MOTOROLA SOLUTIONS

ACCREDITED
TESTING CERT # 2518.01

# DECLARATION OF COMPLIANCE SAR ASSESSMENT Part 2 of 2

**Motorola Solutions Inc.**
**EME Test Laboratory**
8000 West Sunrise Blvd
Fort Lauderdale, FL. 33322

**Date of Report:** 02/08/2013
**Report Revision:** O
**Report ID:** SR11114_PMUD3254A Rev O 130208

| | |
|---|---|
| **Responsible Engineer:** | Veeramani Veerapan (Sr.EME Engineer) |
| **Report Author:** | Veeramani Veerapan (Sr.EME Engineer) |
| **Date/s Tested:** | 01/08/13-02/07/13 |
| **Manufacturer/Location:** | Motorola, Penang |
| **Sector/Group/Div.:** | EMS |
| **Date submitted for test:** | 12/20/12 |
| **DUT Description:** | Full keypad with GPS & GOB 136 - 174MHz, 5W |
| **Test TX mode(s):** | CW (PTT) |
| **Max. Power output:** | 6.0 W |
| **Nominal Power:** | 5.0 W |
| **Tx Frequency Bands:** | 136 – 174 MHz |
| **Signaling type:** | FM |
| **Model(s) Tested:** | PMUD3254A |
| **Model(s) Certified:** | PMUD3254A |
| **Serial Number(s):** | 627TNX0395 |
| **Classification:** | Occupational/Controlled |
| **FCC ID:** | ABZ99FT3093; Rule Part 90 (150.8-173.4 MHz) Results outside FCC bands are not applicable for FCC compliance demonstration. |
| **IC:** | 109AB-99FT3093; (138-144; 148-149.9 and 150.05-174 MHz) |

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

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

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

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

**Approval Date:** 2/8/2013

**Certification Date**: 2/8/2013

**Certification No.: L11030201**

# APPENDIX D
# Test System Check Scans

## Motorola Solutions, Inc. EME Laboratory

**Date/Time: 1/8/2013 6:55:58 AM**

| | |
|---|---|
| Robot#: DASY5-FL-3 \| Run#: | JsT-SYSP-300H-130108-01 |
| Dipole Model# | D300V3 |
| Phantom#: | OVAL1109 |
| Tissue Temp: | 20.5 (C) |
| Serial#: | 1015 |
| Test Freq: | 300 (MHz) |
| Start Power: | 250 (mW) |
| Rotation (1D): | 0.035 dB |
| Adjusted SAR (1W): | 2.77 mW/g (1g) |

Comments:

Duty Cycle: 1:1, Medium parameters used: f = 300 MHz; $\sigma$ = 0.9 mho/m; $\varepsilon_r$ = 45.1; $\rho$ = 1000 kg/m$^3$
Probe: ES3DV3 - SN3163, , ConvF(7.37, 7.37, 7.37); Calibrated: 4/25/2012
Electronics: DAE4 Sn729, Calibrated: 4/20/2012

### Below 3 GHz-Rev.4a/System Performance Check/Dipole Area Scan 2 (5x9x1):

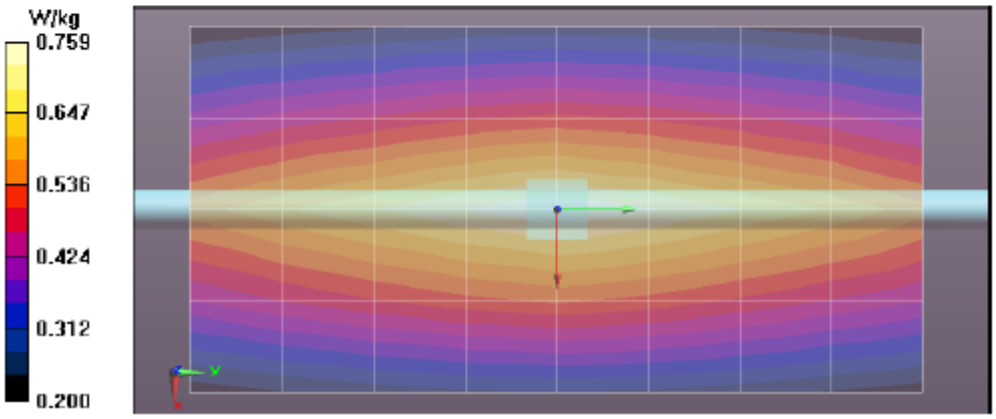
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.759 W/kg

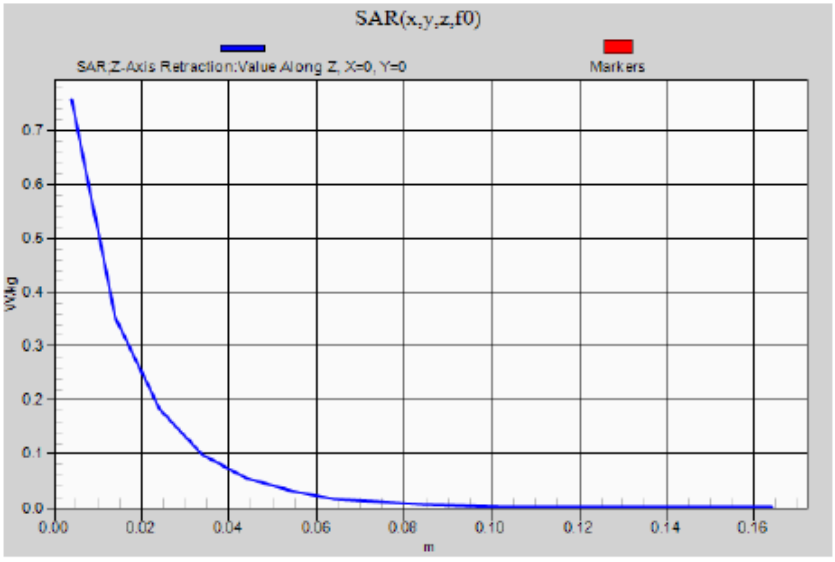
### Below 3 GHz-Rev.4a/System Performance Check/0-Degree Cube (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 29.011 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.102 mW/g
**SAR(1 g) = 0.692 mW/g; SAR(10 g) = 0.464 mW/g** (SAR corrected for target medium)

### Below 3 GHz-Rev.4a/System Performance Check/Z-Axis Retraction (1x1x17):

Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 0.758 W/kg



## Motorola Solutions, Inc. EME Laboratory

**Date/Time: 1/17/2013 5:08:28 AM**

| | |
|---|---|
| Robot#: DASY5-FL-3 \| Run#: | ErC-SYSP-300B-130117-05 |
| Dipole Model# | D300V3 |
| Phantom#: | OVAL1018 |
| Tissue Temp: | 20.5 (C) |
| Serial#: | 1015 |
| Test Freq: | 300 (MHz) |
| Start Power: | 250 (mW) |
| Rotation (1D): | 0.032 dB |
| Adjusted SAR (1W): | 2.87 mW/g (1g) |

Comments:

Duty Cycle: 1:1, Medium parameters used: f = 300 MHz; $\sigma$ = 0.9 mho/m; $\varepsilon_r$ = 57.2; $\rho$ = 1000 kg/m$^3$

Probe: ES3DV3 - SN3163, , ConvF(6.78, 6.78, 6.78); Calibrated: 4/25/2012
Electronics: DAE4 Sn729, Calibrated: 4/20/2012

### Below 3 GHz-Rev.4a/System Performance Check/Dipole Area Scan 2 (5x9x1):

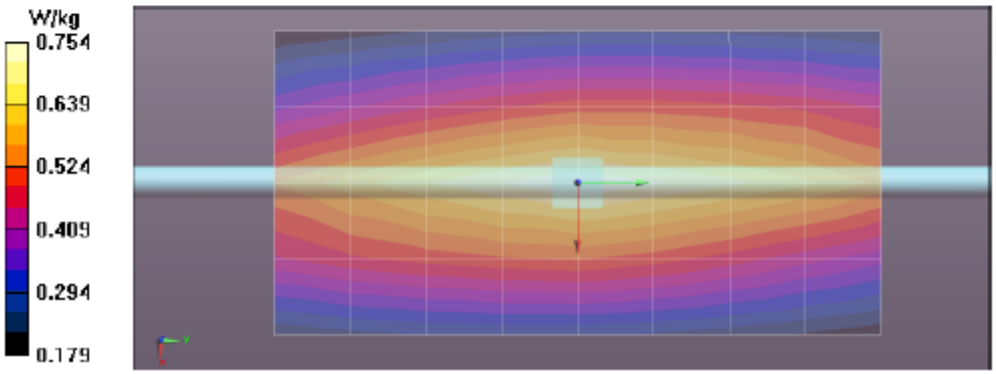
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.754 W/kg

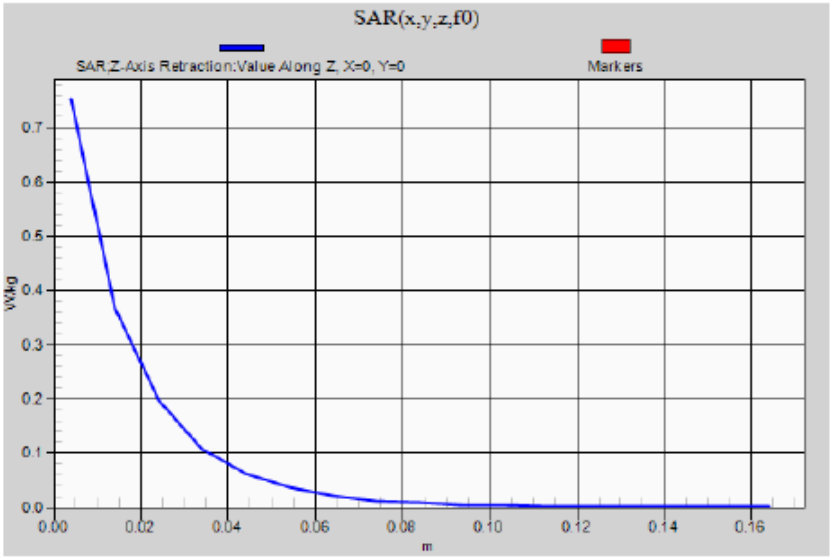
### Below 3 GHz-Rev.4a/System Performance Check/0-Degree Cube (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 29.169 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.042 mW/g
**SAR(1 g) = 0.718 mW/g; SAR(10 g) = 0.489 mW/g** (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.760 W/kg

### Below 3 GHz-Rev.4a/System Performance Check/Z-Axis Retraction (1x1x17):

Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 0.753 W/kg



## Motorola Solutions, Inc. EME Laboratory

**Date/Time: 1/17/2013 8:20:00 AM**

| | |
|---|---|
| Robot#: DASY5-FL-3 \| Run#: | JsT-SYSP-300H-130117-02 |
| Dipole Model# | D300V3 |
| Phantom#: | OVAL1109 |
| Tissue Temp: | 19.7 (C) |
| Serial#: | 1015 |
| Test Freq: | 300 (MHz) |
| Start Power: | 250 (mW) |
| Rotation (1D): | 0.036 dB |
| Adjusted SAR (1W): | 2.78 mW/g (1g) |

Comments:

Duty Cycle: 1:1, Medium parameters used: f = 300 MHz; $\sigma$ = 0.89 mho/m; $\varepsilon_r$ = 44.3; $\rho$ = 1000 kg/m$^3$
Probe: ES3DV3 - SN3163, , ConvF(7.37, 7.37, 7.37); Calibrated: 4/25/2012
Electronics: DAE4 Sn729, Calibrated: 4/20/2012

### Below 3 GHz-Rev.4a/System Performance Check/Dipole Area Scan 2 (5x9x1):

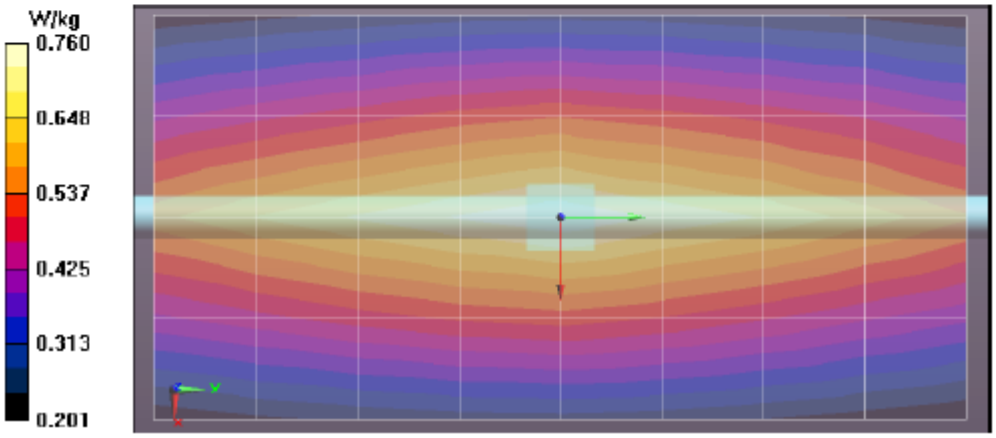
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.760 W/kg

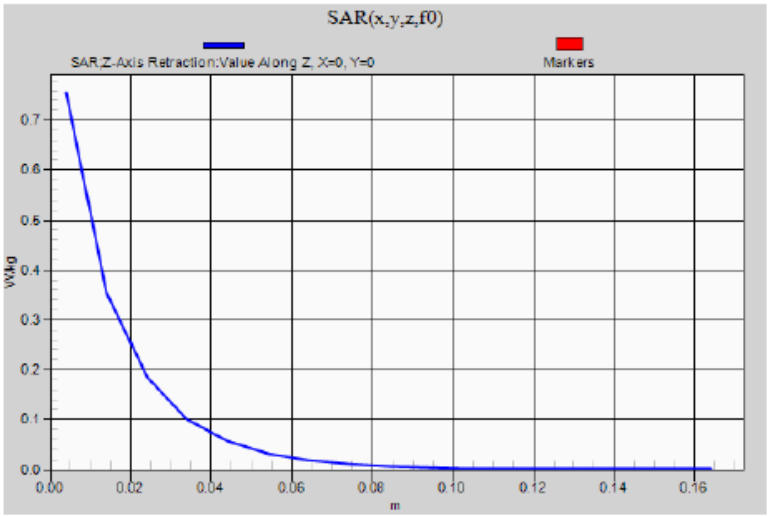
### Below 3 GHz-Rev.4a/System Performance Check/0-Degree Cube (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 29.160 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.097 mW/g
**SAR(1 g) = 0.695 mW/g; SAR(10 g) = 0.468 mW/g** (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.759 W/kg

### Below 3 GHz-Rev.4a/System Performance Check/Z-Axis Retraction (1x1x17):

Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 0.756 W/kg



## Motorola Solutions, Inc. EME Laboratory
**Date/Time: 1/18/2013 6:13:00 AM**

| | |
|---|---|
| Robot#: DASY5-FL-3 \| Run#: | JsT-SYSP-300B-130118-01 |
| Dipole Model# | D300V3 |
| Phantom#: | OVAL1018 |
| Tissue Temp: | 20.5 (C) |
| Serial#: | 1015 |
| Test Freq: | 300 (MHz) |
| Start Power: | 250 (mW) |
| Rotation (1D): | 0.036 dB |
| Adjusted SAR (1W): | 2.86 mW/g (1g) |

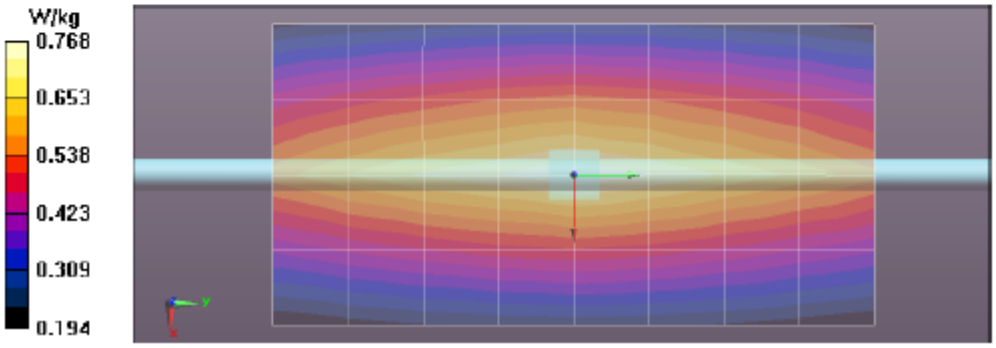
Comments:

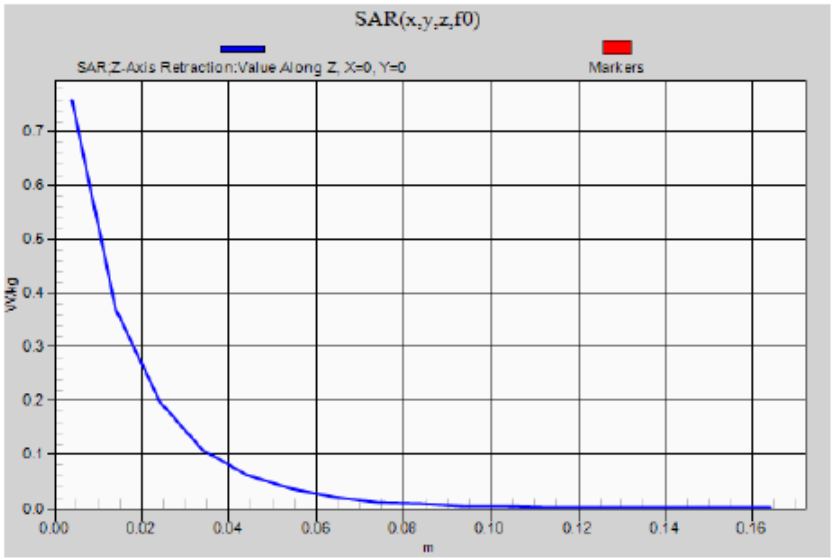
Duty Cycle: 1:1, Medium parameters used: f = 300 MHz; $\sigma$ = 0.91 mho/m; $\varepsilon_r$ = 57; $\rho$ = 1000 kg/m$^3$
Probe: ES3DV3 - SN3163, , ConvF(6.78, 6.78, 6.78); Calibrated: 4/25/2012
Electronics: DAE4 Sn729, Calibrated: 4/20/2012

### Below 3 GHz-Rev.4a/System Performance Check/Dipole Area Scan 2 (5x9x1):
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.768 W/kg

### Below 3 GHz-Rev.4a/System Performance Check/0-Degree Cube (5x5x7)/Cube 0:
Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 29.297 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.040 mW/g
**SAR(1 g) = 0.714 mW/g; SAR(10 g) = 0.489 mW/g** (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.760 W/kg

### Below 3 GHz-Rev.4a/System Performance Check/Z-Axis Retraction (1x1x17):
Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 0.759 W/kg



## Motorola Solutions, Inc. EME Laboratory

**Date/Time: 2/7/2013 5:15:53 AM**

| | |
|---|---|
| Robot#: DASY5-FL-3 \| Run#: | ErC-SYSP-300B-130207-01 |
| Dipole Model# | D300V3 |
| Phantom#: | OVAL1018 |
| Tissue Temp: | 20.6 (C) |
| Serial#: | 1015 |
| Test Freq: | 300 (MHz) |
| Start Power: | 250 (mW) |
| Rotation (1D): | 0.033 dB |
| Adjusted SAR (1W): | 2.85 mW/g (1g) |

Comments:

Duty Cycle: 1:1, Medium parameters used: f = 300 MHz; $\sigma$ = 0.88 mho/m; $\varepsilon_r$ = 56.6; $\rho$ = 1000 kg/m$^3$
Probe: ES3DV3 - SN3163, , ConvF(6.78, 6.78, 6.78); Calibrated: 4/25/2012
Electronics: DAE4 Sn729, Calibrated: 4/20/2012

### Below 3 GHz-Rev.4a/System Performance Check/Dipole Area Scan 2 (5x9x1):

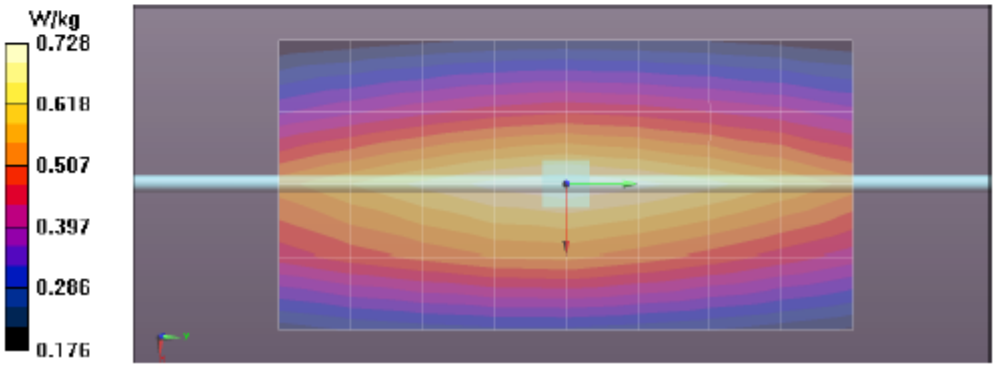
Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 0.728 W/kg

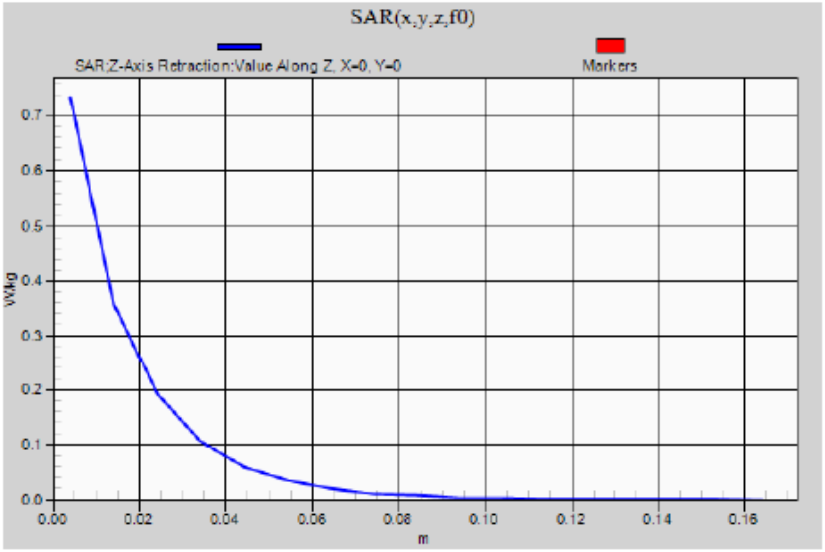
### Below 3 GHz-Rev.4a/System Performance Check/0-Degree Cube (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 29.348 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 1.019 mW/g
**SAR(1 g) = 0.712 mW/g; SAR(10 g) = 0.484 mW/g** (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.740 W/kg

### Below 3 GHz-Rev.4a/System Performance Check/Z-Axis Retraction (1x1x17):

Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 0.735 W/kg



# APPENDIX E
# Worst Case for Band 150.8 – 173.4 MHz
# DUT Scans (Shortened Scan and Highest SAR configurations)

## Shortened Scan Result- Within FCC Part 90 band
## Table 21

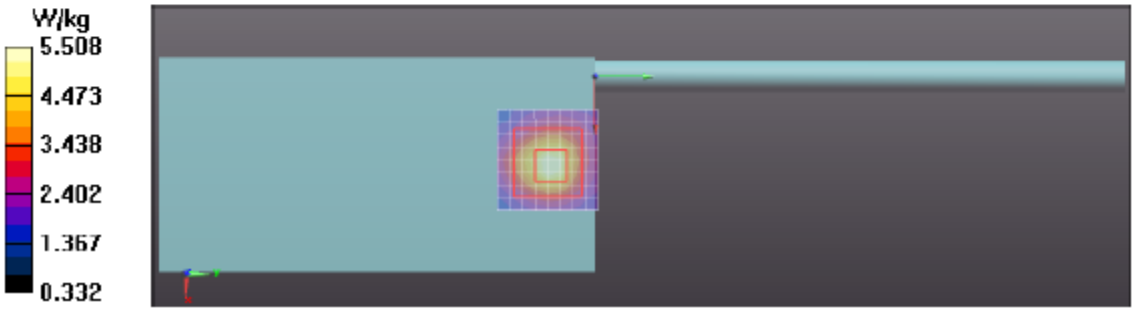
### Motorola Solutions, Inc. EME Laboratory
**Date/Time: 2/7/2013 8:29:12 AM**

Robot#: DASY5-FL-3 | Run#: ErC-Ab-130207-05
Model#: PMUD3254A
Phantom#: OVAL1018
Tissue Temp: 20.6 (C)
Serial#: 627TNX0395
Antenna: PMAD4069C
Test Freq: 160.0000 (MHz)
Battery: NNTN8386A
Carry Acc: PMLN6086A
Audio Acc: PMMN4067B
Start Power: 5.95 (W)

Comments: Short Scan

Duty Cycle: 1:1, Medium parameters used: f = 160 MHz; $\sigma$ = 0.79 mho/m; $\varepsilon_r$ = 60.6; $\rho$ = 1000 kg/m$^3$
Probe: ES3DV3 - SN3163, , ConvF(7.9, 7.9, 7.9); Calibrated: 4/25/2012
Electronics: DAE4 Sn729, Calibrated: 4/20/2012

**Below 3 GHz-Rev.5/Ab Scan/Zoom Scan (9x9x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=5mm
Reference Value = 84.488 V/m; Power Drift = -0.44 dB
Peak SAR (extrapolated) = 17.642 mW/g
**SAR(1 g) = 5.3 mW/g; SAR(10 g) = 2.49 mW/g** (SAR corrected for target medium)
Maximum value of SAR (measured) = 5.51 W/kg




**Shortened scan reflect highest SAR producing configuration; approximate run time is 18 minutes.**
**Representative full scan run time was 47 minutes.**
**"Shortened" scan max calculated SAR using SAR drift: 1-g Avg. = 2.96 mW/g; 10-g Avg. = 1.39 mW/g.**
**Zoom scan max calculated SAR using SAR drift (see part 1 table 14): 1-g Avg. = 3.39 mW/g; 10-g Avg. = 1.61 mW/g.**

## Body - Highest SAR Configuration Result- Within FCC Part 90 band
## Table 14

**Motorola Solutions, Inc. EME Laboratory**
**Date/Time: 2/7/2013 6:49:38 AM**

Robot#: DASY5-FL-3 | Run#: ErC-Ab-130207-03
Model#: PMUD3254A
Phantom#: OVAL1018
Tissue Temp: 20.6 (C)
Serial#: 627TNX0395
Antenna: PMAD4069C
Test Freq: 160.0000 (MHz)
Battery: NNTN8386A
Carry Acc: PMLN6086A
Audio Acc: PMMN4067B
Start Power: 5.99 (W)

Comments: Full Scan

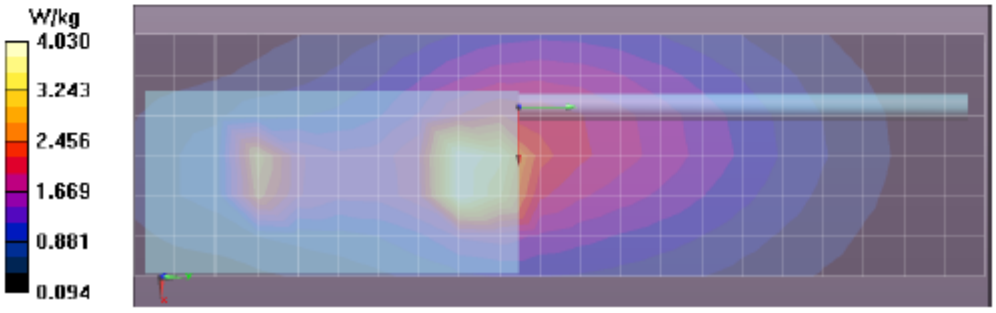
Duty Cycle: 1:1, Medium parameters used: f = 160 MHz; $\sigma$ = 0.79 mho/m; $\varepsilon_r$ = 60.6; $\rho$ = 1000 kg/m$^3$
Probe: ES3DV3 - SN3163, , ConvF(7.9, 7.9, 7.9); Calibrated: 4/25/2012
Electronics: DAE4 Sn729, Calibrated: 4/20/2012

**Below 3 GHz-Rev.5/Ab Scan/1-Area Scan (61x211x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 66.194 V/m; Power Drift = -0.61 dB
Fast SAR: SAR(1 g) = 4.29 mW/g; SAR(10 g) = 2.94 mW/g (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 4.86 W/kg

**Below 3 GHz-Rev.5/Ab Scan/1-Area Scan (7x22x1):** Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 4.03 W/kg

**Below 3 GHz-Rev.5/Ab Scan/3-Zoom Scan (10x10x7)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=5mm
Reference Value = 66.194 V/m; Power Drift = -0.77 dB
Peak SAR (extrapolated) = 18.139 mW/g
SAR(1 g) = 5.67 mW/g; SAR(10 g) = 2.69 mW/g (SAR corrected for target medium)
Maximum value of SAR (measured) = 6.03 W/kg

**Below 3 GHz-Rev.5/Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 6.12 W/kg



## Face - Highest SAR Configuration Result-Within FCC Part 90 band
## Table 19

**Motorola Solutions, Inc. EME Laboratory**
**Date/Time: 1/8/2013 8:46:12 AM**

Robot#: DASY5-FL-3 | Run#: JsT-Face-130108-03
Model#: PMUD3254A
Phantom#: OVAL1109
Tissue Temp: 20.6 (C)
Serial#: 627TNX0395
Antenna: PMAD4069C
Test Freq: 160.0000 (MHz)
Battery: NNTN8386A
Carry Acc: None
Audio Acc: None
Start Power: 5.98 (W)

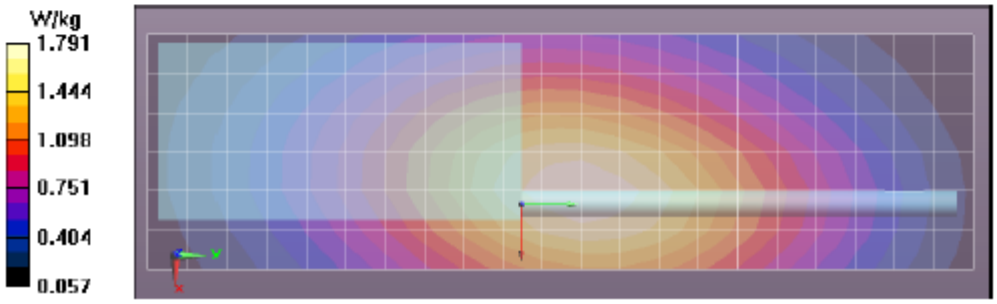
Comments: Full Scan

Duty Cycle: 1:1, Medium parameters used: f = 160 MHz; $\sigma$ = 0.78 mho/m; $\varepsilon_r$ = 52.5; $\rho$ = 1000 kg/m$^3$
Probe: ES3DV3 - SN3163, , ConvF(8.2, 8.2, 8.2); Calibrated: 4/25/2012
Electronics: DAE4 Sn729, Calibrated: 4/20/2012

**Below 3 GHz-Rev.5/Face Scan/1-Area Scan (61x211x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 47.601 V/m; Power Drift = -0.30 dB
**Fast SAR: SAR(1 g) = 1.71 mW/g; SAR(10 g) = 1.3 mW/g** (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 1.79 W/kg

**Below 3 GHz-Rev.5/Face Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 47.601 V/m; Power Drift = -0.44 dB
Peak SAR (extrapolated) = 2.160 mW/g
**SAR(1 g) = 1.62 mW/g; SAR(10 g) = 1.25 mW/g** (SAR corrected for target medium)
Maximum value of SAR (measured) = 1.69 W/kg

**Below 3 GHz-Rev.5/Face Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 1.66 W/kg



# APPENDIX F
# DUT Scans - FCC Part 90 (150.8-173.4 MHz) per KDB 643646

# Assessments at the Body with Body worn PMLN6086A
# Table 14

## Motorola Solutions, Inc. EME Laboratory
**Date/Time: 1/17/2013 3:04:59 PM**

Robot#: DASY5-FL-3 | Run#: JsT-Ab-130117-10
Model#: PMUD3254A
Phantom#: OVAL1018
Tissue Temp: 20.4 (C)
Serial#: 627TNX0395
Antenna: PMAD4069C
Test Freq: 160.0000 (MHz)
Battery: NNTN8386A
Carry Acc: PMLN6086A
Audio Acc: PMMN4067B
Start Power: 5.97 (W)

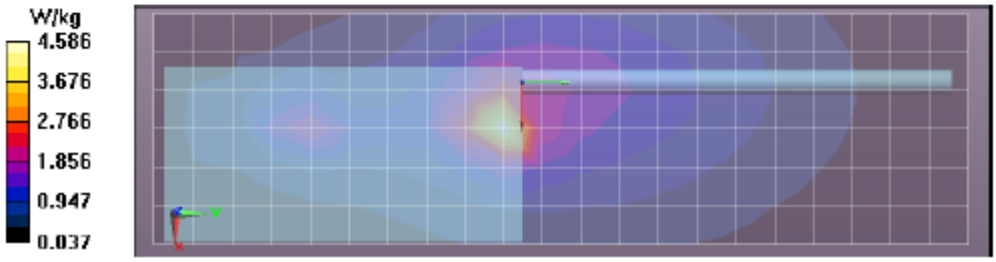
Comments: Full Scan

Duty Cycle: 1:1, Medium parameters used: f = 160 MHz; $\sigma$ = 0.83 mho/m; $\varepsilon_r$ = 63.6; $\rho$ = 1000 kg/m$^3$
Probe: ES3DV3 - SN3163, , ConvF(7.9, 7.9, 7.9); Calibrated: 4/25/2012
Electronics: DAE4 Sn729, Calibrated: 4/20/2012

**Below 3 GHz-Rev.5/Ab Scan/1-Area Scan (61x211x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 44.793 V/m; Power Drift = -0.03 dB
**Fast SAR: SAR(1 g) = 3.92 mW/g; SAR(10 g) = 2.34 mW/g** (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 4.68 W/kg

**Below 3 GHz-Rev.5/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 44.793 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 12.873 mW/g
**SAR(1 g) = 4.3 mW/g; SAR(10 g) = 2.06 mW/g** (SAR corrected for target medium)
Maximum value of SAR (measured) = 4.86 W/kg

**Below 3 GHz-Rev.5/Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 4.93 W/kg



## Assessments at the Body with Body worn PMLN6097A
## Table 15

**Motorola Solutions, Inc. EME Laboratory**
**Date/Time: 1/17/2013 5:06:50 PM**

Robot#: DASY5-FL-3 | Run#: CM-Ab-130117-12
Model#: PMUD3254A
Phantom#: OVAL1018
Tissue Temp: 20.1 (C)
Serial#: 627TNX0395
Antenna: PMAD4069C
Test Freq: 160.0000 (MHz)
Battery: NNTN8386A
Carry Acc: PMLN6097A
Audio Acc: PMMN4067B
Start Power: 5.96 (W)

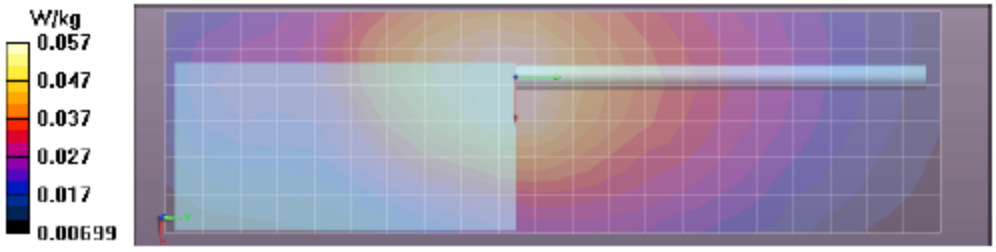
Comments: Full Scan

Duty Cycle: 1:1, Medium parameters used: f = 160 MHz; $\sigma$ = 0.83 mho/m; $\varepsilon_r$ = 63.6; $\rho$ = 1000 kg/m$^3$
Probe: ES3DV3 - SN3163, , ConvF(7.9, 7.9, 7.9); Calibrated: 4/25/2012
Electronics: DAE4 Sn729, Calibrated: 4/20/2012

**Below 3 GHz-Rev.5/Ab Scan/1-Area Scan (61x211x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 8.085 V/m; Power Drift = 0.09 dB
**Fast SAR: SAR(1 g) = 0.055 mW/g; SAR(10 g) = 0.042 mW/g** (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 0.0579 W/kg

**Below 3 GHz-Rev.5/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 8.085 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 0.071 mW/g
**SAR(1 g) = 0.053 mW/g; SAR(10 g) = 0.041 mW/g** (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.0556 W/kg

**Below 3 GHz-Rev.5/Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 0.0555 W/kg



## Assessments at the body with Body worn PMLN6099A
## Table 16

**Motorola Solutions, Inc. EME Laboratory**
**Date/Time: 1/17/2013 6:30:30 PM**

| | |
|---|---|
| Robot#: DASY5-FL-3 \| Run#: | CM-Ab-130117-14 |
| Model#: | PMUD3254A |
| Phantom#: | OVAL1018 |
| Tissue Temp: | 20.1 (C) |
| Serial#: | 627TNX0395 |
| Antenna: | PMAD4069C |
| Test Freq: | 160.0000 (MHz) |
| Battery: | NNTN8386A |
| Carry Acc: | PMLN6099A |
| Audio Acc: | PMMN4067B |
| Start Power: | 5.96 (W) |

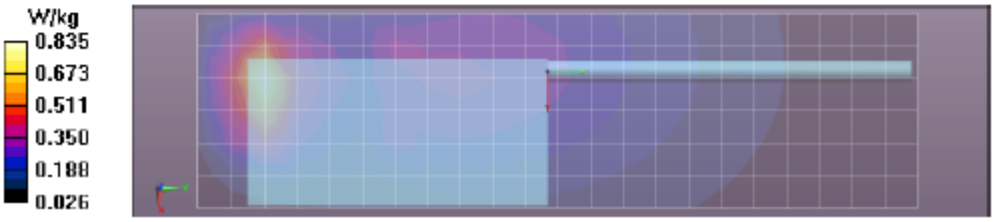
Comments: Full Scan

Duty Cycle: 1:1, Medium parameters used: f = 160 MHz; $\sigma$ = 0.83 mho/m; $\varepsilon_r$ = 63.6; $\rho$ = 1000 kg/m$^3$
Probe: ES3DV3 - SN3163, , ConvF(7.9, 7.9, 7.9); Calibrated: 4/25/2012
Electronics: DAE4 Sn729, Calibrated: 4/20/2012

**Below 3 GHz-Rev.5/Ab Scan/1-Area Scan (61x221x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 20.070 V/m; Power Drift = -0.15 dB
**Fast SAR: SAR(1 g) = 0.758 mW/g; SAR(10 g) = 0.503 mW/g** (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 0.841 W/kg

**Below 3 GHz-Rev.5/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 20.070 V/m; Power Drift = -0.28 dB
Peak SAR (extrapolated) = 2.001 mW/g
**SAR(1 g) = 0.822 mW/g; SAR(10 g) = 0.424 mW/g** (SAR corrected for target medium)
Maximum value of SAR (measured) = 0.858 W/kg

**Below 3 GHz-Rev.5/Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 0.888 W/kg



## Assessment at the Body with other audio accessories

Assessment per “KDB 643646 D01 Body SAR Test Consideration for Audio Accessories without Built-in Antenna; Sec 1, A. when overall < 4.0 W/kg, SAR tested for that audio accessory is not necessary.” This was applicable to all remaining accessories.

# Assessments at the Face
# Table 19

## Motorola Solutions, Inc. EME Laboratory
**Date/Time: 1/8/2013 8:46:12 AM**

Robot#: DASY5-FL-3 | Run#: JsT-Face-130108-03
Model#: PMUD3254A
Phantom#: OVAL1109
Tissue Temp: 20.6 (C)
Serial#: 627TNX0395
Antenna: PMAD4069C
Test Freq: 160.0000 (MHz)
Battery: NNTN8386A
Carry Acc: None
Audio Acc: None
Start Power: 5.98 (W)

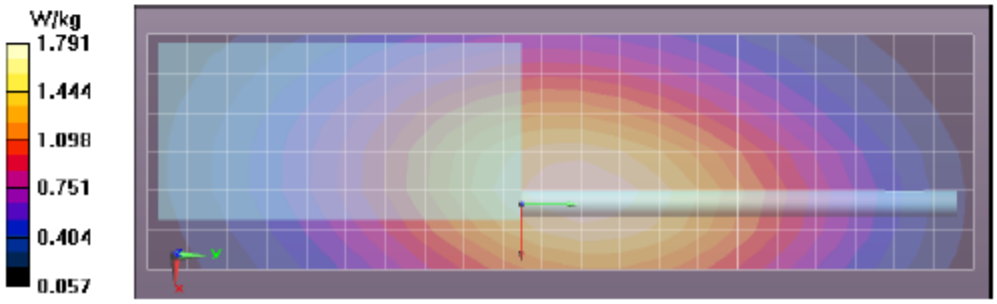
Comments: Full Scan

Duty Cycle: 1:1, Medium parameters used: f = 160 MHz; $\sigma$ = 0.78 mho/m; $\varepsilon_r$ = 52.5; $\rho$ = 1000 kg/m$^3$
Probe: ES3DV3 - SN3163, , ConvF(8.2, 8.2, 8.2); Calibrated: 4/25/2012
Electronics: DAE4 Sn729, Calibrated: 4/20/2012

**Below 3 GHz-Rev.5/Face Scan/1-Area Scan (61x211x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 47.601 V/m; Power Drift = -0.30 dB
**Fast SAR: SAR(1 g) = 1.71 mW/g; SAR(10 g) = 1.3 mW/g** (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 1.79 W/kg

**Below 3 GHz-Rev.5/Face Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 47.601 V/m; Power Drift = -0.44 dB
Peak SAR (extrapolated) = 2.160 mW/g
**SAR(1 g) = 1.62 mW/g; SAR(10 g) = 1.25 mW/g** (SAR corrected for target medium)
Maximum value of SAR (measured) = 1.69 W/kg

**Below 3 GHz-Rev.5/Face Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 1.66 W/kg



# APPENDIX G
# DUT Scans - Outside FCC Part 90 (136-174 MHz)

## Assessments outside FCC Part 90 at the Body
## Table 20

### Motorola Solutions, Inc. EME Laboratory
**Date/Time: 1/18/2013 9:38:45 AM**

Robot#: DASY5-FL-3 | Run#: JsT-Ab-130118-07
Model#: PMUD3254A
Phantom#: OVAL1018
Tissue Temp: 20.5 (C)
Serial#: 627TNX0395
Antenna: PMAD4068C
Test Freq: 147.0000 (MHz)
Battery: NNTN8386A
Carry Acc: PMLN6086A
Audio Acc: PMMN4067B
Start Power: 5.99 (W)

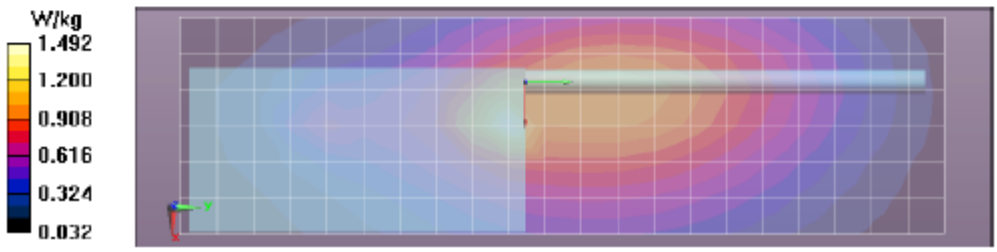
Comments: Shortened Scan

Duty Cycle: 1:1, Medium parameters used: f = 147 MHz; $\sigma$ = 0.77 mho/m; $\varepsilon_r$ = 62.5; $\rho$ = 1000 kg/m$^3$
Probe: ES3DV3 - SN3163, , ConvF(7.9, 7.9, 7.9); Calibrated: 4/25/2012
Electronics: DAE4 Sn729, Calibrated: 4/20/2012

**Below 3 GHz-Rev.5/Ab Scan/1-Area Scan (61x211x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 42.092 V/m; Power Drift = -0.86 dB
**Fast SAR: SAR(1 g) = 1.41 mW/g; SAR(10 g) = 0.974 mW/g** (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 1.51 W/kg

**Below 3 GHz-Rev.5/Ab Scan/3-Zoom Scan 2 (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 59.807 V/m; Power Drift = -0.69 dB
Peak SAR (extrapolated) = 4.883 mW/g
**SAR(1 g) = 2.28 mW/g; SAR(10 g) = 1.34 mW/g** (SAR corrected for target medium)
Maximum value of SAR (measured) = 2.48 W/kg

**Below 3 GHz-Rev.5/Ab Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 1.49 W/kg



# Assessments outside FCC Part 90 at the Face
# Table 21

## Motorola Solutions, Inc. EME Laboratory
**Date/Time: 1/17/2013 1:06:22 PM**

Robot#: DASY5-FL-3 | Run#: JsT-Face-130117-08
Model#: PMUD3254A
Phantom#: OVAL1109
Tissue Temp: 20.1 (C)
Serial#: 627TNX0395
Antenna: PMAD4068C
Test Freq: 149.0000 (MHz)
Battery: NNTN8386A
Carry Acc: None
Audio Acc: None
Start Power: 5.97 (W)

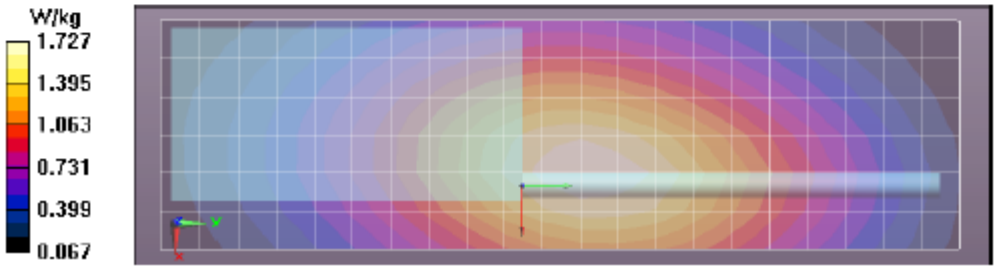
Comments: Full Scan

Duty Cycle: 1:1, Medium parameters used: f = 149 MHz; $\sigma$ = 0.75 mho/m; $\varepsilon_r$ = 53.2; $\rho$ = 1000 kg/m$^3$
Probe: ES3DV3 - SN3163, , ConvF(8.2, 8.2, 8.2); Calibrated: 4/25/2012
Electronics: DAE4 Sn729, Calibrated: 4/20/2012

**Below 3 GHz-Rev.5/Face Scan/1-Area Scan (61x211x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 46.413 V/m; Power Drift = 0.00 dB
**Fast SAR: SAR(1 g) = 1.67 mW/g; SAR(10 g) = 1.27 mW/g** (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 1.73 W/kg

**Below 3 GHz-Rev.5/Face Scan/3-Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 46.413 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 2.143 mW/g
**SAR(1 g) = 1.64 mW/g; SAR(10 g) = 1.27 mW/g** (SAR corrected for target medium)
Maximum value of SAR (measured) = 1.68 W/kg

**Below 3 GHz-Rev.5/Face Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 1.66 W/kg



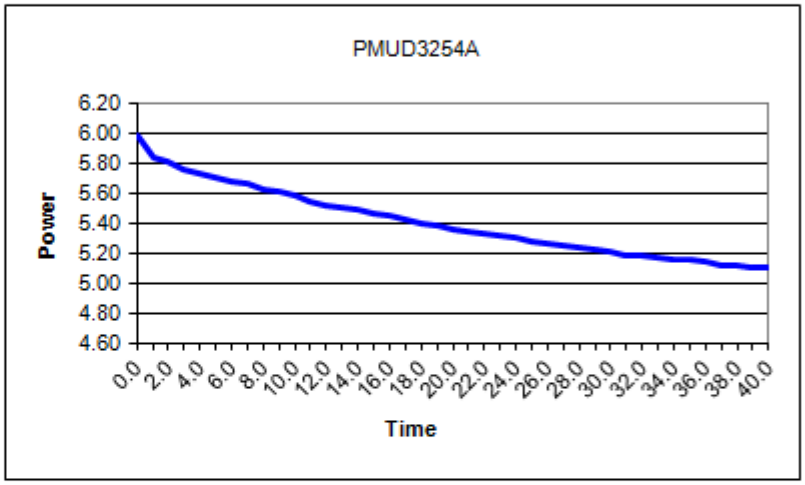
# APPENDIX H

## DUT Supplementary Data (Power slump)

### Model # PMUD3254A
### Serial # 627TNX0395

| | | | |
|---|---|---|---|
| **Battery#** | NNTN8386A | **Transmit Mode** | CW |
| **Frequency** | 160.0000 MHz | **Audio Accessory** | PMMN4067B |
| **Date** | 1/22/2013 | | |

| TX TIME (Minutes) | Meaured Power (Watts) |
|---|---|
| 0.0 | 5.98 |
| 1.0 | 5.84 |
| 2.0 | 5.81 |
| 3.0 | 5.76 |
| 4.0 | 5.73 |
| 5.0 | 5.70 |
| 6.0 | 5.68 |
| 7.0 | 5.66 |
| 8.0 | 5.63 |
| 9.0 | 5.61 |
| 10.0 | 5.59 |
| 11.0 | 5.55 |
| 12.0 | 5.52 |
| 13.0 | 5.51 |
| 14.0 | 5.49 |
| 15.0 | 5.47 |
| 16.0 | 5.45 |
| 17.0 | 5.42 |
| 18.0 | 5.40 |
| 19.0 | 5.39 |
| 20.0 | 5.36 |
| 21.0 | 5.35 |
| 22.0 | 5.33 |
| 23.0 | 5.32 |
| 24.0 | 5.30 |
| 25.0 | 5.28 |
| 26.0 | 5.26 |
| 27.0 | 5.25 |
| 28.0 | 5.24 |
| 29.0 | 5.22 |
| 30.0 | 5.21 |
| 31.0 | 5.19 |
| 32.0 | 5.19 |
| 33.0 | 5.17 |
| 34.0 | 5.16 |
| 35.0 | 5.15 |
| 36.0 | 5.14 |
| 37.0 | 5.12 |
| 38.0 | 5.11 |
| 39.0 | 5.10 |
| 40.0 | 5.10 |



# APPENDIX I
# DUT Test Position Photos

**Photos available in Exhibit 7B**

# APPENDIX J
# DUT, Body worn and audio accessories Photos

**Photos available in Exhibit 7B**