







#### **DECLARATION OF COMPLIANCE SAR ASSESSMENT Part 2 of 2**

# **Motorola Solutions Inc. EME Test Laboratory**

Motorola Solutions Malaysia Sdn Bhd Plot 2A, Medan Bayan Lepas,

Mukim 12 SWD 11900 Bayan Lepas Penang, Malaysia.

**Date of Report:** 10/26/2023

**Report Revision:**  $\mathbf{C}$ 

**Responsible Engineer:** Puteri Alifah Ilyana Binti Nor Rahim (EME Engineer) **Report Author:** Muhammad Zakwan Bin Zaidi (EME Senior Technician)

Date/s Tested: 08/04/2023-09/04/2023 **Manufacturer:** Motorola Solutions Inc.

**DUT Description:** Handheld Portable - SL300 136-174M 2-3W DISPLAY

**Test TX mode(s):** CW (PTT)

Max. Power output: Refer table 3 (part 1 of 2) **Nominal Power:** Refer table 3 (part 1 of 2) **Tx Frequency Bands:** LMR 136-174MHz.

**Signaling type:** FM / TDMA

**Model(s) Tested:** AAH88JCP9JA2AN (PMUD3334C); IC Model: PMUD3334CAMNAA Model(s) Certified AAH88JCP9JA2AN (PMUD3334C); IC Model: PMUD3334CAMNAA

AAH88JCC9JA2AN (PMUD3335C); IC Model: PMUD3335CAANAA

**Serial Number(s):** 546TZP0250

**Classification:** Occupational/Controlled Environment

**Firmware Version:** D01.23.02.0018 **Applicant Name:** Motorola Solutions Inc.

8000 West Sunrise Boulevard, Fort Lauderdale, Florida 33322 **Applicant Address:** 

FCC ID: AZ489FT3855

Add the following when applicable - This report contains results that are

immaterial for FCC equipment approval, which are clearly identified.

FCC Test Firm Registration 823256

Number:

109U-89FT3855 IC:

This report contains results that are immaterial for ISED equipment approval,

which are clearly identified.

**ISED Test Site registration:** 24843

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.

Saw Sun Hock (Approval Signatory)

**Approved Date: 10/27/2023** 

# Appendix D System Verification Check Scans

# Motorola Solutions, Inc. EME Laboratory Date/Time: 8/25/2023 10:49:05 AM

Robot#: DASY5-PG-1 | Run#: AR-SYSP-150H-230825-11

Dipole Model# CLA150
Phantom#: ELI4 1022
Tissue Temp: 20.5 (C)
Serial#: 4016

Test Freq: 150.0000 (MHz)
Start Power: 1000 (mW)
Rotation (1D): 0.084 dB
Adjusted SAR (1W): 4.11 mW/g (1g)

#### Comments:

Communication System Band: CLA150, Communication System UID: 0, Duty Cycle: 1:1,

Medium parameters used: f = 150 MHz;  $\sigma = 0.73 \text{ S/m}$ ;  $\varepsilon_r = 53.8$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Probe: EX3DV4 - SN7486, Calibrated: 6/18/2021, Frequency: 150 MHz, ConvF(13.52, 13.52, 13.52) @ 150 MHz

Electronics: DAE4 Sn850, Calibrated: 4/14/2022

# Below 2 GHz-Rev.3/System Performance Check/Dipole Area Scan 2 (81x81x1):

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

Reference Value = 79.38 V/m; Power Drift = 0.03 dB

Fast SAR: SAR(1 g) = 3.91 W/kg; SAR(10 g) = 2.79 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 4.20 W/kg

# Below 2 GHz-Rev.3/System Performance Check/0-Degree Cube (7x7x7)/Cube 0:

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

Reference Value = 79.38 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 6.17 W/kg

SAR(1 g) = 4.11 W/kg; SAR(10 g) = 2.68 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 15.7 mm

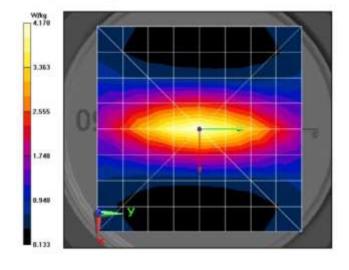
Ratio of SAR at M2 to SAR at M1 = 65.9%

Maximum value of SAR (measured) = 4.64 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) = 4.49 W/kg



# Appendix E DUT Scans

# **Highest Configuration at FCC Body - Table 19**

# Motorola Solutions, Inc. EME Laboratory Date/Time: 8/12/2023 8:00:13 AM

Robot#: DASY5-PG-1 | Run#: AR-AB-230812-07@ Model#: AAH88JCP9JA2AN (PMUD3334C)

Phantom#: ELI4 1022 20.7 (C) Tissue Temp: Serial#: 546TZP0250 Antenna: PMAD4146B 156.0125 (MHz) Test Freq: Battery: PMNN4468B Carry Acc: PMLN7190A PMMN4125B Audio Acc: Start Power: 2.35 (W)

#### Comments:

Communication System Band: Tonga, Communication System UID: 0, Duty Cycle: 1:1,

Medium parameters used: f = 156 MHz;  $\sigma = 0.74$  S/m;  $\varepsilon_r = 53.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Probe: EX3DV4 - SN7486, Calibrated: 6/18/2021, Frequency: 156.012 MHz, ConvF(13.52, 13.52, 13.52) @ 156.012 MHz

Electronics: DAE4 Sn850, Calibrated: 4/14/2022

## Below 2 GHz-Rev.3/Ab Scan/1-Area Scan (61x131x1): Interpolated grid: dx=1,500 mm, dy=1.500 mm

Reference Value = 11.83 V/m; Power Drift = -0.09 dB

Fast SAR: SAR(1 g) = 0.132 W/kg; SAR(10 g) = 0.097 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 0.156 W/kg

# Below 2 GHz-Rev.3/Ab Scan/3-Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm,

dy=7.5mm, dz=5mm

Reference Value = 11.83 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 0.223 W/kg

#### SAR(1 g) = 0.105 W/kg; SAR(10 g) = 0.068 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 22.8 mm

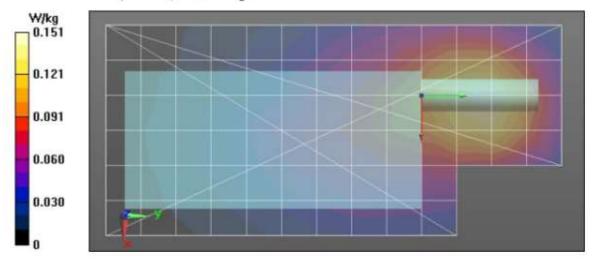
Ratio of SAR at M2 to SAR at M1 = 48.2%

Maximum value of SAR (measured) = 0.157 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) = 0.159 W/kg



## **Highest Configuration at FCC Face - Table 22**

# Motorola Solutions, Inc. EME Laboratory Date/Time: 8/12/2023 3:09:10 PM

Robot#: DASY5-PG-1 | Run#: AR-FACE-230812-14@

Model#: AAH88JCP9JA2AN (PMUD3334C)

Phantom#: ELI4 1022 Tissue Temp: 20.8 (C) Serial#: 546TZP0250 Antenna: PMAD4155A Test Freq: 155.9875 (MHz) Battery: PMNN4468B Carry Acc: @ front N/A Audio Acc: Start Power: 2.34 (W)

#### Comments:

Communication System Band: Tonga, Communication System UID: 0, Duty Cycle: 1:1,

Medium parameters used: f = 156 MHz;  $\sigma = 0.74$  S/m;  $\varepsilon_r = 53.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Probe: EX3DV4 - SN7486, Calibrated: 6/18/2021, Frequency: 155.988 MHz, ConvF(13.52, 13.52, 13.52) @ 155.988 MHz

Electronics: DAE4 Sn850, Calibrated: 4/14/2022

# Below 2 GHz-Rev.3/Face Scan/1-Area Scan (61x161x1): Interpolated grid: dx=1.500 mm, dy=1.500

mm

Reference Value = 50.63 V/m; Power Drift = -0.41 dB

Fast SAR: SAR(1 g) = 1.69 W/kg; SAR(10 g) = 1.3 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 1.95 W/kg

# Below 2 GHz-Rev.3/Face Scan/3-Zoom Scan (6x7x7)/Cube 0: Measurement grid: dx=7.5mm,

dy=7.5mm, dz=5mm

Reference Value = 50.63 V/m; Power Drift = -0.51 dB

Peak SAR (extrapolated) = 2.24 W/kg

SAR(1 g) = 1.48 W/kg; SAR(10 g) = 1.11 W/kg (SAR corrected for target medium)

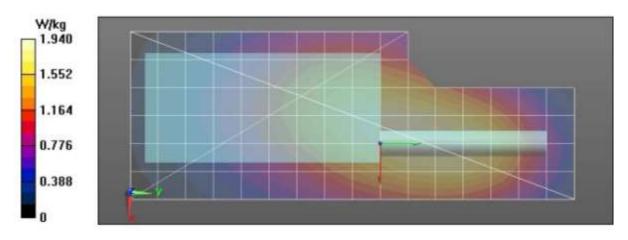
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

Ratio of SAR at M2 to SAR at M1 = 63.7%

Maximum value of SAR (measured) = 1.86 W/kg

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

Maximum value of SAR (measured) = 1.81 W/kg



### **Highest Configuration at ISED Body- Table 25**

# Motorola Solutions, Inc. EME Laboratory Date/Time: 8/12/2023 7:14:42 PM

Robot#: DASY5-PG-1 | Run#: BL-AB-230812-19@

Model#: AAH88JCP9JA2AN (PMUD3334C)

Phantom#: ELI4 1022 Tissue Temp: 20.7 (C) 546TZP0250 Serial#: Antenna: PMAD4144B Test Freq: 138.0000 (MHz) PMNN4468B Battery: Carry Acc: PMLN7190A Audio Acc: PMMN4125B Start Power: 2.38 (W)

#### Comments:

Communication System Band: Tonga, Communication System UID: 0, Duty Cycle: 1:1,

Medium parameters used: f = 138 MHz;  $\sigma = 0.73$  S/m;  $\varepsilon_r = 54$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Probe: EX3DV4 - SN7486, Calibrated: 6/18/2021, Frequency: 138 MHz, ConvF(13.52, 13.52, 13.52) @ 138 MHz

Electronics: DAE4 Sn850, Calibrated: 4/14/2022

## Below 2 GHz-Rev.3/Ab Scan/1-Area Scan (61x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 24.80 V/m; Power Drift = -0.60 dB

Fast SAR: SAR(1 g) = 0.566 W/kg; SAR(10 g) = 0.422 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 0.660 W/kg

# Below 2 GHz-Rev.3/Ab Scan/3-Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm,

dy=7.5mm, dz=5mm

Reference Value = 24.80 V/m; Power Drift = -0.63 dB

Peak SAR (extrapolated) = 0.855 W/kg

SAR(1 g) = 0.423 W/kg; SAR(10 g) = 0.282 W/kg (SAR corrected for target medium)

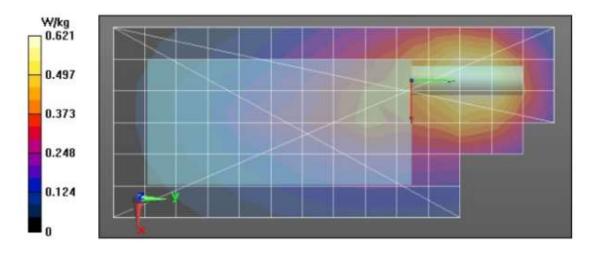
Smallest distance from peaks to all points 3 dB below = 26.7 mm

Ratio of SAR at M2 to SAR at M1 = 49%

Maximum value of SAR (measured) = 0.628 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) = 0.631 W/kg



## **Highest Configuration at ISED Face - Table 25**

## Motorola Solutions, Inc. EME Laboratory Date/Time: 8/12/2023 3:09:10 PM

Robot#: DASY5-PG-1 | Run#: AR-FACE-230812-14@

Model#: AAH88JCP9JA2AN (PMUD3334C)

Phantom#: ELI4 1022 Tissue Temp: 20.8 (C) Serial#: 546TZP0250 Antenna: PMAD4155A Test Freq: 155.9875 (MHz) Battery: PMNN4468B Carry Acc: @ front N/A Audio Acc: Start Power: 2.34 (W)

#### Comments:

Communication System Band: Tonga, Communication System UID: 0, Duty Cycle: 1:1,

Medium parameters used: f = 156 MHz;  $\sigma = 0.74 \text{ S/m}$ ;  $\varepsilon_r = 53.3$ ;  $\rho = 1000 \text{ kg/m}^3$ 

Probe: EX3DV4 - SN7486, Calibrated: 6/18/2021, Frequency: 155.988 MHz, ConvF(13.52, 13.52, 13.52) @ 155.988 MHz

Electronics: DAE4 Sn850, Calibrated: 4/14/2022

# Below 2 GHz-Rev.3/Face Scan/1-Area Scan (61x161x1): Interpolated grid: dx=1.500 mm, dy=1.500

mm

Reference Value = 50.63 V/m; Power Drift = -0.41 dB

Fast SAR: SAR(1 g) = 1.69 W/kg; SAR(10 g) = 1.3 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 1.95 W/kg

# Below 2 GHz-Rev.3/Face Scan/3-Zoom Scan (6x7x7)/Cube 0: Measurement grid: dx=7.5mm,

dy=7.5mm, dz=5mm

Reference Value = 50.63 V/m; Power Drift = -0.51 dB

Peak SAR (extrapolated) = 2.24 W/kg

SAR(1 g) = 1.48 W/kg; SAR(10 g) = 1.11 W/kg (SAR corrected for target medium)

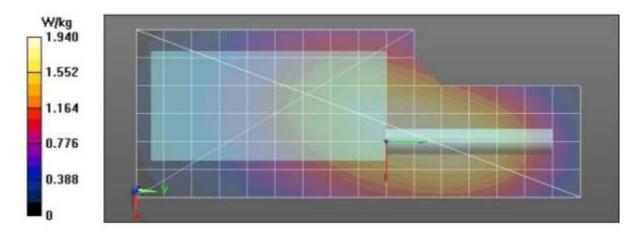
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

Ratio of SAR at M2 to SAR at M1 = 63.7%

Maximum value of SAR (measured) = 1.86 W/kg

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

Maximum value of SAR (measured) = 1.81 W/kg



FCC ID: AZ489FT3855 / IC: 109U-89FT3855 Report ID: P30150-EME-00005

# APPENDIX F Shortened Scan of Highest SAR configuration

#### Shortened Scan - Table 26

#### Motorola Solutions, Inc. EME Laboratory Date/Time: 9/4/2023 5:23:53 PM

Robot#: DASY5-PG-1 | Run#: AR-FACE-230904-06

Model#: AAH88JCP9JA2AN (PMUD3334C)

ELI4 1022 Phantom#: Tissue Temp: 21.0 (C) 546TZP0250 Serial#: Antenna: PMAD4155A Test Freq: 155.9875 (MHz) Battery: PMNN4468B Carry Acc: (a) front Audio Acc: N/A Start Power: 2.40 (W)

Comments: Shorten scan

Communication System Band: Tonga, Communication System UID: 0, Duty Cycle: 1:1,

Medium parameters used: f = 156 MHz;  $\sigma = 0.77$  S/m;  $\varepsilon_r = 51.6$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Probe: EX3DV4 - SN7486, Calibrated: 6/18/2021, Frequency: 155.988 MHz, ConvF(13.52, 13.52, 13.52) @ 155.988 MHz

Electronics: DAE4 Sn850, Calibrated: 4/14/2022

#### Below 2 GHz-Rev.3/Face Scan/1-Area Scan (61x161x1): Interpolated grid: dx=1.500 mm, dy=1.500

mm

Reference Value = 49.42 V/m; Power Drift = -0.29 dB

Fast SAR: SAR(1 g) = 1.6 W/kg; SAR(10 g) = 1.22 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 1.90 W/kg

# Below 2 GHz-Rev.3/Face Scan/2-Volume 2D Scan (5x5x1): Measurement grid: dx=7.5mm,

dy=7.5mm, dz=1mm

Reference Value = 49.42 V/m; Power Drift = -0.32 dB

Maximum value of SAR (measured) = 1.83 W/kg

#### Below 2 GHz-Rev.3/Face Scan/3-Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=7.5mm,

dy=7.5mm, dz=5mm

Reference Value = 50.39 V/m; Power Drift = -0.23 dB

Peak SAR (extrapolated) = 2.30 W/kg

SAR(1 g) = 1.49 W/kg; SAR(10 g) = 1.12 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

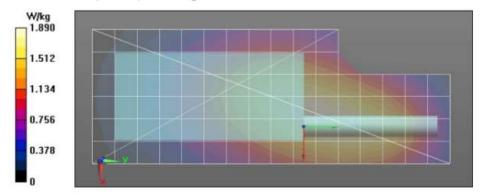
Ratio of SAR at M2 to SAR at M1 = 66.4%

Maximum value of SAR (measured) = 1.94 W/kg

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

dz=10mm

Maximum value of SAR (measured) = 1.80 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)	26	9	0.79
Full scan (area & zoom)	22	25	0.85

# **APPENDIX G DUT Test Position Photos**

Photos available in Exhibit 7B

FCC ID: AZ489FT3855 / IC: 109U-89FT3855 Report ID: P30150-EME-00005

# APPENDIX H DUT, Body worn and audio accessories Photos

Photos available in Exhibit 7B