

**MOTOROLA SOLUTIONS**

TESTING CERT # 2518.01

DECLARATION OF COMPLIANCE SAR ASSESSMENT Part 2 of 2

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

Date of Report: 04/22/2015
Report Revision: E

Responsible Engineer: Deanna Zakharia (Global EME lab Director)
Report Author: Veeramani Veerapan (Sr.EME Engineer) / William Elliott (Staff EME Engineer)/Jessica Zada (EME Engineer)
Date/s Tested: 02/18/2015 – 02/19/2015, 04/03/2015, 04/08/2015
Manufacturer/Location: Hi-P Electronics Pte.Ltd, China
Sector/Group/Div.: Others
Date submitted for test: 02/12/2015
DUT Description: Handheld Portable , DLR1060 (HKUF4007A), 1watt, 900 MHz, 6CH (BRUS/BRCAN)
Test TX mode(s): CW (PTT)
Max. Power output: 1.0 W
Nominal Power: 1.0 W
Tx Frequency Bands: 902-928 MHz
Signaling type: FSK
Model(s) Tested: DLR1060 (HKUF4007A)
Model(s) Certified: DLR1060 (HKUF4007A)
Serial Number(s): 550PRA0335 and 550PRA1033
Classification: General Population/Uncontrolled
FCC ID: AZ489FT5870; (902-928 MHz)
IC : 109U-89FT5870

The test results clearly demonstrate compliance with FCC General Population/Uncontrolled RF Exposure limits of 1.6 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 2 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 4.0 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: 4/22/2015

Certification Date: 4/14/2015**Certification No.:** L1150419

Appendix D

System Verification Check Scans

Motorola Solutions, Inc. EME Laboratory
Date/Time: 2/18/2015 6:10:58 AM

Robot#: DASY5-FL-1 | Run#: ErC-SYSP-900B-150218-01
Dipole Model#: D900V2
Phantom#: OVAL1109
Tissue Temp: 20.5 (C)
Serial#: 085
Test Freq: 900 (MHz)
Start Power: 250 (mW)
Rotation (1D): 0.018 dB
Adjusted SAR (1W): 11.08 mW/g (1g)

Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 900 \text{ MHz}$; $\sigma = 1.06 \text{ S/m}$; $\epsilon_r = 53.1$; $\rho = 1000 \text{ kg/m}^3$
Probe: ES3DV3 - SN3301, Frequency: 900 MHz, ConvF(6, 6, 6); Calibrated: 9/24/2014
Electronics: DAE3 Sn401, Calibrated: 3/11/2014

Below 2 GHz-Rev.1/System Performance Check/Dipole Area Scan 2 (41x81x1):

Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$
Reference Value = 57.74 V/m; Power Drift = 0.01 dB
Fast SAR: SAR(1 g) = 2.82 W/kg; SAR(10 g) = 1.84 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 3.32 W/kg

Below 2 GHz-Rev.1/System Performance Check/Dipole Area Scan 2 (5x9x1): Measurement

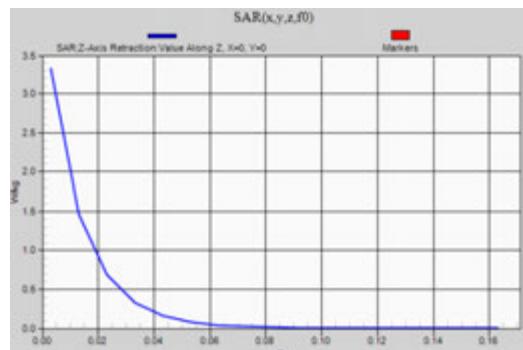
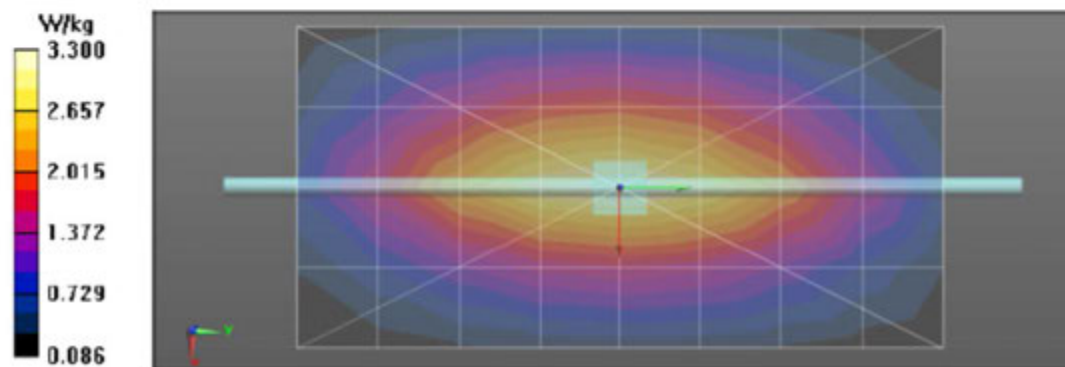
grid: $dx=15\text{mm}$, $dy=15\text{mm}$
Maximum value of SAR (measured) = 3.30 W/kg

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

Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$
Reference Value = 57.74 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 4.23 W/kg
SAR(1 g) = 2.77 W/kg; SAR(10 g) = 1.78 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 3.32 W/kg

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

grid: $dx=20\text{mm}$, $dy=20\text{mm}$, $dz=10\text{mm}$
Maximum value of SAR (measured) = 3.33 W/kg



Motorola Solutions, Inc. EME Laboratory

Date/Time: 2/18/2015 8:44:17 AM

Robot#: DASY5-FL-1 | Run#: ErC-SYSP-900H-150218-02
 Dipole Model# D900V2
 Phantom#: OVAL1011
 Tissue Temp: 19.9 (C)
 Serial#: 085
 Test Freq: 900 (MHz)
 Start Power: 250 (mW)
 Rotation (1D): 0.015 dB
 Adjusted SAR (1W): 9.76 mW/g (1g)

Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 900$ MHz; $\sigma = 0.99$ S/m; $\epsilon_r = 40.5$; $\rho = 1000$ kg/m³

Probe: ES3DV3 - SN3301, , Frequency: 900 MHz, ConvF(6.23, 6.23, 6.23); Calibrated: 9/24/2014

Electronics: DAE3 Sn401, Calibrated: 3/11/2014

Below 2 GHz-Rev.1/System Performance Check/Dipole Area Scan 2 (5x9x1): Measurement
 grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 2.94 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

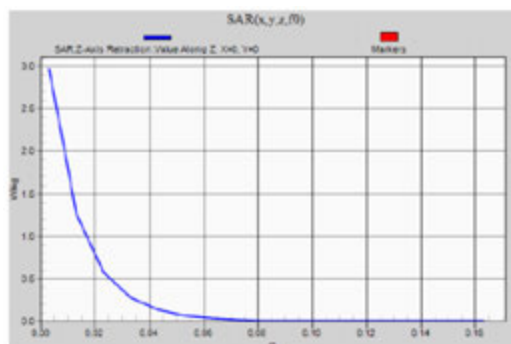
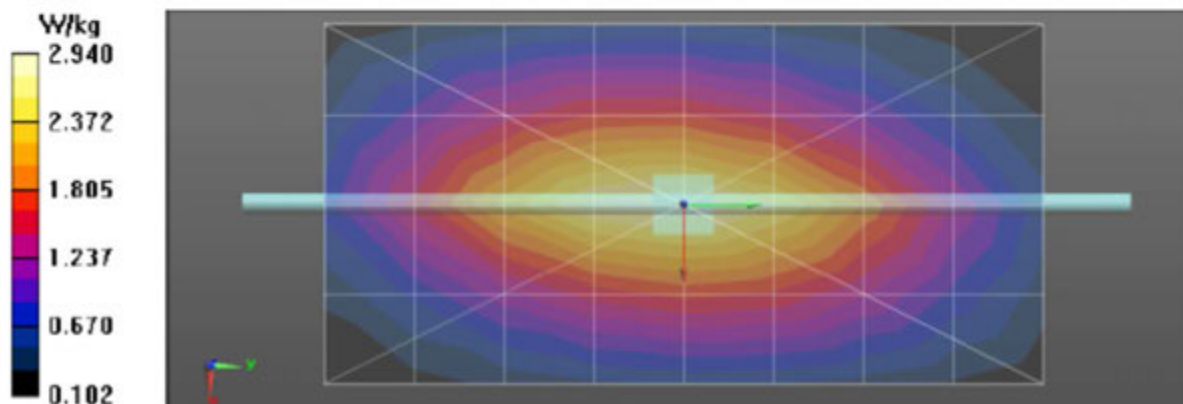
Reference Value = 56.40 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 3.80 W/kg

SAR(1 g) = 2.44 W/kg; SAR(10 g) = 1.56 W/kg (SAR corrected for target medium)

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) = 2.97 W/kg



Motorola Solutions, Inc. EME Laboratory

Date/Time: 2/19/2015 5:20:16 AM

Robot#: DASY5-FL-1 | Run#: ErC-SYSP-900B-150219-01
Dipole Model# D900V2
Phantom#: OVAL1109
Tissue Temp: 20.5 (C)
Serial#: 085
Test Freq: 900 (MHz)
Start Power: 250 (mW)
Rotation (1D): 0.021 dB
Adjusted SAR (1W): 11.04 mW/g (1g)

Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 900$ MHz; $\sigma = 1.06$ S/m; $\epsilon_r = 53$; $\rho = 1000$ kg/m³

Probe: ES3DV3 - SN3301, , Frequency: 900 MHz, ConvF(6, 6, 6); Calibrated: 9/24/2014

Electronics: DAE3 Sn401, Calibrated: 3/11/2014

Below 2 GHz-Rev.1/System Performance Check/Dipole Area Scan 2 (5x9x1): Measurement

grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 3.28 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 = 57.91 V/m; Power Drift = -0.02 dB

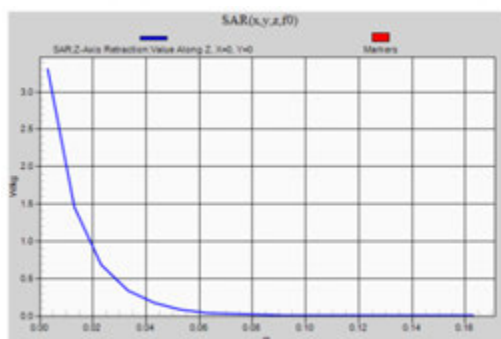
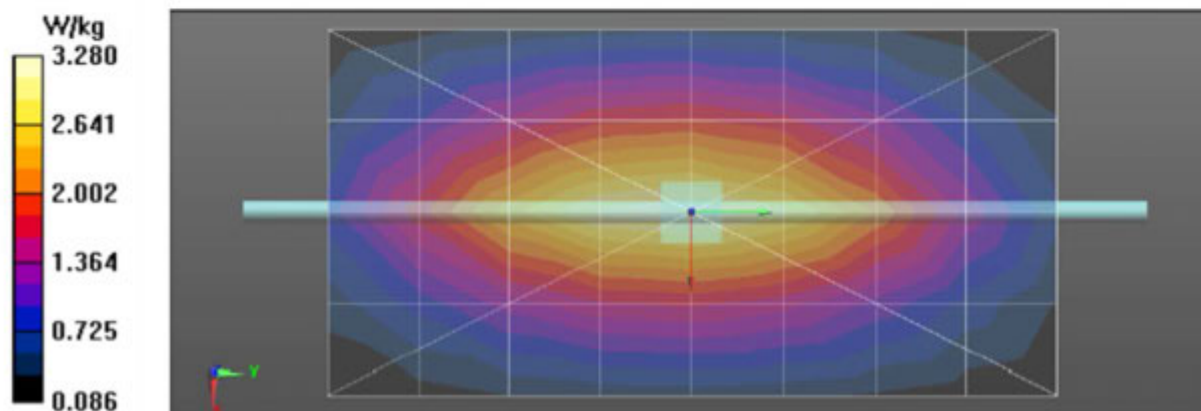
Peak SAR (extrapolated) = 4.23 W/kg

SAR(1 g) = 2.76 W/kg; SAR(10 g) = 1.77 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 3.31 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: 4/3/2015 8:39:16 AM

Robot#: DASY5-FL-3 | Run# HvH-SYSP-900B-150403-01
Dipole Model# D900V2
Phantom# OVAL1090
Tissue Temp 20.6 (C)
Serial#: 085
Test Freq 900 (MHz)
Start Power 250 (mW)
Rotation (1D) 0.037 dB
Adjusted SAR (1W) 10.64 mW/g (1g)

Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 900$ MHz; $\sigma = 1.04$ S/m; $\epsilon_r = 53.3$; $\rho = 1000$ kg/m³
Probe: ES3DV3 - SN3291, . Frequency: 900 MHz, ConvF(6.19, 6.19, 6.19); Calibrated: 7/21/2014
Electronics: DAE4 Sn850, Calibrated: 7/23/2014

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

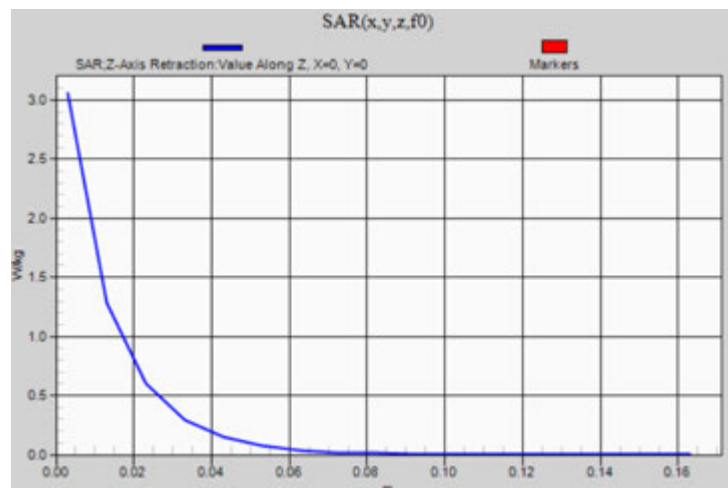
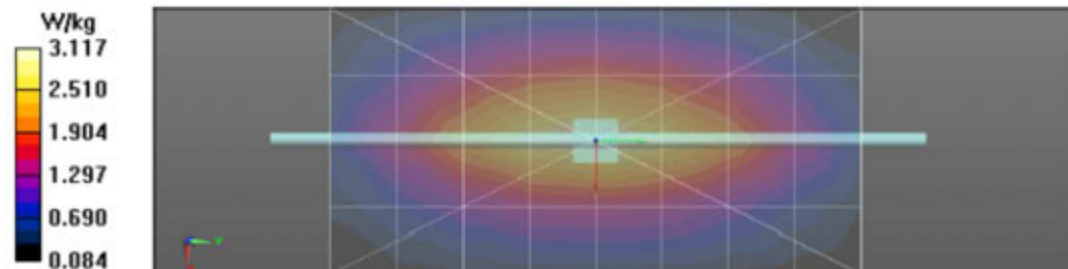
Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 56.33 V/m; Power Drift = 0.01 dB
Fast SAR: SAR(1 g) = 2.7 W/kg; SAR(10 g) = 1.75 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 3.14 W/kg

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

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 56.33 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 4.07 W/kg
SAR(1 g) = 2.66 W/kg; SAR(10 g) = 1.7 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 3.14 W/kg

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

grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 3.06 W/kg



Motorola Solutions, Inc. EME Laboratory

Date/Time: 4/8/2015 8:39:23 AM

Robot#: DASY5-FL-3 | Run# HvH-SYSP-900B-150408-01
 Dipole Model# D900V2
 Phantom# OVAL1090
 Tissue Temp 21.6 (C)
 Serial#: 085
 Test Freq 900 (MHz)
 Start Power 250 (mW)
 Rotation (1D) 0.030 dB
 Adjusted SAR (1W) 10.96 mW/g (1g)

Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 900$ MHz; $\sigma = 1.08$ S/m; $\epsilon_r = 53.3$; $\rho = 1000$ kg/m³
 Probe: ES3DV3 - SN3291, Frequency: 900 MHz, ConvF(6.19, 6.19, 6.19); Calibrated: 7/21/2014
 Electronics: DAE4 Sn850, Calibrated: 7/23/2014

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

Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 56.92 V/m; Power Drift = -0.01 dB

Fast SAR: SAR(1 g) = 2.79 W/kg; SAR(10 g) = 1.83 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 3.33 W/kg

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

Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 56.92 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 4.24 W/kg

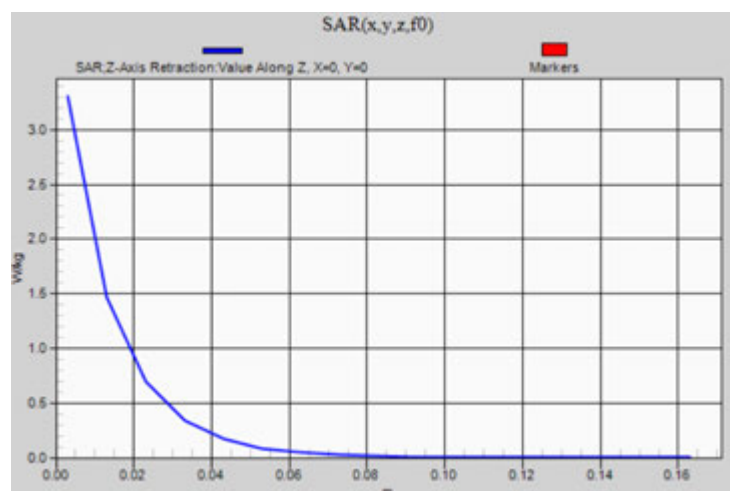
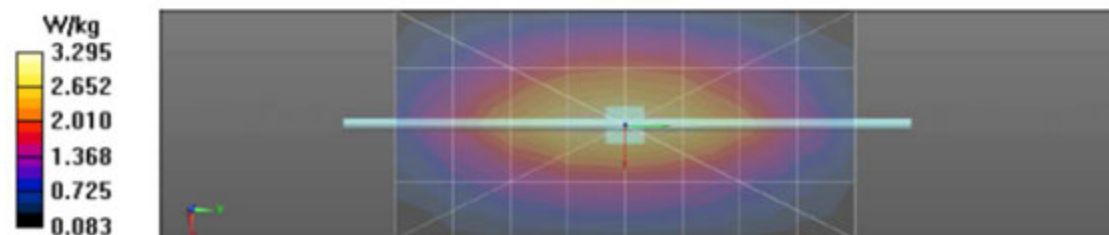
SAR(1 g) = 2.74 W/kg; SAR(10 g) = 1.77 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 3.31 W/kg

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

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

Maximum value of SAR (measured) = 3.306 W/kg



Appendix E

DUT Scans

Assessments at the Body with Body-worn HKLN4616A

Table 17

Motorola Solutions, Inc. EME Laboratory

Date/Time: 2/18/2015 11:45:52 AM

Robot#: DASY5-FL-1 | Run#: ErC-Ab-150218-06
 Model#: HKUF4007A
 Phantom#: OVAL1109
 Tissue Temp: 20.5 (C)
 Serial#: 550PRA0335
 Antenna: Fixed
 Test Freq: 915.525 (MHz)
 Battery: HKNN4013A
 Carry Acc: HKLN4616A
 Audio Acc: HKLN4604A
 Start Power: 0.995 (W)

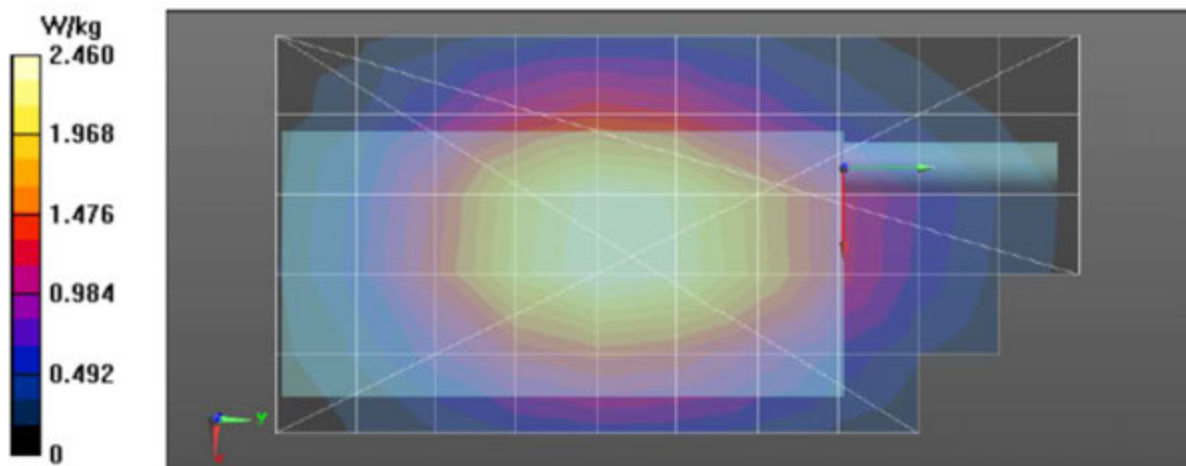
Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 916$ MHz; $\sigma = 1.08$ S/m; $\epsilon_r = 53$; $\rho = 1000$ kg/m³
 Probe: ES3DV3 - SN3301, , Frequency: 915.525 MHz, ConvF(6, 6, 6); Calibrated: 9/24/2014
 Electronics: DAE3 Sn401, Calibrated: 3/11/2014

Below 2 GHz-Rev.1/Ab Scan/1-Area Scan (6x11x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 2.46 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 = 47.80 V/m; Power Drift = -1.07 dB
 Peak SAR (extrapolated) = 2.88 W/kg
 SAR(1 g) = 2.12 W/kg; SAR(10 g) = 1.47 W/kg (SAR corrected for target medium)
 Maximum value of SAR (measured) = 2.41 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) = 2.31 W/kg



Assessments at the Face

Table 19

Motorola Solutions, Inc. EME Laboratory

Date/Time: 2/18/2015 10:32:48 AM

Robot#: DASY5-FL-1 | Run#: ErC-Face-150218-04
 Model#: HKUF4007A
 Phantom#: OVAL1011
 Tissue Temp: 19.9 (C)
 Serial#: 550PRA1033
 Antenna: Fixed
 Test Freq: 915.525 (MHz)
 Battery: HKNN4013A
 Carry Acc: Unit front at 2.5cm
 Audio Acc: NA
 Start Power: 0.995 (W)

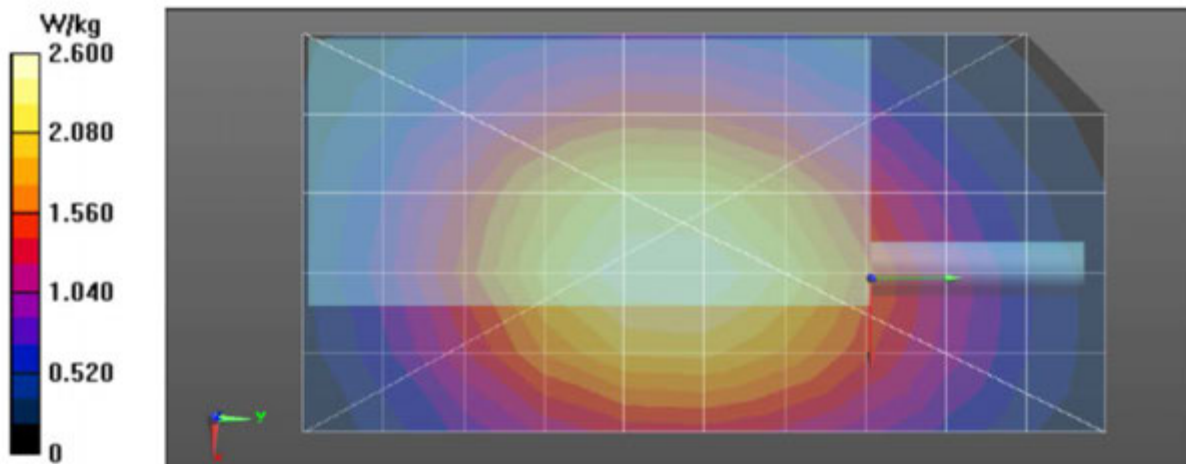
Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 916$ MHz; $\sigma = 1$ S/m; $\epsilon_r = 40.4$; $\rho = 1000$ kg/m³ Probe: ES3DV3 - SN3301, , Frequency: 915.525 MHz, ConvF(6.23, 6.23, 6.23); Calibrated: 9/24/2014
 Electronics: DAE3 Sn401, Calibrated: 3/11/2014

Below 2 GHz-Rev.2/Face Scan/1-Area Scan (6x11x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 2.60 W/kg

Below 2 GHz-Rev.2/Face Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 53.59 V/m; Power Drift = -0.39 dB
 Peak SAR (extrapolated) = 3.08 W/kg
 SAR(1 g) = 2.26 W/kg; SAR(10 g) = 1.6 W/kg (SAR corrected for target medium)
 Maximum value of SAR (measured) = 2.56 W/kg

Below 2 GHz-Rev.2/Face Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
 Maximum value of SAR (measured) = 2.53 W/kg



Appendix F

Shortened Scan of Highest SAR configuration

Shortened Scan Table 20

Motorola Solutions, Inc. EME Laboratory Date/Time: 2/19/2015 10:46:41 AM

Robot#: DASY5-FL-1 | Run#: ErC-Ab-150219-03
 Model#: HKUF4007A
 Phantom#: OVAL1109
 Tissue Temp: 20.5 (C)
 Serial#: 550PRA0335
 Antenna: Fixed
 Test Freq: 915.525 (MHz)
 Battery: HKNN4013A
 Carry Acc: HKLN4616A
 Audio Acc: HKLN4604A
 Start Power: 0.995 (W)

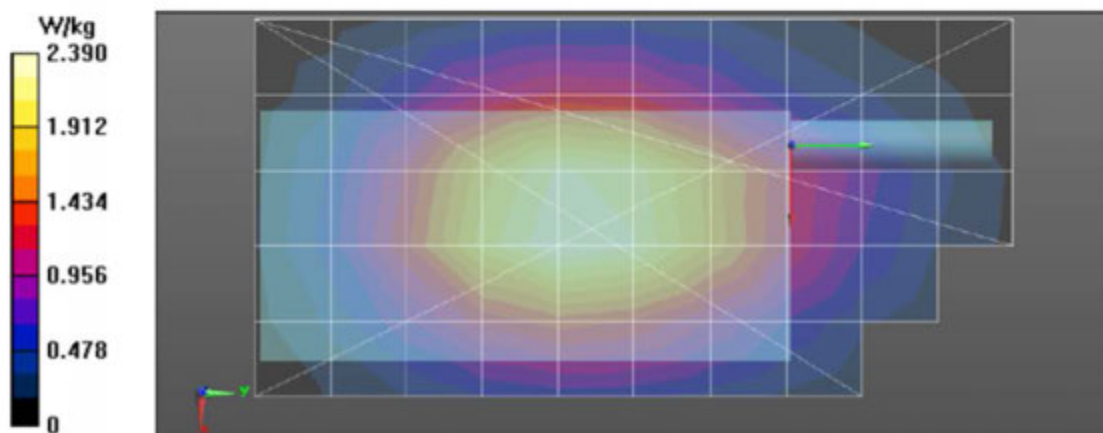
Comments: Short Scan

Duty Cycle: 1:1, Medium parameters used: $f = 916$ MHz; $\sigma = 1.08$ S/m; $\epsilon_r = 52.8$; $\rho = 1000$ kg/m³
 Probe: ES3DV3 - SN3301, Frequency: 915.525 MHz, ConvF(6, 6, 6); Calibrated: 9/24/2014
 Electronics: DAE3 Sn401, Calibrated: 3/11/2014

Below 2 GHz-Rev.1/Ab Scan/1-Area Scan (6x11x1): Measurement grid: dx=15mm, dy=15mm
 Maximum value of SAR (measured) = 2.39 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 = 33.53 V/m; Power Drift = -0.72 dB
 Peak SAR (extrapolated) = 3.45 W/kg
 SAR(1 g) = 2.53 W/kg; SAR(10 g) = 1.76 W/kg (SAR corrected for target medium)
 Maximum value of SAR (measured) = 2.88 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) = 2.73 W/kg



Shortened scan reflects highest SAR producing configuration and is compared to the full scan.

Scan Description	Referenced Table	Test Time (min.)	SAR 1g (W/kg)	SAR 10g (W/kg)
Shorten scan (zoom)	20	7	1.50	1.04
Full scan (area & zoom)	19	14	1.36	0.95

Appendix G

DUT Test Position Photos

Photos available in Exhibit 7B

Appendix H

DUT, Body worn and audio accessories Photos

Photos available in Exhibit 7B