



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: 03/25/2020
Report Revision: E

Responsible Engineer: Lee Kin Kting (EME Engineer)
Report Author: Lee Kin Kting (EME Engineer)
Date/s Tested: 01/24/2020 - 01/27/2020
Manufacturer: Motorola Solutions Inc.
Applicant Name: Motorola Solutions Inc.
DUT Description: Handheld Portable – CLP1080e 1W UHF 8CH MODEL (BRUS)
Test TX mode(s): CW (PTT)
Max. Power output: 1.35W
Nominal Power: 1.00W
Tx Frequency Bands: 450.000 – 470.000MHz
Signaling type: FM
Model(s) Tested: CLU1080BHLCA(PMUE5521A)
Model(s) Certified: CLU1080BHLCA(PMUE5521A), CLU1080BHLCB(PMUE5521A),
 CLU1010BHLCA(PMUE5517A), CLU1010BHLCB(PMUE5517A),
 CLU1083BHLCA(PMUE5525A) / CLP1083e,
 CLU1013BHLCB(PMUE5527A) / CLP1013e
Serial Number(s): 0095WA0300
Classification: Occupational/Controlled Environment
FCC ID: AZ489FT4960
IC: 109U-89FT4960
ISED Test Site registration: 24843
FCC Test Firm Registration Number: 823256

The test results clearly demonstrate compliance with FCC Occupational/Controlled Environment limits of 8W/kg averaged over 1 gram per the requirements of FCC 47 CFR § 2.1093 and 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 (no deviation from standard methods). 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

Digitally signed
by Tiong Nguk
Ing
Date: 2020.03.25
19:59:52 +08'00'

Tiong Nguk Inng
Deputy Technical Manager (Approved Signatory)
Approval Date: 03/25/2020

Appendix D

System Verification Check Scans

Motorola Solutions, Inc. EME Laboratory
Date/Time: 1/24/2020 3:07:26 AM

Robot#: DASY5-PG-4 | Run#: AM(MA)-SYSP-450H-200124-01
Dipole Model#: D450V3
Phantom#: ELI5 1147
Tissue Temp: 20.5 (C)
Serial#: 1053
Test Freq: 450.0000 (MHz)
Start Power: 250 (mW)
Rotation (1D): 0.075 dB
Adjusted SAR (1W): 4.56 mW/g (1g)

Comments:

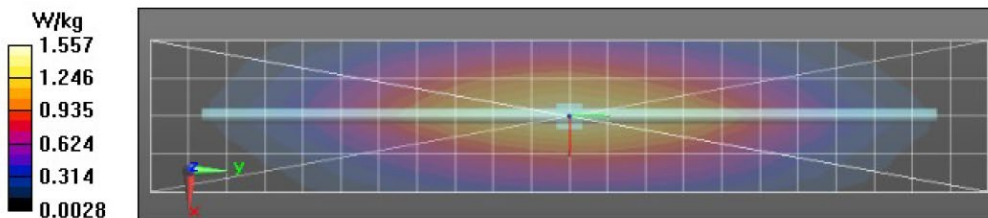
Duty Cycle: 1:1, Medium parameters used: $f = 450$ MHz; $\sigma = 0.86$ S/m; $\epsilon_r = 42$; $\rho = 1000$ kg/m³
Probe: EX3DV4 - SN7511, Calibrated: 10/24/2019, Frequency: 450 MHz, ConvF(10.3, 10.3, 10.3) @ 450 MHz
Electronics: DAE4 Sn729, Calibrated: 10/16/2019

Below 2 GHz-Rev.3/System Performance Check/Dipole Area Scan 2 (41x221x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 43.32 V/m; Power Drift = 0.02 dB
Fast SAR: SAR(1 g) = 1.25 W/kg; SAR(10 g) = 0.858 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 1.56 W/kg

Below 2 GHz-Rev.3/System Performance Check/Dipole Area Scan 2 (5x23x1): Measurement grid: dx=15mm, dy=15mm
Maximum value of SAR (measured) = 1.56 W/kg

Below 2 GHz-Rev.3/System Performance Check/0-Degree Cube (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 43.32 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 1.83 W/kg
SAR(1 g) = 1.14 W/kg; SAR(10 g) = 0.762 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 1.57 W/kg

Below 2 GHz-Rev.3/System Performance Check/Z-Axis Retraction (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 1.57 W/kg



Motorola Solutions, Inc. EME Laboratory

Date/Time: 1/26/2020 8:07:25 AM

Robot#: DASY5-PG-4 | Run#: AN-SYSP-450H-200126-01
 Dipole Model#: D450V3
 Phantom#: ELI5 1147
 Tissue Temp: 21.3 (C)
 Serial#: 1053
 Test Freq: 450.0000 (MHz)
 Start Power: 250 (mW)
 Rotation (1D): 0.160 dB
 Adjusted SAR (1W): 4.72 mW/g (1g)

Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 450$ MHz; $\sigma = 0.88$ S/m; $\epsilon_r = 42.3$; $\rho = 1000$ kg/m³
 Probe: EX3DV4 - SN7511, Calibrated: 10/24/2019, Frequency: 450 MHz, ConvF(10.3, 10.3, 10.3) @ 450 MHz
 Electronics: DAE4 Sn729, Calibrated: 10/16/2019

Below 2 GHz-Rev.3/System Performance Check/Dipole Area Scan 2 (41x221x1):

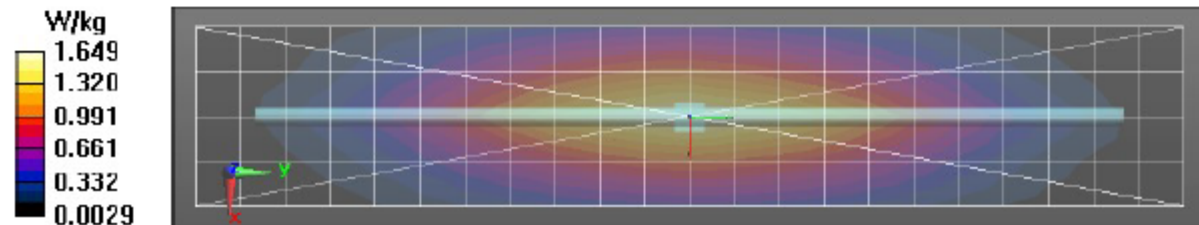
Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm
 Reference Value = 43.93 V/m; Power Drift = 0.02 dB
 Fast SAR: SAR(1 g) = 1.29 W/kg; SAR(10 g) = 0.890 W/kg (SAR corrected for target medium)
 Maximum value of SAR (interpolated) = 1.65 W/kg

Below 2 GHz-Rev.3/System Performance Check/0-Degree Cube (5x5x7)/Cube 0:

Measurement grid: $dx=7.5$ mm, $dy=7.5$ mm, $dz=5$ mm
 Reference Value = 43.93 V/m; Power Drift = 0.02 dB
 Peak SAR (extrapolated) = 1.91 W/kg
 SAR(1 g) = 1.18 W/kg; SAR(10 g) = 0.791 W/kg (SAR corrected for target medium)
 Maximum value of SAR (measured) = 1.64 W/kg

Below 2 GHz-Rev.3/System Performance Check/Z-Axis Retraction (1x1x17): Measurement

grid: $dx=20$ mm, $dy=20$ mm, $dz=10$ mm
 Maximum value of SAR (measured) = 1.64 W/kg



Appendix E

DUT Scans

Assessments at the Body - Table 18

Motorola Solutions, Inc. EME Laboratory

Date/Time: 1/24/2020 10:28:39 PM

Robot#: DASY5-PG-4 | Run#: AN-AB-200124-12
 Model#: PMUE5521A
 Phantom#: ELI5 1147
 Tissue Temp: 20.9 (C)
 Serial#: 0095WA0300
 Antenna: Fixed antenna
 Test Freq: 460.0000 (MHz)
 Battery: HKNN4013A
 Carry Acc: PMLN8064A
 Audio Acc: PMLN8077A
 Start Power: 1.35 (W)

Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 460$ MHz; $\sigma = 0.86$ S/m; $\epsilon_r = 41.8$; $\rho = 1000$ kg/m³
 Probe: EX3DV4 - SN7511, Calibrated: 10/24/2019, Frequency: 460 MHz, ConvF(10.3, 10.3, 10.3) @ 460 MHz
 Electronics: DAE4 Sn729, Calibrated: 10/16/2019

Below 2 GHz-Rev.3/Ab Scan/1-Area Scan (81x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 73.57 V/m; Power Drift = -0.33 dB

Fast SAR: SAR(1 g) = 4.55 W/kg; SAR(10 g) = 2.89 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 6.62 W/kg

Below 2 GHz-Rev.3/Ab Scan/3-Zoom Scan (7x9x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 73.57 V/m; Power Drift = -0.74 dB

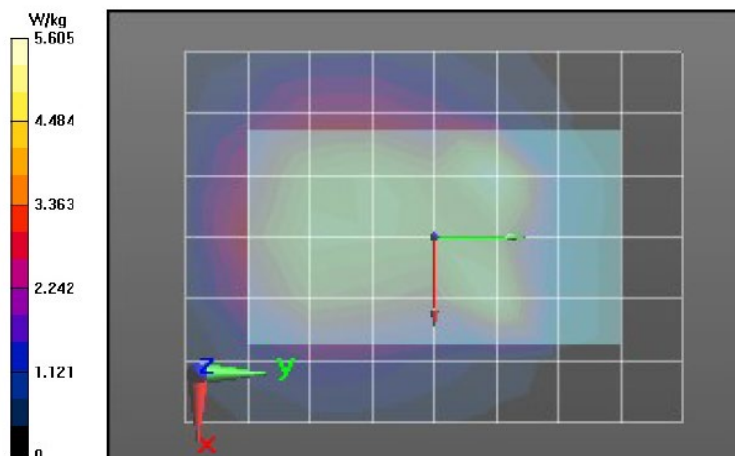
Peak SAR (extrapolated) = 8.38 W/kg

SAR(1 g) = 3.32 W/kg; SAR(10 g) = 2.26 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 5.59 W/kg

Below 2 GHz-Rev.3/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 5.30 W/kg



Assessments at the Body - Table 19

Motorola Solutions, Inc. EME Laboratory

Date/Time: 1/26/2020 9:22:49 AM

Robot#: DASY5-PG-4 | Run#: AN-AB-200126-02
 Model#: PMUE5521A
 Phantom#: ELI5 1147
 Tissue Temp: 21.2 (C)
 Serial#: 0095WA0300
 Antenna: Fixed antenna
 Test Freq: 460.0000 (MHz)
 Battery: HKNN4013A
 Carry Acc: PMLN8065A
 Audio Acc: PMLN8077A
 Start Power: 1.35 (W)

Comments:

Duty Cycle: 1:1, Medium parameters used: $f = 460$ MHz; $\sigma = 0.89$ S/m; $\epsilon_r = 42.1$; $\rho = 1000$ kg/m³
 Probe: EX3DV4 - SN7511, Calibrated: 10/24/2019, Frequency: 460 MHz, ConvF(10.3, 10.3, 10.3) @ 460 MHz
 Electronics: DAE4 Sn729, Calibrated: 10/16/2019

Below 2 GHz-Rev.3/Ab Scan/1-Area Scan (81x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 55.28 V/m; Power Drift = -0.42 dB

Fast SAR: SAR(1 g) = 2 W/kg; SAR(10 g) = 1.33 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 2.63 W/kg

Below 2 GHz-Rev.3/Ab Scan/3-Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm

Reference Value = 55.28 V/m; Power Drift = -0.55 dB

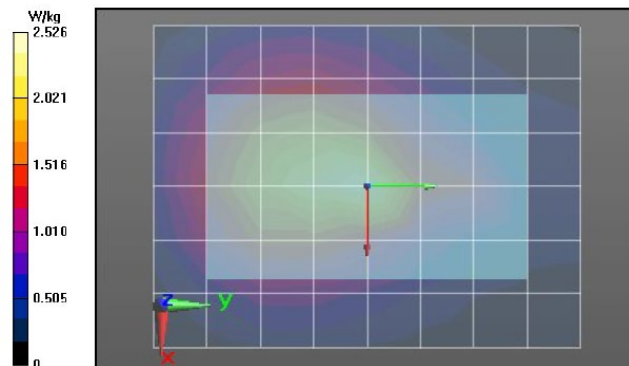
Peak SAR (extrapolated) = 3.28 W/kg

SAR(1 g) = 1.72 W/kg; SAR(10 g) = 1.11 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 2.55 W/kg

Below 2 GHz-Rev.3/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm

Maximum value of SAR (measured) = 2.51 W/kg



APPENDIX F

Shortened Scan of Highest SAR configuration

Shortened Scan Table 21

Motorola Solutions, Inc. EME Laboratory

Date/Time: 1/27/2020 6:47:11 AM

Robot#: DASY5-PG-4 | Run#: AN-AB-200127-04#
 Model#: PMUE5521A
 Phantom#: ELI5 1147
 Tissue Temp: 21.0 (C)
 Serial#: 0095WA0300
 Antenna: Fixed antenna
 Test Freq: 460.0000 (MHz)
 Battery: HKNN4013A
 Carry Acc: PMLN8064A
 Audio Acc: PMLN8077A
 Start Power: 1.35 (W)

Comments: Shorten Scan

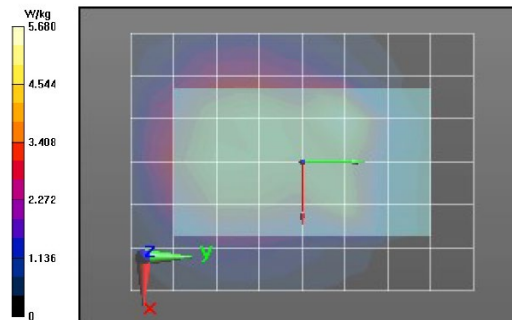
Duty Cycle: 1:1, Medium parameters used: $f = 460$ MHz; $\sigma = 0.89$ S/m; $\epsilon_r = 42.1$; $\rho = 1000$ kg/m³
 Probe: EX3DV4 - SN7511, Calibrated: 10/24/2019, Frequency: 460 MHz, ConvF(10.3, 10.3, 10.3) @ 460 MHz
 Electronics: DAE4 Sn729, Calibrated: 10/16/2019

Below 2 GHz-Rev.3/Ab Scan/1-Area Scan (81x131x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
 Reference Value = 73.61 V/m; Power Drift = -0.36 dB
 Fast SAR: SAR(1 g) = 4.7 W/kg; SAR(10 g) = 2.98 W/kg (SAR corrected for target medium)
 Maximum value of SAR (interpolated) = 6.62 W/kg

Below 2 GHz-Rev.3/Ab Scan/2-Volume 2D Scan (41x41x1): Interpolated grid: dx=0.7500 mm, dy=0.7500 mm, dz=1.000 mm
 Reference Value = 73.61 V/m; Power Drift = -0.44 dB
 Fast SAR: SAR(1 g) = 4.41 W/kg; SAR(10 g) = 2.73 W/kg (SAR corrected for target medium)
 Maximum value of SAR (interpolated) = 6.20 W/kg

Below 2 GHz-Rev.3/Ab Scan/3-Zoom Scan (7x9x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
 Reference Value = 77.79 V/m; Power Drift = -0.57 dB
 Peak SAR (extrapolated) = 9.62 W/kg
 SAR(1 g) = 3.7 W/kg; SAR(10 g) = 2.51 W/kg (SAR corrected for target medium)
 Maximum value of SAR (measured) = 6.15 W/kg

Below 2 GHz-Rev.3/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
 Maximum value of SAR (measured) = 5.71 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)
Full scan (area & zoom)	18	20	1.97
Shorten scan (zoom)	21	7	2.11

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