

**MOTOROLA SOLUTIONS**

MS ISO/IEC 17025
TESTING
SAMM No.0826

DECLARATION OF COMPLIANCE SAR ASSESSMENT Part 2 of 2

Motorola Solutions Inc.
EME Test Laboratory

Motorola Solutions Malaysia Sdn Bhd (Innoplex)
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Date of Report: 05/02/2018
Report Revision: A

Responsible Engineer: Saw Sun Hock (EME Engineer)
Report Author: Saw Sun Hock (EME Engineer)
Date/s Tested: 3/22/2018-3/26/2018, 4/16/2018, 4/27/2018, 4/30/2018
Manufacturer: Hi-P Electronics Pte.Ltd., China
DUT Description: Handheld Portable – DLR1060, 1Watt 900MHz, 6CH BULK (BRUS/ BRCAN)
Test TX mode(s): CW (PTT)
Max. Power output: 1.0W
Nominal Power: 1.0W
Tx Frequency Bands: 902-928MHz
Signaling type: FSK
Model(s) Tested: DLR1060BHLAB (HKUF4007B)
Model(s) Certified: DLR1020BHLAA /DLR1020B1; DLR1020BHLAB /DLR1020B2 ;
 DLR1060BHLAA & DLR1060BHWAA / DLR1060B1;
 DLR1060BHLAB / DLR1060B2
Serial Number(s): 550PUE3873
Classification: General Population/Uncontrolled
FCC ID: AZ489FT5871; 902-928MHz
 This report contains results that are immaterial for FCC equipment approval, which are clearly identified.

IC: 109U-89FT5871; 902-928MHz
 This report contains results that are immaterial for IC equipment approval, which are identified.

ISED Test Site registration: 109AK
FCC Test Firm Registration Number: 823256

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 FCC 47 CFR § 2.1093 and ISSED RSS-102 (Issue 5).

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.

Tiong Nguk Ing
Deputy Technical Manager (Approved Signatory)
Approval Date: 6/7/2018

Appendix D

System Verification Check Scans

Motorola Solutions, Inc. EME Laboratory

Date/Time: 3/22/2018 2:42:41 PM

Robot#: DASY5-PG-3 | Run#: ZR(ZZ)-SYSP-900B-180322-01
 Dipole Model#: D900V2
 Phantom#: ELI4 1028
 Tissue Temp: 22.1 (C)
 Serial#: 1d026
 Test Freq: 900.0000 (MHz)
 Start Power: 250 (mW)
 Rotation (1D): 0.082 dB
 Adjusted SAR (1W): 11.00 mW/g (1g)

Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 900$ MHz; $\sigma = 1.07$ S/m; $\epsilon_r = 52.5$; $\rho = 1000$ kg/m³
 Probe: EX3DV4 - SN3612, , Frequency: 900 MHz, ConvF(8.38, 8.38, 8.38); Calibrated: 5/17/2017
 Electronics: DAE4 Sn1294, Calibrated: 5/23/2017

Below 2 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x121x1):

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

Reference Value = 58.55 V/m; Power Drift = -0.04 dB

Fast SAR: SAR(1 g) = 2.81 W/kg; SAR(10 g) = 1.8 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 3.52 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 = 58.55 V/m; Power Drift = -0.04 dB

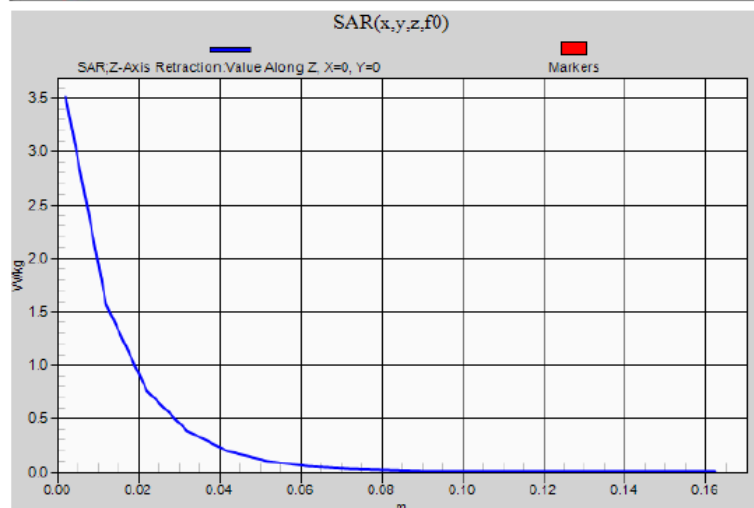
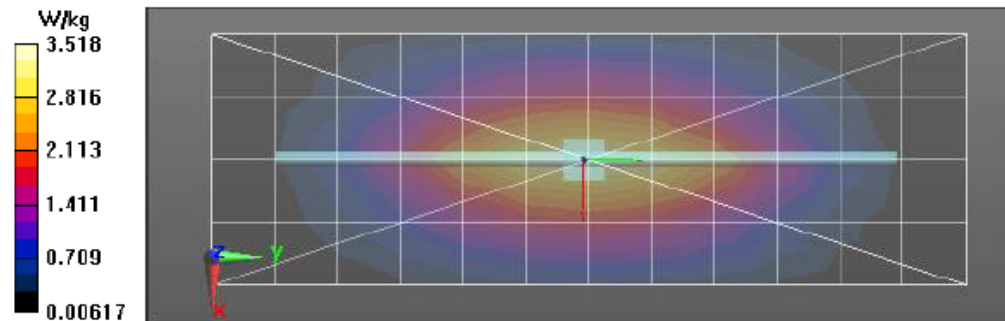
Peak SAR (extrapolated) = 4.16 W/kg

SAR(1 g) = 2.75 W/kg; SAR(10 g) = 1.77 W/kg (SAR corrected for target medium)

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) = 3.51 W/kg



Motorola Solutions, Inc. EME Laboratory

Date/Time: 3/23/2018 3:03:00 PM

Robot#: DASY5-PG-3 | Run#: ZR(ZZ)-SYSP-900B-180323-05
 Dipole Model#: D900V2
 Phantom#: ELI4 1028
 Tissue Temp: 20.5 (C)
 Serial#: 1d026
 Test Freq: 900.0000 (MHz)
 Start Power: 250 (mW)
 Rotation (1D): 0.083 dB
 Adjusted SAR (1W): 10.96 mW/g (1g)

Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 900$ MHz; $\sigma = 1.07$ S/m; $\epsilon_r = 52.6$; $\rho = 1000$ kg/m³
 Probe: EX3DV4 - SN3612, , Frequency: 900 MHz, ConvF(8.38, 8.38, 8.38); Calibrated: 5/17/2017
 Electronics: DAE4 Sn1294, Calibrated: 5/23/2017

Below 2 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x121x1):

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

Reference Value = 58.44 V/m; Power Drift = -0.02 dB

Fast SAR: SAR(1 g) = 2.79 W/kg; SAR(10 g) = 1.79 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 3.50 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 = 58.44 V/m; Power Drift = -0.02 dB

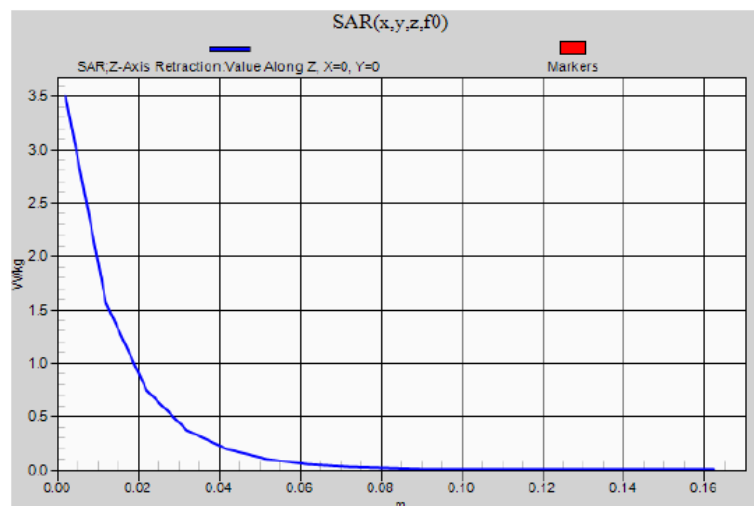
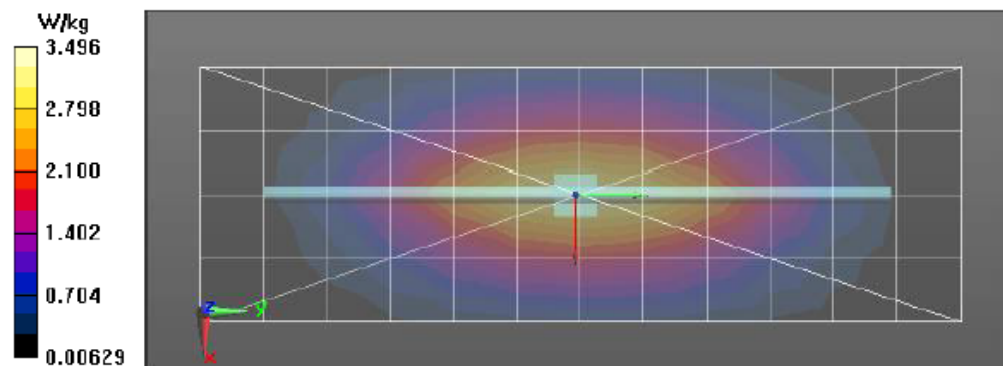
Peak SAR (extrapolated) = 4.14 W/kg

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

Maximum value of SAR (measured) = 3.51 W/kg

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

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



Motorola Solutions, Inc. EME Laboratory

Date/Time: 3/26/2018 9:24:35 AM

Robot#: DASY5-PG-3 | Run#: FD-SYSP-900B-180326-01
 Dipole Model#: D900V2
 Phantom#: ELI4 1028
 Tissue Temp: 21.1 (C)
 Serial#: 1d026
 Test Freq: 900.0000 (MHz)
 Start Power: 250 (mW)
 Rotation (1D): 0.130 dB
 Adjusted SAR (1W): 10.76 mW/g (1g)

Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 900$ MHz; $\sigma = 1.08$ S/m; $\epsilon_r = 52.8$; $\rho = 1000$ kg/m³
 Probe: EX3DV4 - SN3612, , Frequency: 900 MHz, ConvF(8.38, 8.38, 8.38); Calibrated: 5/17/2017
 Electronics: DAE4 Sn1294, Calibrated: 5/23/2017

Below 2 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x121x1):

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

Reference Value = 57.79 V/m; Power Drift = -0.04 dB

Fast SAR: SAR(1 g) = 2.75 W/kg; SAR(10 g) = 1.76 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 3.44 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 = 57.79 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 4.07 W/kg

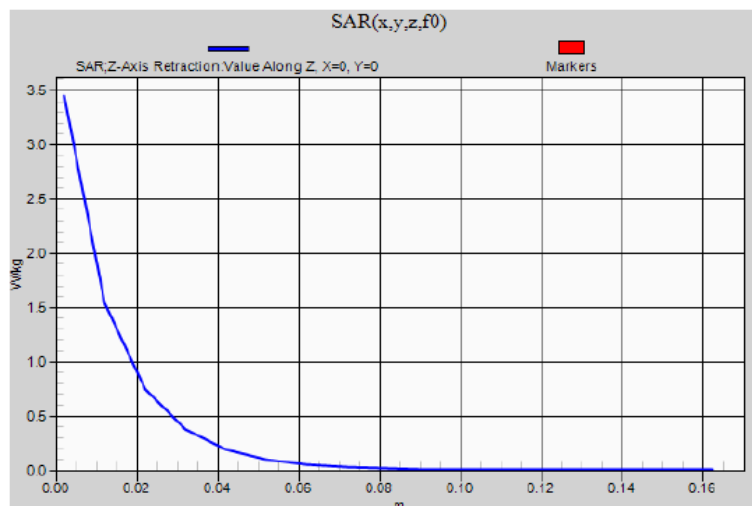
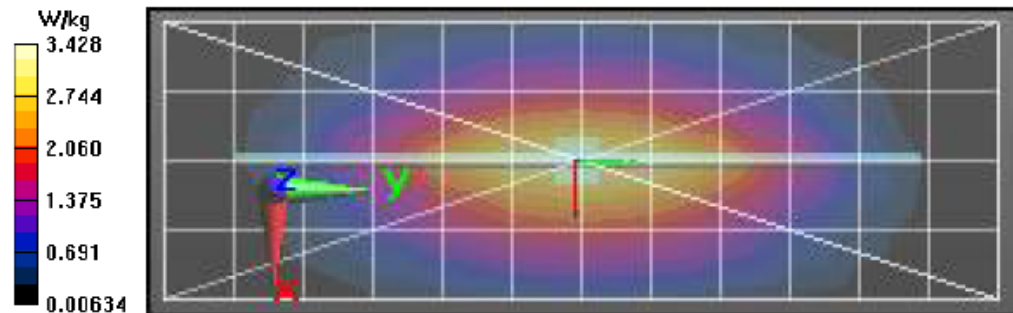
SAR(1 g) = 2.69 W/kg; SAR(10 g) = 1.74 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 3.44 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) = 3.45 W/kg



Motorola Solutions, Inc. EME Laboratory
Date/Time: 4/27/2018 9:45:35 AM

Robot#: DASY5-PG-3 | Run#: FD-SYSP-900B-180427-05
Dipole Model#: D900V2
Phantom#: ELI4 1028
Tissue Temp: 20.4 (C)
Serial#: 1d026
Test Freq: 900.0000 (MHz)
Start Power: 250 (mW)
Rotation (1D): 0.085 dB
Adjusted SAR (1W): 11.36 mW/g (1g)

Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 900 \text{ MHz}$; $\sigma = 1.07 \text{ S/m}$; $\epsilon_r = 52.5$; $\rho = 1000 \text{ kg/m}^3$
Probe: EX3DV4 - SN3612, , Frequency: 900 MHz, ConvF(8.38, 8.38, 8.38); Calibrated: 5/17/2017
Electronics: DAE4 Sn1294, Calibrated: 5/23/2017

Below 2 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x121x1):

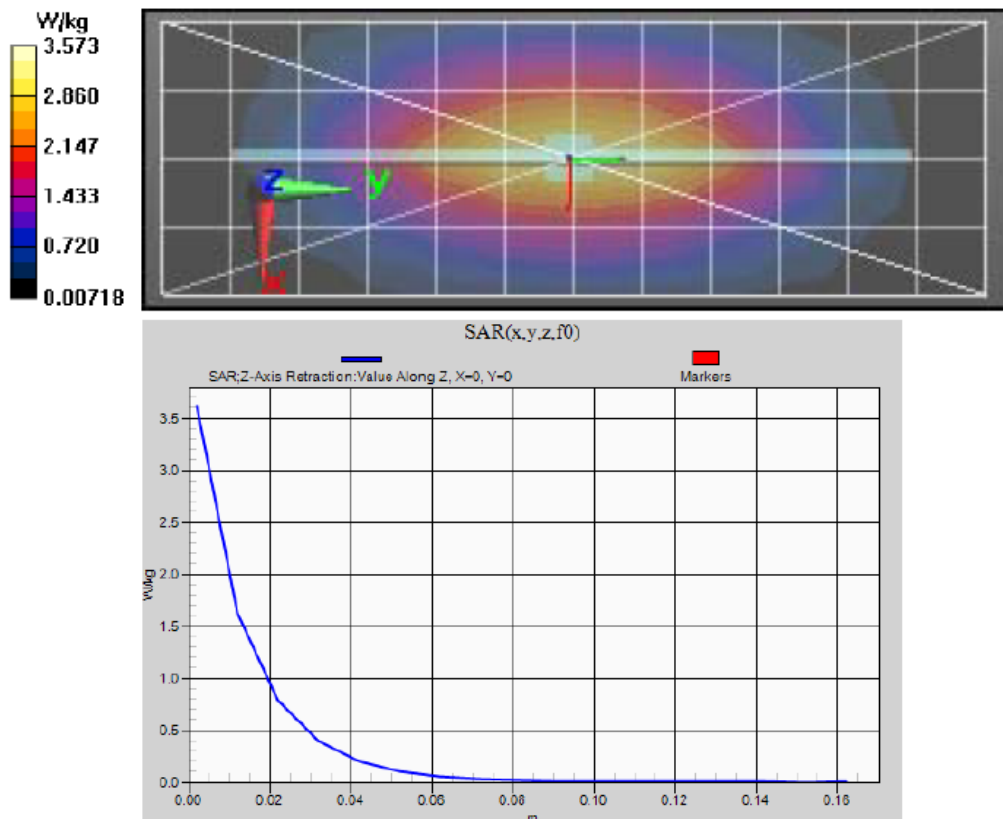
Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$
Reference Value = 59.54 V/m; Power Drift = -0.04 dB
Fast SAR: SAR(1 g) = 2.87 W/kg; SAR(10 g) = 1.85 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 3.59 W/kg

Below 2 GHz-Rev.2/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 = 59.54 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 4.26 W/kg
SAR(1 g) = 2.84 W/kg; SAR(10 g) = 1.83 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 3.62 W/kg

Below 2 GHz-Rev.2/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) = 3.61 W/kg



Motorola Solutions, Inc. EME Laboratory

Date/Time: 3/25/2018 5:56:09 PM

Robot#: DASY5-PG-3 | Run#: FD-SYSP-900H-180325-05

Dipole Model#: D900V2

Phantom#: ELI4 1037

Tissue Temp: 21.1 (C)

Serial#: 1d026

Test Freq: 900.0000 (MHz)

Start Power: 250 (mW)

Rotation (1D): 0.120 dB

Adjusted SAR (1W): 10.48 mW/g (1g)

Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 900$ MHz; $\sigma = 1.01$ S/m; $\epsilon_r = 41.2$; $\rho = 1000$ kg/m³

Probe: EX3DV4 - SN3612, Frequency: 900 MHz, ConvF(8.27, 8.27, 8.27); Calibrated: 5/17/2017

Electronics: DAE4 Sn1294, Calibrated: 5/23/2017

Below 2 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x121x1):

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

Reference Value = 59.94 V/m; Power Drift = -0.07 dB

Fast SAR: SAR(1 g) = 2.68 W/kg; SAR(10 g) = 1.75 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 3.46 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 = 59.94 V/m; Power Drift = -0.07 dB

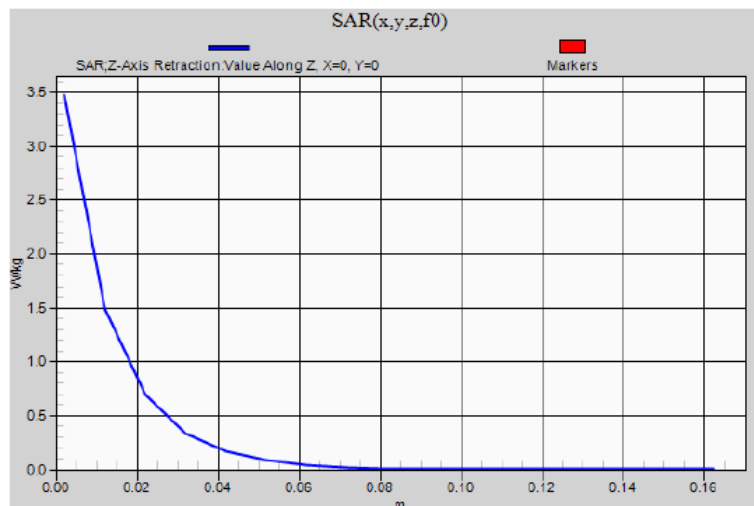
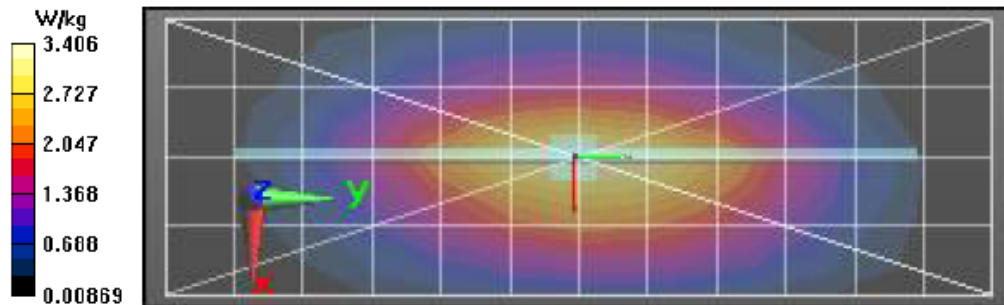
Peak SAR (extrapolated) = 4.14 W/kg

SAR(1 g) = 2.62 W/kg; SAR(10 g) = 1.68 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 3.47 W/kg

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

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



Motorola Solutions, Inc. EME Laboratory

Date/Time: 4/30/2018 9:54:47 AM

Robot#: DASY5-PG-3 | Run#: FD-SYSP-900H-180430-01
 Dipole Model# D900V2
 Phantom#: ELI4 1037
 Tissue Temp: 21.5 (C)
 Serial#: 1d026
 Test Freq: 900.0000 (MHz)
 Start Power: 250 (mW)
 Rotation (1D): 0.100 dB
 Adjusted SAR (1W): 10.96 mW/g (1g)

Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 900$ MHz; $\sigma = 1$ S/m; $\epsilon_r = 40.2$; $\rho = 1000$ kg/m³
 Probe: EX3DV4 - SN3612, Frequency: 900 MHz, ConvF(8.27, 8.27, 8.27); Calibrated: 5/17/2017
 Electronics: DAE4 Sn1294, Calibrated: 5/23/2017

Below 2 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x121x1):

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

Reference Value = 61.61 V/m; Power Drift = -0.04 dB

Fast SAR: SAR(1 g) = 2.81 W/kg; SAR(10 g) = 1.83 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 3.62 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 = 61.61 V/m; Power Drift = -0.04 dB

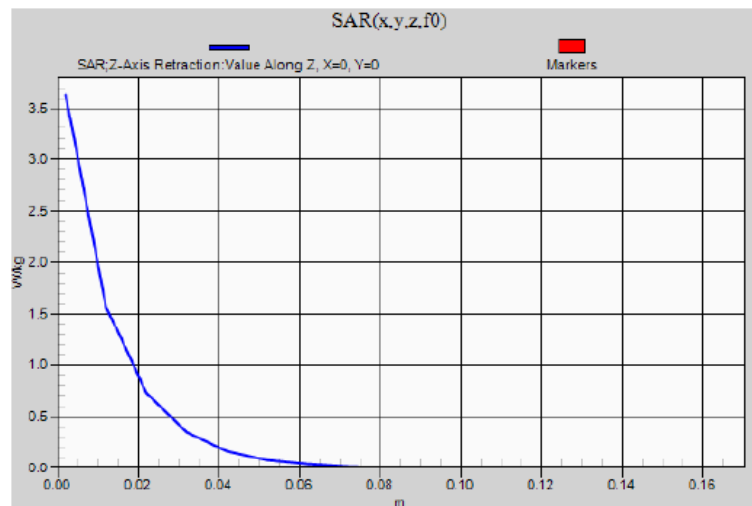
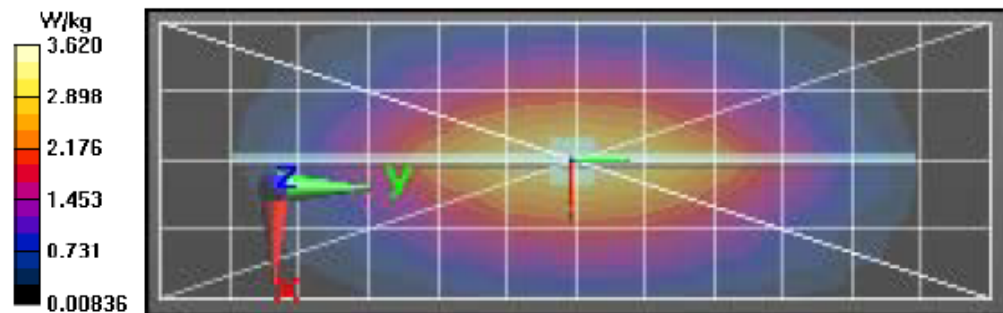
Peak SAR (extrapolated) = 4.29 W/kg

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

Maximum value of SAR (measured) = 3.63 W/kg

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

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



Appendix E

DUT Scans

Assessments at the Body - Table 19

Motorola Solutions, Inc. EME Laboratory

Date/Time: 4/27/2018 11:11:16 AM

Robot#: DASY5-PG-3 | Run#: FD-AB-180427-07
 Model#: DLR1060BHLAB (HKUF4007B)
 Phantom#: ELI4 1028
 Tissue Temp: 20.4 (C)
 Serial#: 550PUE3873
 Antenna: Fixed Antenna
 Test Freq: 927.4750 (MHz)
 Battery: HKNN4013A
 Carry Acc: PMLN7774A
 Audio Acc: HKLN4604B
 Start Power: 0.877 (W)

Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 927 \text{ MHz}$; $\sigma = 1.09 \text{ S/m}$; $\epsilon_r = 52.3$; $\rho = 1000 \text{ kg/m}^3$
 Probe: EX3DV4 - SN3612, , Frequency: 927 MHz, ConvF(8.38, 8.38, 8.38); Calibrated: 5/17/2017
 Electronics: DAE4 Sn1294, Calibrated: 5/23/2017

Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (61x131x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Reference Value = 44.37 V/m; Power Drift = -0.76 dB

Fast SAR: SAR(1 g) = 1.98 W/kg; SAR(10 g) = 1.33 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 2.44 W/kg

Below 2 GHz-Rev.2/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$,

$dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 44.37 V/m; Power Drift = -0.89 dB

Peak SAR (extrapolated) = 2.57 W/kg

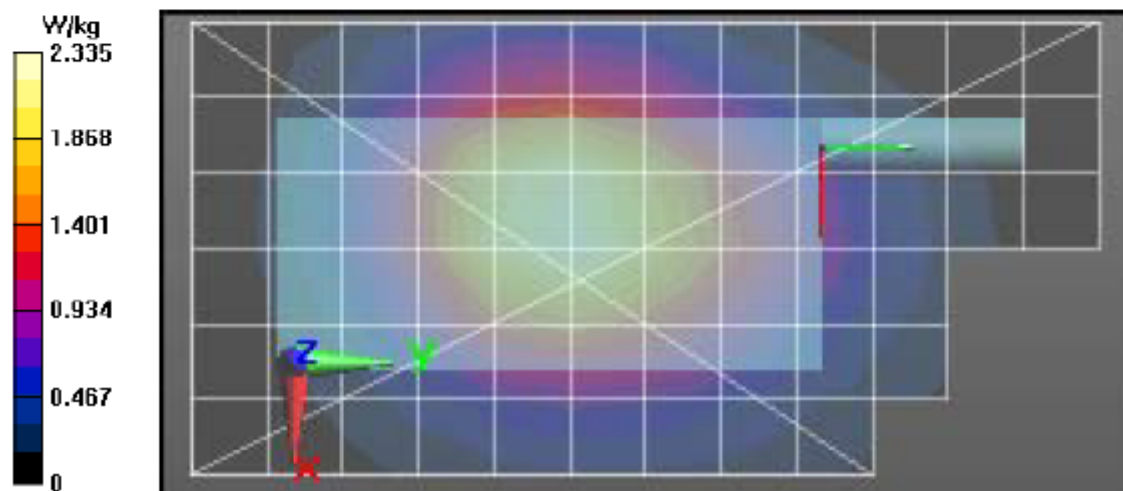
SAR(1 g) = 1.91 W/kg; SAR(10 g) = 1.34 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 2.28 W/kg

Below 2 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$,

$dz=10\text{mm}$

Maximum value of SAR (measured) = 2.26 W/kg



Assessment at the Face - Table 19**Motorola Solutions, Inc. EME Laboratory**

Date/Time: 3/25/2018 7:12:38 PM

Robot#: DASY5-PG-3 | Run#: FD-FACE-180325-07
 Model#: DLR1060BHLAB (HKUF4007B)
 Phantom#: ELI4 1037
 Tissue Temp: 21.2 (C)
 Serial#: 550PUE3873
 Antenna: Fixed Antenna
 Test Freq: 915.5250 (MHz)
 Battery: HKNN4013ASP01
 Carry Acc: None
 Audio Acc: None
 Start Power: 0.927 (W)

Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 916 \text{ MHz}$; $\sigma = 1.02 \text{ S/m}$; $\epsilon_r = 41$; $\rho = 1000 \text{ kg/m}^3$

Probe: EX3DV4 - SN3612, , Frequency: 916 MHz, ConvF(8.27, 8.27, 8.27); Calibrated: 5/17/2017

Electronics: DAE4 Sn1294, Calibrated: 5/23/2017

Below 2 GHz-Rev.2/Face Scan/1-Area Scan (61x131x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Reference Value = 53.04 V/m; Power Drift = -0.41 dB

Fast SAR: SAR(1 g) = 2.36 W/kg; SAR(10 g) = 1.63 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 2.89 W/kg

Below 2 GHz-Rev.2/Face Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=7.5\text{mm}$, $dy=7.5\text{mm}$, $dz=5\text{mm}$

Reference Value = 53.04 V/m; Power Drift = -0.56 dB

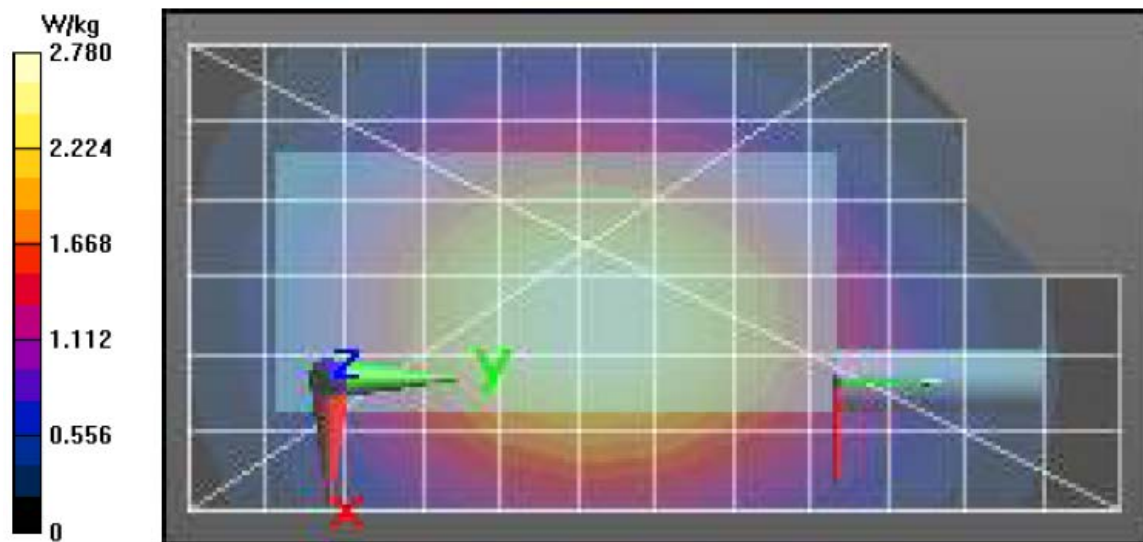
Peak SAR (extrapolated) = 3.09 W/kg

SAR(1 g) = 2.26 W/kg; SAR(10 g) = 1.61 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 2.73 W/kg

Below 2 GHz-Rev.2/Face Scan/4-Z-Axis Scan (1x1x17): Measurement grid: $dx=20\text{mm}$, $dy=20\text{mm}$, $dz=10\text{mm}$

Maximum value of SAR (measured) = 2.69 W/kg



APPENDIX F

Shortened Scan of Highest SAR configuration

Shortened Scan - Table 20

Motorola Solutions, Inc. EME Laboratory

Date/Time: 4/30/2018 10:46:06 AM

Robot#: DASY5-PG-3 | Run#: FD-FACE-180430-02
 Model#: DLR1060BHLAA (HKUF4007B)
 Phantom#: ELI4 1037
 Tissue Temp: 22.5 (C)
 Serial#: 550PUE3873
 Antenna: Fixed Antenna
 Test Freq: 915.5250 (MHz)
 Battery: HKNN4013ASP01
 Carry Acc: None
 Audio Acc: None
 Start Power: 0.848 (W)

Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 916$ MHz; $\sigma = 1.01$ S/m; $\epsilon_r = 40$; $\rho = 1000$ kg/m³
 Probe: EX3DV4 - SN3612, , Frequency: 916 MHz, ConvF(8.27, 8.27, 8.27); Calibrated: 5/17/2017
 Electronics: DAE4 Sn1294, Calibrated: 5/23/2017

Below 2 GHz-Rev.2/Face Scan/1-Area Scan (61x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 50.25 V/m; Power Drift = -0.26 dB

Fast SAR: SAR(1 g) = 2.3 W/kg; SAR(10 g) = 1.58 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 2.81 W/kg

Below 2 GHz-Rev.2/Face Scan/2-Volume Scan 2D (41x41x1): Interpolated grid: dx=0.7500 mm, dy=0.7500 mm, dz=1.000 mm

Reference Value = 50.25 V/m; Power Drift = -0.32 dB

Fast SAR: SAR(1 g) = 2.23 W/kg; SAR(10 g) = 1.58 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 2.69 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) = 2.68 W/kg

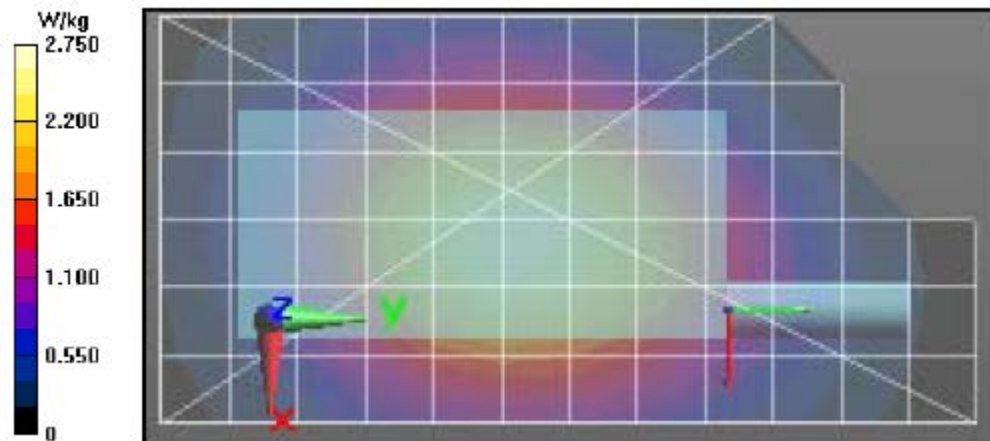
Below 2 GHz-Rev.2/Face Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 56.56 V/m; Power Drift = -0.41 dB

Peak SAR (extrapolated) = 3.30 W/kg

SAR(1 g) = 2.43 W/kg; SAR(10 g) = 1.73 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 2.92 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)
Shorten scan (zoom)	20	8	1.44
Full scan (area & zoom)	19	20	1.39

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