



CERTIFICATE 2518.05

**DECLARATION OF COMPLIANCE SAR ASSESSMENT for PCII 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:** 06/14/2023  
**Report Revision:** B

**Responsible Engineer:** Lee Kin Kting (EME Engineer)  
**Report Author:** Lee Kin Kting (EME Engineer)  
**Date/s Tested:** 05/16/2023  
**Manufacturer:** Motorola Solutions Inc.  
**DUT Description:** Handheld Portable – 403-480MHz 4W NKP  
**Test TX mode(s):** CW (PTT)  
**Max. Power output:** 4.8W  
**Nominal Power:** 4.0W  
**Tx Frequency Bands:** LMR 403-480 MHz  
**Signaling type:** FM  
**Model(s) Tested:** PMUE4526C  
**Model(s) Certified:** AAH87YDC9JA2AN (PMUE4526C), AAH87YDC9JC2AN (PMUE4526C), AAH87YDF9JA2AN (PMUE4528C), AAH87YDH9JA2AN (PMUE4527C), AAH87YDH9JC2AN (PMUE4527C)  
**Serial Number(s):** 278TZF4900  
**Classification:** Occupational/Controlled  
**Firmware Version:** D01.23.01.0001  
**Applicant Name:** Motorola Solutions Inc.  
**Applicant Address:** 8000 West Sunrise Boulevard, Fort Lauderdale, Florida 33322  
**FCC ID:** AZ489FT4953  
 This report contains results that are immaterial for FCC equipment approval, which are clearly identified.  
**FCC Test Firm Registration Number:** 823256  
**IC:** 109U-89FT4953  
 This report contains results that are immaterial for ISED equipment approval, which are clearly identified.  
**ISED Test Site registration:** 24843

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 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.

Saw Sun Hock (Approved Signatory)

Approval Date: 06/14/2023

## Appendix D

### System Verification Check Scans

### Motorola Solutions, Inc. EME Laboratory

Date/Time: 5/16/2023 8:32:30 AM

Robot#: DASY5-PG-02 | Run#: SAN(MIN)-SYSP-450B-230516-10  
 Dipole Model# D450V3  
 Phantom#: EL14 1022  
 Tissue Temp: 21.2 (C)  
 Serial#: 1053  
 Test Freq: 450.0000 (MHz)  
 Start Power: 250 (mW)  
 Rotation (1D): 0.059 dB  
 Adjusted SAR (1W): 4.80 mW/g (1g)

Comments: Probe distance 2mm

Communication System Band: Dipole 450, Communication System UID: 0, Duty Cycle: 1:1,  
 Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.95$  S/m;  $\epsilon_r = 54.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: EX3DV4 - SN7364, Calibrated: 2/28/2022, Frequency: 450 MHz, ConvF(11.32, 11.32, 11.32) @ 450 MHz  
 Electronics: DAE4 Sn1294, Calibrated: 2/22/2022

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

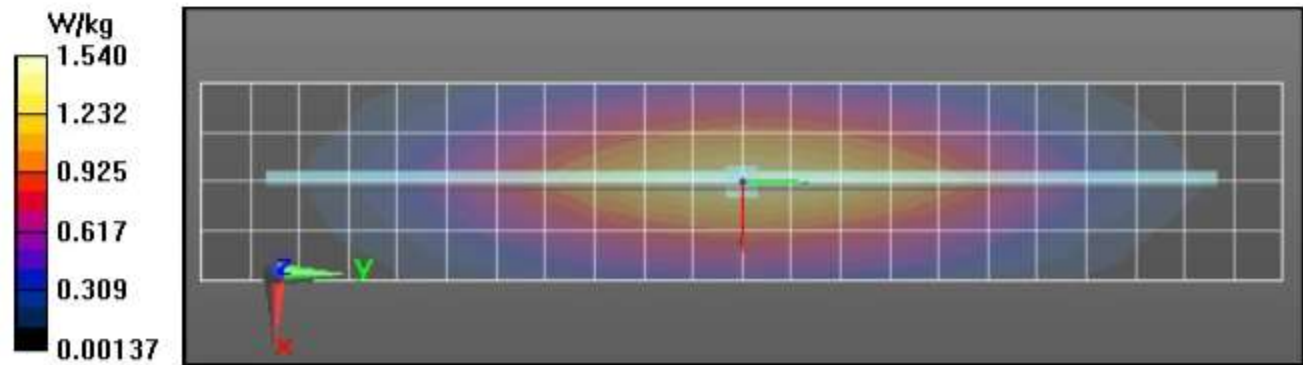
Interpolated grid: dx=1.500 mm, dy=1.500 mm  
 Reference Value = 40.59 V/m; Power Drift = 0.01 dB  
**Fast SAR: SAR(1 g) = 1.25 W/kg; SAR(10 g) = 0.866 W/kg** (SAR corrected for target medium)  
 Maximum value of SAR (interpolated) = 1.54 W/kg

#### 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 = 40.59 V/m; Power Drift = 0.01 dB  
 Peak SAR (extrapolated) = 1.85 W/kg  
**SAR(1 g) = 1.2 W/kg; SAR(10 g) = 0.812 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) = 1.54 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) = 1.55 W/kg



### Motorola Solutions, Inc. EME Laboratory

Date/Time: 5/16/2023 12:24:36 AM

Robot#: DASY5-PG-2 | Run#: MFR-SYSP-450H-230516-01  
 Dipole Model# D450V3  
 Phantom#: ELI4 1090  
 Tissue Temp: 20.5(C)  
 Serial#: 1077  
 Test Freq: 450.0000 (MHz)  
 Start Power: 250 (mW)  
 Rotation (1D): 0.071 dB  
 Adjusted SAR (1W): 4.80 mW/g (1g)

Comments:

Communication System Band: Dipole 450, Communication System UID: 0, Duty Cycle: 1:1,  
 Medium parameters used:  $f = 450$  MHz;  $\sigma = 0.87$  S/m;  $\epsilon_r = 44.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: EX3DV4 - SN7364, Calibrated: 2/28/2022, Frequency: 450 MHz, ConvF(10.96, 10.96, 10.96) @ 450 MHz  
 Electronics: DAE4 Sn1294, Calibrated: 2/22/2022

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

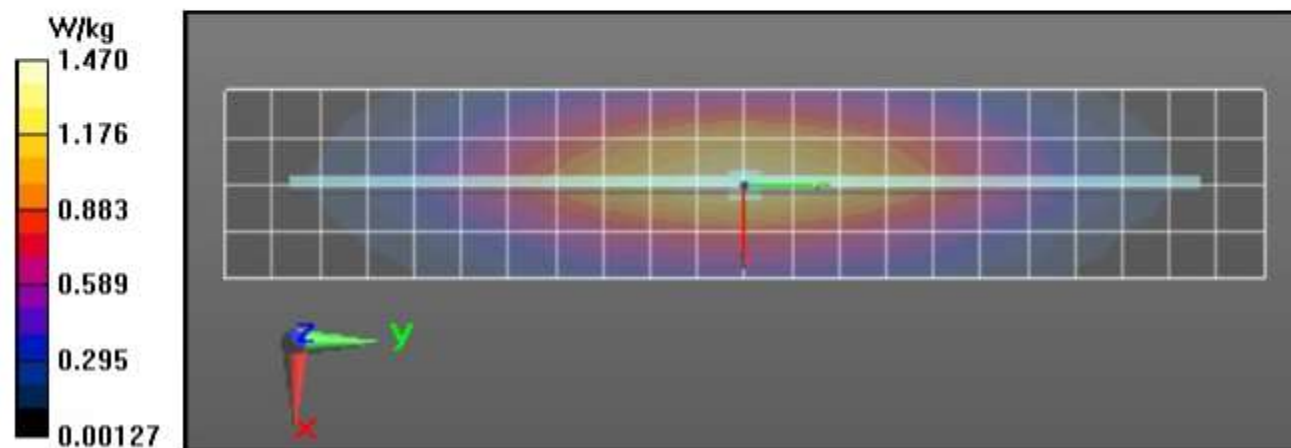
Interpolated grid: dx=1.500 mm, dy=1.500 mm  
 Reference Value = 41.89 V/m; Power Drift = 0.09 dB  
**Fast SAR: SAR(1 g) = 1.24 W/kg; SAR(10 g) = 0.858 W/kg** (SAR corrected for target medium)  
 Maximum value of SAR (interpolated) = 1.49 W/kg

#### 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 = 41.89 V/m; Power Drift = 0.09 dB  
 Peak SAR (extrapolated) = 1.78 W/kg  
**SAR(1 g) = 1.2 W/kg; SAR(10 g) = 0.805 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 = 66.9%  
 Maximum value of SAR (measured) = 1.50 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) = 1.51 W/kg



## **Appendix E DUT Scans**

## Assessment at the FCC Highest Body Configuration – Table 18

### Motorola Solutions, Inc. EME Laboratory

Date/Time: 5/16/2023 1:33:36 PM

Robot#: DASY5-PG-02 | Run#: SAN(MIN)-AB-230516-16  
 Model#: PMUE4256C  
 Phantom#: ELI4 1022  
 Tissue Temp: 21.4 (C)  
 Serial#: 278TZF4900  
 Antenna: PMAE4006A  
 Test Freq: 465.0000 (MHz)  
 Battery: PMNN4092A  
 Carry Acc: RLN4570A  
 Audio Acc: PMMN4092A  
 Start Power: 4.62 (W)

Comments: Full scan with probe distance 2mm

Communication System Band: Bermuda UHF, Communication System UID: 0, Duty Cycle: 1:1,

Medium parameters used:  $f = 465$  MHz;  $\sigma = 0.97$  S/m;  $\epsilon_r = 54.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Probe: EX3DV4 - SN7364, Calibrated: 2/28/2022, Frequency: 465 MHz, ConvF(11.32, 11.32, 11.32) @ 465 MHz

Electronics: DAE4 Sn1294, Calibrated: 2/22/2022

#### **Below 2 GHz-Rev.3/Ab Scan/1-Area Scan (61x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 89.55 V/m; Power Drift = -0.17 dB

**Fast SAR: SAR(1 g) = 6.36 W/kg; SAR(10 g) = 4.6 W/kg** (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 7.56 W/kg

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

Reference Value = 89.55 V/m; Power Drift = -0.21 dB

Peak SAR (extrapolated) = 8.43 W/kg

**SAR(1 g) = 6.2 W/kg; SAR(10 g) = 4.58 W/kg** (SAR corrected for target medium)

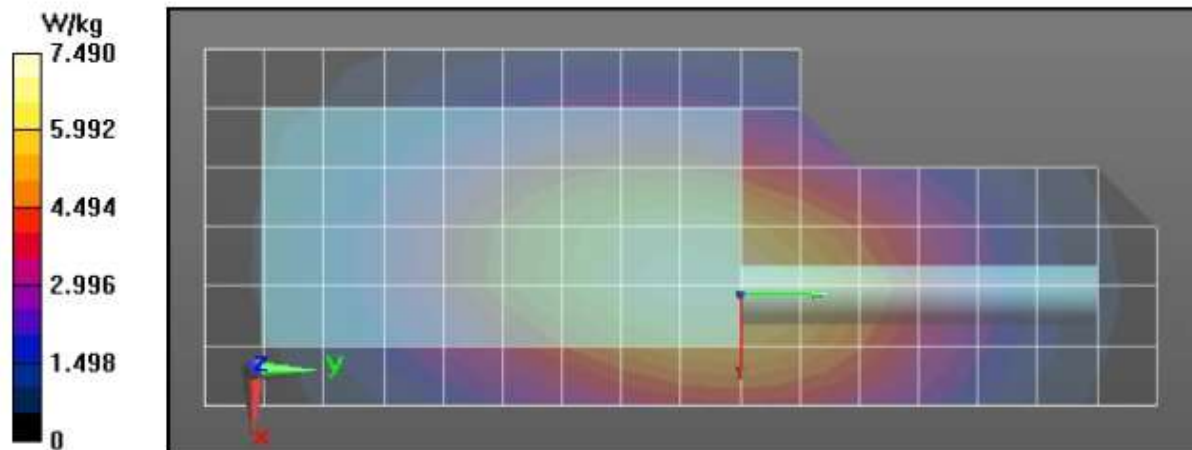
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

Ratio of SAR at M2 to SAR at M1 = 73.5%

Maximum value of SAR (measured) = 7.39 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) = 7.37 W/kg



## Assessment at the FCC Highest Face Configuration – Table 19

### Motorola Solutions, Inc. EME Laboratory

Date/Time: 5/16/2023 4:57:56 AM

Robot#: DASY5-PG-2 | Run#: MFR-FACE-230516-09  
 Model#: PMUE4256C  
 Phantom#: ELI4 1090  
 Tissue Temp: 20.2 (C)  
 Serial#: 278TZF4900  
 Antenna: PMAE4006A  
 Test Freq: 465.0000(MHz)  
 Battery: PMNN4476A  
 Carry Acc: @ front  
 Audio Acc: N/A  
 Start Power: 4.67 (W)

**Comments:**

Communication System Band: Bermuda UHF, Communication System UID: 0, Duty Cycle: 1:1,  
 Medium parameters used:  $f = 465 \text{ MHz}$ ;  $\sigma = 0.88 \text{ S/m}$ ;  $\epsilon_r = 44$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Probe: EX3DV4 - SN7364, Calibrated: 2/28/2022, Frequency: 465 MHz, ConvF(10.96, 10.96, 10.96) @ 465 MHz  
 Electronics: DAE4 Sn1294, Calibrated: 2/22/2022

**Below 2 GHz-Rev.3/Face Scan/1-Area Scan (61x171x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$

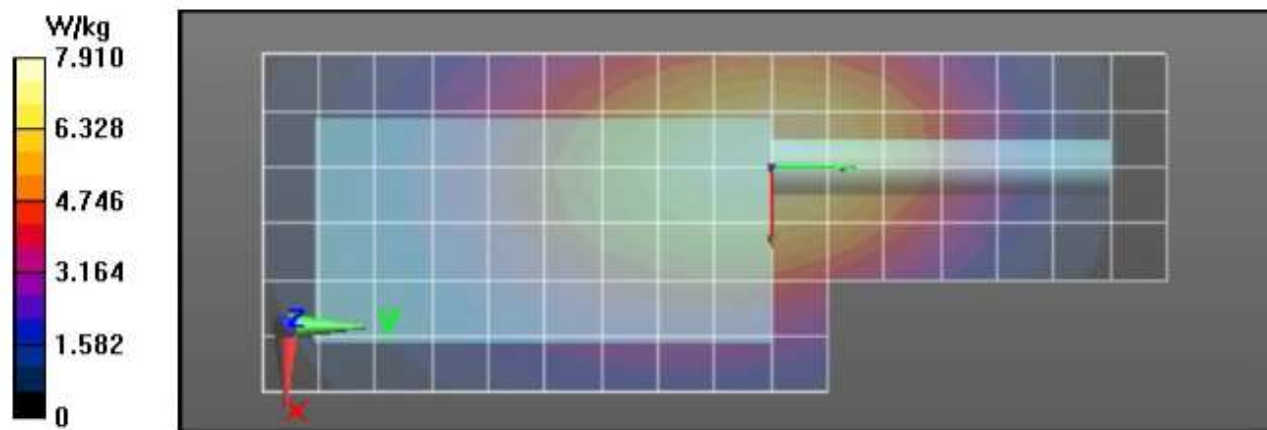
Reference Value = 98.71 V/m; Power Drift = -0.30 dB  
**Fast SAR: SAR(1 g) = 6.67 W/kg; SAR(10 g) = 4.85 W/kg** (SAR corrected for target medium)

**Below 2 GHz-Rev.3/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 = 98.71 V/m; Power Drift = -0.37 dB  
 Peak SAR (extrapolated) = 8.76 W/kg  
**SAR(1 g) = 6.55 W/kg; SAR(10 g) = 4.84 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 = 74.4%  
 Maximum value of SAR (measured) = 7.77 W/kg

**Below 2 GHz-Rev.3/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) = 7.68 W/kg



## Assessment at the ISED Highest Face Configuration – Table 22

### Motorola Solutions, Inc. EME Laboratory

Date/Time: 5/16/2023 1:41:25 AM

Robot#: DASY5-PG-2 | Run#: MFR-FACE-230516-03  
 Model#: PMUE4256C  
 Phantom#: ELI4 1090  
 Tissue Temp: 20.2 (C)  
 Serial#: 278TZF4900  
 Antenna: PMAE4002A  
 Test Freq: 406.1250(MHz)  
 Battery: PMNN4080B  
 Carry Acc: @ front  
 Audio Acc: N/A  
 Start Power: 4.68 (W)

**Comments:**

Communication System Band: Bermuda UHF, Communication System UID: 0, Duty Cycle: 1:1,  
 Medium parameters used:  $f = 406$  MHz;  $\sigma = 0.83$  S/m;  $\epsilon_r = 45.3$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
 Probe: EX3DV4 - SN7364, Calibrated: 2/28/2022, Frequency: 406.125 MHz, ConvF(10.96, 10.96, 10.96) @ 406.125 MHz  
 Electronics: DAE4 Sn1294, Calibrated: 2/22/2022

**Below 2 GHz-Rev.3/Face Scan/1-Area Scan (61x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

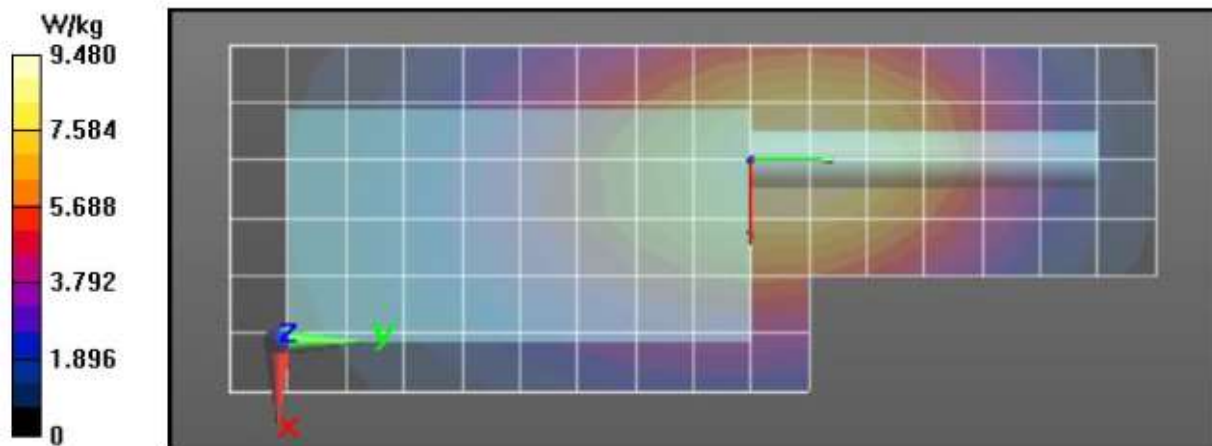
Reference Value = 109.6 V/m; Power Drift = -0.40 dB  
**Fast SAR: SAR(1 g) = 8.36 W/kg; SAR(10 g) = 6.06 W/kg** (SAR corrected for target medium)  
 Maximum value of SAR (interpolated) = 9.49 W/kg

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

Reference Value = 109.6 V/m; Power Drift = -0.52 dB  
 Peak SAR (extrapolated) = 10.3 W/kg  
**SAR(1 g) = 8.05 W/kg; SAR(10 g) = 5.94 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 = 74.5%  
 Maximum value of SAR (measured) = 9.12 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) = 9.00 W/kg





## Assessment at the ISED Highest Body Configuration – Table 23

### Motorola Solutions, Inc. EME Laboratory

Date/Time: 5/16/2023 1:33:36 PM

Robot#: DASY5-PG-02 | Run#: SAN(MIN)-AB-230516-16  
 Model#: PMUE4256C  
 Phantom#: ELI4 1022  
 Tissue Temp: 21.4 (C)  
 Serial#: 278TZF4900  
 Antenna: PMAE4006A  
 Test Freq: 465.0000 (MHz)  
 Battery: PMNN4092A  
 Carry Acc: RLN4570A  
 Audio Acc: PMMN4092A  
 Start Power: 4.62 (W)

Comments: Full scan with probe distance 2mm

Communication System Band: Bermuda UHF, Communication System UID: 0, Duty Cycle: 1:1,

Medium parameters used:  $f = 465$  MHz;  $\sigma = 0.97$  S/m;  $\epsilon_r = 54.1$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Probe: EX3DV4 - SN7364, Calibrated: 2/28/2022, Frequency: 465 MHz, ConvF(11.32, 11.32, 11.32) @ 465 MHz

Electronics: DAE4 Sn1294, Calibrated: 2/22/2022

**Below 2 GHz-Rev.3/Ab Scan/1-Area Scan (61x171x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 89.55 V/m; Power Drift = -0.17 dB

**Fast SAR: SAR(1 g) = 6.36 W/kg; SAR(10 g) = 4.6 W/kg** (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 7.56 W/kg

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

dy=7.5mm, dz=5mm

Reference Value = 89.55 V/m; Power Drift = -0.21 dB

Peak SAR (extrapolated) = 8.43 W/kg

**SAR(1 g) = 6.2 W/kg; SAR(10 g) = 4.58 W/kg** (SAR corrected for target medium)

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

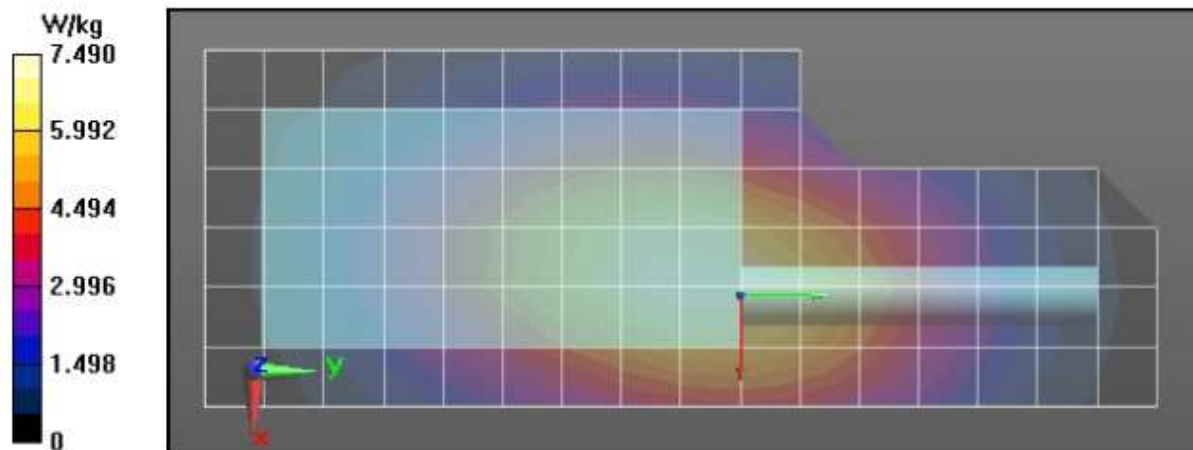
Ratio of SAR at M2 to SAR at M1 = 73.5%

Maximum value of SAR (measured) = 7.39 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) = 7.37 W/kg



**APPENDIX F**  
**Shortened Scan of Highest SAR configuration**

## Shortened Scan - Table 24

### Motorola Solutions, Inc. EME Laboratory

Date/Time: 5/16/2023 7:49:54 PM

Robot#: DASY5-PG-2 | Run#: MFR-FACE-230516-24  
 Model#: PMUE4256C  
 Phantom#: ELI4 1090  
 Tissue Temp: 20.2 (C)  
 Serial#: 278TZF4900  
 Antenna: PMAE4002A  
 Test Freq: 406.1250(MHz)  
 Battery: PMNN4080B  
 Carry Acc: @ front  
 Audio Acc: N/A  
 Start Power: 4.73 (W)

Comments: Probe Distance 2mm

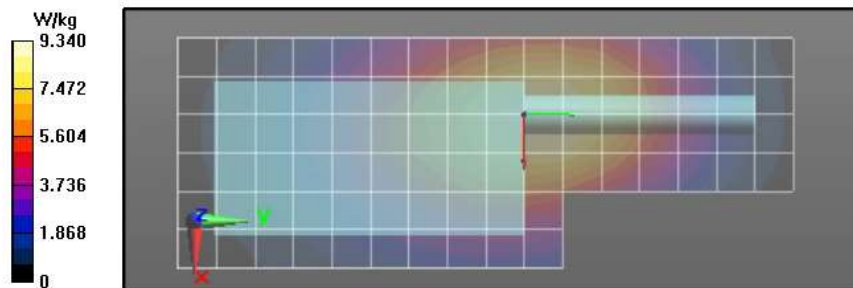
Communication System Band: Bermuda UHF, Communication System UID: 0, Duty Cycle: 1:1,  
 Medium parameters used:  $f = 406 \text{ MHz}$ ;  $\sigma = 0.83 \text{ S/m}$ ;  $\epsilon_r = 45.3$ ;  $\rho = 1000 \text{ kg/m}^3$   
 Probe: EX3DV4 - SN7364, Calibrated: 2/28/2022, Frequency: 406.125 MHz, ConvF(10.96, 10.96, 10.96) @ 406.125 MHz  
 Electronics: DAE4 Sn1294, Calibrated: 2/22/2022

**Below 2 GHz-Rev.3/Face Scan/1-Area Scan (61x171x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$   
 Reference Value = 110.8 V/m; Power Drift = -0.38 dB  
**Fast SAR: SAR(1 g) = 8.35 W/kg; SAR(10 g) = 6.06 W/kg** (SAR corrected for target medium)  
 Maximum value of SAR (interpolated) = 9.47 W/kg

**Below 2 GHz-Rev.3/Face Scan/2-Volume Scan 2D (41x41x1):** Interpolated grid:  $dx=0.7500 \text{ mm}$ ,  
 $dy=0.7500 \text{ mm}$ ,  $dz=1.000 \text{ mm}$   
 Reference Value = 110.8 V/m; Power Drift = -0.43 dB  
**Fast SAR: SAR(1 g) = 8.66 W/kg; SAR(10 g) = 6.37 W/kg** (SAR corrected for target medium)  
 Maximum value of SAR (interpolated) = 10.0 W/kg

**Below 2 GHz-Rev.3/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 = 119.4 V/m; Power Drift = -0.27 dB  
 Peak SAR (extrapolated) = 11.1 W/kg  
**SAR(1 g) = 8.71 W/kg; SAR(10 g) = 6.44 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 = 74.7%  
 Maximum value of SAR (measured) = 9.87 W/kg

**Below 2 GHz-Rev.3/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) = 9.07 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)	24	7	4.70
Full scan (area & zoom)	22	30	4.65

## APPENDIX G

### DUT Test Position Photos

#### 1. Highest SAR Test Position

##### 1.1 Body

DUT with antenna PMAE4006A, offered battery PMNN4092A and body worn RLN4570A positioned against the phantom with an audio accessory PMMN4092A attached.

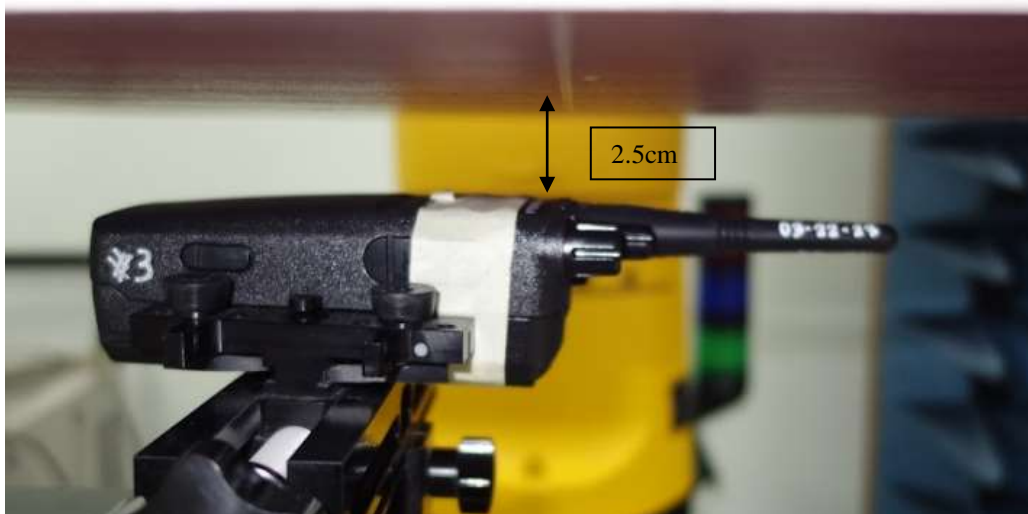


##### 1.2 Head

Not applicable

##### 1.3 Face

DUT with antenna PMAE4002A and battery PMNN4080B, separated 2.5cm from the phantom without an audio accessory attached.



**APPENDIX H**  
**DUT, Body worn and audio accessories Photos**

**Please Refer Original Filing Report**