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) (455657-H)
Plot 2A, Medan Bayan Lepas,
Mukim 12 SWD, 11900 Bayan Lepas Penang, Malaysia.

Date of Report: 11/03/2017
Report Revision: B

Responsible Engineer:	Veeramani Veerapan
Report Author:	Veeramani Veerapan
Date/s Tested:	09/22/2017-10/05/2017
Manufacturer:	Motorola Solutions Inc.
DUT Description:	Handheld Portable - CLP1040 Black Diamond, 450-470 MHz, 1 Watt, 4 Channels, Non-Display, Fixed Antenna
Test TX mode(s):	CW (PTT)
Max. Power output:	1.2 Watt
Nominal Power:	1.0 Watt
Tx Frequency Bands:	450-470 MHz
Signaling type:	FM
Model(s) Tested:	CLU1040BHLBA (PMUE3564D)
Model(s) Certified:	CLU1010BHLBA, CLU1010BHLBB, CLU1010BHMBB, CLU1013BHLBB//CLP1013RL, CLU1040BHLBA, CLU1040BHLBB, CLU1040BHMBB, CLU1043BHLBA//CLP1043RL
Serial Number(s):	158TTS0019
Classification:	Occupational/Controlled
FCC ID:	AZ489FT4945; 450-470 MHz
IC:	109U-89FT4945
ISED Test Site Registration:	109AK
FCC Test Firm Registration Number:	823256

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 FCC 47 CFR § 2.1093.

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

Tiong Nguk Ing
Deputy Technical Manager
Approval Date: 11/03/2017

Tiong Nguk Ing Digitally signed by Tiong Nguk Ing Date: 2017.11.03 17:01:21 +08'00'

APPENDIX D
System Verification Check Scans

Motorola Solutions, Inc. EME Laboratory

Date/Time: 9/22/2017 10:48:03 AM

Robot#: DASY5-PG-4 | Run:	ZR(FAZ)-SYSP-450B-170922-01
Dipole Model#	D450V3
Phantom#:	ELI4 1016
Tissue Temp:	21.3 (C)
Serial#:	1077
Test Freq:	450 (MHz)
Start Power:	250 (mW)
Rotation (1D):	0.032 dB
Adjusted SAR (1W):	4.84 mW/g (1g)

Comments:

Duty Cycle: 1:1, Medium parameters used: f = 450 MHz; σ = 0.95 S/m; ε_r = 54.8; ρ = 1000 kg/m^3

Probe: ES3DV3 - SN3196, , Frequency: 450 MHz, ConvF(7, 7, 7); Calibrated: 5/17/2017

Electronics: DAE4 Sn684, Calibrated: 5/12/2017

Below 2 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x201x1):

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

Reference Value = 39.45 V/m; Power Drift = -0.04 dB

Fast SAR: SAR(1 g) = 1.24 W/kg; SAR(10 g) = 0.865 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 1.44 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 = 39.45 V/m; Power Drift = -0.04 dB

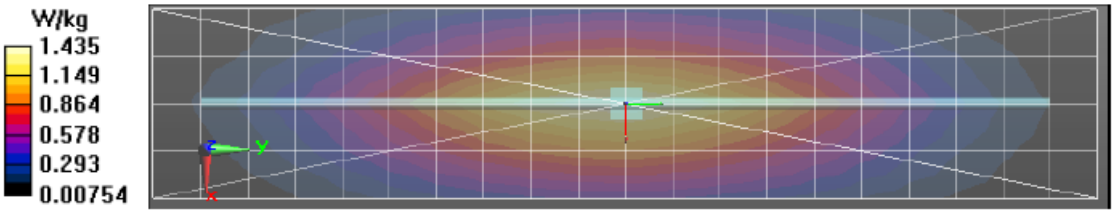
Peak SAR (extrapolated) = 1.97 W/kg

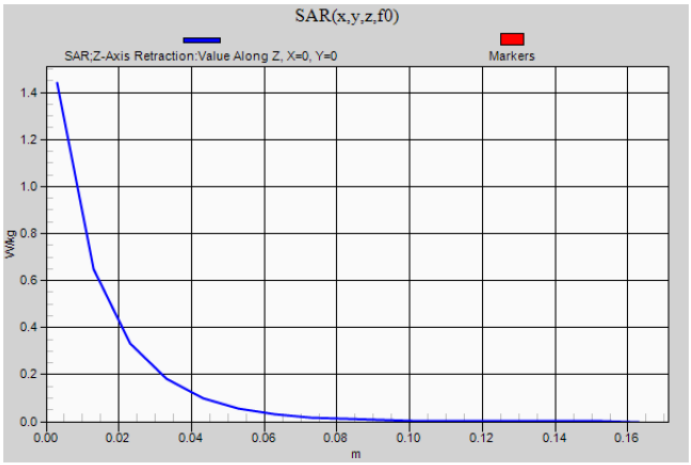
SAR(1 g) = 1.21 W/kg; SAR(10 g) = 0.806 W/kg (SAR corrected for target medium)

Maximum value of SAR (measured) = 1.44 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: 10/4/2017 11:30:14 AM

Robot#: DASY5-PG-3 | Run#: AZ-SYSP-450B-171004-14
Dipole Model# D450V3
Phantom#: ELI4 1103
Tissue Temp: 21.1 (C)
Serial#: 1077
Test Freq: 450.0000 (MHz)
Start Power: 250 (mW)
Rotation (1D): 0.100 dB
Adjusted SAR (1W): 4.52 mW/g (1g)

Comments:

Duty Cycle: 1:1, Medium parameters used: f = 450 MHz; σ = 0.97 S/m; ε_r = 55.4; ρ = 1000 kg/m^3
Probe: EX3DV4 - SN3612, , Frequency: 450 MHz, ConvF(9.35, 9.35, 9.35); Calibrated: 5/17/2017
Electronics: DAE4 Sn1294, Calibrated: 5/23/2017

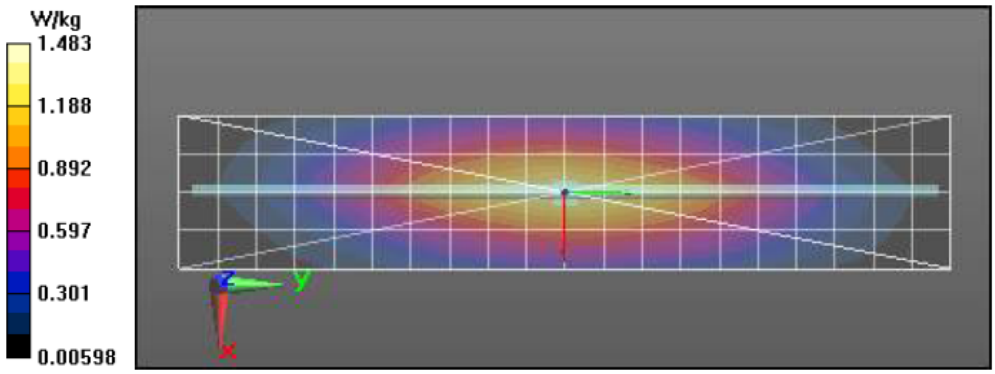
Below 2 GHz-Rev.2/System Performance Check/Dipole Area Scan 2 (41x201x1):

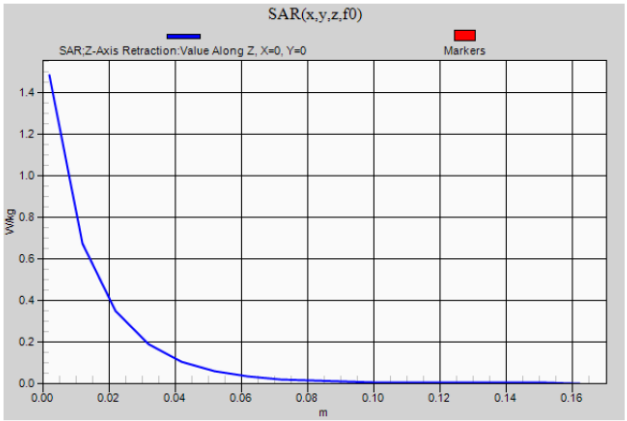
Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 39.46 V/m; Power Drift = -0.03 dB
Fast SAR: SAR(1 g) = 1.19 W/kg; SAR(10 g) = 0.822 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 1.48 W/kg

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 = 39.46 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 1.79 W/kg
SAR(1 g) = 1.13 W/kg; SAR(10 g) = 0.760 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 1.49 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 with Body Worn HKLN4438B
Table 18

Motorola Solutions, Inc. EME Laboratory
Date/Time: 9/22/2017 3:09:13 PM

Robot#: DASY5-PG-04 | Run#:	ZR(FAZ)-AB-170922-07
Model#:	PMUE3564D
Phantom#:	ELI4 1016
Tissue Temp:	21.3 (C)
Serial#:	158TTS0019
Antenna:	Fixed (Internal)
Test Freq:	461.0375 (MHz)
Battery:	HKNN4013A
Carry Acc:	HKLN4438B
Audio Acc:	HKLN4529A
Start Power:	1.15 (W)

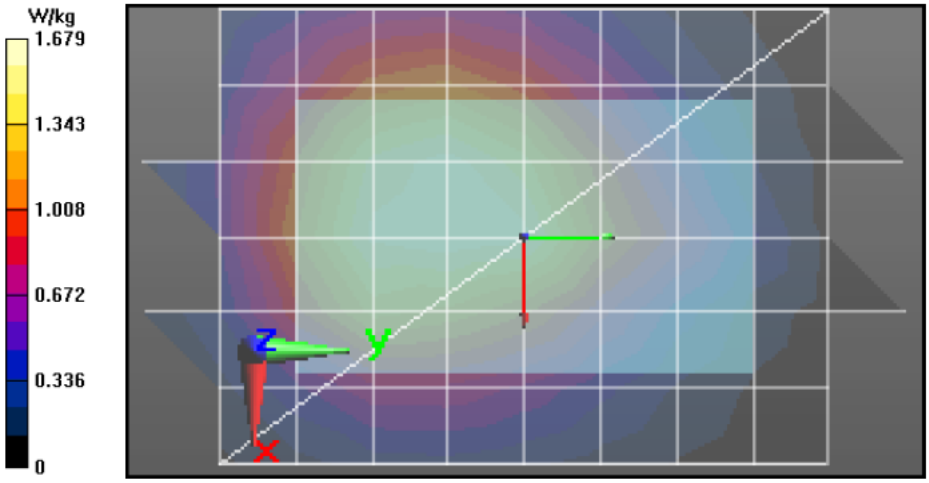
Comments:

Duty Cycle: 1:1, Medium parameters used: f = 461 MHz; σ = 0.96 S/m; ε_r = 54.7; ρ = 1000 kg/m^3
Probe: ES3DV3 - SN3196, , Frequency: 461.038 MHz, ConvF(7, 7, 7); Calibrated: 5/17/2017
Electronics: DAE4 Sn684, Calibrated: 5/12/2017

Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 42.19 V/m; Power Drift = -0.30 dB
Fast SAR: SAR(1 g) = 1.55 W/kg; SAR(10 g) = 1.12 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 1.73 W/kg

Below 2 GHz-Rev.2/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 42.19 V/m; Power Drift = -0.45 dB
Peak SAR (extrapolated) = 2.24 W/kg
SAR(1 g) = 1.48 W/kg; SAR(10 g) = 1.05 W/kg (SAR corrected for target medium)

Below 2 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 1.64 W/kg



Assessments at the Body with Body Worn HKLN4433A
Table 19

Motorola Solutions, Inc. EME Laboratory
Date/Time: 9/22/2017 1:42:51 PM

Robot#: DASY5-PG-04 | Run#:	ZR(FAZ)-AB-170922-05
Model#:	PMUE3564D
Phantom#:	ELI4 1016
Tissue Temp:	21.3 (C)
Serial#:	158TTS0019
Antenna:	Fixed (Internal)
Test Freq:	461.0375 (MHz)
Battery:	HKNN4014B
Carry Acc:	HKLN4433A Magnetic clip & batt cover
Audio Acc:	HKLN4529A
Start Power:	1.12(W)

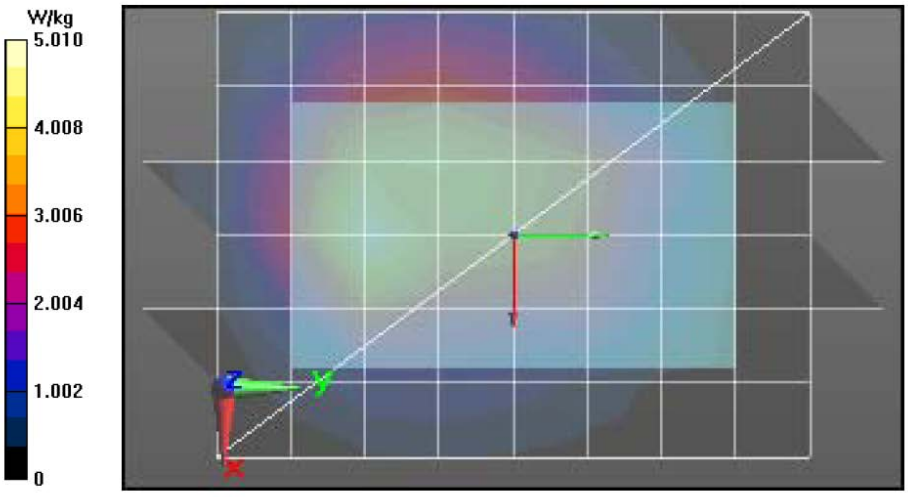
Comments:

Duty Cycle: 1:1, Medium parameters used: f = 461 MHz; σ = 0.96 S/m; ε_r = 54.7; ρ = 1000 kg/m^3
Probe: ES3DV3 - SN3196, , Frequency: 461.038 MHz, ConvF(7, 7, 7); Calibrated: 5/17/2017
Electronics: DAE4 Sn684, Calibrated: 5/12/2017

Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 62.10 V/m; Power Drift = -0.29 dB
Fast SAR: SAR(1 g) = 4.45 W/kg; SAR(10 g) = 2.95 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 5.24 W/kg

Below 2 GHz-Rev.2/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 62.10 V/m; Power Drift = -0.48 dB
Peak SAR (extrapolated) = 7.98 W/kg
SAR(1 g) = 3.99 W/kg; SAR(10 g) = 2.53 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 4.57 W/kg

Below 2 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 4.62 W/kg



APPENDIX F
Shortened Scan of Highest SAR configuration

Table 21

Motorola Solutions, Inc. EME Laboratory

Date/Time: 9/22/2017 11:01:47 PM

Robot#: DASY5-PG-04 | Run#:	FD(AN)-AB-170922-09
Model#:	PMUE3564D
Phantom#:	ELI4 1016
Tissue Temp:	20.8 (C)
Serial#:	158TTS0019
Antenna:	Fixed (Internal)
Test Freq:	461.0375 (MHz)
Battery:	HKNN4014B
Carry Acc:	HKLN4433A Magnetic clip & batt cover
Audio Acc:	HKLN4529A
Start Power:	1.12 (W)

Comments:

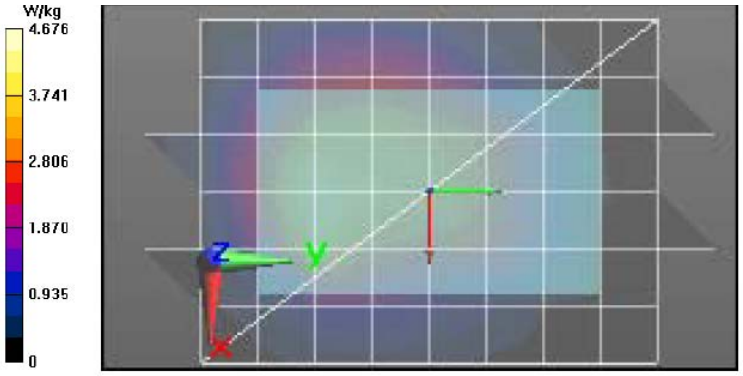
Duty Cycle: 1:1, Medium parameters used: f = 461 MHz; σ = 0.96 S/m; ε_r = 54.7; ρ = 1000 kg/m^3
Probe: ES3DV3 - SN3196, , Frequency: 461.038 MHz, ConvF(7, 7, 7); Calibrated: 5/17/2017
Electronics: DAE4 Sn684, Calibrated: 5/12/2017

Below 2 GHz-Rev.2/Ab Scan/1-Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 62.04 V/m; Power Drift = -0.27 dB
Fast SAR: SAR(1 g) = 4.21 W/kg; SAR(10 g) = 2.85 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 4.90 W/kg

Below 2 GHz-Rev.2/Ab Scan/2-Volume 2D Scan (41x41x1): Interpolated grid: dx=0.7500 mm, dy=0.7500 mm, dz=1.000 mm
Reference Value = 62.04 V/m; Power Drift = -0.40 dB
Fast SAR: SAR(1 g) = 4.17 W/kg; SAR(10 g) = 2.8 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 4.95 W/kg

Below 2 GHz-Rev.2/Ab Scan/3-Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=7.5mm, dy=7.5mm, dz=5mm
Reference Value = 73.58 V/m; Power Drift = -0.28 dB
Peak SAR (extrapolated) = 8.52 W/kg
SAR(1 g) = 4.31 W/kg; SAR(10 g) = 2.74 W/kg (SAR corrected for target medium)
Maximum value of SAR (measured) = 4.96 W/kg

Below 2 GHz-Rev.2/Ab Scan/4-Z-Axis Scan (1x1x17): Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 4.59 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)	21	8	2.46
Full scan (area & zoom)	19	20	2.39

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