

 MOTOROLA SOLUTIONS	 ACCREDITED TESTING CERT # 2518.01
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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: 11/06/2013 Report Revision: A Report ID: SR11760_PMUE4402A Rev A 131106
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Responsible Engineer: Report Author: Date/s Tested: Manufacturer/Location: Sector/Group/Div.: Date submitted for test: DUT Description: Test TX mode(s): Max. Power output: Nominal Power: Tx Frequency Bands: Signaling type: Model(s) Tested: Model(s) Certified: Serial Number(s): Classification: FCC ID: IC ID:	Tan CheeChin (EME Section Manager) Tan CheeChin (EME Section Manager) 09/30/13-10/04/13 Motorola Solutions, Penang EMS 09/10/13 Handheld Portable - Frequency band of 450-527MHz, 2.402-2.480GHz (Bluetooth), GOB TDMA(PTT); CW (Bluetooth) 2.4W (450-527MHz), 10.0mW (Bluetooth) 2.0W(450-527MHz), 2.5mW (Bluetooth) 450-527MHz, 2.402-2.480GHz (Bluetooth) TDMA; FHSS (Bluetooth) PMUE4402A PMUE4402A 682TPT0137, 682TPT0173, 682TPT0182 Occupational/Controlled AZ489FT4918; Rule Part 90 (450-512 MHz); Rule Part 15 (2402-2480MHz) This report contains results that are immaterial for FCC equipment approval, which are clearly identified. 109U-89FT4918
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The test results clearly demonstrate compliance with FCC Occupational/Controlled RF Exposure limits of 8 W/kg averaged over 1 gram per the requirements of 47 CFR 2.1093(d). The 10 grams result is not applicable to FCC filing. Results outside FCC bands are not applicable for FCC compliance demonstration. The test results clearly demonstrate compliance with ICNIRP (1998) Guidelines for limiting exposure in time-varying electric, magnetic, and electromagnetic fields (up to 300 GHz), Health Physics 74, 494-522 RF Exposure limits of 10 W/kg averaged over 10grams of contiguous tissue.

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

 Deanna Zakharia EMS EME Lab Senior Resource Manager, Laboratory Director Approval Date: 11/7/2013	Certification Date: 11/7/2013 Certification No.: L1131102
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APPENDIX C
Test System Check Scans

Motorola Solutions, Inc. EME Laboratory
Date/Time: 9/30/2013 12:12:40 PM

Robot#: DASY5-FL-2 | Run#: AvG-SYSP-450B-130930-01
 Dipole Model#: D450V3
 Phantom#: OVAL1016
 Tissue Temp: 22.9 (C)
 Serial#: 1075
 Test Freq: 450 (MHz)
 Start Power: 250 (mW)
 Rotation (1D): 0.04 dB
 Adjusted SAR (1W): 4.44 mW/g (1g)

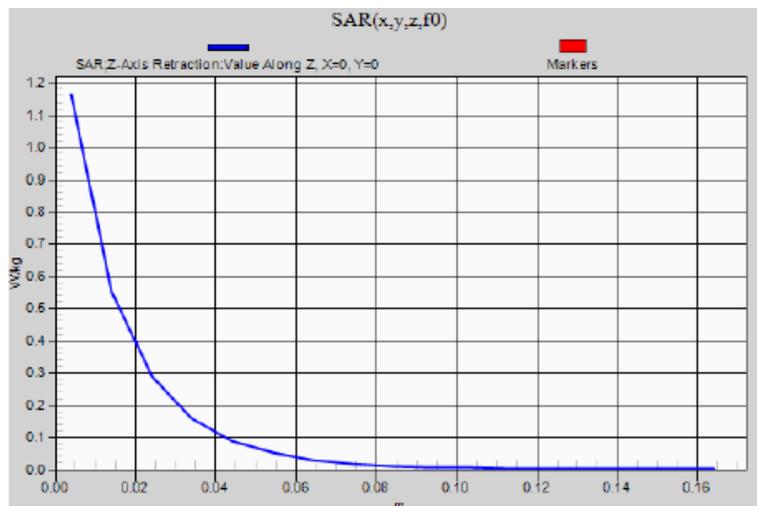
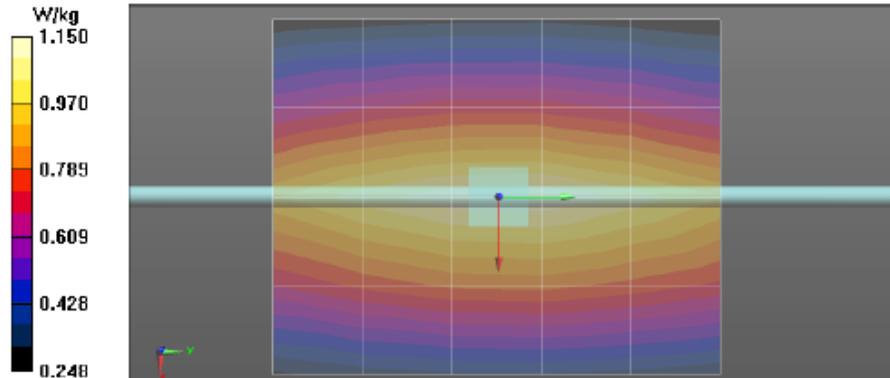
Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 450$ MHz; $\sigma = 0.92$ S/m; $\epsilon_r = 56.5$; $\rho = 1000$ kg/m³
 Probe: ES3DV3 - SN3291, Frequency: 450 MHz, ConvF(7.35, 7.35, 7.35); Calibrated: 6/20/2013
 Electronics: DAE4 Sn850, Calibrated: 7/17/2013

Below 2 GHz-Rev.1/System Performance Check/Dipole Area Scan 1 (41x51x1): Interpolated grid:
 dx=1.500 mm, dy=1.500 mm
 Reference Value = **not measured**; Power Drift = 0.00 dB
 Fast SAR: SAR(1 g) = 1.11 W/kg; SAR(10 g) = 0.781 W/kg (SAR corrected for target medium)
 Maximum value of SAR (interpolated) = 1.15 W/kg

Below 2 GHz-Rev.1/System Performance Check/0-Degree Cube (5x5x7)/Cube 0: Measurement
 grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 35.553 V/m; Power Drift = 0.00 dB
 Peak SAR (extrapolated) = 1.67 W/kg
 SAR(1 g) = 1.11 W/kg; SAR(10 g) = 0.740 W/kg (SAR corrected for target medium)
 Maximum value of SAR (measured) = 1.17 W/kg

Below 2 GHz-Rev.1/System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid:
 dx=20mm, dy=20mm, dz=10mm
 Maximum value of SAR (measured) = 1.16 W/kg



Motorola Solutions, Inc. EME Laboratory
Date/Time: 10/1/2013 10:40:29 AM

Robot#: DASY5-FL-2 | Run#: AvG-SYSP-450B-131001-01
 Dipole Model#: D450V3
 Phantom#: OVAL1016
 Tissue Temp: 21.6 (C)
 Serial#: 1075
 Test Freq: 450 (MHz)
 Start Power: 250 (mW)
 Rotation (1D): 0.045 dB
 Adjusted SAR (1W): 4.40 mW/g (1g)

Comments:

Duty Cycle: 1:1, Medium parameters used: f = 450 MHz; $\sigma = 0.91$ S/m; $\epsilon_r = 56.1$; $\rho = 1000$ kg/m³
 Probe: ES3DV3 - SN3291, , Frequency: 450 MHz, ConvF(7.35, 7.35, 7.35); Calibrated: 6/20/2013
 Electronics: DAE4 Sn850, Calibrated: 7/17/2013

Below 2 GHz-Rev.1/System Performance Check/Dipole Area Scan 1 (41x51x1): Interpolated grid:

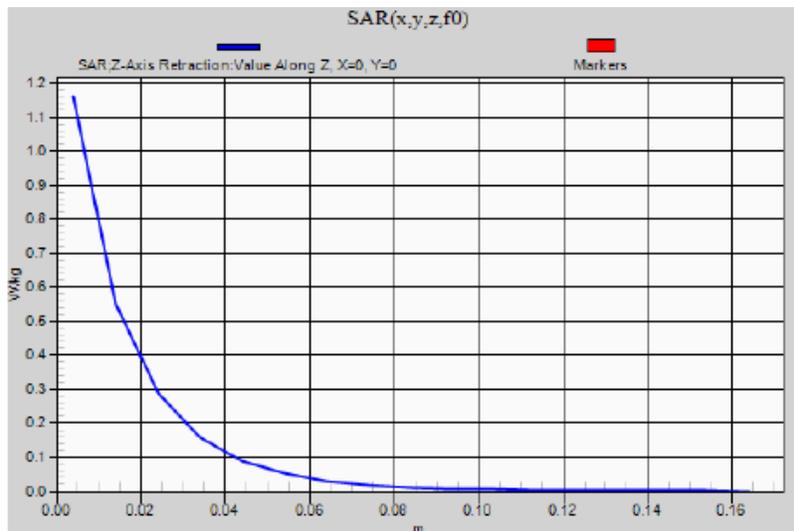
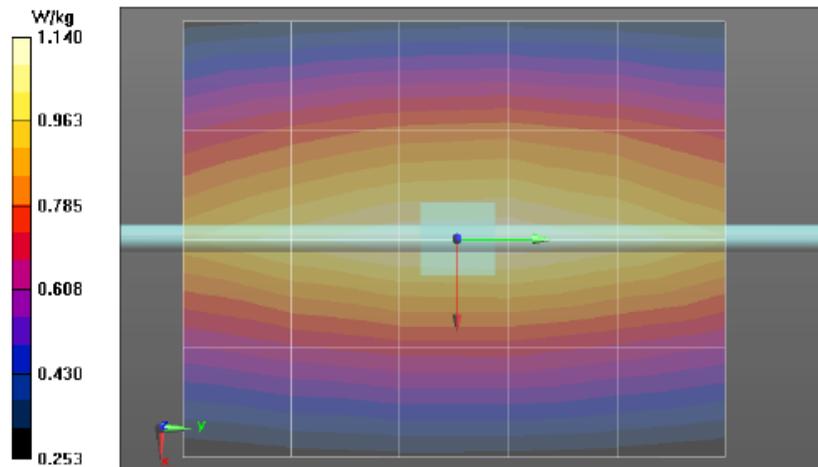
dx=1.500 mm, dy=1.500 mm
 Reference Value = **not measured**; Power Drift = -0.00 dB
 Fast SAR: SAR(1 g) = 1.12 W/kg; SAR(10 g) = 0.787 W/kg (SAR corrected for target medium)
 Maximum value of SAR (interpolated) = 1.15 W/kg

Below 2 GHz-Rev.1/System Performance Check/0-Degree Cube (5x5x7)/Cube 0: Measurement

grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 35.692 V/m; Power Drift = -0.00 dB
 Peak SAR (extrapolated) = 1.65 W/kg
 SAR(1 g) = 1.1 W/kg; SAR(10 g) = 0.739 W/kg (SAR corrected for target medium)
 Maximum value of SAR (measured) = 1.16 W/kg

Below 2 GHz-Rev.1/System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid:

dx=20mm, dy=20mm, dz=10mm



Motorola Solutions, Inc. EME Laboratory
Date/Time: 10/1/2013 3:49:24 PM

Robot#: DASY5-FL-2 | Run#: AvG-SYSP-450H-131001-04
 Dipole Model#: D450V3
 Phantom#: OVAL1108
 Tissue Temp: 21.6 (C)
 Serial#: 1075
 Test Freq: 450 (MHz)
 Start Power: 250 (mW)
 Rotation (1D): 0.039 dB
 Adjusted SAR (1W): 4.40 mW/g (1g)

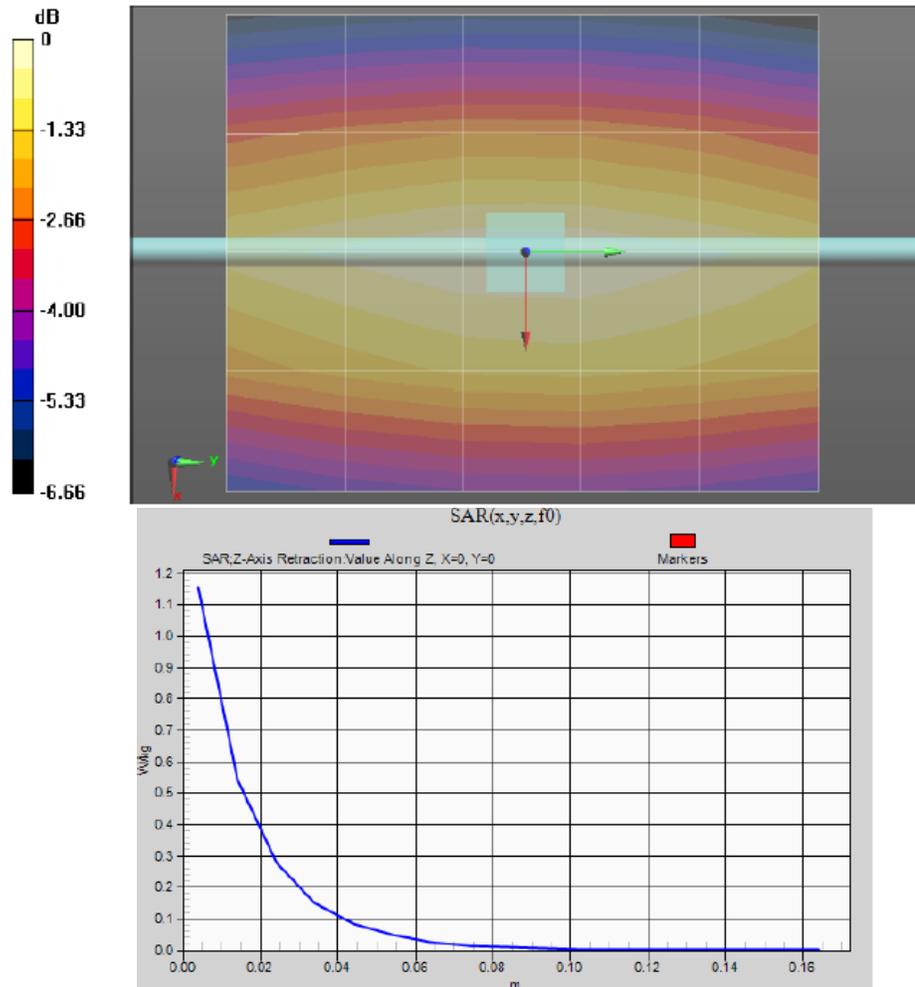
Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 450$ MHz; $\sigma = 0.84$ S/m; $\epsilon_r = 42.6$; $\rho = 1000$ kg/m³
 Probe: ES3DV3 - SN3291, , Frequency: 450 MHz, ConvF(7.12, 7.12, 7.12); Calibrated: 6/20/2013
 Electronics: DAE4 Sn850, Calibrated: 7/17/2013

Below 2 GHz-Rev.1/System Performance Check/Dipole Area Scan 1 (41x51x1): Interpolated grid:
 dx=1.500 mm, dy=1.500 mm
 Reference Value = **not measured**; Power Drift = 0.00 dB
 Fast SAR: SAR(1 g) = 1.11 W/kg; SAR(10 g) = 0.778 W/kg (SAR corrected for target medium)
 Maximum value of SAR (interpolated) = 1.14 W/kg

Below 2 GHz-Rev.1/System Performance Check/0-Degree Cube (5x5x7)/Cube 0: Measurement
 grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 37.547 V/m; Power Drift = 0.00 dB
 Peak SAR (extrapolated) = 1.59 W/kg
 SAR(1 g) = 1.1 W/kg; SAR(10 g) = 0.735 W/kg (SAR corrected for target medium)
 Maximum value of SAR (measured) = 1.15 W/kg

Below 2 GHz-Rev.1/System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid:
 dx=20mm, dy=20mm, dz=10mm



Motorola Solutions, Inc. EME Laboratory
Date/Time: 10/2/2013 6:54:26 PM

Robot#: DASY5-FL-2 | Run#: AvG-SYSP-450H-131002-01
 Dipole Model#: D450V3
 Phantom#: OVAL1108
 Tissue Temp: 22.1 (C)
 Serial#: 1075
 Test Freq: 450 (MHz)
 Start Power: 250 (mW)
 Rotation (1D): 0.044 dB
 Adjusted SAR (1W): 4.40 mW/g (1g)

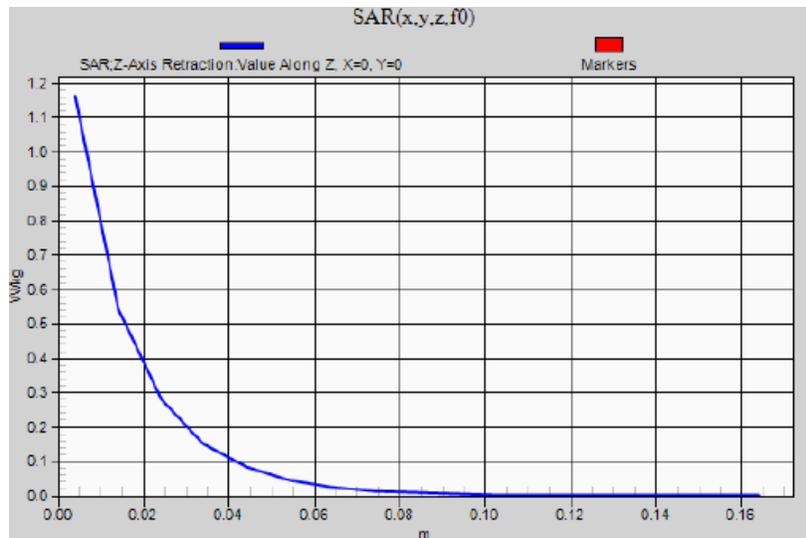
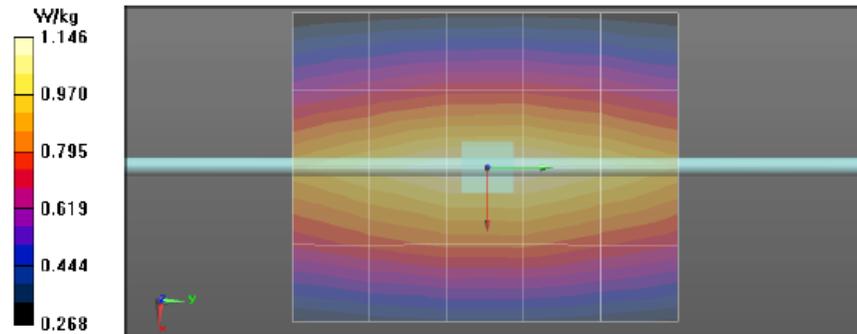
Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 450$ MHz; $\sigma = 0.85$ S/m; $\epsilon_r = 42.5$; $\rho = 1000$ kg/m³
 Probe: ES3DV3 - SN3291, , Frequency: 450 MHz, ConvF(7.12, 7.12, 7.12); Calibrated: 6/20/2013
 Electronics: DAE4 Sn850, Calibrated: 7/17/2013

Below 2 GHz-Rev.1/System Performance Check/Dipole Area Scan 1 (41x51x1): Interpolated grid:
 dx=1.500 mm, dy=1.500 mm
 Reference Value = **not measured**; Power Drift = -0.01 dB
 Fast SAR: SAR(1 g) = 1.11 W/kg; SAR(10 g) = 0.782 W/kg (SAR corrected for target medium)
 Maximum value of SAR (interpolated) = 1.15 W/kg

Below 2 GHz-Rev.1/System Performance Check/0-Degree Cube (5x5x7)/Cube 0: Measurement
 grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 37.437 V/m; Power Drift = -0.01 dB
 Peak SAR (extrapolated) = 1.61 W/kg
 SAR(1 g) = 1.1 W/kg; SAR(10 g) = 0.735 W/kg (SAR corrected for target medium)
 Maximum value of SAR (measured) = 1.17 W/kg

Below 2 GHz-Rev.1/System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid:
 dx=20mm, dy=20mm, dz=10mm
 Maximum value of SAR (measured) = 1.16 W/kg



Motorola Solutions, Inc. EME Laboratory
Date/Time: 10/3/2013 7:43:11 AM

Robot#: DASY5-FL-2 | Run#: ErC-SYSP-450B-131003-02
 Dipole Model#: D450V3
 Phantom#: OVAL1016
 Tissue Temp: 22.3 (C)
 Serial#: 1075
 Test Freq: 450 (MHz)
 Start Power: 250 (mW)
 Rotation (1D): 0.041 dB
 Adjusted SAR (1W): 4.44 mW/g (1g)

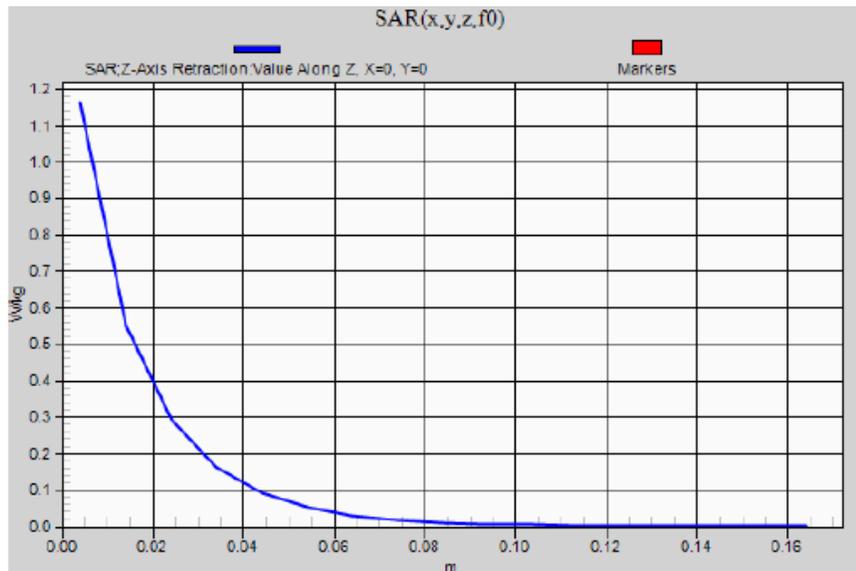
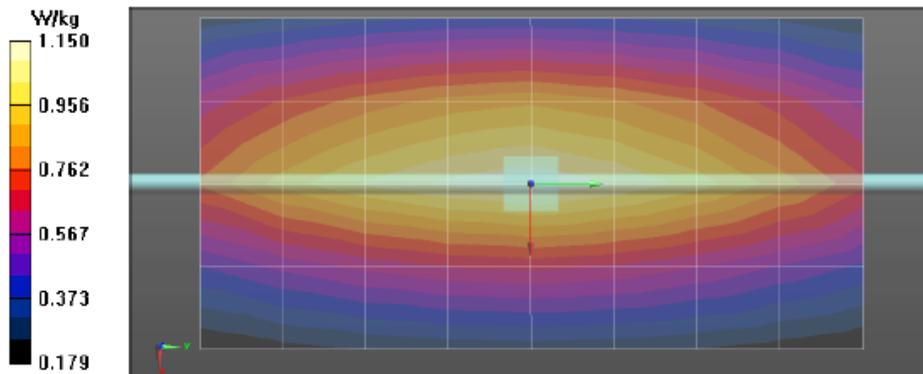
Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 450$ MHz; $\sigma = 0.91$ S/m; $\epsilon_r = 55.9$; $\rho = 1000$ kg/m³
 Probe: ES3DV3 - SN3291, Frequency: 450 MHz, ConvF(7.35, 7.35, 7.35); Calibrated: 6/20/2013
 Electronics: DAE4 Sn850, Calibrated: 7/17/2013

Below 2 GHz-Rev.1/System Performance Check/Dipole Area Scan 2 (5x9x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 1.15 W/kg

Below 2 GHz-Rev.1/System Performance Check/0-Degree Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 35.715 V/m; Power Drift = 0.00 dB
 Peak SAR (extrapolated) = 1.67 W/kg
 SAR(1 g) = 1.11 W/kg; SAR(10 g) = 0.747 W/kg (SAR corrected for target medium)
 Maximum value of SAR (measured) = 1.17 W/kg

Below 2 GHz-Rev.1/System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
 Maximum value of SAR (measured) = 1.16 W/kg



Motorola Solutions, Inc. EME Laboratory
Date/Time: 10/3/2013 7:08:12 AM

Robot#: DASY5-FL-2 | Run#: ErC-SYSP-450H-131003-01
 Dipole Model#: D450V3
 Phantom#: OVAL1108
 Tissue Temp: 22.3 (C)
 Serial#: 1075
 Test Freq: 450 (MHz)
 Start Power: 250 (mW)
 Rotation (1D): 0.037 dB
 Adjusted SAR (1W): 4.36 mW/g (1g)

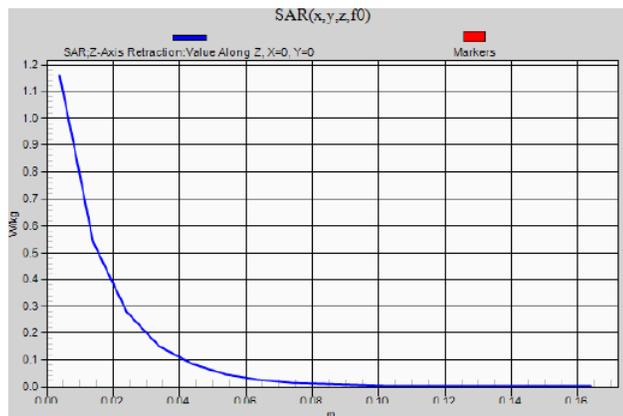
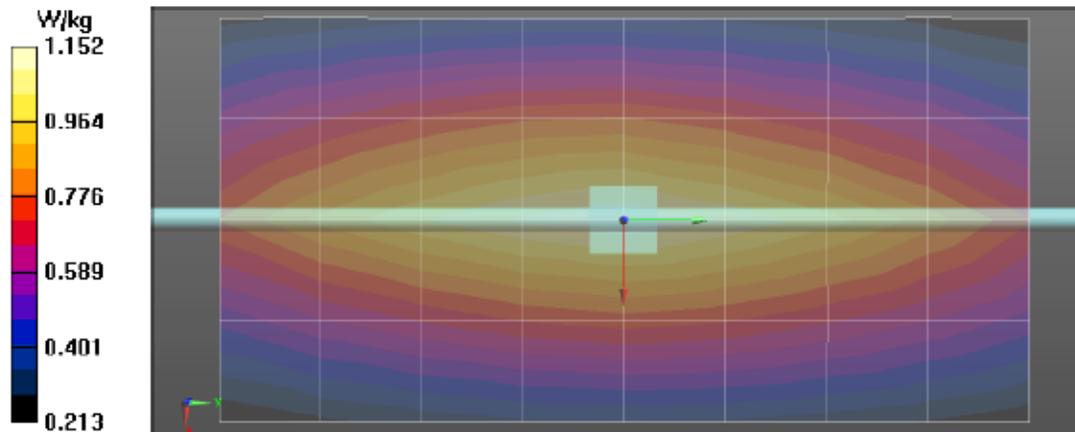
Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 450$ MHz; $\sigma = 0.85$ S/m; $\epsilon_r = 42.5$; $\rho = 1000$ kg/m³
 Probe: ES3DV3 - SN3291, Frequency: 450 MHz, ConvF(7.12, 7.12, 7.12); Calibrated: 6/20/2013
 Electronics: DAE4 Sn850, Calibrated: 7/17/2013

Below 2 GHz-Rev.1/System Performance Check/Dipole Area Scan 2 (5x9x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 1.15 W/kg

Below 2 GHz-Rev.1/System Performance Check/0-Degree Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 37.247 V/m; Power Drift = 0.00 dB
 Peak SAR (extrapolated) = 1.60 W/kg
 SAR(1 g) = 1.09 W/kg; SAR(10 g) = 0.729 W/kg (SAR corrected for target medium)
 Maximum value of SAR (measured) = 1.16 W/kg

Below 2 GHz-Rev.1/System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm



APPENDIX D
Worse case for Band 450-512 MHz DUT Scans
(Shortened Scan and Highest SAR configurations)

Shortened Scan Result
Table 23
Motorola Solutions, Inc. EME Laboratory
 Date/Time: 10/3/2013 12:54:42 PM

Robot#: DASY5-FL-2 | Run#: AvG-Ab-131003-07
 Model#: PMUE4402A
 Phantom#: OVAL1016
 Tissue Temp: 21.7 (C)
 Serial#: 682TPT0182
 Antenna: PMAE4092A
 Test Freq: 512.0000 (MHz)
 Battery: HKNN4013A
 Carry Acc: PMLN5956A
 Audio Acc: None
 Start Power: 2.30 (W)

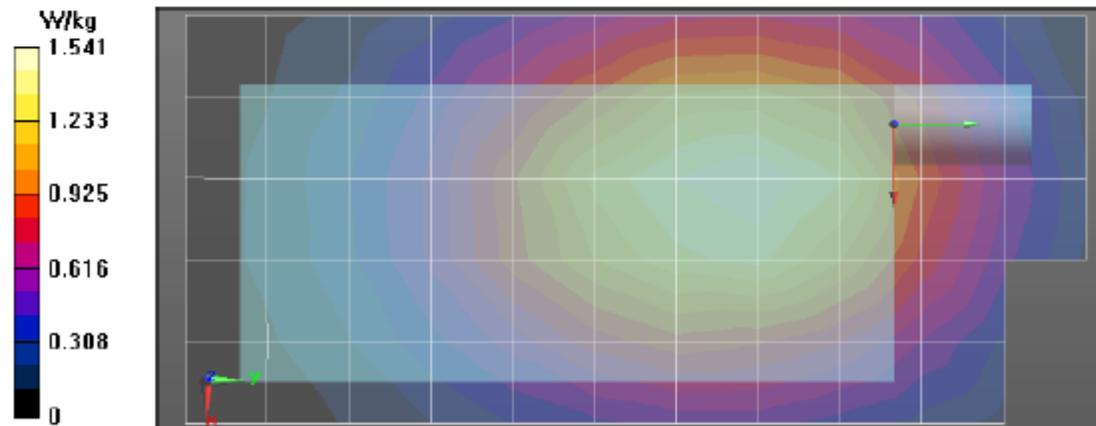
Comments: Run as short scan

Duty Cycle: 1:1.99986, Medium parameters used: f = 512 MHz; $\sigma = 0.96$ S/m; $\epsilon_r = 55.1$; $\rho = 1000$ kg/m³
 Probe: ES3DV3 - SN3291, , Frequency: 512 MHz, ConvF(7.35, 7.35, 7.35); Calibrated: 6/20/2013
 Electronics: DAE4 Sn850, Calibrated: 7/17/2013

Below 2 GHz-Rev.1/Ab Scan/1-Area Scan (51x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
 Reference Value = 37.643 V/m; Power Drift = -0.18 dB
 Fast SAR: SAR(1 g) = 1.47 W/kg; SAR(10 g) = 1.05 W/kg (SAR corrected for target medium)
 Maximum value of SAR (interpolated) = 1.56 W/kg

Below 2 GHz-Rev.1/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 32.248 V/m; Power Drift = 0.10 dB
 Peak SAR (extrapolated) = 2.21 W/kg
 SAR(1 g) = 1.47 W/kg; SAR(10 g) = 1.07 W/kg (SAR corrected for target medium)
 Maximum value of SAR (measured) = 1.56 W/kg

Below 2 GHz-Rev.1/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
 Maximum value of SAR (measured) = 1.46 W/kg



Shortened scan reflect highest SAR producing configuration; approximate run time is 6 minutes.
 Representative full scan run time was 14 minutes.
 “Shortened” scan max calculated SAR using SAR drift: 1-g Avg. = 0.77 mW/g; 10-g Avg. = 0.56 mW/g.
 Zoom scan max calculated SAR using SAR drift (see part 1 table 18): 1-g Avg. = 0.82 mW/g; 10-g Avg. = 0.59 mW/g.

Body - Highest SAR Configuration Result Table 18

Motorola Solutions, Inc. EME Laboratory
Date/Time: 10/1/2013 12:13:20 PM

Robot#: DASY5-FL-2 | Run#: AvG-Ab-131001-03
 Model#: PMUE4402A
 Phantom#: OVAL1016
 Tissue Temp: 21.6 (C)
 Serial#: 682TPT0182
 Antenna: PMAE4092A
 Test Freq: 512.0000 (MHz)
 Battery: HKNN4013A
 Carry Acc: PMLN5956A
 Audio Acc: None
 Start Power: 2.29(W)

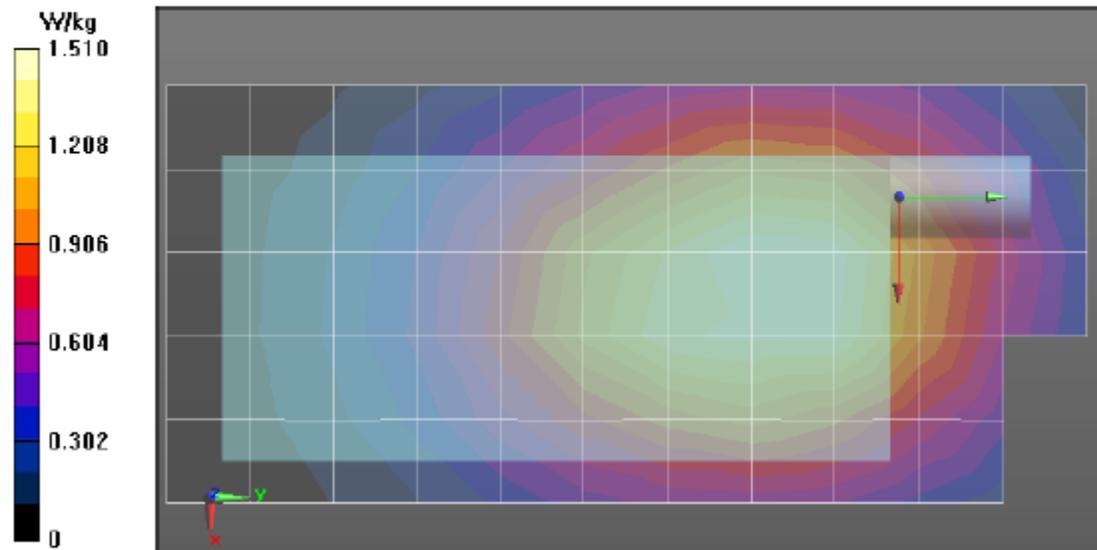
Comments:

Duty Cycle: 1:1.99986, Medium parameters used: $f = 512$ MHz; $\sigma = 0.95$ S/m; $\epsilon_r = 55.4$; $\rho = 1000$ kg/m³
 Probe: ES3DV3 - SN3291, , Frequency: 512 MHz, ConvF(7.35, 7.35, 7.35); Calibrated: 6/20/2013
 Electronics: DAE4 Sn850, Calibrated: 7/17/2013

Below 2 GHz-Rev.1/Ab Scan/1-Area Scan (51x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
 Reference Value = 36.811 V/m; Power Drift = -0.18 dB
 Fast SAR: SAR(1 g) = 1.49 W/kg; SAR(10 g) = 1.07 W/kg (SAR corrected for target medium)
 Maximum value of SAR (interpolated) = 1.58 W/kg

Below 2 GHz-Rev.1/Ab Scan/3-Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 36.811 V/m; Power Drift = -0.33 dB
 Peak SAR (extrapolated) = 2.09 W/kg
 SAR(1 g) = 1.45 W/kg; SAR(10 g) = 1.05 W/kg (SAR corrected for target medium)
 Maximum value of SAR (measured) = 1.53 W/kg

Below 2 GHz-Rev.1/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
 Maximum value of SAR (measured) = 1.50 W/kg



Face - Highest SAR Configuration Result Table 21

Motorola Solutions, Inc. EME Laboratory
Date/Time: 10/2/2013 7:56:11 PM

Robot#: DASY5-FL-2 | Run#: AvG-Face-131002-02
 Model#: PMUE4402A
 Phantom#: OVAL1108
 Tissue Temp: 21.9 (C)
 Serial#: 682TPT0137
 Antenna: PMAE4092A
 Test Freq: 512.0000 (MHz)
 Battery: HKNN4013A
 Carry Acc: None
 Audio Acc: None
 Start Power: 2.33 (W)

Comments:

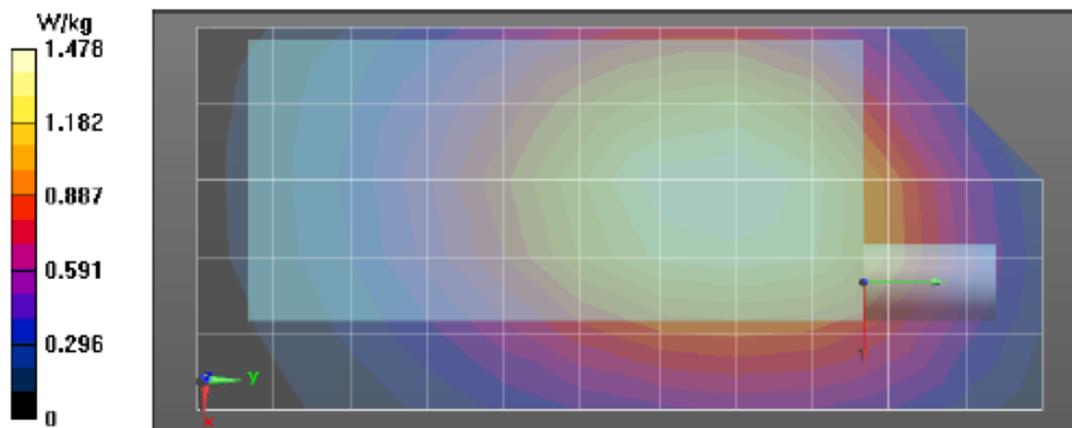
Duty Cycle: 1:1.99986, Medium parameters used: f= 512 MHz; $\sigma = 0.9$ S/m; $\epsilon_r = 41.3$; $\rho = 1000$ kg/m³
 Probe: ES3DV3 - SN3291, , Frequency: 512 MHz, CouvF(7.12, 7.12, 7.12); Calibrated: 6/20/2013
 Electronics: DAE4 Sn850, Calibrated: 7/17/2013

Below 2 GHz-Rev.1/Ab Scan/1-Area Scan (51x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
 Reference Value = 37.772 V/m; Power Drift = -0.12 dB
Fast SAR: SAR(1 g) = 1.42 W/kg; SAR(10 g) = 1.03 W/kg (SAR corrected for target medium)
 Maximum value of SAR (interpolated) = 1.50 W/kg

Below 2 GHz-Rev.1/Ab Scan/1-Area Scan (6x12x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 1.48 W/kg

Below 2 GHz-Rev.1/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 37.772 V/m; Power Drift = -0.21 dB
 Peak SAR (extrapolated) = 1.98 W/kg
SAR(1 g) = 1.42 W/kg; SAR(10 g) = 1.01 W/kg (SAR corrected for target medium)
 Maximum value of SAR (measured) = 1.52 W/kg

Below 2 GHz-Rev.1/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
 Maximum value of SAR (measured) = 1.47 W/kg



APPENDIX E
DUT Scans - FCC Part 90 (450-512 MHz)

Assessments at the Body with body worn PMLN5956A

Table 17
Motorola Solutions, Inc. EME Laboratory
 Date/Time: 9/30/2013 3:03:25 PM

Robot#: DASY5-FL-2 | Run#: AvG-Ab-130930-04
 Model#: PMUE4402A
 Phantom#: OVAL1016
 Tissue Temp: 22.0 (C)
 Serial#: 682TPT0137
 Antenna: PMAE4092A
 Test Freq: 512.0000 (MHz)
 Battery: HKNN4013A
 Carry Acc: PMLN5956A
 Audio Acc: PMLN5957A
 Start Power: 2.30(W)

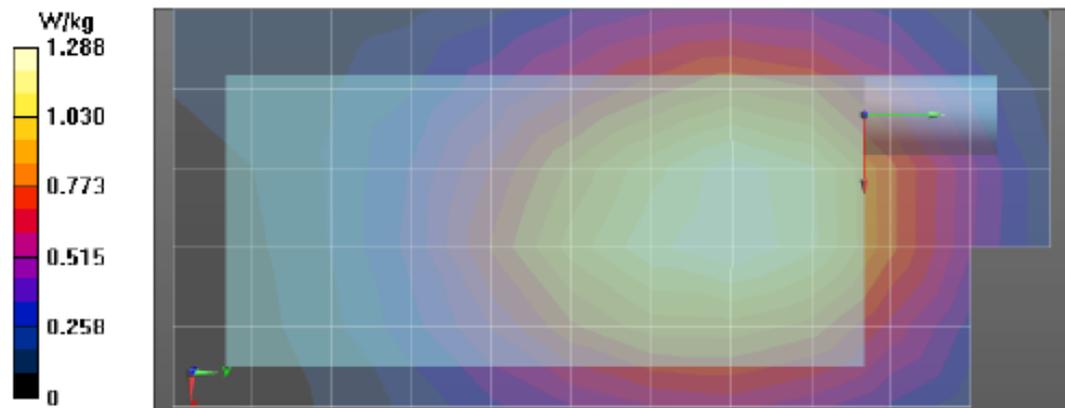
Comments:

Duty Cycle: 1:1.99986, Medium parameters used: $f = 512 \text{ MHz}$; $\sigma = 0.97 \text{ S/m}$; $\epsilon_r = 55.8$; $\rho = 1000 \text{ kg/m}^3$
 Probe: ES3DV3 - SN3291, , Frequency: 512 MHz, ConvF(7.35, 7.35, 7.35); Calibrated: 6/20/2013
 Electronics: DAE4 Sn850, Calibrated: 7/17/2013

Below 2 GHz-Rev.1/Ab Scan/1-Area Scan (51x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
 Reference Value = 32.343 V/m; Power Drift = -0.17 dB
 Fast SAR: SAR(1 g) = 1.26 W/kg; SAR(10 g) = 0.898 W/kg (SAR corrected for target medium)
 Maximum value of SAR (interpolated) = 1.33 W/kg

Below 2 GHz-Rev.1/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 32.343 V/m; Power Drift = -0.26 dB
 Peak SAR (extrapolated) = 1.68 W/kg
 SAR(1 g) = 1.22 W/kg; SAR(10 g) = 0.883 W/kg (SAR corrected for target medium)

Below 2 GHz-Rev.1/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
 Maximum value of SAR (measured) = 1.25 W/kg



Assessment at the Body with other audio accessories

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

Assessment of wireless BT configuration

Table 18

Motorola Solutions, Inc. EME Laboratory

Date/Time: 10/1/2013 12:13:20 PM

Robot#: DASY5-FL-2 | Run#: AvG-Ab-131001-03
 Model#: PMUE4402A
 Phantom#: OVAL1016
 Tissue Temp: 21.6 (C)
 Serial#: 682TPT0182
 Antenna: PMAE4092A
 Test Freq: 512.0000 (MHz)
 Battery: HKNN4013A
 Carry Acc: PMLN5956A
 Audio Acc: None
 Start Power: 2.29(W)

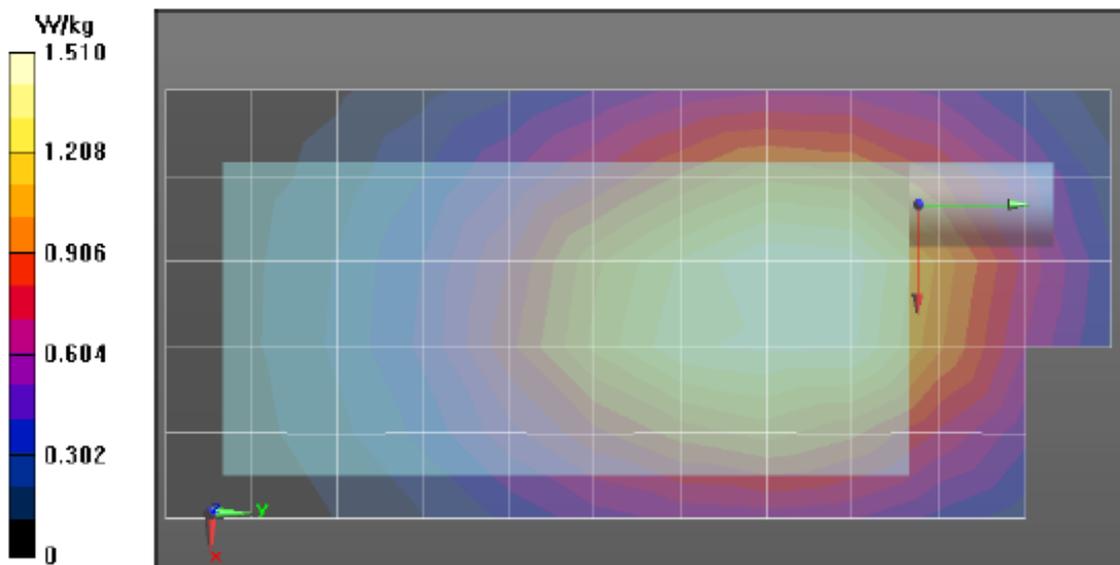
Comments:

Duty Cycle: 1:1.99986, Medium parameters used: $f = 512$ MHz; $\sigma = 0.95$ S/m; $\epsilon_r = 55.4$; $\rho = 1000$ kg/m³
 Probe: ES3DV3 - SN3291, , Frequency: 512 MHz, ConvF(7.35, 7.35, 7.35); Calibrated: 6/20/2013
 Electronics: DAE4 Sn850, Calibrated: 7/17/2013

Below 2 GHz-Rev.1/Ab Scan/1-Area Scan (51x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
 Reference Value = 36.811 V/m; Power Drift = -0.18 dB
 Fast SAR: SAR(1 g) = 1.49 W/kg; SAR(10 g) = 1.07 W/kg (SAR corrected for target medium)
 Maximum value of SAR (interpolated) = 1.58 W/kg

Below 2 GHz-Rev.1/Ab Scan/3-Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 36.811 V/m; Power Drift = -0.33 dB
 Peak SAR (extrapolated) = 2.09 W/kg
 SAR(1 g) = 1.45 W/kg; SAR(10 g) = 1.05 W/kg (SAR corrected for target medium)
 Maximum value of SAR (measured) = 1.53 W/kg

Below 2 GHz-Rev.1/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
 Maximum value of SAR (measured) = 1.50 W/kg



Assessments at the Face
Table 21
Motorola Solutions, Inc. EME Laboratory
 Date/Time: 10/2/2013 7:56:11 PM

Robot#: DASY5-FL-2 | Run#: AvG-Face-131002-02
 Model#: PMUE4402A
 Phantom#: OVAL1108
 Tissue Temp: 21.9 (C)
 Serial#: 682TPT0137
 Antenna: PMAE4092A
 Test Freq: 512.0000 (MHz)
 Battery: HKNN4013A
 Carry Acc: None
 Audio Acc: None
 Start Power: 2.33 (W)

Comments:

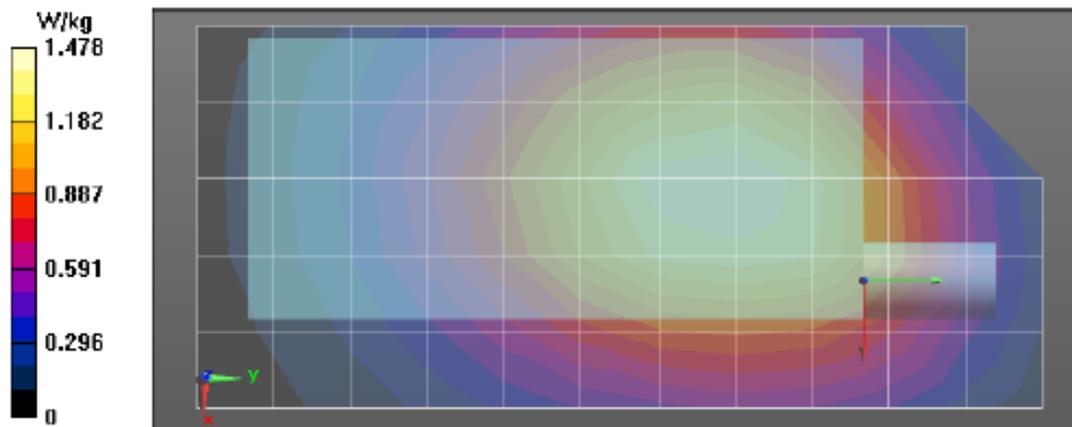
Duty Cycle: 1:1.99986, Medium parameters used: $f = 512$ MHz; $\sigma = 0.9$ S/m; $\epsilon_r = 41.3$; $\rho = 1000$ kg/m³
 Probe: ES3DV3 - SN3291, , Frequency: 512 MHz, ConvF(7.12, 7.12, 7.12); Calibrated: 6/20/2013
 Electronics: DAE4 Sn850, Calibrated: 7/17/2013

Below 2 GHz-Rev.1/Ab Scan/1-Area Scan (51x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
 Reference Value = 37.772 V/m; Power Drift = -0.12 dB
 Fast SAR: SAR(1 g) = 1.42 W/kg; SAR(10 g) = 1.03 W/kg (SAR corrected for target medium)
 Maximum value of SAR (interpolated) = 1.50 W/kg

Below 2 GHz-Rev.1/Ab Scan/1-Area Scan (6x12x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 1.48 W/kg

Below 2 GHz-Rev.1/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 37.772 V/m; Power Drift = -0.21 dB
 Peak SAR (extrapolated) = 1.98 W/kg
 SAR(1 g) = 1.42 W/kg; SAR(10 g) = 1.01 W/kg (SAR corrected for target medium)
 Maximum value of SAR (measured) = 1.52 W/kg

Below 2 GHz-Rev.1/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
 Maximum value of SAR (measured) = 1.47 W/kg



APPENDIX F
DUT Scans - Outside FCC Part 90 (512-527 MHz)

Assessments outside FCC Part 90 at the Body

Table 19

Motorola Solutions, Inc. EME Laboratory

Date/Time: 10/3/2013 10:13:53 AM

Robot#: DASY5-FL-2 | Run#: AvG-Ab-131003-03
 Model#: PMUE4402A
 Phantom#: OVAL1016
 Tissue Temp: 21.4 (C)
 Serial#: 682TPT0137
 Antenna: PMAE4092A
 Test Freq: 519.5000 (MHz)
 Battery: HKNN4013A
 Carry Acc: PMLN5956A
 Audio Acc: None
 Start Power: 2.30(W)

Comments:

Duty Cycle: 1:1.99986, Medium parameters used: $f = 519.5 \text{ MHz}$; $\sigma = 0.96 \text{ S/m}$; $\epsilon_r = 55$; $\rho = 1000 \text{ kg/m}^3$
 Probe: ES3DV3 - SN3291, , Frequency: 519.5 MHz, ConvF(7.35, 7.35, 7.35); Calibrated: 6/20/2013
 Electronics: DAE4 Sn850, Calibrated: 7/17/2013

Below 2 GHz-Rev.1/Ab Scan/1-Area Scan (51x11x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 30.831 V/m; Power Drift = -0.15 dB

Fast SAR: SAR(1 g) = 1.12 W/kg; SAR(10 g) = 0.802 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 1.18 W/kg

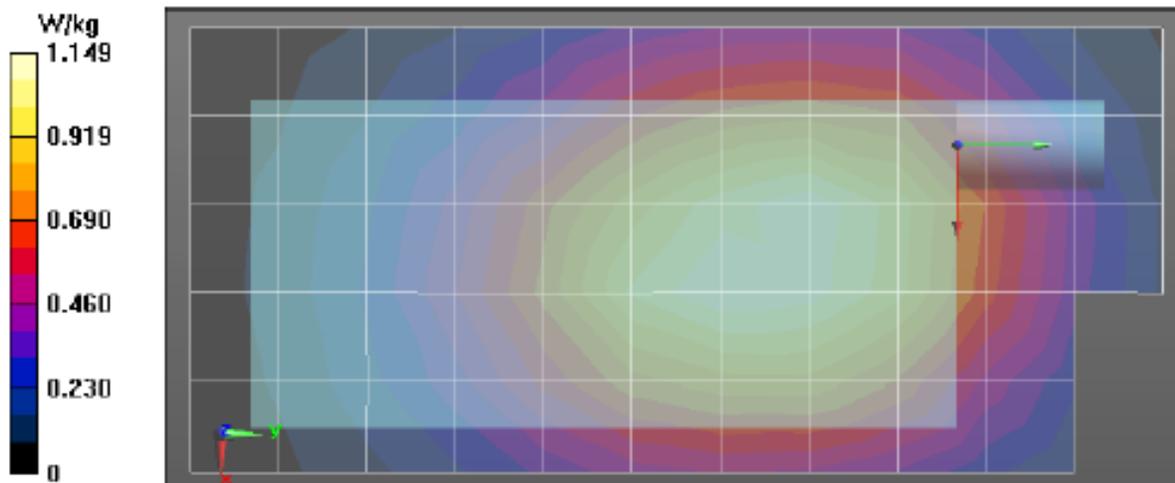
Below 2 GHz-Rev.1/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 30.831 V/m; Power Drift = -0.23 dB

Peak SAR (extrapolated) = 1.53 W/kg

SAR(1 g) = 1.09 W/kg; SAR(10 g) = 0.791 W/kg (SAR corrected for target medium)

Below 2 GHz-Rev.1/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm



Assessments outside FCC Part 90 at the Face
Table 22
Motorola Solutions, Inc. EME Laboratory
 Date/Time: 10/3/2013 11:24:45 AM

Robot#: DASY5-FL-2 | Run#: AvG-Face-131003-05
 Model#: PMUE4402A
 Phantom#: OVAL1108
 Tissue Temp: 22.1(C)
 Serial#: 682TPT0137
 Antenna: PMAE4092A
 Test Freq: 519.5000 (MHz)
 Battery: HKNN4013A
 Carry Acc: None
 Audio Acc: None
 Start Power: 2.33 (W)

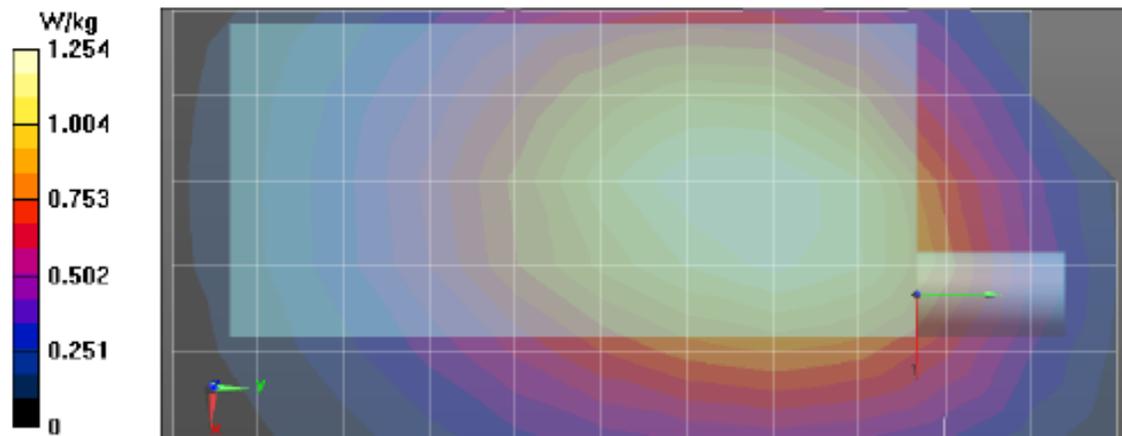
Comments:

Duty Cycle: 1:1.99986, Medium parameters used: $f = 519.5$ MHz; $\sigma = 0.91$ S/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³
 Probe: ES3DV3 - SN3291, , Frequency: 519.5 MHz, ConvF(7.12, 7.12, 7.12); Calibrated: 6/20/2013
 Electronics: DAE4 Sn850, Calibrated: 7/17/2013

Below 2 GHz-Rev.1/Ab Scan/1-Area Scan (51x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
 Reference Value = 35.111 V/m; Power Drift = -0.18 dB
Fast SAR: SAR(1 g) = 1.22 W/kg; SAR(10 g) = 0.876 W/kg (SAR corrected for target medium)
 Maximum value of SAR (interpolated) = 1.29 W/kg

Below 2 GHz-Rev.1/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 35.111 V/m; Power Drift = -0.31 dB
Peak SAR (extrapolated) = 1.62 W/kg
SAR(1 g) = 1.17 W/kg; SAR(10 g) = 0.844 W/kg (SAR corrected for target medium)

Below 2 GHz-Rev.1/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
 Maximum value of SAR (measured) = 1.21 W/kg



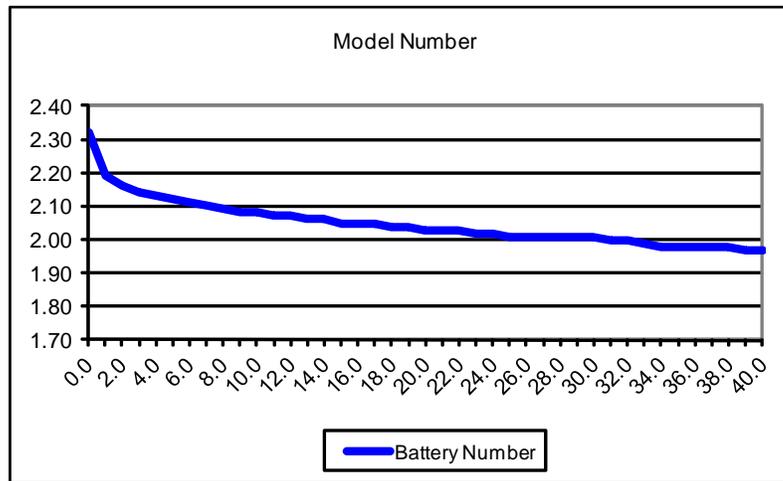
APPENDIX G DUT Supplementary Data (Power slump)

Model # PMUE4402A
Serial # 682TPT0182

Battery #	HKNN4013A	Transmit Mode	TDMA
Frequency	MHz 512	Audio Accessory	NONE
Date	10/7/2013		

TX TIME **Measured Power**
(minutes) **Watts**

TX TIME (minutes)	Measured Power (Watts)
0.0	2.32
1.0	2.19
2.0	2.16
3.0	2.14
4.0	2.13
5.0	2.12
6.0	2.11
7.0	2.10
8.0	2.09
9.0	2.08
10.0	2.08
11.0	2.07
12.0	2.07
13.0	2.06
14.0	2.06
15.0	2.05
16.0	2.05
17.0	2.05
18.0	2.04
19.0	2.04
20.0	2.03
21.0	2.03
22.0	2.03
23.0	2.02
24.0	2.02
25.0	2.01
26.0	2.01
27.0	2.01
28.0	2.01
29.0	2.01
30.0	2.01
31.0	2.00
32.0	2.00
33.0	1.99
34.0	1.98
35.0	1.98
36.0	1.98
37.0	1.98
38.0	1.98
39.0	1.97
40.0	1.97



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