (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: 8.49 mW/g (1g); 4.04 mW/g (10g)

Comments: Full Scan; Back of DUT facing phantom.

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.82, 6.82, 6.82)

Electronics: DAE4 Sn729, Calibrated: 3/10/2010

Duty Cycle: 1:1, Medium parameters used: f = 395 MHz;  $\sigma = 0.91 \text{ mho/m}$ ;  $\epsilon_r = 57.6$ ;  $\rho = 1000 \text{ kg/m}^3$ 

#### Ab Scan/1-Area Scan (71x171x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 75.6 V/m; Power Drift = -0.465 dB

Motorola Fast SAR: SAR(1 g) = 7.56 mW/g; SAR(10 g) = 5.63 mW/g

Maximum value of SAR (interpolated) = 8.15 mW/g

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

Reference Value = 75.6 V/m; Power Drift = -0.574 dB

Peak SAR (extrapolated) = 10.8 W/kg

Motorola Fast SAR: SAR(1 g) = 8.48 mW/g; SAR(10 g) = 4.85 mW/g

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

Maximum value of SAR (interpolated) = 10.8 mW/g

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

Reference Value = 75.6 V/m; Power Drift = -0.736 dB

Peak SAR (extrapolated) = 24.8 W/kg

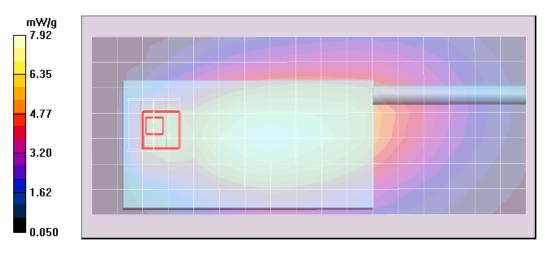
SAR(1 g) = 8.37 mW/g; SAR(10 g) = 4.01 mW/g

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

Maximum value of SAR (measured) = 10.3 mW/g

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

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



# Section 7.0 Assessments at the Body (CW mode) with antenna FAF5259A – Other Frequency channels (Section 13.2 Table 18)

(Same scan as indicated in Appendix E: Body - Highest SAR Configuration Result for Body-worn)

### Section 8.0 Assessments at the Body (CW mode) with antenna PMAE4065A (Section 13.2 Table 19)

### Motorola Enterprise Mobility Solutions EME Laboratory Date/Time: 8/4/2010 7:41:03 PM

Robot# / Run#: DASY4-FL-2 / MeC-Ab-100804-11 Phantom# / Tissue Temp.: OVAL1018 / 21.1 (C)

DUT Model# / Serial#: H98QDD9PW5AN / NUE1006A0052 Antenna / TX Freq.: PMAE4065A / 395.0000 (MHz)

Battery: NNTN7038A

Carry Acc. / Cable Acc.: NTN9179A / RMN5058A

Start Power: 5.66 (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: 7.78 mW/g (1g); 3.25 mW/g (10g)

Comments: Full Scan; Back of DUT facing phantom.

Probe: ES3DV3 - SN3147, Calibrated: 2/18/2010, ConvF(6.82, 6.82, 6.82)

Electronics: DAE4 Sn729, Calibrated: 3/10/2010

Duty Cycle: 1:1, Medium parameters used: f = 395 MHz;  $\sigma = 0.89 \text{ mho/m}$ ;  $\epsilon_r = 57.5$ ;  $\rho = 1000 \text{ kg/m}^3$ 

#### Ab Scan/1-Area Scan (61x201x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 59.1 V/m; Power Drift = -0.0742 dB

Motorola Fast SAR: SAR(1 g) = 5.37 mW/g; SAR(10 g) = 3.34 mW/g

Maximum value of SAR (interpolated) = 6.50 mW/g

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

Reference Value = 59.1 V/m; Power Drift = -0.091 dB

Peak SAR (extrapolated) = 9.90 W/kg

Motorola Fast SAR: SAR(1 g) = 7.33 mW/g; SAR(10 g) = 3.86 mW/g

Maximum value of SAR (interpolated) = 9.90 mW/g

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

Reference Value = 59.1 V/m; Power Drift = -0.113 dB

Peak SAR (extrapolated) = 27.4 W/kg

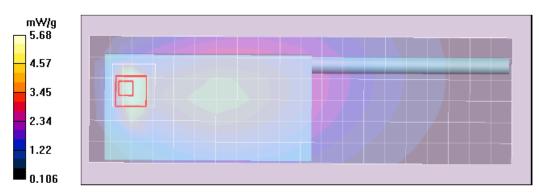
 $\mathrm{SAR}(1~\mathrm{g}) = 7.61~\mathrm{mW/g};~\mathrm{SAR}(10~\mathrm{g}) = 3.21~\mathrm{mW/g}$ 

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

Maximum value of SAR (measured) = 8.70 mW/g

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

Maximum value of SAR (measured) = 9.45 mW/g



### **Section 9.0**

Assessments at the Body (CW mode) with antenna PMAE4065A – Other Frequency channels (Section 13.2 Table 20)

(Same scan as indicated in Appendix F – Section 9.0)

### Section 10.0 Assessments at the Body (CW mode) with PSM PMMN4059A and antenna FAF5259A (Section 13.2 Table 21)

(Same scan as indicated in Appendix E: Highest SAR Configuration Result for PSM)

# APPENDIX H DUT Supplementary Data (Power slump) Model # H98QDD9PW5AN(MNUE1005A)

#### Model # H98QDD9PW5AN(MNUE1005A) Serial # NUE1006A0043

 Battery
 NNTN7038A

 Frequency
 406.1250 MHz

 Date
 8/6/2010

Transmit Mode CW
Audio Accessory RMN5058A

TX TIME	Measured Power
(Minutes)	(Watts)
0.0	5.68
1.0	5.66
2.0	5.66
3.0	5.67
4.0	5.65
5.0	5.65
6.0	5.63
7.0	5.63
8.0	5.63
9.0	5.63
10.0	5.61
11.0	5.62
12.0	5.61
13.0	5.61
14.0	5.61
15.0	5.60
16.0	5.60
17.0	5.60
18.0	5.59
19.0	5.59
20.0	5.59
21.0	5.58
22.0	5.58
23.0	5.57
24.0	5.56
25.0	5.56
26.0	5.56
27.0	5.55
28.0	5.54

5.54

5.53 5.52

5.51

5.51

5.51

5.50

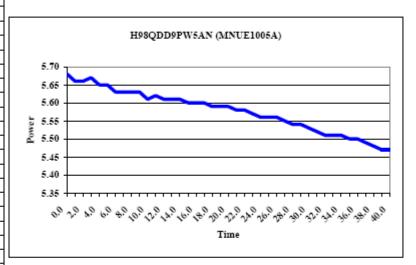
5.50

5.49

5.48

5.47

5.47



29.0 30.0

31.0

32.0

33.0 34.0

35.0

36.0

37.0

38.0

39.0

40.0

### Appendix I DUT Test Position Photos

Photos available in Exhibit 7B

## Appendix J DUT and Body worn Accessory Photos

Photos available in Exhibit 7B