


MOTOROLA SOLUTIONS


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: 3/22/12
Report Revision: A
Report ID: SR10115 APX4000 VHF 2 of 2
 Rev A 120322

Responsible Engineer: Michael Sailsman (Senior Staff Eng.)
Report Author: Michael Sailsman (Senior Staff Eng.)
Date/s Tested: 12/27/11-1/4/12; 2/1/12
Manufacturer/Location: Penang
Sector/Group/Div.: AESS Astro Engineering Subscriber Solutions
Date submitted for test: 12/15/11
DUT Description: 136 - 174MHz 3-5.9W 6.25kHz/12.5kHz/25kHz, Single Display Model full keypad. Capable of digital and analog FM transmission. Also capable of TDMA transmission
Test TX mode(s): CW (PTT)
Max. Power output: 5.9W
Nominal Power: 5.5W
Tx Frequency Bands: 136 - 174 MHz
Signaling type: FM; TDMA
Model(s) Tested: H51KDH9PW7AN (MUD2606)
Model(s) Certified: H51KDH9PW7AN (MUD2606)
Serial Number(s): 426TMZ0239
Classification: Occupational/Controlled
FCC ID: AZ489FT3825; Rule part 90 150.8 - 174MHz. Results outside this band are not applicable to demonstrate FCC compliance.
IC: 109U-89FT3825; 138-144MHz; 148-149.9MHz and 150.05-174MHz. Results outside this band are not applicable to demonstrate IC compliance.

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

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

Based on the information and the testing results provided herein, the undersigned certifies that when used as stated in the operating instructions supplied, said product complies with the national and international reference standards and guidelines listed in section 3.0 of this report. This report shall not be reproduced without written approval from an officially designated representative of the Motorola Solutions Inc EME Laboratory. I attest to the accuracy of the data and assume full responsibility for the completeness of these measurements. This reporting format is consistent with the suggested guidelines of the TIA TSB-150 December 2004. The results and statements contained in this report pertain only to the device(s) evaluated.

Deanna Zakharia
EMS EME Lab Senior Resource Manager,
Laboratory Director
Approval Date: 3/22/2012

Certification Date:
Certification No.: L1120207P

Appendix D

Test System Verification Scans

The SAR result indicated on the Manufacture's Calibrated certificate for dipole D300V3 S/N 1015 is not used due to the following:

- The IEEE1528-2003 and the FCC OET-65 Supplement C, System Verification section recommends 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 the dipole is higher than +/-10% (e.g. 2.91 +/-18.1% at k=2 for the D300V3 S/N 1015).
- The allowed tolerances for the probes are also higher than +/- 10% (e.g. 13.4% k=2 at 300 MHz and 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 target 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 -3.44% for the 300MHz 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.

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Date/Time: 12/27/2011 5:50:22 AM, Date/Time: 12/27/2011 5:55:35 AM, Date/Time: 12/27/2011 6:07:32 AM

Robot# / Run#: DASY5-FL-1 / ErC-SYSP-300H-111227-01
 Phantom# / Tissue Temp.: OVAL1109 / 21.6 (C)
 Dipole Model# / Serial#: D300V3 / 1015
 TX Freq. / Start power: 300 (MHz) / 250 (mW)

Target SAR (1W): 2.81 mW/g (1g)
 Adjusted SAR (1W): 2.92 mW/g (1g)
 Percent from Target (+/-): 3.8 % (1g)
 Rotation (1D): 0.073 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: 0.729 mW/g (1g); 0.490 mW/g (10g)

Comments:

Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(6.88, 6.88, 6.88)
 Electronics: DAE4 Sn1231, Calibrated: 9/21/2011
 Duty Cycle: 1:1, Medium parameters used: $f = 300$ MHz; $\sigma = 0.87$ mho/m; $\epsilon_r = 45.1$; $\rho = 1000$ kg/m³

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

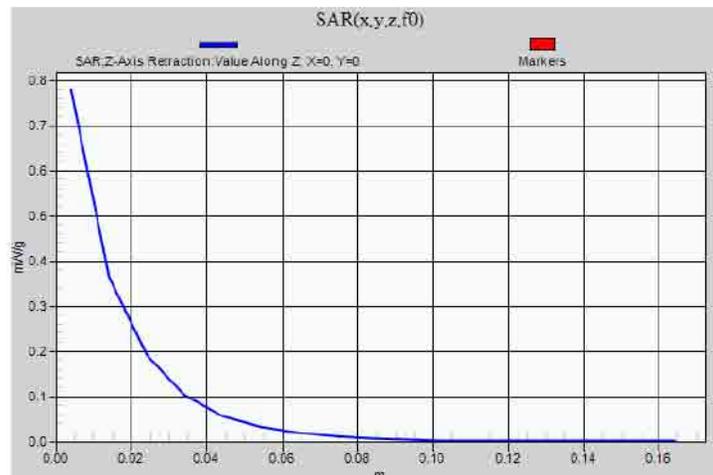
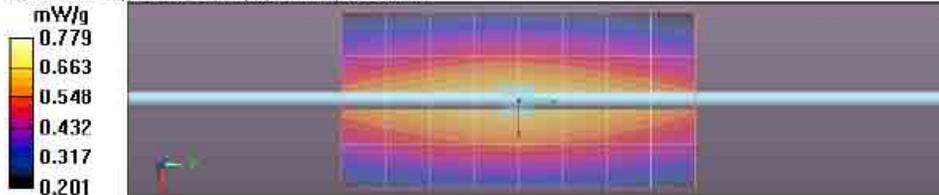
Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.779 mW/g

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

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 30.014 V/m; Power Drift = 0.0078 dB
 Peak SAR (extrapolated) = 1.120 W/kg
 SAR(1 g) = 0.729 mW/g; SAR(10 g) = 0.490 mW/g
 Maximum value of SAR (measured) = 0.778 mW/g

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

Measurement grid: dx=20mm, dy=20mm, dz=10mm



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Date/Time: 12/28/2011 5:36:20 AM, Date/Time: 12/28/2011 5:41:25 AM, Date/Time: 12/28/2011 5:50:30 AM

Robot# / Run#: DASY5-FL-1 / ErC-SYSP-300B-111228-01
 Phantom# / Tissue Temp.: OVAL1018 / 21.4 (C)
 Dipole Model# / Serial#: D300V3 / 1015
 TX Freq. / Start power: 300 (MHz) / 250 (mW)

Target SAR (1W): 2.80 mW/g (1g)
 Adjusted SAR (1W): 2.80 mW/g (1g)
 Percent from Target (+/-): 0.0 % (1g)
 Rotation (1D): 0.061 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: 0.699 mW/g (1g); 0.477 mW/g (10g)

Comments:

Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(6.83, 6.83, 6.83)
 Electronics: DAE4 Sn1231, Calibrated: 9/21/2011
 Duty Cycle: 1.1, Medium parameters used: $f = 300$ MHz, $\sigma = 0.89$ mho/m; $\epsilon_r = 57.7$; $\rho = 1000$ kg/m³

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

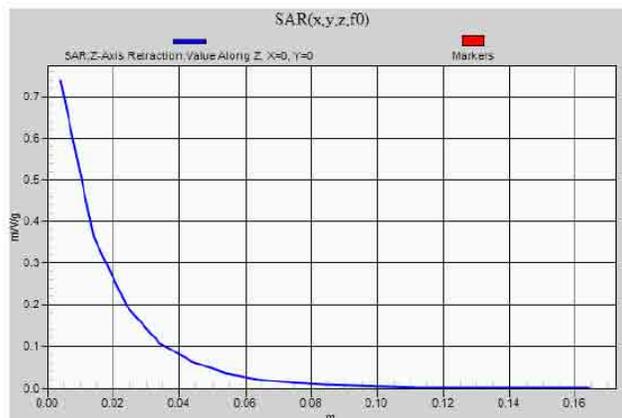
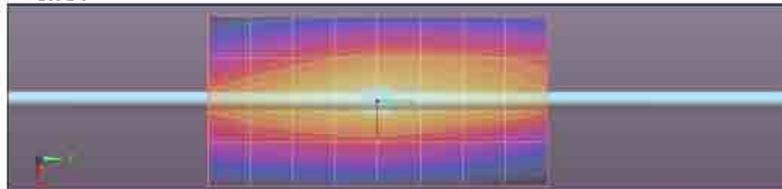
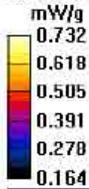
Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.732 mW/g

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

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 29.109 V/m; Power Drift = -0.0021 dB
 Peak SAR (extrapolated) = 1.017 W/kg
 SAR(1 g) = 0.691 mW/g; SAR(10 g) = 0.474 mW/g
 Maximum value of SAR (measured) = 0.739 mW/g

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

Measurement grid: dx=20mm, dy=20mm, dz=10mm



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Date/Time: 1/3/2012 5:19:33 PM, Date/Time: 1/3/2012 5:24:46 PM, Date/Time: 1/3/2012 5:36:47 PM

Robot# / Run#: DASY5-FL-1 / CM-SYSP-300H-120103-01
 Phantom# / Tissue Temp.: OVAL1109 / 22.3 (C)
 Dipole Model# / Serial#: D300V3 / 1015
 TX Freq. / Start power: 300 (MHz) / 250 (mW)

Target SAR (1W): 2.81 mW/g (1g)
 Adjusted SAR (1W): 3.06 mW/g (1g)
 Percent from Target (+/-): 9.0 % (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: 0.766 mW/g (1g); 0.514 mW/g (10g)

Comments:

Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(6.88, 6.88, 6.88)
 Electronics: DAE4 Sn1231, Calibrated: 9/21/2011
 Duty Cycle: 1:1, Medium parameters used: $f = 300$ MHz; $\sigma = 0.9$ mho/m, $\epsilon_r = 46.1$; $\rho = 1000$ kg/m³

Below 3 GHz-Rev.3m/System Performance Check/Dipole Area Scan 2 (41x81x1):

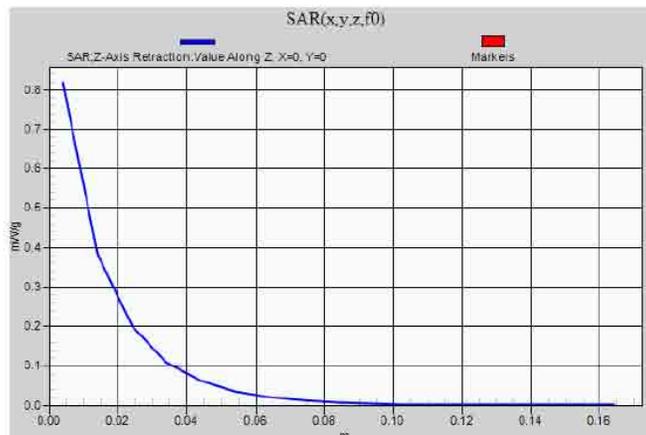
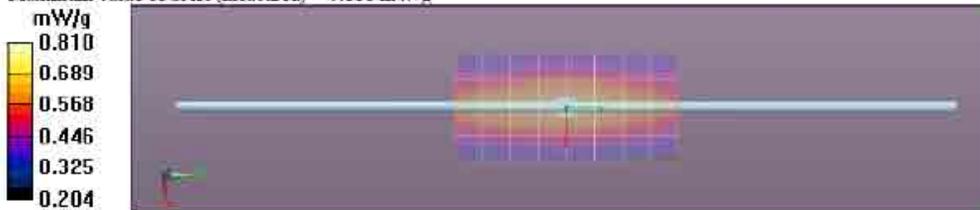
Measurement grid: dx=15mm, dy=15mm
 Reference Value = 30.165 V/m; Power Drift = 0.026 dB
Motorola Fast SAR: SAR(1 g) = 0.765 mW/g; SAR(10 g) = 0.555 mW/g
 Maximum value of SAR (interpolated) = 0.810 mW/g

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

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 30.165 V/m; Power Drift = 0.026 dB
 Peak SAR (extrapolated) = 1.177 W/kg
SAR(1 g) = 0.762 mW/g; SAR(10 g) = 0.512 mW/g
 Maximum value of SAR (measured) = 0.813 mW/g

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

Measurement grid: dx=20mm, dy=20mm, dz=10mm
 Maximum value of SAR (measured) = 0.818 mW/g



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Date/Time: 1/4/2012 9:13:23 AM, Date/Time: 1/4/2012 9:18:34 AM, Date/Time: 1/4/2012 9:30:14 AM

Robot# / Run#: DASY5-FL-1 / JsT-SYSP-300H-120104-01
 Phantom# / Tissue Temp.: OVAL1109 / 21.4 (C)
 Dipole Model# / Serial#: D300V3 / 1015
 TX Freq. / Start power: 300 (MHz) / 250 (mW)

Target SAR (1W): 2.81 mW/g (1g)
 Adjusted SAR (1W): 2.95 mW/g (1g)
 Percent from Target (+/-): 4.9 % (1g)
 Rotation (1D): 0.017 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: 0.737 mW/g (1g); 0.497 mW/g (10g)

Comments:

Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(6.88, 6.88, 6.88)
 Electronics: DAE4 Sn1231, Calibrated: 9/21/2011

Duty Cycle: 1:1, Medium parameters used: f = 300 MHz; $\sigma = 0.88$ mho/m; $\epsilon_r = 45.5$; $\rho = 1000$ kg/m³

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

Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.786 mW/g

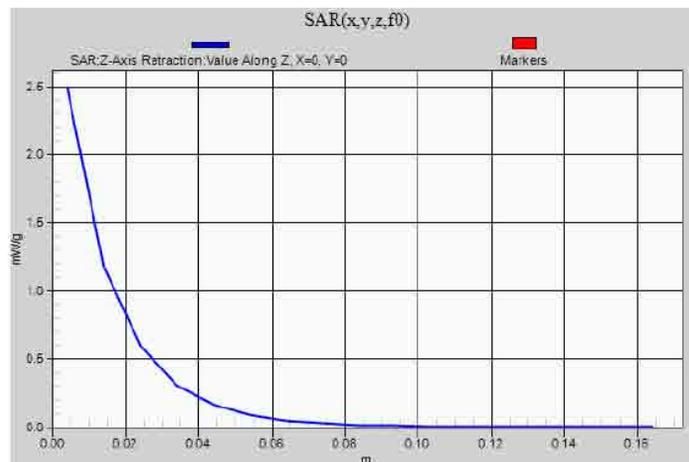
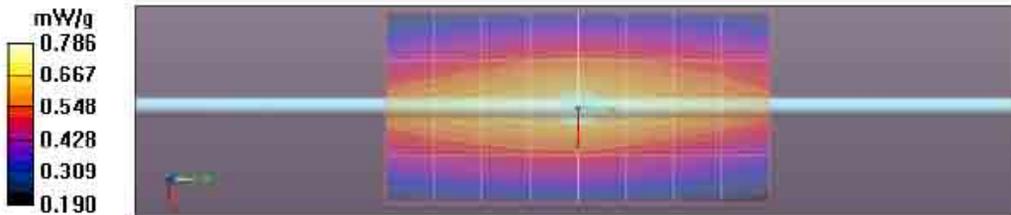
Below 3 GHz-Rev.3m/System Performance Check/0-Degree Cube (5x5x7)/Cube 0:

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 29.913 V/m; Power Drift = -0.0073 dB

Peak SAR (extrapolated) = 1.128 W/kg
 SAR(1 g) = 0.736 mW/g; SAR(10 g) = 0.496 mW/g
 Maximum value of SAR (measured) = 0.787 mW/g

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

Measurement grid: dx=20mm, dy=20mm, dz=10mm



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Date/Time: 1/30/2012 10:30:35 AM, Date/Time: 1/30/2012 10:35:36 AM, Date/Time: 1/30/2012 10:44:38 AM

Robot# / Run#: DASY5-FL-1 / HvH-SYSP-300B-120130-01
 Phantom# / Tissue Temp.: OVAL1018 / 21.6 (C)
 Dipole Model# / Serial#: D300V3 / 1015
 TX Freq. / Start power: 300 (MHz) / 250 (mW)

Target SAR (1W): 2.80 mW/g (1g)
 Adjusted SAR (1W): 2.81 mW/g (1g)
 Percent from Target (+/-): 0.30 % (1g)
 Rotation (1D): 0.026 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: 0.702 mW/g (1g); 0.476 mW/g (10g)

Comments:

Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(6.83, 6.83, 6.83)
 Electronics: DAE4 Sn1231, Calibrated: 9/21/2011
 Duty Cycle: 1:1, Medium parameters used: $f = 300$ MHz; $\sigma = 0.88$ mho/m; $\epsilon_r = 57.2$; $\rho = 1000$ kg/m³

Below 3 GHz-Rev.3m/System Performance Check/Dipole Area Scan 2 (41x81x1):

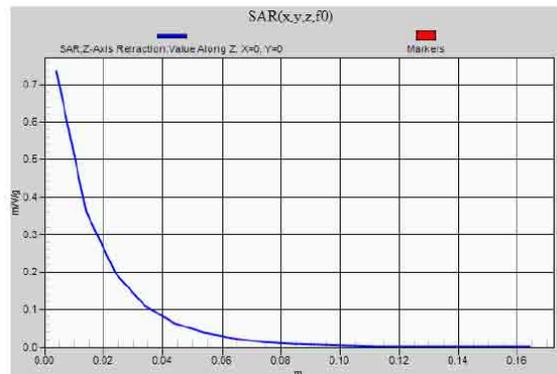
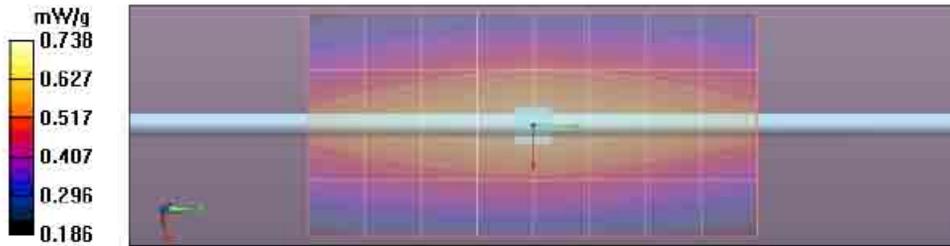
Measurement grid: dx=15mm, dy=15mm
 Reference Value = 29.210 V/m; Power Drift = -0.00057 dB
Motorola Fast SAR: SAR(1 g) = 0.697 mW/g; SAR(10 g) = 0.505 mW/g
 Maximum value of SAR (interpolated) = 0.738 mW/g

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

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 29.210 V/m; Power Drift = -0.00057 dB
 Peak SAR (extrapolated) = 1.017 W/kg
SAR(1 g) = 0.691 mW/g; SAR(10 g) = 0.473 mW/g
 Maximum value of SAR (measured) = 0.740 mW/g

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

Measurement grid: dx=20mm, dy=20mm, dz=10mm
 Maximum value of SAR (measured) = 0.736 mW/g



Motorola Solutions, Inc. EME Laboratory

Date/Time: 2/1/2012 10:59:35 AM, Date/Time: 2/1/2012 11:04:41 AM, Date/Time: 2/1/2012 11:13:47 AM

Robot# / Run#: DASY5-FL-1 / ErC-SYSP-300B-120201-01
 Phantom# / Tissue Temp.: OVAL1018 / 21.6 (C)
 Dipole Model# / Serial#: D300V3 / 1015
 TX Freq. / Start power: 300 (MHz) / 250 (mW)

Target SAR (1W): 2.80 mW/g (1g)
 Adjusted SAR (1W): 2.82 mW/g (1g)
 Percent from Target (+/-): 0.7 % (1g)
 Rotation (1D): 0.023 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: 0.705 mW/g (1g); 0.481 mW/g (10g)

Comments:

Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(6.83, 6.83, 6.83)
 Electronics: DAE4 Sn1231, Calibrated: 9/21/2011
 Duty Cycle: 1:1, Medium parameters used: $f = 300$ MHz; $\sigma = 0.89$ mho/m; $\epsilon_r = 57$; $\rho = 1000$ kg/m³

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

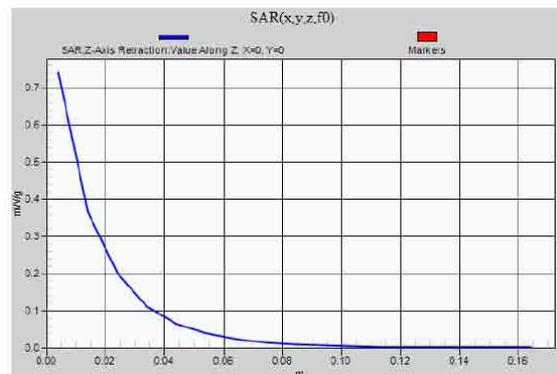
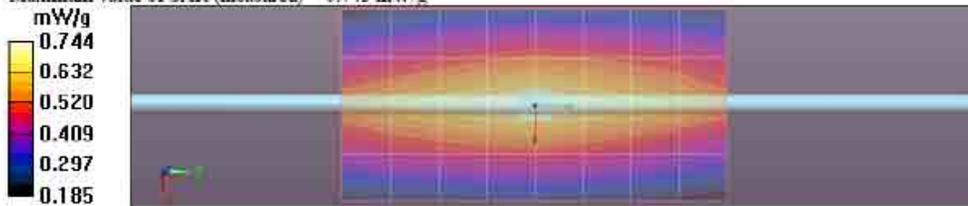
Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.744 mW/g

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

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 29.213 V/m; Power Drift = 0.0016 dB
 Peak SAR (extrapolated) = 1.024 W/kg
 SAR(1 g) = 0.697 mW/g; SAR(10 g) = 0.478 mW/g
 Maximum value of SAR (measured) = 0.745 mW/g

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

Measurement grid: dx=20mm, dy=20mm, dz=10mm
 Maximum value of SAR (measured) = 0.743 mW/g



DIPOLE SAR TARGET - HEAD

Date: 08/01/11 Frequency (MHz): 300
 Lab Location: FL08 Mixture Type: IEEE Head
 DAE Serial #: 363 Ambient Temp.(°C): 21.1

Tissue Characteristics
 Permittivity: 45.7 Phantom Type/SN: OVAL1109
 Conductivity: 0.83 Distance (mm): 15
 Tissue Temp.(°C): 21.3

Reference Source: Dipole Power to Dipole: 250 mW
 Reference SN: 1015

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

2.85

Difference from Target

-1.40% (1g-SAR)

New Target:

Average 1g-SAR Value (mW/g):	2.81
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Passes K=2

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

Probe SN #s	1g-SAR (Cube)	Diff from Ave	Robot
3147	2.82	0.4%	R2
3163	2.89	2.8%	R2
3185	2.72	-3.2%	R2
Average	2.8100	New Measured SAR Value	

(normalized to 1.0 W)

Test performed by: J. Turco Initial: 

DIPOLE SAR TARGET - BODY

Date: 08/01/11 Frequency (MHz): 300
 Lab Location: FL08 Mixture Type: Body
 DAE Serial #: 363 Ambient Temp.(°C): 21.9

Tissue Characteristics

Permittivity: 57.5 Phantom Type/SN: OVAL1018
 Conductivity: 0.92 Distance (mm): 15
 Tissue Temp.(°C): 21.9

Reference Source: Dipole Power to Dipole: 250 mW
 Reference SN: 1015

New Target:

Average Measured SAR Value: 2.80 mW/g(1g avg.),

Probe SN #s	1-G Cube	Diff from Ave	Robot
3147	2.77	-1.0%	R2
3163	2.88	3.0%	R2
3185	2.74	-2.0%	R2
Average		New Measured SAR Value	

(normalized to 1.0 W)

Test performed by: J. Turco Initial: 

Appendix E
FCC Part 90 (150.8-173.4 MHz band)
DUT Scans (Shortened Scan and Highest SAR configurations)

Shortened Scan Result Table 26

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Date/Time: 2/1/2012 2:11:45 PM, Date/Time: 2/1/2012 2:40:29 PM, Date/Time: 2/1/2012 2:51:26 PM

Robot# / Run#: DASY5-FL-1 / ErC-Ab-120201-03
 Phantom# / Tissue Temp.: OVAL1018 / 21.3 (C)
 DUT Model# / Serial#: H51KDH9PW7AN (MUD2606) / 426TMZ0239
 Antenna / TX Freq.: NAR6593A / 162.0125 (MHz)
 Battery: NNTN8128A
 Carry Acc. / Cable Acc.: PMLN6085A with NTN5243A / HMN4104B
 Start Power: 5.70 (W)

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

Reported SAR: 1.09 mW/g (1g); 0.455 mW/g (10g)

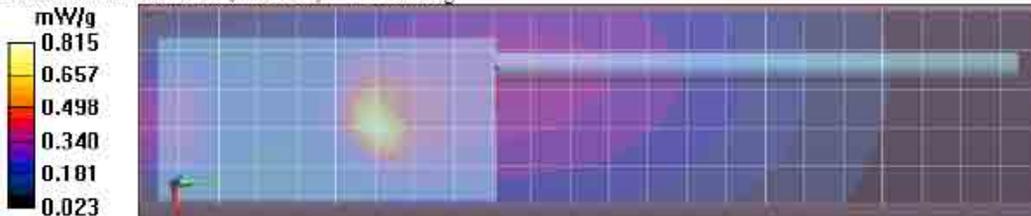
Comments: Full Scan. Without belt loop. Short Scan.

Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(7.9, 7.9, 7.9)
 Electronics: DAE4 Sn1231, Calibrated: 9/21/2011
 Duty Cycle: 1:1, Medium parameters used: $f = 162$ MHz, $\sigma = 0.79$ mho/m, $\epsilon_r = 61$; $\rho = 1000$ kg/m³

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (6x24x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.815 mW/g

Below 3 GHz-Rev.4e/Ab Scan/3-Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 20.146 V/m; Power Drift = 0.10 dB
 Peak SAR (extrapolated) = 4.898 W/kg
 SAR(1 g) = 1.08 mW/g; SAR(10 g) = 0.454 mW/g
 Maximum value of SAR (measured) = 1.128 mW/g

Below 3 GHz-Rev.4e/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
 Maximum value of SAR (measured) = 1.265 mW/g



Shortened scan reflect highest SAR producing configuration; approximate run time is 10 minutes.
 Representative full scan run time was 28 minutes.
 "Shortened" scan max calculated SAR using SAR drift: 1-g Avg. = 0.56 mW/g; 10-g Avg. = 0.24 mW/g.
 Zoom scan max calculated SAR using SAR drift (see part 1 table 19): 1-g Avg. = 0.66 mW/g; 10-g Avg. = 0.27 mW/g.

Table 19
Body - Highest SAR Configuration Result

Motorola Solutions, Inc. EME Laboratory

Date/Time: 1/30/2012 1:54:15 PM, Date/Time: 1/30/2012 2:10:18 PM, Date/Time: 1/30/2012 2:13:19 PM,
Date/Time: 1/30/2012 2:21:00 PM

Robot# / Run#: DASY5-FL-1 / HvH-Ab-120130-05
Phantom# / Tissue Temp.: OVAL1018 / 21.0 (C)
DUT Model# / Serial#: H51KDH9PW7AN (MUD2606) / 426TMZ0239
Antenna / TX Freq.: NAR6593A / 162.0125 (MHz)
Battery: NNTN8128A
Carry Acc. / Cable Acc.: PMLN6085A with NTN5243A / HMN4104B
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 SAR: 1.05 mW/g (1g); 0.437 mW/g (10g)

Comments: Full Scan. Without belt loop.

Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(7.9, 7.9, 7.9)
Electronics: DAE4 Sn1231, Calibrated: 9/21/2011

Duty Cycle: 1:1, Medium parameters used: $f = 162$ MHz; $\sigma = 0.78$ mho/m; $\epsilon_r = 61.1$; $\rho = 1000$ kg/m³

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (51x231x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 21.218 V/m; Power Drift = -0.011 dB

Motorola Fast SAR: SAR(1 g) = 0.621 mW/g; SAR(10 g) = 0.433 mW/g

Maximum value of SAR (interpolated) = 0.704 mW/g

Below 3 GHz-Rev.4e/Ab Scan/2-Volume 2D Scan (41x41x1): Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 21.218 V/m; Power Drift = -0.061 dB

Peak SAR (extrapolated) = **Not Specified** W/kg

Motorola Fast SAR: SAR(1 g) = 1 mW/g; SAR(10 g) = 0.534 mW/g

Maximum value of SAR (interpolated) = 1.438 mW/g

Below 3 GHz-Rev.4e/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 21.218 V/m; Power Drift = -0.71 dB

Peak SAR (extrapolated) = 5.050 W/kg

SAR(1 g) = 1.04 mW/g; SAR(10 g) = 0.436 mW/g

Maximum value of SAR (measured) = 1.201 mW/g

Below 3 GHz-Rev.4e/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 1.123 mW/g

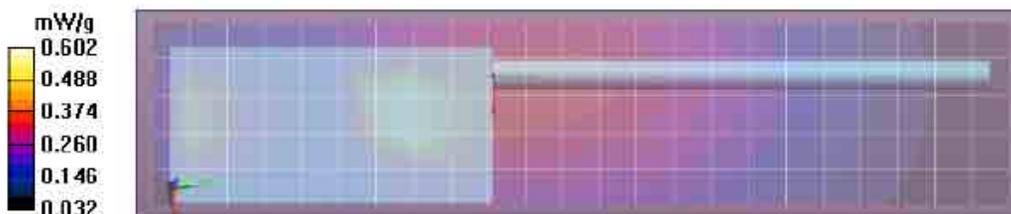


Table 23 Face - Highest SAR Configuration Result

Motorola Solutions, Inc. EME Laboratory

Date/Time: 1/3/2012 6:16:15 PM, Date/Time: 1/3/2012 6:33:05 PM, Date/Time: 1/3/2012 6:37:09 PM,
Date/Time: 1/3/2012 6:44:56 PM

Robot# / Run#: DASY5-FL-1 / CM-Face-120103-02
Phantom# / Tissue Temp.: OVAL1109 / 22.3 (C)
DUT Model# / Serial#: H51KDH9PW7AN (MUD2606) / 426TMZ0239
Antenna / TX Freq.: NAR6593A / 173.4000 (MHz)
Battery: NNTN8129A
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 SAR: 0.700 mW/g (1g); 0.544 mW/g (10g)

Comments: Zoom scan. Front of DUT toward phantom.

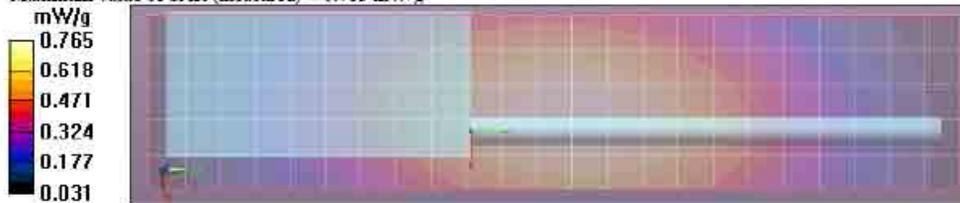
Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(8.2, 8.2, 8.2)
Electronics: DAE4 Sn1231, Calibrated: 9/21/2011
Duty Cycle: 1:1, Medium parameters used: $f = 173$ MHz; $\sigma = 0.78$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³

Below 3 GHz-Rev.4e/Face Scan/1-Area Scan (51x231x1): Measurement grid: dx=15mm, dy=15mm
Reference Value = 31.783 V/m; Power Drift = -0.38 dB
Motorola Fast SAR: SAR(1 g) = 0.732 mW/g; SAR(10 g) = 0.559 mW/g
Maximum value of SAR (interpolated) = 0.765 mW/g

Below 3 GHz-Rev.4e/Face Scan/2-Volume 2D Scan (41x41x1): Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm
Reference Value = 31.783 V/m; Power Drift = -0.38 dB
Peak SAR (extrapolated) = **Not Specified** W/kg
Motorola Fast SAR: SAR(1 g) = 0.708 mW/g; SAR(10 g) = 0.539 mW/g
Maximum value of SAR (interpolated) = 0.739 mW/g

Below 3 GHz-Rev.4e/Face Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 31.783 V/m; Power Drift = -0.53 dB
Peak SAR (extrapolated) = 0.920 W/kg
SAR(1 g) = 0.697 mW/g; SAR(10 g) = 0.542 mW/g
Maximum value of SAR (measured) = 0.723 mW/g

Below 3 GHz-Rev.4e/Face Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 0.713 mW/g



Appendix F
DUT Scans - FCC Part 90 (150.8-173.4 MHz band)

Table 13
Assessments at the Body with Body worn PMLN4651A

Motorola Solutions, Inc. EME Laboratory

Date/Time: 12/27/2011 12:09:07 PM, Date/Time: 12/27/2011 12:28:34 PM, Date/Time: 12/27/2011 12:36:18 PM

Robot# / Run#: DASY5-FL-1 / ErC-Ab-111227-07
 Phantom# / Tissue Temp.: OVAL1018 / 21.2 (C)
 DUT Model# / Serial#: H51KDH9PW7AN (MUD2606) / 426TMZ0239
 Antenna / TX Freq.: NAR6593A / 162.0125 (MHz)
 Battery: NNTN8128A
 Carry Acc. / Cable Acc.: PMLN4651A / HMN4104B
 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 SAR: 0.871 mW/g (1g); 0.561 mW/g (10g)

Comments: Zoom scan.

Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(7.9, 7.9, 7.9)
 Electronics: DAE4 Sn1231, Calibrated: 9/21/2011

Duty Cycle: 1:1, Medium parameters used: $f = 162$ MHz, $\sigma = 0.79$ mho/m; $\epsilon_r = 61.6$; $\rho = 1000$ kg m³

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (6x24x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.908 mW/g

Below 3 GHz-Rev.4e/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 32.646 V/m; Power Drift = -0.85 dB
 Peak SAR (extrapolated) = 1.634 W/kg
 SAR(1 g) = 0.867 mW/g; SAR(10 g) = 0.560 mW/g
 Maximum value of SAR (measured) = 0.896 mW/g

Below 3 GHz-Rev.4e/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
 Maximum value of SAR (measured) = 0.849 mW/g

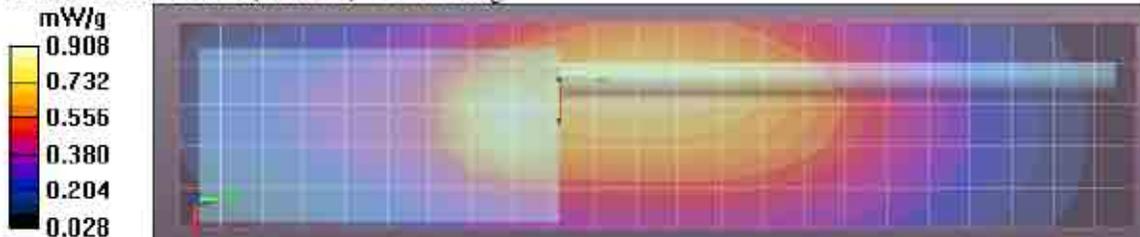


Table 14
Assessments at the Body with Body worn PMLN4651A (additional battery)

Motorola Solutions, Inc. EME Laboratory

Date/Time: 12/27/2011 2:01:36 PM, Date/Time: 12/27/2011 2:21:03 PM, Date/Time: 12/27/2011 2:28:47 PM

Robot# / Run#: DASY5-FL-1 / ErC-Ab-111227-09
 Phantom# / Tissue Temp.: OVAL1018 / 21.2 (C)
 DUT Model# / Serial#: H51KDH9PW7AN (MUD2606) / 426TMZ0239
 Antenna / TX Freq.: NAR6593A / 162.0125 (MHz)
 Battery: PMNN4424A
 Carry Acc. / Cable Acc.: PMLN4651A / HMN4104B
 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: 0.860 mW/g (1g); 0.553 mW/g (10g)

Comments: Zoom scan.

Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(7.9, 7.9, 7.9)

Electronics: DAE4 Sn1231, Calibrated: 9/21/2011

Duty Cycle: 1:1, Medium parameters used: $f = 162$ MHz; $\sigma = 0.79$ mho/m; $\epsilon_r = 61.6$; $\rho = 1000$ kg/m³

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (6x24x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.854 mW/g

Below 3 GHz-Rev.4e/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 30.792 V/m; Power Drift = -0.71 dB

Peak SAR (extrapolated) = 1.623 W/kg

SAR(1 g) = 0.856 mW/g; SAR(10 g) = 0.552 mW/g

Maximum value of SAR (measured) = 0.920 mW/g

Below 3 GHz-Rev.4e/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 0.839 mW/g

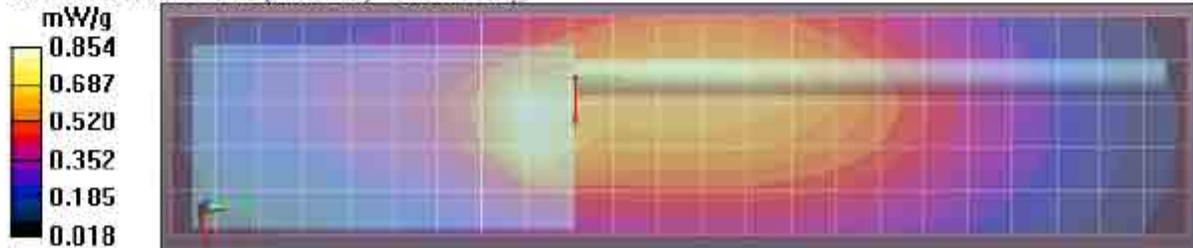


Table 15
Assessments at the Body with Body worn PMLN7008A

Motorola Solutions, Inc. EME Laboratory

Date/Time: 12/28/2011 6:27:10 AM, Date/Time: 12/28/2011 6:46:35 AM, Date/Time: 12/28/2011 6:54:18 AM

Robot# / Run#: DASY5-FL-1 / ErC-Ab-111228-02
 Phantom# / Tissue Temp.: OVAL1018 / 21.4 (C)
 DUT Model# / Serial#: H51KDH9PW7AN (MUD2606) / 426TMZ0239
 Antenna / TX Freq.: NAR6593A / 162.0125 (MHz)
 Battery: NNTN8128A
 Carry Acc. / Cable Acc.: PMLN7008A / HMN4104B
 Start Power: 5.63 (W)

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

Reported SAR: 0.899 mW/g (1g); 0.575 mW/g (10g)

Comments: Zoom scan.

Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(7.9, 7.9, 7.9)
 Electronics: DAE4 Sn1231, Calibrated: 9/21/2011
 Duty Cycle: 1:1, Medium parameters used: $f = 162$ MHz; $\sigma = 0.79$ mho/m; $\epsilon_r = 61.6$; $\rho = 1000$ kg/m³

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (6x24x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.933 mW/g

Below 3 GHz-Rev.4e/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 32.580 V/m; Power Drift = -0.78 dB
 Peak SAR (extrapolated) = 1.707 W/kg
 SAR(1 g) = 0.895 mW/g; SAR(10 g) = 0.574 mW/g
 Maximum value of SAR (measured) = 0.946 mW/g

Below 3 GHz-Rev.4e/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
 Maximum value of SAR (measured) = 0.880 mW/g

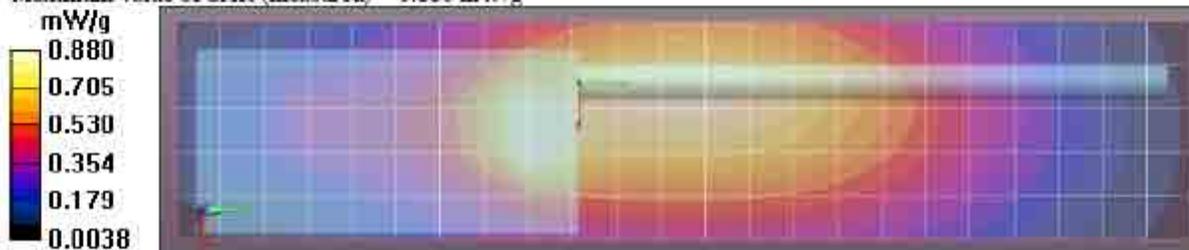


Table 16
Assessments at the Body with Body worn PMLN7008A (additional battery)

Motorola Solutions, Inc. EME Laboratory

Date/Time: 12/28/2011 7:13:50 AM, Date/Time: 12/28/2011 7:33:14 AM, Date/Time: 12/28/2011 7:40:58 AM

Robot# / Run#: DASY5-FL-1 / ErC-Ab-111228-03
 Phantom# / Tissue Temp.: OVAL1018 / 21.4 (C)
 DUT Model# / Serial#: H51KDH9PW7AN (MUD2606) / 426TMZ0239
 Antenna / TX Freq.: NAR6593A / 162.0125 (MHz)
 Battery: NNTN8129A
 Carry Acc. / Cable Acc.: PMLN7008A / HMN4104B
 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 SAR 0.901 mW/g (1g); 0.569 mW/g (10g)

Comments: Zoom scan.

Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(7.9, 7.9, 7.9)
 Electronics: DAE4 Sn1231, Calibrated: 9/21/2011
 Duty Cycle: 1:1, Medium parameters used: $f = 162$ MHz, $\sigma = 0.79$ mho/m, $\epsilon_t = 61.6$, $\rho = 1000$ kg/m³

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (6x24x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 0.912 mW/g

Below 3 GHz-Rev.4e/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 30.364 V/m; Power Drift = -0.28 dB
 Peak SAR (extrapolated) = 1.761 W/kg
 SAR(1 g) = 0.897 mW/g; SAR(10 g) = 0.568 mW/g
 Maximum value of SAR (measured) = 0.954 mW/g

Below 3 GHz-Rev.4e/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
 Maximum value of SAR (measured) = 0.928 mW/g

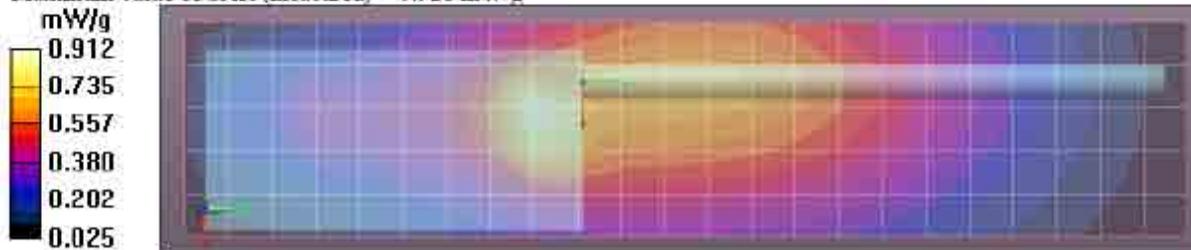


Table 17
Assessments at the body with Body worn PMLN6085A

Motorola Solutions, Inc. EME Laboratory

Date/Time: 1/30/2012 11:24:49 AM, Date/Time: 1/30/2012 11:40:49 AM, Date/Time: 1/30/2012 11:43:54 AM,
 Date/Time: 1/30/2012 11:53:10 AM

Robot# / Run#: DASY5-FL-1 / HvH-Ab-120130-02
 Phantom# / Tissue Temp.: OVAL1018 / 21.4 (C)
 DUT Model# / Serial#: H51KDH9PW7AN (MUD2606) / 426TMZ0239
 Antenna / TX Freq.: NAR6593A / 162.0125 (MHz)
 Battery: NNTN8128A
 Carry Acc. / Cable Acc.: PMLN6085A / HMN4104B
 Start Power: 5.61 (W)

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

Reported SAR: 0.223 mW/g (1g); 0.174 mW/g (10g)

Comments: Full Scan

Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(7.9, 7.9, 7.9)
 Electronics: DAE4 Sn1231, Calibrated: 9/21/2011

Duty Cycle: 1:1, Medium parameters used: $f = 162 \text{ MHz}$; $\sigma = 0.78 \text{ mho/m}$; $\epsilon_r = 61.1$; $\rho = 1000 \text{ kg/m}^3$

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (51x231x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 17.243 V/m; Power Drift = -0.14 dB
 Motorola Fast SAR: SAR(1 g) = 0.231 mW/g; SAR(10 g) = 0.177 mW/g
 Maximum value of SAR (interpolated) = 0.241 mW/g

Below 3 GHz-Rev.4e/Ab Scan/2-Volume 2D Scan (41x41x1): Measurement grid: dx=7.5mm,

dy=7.5mm, dz=1mm
 Reference Value = 17.243 V/m; Power Drift = -0.17 dB
 Peak SAR (extrapolated) = **Not Specified** W/kg
 Motorola Fast SAR: SAR(1 g) = 0.224 mW/g; SAR(10 g) = 0.172 mW/g
 Maximum value of SAR (interpolated) = 0.235 mW/g

Below 3 GHz-Rev.4e/Ab Scan/3-Zoom Scan (6x5x7)/Cube 0: Measurement grid: dx=7.5mm,

dy=7.5mm, dz=5mm
 Reference Value = 17.243 V/m; Power Drift = -0.90 dB
 Peak SAR (extrapolated) = 0.288 W/kg
 SAR(1 g) = 0.221 mW/g; SAR(10 g) = 0.174 mW/g
 Maximum value of SAR (measured) = 0.231 mW/g

Below 3 GHz-Rev.4e/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm,

dz=10mm
 Maximum value of SAR (measured) = 0.196 mW/g

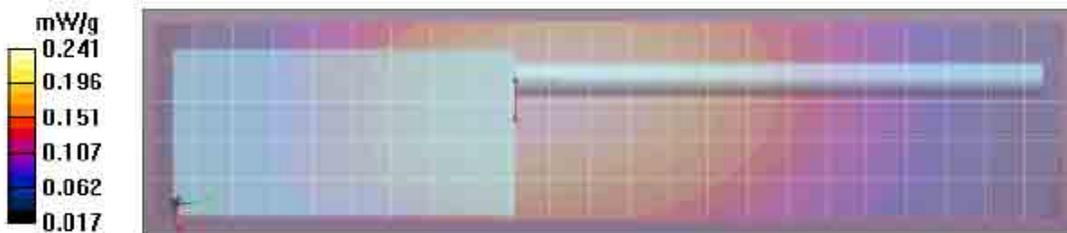


Table 18
A Assessment at the Body with Body worn PMLN6085A (additional battery)

Motorola Solutions, Inc. EME Laboratory

Date/Time: 1/30/2012 1:04:44 PM, Date/Time: 1/30/2012 1:20:47 PM, Date/Time: 1/30/2012 1:23:48 PM,
Date/Time: 1/30/2012 1:34:46 PM

Robot# / Run#: DASY5-FL-1 / HvH-Ab-120130-04
Phantom# / Tissue Temp.: OVAL1018 / 21.0 (C)
DUT Model# / Serial#: H51KDH9PW7AN (MUD2606) / 426TMZ0239
Antenna / TX Freq.: NAR6593A / 162.0125 (MHz)
Battery: PMNN4424A
Carry Acc. / Cable Acc.: PMLN6085A / HMN4104B
Start Power: 5.56 (W)

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

Reported SAR: 0.190 mW/g (1g); 0.151 mW/g (10g)

Comments: Full Scan

Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(7.9, 7.9, 7.9)
Electronics: DAE4 Sn1231, Calibrated: 9/21/2011

Duty Cycle: 1:1, Medium parameters used: $f = 162$ MHz; $\sigma = 0.78$ mho/m; $\epsilon_r = 61.1$; $\rho = 1000$ kg/m³

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (51x231x1): Measurement grid: dx=15mm, dy=15mm
Reference Value = 16.009 V/m; Power Drift = -0.088 dB
Motorola Fast SAR: SAR(1 g) = 0.201 mW/g; SAR(10 g) = 0.154 mW/g
Maximum value of SAR (interpolated) = 0.210 mW/g

Below 3 GHz-Rev.4e/Ab Scan/2-Volume 2D Scan (41x41x1): Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm
Reference Value = 16.009 V/m; Power Drift = -0.23 dB
Peak SAR (extrapolated) = **Not Specified** W/kg
Motorola Fast SAR: SAR(1 g) = 0.194 mW/g; SAR(10 g) = 0.148 mW/g
Maximum value of SAR (interpolated) = 0.205 mW/g

Below 3 GHz-Rev.4e/Ab Scan/3-Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 16.009 V/m; Power Drift = -0.85 dB
Peak SAR (extrapolated) = 0.243 W/kg
SAR(1 g) = 0.189 mW/g; SAR(10 g) = 0.151 mW/g
Maximum value of SAR (measured) = 0.195 mW/g

Below 3 GHz-Rev.4e/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 0.170 mW/g

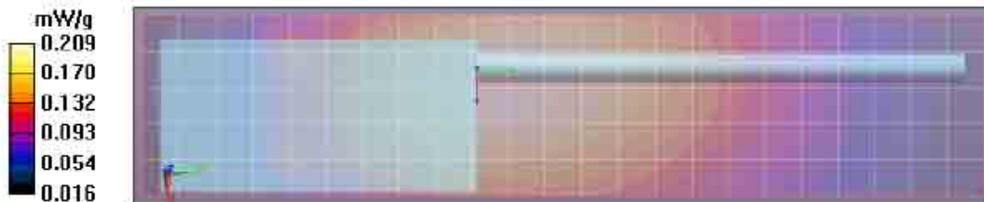


Table 19
Assessment at the Body with Body worn PMLN6085A/NTN5243A

Motorola Solutions, Inc. EME Laboratory

Date/Time: 1/30/2012 1:54:15 PM, Date/Time: 1/30/2012 2:10:18 PM, Date/Time: 1/30/2012 2:13:19 PM,
 Date/Time: 1/30/2012 2:21:00 PM

Robot# / Run#: DASY5-FL-1 / HvH-Ab-120130-05
 Phantom# / Tissue Temp.: OVAL1018 / 21.0 (C)
 DUT Model# / Serial#: H51KDH9PW7AN (MUD2606) / 426TMZ0239
 Antenna / TX Freq.: NAR6593A / 162.0125 (MHz)
 Battery: NNTN8128A
 Carry Acc. / Cable Acc.: PMLN6085A with NTN5243A / HMN4104B
 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 SAR: 1.05 mW/g (1g); 0.437 mW/g (10g)

Comments: Full Scan. Without belt loop.

Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(7.9, 7.9, 7.9)
 Electronics: DAE4 Sn1231, Calibrated: 9/21/2011

Duty Cycle: 1:1, Medium parameters used: f = 162 MHz; $\sigma = 0.78$ mho/m; $\epsilon_r = 61.1$; $\rho = 1000$ kg/m³

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (51x231x1): Measurement grid: dx=15mm, dy=15mm
 Reference Value = 21.218 V/m; Power Drift = -0.011 dB
 Motorola Fast SAR: SAR(1 g) = 0.621 mW/g; SAR(10 g) = 0.433 mW/g
 Maximum value of SAR (interpolated) = 0.704 mW/g

Below 3 GHz-Rev.4e/Ab Scan/2-Volume 2D Scan (41x41x1): Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm
 Reference Value = 21.218 V/m; Power Drift = -0.061 dB
 Peak SAR (extrapolated) = **Not Specified** W/kg
 Motorola Fast SAR: SAR(1 g) = 1 mW/g; SAR(10 g) = 0.534 mW/g
 Maximum value of SAR (interpolated) = 1.438 mW/g

Below 3 GHz-Rev.4e/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 21.218 V/m; Power Drift = -0.71 dB
 Peak SAR (extrapolated) = 5.050 W/kg
 SAR(1 g) = 1.04 mW/g; SAR(10 g) = 0.436 mW/g
 Maximum value of SAR (measured) = 1.201 mW/g

Below 3 GHz-Rev.4e/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
 Maximum value of SAR (measured) = 1.123 mW/g

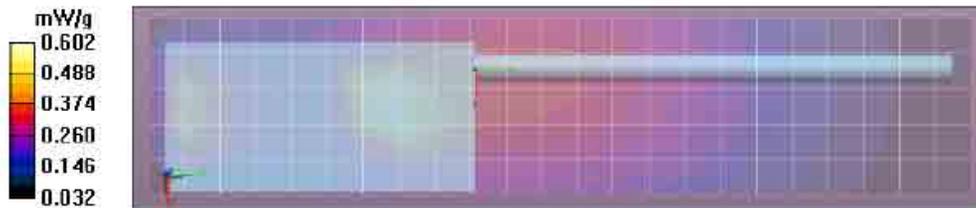


Table 20
Assessment at the Body with Body worn PMLN6085A/NTN5243A (additional battery)

Motorola Solutions, Inc. EME Laboratory

Date/Time: 1/30/2012 2:46:22 PM, Date/Time: 1/30/2012 3:02:26 PM, Date/Time: 1/30/2012 3:05:27 PM,
Date/Time: 1/30/2012 3:13:08 PM

Robot# / Run#: DASY5-FL-1 / HvH-Ab-120130-06
Phantom# / Tissue Temp.: OVAL1018 / 21.0 (C)
DUT Model# / Serial#: H51KDH9PW7AN (MUD2606) / 426TMZ0239
Antenna / TX Freq.: NAR6593A / 162.0125 (MHz)
Battery: NNTN8129A
Carry Acc. / Cable Acc.: PMLN6085A with NTN5243A / HMN4104B
Start Power: 5.53 (W)

Note:

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

Reported SAR: 1.00 mW/g (1g); 0.412 mW/g (10g)

Comments: Full Scan. Without belt loop.

Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(7.9, 7.9, 7.9)
Electronics: DAE4 Sn1231, Calibrated: 9/21/2011

Duty Cycle: 1:1, Medium parameters used: $f = 162$ MHz; $\sigma = 0.78$ mho/m; $\epsilon_r = 61.1$; $\rho = 1000$ kg/m³

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (51x231x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 19.453 V/m; Power Drift = -0.0021 dB

Motorola Fast SAR: SAR(1 g) = 0.620 mW/g; SAR(10 g) = 0.403 mW/g

Maximum value of SAR (interpolated) = 0.714 mW/g

Below 3 GHz-Rev.4e/Ab Scan/2-Volume 2D Scan (41x41x1): Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 19.453 V/m; Power Drift = -0.056 dB

Peak SAR (extrapolated) = **Not Specified** W/kg

Motorola Fast SAR: SAR(1 g) = 0.915 mW/g; SAR(10 g) = 0.481 mW/g

Maximum value of SAR (interpolated) = 1.230 mW/g

Below 3 GHz-Rev.4e/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 19.453 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 4.788 W/kg

SAR(1 g) = 0.991 mW/g; SAR(10 g) = 0.411 mW/g

Maximum value of SAR (measured) = 1.086 mW/g

Below 3 GHz-Rev.4e/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 1.043 mW/g

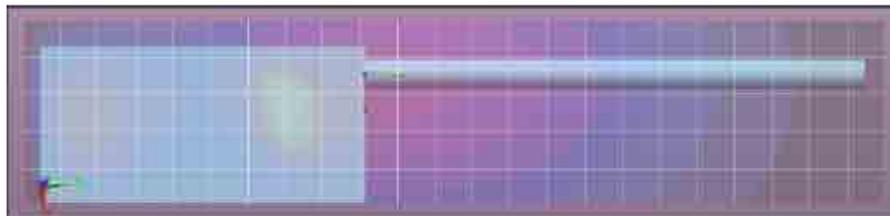
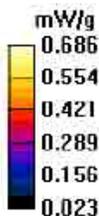


Table 23
Assessment at the Face with default battery

Motorola Solutions, Inc. EME Laboratory

Date/Time: 1/3/2012 6:16:15 PM, Date/Time: 1/3/2012 6:33:05 PM, Date/Time: 1/3/2012 6:37:09 PM,
Date/Time: 1/3/2012 6:44:56 PM

Robot# / Run#: DASY5-FL-1 / CM-Face-120103-02
Phantom# / Tissue Temp.: OVAL1109 / 22.3 (C)
DUT Model# / Serial#: H51KDH9PW7AN (MUD2606) / 426TMZ0239
Antenna / TX Freq.: NAR6593A / 173.4000 (MHz)
Battery: NNTN8129A
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 SAR: 0.700 mW/g (1g); 0.544 mW/g (10g)

Comments: Zoom scan. Front of DUT toward phantom.

Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(8.2, 8.2, 8.2)
Electronics: DAE4 Sn1231, Calibrated: 9/21/2011

Duty Cycle: 1:1, Medium parameters used: $f = 173$ MHz; $\sigma = 0.78$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³

Below 3 GHz-Rev.4e/Face Scan/1-Area Scan (51x231x1): Measurement grid: dx=15mm, dy=15mm
Reference Value = 31.783 V/m; Power Drift = -0.38 dB
Motorola Fast SAR: SAR(1 g) = 0.732 mW/g; SAR(10 g) = 0.559 mW/g
Maximum value of SAR (interpolated) = 0.765 mW/g

Below 3 GHz-Rev.4e/Face Scan/2-Volume 2D Scan (41x41x1): Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm
Reference Value = 31.783 V/m; Power Drift = -0.38 dB
Peak SAR (extrapolated) = **Not Specified** W/kg
Motorola Fast SAR: SAR(1 g) = 0.708 mW/g; SAR(10 g) = 0.539 mW/g
Maximum value of SAR (interpolated) = 0.739 mW/g

Below 3 GHz-Rev.4e/Face Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 31.783 V/m; Power Drift = -0.53 dB
Peak SAR (extrapolated) = 0.920 W/kg
SAR(1 g) = 0.697 mW/g; SAR(10 g) = 0.542 mW/g
Maximum value of SAR (measured) = 0.723 mW/g

Below 3 GHz-Rev.4e/Face Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 0.713 mW/g

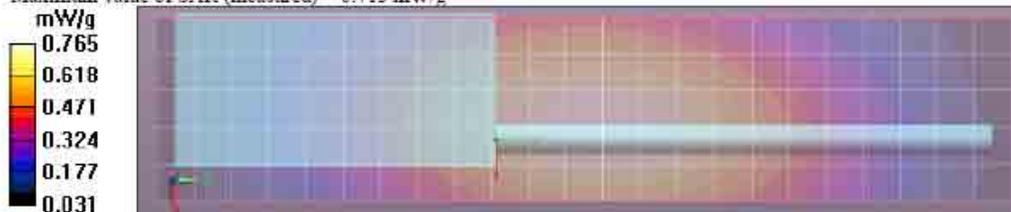


Table 24
Assessment at the Face (additional battery)

Motorola Solutions, Inc. EME Laboratory

Date/Time: 1/3/2012 7:46:01 PM, Date/Time: 1/3/2012 8:03:29 PM, Date/Time: 1/3/2012 8:06:39 PM,
Date/Time: 1/3/2012 8:14:25 PM

Robot# / Run#: DASY5-FL-1 / CM-Face-120103-04
Phantom# / Tissue Temp.: OVAL1109 / 22.2 (C)
DUT Model# / Serial#: H51KDH9PW7AN (MUD2606) / 426TMZ0239
Antenna / TX Freq.: NAR6593A / 173.4000 (MHz)
Battery PMNN4424A
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 SAR: 0.677 mW/g (1g); 0.524 mW/g (10g)

Comments: Zoom scan. Front of DUT toward phantom.

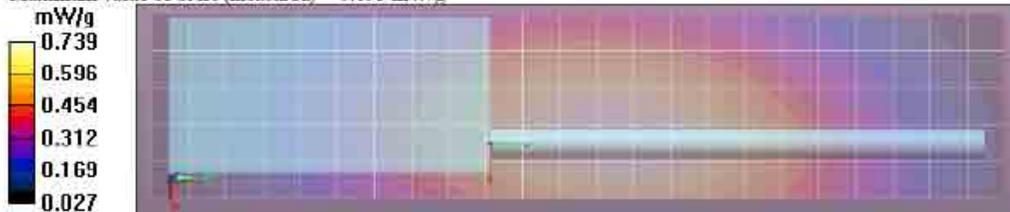
Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(8.2, 8.2, 8.2)
Electronics: DAE4 Sn1231, Calibrated: 9/21/2011
Duty Cycle: 1:1, Medium parameters used: $f = 173$ MHz; $\sigma = 0.78$ mho/m; $\epsilon_r = 52.1$; $\rho = 1000$ kg/m³

Below 3 GHz-Rev.4e/Face Scan/1-Area Scan (51x231x1): Measurement grid: dx=15mm, dy=15mm
Reference Value = 31.016 V/m; Power Drift = -0.30 dB
Motorola Fast SAR: SAR(1 g) = 0.713 mW/g; SAR(10 g) = 0.543 mW/g
Maximum value of SAR (interpolated) = 0.745 mW/g

Below 3 GHz-Rev.4e/Face Scan/2-Volume 2D Scan (41x41x1): Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm
Reference Value = 31.016 V/m; Power Drift = -0.33 dB
Peak SAR (extrapolated) = **Not Specified** W/kg
Motorola Fast SAR: SAR(1 g) = 0.684 mW/g; SAR(10 g) = 0.521 mW/g
Maximum value of SAR (interpolated) = 0.714 mW/g

Below 3 GHz-Rev.4e/Face Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 31.016 V/m; Power Drift = -0.47 dB
Peak SAR (extrapolated) = 0.894 W/kg
SAR(1 g) = 0.674 mW/g; SAR(10 g) = 0.523 mW/g
Maximum value of SAR (measured) = 0.705 mW/g

Below 3 GHz-Rev.4e/Face Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 0.693 mW/g



Appendix G DUT Scans – Outside FCC Part 90 (136-150.8 MHz band)

**Table 21
Assessment outside FCC Part 90 at the body (136-150.8 MHz)**

Motorola Solutions, Inc. EME Laboratory

Date/Time: 2/1/2012 3:10:28 PM, Date/Time: 2/1/2012 3:29:56 PM, Date/Time: 2/1/2012 3:37:41 PM

Robot# / Run#: DASY5-FL-1 / ErC-Ab-120201-04
 Phantom# / Tissue Temp.: OVAL1018 / 21.3 (C)
 DUT Model# / Serial#: H51KDH9PW7AN (MUD2606) / 426TMZ0239
 Antenna / TX Freq.: NAR6593A / 136.0000 (MHz)
 Battery: NNTN8128A
 Carry Acc. / Cable Acc.: PMLN6085A with NTN5243A / HMN4104B
 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 SAR: 2.50 mW/g (1g); 1.13 mW/g (10g)

Comments: Full Scan. Without belt loop.

Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(7.9, 7.9, 7.9)
 Electronics: DAE4 Sn1231, Calibrated: 9/21/2011
 Duty Cycle: 1:1, Medium parameters used: $f = 136 \text{ MHz}$; $\sigma = 0.77 \text{ mho/m}$; $\epsilon_r = 61.9$; $\rho = 1000 \text{ kg/m}^3$

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (6x24x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 3.402 mW/g

Below 3 GHz-Rev.4e/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 32.921 V/m; Power Drift = -1.02 dB
 Peak SAR (extrapolated) = 5.721 W/kg
 SAR(1 g) = 2.49 mW/g; SAR(10 g) = 1.13 mW/g
 Maximum value of SAR (measured) = 2.959 mW/g

Below 3 GHz-Rev.4e/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
 Maximum value of SAR (measured) = 3.559 mW/g

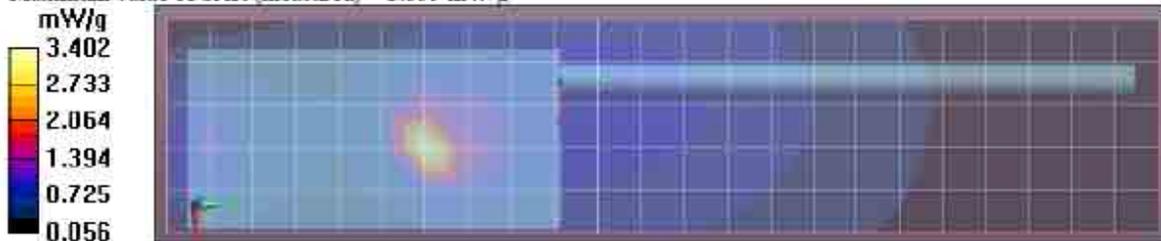


Table 25
Assessment outside FCC Part 90 at the face (136-150.8 MHz)

Motorola Solutions, Inc. EME Laboratory

Date/Time: 1/3/2012 10:48:25 PM, Date/Time: 1/3/2012 11:05:16 PM, Date/Time: 1/3/2012 11:08:25 PM,
Date/Time: 1/3/2012 11:16:12 PM

Robot# / Run#: DASY5-FL-1 / CM-Face-120103-07
Phantom# / Tissue Temp.: OVAL1109 / 22.1 (C)
DUT Model# / Serial#: H51KDH9PW7AN (MUD2606) / 426TMZ0239
Antenna / TX Freq.: NAR6593A / 139.7000 (MHz)
Battery: NNTN8129A
Carry Acc. / Cable Acc.: None / None
Start Power: 5.59 (W)

Note:

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

Reported SAR: 1.53 mW/g (1g); 1.19 mW/g (10g)

Comments: Zoom scan. Front of DUT toward phantom.

Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(8.2, 8.2, 8.2)
Electronics: DAE4 Sn1231, Calibrated: 9/21/2011

Duty Cycle: 1:1, Medium parameters used: $f = 140$ MHz; $\sigma = 0.75$ mho/m; $\epsilon_r = 54.1$; $\rho = 1000$ kg/m³

Below 3 GHz-Rev.4e/Face Scan/1-Area Scan (51x231x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 47.292 V/m; Power Drift = -0.23 dB

Motorola Fast SAR: SAR(1 g) = 1.63 mW/g; SAR(10 g) = 1.24 mW/g

Maximum value of SAR (interpolated) = 1.702 mW/g

Below 3 GHz-Rev.4e/Face Scan/2-Volume 2D Scan (41x41x1): Measurement grid: dx=7.5mm, dy=7.5mm, dz=1mm

Reference Value = 47.292 V/m; Power Drift = -0.34 dB

Peak SAR (extrapolated) = **Not Specified** W/kg

Motorola Fast SAR: SAR(1 g) = 1.55 mW/g; SAR(10 g) = 1.19 mW/g

Maximum value of SAR (interpolated) = 1.618 mW/g

Below 3 GHz-Rev.4e/Face Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 47.292 V/m; Power Drift = -0.45 dB

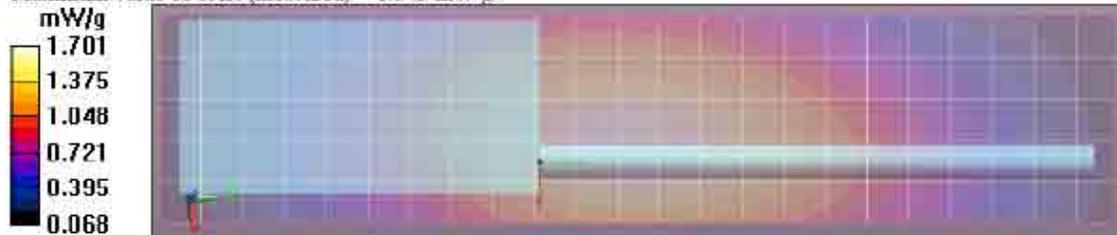
Peak SAR (extrapolated) = 1.987 W/kg

SAR(1 g) = 1.52 mW/g; SAR(10 g) = 1.19 mW/g

Maximum value of SAR (measured) = 1.578 mW/g

Below 3 GHz-Rev.4e/Face Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 1.543 mW/g



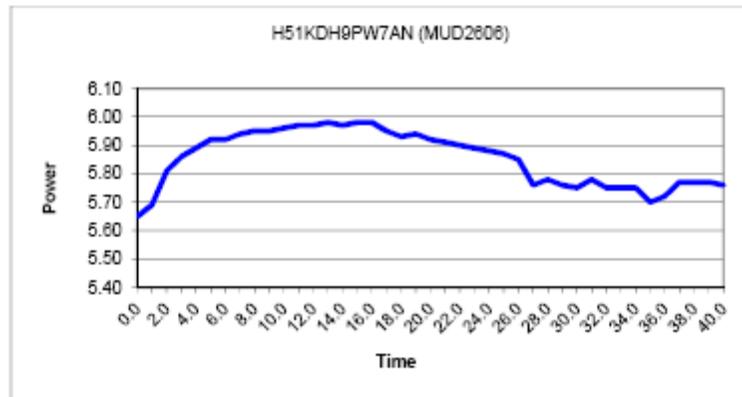
APPENDIX H DUT Supplementary Data (Power slump)

Model # H51KDH9PW7AN (MUD2606)
Serial # 426TMZ0239

Battery	NNTN8128A	Transmit Mode	CW
Frequency	162.0125 MHz	Audio Accessory	None
Date	1/4/2012		

TX TIME (Minutes)	Measured Power (Watts)
-----------------------------	----------------------------------

0.0	5.65
1.0	5.69
2.0	5.81
3.0	5.86
4.0	5.89
5.0	5.92
6.0	5.92
7.0	5.94
8.0	5.95
9.0	5.95
10.0	5.96
11.0	5.97
12.0	5.97
13.0	5.98
14.0	5.97
15.0	5.98
16.0	5.98
17.0	5.95
18.0	5.93
19.0	5.94
20.0	5.92
21.0	5.91
22.0	5.90
23.0	5.89
24.0	5.88
25.0	5.87
26.0	5.85
27.0	5.76
28.0	5.78
29.0	5.76
30.0	5.75
31.0	5.78
32.0	5.75
33.0	5.75
34.0	5.75
35.0	5.70
36.0	5.72
37.0	5.77
38.0	5.77
39.0	5.77
40.0	5.76



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