MOTOROLA SOLUTIONS		ACCREDITED TESTING CERT # 2518.01	
DEC	LARATION OF COMPLIANC	CE SAR ASSESSME	NT Part 2 of 2
Motorola Solutions Inc. EME Test Laboratory 8000 West Sunrise Blvd Fort Lauderdale, FL. 33322.		Date of Report: Report Revision: Report ID:	10/06/2011 O SR9748 APX4000 7/800 BT 2 of 2 Rev O 111006
Responsible Engineer: Report Author: Date/s Tested: Manufacturer/Location: Sector/Group/Div.: Date submitted for test: DUT Description:	Michael Sailsman (Senior Staff Michael Sailsman (Senior Staff 8/24/11-9/20/11 Penang G&PS 7/26/11 764-775 MHz and 794-805 MH 6.25kHz/12.5kHz/25kHz, Sing orgalog FM as well or TDMA to	Eng.) Eng.) Hz at 2.5 W, 806-824 le Display full keypad	MHz and 851-870 MHz at 3 W, I Model. Capable of digital and
Test TX mode(s): Max. Power output: Nominal Power: Tx Frequency Bands:	analog FM as well as TDMA transmissions. This radio is Bluetooth equipped. CW (PTT); BT (CW) 2.99 W (764-805 MHz), 3.6 W (806-870 MHz); 0.010 W (Bluetooth) 2.50 W (764-805MHz), 3.0 W (806-870 MHz) CW; 0.010 W (Bluetooth) 764-775 MHz, 794-805 MHz, 806-824 MHz, 851-870 MHz; 2.402-2.480 GHz		
Signaling type: Model(s) Tested: Model(s) Certified: Serial Number(s): Classification: FCC ID:	(Bluetooth) FM; TDMA; FHSS(BT) H51UCH9PW7AN (MUF1554 H51UCH9PW7AN (MUF1554 426TMM0204, 426TMM0206, Occupational/Controlled AZ489FT7049; Rule part 90 (7	), H51UCH9PW7AN ) 426TMM0091, 426T 64-869 MHz); Rule p	7 (MUF1555) FMM0092 part 15 (2402-2480 MHz)
IC:	109U-89FT7049		
	* Refer to section 15 of part 1 for	r highest SAR summa	ry 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.

Dearral Zakharia

Deanna Zakharia EMS EME Lab Senior Resource Manager, Laboratory Director Certification Date: 10/6/2011

Certification No.: L1110909P & L1110910P

**Approval Date:** 10/6/2011

## Appendix D Test System Verification Scans

The SAR result indicated on the Manufacture's Calibrated certificate for dipole D835V2 S/N 427 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. 9.50 +/-17.0% at k=2 for the D835V2 S/N 427).

-- The allowed tolerances for the probes are also higher than +/-10% (e.g. 12.0% k=2 at 835 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 -9.47% for the 835 MHz 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  $\pm -0.5$  dB.

#### Motorola Solutions, Inc. EME Laboratory Date/Time: 8/24/2011 5:48:33 AM, Date/Time: 8/24/2011 5:53:15 AM, Date/Time: 8/24/2011 6:01:03 AM

Robot# / Run#: DASY5-FL-2 / ErC-SYSP-835B-110824-01 Phantom# / Tissue Temp.: OVAL1020 / 21.3 (C) Dipole Model# / Serial#: D835V2 / 427 TX Freq. / Start power: 835 (MHz) / 250 (mW)

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

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

 Percent from Target (+/-):
 1.0 % (1g)

 Rotation (1D):
 0.025 dB

Note:

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

Reported SAR: 2.30 mW/g (1g); 1.51 mW/g (10g)

Comments

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.28, 6.28, 6.28) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 835 MHz; σ = 0.98 mho/m;  $e_r$  = 54.3; ρ = 1000 kg/m<sup>3</sup>

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

Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 2.465 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 = 50.594 V/m; Power Drift = 0.02 dB Peak SAR (extrapolated) = 3.435 W/kg SAR(1 g) = 2.3 mW/g; SAR(10 g) = 1.51 mW/g Maximum value of SAR (measured) = 2.492 mW/g

Below 3 GHz-Rev.3m/System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm







#### Motorola Solutions, Inc. EME Laboratory Date/Time: 8/25/2011 5:40:47 AM, Date/Time: 8/25/2011 5:45:27 AM, Date/Time: 8/25/2011 5:53:16 AM

Robot# / Run#: DASY5-FL-2 / ErC-SYSP-835B-110825-01 Phantom# / Tissue Temp.: OVAL1020 / 21.3 (C) Dipole Model# / Serial#: D835V2 / 427 TX Freq. / Start power: 835 (MHz) / 250 (mW)

Target SAR (1W):	9.29 mW/g (1g)
Adjusted SAR (1W):	9.20 mW/g (1g)
Percent from Target (+/-):	1.0 % (1g)
Rotation (1D):	0.020 dB

Note:

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

Reported SAR: 2.30 mW/g (1g); 1.50 mW/g (10g)

Comments:

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.28, 6.28, 6.28) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 835 MHz;  $\sigma = 0.98$  mho/m;  $\epsilon_c = 54.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

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

Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 2.489 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 = 50.668 V/m; Power Drift = 0.0075 dB Peak SAR (extrapolated) = 3.429 W/kg SAR(1 g) = 2.3 mW/g; SAR(10 g) = 1.5 mW/g Maximum value of SAR (measured) = 2.488 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) = 2.484 mW/g





#### Motorola Solutions, Inc. EME Laboratory Date/Time: 8/26/2011 5:46:24 AM, Date/Time: 8/26/2011 5:50:51 AM, Date/Time: 8/26/2011 5:58:33 AM

Robot# / Run#: DASY5-FL-2 / ErC-SYSP-835H-110826-01 Phantom# / Tissue Temp.: OVAL1011 / 21.3 (C) Dipole Model# / Serial#: D835V2 / 427 TX Freq. / Start power: 835 (MHz) / 250 (mW)

Target SAR (1W):	8.60 mW/g (1g)
Adjusted SAR (1W):	9.12 mW/g (1g)
Percent from Target (+/-):	6.0 % (1g)
Rotation (1D):	0.027 dB

Note:

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

Reported SAR: 2.28 mW/g (1g); 1.48 mW/g (10g)

Comments:

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.24, 6.24, 6.24) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 835 MHz; σ = 0.91 mho/m; ε<sub>e</sub> = 41.6; ρ = 1000 kg/m<sup>3</sup>

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

Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 2.454 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 = 52.468 V/m; Power Drift = -0.0023 dB Peak SAR (extrapolated) = 3.453 W/kg SAR(1 g) = 2.28 mW/g; SAR(10 g) = 1.48 mW/g Maximum value of SAR (measured) = 2.468 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) = 2.478 mW/g





## Motorola Solutions, Inc. EME Laboratory

Date/Time: 8/29/2011 7:04:23 AM, Date/Time: 8/29/2011 7:09:02 AM, Date/Time: 8/29/2011 7:16:49 AM

Robot# / Run#: DASY5-FL-2 / JsT-SYSP-835B-110829-01 Phantom# / Tissue Temp.: OVAL1020 / 21.9 (C) Dipole Model# / Serial#: D835V2 / 427 TX Freq. / Start power: 835 (MHz) / 250 (mW)

Target SAR (1W):	9.29 mW/g	(1g)
Adjusted SAR (1W):	9.20 mW/g	(1g)
Percent from Target (+/-):	1.0 %	(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: 2.30 mW/g (1g); 1.50 mW/g (10g)

Comments:

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.28, 6.28, 6.28) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 835 MHz;  $\sigma = 0.98$  mho/m;  $e_r = 54.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Below 3 GHz-Rev.3m/System Performance Check/Dipole Area Scan 2 (5x9x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.471 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 = 50.679 V/m; Power Drift = 0.016 dB

Peak SAR (extrapolated) = 3.424 W/kg

SAR(1 g) = 2.3 mW/g; SAR(10 g) = 1.5 mW/g Maximum value of SAR (measured) = 2.477 mW/g Below 3 GHz-Rev.3m/System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mmMaximum value of SAR (measured) = 2.489 mW/g





#### Motorola Solutions, Inc. EME Laboratory Date/Time: 9/15/2011 7:12:30 AM, Date/Time: 9/15/2011 7:17:35 AM, Date/Time: 9/15/2011 7:26:40 AM

Robot# / Run#: DASY5-FL-1 / JsT-SYSP-835B-110915-01 Phantom# / Tissue Temp.: OVAL1019 / 22.4 (C) Dipole Model# / Serial#: D835V2 / 427 TX Freq. / Start power: 835 (MHz) / 250 (mW)

Target SAR (1W):	9.29 mW/g (1g)
Adjusted SAR (1W):	9.28 mW/g (1g)
Percent from Target (+/-):	0.1 % (1g)
Rotation (1D):	0.014 dB

Note:

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

Reported SAR: 2.32 mW/g (1g); 1.53 mW/g (10g)

Comments:

Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(5.99, 5.99, 5.99) Electronics: DAE3 Sn363, Calibrated: 4/13/2011 Data Cade: 11 Medium parameters used: f= \$25 MHz; c = 0.00 mbo/m; c = \$5.6; c = 1000 kc

Duty Cycle: 1:1, Medium parameters used: f = 835 MHz;  $\sigma$  = 0.99 mho/m;  $\epsilon_r$  = 55.6;  $\rho$  = 1000 kg/m<sup>3</sup>

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

Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 2.498 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 = 50.852 V/m; Power Drift = -0.0033 dB Peak SAR (extrapolated) = 3.363 W/kg

SAR(1 g) = 2.31 mW/g; SAR(10 g) = 1.52 mW/gMaximum value of SAR (measured) = 2.495 mW/g

Below 3 GHz-Rev.3m/System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm





#### Motorola Solutions, Inc. EME Laboratory Date/Time: 9/19/2011 8:49:41 AM, Date/Time: 9/19/2011 8:54:46 AM, Date/Time: 9/19/2011 9:03:51 AM

Robot# / Run#: DASY5-FL-1 / JsT-SYSP-835B-110919-01 Phantom# / Tissue Temp.: OVAL1019 / 22.1 (C) Dipole Model# / Serial#: D835V2 / 427 TX Freq. / Start power: 835 (MHz) / 250 (mW)

Target SAR (1W):	9.29 mW/g (1g)
Adjusted SAR (1W):	9.32 mW/g (1g)
Percent from Target (+/-):	0.3 % (1g
Rotation (1D):	0.014 dB

Note:

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

Reported SAR: 2.33 mW/g (1g); 1.53 mW/g (10g)

Comments:

Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(5.99, 5.99, 5.99) Electronics: DAE3 Sn363, Calibrated: 4/13/2011 Duty Cycle: 1:1, Medium parameters used: f = 835 MHz; σ = 0.99 mho/m; ε<sub>r</sub> = 55.3; ρ = 1000 kg/m<sup>3</sup>

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

Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 2.505 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 = 51.115 V/m; Power Drift = -0.0094 dB Peak SAR (extrapolated) = 3.404 W/kg

SAR(1 g) = 2.33 mW/g; SAR(10 g) = 1.53 mW/g Maximum value of SAR (measured) = 2.517 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) = 2.509 mW/g





#### Motorola Solutions, Inc. EME Laboratory Date/Time: 9/20/2011 7:27:59 AM, Date/Time: 9/20/2011 7:32:56 AM, Date/Time: 9/20/2011 7:41:56 AM

Robot# / Run#: DASY5-FL-1 / JsT-SYSP-835B-110920-01 Phantom# / Tissue Temp.: OVAL1019 / 22.1 (C) Dipole Model# / Serial#: D835V2 / 427 TX Freq. / Start power: 835 (MHz) / 250 (mW)

Target SAR (1W):	9.29 mW/g (1g)
Adjusted SAR (1W):	9.32 mW/g (1g)
Percent from Target (+/-):	0.3 % (1g)
Rotation (1D):	0.018 dB

Note:

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

Reported SAR: 2.33 mW/g (1g); 1.53 mW/g (10g)

Comments:

Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(5.99, 5.99, 5.99) Electronics: DAE3 Sn363, Calibrated: 4/13/2011 Duty Cycle: 1:1, Medium parameters used: f = 835 MHz;  $\sigma$  = 0.99 mho/m; ε<sub>v</sub> = 55.3;  $\rho$  = 1000 kg/m<sup>3</sup>

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

Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 2.513 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 = 51.119 V/m; Power Drift = 0.017 dB Peak SAR (extrapolated) = 3.386 W/kg SAR(1 g) = 2.33 mW/g; SAR(10 g) = 1.53 mW/g Maximum value of SAR (measured) = 2.512 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) = 2.525 mW/g





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

Date:		02/04/11	Frequency (MHz):	835
Lab Location:		FL08	Mixture Type:	<b>IEEE Head</b>
DAE Serial #:		729	Ambient Temp.(°C):	21.6
Tissue Charact	eristics	10.7		0111 M
Conductivity:		40.7	<ul> <li>Phantom Type/SN:</li> <li>Distance (mm);</li> </ul>	OVAL1011
Tissue Temp.(	°C):	0.90		
Reference Sou	rce:	Dipole	Power to Dipole:	mW
Reference SN:		427	_	
Target 1g-SA	R Value (mW/g, no	rmalized to 1.0 W):	-	Difference from Target
	9.56			-10.04% (1g-SAR)
New Target	:		-	
Average 1g-SA	AR Value (mW/g):	8.60		Passes K=2
Percent Differe	ence From Target (N	4UST be within k=2	Uncertainty):	
				-
Probe SN #s	1g-SAR (Cube)	Diff from Ave	Robot	
Probe SN #s 3185	1g-SAR (Cube) 8.56	Diff from Ave	Robot R2	-
Probe SN #s 3185 3147	1g-SAR (Cube) 8.56 8.68	Diff from Ave -0.5% 0.9%	Robot R2 R2	

Average (normalized to 1.0 W)

Test performed by: Ed Church

New Measured SAR Value

Initial:



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8.6000

FCD-0733 System Performance Target Workbooks (Head) Rev. 7

#### SR9748/9747

## **DIPOLE SAR TARGET - BODY**

Date:		02/04/11	Frequency (MHz):	835
Lab Location		FL08	Mixture Type:	Body
DAE Serial #	ł:	729	 Ambient Temp.(°C):	21.6
Tissue Chara Permitivity:	cteristics	54.0	Phantom Type/SN:	OVAL1021
Tissue Temp	: .(°C):	20.8	Distance (mm):	15
Reference So Reference SN	ource: Ň:	Dipole 427	Power to Dipole:	250 mW
<b>New Target:</b> Average Mea	sured SAR Value:	<b>9.29</b> mW	//g(1g avg.),	
Probe SN #s	1g-SAR (Cube)	Diff from Ave	Robot	
3163 3147 3185	9.24 9.28 9.36	-0.6% -0.1% 0.7%	R2 R2 R2	
Average (normalized to	9.2933	New Measured	d SAR Value	
Test perform	ed by:	Ed Churc	<u>h</u> 1	nitial: Er 🤇

Motorola Internal Use Only Page 1 of 1

FCD-0733 System Performance Target Workbook (Body) Rev. 7

## Appendix E FCC Part 90 (764-869 MHz band) DUT Scans (Shortened Scan and Highest SAR configurations)

### Shortened Scan Result Table 50

#### Motorola Solutions, Inc. EME Laboratory

Date/Time: 9/20/2011 8:54:35 AM, Date/Time: 9/20/2011 9:05:58 AM, Date/Time: 9/20/2011 9:09:00 AM, Date/Time: 9/20/2011 9:30:39 AM

Robot# / Run#: DASY5-FL-1 / JsT-Ab-110920-02 Phantom# / Tissue Temp.: OVAL1019 / 21.9 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1554) / 426TMM0204 Antenna / TX Freq.: NAR6595A / 809.0000 (MHz) Battery: NNTN8128A Carry Acc. / Cable Acc.: PMLN7008A / None Start Power: 3.61 (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: 8.09 mW/g (1g); 6.00 mW/g (10g)

Comments: Shortened Scan

Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(5.99, 5.99, 5.99) Electronics: DAE3 Sn363, Calibrated: 4/13/2011 Duty Cycle: 1:1, Medium parameters used: f = 809 MHz;  $\sigma$  = 0.96 mho/m; ε<sub>ν</sub> = 55.6;  $\rho$  = 1000 kg/m<sup>3</sup>

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (51x161x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 82.830 V/m; Power Drift = -0.34 dB Motorola Fast SAR: SAR(1 g) = 7.86 mW/g; SAR(10 g) = 5.52 mW/g Maximum value of SAR (interpolated) = 8.341 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 = 82.830 V/m; Power Drift = -0.39 dB Peak SAR (extrapolated) = Not Specified W/kg Motorola Fast SAR: SAR(1 g) = 7.62 mW/g; SAR(10 g) = 5.32 mW/g Maximum value of SAR (interpolated) = 8.042 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 = 96.335 V/m; Power Drift = -0.19 dB Peak SAR (extrapolated) = 10.067 W/kg SAR(1 g) = 8.02 mW/g; SAR(10 g) = 5.97 mW/g Maximum value of SAR (measured) = 8.466 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) = 7.987 mW/g



Shortened scan reflect highest SAR producing configuration; approximate run time is 8 minutes. Representative full scan run time was 25 minutes.

"Shortened" scan max calculated SAR using SAR drift: 1-g Avg. = 4.23 mW/g; 10-g Avg. = 3.13 mW/g. Zoom scan max calculated SAR using SAR drift (see part 1 table 39): 1-g Avg. = 4.83 mW/g; 10-g Avg. = 3.58 mW/g.

# Table 39Body - Highest SAR Configuration Result

#### Motorola Solutions, Inc. EME Laboratory

Date/Time: 9/19/2011 8:24:41 PM, Date/Time: 9/19/2011 8:36:05 PM, Date/Time: 9/19/2011 8:39:03 PM, Date/Time: 9/19/2011 8:46:42 PM

Robot# / Run#: DASY5-FL-1 / CM-Ab-110919-15 Phantom# / Tissue Temp.: OVAL1019 / 22.2 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1554) / 426TMM0204 Antenna / TX Freq.: NAR6595A / 809.0000 (MHz) Battery: NNTN8128A Carry Acc. / Cable Acc.: PMLN7008A / None Start Power: 3.55 (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: 7.94 mW/g (1g); 5.89 mW/g (10g)

Comments:

Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(5.99, 5.99, 5.99) Electronics: DAE3 Sn363, Calibrated: 4/13/2011 Duty Cycle: 1:1, Medium parameters used: f = 809 MHz; σ = 0.96 mho/m; e<sub>r</sub> = 55.6; ρ = 1000 kg/m<sup>3</sup>

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (51x161x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 82.342 V/m; Power Drift = -0.29 dB Motorola Fast SAR: SAR(1 g) = 8.91 mW/g; SAR(10 g) = 6.24 mW/g Maximum value of SAR (interpolated) = 9.473 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 = 82.342 V/m; Power Drift = -0.33 dB Peak SAR (extrapolated) = Not Specified W/kg Motorola Fast SAR: SAR(1 g) = 8.77 mW/g; SAR(10 g) = 6.12 mW/g Maximum value of SAR (interpolated) = 9.258 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 = 82.342 V/m; Power Drift = -0.79 dB Peak SAR (extrapolated) = 9.877 W/kg SAR(1 g) = 7.88 mW/g; SAR(10 g) = 5.86 mW/g Maximum value of SAR (measured) = 8.308 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) = 8.159 mW/g



# Table 48Face - Highest SAR Configuration Result

#### Motorola Solutions, Inc. EME Laboratory

Date/Time: 8/29/2011 7:25:02 PM, Date/Time: 8/29/2011 7:34:42 PM, Date/Time: 8/29/2011 7:37:28 PM, Date/Time: 8/29/2011 7:43:34 PM

Robot# / Run#: DASY5-FL-2 / CM-Face-110829-14 Phantom# / Tissue Temp.: OVAL1011 / 21.8 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0091 Antenna / TX Freq.: NAR6595A / 851.0125 (MHz) Battery: NNTN8128A Carry Acc. / Cable Acc.: None / None Start Power: 3.59 (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: 5.59 mW/g (1g); 4.07 mW/g (10g)

Comments: Full Scan

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.24, 6.24, 6.24) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 851 MHz;  $\sigma = 0.95$  mho/m;  $e_c = 42.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Below 3 GHz-Rev.4e/Face Scan/1-Area Scan (51x151x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 68.731 V/m; Power Drift = -0.034 dB Motorola Fast SAR: SAR(1 g) = 5.59 mW/g: SAR(10 g) = 4 mW/g

 $\begin{array}{l} \mbox{Motorola Fast SAR: SAR(1 g) = 5.59 \ mW/g; \ SAR(10 g) = 4 \ mW/g \\ \mbox{Maximum value of SAR (interpolated) = 5.897 \ mW/g \\ \end{array}$ 

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

Reference Value = 68.731 V/m; Power Drift = -0.088 dB Peak SAR (extrapolated) = Not Specified W/kg Motorola Fast SAR: SAR(1 g) = 5.6 mW/g; SAR(10 g) = 4 mW/g Maximum value of SAR (interpolated) = 5.896 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 = 68.731 V/m; Power Drift = -0.17 dBPeak SAR (extrapolated) = 7.302 W/kgSAR(1 g) = 5.52 mW/g; SAR(10 g) = 4.03 mW/gMaximum value of SAR (measured) = 5.820 mW/g



## Appendix F DUT Scans - FCC Part 90 (764-869 MHz band)

# Table 13(764-775MHz band)Assessments at the Body with Body worn PMLN4651A

#### Motorola Solutions, Inc. EME Laboratory Date/Time: 8/26/2011 6:59:46 PM, Date/Time: 8/26/2011 7:10:34 PM, Date/Time: 8/26/2011 7:13:25 PM, Date/Time: 8/26/2011 7:19:34 PM

Robot# / Run#: DASY5-FL-2 / CM-Ab-110826-16 Phantom# / Tissue Temp.: OVAL1020 / 21.0 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0092 Antenna / TX Freq.: NAR6595A / 764.0125 (MHz) Battery: NNTN8128A Carry Acc. / Cable Acc.: PMLN4651A / HMN4104B Start Power: 3.13 (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: 4.56 mW/g (1g); 3.38 mW/g (10g)

Comments: Full Scan.

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.47, 6.47, 6.47) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 764 MHz;  $\sigma = 0.92$  mho/m;  $e_r = 55$ ;  $\rho = 1000$  kg/m<sup>3</sup>

#### Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (51x161x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 59.495 V/m; Power Drift = -0.13 dB Motorola Fast SAR: SAR(1 g) = 4.6 mW/g; SAR(10 g) = 3.26 mW/g

Motorola Fast SAR: SAR(1 g) = 4.0 mW/g; SAR(10 g) = 3.20 mW/ Maximum value of SAR (interpolated) = 4.882 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 = 59.495 V/m; Power Drift = -0.17 dB Peak SAR (extrapolated) = Not Specified W/kg Motorola Fast SAR: SAR(1 g) = 4.51 mW/g; SAR(10 g) = 3.19 mW/g Maximum value of SAR (interpolated) = 4.745 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 = 59.495 V/m; Power Drift = -0.24 dB Peak SAR (extrapolated) = 5.560 W/kg SAR(1 g) = 4.44 mW/g; SAR(10 g) = 3.33 mW/g Maximum value of SAR (measured) = 4.664 mW/g





# Table 14 (764-775MHz band) Assessments at the Body with Body worn PMLN4651A (additional battery)

#### Motorola Solutions, Inc. EME Laboratory Date/Time: 8/26/2011 8:10:14 PM, Date/Time: 8/26/2011 8:21:00 PM, Date/Time: 8/26/2011 8:23:50 PM, Date/Time: 8/26/2011 8:29:58 PM

Robot# / Run#: DASY5-FL-2 / CM-Ab-110826-18 Phantom# / Tissue Temp.: OVAL1020 / 21.1 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0092 Antenna / TX Freq.: NAR6595A / 764.0125 (MHz) Battery: NNTN8129A Carry Acc. / Cable Acc.: PMLN4651A / HMN4104B Start Power: 3.12 (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: 3.87 mW/g (1g); 2.83 mW/g (10g)

Comments: Full Scan.

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.47, 6.47, 6.47) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 764 MHz; σ = 0.92 mho/m; ε<sub>e</sub> = 55; ρ = 1000 kg/m<sup>3</sup>

#### Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (51x161x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 52.561 V/m; Power Drift = -0.09 dB Motorola Fast SAR: SAR(1 g) = 3.86 mW/g; SAR(10 g) = 2.73 mW/g Maximum value of SAR (interpolated) = 4.093 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 = 52.561 V/m; Power Drift = -0.10 dB Peak SAR (extrapolated) = Not Specified W/kg Motorola Fast SAR: SAR(1 g) = 3.81 mW/g; SAR(10 g) = 2.7 mW/g Maximum value of SAR (interpolated) = 4.017 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 = 52.561 V/m; Power Drift = -0.13 dB Peak SAR (extrapolated) = 4.825 W/kg SAR(1 g) = 3.77 mW/g; SAR(10 g) = 2.79 mW/g Maximum value of SAR (measured) = 3.983 mW/g



# Table 15(764-775MHz band)Assessments at the Body with Body worn PMLN7008A

#### Motorola Solutions, Inc. EME Laboratory Date/Time: 9/15/2011 3:10:05 PM, Date/Time: 9/15/2011 3:21:50 PM, Date/Time: 9/15/2011 3:24:54 PM, Date/Time: 9/15/2011 3:32:38 PM

Robot# / Run#: DASY5-FL-1 / HvH-Ab-110915-05 Phantom# / Tissue Temp.: OVAL1019 / 22.0 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1554) / 426TMM0206 Antenna / TX Freq.: NAR6595A / 764.0125 (MHz) Battery: NNTN8128A Carry Acc. / Cable Acc.: PMLN7008A / HMN4104B Start Power: 2.99 (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: 4.89 mW/g (1g); 3.58 mW/g (10g)

Comments:

Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(6.13, 6.13, 6.13) Electronics: DAE3 Sn363, Calibrated: 4/13/2011 Duty Cycle: 1:1, Medium parameters used: f = 764 MHz;  $\sigma = 0.92$  mho/m;  $e_r = 56.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (51x161x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 62.559 V/m; Power Drift = -0.22 dB Motorola Fast SAR: SAR(1 g) = 4.88 mW/g; SAR(10 g) = 3.45 mW/g Maximum value of SAR (interpolated) = 5.163 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 = 62.559 V/m; Power Drift = -0.25 dB Peak SAR (extrapolated) = Not Specified W/kg Motorola Fast SAR: SAR(1 g) = 4.76 mW/g; SAR(10 g) = 3.36 mW/g Maximum value of SAR (interpolated) = 5.019 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 = 62.559 V/m; Power Drift = -0.42 dB Peak SAR (extrapolated) = 5.958 W/kg SAR(1 g) = 4.72 mW/g; SAR(10 g) = 3.5 mW/g Maximum value of SAR (measured) = 4.972 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) = 4.913 mW/g



## Table 16 (764-775MHz band) Assessments at the Body with Body worn PMLN7008A (additional battery)

#### Motorola Solutions, Inc. EME Laboratory Date/Time: 8/26/2011 11:17:05 PM, Date/Time: 8/26/2011 11:27:49 PM, Date/Time: 8/26/2011 11:30:39 PM, Date/Time: 8/26/2011 11:36:49 PM

Robot# / Run#: DASY5-FL-2 / CM-Ab-110826-21 Phantom# / Tissue Temp.: OVAL1020 / 20.9 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0092 Antenna / TX Freq.: NAR6595A / 764.0125 (MHz) Battery: NNTN8129A Carry Acc. / Cable Acc.: PMLN7008A / HMN4104B Start Power: 3.12 (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: 3.67 mW/g (1g); 2.68 mW/g (10g)

Comments: Full Scan.

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.47, 6.47, 6.47) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 764 MHz; σ = 0.92 mho/m; ε<sub>c</sub> = 55; ρ = 1000 kg/m<sup>3</sup>

#### Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (51x161x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 53.184 V/m; Power Drift = -0.089 dB Motorola Fast SAR: SAR(1 g) = 3.62 mW/g; SAR(10 g) = 2.56 mW/g Maximum value of SAR (interpolated) = 3.829 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 = 53.184 V/m; Power Drift = -0.10 dB Peak SAR (extrapolated) = Not Specified W/kg Motorola Fast SAR: SAR(1 g) = 3.58 mW/g; SAR(10 g) = 2.54 mW/g Maximum value of SAR (interpolated) = 3.773 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 = 53.184 V/m; Power Drift = -0.063 dB Peak SAR (extrapolated) = 4.560 W/kg SAR(1 g) = 3.57 mW/g; SAR(10 g) = 2.64 mW/g Maximum value of SAR (measured) = 3.764 mW/g



# Table 17(764-775MHz band)Assessments at the body with Body worn PMLN5950A

#### Motorola Solutions, Inc. EME Laboratory

Date/Time: 8/29/2011 8:08:12 AM, Date/Time: 8/29/2011 8:18:24 AM, Date/Time: 8/29/2011 8:21:16 AM, Date/Time: 8/29/2011 8:27:26 AM

Robot# / Run#: DASY5-FL-2 / JsT-Ab-110829-02 Phantom# / Tissue Temp.: OVAL1020 / 21.7 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0092 Antenna / TX Freq.: NAR6595A / 764.0125 (MHz) Battery: NNTN8128A Carry Acc. / Cable Acc.: PMLN5950A / HMN4104B Start Power: 3.04 (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: 1.22 mW/g (1g); 0.921 mW/g (10g)

Comments: Full Scan

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.47, 6.47, 6.47) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 764 MHz; σ = 0.92 mho/m; ε<sub>z</sub> = 55; ρ = 1000 kg/m<sup>3</sup>

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (51x151x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 34.102 V/m; Power Drift = -0.02 dB Motorola Fast SAR: SAR(1 g) = 1.2 mW/g; SAR(10 g) = 0.867 mW/g Maximum value of SAR (interpolated) = 1.270 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 = 34.102 V/m; Power Drift = -0.27 dB Peak SAR (extrapolated) = Not Specified W/kg Motorola Fast SAR: SAR(1 g) = 1.21 mW/g; SAR(10 g) = 0.865 mW/g Maximum value of SAR (interpolated) = 1.280 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 = 34.102 V/m; Power Drift = -0.17 dB Peak SAR (extrapolated) = 1.480 W/kg SAR(1 g) = 1.19 mW/g; SAR(10 g) = 0.907 mW/g Maximum value of SAR (measured) = 1.252 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) = 1.239 mW/g



# Table 18(764-775MHz band)A Assessment at the Body with Body worn PMLN5950A (additional battery)

#### Motorola Solutions, Inc. EME Laboratory

Date/Time: 8/29/2011 9:52:19 AM, Date/Time: 8/29/2011 10:02:27 AM, Date/Time: 8/29/2011 10:05:19 AM, Date/Time: 8/29/2011 10:11:30 AM

Robot# / Run#: DASY5-FL-2 / JsT-Ab-110829-04 Phantom# / Tissue Temp.: OVAL1020 / 21.5 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0092 Antenna / TX Freq.: NAR6595A / 764.0125 (MHz) Battery: NNTN8129A Carry Acc. / Cable Acc.: PMLN5950A / HMN4104B Start Power: 3.01 (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); 0.821 mW/g (10g)

Comments: Full Scan

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.47, 6.47, 6.47) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 764 MHz; σ = 0.92 mho/m; ε<sub>z</sub> = 55; ρ = 1000 kg/m<sup>3</sup>

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (51x151x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 32.776 V/m; Power Drift = 0.097 dB Motorola Fast SAR: SAR(1 g) = 1.06 mW/g; SAR(10 g) = 0.762 mW/g

Maximum value of SAR (interpolated) = 1.117 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 = 32.776 V/m; Power Drift = 0.031 dB

Peak SAR (extrapolated) = Not Specified W/kg Motorola Fast SAR: SAR(1 g) = 1.06 mW/g; SAR(10 g) = 0.767 mW/gMaximum value of SAR (interpolated) = 1.114 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 = 32.776 V/m; Power Drift = 0.021 dB

Peak SAR (extrapolated) = 1.307 W/kg

SAR(1 g) = 1.06 mW/g; SAR(10 g) = 0.808 mW/g

Maximum value of SAR (measured) = 1.108 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) = 1.107 mW/g



# Table 19(764-775MHz band)Assessment at the Body with Body worn PMLN5950A/NTN5243A

#### Motorola Solutions, Inc. EME Laboratory

Date/Time: 8/29/2011 10:41:45 AM, Date/Time: 8/29/2011 10:51:56 AM, Date/Time: 8/29/2011 10:54:49 AM, Date/Time: 8/29/2011 11:00:58 AM

Robot# / Run#: DASY5-FL-2 / JsT-Ab-110829-05 Phantom# / Tissue Temp.: OVAL1020 / 21.5 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0092 Antenna / TX Freq.: NAR6595A / 764.0125 (MHz) Battery: NNTN8128A Carry Acc. / Cable Acc.: PMLN5950A/NTN5243A (w/out Belt Loop) / HMN4104B Start Power: 3.02 (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: 3.35 mW/g (1g); 2.47 mW/g (10g)

Comments: Full Scan

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.47, 6.47, 6.47) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 764 MHz;  $\sigma = 0.92$  mho/m;  $e_r = 55$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (51x151x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 52.452 V/m; Power Drift = -0.062 dB Motorola Fast SAR: SAR(1 g) = 3.26 mW/g; SAR(10 g) = 2.33 mW/g Maximum value of SAR (interpolated) = 3.444 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 = 52.452 V/m; Power Drift = -0.26 dB Peak SAR (extrapolated) = Not Specified W/kg Motorola Fast SAR: SAR(1 g) = 3.19 mW/g; SAR(10 g) = 2.25 mW/g Maximum value of SAR (interpolated) = 3.379 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 = 52.452 V/m; Power Drift = -0.25 dB Peak SAR (extrapolated) = 4.097 W/kg SAR(1 g) = 3.26 mW/g; SAR(10 g) = 2.43 mW/g Maximum value of SAR (measured) = 3.465 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) = 3.380 mW/g



## Table 20 (764-775MHz band) Assessment at the Body with Body worn PMLN5950A/NTN5243A (additional battery)

#### Motorola Solutions, Inc. EME Laboratory Date/Time: 8/29/2011 12:14:42 PM, Date/Time: 8/29/2011 12:24:52 PM, Date/Time: 8/29/2011 12:27:45 PM,

Date/Time: 8/29/2011 12:33:55 PM

Robot# / Run#: DASY5-FL-2 / JsT-Ab-110829-07 Phantom# / Tissue Temp.: OVAL1020 / 21.3 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0092 Antenna / TX Freq.: NAR6595A / 764.0125 (MHz) Battery: NNTN8129A Carry Acc. / Cable Acc.: PMLN5950A/NTN5243A (w/out Belt Loop) / HMN4104B Start Power: 3.01 (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: 2.68 mW/g (1g); 2.00 mW/g (10g)

Comments: Full Scan

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.47, 6.47, 6.47) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 764 MHz; σ = 0.92 mho/m;  $e_r$  = 55; ρ = 1000 kg/m<sup>3</sup>

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (51x151x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 47.148 V/m; Power Drift = -0.07 dB Motorola Fast SAR: SAR(1 g) = 2.66 mW/g; SAR(10 g) = 1.9 mW/g Maximum value of SAR (interpolated) = 2.818 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 = 47.148 V/m; Power Drift = -0.08 dB Peak SAR (extrapolated) = Not Specified W/kg Motorola Fast SAR: SAR(1 g) = 2.64 mW/g; SAR(10 g) = 1.88 mW/g Maximum value of SAR (interpolated) = 2.773 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 = 47.148 V/m; Power Drift = -0.13 dB Peak SAR (extrapolated) = 3.296 W/kg SAR(1 g) = 2.61 mW/g; SAR(10 g) = 1.97 mW/g

Maximum value of SAR (measured) = 2.750 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) = 2.717 mW/g



# Table 22(794-824MHz band)Assessment at the Body with Body worn PMLN4651A

#### Motorola Solutions, Inc. EME Laboratory Date/Time: 8/26/2011 7:58:35 AM, Date/Time: 8/26/2011 8:12:13 AM, Date/Time: 8/26/2011 8:18:25 AM

Robot# / Run#: DASY5-FL-2 / ErC-Ab-110826-02 Phantom# / Tissue Temp.: OVAL1020 / 20.9 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0092 Antenna / TX Freq.: NAR6595A / 809.0000 (MHz) Battery: NNTN8128A Carry Acc. / Cable Acc.: PMLN4651A / HMN4104B Start Power: 3.70 (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: 5.30 mW/g (1g); 3.91 mW/g (10g)

Comments: Full Scan.

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.28, 6.28, 6.28) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 809 MHz;  $\sigma$  = 0.96 mho/m;  $\epsilon_r$  = 54.6;  $\rho$  = 1000 kg/m<sup>3</sup>

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (6x17x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 5.807 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 = 59.076 V/m; Power Drift = -0.43 dBPeak SAR (extrapolated) = 6.749 W/kgSAR(1 g) = 5.27 mW/g; SAR(10 g) = 3.9 mW/gMaximum value of SAR (measured) = 5.538 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) = 5.561 mW/g



# Table 23(794-824MHz band)Assessment at the Body with Body worn PMLN4651A (additional battery)

### Motorola Solutions, Inc. EME Laboratory

#### Date/Time: 8/26/2011 11:20:08 AM, Date/Time: 8/26/2011 11:33:43 AM, Date/Time: 8/26/2011 11:39:52 AM

Robot# / Run#: DASY5-FL-2 / ErC-Ab-110826-05 Phantom# / Tissue Temp.: OVAL1020 / 20.9 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0092 Antenna / TX Freq.: NAR6595A / 809.0000 (MHz) Battery: NNTN8129A Carry Acc. / Cable Acc.: PMLN4651A / HMN4104B Start Power: 3.69 (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: 5.05 mW/g (1g); 3.68 mW/g (10g)

Comments: Full Scan.

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.28, 6.28, 6.28) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 809 MHz; σ = 0.96 mho/m; ε<sub>r</sub> = 54.6; ρ = 1000 kg/m<sup>3</sup>

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (6x17x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 5.490 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 = 66.538 V/m; Power Drift = -0.78 dB Peak SAR (extrapolated) = 6.588 W/kg SAR(1 g) = 5.03 mW/g; SAR(10 g) = 3.67 mW/g Maximum value of SAR (measured) = 5.329 mW/g



# Table 24(794-824MHz band)Assessment at the Body with Body worn PMLN7008A

#### Motorola Solutions, Inc. EME Laboratory Date/Time: 9/15/2011 6:02:22 PM, Date/Time: 9/15/2011 6:08:40 PM, Date/Time: 9/15/2011 6:16:24 PM

Robot# / Run#: DASY5-FL-1 / CM-Ab-110915-08 Phantom# / Tissue Temp.: OVAL1019 / 21.3 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1554) / 426TMM0206 Antenna / TX Freq.: NAR6595A / 809.0000 (MHz) Battery: NNTN8128A Carry Acc. / Cable Acc.: PMLN7008A / HMN4104B Start Power: 3.59 (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: 6.70 mW/g (1g); 4.92 mW/g (10g)

Comments:

Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(5.99, 5.99, 5.99) Electronics: DAE3 Sn363, Calibrated: 4/13/2011 Duty Cycle: 1:1, Medium parameters used: f = 809 MHz;  $\sigma$  = 0.95 mho/m; ε<sub>r</sub> = 55.9; ρ = 1000 kg/m<sup>3</sup>

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (51x81x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 71.407 V/m; Power Drift = -0.20 dB Motorola Fast SAR: SAR(1 g) = 6.76 mW/g; SAR(10 g) = 4.74 mW/g Maximum value of SAR (interpolated) = 7.128 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 = 71.407 V/m; Power Drift = -0.45 dB Peak SAR (extrapolated) = 8.287 W/kg SAR(1 g) = 6.58 mW/g; SAR(10 g) = 4.86 mW/g Maximum value of SAR (measured) = 6.959 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) = 6.747 mW/g



# Table 25(794-824MHz band)Assessment at the Body with Body worn PMLN7008A (additional battery)

#### Motorola Solutions, Inc. EME Laboratory Date/Time: 8/26/2011 1:59:29 PM, Date/Time: 8/26/2011 2:13:11 PM, Date/Time: 8/26/2011 2:19:22 PM

Robot# / Run#: DASY5-FL-2 / ErC-Ab-110826-08 Phantom# / Tissue Temp.: OVAL1020 / 20.9 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0092 Antenna / TX Freq.: NAR6595A / 809.0000 (MHz) Battery: NNTN8129A Carry Acc. / Cable Acc.: PMLN7008A / HMN4104B Start Power: 3.70 (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: 5.24 mW/g (1g); 3.78 mW/g (10g)

Comments: Full Scan.

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.28, 6.28, 6.28) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 809 MHz; σ = 0.96 mho/m; ε<sub>r</sub> = 54.6; ρ = 1000 kg/m<sup>3</sup>

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (6x17x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 5.339 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 = 67.753 V/m; Power Drift = -0.32 dB Peak SAR (extrapolated) = 6.850 W/kg SAR(1 g) = 5.21 mW/g; SAR(10 g) = 3.77 mW/g Maximum value of SAR (measured) = 5.526 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) = 5.368 mW/g



# Table 26(794-824MHz band)Assessment at the Body with Body worn PMLN5950A

#### Motorola Solutions, Inc. EME Laboratory Date/Time: 8/26/2011 2:35:51 PM, Date/Time: 8/26/2011 2:49:28 PM, Date/Time: 8/26/2011 2:55:39 PM

Robot# / Run#: DASY5-FL-2 / ErC-Ab-110826-09 Phantom# / Tissue Temp.: OVAL1020 / 20.9 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0092 Antenna / TX Freq.: NAR6595A / 809.0000 (MHz) Battery: NNTN8128A Carry Acc. / Cable Acc.: PMLN5950A / HMN4104B Start Power: 3.70 (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: 2.22 mW/g (1g); 1.66 mW/g (10g)

Comments: Full Scan.

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.28, 6.28, 6.28) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 809 MHz; σ = 0.96 mho/m; ε<sub>r</sub> = 54.6; ρ = 1000 kg/m<sup>3</sup>

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (6x17x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 2.252 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 = 43.102 V/m; Power Drift = -0.25 dB Peak SAR (extrapolated) = 2.826 W/kg SAR(1 g) = 2.21 mW/g; SAR(10 g) = 1.66 mW/gMaximum value of SAR (measured) = 2.325 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) = 2.264 mW/g



# Table 27(794-824MHz band)Assessment at the Body with Body worn PMLN5950A (additional battery)

### Motorola Solutions, Inc. EME Laboratory Date/Time: 8/26/2011 3:41:23 PM, Date/Time: 8/26/2011 3:55:00 PM, Date/Time: 8/26/2011 4:01:10 PM

Robot# / Run#: DASY5-FL-2 / ErC-Ab-110826-11 Phantom# / Tissue Temp.: OVAL1020 / 20.9 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0092 Antenna / TX Freq.: NAR6595A / 809.0000 (MHz) Battery: NNTN8129A Carry Acc. / Cable Acc.: PMLN5950A / HMN4104B Start Power: 3.70 (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: 1.93 mW/g (1g); 1.43 mW/g (10g)

Comments: Full Scan.

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.28, 6.28, 6.28) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 809 MHz; σ = 0.96 mho/m; ε<sub>r</sub> = 54.6; ρ = 1000 kg/m<sup>3</sup>

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (6x17x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 1.997 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 = 43.408 V/m; Power Drift = -0.21 dB Peak SAR (extrapolated) = 2.476 W/kg SAR(1 g) = 1.92 mW/g; SAR(10 g) = 1.43 mW/g Maximum value of SAR (measured) = 2.021 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) = 1.985 mW/g



### Table 28

#### (794-824MHz band)

#### Assessment at the Body with Body worn PMLN5950A/NTN5243A

Motorola Solutions, Inc. EME Laboratory Date/Time: 8/26/2011 4:28:07 PM, Date/Time: 8/26/2011 4:38:51 PM, Date/Time: 8/26/2011 4:41:41 PM, Date/Time: 8/26/2011 4:47:49 PM

Robot# / Run#: DASY5-FL-2 / CM-Ab-110826-12 Phantom# / Tissue Temp.: OVAL1020 / 21.1 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0092 Antenna / TX Freq.: NAR6595A / 809.0000 (MHz) Battery: NNTN8128A Carry Acc. / Cable Acc.: PMLN5950A with NTN5243A / HMN4104B Start Power: 3.71 (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: 5.76 mW/g (1g); 4.22 mW/g (10g)

Comments: Full Scan. Back against phantom, tested without loop

 $\begin{array}{l} Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.28, 6.28, 6.28) \\ Electronics: DAE4 Sn850, Calibrated: 7/22/2011 \\ Duty Cycle: 1:1, Medium parameters used: f = 809 MHz; \sigma = 0.96 mho/m; e_r = 54.6; \rho = 1000 kg/m^3 \\ \end{array}$ 

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (51x161x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 61.438 V/m; Power Drift = -0.26 dB Motorola Fast SAR: SAR(1 g) = 5.78 mW/g; SAR(10 g) = 4.04 mW/g Maximum value of SAR (interpolated) = 6.183 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 = 61.438 V/m; Power Drift = -0.32 dB Peak SAR (extrapolated) = Not Specified W/kg Motorola Fast SAR: SAR(1 g) = 5.64 mW/g; SAR(10 g) = 3.97 mW/g Maximum value of SAR (interpolated) = 5.947 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 = 61.438 V/m; Power Drift = -0.25 dB Peak SAR (extrapolated) = 7.462 W/kg SAR(1 g) = 5.73 mW/g; SAR(10 g) = 4.21 mW/g Maximum value of SAR (measured) = 6.034 mW/g



# Table 29(794-824MHz band)Assessment at the Body with Body worn PMLN5950A/NTN5243A (additional battery)

#### Motorola Solutions, Inc. EME Laboratory Date/Time: 8/26/2011 5:46:52 PM, Date/Time: 8/26/2011 5:57:35 PM, Date/Time: 8/26/2011 6:00:28 PM, Date/Time: 8/26/2011 6:06:38 PM

Robot# / Run#: DASY5-FL-2 / CM-Ab-110826-14 Phantom# / Tissue Temp.: OVAL1020 / 21.1 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0092 Antenna / TX Freq.: NAR6595A / 809.0000 (MHz) Battery: NNTN8129A Carry Acc. / Cable Acc.: PMLN5950A with NTN5243A / HMN4104B Start Power: 3.68 (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: 3.86 mW/g (1g); 2.84 mW/g (10g)

Comments: Full Scan. Back against phantom, tested without loop

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.28, 6.28, 6.28) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 809 MHz;  $\sigma$  = 0.96 mho/m; ε<sub>e</sub> = 54.6; ρ = 1000 kg/m<sup>3</sup>

#### Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (51x161x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 54.168 V/m; Power Drift = -0.49 dB Motorola Fast SAR: SAR(1 g) = 3.94 mW/g; SAR(10 g) = 2.8 mW/g Maximum value of SAR (interpolated) = 4.175 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 = 54.168 V/m; Power Drift = -0.16 dB Peak SAR (extrapolated) = Not Specified W/kg Motorola Fast SAR: SAR(1 g) = 3.74 mW/g; SAR(10 g) = 2.66 mW/g Maximum value of SAR (interpolated) = 3.968 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 = 54.168 V/m; Power Drift = -0.17 dB Peak SAR (extrapolated) = 4.991 W/kg SAR(1 g) = 3.84 mW/g; SAR(10 g) = 2.83 mW/gMaximum value of SAR (measured) = 4.065 mW/g



# Table 31(851-869MHz band)Assessment at the Body with Body worn PMLN4651A

Motorola Solutions, Inc. EME Laboratory Date/Time: 8/24/2011 7:31:49 PM, Date/Time: 8/24/2011 7:42:38 PM, Date/Time: 8/24/2011 7:51:40 PM

Robot# / Run#: DASY5-FL-2 / CM-Ab-110824-09 Phantom# / Tissue Temp.: OVAL1020 / 21.5 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0092 Antenna / TX Freq.: NAR6595A / 851.0125 (MHz) Battery: NNTN8128A Carry Acc. / Cable Acc.: PMLN4651A / HMN4104B Start Power: 3.58 (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: 5.20 mW/g (1g); 3.85 mW/g (10g)

Comments: Full Scan.

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.28, 6.28, 6.28) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 851 MHz;  $\sigma = 1$  mho/m;  $\varepsilon_r = 54.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (51x161x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 66.468 V/m; Power Drift = -0.18 dB Motorola Fast SAR: SAR(1 g) = 5.45 mW/g; SAR(10 g) = 3.84 mW/g Maximum value of SAR (interpolated) = 5.785 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 = 66.468 V/m; Power Drift = -0.27 dB Peak SAR (extrapolated) = Not Specified W/kg Motorola Fast SAR: SAR(1 g) = 5.37 mW/g; SAR(10 g) = 3.76 mW/g Maximum value of SAR (interpolated) = 5.643 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 = 66.468 V/m; Power Drift = -0.42 dB Peak SAR (extrapolated) = 6.612 W/kg

SAR(1 g) = 5.2 mW/g; SAR(10 g) = 3.85 mW/gMaximum value of SAR (measured) = 5.493 mW/g



# Table 32(851-869MHz band)Assessment at the Body with Body worn PMLN4651A (additional battery)

#### Motorola Solutions, Inc. EME Laboratory

Date/Time: 8/24/2011 8:51:03 PM, Date/Time: 8/24/2011 9:01:51 PM, Date/Time: 8/24/2011 9:04:43 PM, Date/Time: 8/24/2011 9:10:52 PM

Robot# / Run#: DASY5-FL-2 / CM-Ab-110824-11 Phantom# / Tissue Temp.: OVAL1020 / 21.5 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0092 Antenna / TX Freq.: NAR6595A / 851.0125 (MHz) Battery: NNTN8129A Carry Acc. / Cable Acc.: PMLN4651A / HMN4104B Start Power: 3.58 (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: 5.02 mW/g (1g); 3.64 mW/g (10g)

Comments: Full Scan.

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.28, 6.28, 6.28) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 851 MHz;  $\sigma$  = 1 mho/m; ε<sub>r</sub> = 54.2; ρ = 1000 kg/m<sup>3</sup>

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (51x161x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 62.581 V/m; Power Drift = -0.24 dB Motorola Fast SAR: SAR(1 g) = 5.28 mW/g; SAR(10 g) = 3.7 mW/g Maximum value of SAR (interpolated) = 5.597 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 = 62.581 V/m; Power Drift = -0.33 dB Peak SAR (extrapolated) = Not Specified W/kg Motorola Fast SAR: SAR(1 g) = 5.12 mW/g; SAR(10 g) = 3.58 mW/g Maximum value of SAR (interpolated) = 5.402 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 = 62.581 V/m; Power Drift = -0.42 dB Peak SAR (extrapolated) = 6.616 W/kg SAR(1 g) = 5.02 mW/g; SAR(10 g) = 3.64 mW/g Maximum value of SAR (measured) = 5.329 mW/g



### Table 33

#### (851-869MHz band)

#### Assessments at the Body with Body worn PMLN7008A

#### Motorola Solutions, Inc. EME Laboratory Date/Time: 8/24/2011 9:27:29 PM, Date/Time: 8/24/2011 9:38:15 PM, Date/Time: 8/24/2011 9:41:09 PM, Date/Time: 8/24/2011 9:47:18 PM

Robot# / Run#: DASY5-FL-2 / CM-Ab-110824-12 Phantom# / Tissue Temp.: OVAL1020 / 21.6 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0092 Antenna / TX Freq.: NAR6595A / 851.0125 (MHz) Battery: NNTN8128A Carry Acc. / Cable Acc.: PMLN7008A / HMN4104B Start Power: 3.60 (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: 4.47 mW/g (1g); 3.33 mW/g (10g)

Comments: Full Scan.

 $\begin{array}{l} Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.28, 6.28, 6.28) \\ Electronics: DAE4 Sn850, Calibrated: 7/22/2011 \\ Duty Cycle: 1:1, Medium parameters used: f = 851 MHz; \sigma = 1 mho/m; e_r = 54.2; \rho = 1000 kg/m^3 \end{array}$ 

#### Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (51x161x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 57.318 V/m; Power Drift = -0.12 dB Motorola Fast SAR: SAR(1 g) = 4.55 mW/g; SAR(10 g) = 3.21 mW/g Maximum value of SAR (interpolated) = 4.810 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 = 57.318 V/m; Power Drift = -0.14 dB Peak SAR (extrapolated) = Not Specified W/kg Motorola Fast SAR: SAR(1 g) = 4.51 mW/g; SAR(10 g) = 3.17 mW/g Maximum value of SAR (interpolated) = 4.748 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 = 57.318 V/m; Power Drift = -0.17 dB Peak SAR (extrapolated) = 5.667 W/kg SAR(1 g) = 4.47 mW/g; SAR(10 g) = 3.33 mW/g Maximum value of SAR (measured) = 4.703 mW/g



# Table 34 (851-869MHz band) Assessments at the Body with Body worn PMLN7008A (additional battery)

#### Motorola Solutions, Inc. EME Laboratory

Date/Time: 8/24/2011 11:18:57 PM, Date/Time: 8/24/2011 11:29:43 PM, Date/Time: 8/24/2011 11:32:34 PM, Date/Time: 8/24/2011 11:38:43 PM

Robot# / Run#: DASY5-FL-2 / CM-Ab-110824-14 Phantom# / Tissue Temp.: OVAL1020 / 21.6 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0092 Antenna / TX Freq.: NAR6595A / 851.0125 (MHz) Battery: NNTN8129A Carry Acc. / Cable Acc.: PMLN7008A / HMN4104B Start Power: 3.60 (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: 5.23 mW/g (1g); 3.80 mW/g (10g)

Comments: Full Scan.

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.28, 6.28, 6.28) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 851 MHz; σ = 1 mho/m; ε<sub>z</sub> = 54.2; ρ = 1000 kg/m<sup>3</sup>

#### Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (51x161x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 64.439 V/m; Power Drift = -0.29 dB

Motorola Fast SAR: SAR(1 g) = 5.46 mW/g; SAR(10 g) = 3.83 mW/gMaximum value of SAR (interpolated) = 5.773 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 = 64.439 V/m; Power Drift = -0.34 dB Peak SAR (extrapolated) = Not Specified W/kg

Peak SAR (extrapolated) = Not Specified W/kg Motorola Fast SAR: SAR(1 g) = 5.34 mW/g; SAR(10 g) = 3.73 mW/g Maximum value of SAR (interpolated) = 5.622 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 = 64.439 V/m; Power Drift = -0.41 dB Peak SAR (extrapolated) = 6.886 W/kg

SAR(1 g) = 5.23 mW/g; SAR(10 g) = 3.8 mW/gMaximum value of SAR (measured) = 5.535 mW/g



# Table 35(851-869MHz band)Assessment at the Body with Body worn PMLN5950A

#### Motorola Solutions, Inc. EME Laboratory Date/Time: 8/25/2011 6:38:49 AM, Date/Time: 8/25/2011 6:52:31 AM, Date/Time: 8/25/2011 6:58:43 AM

Robot# / Run#: DASY5-FL-2 / ErC-Ab-110825-02 Phantom# / Tissue Temp.: OVAL1020 / 21.3 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0092 Antenna / TX Freq.: NAR6595A / 851.0125 (MHz) Battery: NNTN8128A Carry Acc. / Cable Acc.: PMLN5950A / HMN4104B Start Power: 3.59 (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: 2.04 mW/g (1g); 1.52 mW/g (10g)

Comments: Full Scan.

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.28, 6.28, 6.28) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 851 MHz; σ = 1 mho/m; ε<sub>r</sub> = 54.2; ρ = 1000 kg/m<sup>3</sup>

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (6x17x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 2.160 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 = 44.072 V/m; Power Drift = -0.32 dB Peak SAR (extrapolated) = 2.626 W/kg SAR(1 g) = 2.04 mW/g; SAR(10 g) = 1.52 mW/g Maximum value of SAR (measured) = 2.140 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) = 2.107 mW/g 2.160 1.735 1.310 0.886 0.461 0.036

# Table 36(851-869MHz band)Assessment at the Body with Body worn PMLN5950A (additional battery)

#### Motorola Solutions, Inc. EME Laboratory

Date/Time: 8/25/2011 7:59:02 AM, Date/Time: 8/25/2011 8:12:45 AM, Date/Time: 8/25/2011 8:18:56 AM

Robot# / Run#: DASY5-FL-2 / ErC-Ab-110825-04 Phantom# / Tissue Temp.: OVAL1020 / 21.1 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0092 Antenna / TX Freq.: NAR6595A / 851.0125 (MHz) Battery: NNTN8129A Carry Acc. / Cable Acc.: PMLN5950A / HMN4104B Start Power: 3.60 (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: 1.86 mW/g (1g); 1.39 mW/g (10g)

Comments: Full Scan.

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.28, 6.28, 6.28) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 851 MHz;  $\sigma = 1$  mho/m;  $\varepsilon_r = 54.2$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (6x17x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 2.020 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 = 43.007 V/m; Power Drift = -0.34 dB Peak SAR (extrapolated) = 2.409 W/kg SAR(1 g) = 1.86 mW/g; SAR(10 g) = 1.39 mW/g Maximum value of SAR (measured) = 1.963 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) = 1.946 mW/g



### Table 37

#### (851-869MHz band)

### Assessment at the Body with Body worn PMLN5950A/NTN5243A

## Motorola Solutions, Inc. EME Laboratory

Date/Time: 8/25/2011 8:40:47 AM, Date/Time: 8/25/2011 8:54:33 AM, Date/Time: 8/25/2011 9:00:43 AM

Robot# / Run#: DASY5-FL-2 / ErC-Ab-110825-05 Phantom# / Tissue Temp.: OVAL1020 / 21.0 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0092 Antenna / TX Freq.: NAR6595A / 851.0125 (MHz) Battery: NNTN8128A Carry Acc. / Cable Acc.: PMLN5950A w/NTN5243A / HMN4104B Start Power: 3.68 (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: 4.33 mW/g (1g); 3.18 mW/g (10g)

Comments: Full Scan. Without Belt Loop

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.28, 6.28, 6.28) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 851 MHz; σ = 1 mho/m; ε<sub>r</sub> = 54.2; ρ = 1000 kg/m<sup>3</sup>

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (6x17x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 4.796 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 = 59.784 V/m; Power Drift = -0.52 dB Peak SAR (extrapolated) = 5.654 W/kg SAR(1 g) = 4.33 mW/g; SAR(10 g) = 3.18 mW/g Maximum value of SAR (measured) = 4.580 mW/g



# Table 38 (851-869MHz band) Assessment at the Body with Body worn PMLN5950A/NTN5243A (additional battery)

### Motorola Solutions, Inc. EME Laboratory

Date/Time: 8/25/2011 9:54:00 AM, Date/Time: 8/25/2011 10:07:44 AM, Date/Time: 8/25/2011 10:13:56 AM

Robot# / Run#: DASY5-FL-2 / ErC-Ab-110825-07 Phantom# / Tissue Temp.: OVAL1020 / 20.9 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0092 Antenna / TX Freq.: NAR6595A / 851.0125 (MHz) Battery: NNTN8129A Carry Acc. / Cable Acc.: PMLN5950A w/NTN5243A / HMN4104B Start Power: 3.68 (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: 3.44 mW/g (1g); 2.53 mW/g (10g)

Comments: Full Scan. Without Belt Loop

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.28, 6.28, 6.28) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 851 MHz; σ = 1 mho/m; ε<sub>r</sub> = 54.2; ρ = 1000 kg/m<sup>3</sup>

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (6x17x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 3.643 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 = 56.734 V/m; Power Drift = -0.54 dBPeak SAR (extrapolated) = 4.485 W/kgSAR(1 g) = 3.44 mW/g; SAR(10 g) = 2.53 mW/gMaximum value of SAR (measured) = 3.626 mW/g



# Table 39 Assessment of wireless BT configuration

#### Motorola Solutions, Inc. EME Laboratory

Date/Time: 9/19/2011 8:24:41 PM, Date/Time: 9/19/2011 8:36:05 PM, Date/Time: 9/19/2011 8:39:03 PM, Date/Time: 9/19/2011 8:46:42 PM

Robot# / Run#: DASY5-FL-1 / CM-Ab-110919-15 Phantom# / Tissue Temp.: OVAL1019 / 22.2 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1554) / 426TMM0204 Antenna / TX Freq.: NAR6595A / 809.0000 (MHz) Battery: NNTN8128A Carry Acc. / Cable Acc.: PMLN7008A / None Start Power: 3.55 (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: 7.94 mW/g (1g); 5.89 mW/g (10g)

Comments:

Probe: ES3DV3 - SN3163, Calibrated: 4/13/2011, ConvF(5.99, 5.99, 5.99) Electronics: DAE3 Sn363, Calibrated: 4/13/2011 Duty Cycle: 1:1, Medium parameters used: f = 809 MHz; σ = 0.96 mho/m; e<sub>r</sub> = 55.6; ρ = 1000 kg/m<sup>3</sup>

Below 3 GHz-Rev.4e/Ab Scan/1-Area Scan (51x161x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 82.342 V/m; Power Drift = -0.29 dB Motorola Fast SAR: SAR(1 g) = 8.91 mW/g; SAR(10 g) = 6.24 mW/g Maximum value of SAR (interpolated) = 9.473 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 = 82.342 V/m; Power Drift = -0.33 dB Peak SAR (extrapolated) = Not Specified W/kg Motorola Fast SAR: SAR(1 g) = 8.77 mW/g; SAR(10 g) = 6.12 mW/g Maximum value of SAR (interpolated) = 9.258 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 = 82.342 V/m; Power Drift = -0.79 dB Peak SAR (extrapolated) = 9.877 W/kg SAR(1 g) = 7.88 mW/g; SAR(10 g) = 5.86 mW/g Maximum value of SAR (measured) = 8.308 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) = 8.159 mW/g



### Table 41

(764-775MHz band)

#### Assessment at the Face of offered antennas

Motorola Solutions, Inc. EME Laboratory Date/Time: 8/25/2011 6:20:37 PM, Date/Time: 8/25/2011 6:31:02 PM, Date/Time: 8/25/2011 6:33:50 PM, Date/Time: 8/25/2011 6:39:58 PM

Robot# / Run#: DASY5-FL-2 / CM-Face-110825-14 Phantom# / Tissue Temp.: OVAL1011 / 20.7 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0092 Antenna / TX Freq.: NAR6595A / 764.0125 (MHz) Battery: NNTN8129A Carry Acc. / Cable Acc.: None / None Start Power: 3.12 (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: 1.95 mW/g (1g); 1.45 mW/g (10g)

Comments: Full Scan.

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.58, 6.58, 6.58) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 764 MHz; σ = 0.85 mho/m; ε<sub>r</sub> = 42.7; ρ = 1000 kg/m<sup>3</sup>

Below 3 GHz-Rev.4e/Face Scan/1-Area Scan (51x161x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 47.296 V/m; Power Drift = -0.47 dB Motorola Fast SAR: SAR(1 g) = 1.91 mW/g; SAR(10 g) = 1.38 mW/g Maximum value of SAR (interpolated) = 2.013 mW/g

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

Reference Value = 47.296 V/m; Power Drift = -0.43 dB Peak SAR (extrapolated) = Not Specified W/kg Motorola Fast SAR: SAR(1 g) = 1.9 mW/g; SAR(10 g) = 1.38 mW/g Maximum value of SAR (interpolated) = 2.002 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 = 47.296 V/m; Power Drift = -0.46 dB Peak SAR (extrapolated) = 2.402 W/kg SAR(1 g) = 1.88 mW/g; SAR(10 g) = 1.41 mW/g Maximum value of SAR (measured) = 1.972 mW/g



### Table 42 (764-775MHz band) Assessment at the Face (additional battery)

#### Motorola Solutions, Inc. EME Laboratory Date/Time: 8/25/2011 7:32:08 PM, Date/Time: 8/25/2011 7:42:33 PM, Date/Time: 8/25/2011 7:45:22 PM, Date/Time: 8/25/2011 7:51:30 PM

Robot# / Run#: DASY5-FL-2 / CM-Face-110825-16 Phantom# / Tissue Temp.: OVAL1011 / 20.7 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0092 Antenna / TX Freq.: NAR6595A / 764.0125 (MHz) Battery: NNTN8128A Carry Acc. / Cable Acc.: None / None Start Power: 3.10 (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: 1.96 mW/g (1g); 1.46 mW/g (10g)

Comments: Full Scan.

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.58, 6.58, 6.58) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 764 MHz; σ = 0.85 mho/m; ε<sub>r</sub> = 42.7; ρ = 1000 kg/m<sup>3</sup>

#### Below 3 GHz-Rev.4e/Face Scan/1-Area Scan (51x161x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 44.453 V/m; Power Drift = -0.17 dB Motorola Fast SAR: SAR(1 g) = 1.97 mW/g; SAR(10 g) = 1.42 mW/g Maximum value of SAR (interpolated) = 2.073 mW/g

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

dy=7.5mm, dz=1mm Reference Value = 44.453 V/m; Power Drift = -0.21 dB Peak SAR (extrapolated) = Not Specified W/kg Motorola Fast SAR: SAR(1 g) = 1.92 mW/g; SAR(10 g) = 1.39 mW/g Maximum value of SAR (interpolated) = 2.016 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 = 44.453 V/m; Power Drift = -0.29 dB Peak SAR (extrapolated) = 2.409 W/kg SAR(1 g) = 1.89 mW/g; SAR(10 g) = 1.42 mW/g Maximum value of SAR (measured) = 1.979 mW/g



### Table 44 (794-824MHz band) Assessment at the Face of offered antennas

#### Motorola Solutions, Inc. EME Laboratory Date/Time: 8/25/2011 8:10:14 PM, Date/Time: 8/25/2011 8:20:35 PM, Date/Time: 8/25/2011 8:23:23 PM, Date/Time: 8/25/2011 8:29:31 PM

Robot# / Run#: DASY5-FL-2 / CM-Face-110825-17 Phantom# / Tissue Temp.: OVAL1011 / 20.7 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0092 Antenna / TX Freq.: NAR6595A / 809.0000 (MHz) Battery: NNTN8129A Carry Acc. / Cable Acc.: None / None Start Power: 3.70 (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: 2.52 mW/g (1g); 1.86 mW/g (10g)

Comments: Full Scan.

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.24, 6.24, 6.24) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 809 MHz;  $\sigma$  = 0.89 mho/m;  $\epsilon_r$  = 42;  $\rho$  = 1000 kg/m<sup>3</sup>

#### Below 3 GHz-Rev.4e/Face Scan/1-Area Scan (51x161x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 49.424 V/m; Power Drift = 0.024 dB Motorola Fast SAR: SAR(1 g) = 2.49 mW/g; SAR(10 g) = 1.79 mW/g Maximum value of SAR (interpolated) = 2.624 mW/g

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

dy=7.5mm, dz=1mm Reference Value = 49.424 V/m; Power Drift = 0.027 dB Peak SAR (extrapolated) = Not Specified W/kg Motorola Fast SAR: SAR(1 g) = 2.51 mW/g; SAR(10 g) = 1.81 mW/g Maximum value of SAR (interpolated) = 2.634 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 = 49.424 V/m; Power Drift = -0.039 dB Peak SAR (extrapolated) = 3.236 W/kg SAR(1 g) = 2.49 mW/g; SAR(10 g) = 1.85 mW/g Maximum value of SAR (measured) = 2.622 mW/g



### Table 45 (794-824MHz band) Assessment at the Face (additional battery)

#### Motorola Solutions, Inc. EME Laboratory

Date/Time: 8/25/2011 9:52:40 PM, Date/Time: 8/25/2011 10:03:06 PM, Date/Time: 8/25/2011 10:05:53 PM, Date/Time: 8/25/2011 10:12:00 PM

Robot# / Run#: DASY5-FL-2 / CM-Face-110825-20 Phantom# / Tissue Temp.: OVAL1011 / 20.6 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0092 Antenna / TX Freq.: NAR6595A / 809.0000 (MHz) Battery: NNTN8128A Carry Acc. / Cable Acc.: None / None Start Power: 3.71 (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: 2.57 mW/g (1g); 1.89 mW/g (10g)

Comments: Full Scan.

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.24, 6.24, 6.24) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 809 MHz;  $\sigma = 0.89 \text{ mho/m}$ ;  $\epsilon_r = 42$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Below 3 GHz-Rev.4e/Face Scan/1-Area Scan (51x161x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 49.453 V/m; Power Drift = 0.029 dB Motorola Fast SAR: SAR(1 g) = 2.6 mW/g; SAR(10 g) = 1.87 mW/g Maximum value of SAR (interpolated) = 2.740 mW/g

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

dy=7.5mm, dz=1mm Reference Value = 49.453 V/m; Power Drift = -0.037 dB Peak SAR (extrapolated) = Not Specified W/kg Motorola Fast SAR: SAR(1 g) = 2.58 mW/g; SAR(10 g) = 1.86 mW/g Maximum value of SAR (interpolated) = 2.708 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 = 49.453 V/m; Power Drift = -0.089 dB Peak SAR (extrapolated) = 3.303 W/kg SAR(1 g) = 2.54 mW/g; SAR(10 g) = 1.88 mW/g Maximum value of SAR (measured) = 2.675 mW/g



### Table 47 (851-869MHz band) Assessment at the Face of offered antennas

#### Motorola Solutions, Inc. EME Laboratory Date/Time: 8/25/2011 1:38:30 PM, Date/Time: 8/25/2011 1:53:31 PM, Date/Time: 8/25/2011 2:02:17 PM

Robot# / Run#: DASY5-FL-2 / ErC-Face-110825-09 Phantom# / Tissue Temp.: OVAL1011 / 20.6 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0092 Antenna / TX Freq.: NAR6595A / 851.0125 (MHz) Battery: NNTN8129A Carry Acc. / Cable Acc.: None / None Start Power: 3.67 (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 SAR: 3.73 mW/g (1g); 2.72 mW/g (10g)

Comments: Full Scan.

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.24, 6.24, 6.24) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 851 MHz; σ = 0.93 mho/m; ε<sub>r</sub> = 41.6; ρ = 1000 kg/m<sup>3</sup>

Below 3 GHz-Rev.4e/Face Scan/1-Area Scan (6x17x1): Measurement grid: dx=15mm, dy=15mm Maximum value of SAR (measured) = 3.668 mW/g

## Below 3 GHz-Rev.4e/Face Scan/3-Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm,

dy=7.5mm, dz=5mm Reference Value = 54.262 V/m; Power Drift = -0.16 dB Peak SAR (extrapolated) = 4.925 W/kg SAR(1 g) = 3.72 mW/g; SAR(10 g) = 2.72 mW/g Maximum value of SAR (measured) = 3.919 mW/g



### Table 48 (851-869MHz band) Assessment at the Face (additional battery)

## Motorola Solutions, Inc. EME Laboratory Date/Time: 8/29/2011 7:25:02 PM, Date/Time: 8/29/2011 7:34:42 PM, Date/Time: 8/29/2011 7:43:34 PM

Robot# / Run#: DASY5-FL-2 / CM-Face-110829-14 Phantom# / Tissue Temp.: OVAL1011 / 21.8 (C) DUT Model# / Serial#: H51UCH9PW7AN (MUF1555) / 426TMM0091 Antenna / TX Freq.: NAR6595A / 851.0125 (MHz) Battery: NNTN8128A Carry Acc. / Cable Acc.: None / None Start Power: 3.59 (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: 5.59 mW/g (1g); 4.07 mW/g (10g)

Comments: Full Scan

Probe: ES3DV3 - SN3291, Calibrated: 7/22/2011, ConvF(6.24, 6.24, 6.24) Electronics: DAE4 Sn850, Calibrated: 7/22/2011 Duty Cycle: 1:1, Medium parameters used: f = 851 MHz;  $\sigma = 0.95$  mho/m;  $\varepsilon_r = 42.4$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Below 3 GHz-Rev.4e/Face Scan/1-Area Scan (51x151x1): Measurement grid: dx=15mm, dy=15mm Reference Value = 68.731 V/m; Power Drift = -0.034 dB Motorola Fast SAR: SAR(1 g) = 5.59 mW/g; SAR(10 g) = 4 mW/g Maximum value of SAR (interpolated) = 5.897 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 = 68.731 V/m; Power Drift = -0.088 dB Peak SAR (extrapolated) = Not Specified W/kg Motorola Fast SAR: SAR(1 g) = 5.6 mW/g; SAR(10 g) = 4 mW/g Maximum value of SAR (interpolated) = 5.896 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 = 68.731 V/m; Power Drift = -0.17 dB Peak SAR (extrapolated) = 7.302 W/kg SAR(1 g) = 5.52 mW/g; SAR(10 g) = 4.03 mW/g Maximum value of SAR (measured) = 5.820 mW/g



## APPENDIX G DUT Supplementary Data (Power slump)

#### Model # H51UCH9PW7AN (MUF1554) Serial # 426TMM0204

Battery	NNTN8128A	Transmit Mode	cw
Frequency	809.0000 MHz	Audio Accessory	None
Date	9/20/2011		

TX TIME	Measured Power	
(Minutes)	(Watts)	
0.0	3.61	
1.0	3.61	
2.0	3.60	
3.0	3.60	3
4.0	3.59	3
5.0	3.58	3
6.0	3.58	
7.0	3.57	ver v
8.0	3.56	6 3
9.0	3.56	- 3
10.0	3.55	3
11.0	3.54	3
12.0	3.53	3
13.0	3.53	
14.0	3.52	
15.0	3.52	
16.0	3.51	
17.0	3.50	
18.0	3.49	
19.0	3.48	
20.0	3.48	
21.0	3.47	
22.0	3.47	
23.0	3.46	
24.0	3.46	
25.0	3.45	
26.0	3.45	
27.0	3.44	
28.0	3.44	
29.0	3.43	
30.0	3.43	
31.0	3.43	
32.0	3.43	
33.0	3.43	
34.0	3.42	
35.0	3.41	
36.0	3.41	
37.0	3.40	
38.0	3.40	
39.0	3.39	
40.0	3.39	



## Appendix H DUT Test Position Photos

Photos available in Exhibit 7B

## Appendix I DUT, Body worn and audio accessories Photos

Photos available in Exhibit 7B