MOTOROLA SOLUTIONS

MS ISO/IEC 17025 TESTING SAMM No. 0826

ACCREDITED CERTIFICATE 2518.05

**DECLARATION OF COMPLIANCE SAR ASSESSMENT PCII Report 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:** 08/04/2021
**Report Revision:** A

| | |
|---|---|
| **Responsible Engineer:** | Puteri Alifah Ilyana Binti Nor Rahim (EME Engineer) |
| **Report Author:** | Puteri Alifah Ilyana Binti Nor Rahim (EME Engineer) |
| **Date/s Tested:** | 6/22/2021-6/23/2021, 6/25/2021 - 6/28/2021, 7/15/2021-7/16/2021, 8/4/2021 |
| **Manufacturer:** | Motorola Solutions Inc. |
| **DUT Description:** | Handheld Portable – MOTOTRBO ION 400-512 MHz 4W LTE CBRS GNSS BT WiFi |
| **Test TX mode(s):** | FM; LTE; WLAN |
| **Max. Power output:** | Refer to Table 3 |
| **Nominal Power:** | Refer to Table 3 |
| **Tx Frequency Bands:** | Refer to Table 3 |
| **Signaling type:** | FM, TDMA, FHSS, DSSS and OFDM |
| **Model(s) Tested:** | AAH90ZDU9RH1AN (PMUE5674B) |
| **Model(s) Certified:** | AAH90ZDU9RH1AN (PMUE5674B) |
| **Serial Number(s):** | 734TXK0049, 734TXK0077 |
| **Classification:** | Occupational/Controlled |
| **Applicant Name:** | Motorola Solutions Inc. |
| **Applicant Address:** | 8000 West Sunrise Boulevard, Fort Lauderdale, Florida 33322 |
| **FCC ID:** | AZ489FT7133; LMR 406.125-512 MHz; LTE; WLAN 2.4 GHz; WLAN 5GHz, Bluetooth and Bluetooth LE<br>This report contains results that are immaterial for FCC equipment approval, which are clearly identified. |
| **IC:** | 109U-89FT7133<br>This report contains results that are immaterial for ISED equipment approval, which are clearly identified. |
| **ISED Test Site registration:** | 24843 |
| **FCC Test Firm Registration Number:** | 823256 |

The test results clearly demonstrate compliance with FCC Occupational/Controlled RF Exposure limits of 1.6 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 (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: 16/08/2021**

# Appendix D
# System Verification Check Scans

Motorola Solutions, EME Laboratory

2021-06-22, 05:55

System Performance Check Report

## Summary

| Dipole | Frequency [MHz] | TSL | Power [dBm] | Dev. 1g [%] | Dev. 10g [%] |
|---|---|---|---|---|---|
| D450V3 - SN1054 | 450.0 | HSL | 26.58218 | -46.7 | -47.1 |

## Exposure Conditions

| Phantom Section, TSL | Test Distance [mm] | Band | Group, UID | Frequency [MHz], Channel Number | Conversion Factor | TSL Conductivity [S/m] | TSL Permittivity |
|---|---|---|---|---|---|---|---|
| Flat, HSL | 15 | | , 0-- | 450.0, 0 | 11.48 | 0.88 | 41.7 |

## Hardware Setup

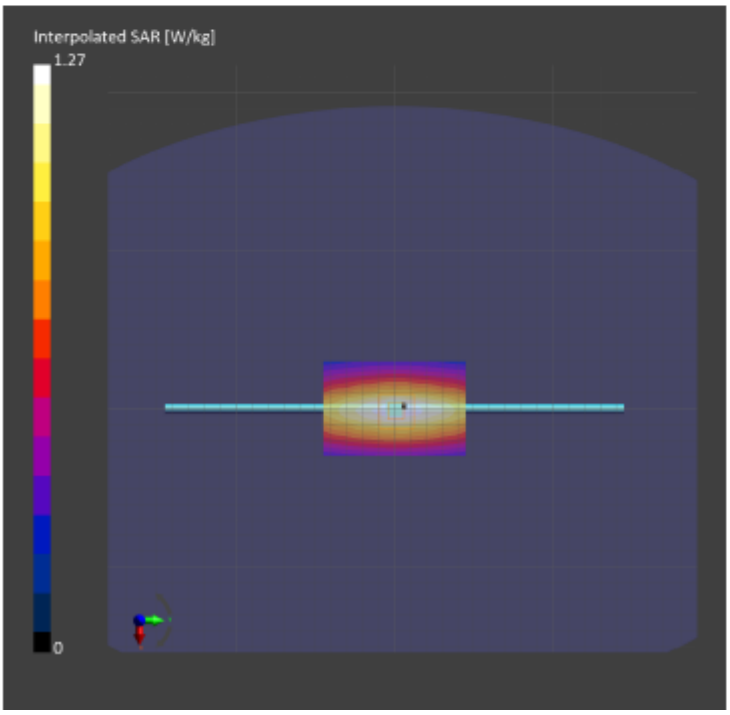
| Phantom | TSL, Measured Date | Probe, Calibration Date | DAE, Calibration Date |
|---|---|---|---|
| ELI V4.0 (20deg probe tilt) - 1016 | HSL450 , 2021-Jun-22 | EX3DV4 - SN7594, 2020-12-10 | DAE4 Sn1488, 2021-04-07 |

## Scans Setup

| | Area Scan | Zoom Scan |
|---|---|---|
| Grid Extents [mm] | 60.0 x 90.0 | 30.0 x 30.0 x 30.0 |
| Grid Steps [mm] | 15.0 x 15.0 | 6.0 x 6.0 x 1.5 |
| Sensor Surface [mm] | 8.0 | 1.4 |
| Graded Grid | No | Yes |
| Grading Ratio | n/a | 1.5 |
| MAIA | N/A | N/A |
| Surface Detection | VMS + 6p | VMS + 6p |
| Scan Method | Measured | Measured |

## Measurement Results

| | Area Scan | Zoom Scan |
|---|---|---|
| Date | 2021-06-22, 05:55 | 2021-06-22, 06:01 |
| psSAR1g [W/Kg] | 1.10 | 1.10 |
| psSAR10g [W/Kg] | 0.761 | 0.729 |
| Power Drift [dB] | 0.01 | 0.01 |
| TSL Correction | Positive / Negative | Positive / Negative |



# Motorola Solutions, Inc. EME Laboratory

**Date/Time: 6/25/2021 6:18:25 PM**

| | |
|---|---|
| Robot#: DASY5-PG-3 \| Run#: | MA(BAD)-SYSP-750H-210625-09 |
| Dipole Model# | D750V3 |
| Phantom#: | ELI4 1037 |
| Tissue Temp: | 21.5 (C) |
| Serial#: | 1142 |
| Test Freq: | 750.0000 (MHz) |
| Start Power: | 250 (mW) |
| Rotation (1D): | 0.120 dB |
| Adjusted SAR (1W): | 8.84 mW/g (1g) |

Comments:

Communication System Band: Dipole 750, Communication System UID: 0, Duty Cycle: 1:1,

Medium parameters used: f = 750 MHz; $\sigma$ = 0.89 S/m; $\varepsilon_r$ = 41.9; $\rho$ = 1000 kg/m$^3$

Probe: EX3DV4 - SN7533, Calibrated: 4/19/2021, Frequency: 750 MHz, ConvF(10.83, 10.83, 10.83) @ 750 MHz
Electronics: DAE3 Sn374, Calibrated: 4/8/2021

## Below 2 GHz-Rev.3/System Performance Check/Dipole Area Scan 2 (41x141x1):

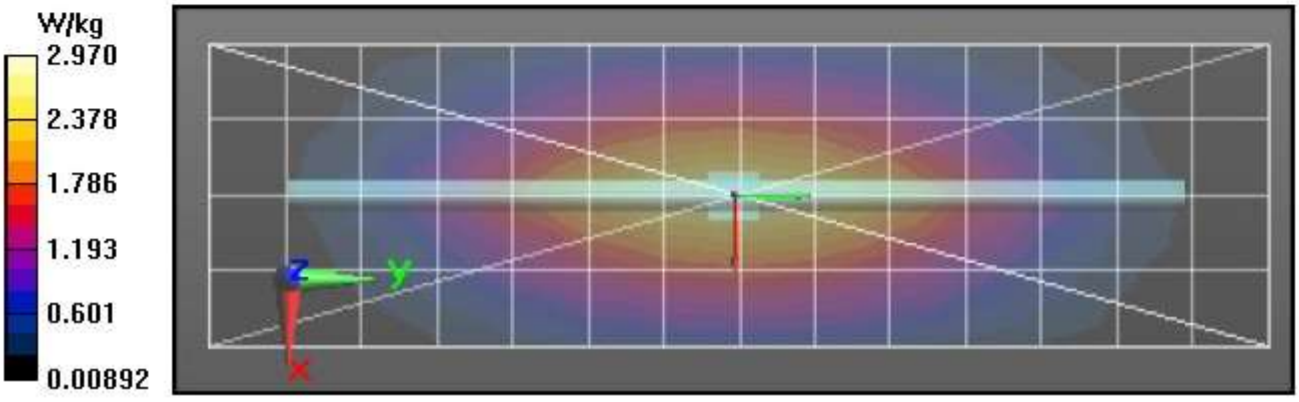
Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 60.45 V/m; Power Drift = -0.06 dB
**Fast SAR: SAR(1 g) = 2.31 W/kg; SAR(10 g) = 1.52 W/kg** (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 2.97 W/kg

## 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 = 60.45 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 3.38 W/kg
**SAR(1 g) = 2.21 W/kg; SAR(10 g) = 1.45 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 = 65.3%
Maximum value of SAR (measured) = 2.98 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) = 2.97 W/kg



## Motorola Solutions, Inc. EME Laboratory
**Date/Time: 6/26/2021 5:25:04 AM**

| | |
|---|---|
| Robot#: DASY5-PG-3 \| Run#: | AMN-SYSP-835H-210625-07# |
| Dipole Model# | D835V2 |
| Phantom#: | ELI4 1011 |
| Tissue Temp: | 21.4 (C) |
| Serial#: | 4d030 |
| Test Freq: | 835.0000 (MHz) |
| Start Power: | 250 (mW) |
| Rotation (1D): | 0.075 dB |
| Adjusted SAR (1W): | 9.56 mW/g (1g) |

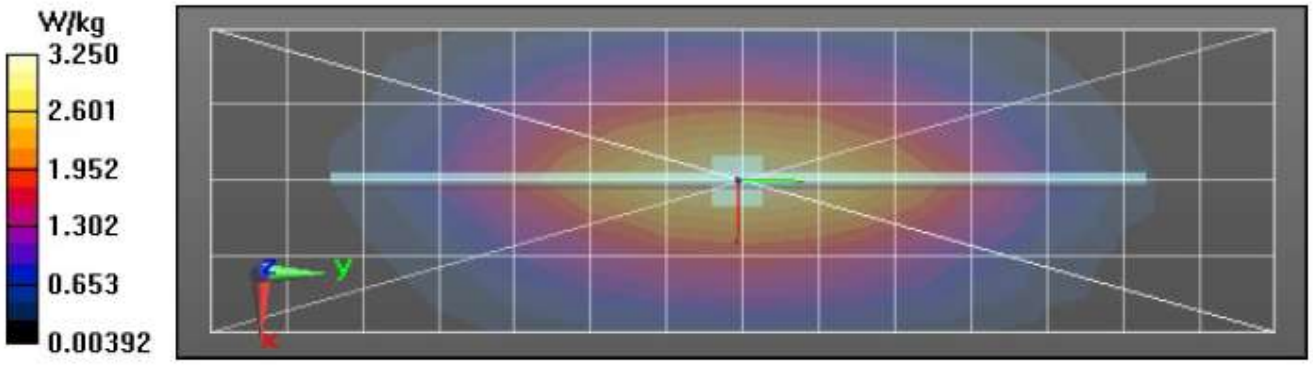
Comments:

Communication System Band: Dipole 835, Communication System UID: 0, Duty Cycle: 1:1,
Medium parameters used: f = 835 MHz; $\sigma$ = 0.94 S/m; $\varepsilon_r$ = 41.2; $\rho$ = 1000 kg/m$^3$
Probe: EX3DV4 - SN7533, Calibrated: 4/19/2021, Frequency: 835 MHz, ConvF(10.5, 10.5, 10.5) @ 835 MHz
Electronics: DAE3 Sn374, Calibrated: 4/8/2021

### Below 2 GHz-Rev.3/System Performance Check/Dipole Area Scan 2 (41x141x1):
Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 61.85 V/m; Power Drift = -0.03 dB
**Fast SAR: SAR(1 g) = 2.45 W/kg; SAR(10 g) = 1.61 W/kg** (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 3.25 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 = 61.85 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 3.66 W/kg
**SAR(1 g) = 2.39 W/kg; SAR(10 g) = 1.56 W/kg** (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 19.2 mm
Ratio of SAR at M2 to SAR at M1 = 66.3%
Maximum value of SAR (measured) = 3.27 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) = 3.28 W/kg



## Motorola Solutions, Inc. EME Laboratory

**Date/Time: 6/26/2021 10:56:41 PM**

| | |
|---|---|
| Robot#: DASY5-PG-3 \| Run#: | AMN-SYSP-1800H-210626-19 |
| Dipole Model# | D1800V2 |
| Phantom#: | ELI4 1109 |
| Tissue Temp: | 20.1 (C) |
| Serial#: | 278 |
| Test Freq: | 1800.0000 (MHz) |
| Start Power: | 250 (mW) |
| Rotation (1D): | 0.16 dB |
| Adjusted SAR (1W): | 39.44 mW/g (1g) |

Comments:

Communication System Band: Dipole 1800, Communication System UID: 0, Duty Cycle: 1:1,
Medium parameters used: f = 1800 MHz; $\sigma$ = 1.38 S/m; $\varepsilon_r$ = 40.3; $\rho$ = 1000 kg/m$^3$
Probe: EX3DV4 - SN7533, Calibrated: 4/19/2021, Frequency: 1800 MHz, ConvF(8.5, 8.5, 8.5) @ 1800 MHz
Electronics: DAE3 Sn374, Calibrated: 4/8/2021

### Below 2 GHz-Rev.3/System Performance Check/Dipole Area Scan 2 (41x81x1):

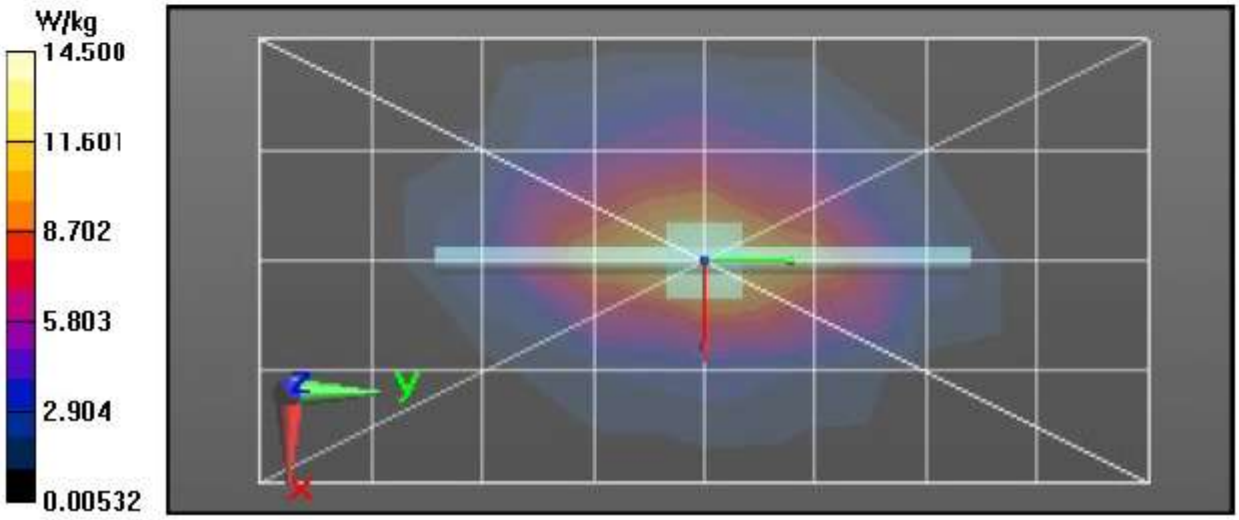
Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 107.9 V/m; Power Drift = 0.02 dB
**Fast SAR: SAR(1 g) = 10.3 W/kg; SAR(10 g) = 5.31 W/kg** (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 15.1 W/kg

### 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 = 107.9 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 17.9 W/kg
**SAR(1 g) = 9.86 W/kg; SAR(10 g) = 5.15 W/kg** (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 10.5 mm
Ratio of SAR at M2 to SAR at M1 = 54.5%
Maximum value of SAR (measured) = 15.1 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) = 15.2 W/kg



# Motorola Solutions, Inc. EME Laboratory

**Date/Time: 6/26/2021 5:39:02 PM**

| | |
|---|---|
| Robot#: DASY5-PG-3 \| Run#: | MA(BAD)-SYSP-1900H-210626-16 |
| Dipole Model# | D1900V2 |
| Phantom#: | ELI4 1109 |
| Tissue Temp: | 20.7 (C) |
| Serial#: | 5d065 |
| Test Freq: | 1900.0000 (MHz) |
| Start Power: | 250 (mW) |
| Rotation (1D): | 0.100 dB |
| Adjusted SAR (1W): | 40.80 mW/g (1g) |

Comments:

Communication System Band: Dipole 1900, Communication System UID: 0, Duty Cycle: 1:1,
Medium parameters used: f = 1900 MHz; $\sigma$ = 1.44 S/m; $\varepsilon_r$ = 39.4; $\rho$ = 1000 kg/m$^3$
Probe: EX3DV4 - SN7533, Calibrated: 4/19/2021, Frequency: 1900 MHz, ConvF(8.39, 8.39, 8.39) @ 1900 MHz
Electronics: DAE3 Sn374, Calibrated: 4/8/2021

## Below 2 GHz-Rev.3/System Performance Check/Dipole Area Scan 2 (41x81x1):

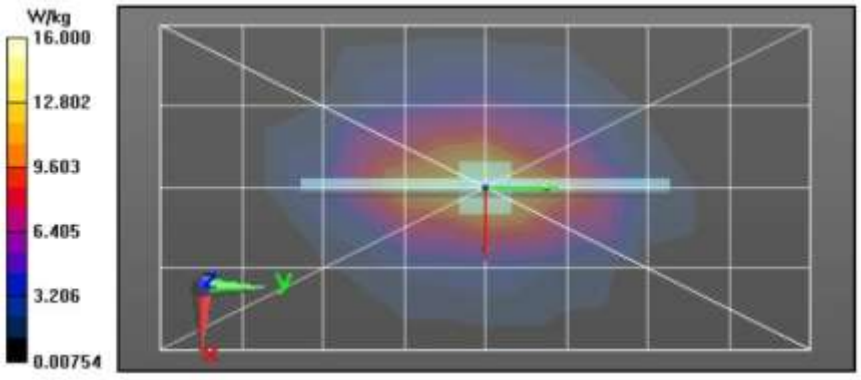
Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 109.9 V/m; Power Drift = -0.05 dB
**Fast SAR: SAR(1 g) = 10.8 W/kg; SAR(10 g) = 5.48 W/kg** (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 16.5 W/kg

## 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 = 109.9 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 19.8 W/kg
**SAR(1 g) = 10.2 W/kg; SAR(10 g) = 5.3 W/kg** (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 10.5 mm
Ratio of SAR at M2 to SAR at M1 = 52.5%
Maximum value of SAR (measured) = 16.2 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) = 16.4 W/kg



## Motorola Solutions, Inc. EME Laboratory

**Date/Time: 6/27/2021 9:30:06 PM**

Robot#: DASY5-PG-3 | Run#: AR-SYSP-1900H-210627-04.da52
Dipole Model# D1900V2
Phantom#: ELI4 1109
Tissue Temp: 21.0 (C)
Serial#: 5d065
Test Freq: 1900.0000 (MHz)
Start Power: 250 (mW)
Rotation (1D): 0.043 dB
Adjusted SAR (1W): 40.40 mW/g (1g)

Comments:

Communication System Band: Dipole 1900, Communication System UID: 0, Duty Cycle: 1:1,
Medium parameters used: f = 1900 MHz; $\sigma$ = 1.46 S/m; $\varepsilon_r$ = 38.8; $\rho$ = 1000 kg/m$^3$
Probe: EX3DV4 - SN7533, Calibrated: 4/19/2021, Frequency: 1900 MHz, ConvF(8.39, 8.39, 8.39) @ 1900 MHz
Electronics: DAE3 Sn374, Calibrated: 4/8/2021

### Below 2 GHz-Rev.3/System Performance Check/Dipole Area Scan 2 (41x81x1):

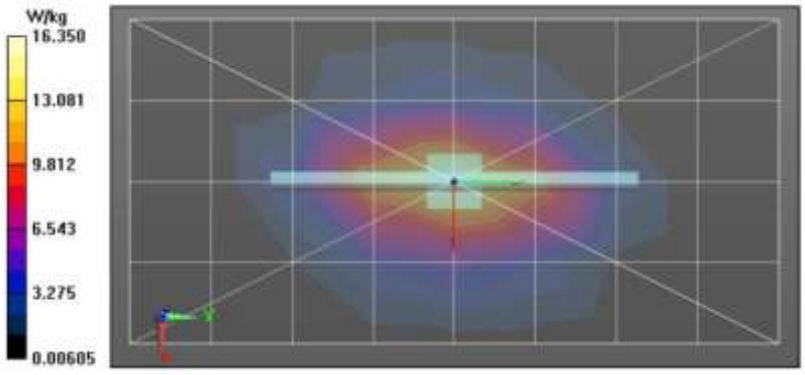
Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 109.6 V/m; Power Drift = -0.05 dB
**Fast SAR: SAR(1 g) = 10.8 W/kg; SAR(10 g) = 5.53 W/kg** (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 16.6 W/kg

### 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 = 109.6 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 19.8 W/kg
**SAR(1 g) = 10.1 W/kg; SAR(10 g) = 5.25 W/kg** (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 10.5 mm
Ratio of SAR at M2 to SAR at M1 = 52.4%
Maximum value of SAR (measured) = 16.2 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) = 16.4 W/kg



## Motorola Solutions, Inc. EME Laboratory

**Date/Time: 6/27/2021 10:58:32 PM**

Robot#: DASY5-PG-3 | Run#: AR-SYSP-2300H-210627-06
Dipole Model# D2300V2
Phantom#: ELI4 1028
Tissue Temp: 20.8 (C)
Serial#: 1007
Test Freq: 2300.0000 (MHz)
Start Power: 250 (mW)
Rotation (1D): 0.044 dB
Adjusted SAR (1W): 50.80 mW/g (1g)

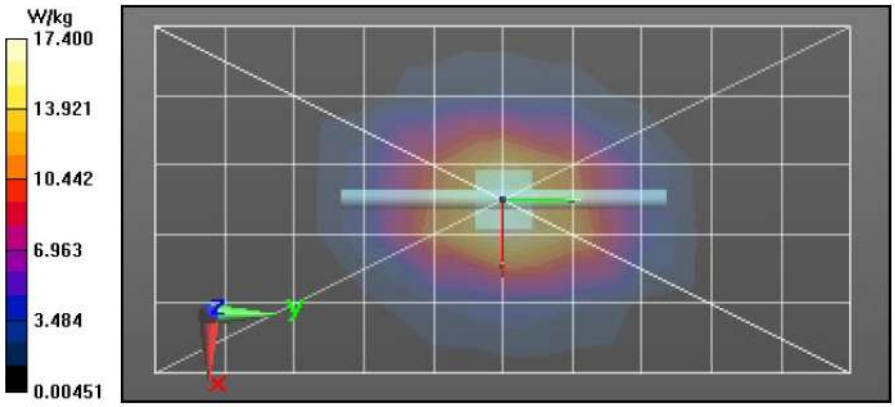
Comments:

Communication System Band: Dipole 2300, Communication System UID: 0, Duty Cycle: 1:1,
Medium parameters used: f = 2300 MHz; $\sigma$ = 1.74 S/m; $\varepsilon_r$ = 38.1; $\rho$ = 1000 kg/m$^3$
Probe: EX3DV4 - SN7533, Calibrated: 4/19/2021, Frequency: 2300 MHz, ConvF(8.08, 8.08, 8.08) @ 2300 MHz
Electronics: DAE3 Sn374, Calibrated: 4/8/2021

**2-3 GHz-Rev.3/System Performance Check/Dipole Area Scan 2 (51x101x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm
Reference Value = 115.9 V/m; Power Drift = -0.07 dB
**Fast SAR: SAR(1 g) = 13.5 W/kg; SAR(10 g) = 6.55 W/kg** (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 22.1 W/kg

**2-3 GHz-Rev.3/System Performance Check/0-Degree Cube (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 115.9 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 27.3 W/kg
**SAR(1 g) = 12.7 W/kg; SAR(10 g) = 6 W/kg** (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 9.1 mm
Ratio of SAR at M2 to SAR at M1 = 47.6%
Maximum value of SAR (measured) = 21.8 W/kg

**2-3 GHz-Rev.3/System Performance Check/Z-Axis Retraction (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 21.9 W/kg



Motorola Solutions, EME Laboratory

2021-06-23, 01:34

## System Performance Check Report

### Summary

| Dipole | Frequency [MHz] | TSL | Power [dBm] | Dev. 1g [%] | Dev. 10g [%] |
|---|---|---|---|---|---|
| D2450V2 - SN708 | 2450.0 | HSL | 28.9794 | -0.2 | -1.0 |

### Exposure Conditions

| Phantom Section, TSL | Test Distance [mm] | Band | Group, UID | Frequency [MHz], Channel Number | Conversion Factor | TSL Conductivity [S/m] | TSL Permittivity |
|---|---|---|---|---|---|---|---|
| Flat, HSL | 10 | | , 0-- | 2450.0, 0 | 7.68 | 1.87 | 37.0 |

### Hardware Setup

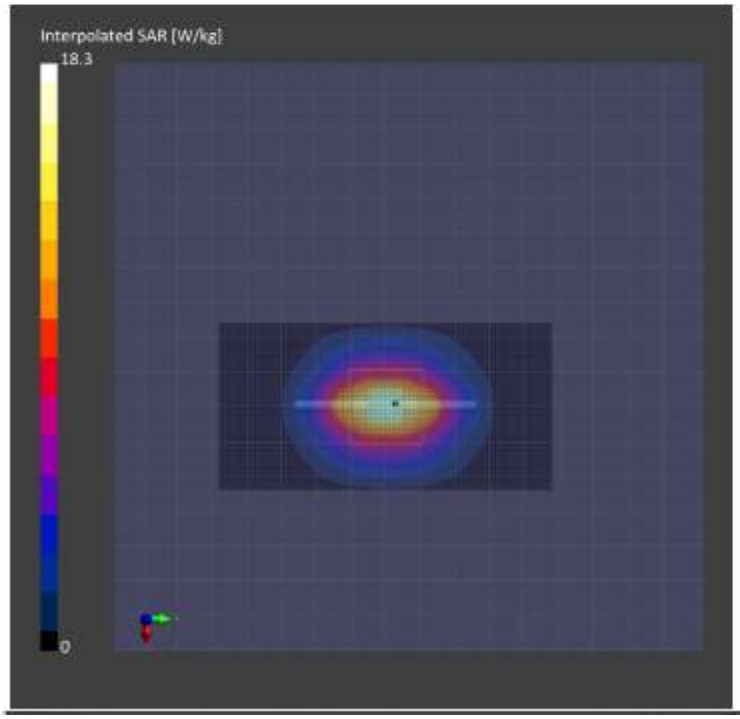
| Phantom | TSL, Measured Date | Probe, Calibration Date | DAE, Calibration Date |
|---|---|---|---|
| ELI V4.0 (20deg probe tilt) - 1016 | HSL2450 , 2021-Jun-28 | EX3DV4 - SN7594, 2020-12-10 | DAE4 Sn1488, 2021-04-07 |

### Scans Setup

| | Area Scan | Zoom Scan |
|---|---|---|
| Grid Extents [mm] | 48.0 x 96.0 | 30.0 x 30.0 x 30.0 |
| Grid Steps [mm] | 12.0 x 12.0 | 5.0 x 5.0 x 1.5 |
| Sensor Surface [mm] | 3.0 | 1.4 |
| Graded Grid | No | Yes |
| Grading Ratio | n/a | 1.5 |
| MAIA | N/A | N/A |
| Surface Detection | VMS + 6p | VMS + 6p |
| Scan Method | Measured | Measured |

### Measurement Results

| | Area Scan | Zoom Scan |
|---|---|---|
| Date | 2021-06-28, 01:34 | 2021-06-28, 01:41 |
| psSAR1g [W/Kg] | 18.4 | 18.2 |
| psSAR10g [W/Kg] | 6.27 | 6.09 |
| Power Drift [dB] | 0.01 | -0.00 |
| TSL Correction | Positive / Negative | Positive / Negative |



## Motorola Solutions, Inc. EME Laboratory

**Date/Time: 6/28/2021 12:18:53 AM**

| | |
|---|---|
| Robot#: DASY5-PG-3 \| Run#: | AR-SYSP-2600H-210628-01# |
| Dipole Model# | D2600V2 |
| Phantom#: | ELI4 1028 |
| Tissue Temp: | 20.8 (C) |
| Serial#: | 1002 |
| Test Freq: | 2600.0000 (MHz) |
| Start Power: | 250 (mW) |
| Rotation (1D): | 0.054 dB |
| Adjusted SAR (1W): | 57.20 mW/g (1g) |

Comments:

Communication System Band: Dipole 2600, Communication System UID: 0, Duty Cycle: 1:1,
Medium parameters used: f = 2600 MHz; $\sigma$ = 2.05 S/m; $\varepsilon_r$ = 37.1; $\rho$ = 1000 kg/m$^3$
Probe: EX3DV4 - SN7533, Calibrated: 4/19/2021, Frequency: 2600 MHz, ConvF(7.74, 7.74, 7.74) @ 2600 MHz
Electronics: DAE3 Sn374, Calibrated: 4/8/2021

### 2-3 GHz-Rev.3/System Performance Check/Dipole Area Scan 2 (51x101x1): Interpolated

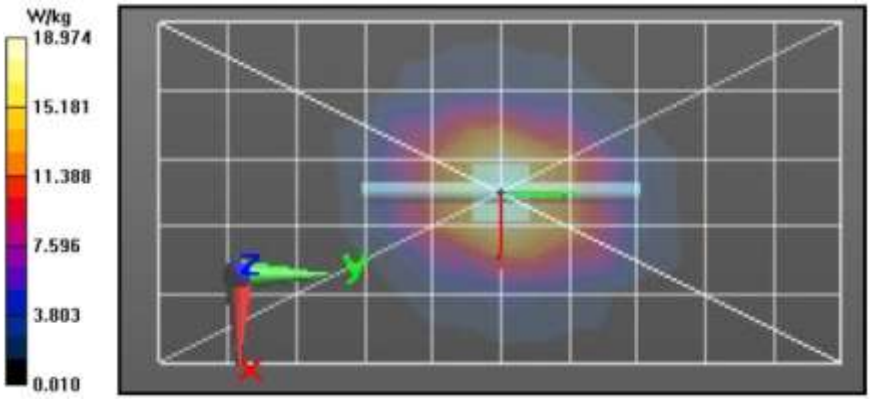
grid: dx=1.200 mm, dy=1.200 mm
Reference Value = 116.7 V/m; Power Drift = -0.09 dB
**Fast SAR: SAR(1 g) = 15.4 W/kg; SAR(10 g) = 7.02 W/kg** (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 27.0 W/kg

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

grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 116.7 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 34.1 W/kg
**SAR(1 g) = 14.3 W/kg; SAR(10 g) = 6.25 W/kg** (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 9.1 mm
Ratio of SAR at M2 to SAR at M1 = 42.7%
Maximum value of SAR (measured) = 26.4 W/kg

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

dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 26.6 W/kg



## Motorola Solutions, Inc. EME Laboratory

**Date/Time: 8/4/2021 1:07:17 PM**

Robot#: DASY5-PG-3 | Run#: AMN-SYSP-2600H-210804-09
Dipole Model# D2600V2
Phantom#: ELI4 1028
Tissue Temp: 20.9 (C)
Serial#: 1002
Test Freq: 2600 (MHz)
Start Power: 31.6 (mW)
Rotation (1D): 0.15 dB
Adjusted SAR (1W): 57.60 mW/g (1g)

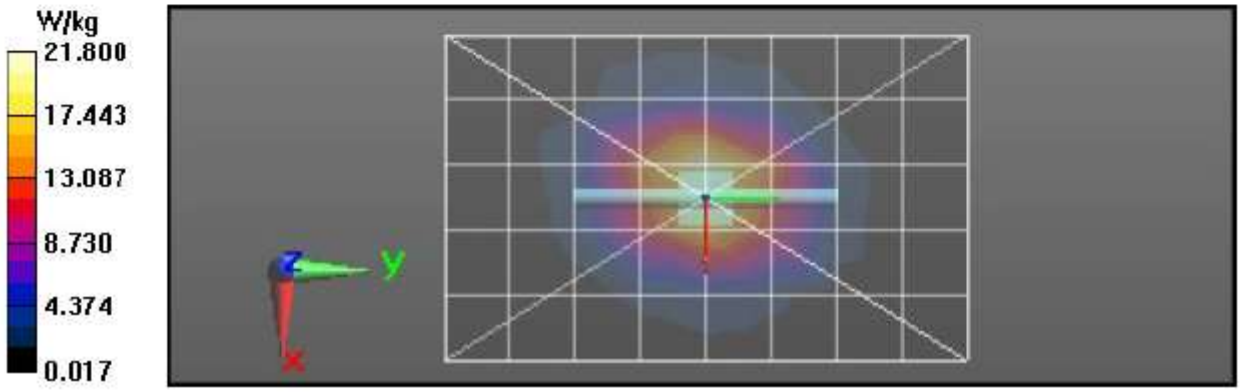
Comments:

Communication System Band: Dipole 2600, Communication System UID: 0, Duty Cycle: 1:1,
Medium parameters used: f = 2600 MHz; $\sigma$ = 2.04 S/m; $\varepsilon_r$ = 35.3; $\rho$ = 1000 kg/m$^3$
Probe: EX3DV4 - SN7533, Calibrated: 4/19/2021, Frequency: 2600 MHz, ConvF(7.74, 7.74, 7.74) @ 2600 MHz
Electronics: DAE3 Sn374, Calibrated: 4/8/2021

**2-3 GHz-Rev.3/System Performance Check/Dipole Area Scan 2 (51x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm
Reference Value = 120.7 V/m; Power Drift = -0.13 dB
**Fast SAR: SAR(1 g) = 15.7 W/kg; SAR(10 g) = 7.22 W/kg** (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 27.4 W/kg

**2-3 GHz-Rev.3/System Performance Check/0-Degree Cube (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 120.7 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 34.9 W/kg
**SAR(1 g) = 14.4 W/kg; SAR(10 g) = 6.32 W/kg** (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 9.5 mm
Ratio of SAR at M2 to SAR at M1 = 42.1%
Maximum value of SAR (measured) = 27.0 W/kg

**2-3 GHz-Rev.3/System Performance Check/Z-Axis Retraction (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 28.0 W/kg



## Motorola Solutions, Inc. EME Laboratory

**Date/Time: 7/15/2021 9:32:48 PM**

| | |
|---|---|
| Robot#: DASY5-PG-3 \| Run#: | MA(BAD)-SYSP-3500H-210715-09 |
| Dipole Model# | D3500V2 |
| Phantom#: | ELI4 1109 |
| Tissue Temp: | 21.9 (C) |
| Serial#: | 1008 |
| Test Freq: | 3500.0000 (MHz) |
| Start Power: | 31.6 (mW) |
| Rotation (1D): | 0.140 dB |
| Adjusted SAR (1W): | 68.99 mW/g (1g) |

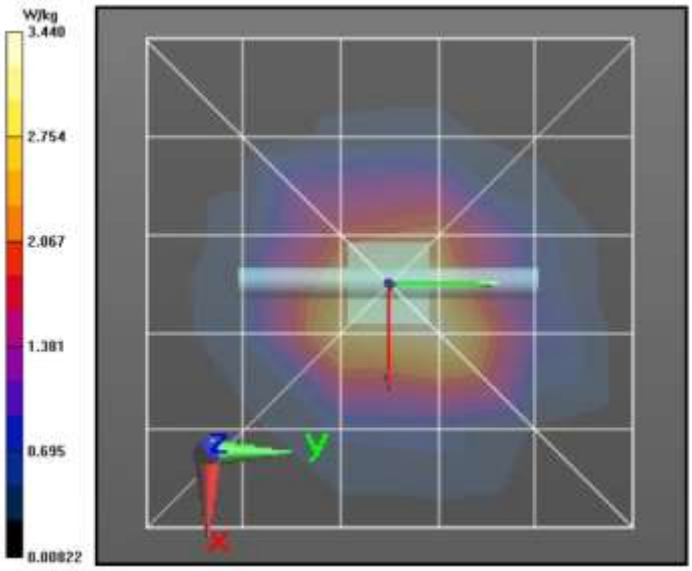
Comments:

Communication System Band: Dipole 3500, Communication System UID: 0, Duty Cycle: 1:1,
Medium parameters used: f = 3500 MHz; $\sigma$ = 3.1 S/m; $\varepsilon_r$ = 38.6; $\rho$ = 1000 kg/m$^3$
Probe: EX3DV4 - SN7533, Calibrated: 4/19/2021, Frequency: 3500 MHz, ConvF(7.26, 7.26, 7.26) @ 3500 MHz
Electronics: DAE3 Sn374, Calibrated: 4/8/2021

**3-4 GHz-Rev.5/System Performance Check/Dipole Area Scan 2 (51x51x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm
Reference Value = 40.10 V/m; Power Drift = -0.04 dB
**Fast SAR: SAR(1 g) = 2.43 W/kg; SAR(10 g) = 0.911 W/kg** (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 4.81 W/kg

**3-4 GHz-Rev.5/System Performance Check/0-Degree Cube (7x7x11)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 40.10 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 6.39 W/kg
**SAR(1 g) = 2.18 W/kg; SAR(10 g) = 0.803 W/kg** (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 8 mm
Ratio of SAR at M2 to SAR at M1 = 50.3%
Maximum value of SAR (measured) = 4.58 W/kg

**3-4 GHz-Rev.5/System Performance Check/Z-Axis Retraction (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 4.61 W/kg



## Motorola Solutions, Inc. EME Laboratory

**Date/Time: 6/26/2021 10:27:28 AM**

| | |
|---|---|
| Robot#: DASY5-PG-3 \| Run#: | MA(BAD)-SYSP-3700H-210626-11 |
| Dipole Model# | D3700V2 |
| Phantom#: | ELI5 1150 |
| Tissue Temp: | 21.0 (C) |
| Serial#: | 1028 |
| Test Freq: | 3700.0000 (MHz) |
| Start Power: | 100 (mW) |
| Rotation (1D): | 0.140 dB |
| Adjusted SAR (1W): | 70.20 mW/g (1g) |

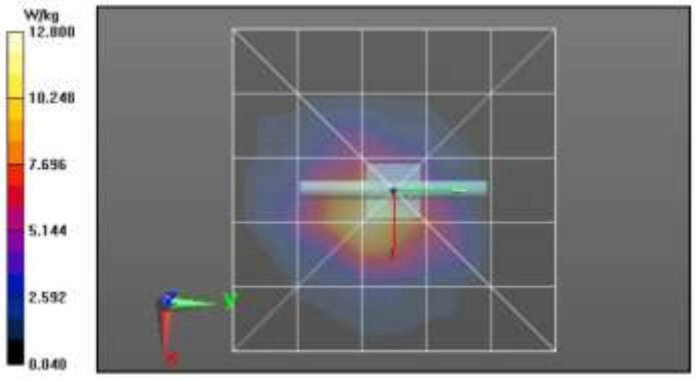
Comments:

Communication System Band: Dipole 3700, Communication System UID: 0, Duty Cycle: 1:1,
Medium parameters used: f = 3700 MHz; $\sigma$ = 2.83 S/m; $\varepsilon_r$ = 38.7; $\rho$ = 1000 kg/m$^3$
Probe: EX3DV4 - SN7533, Calibrated: 4/19/2021, Frequency: 3700 MHz, ConvF(7.01, 7.01, 7.01) @ 3700 MHz
Electronics: DAE3 Sn374, Calibrated: 4/8/2021

**3-4 GHz-Rev.5/System Performance Check/Dipole Area Scan 2 (51x51x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm
Reference Value = 74.62 V/m; Power Drift = -0.11 dB
**Fast SAR: SAR(1 g) = 7.2 W/kg; SAR(10 g) = 2.5 W/kg** (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 13.8 W/kg

**3-4 GHz-Rev.5/System Performance Check/0-Degree Cube (7x7x11)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 74.62 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 18.2 W/kg
**SAR(1 g) = 7.02 W/kg; SAR(10 g) = 2.55 W/kg** (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 8 mm
Ratio of SAR at M2 to SAR at M1 = 54.7%
Maximum value of SAR (measured) = 13.5 W/kg

**3-4 GHz-Rev.5/System Performance Check/Z-Axis Retraction (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 14.4 W/kg



## Motorola Solutions, Inc. EME Laboratory

**Date/Time: 7/15/2021 10:27:35 PM**

| | |
|---|---|
| Robot#: DASY5-PG-3 \| Run#: | MA(BAD)-SYSP-3700H-210715-10 |
| Dipole Model# | D3700V2 |
| Phantom#: | ELI4 1109 |
| Tissue Temp: | 21.9 (C) |
| Serial#: | 1028 |
| Test Freq: | 3700.0000 (MHz) |
| Start Power: | 31.6 (mW) |
| Rotation (1D): | 0.120 dB |
| Adjusted SAR (1W): | 69.62 mW/g (1g) |

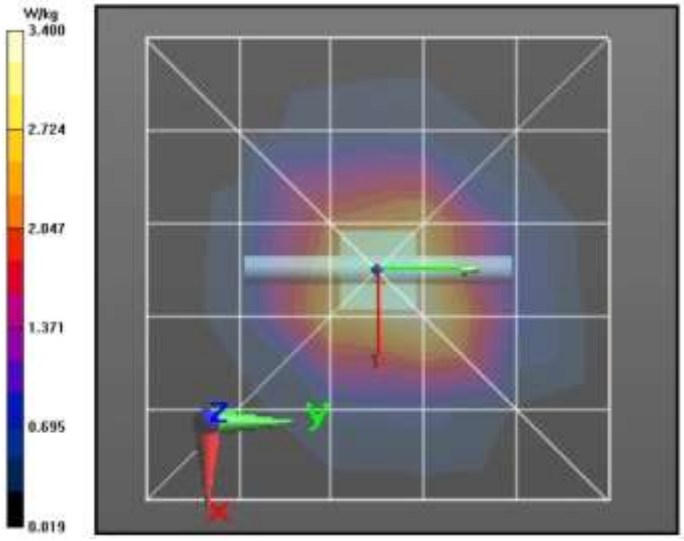
Comments:

Communication System Band: Dipole 3700, Communication System UID: 0, Duty Cycle: 1:1,
Medium parameters used: f = 3700 MHz; $\sigma$ = 3.31 S/m; $\varepsilon_r$ = 37.9; $\rho$ = 1000 kg/m$^3$
Probe: EX3DV4 - SN7533, Calibrated: 4/19/2021, Frequency: 3700 MHz, ConvF(7.01, 7.01, 7.01) @ 3700 MHz
Electronics: DAE3 Sn374, Calibrated: 4/8/2021

**3-4 GHz-Rev.5/System Performance Check/Dipole Area Scan 2 (51x51x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm
Reference Value = 39.74 V/m; Power Drift = -0.10 dB
**Fast SAR: SAR(1 g) = 2.46 W/kg; SAR(10 g) = 0.904 W/kg** (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 5.04 W/kg

**3-4 GHz-Rev.5/System Performance Check/0-Degree Cube (7x7x11)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 39.74 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 6.94 W/kg
**SAR(1 g) = 2.2 W/kg; SAR(10 g) = 0.789 W/kg** (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 8.9 mm
Ratio of SAR at M2 to SAR at M1 = 47.5%
Maximum value of SAR (measured) = 4.80 W/kg

**3-4 GHz-Rev.5/System Performance Check/Z-Axis Retraction (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 4.81 W/kg



Motorola Solutions, EME Laboratory

2021-06-23, 12:05

## System Performance Check Report

### Summary

| Dipole | Frequency [MHz] | TSL | Power [dBm] | Dev. 1g [%] | Dev. 10g [%] |
|---|---|---|---|---|---|
| D5GHzV2 - SN1027 | 5250.0 | HSL | 20.0 | -4.9 | -0.1 |

### Exposure Conditions

| Phantom Section, TSL | Test Distance [mm] | Band | Group, UID | Frequency [MHz], Channel Number | Conversion Factor | TSL Conductivity [S/m] | TSL Permittivity |
|---|---|---|---|---|---|---|---|
| Flat, HSL | 10 | | , 0-- | 5250.0, 0 | 5.45 | 4.81 | 88.9 |

### Hardware Setup

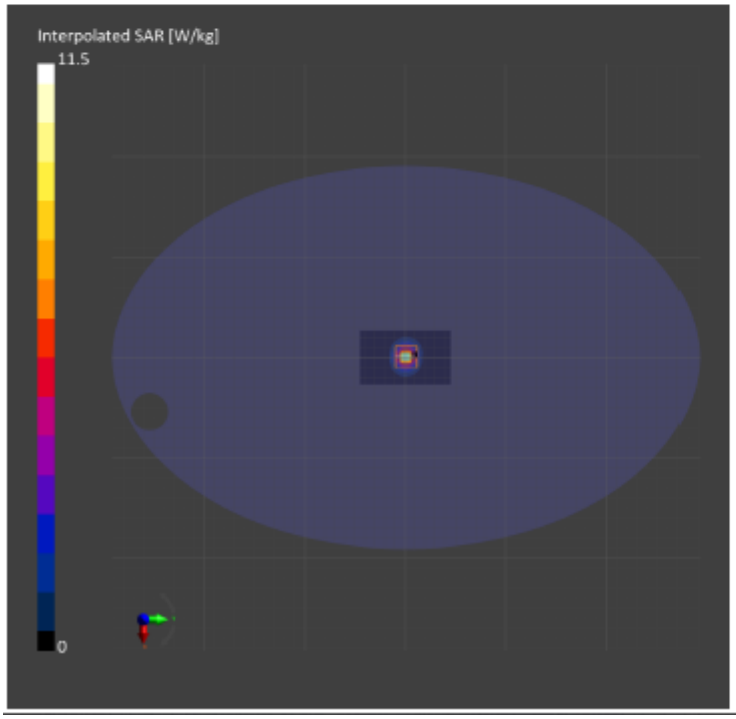
| Phantom | TSL, Measured Date | Probe, Calibration Date | DAE, Calibration Date |
|---|---|---|---|
| ELI V4.0 (20deg probe tilt) - 1016 | HSL5250 , 2021-Jun-28 | EX3DV4 - SN7594, 2020-12-10 | DAE4 Sn1488, 2021-04-07 |

### Scans Setup

| | Area Scan | Zoom Scan |
|---|---|---|
| Grid Extents [mm] | 54.0 x 90.0 | 28.0 x 28.0 x 22.0 |
| Grid Steps [mm] | 9.0 x 9.0 | 4.0 x 4.0 x 1.4 |
| Sensor Surface [mm] | 8.0 | 1.4 |
| Graded Grid | No | Yes |
| Grading Ratio | n/a | 1.4 |
| MAIA | N/A | N/A |
| Surface Detection | VMS + 6p | VMS + 6p |
| Scan Method | Measured | Measured |

### Measurement Results

| | Area Scan | Zoom Scan |
|---|---|---|
| Date | 2021-06-28, 12:05 | 2021-06-28, 12:21 |
| psSAR1g [W/Kg] | 7.20 | 7.66 |
| psSAR10g [W/Kg] | 2.11 | 2.80 |
| Power Drift [dB] | 0.08 | 0.12 |
| TSL Correction | Positive / Negative | Positive / Negative |



Motorola Solutions, EME Laboratory

2021-06-23, 12:36

## System Performance Check Report

### Summary

| Dipole | Frequency [MHz] | TSL | Power [dBm] | Dev. 1g [%] | Dev. 10g [%] |
|---|---|---|---|---|---|
| D5GHzV2 - SN1027 | 5500.0 | HSL | 20.0 | -4.5 | 1.8 |

### Exposure Conditions

| Phantom Section, TSL | Test Distance [mm] | Band | Group, UID | Frequency [MHz], Channel Number | Conversion Factor | TSL Conductivity [S/m] | TSL Permittivity |
|---|---|---|---|---|---|---|---|
| Flat, HSL | 10 | | , 0-- | 5500.0, 0 | 5.08 | 4.56 | 88.5 |

### Hardware Setup

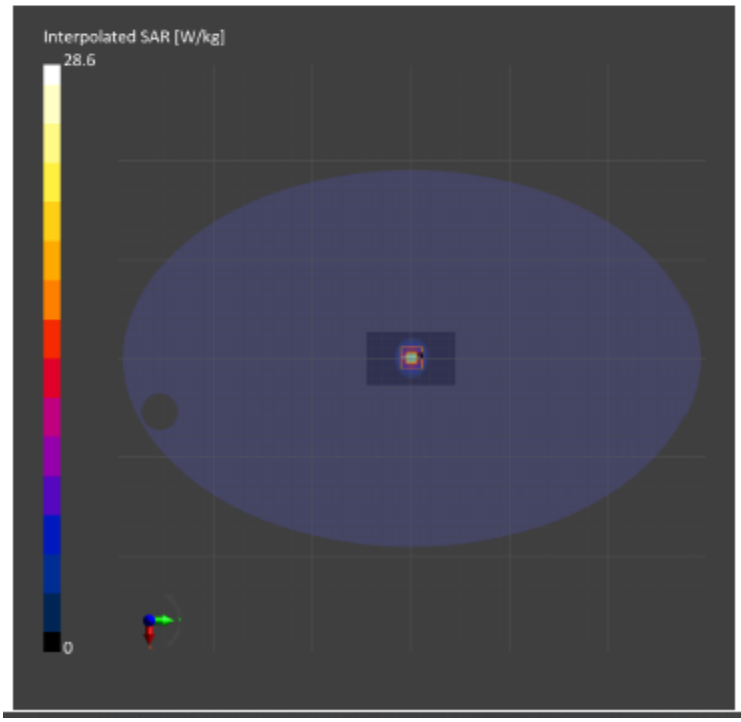
| Phantom | TSL, Measured Date | Probe, Calibration Date | DAE, Calibration Date |
|---|---|---|---|
| ELI V4.0 (20deg probe tilt) - 1016 | HSL5500 , 2021-Jun-28 | EX3DV4 - SN7594, 2020-12-10 | DAE4 Sn1488, 2021-04-07 |

### Scans Setup

| | Area Scan | Zoom Scan |
|---|---|---|
| Grid Extents [mm] | 54.0 x 90.0 | 28.0 x 28.0 x 22.0 |
| Grid Steps [mm] | 9.0 x 9.0 | 4.0 x 4.0 x 1.4 |
| Sensor Surface [mm] | 8.0 | 1.4 |
| Graded Grid | No | Yes |
| Grading Ratio | n/a | 1.4 |
| MAIA | N/A | N/A |
| Surface Detection | VMS + 6p | VMS + 6p |
| Scan Method | Measured | Measured |

### Measurement Results

| | Area Scan | Zoom Scan |
|---|---|---|
| Date | 2021-06-28, 12:36 | 2021-06-28, 12:58 |
| psSAR1g [W/Kg] | 7.56 | 7.95 |
| psSAR10g [W/Kg] | 2.21 | 2.87 |
| Power Drift [dB] | 0.07 | 0.04 |
| TSL Correction | Positive / Negative | Positive / Negative |



Motorola Solutions, EME Laboratory

2021-06-23, 14:24

## System Performance Check Report

### Summary

| Dipole | Frequency [MHz] | TSL | Power [dBm] | Dev. 1g [%] | Dev. 10g [%] |
|---|---|---|---|---|---|
| D5GHzV2 - SN1027 | 5750.0 | HSL | 20.0 | 4.1 | 9.6 |

### Exposure Conditions

| Phantom Section, TSL | Test Distance [mm] | Band | Group, UID | Frequency [MHz], Channel Number | Conversion Factor | TSL Conductivity [S/m] | TSL Permittivity |
|---|---|---|---|---|---|---|---|
| Flat, HSL | 10 | | , 0-- | 5750.0, 0 | 5.05 | 4.84 | 88.2 |

### Hardware Setup

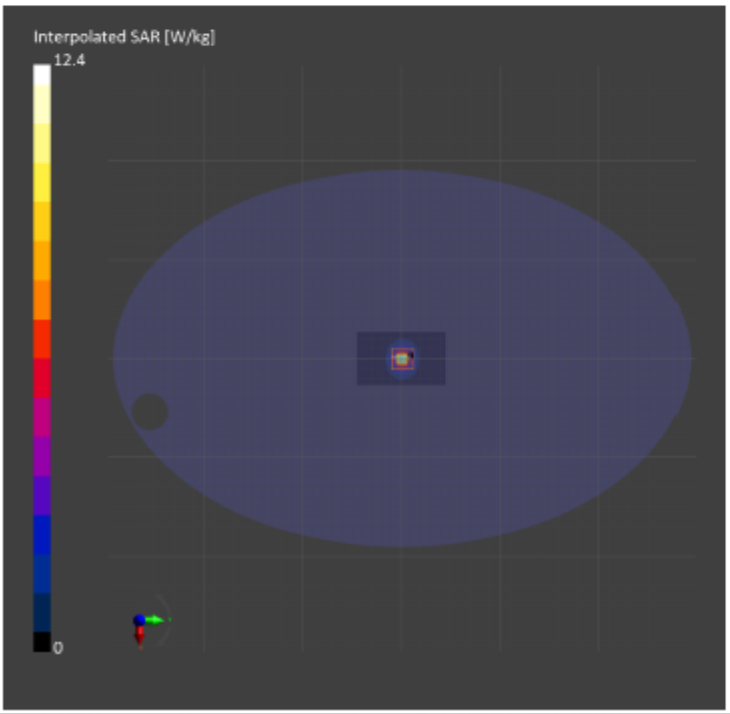
| Phantom | TSL, Measured Date | Probe, Calibration Date | DAE, Calibration Date |
|---|---|---|---|
| ELI V4.0 (20deg probe tilt) - 1016 | HSL5750 , 2021-Jun-28 | EX3DV4 - SN7594, 2020-12-10 | DAE4 Sn1488, 2021-04-07 |

### Scans Setup

| | Area Scan | Zoom Scan |
|---|---|---|
| Grid Extents [mm] | 54.0 x 90.0 | 28.0 x 28.0 x 22.0 |
| Grid Steps [mm] | 9.0 x 9.0 | 4.0 x 4.0 x 1.4 |
| Sensor Surface [mm] | 8.0 | 1.4 |
| Graded Grid | No | Yes |
| Grading Ratio | n/a | 1.4 |
| MAIA | N/A | N/A |
| Surface Detection | VMS + 6p | VMS + 6p |
| Scan Method | Measured | Measured |

### Measurement Results

| | Area Scan | Zoom Scan |
|---|---|---|
| Date | 2021-06-23, 14:24 | 2021-06-23, 14:42 |
| psSAR1g [W/Kg] | 7.98 | 8.29 |
| psSAR10g [W/Kg] | 2.82 | 2.48 |
| Power Drift [dB] | 0.11 | -0.00 |
| TSL Correction | Positive / Negative | Positive / Negative |



# Appendix E
# DUT Scans

# Table 16 – Assessments at the Body (LMR)

Motorola Solutions, EME Laboratory

2021-06-22, 17:59

Measurement Report for AAH90ZDU9RH1AN (PMUE5674B), 734TXK0049,FRONT, D450, CW, Channel 70 (470.0 MHz)

## Device Under Test Properties

| Model | Serial Number | Dimensions [mm] |
|---|---|---|
| AAH90ZDU9RH1AN (PMUE5674B) | 734TXK0049 | 148.0 x 80.0 x 40.0 |

## Exposure Conditions

| Phantom Section, TSL | Position, Test Distance [mm] | Band | Group, UID | Frequency [MHz], Channel Number | Conversion Factor | TSL Conductivity [S/m] | TSL Permittivity |
|---|---|---|---|---|---|---|---|
| Flat, HSL | FRONT, 0.00 | D450 | CW, 0--- | 470.0, 70 | 11.48 | 0.90 | 41.2 |

## Hardware Setup

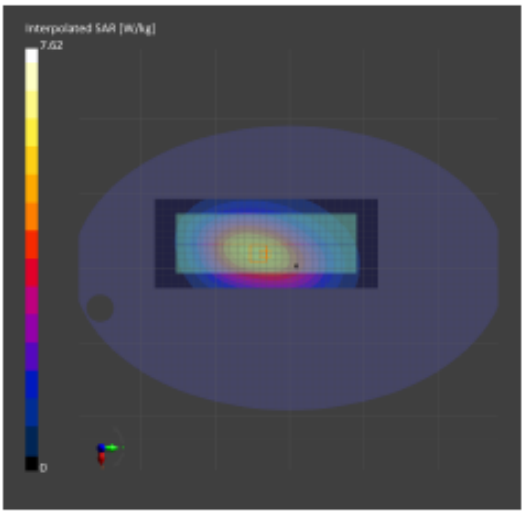
| Phantom | TSL, Measured Date | Probe, Calibration Date | DAE, Calibration Date |
|---|---|---|---|
| ELI V4.0 (20deg probe tilt) - 1016 | HSL450 , 2021-Jun-22 | EX3DV4 - SN7594, 2020-12-10 | DAE4 Sn1408, 2021-04-07 |

## Scans Setup

| | Area Scan | Zoom Scan |
|---|---|---|
| Grid Extents [mm] | 120.0 x 200.0 | 80.0 x 80.0 x 80.0 |
| Grid Steps [mm] | 15.0 x 15.0 | 8.0 x 8.0 x 1.5 |
| Sensor Surface [mm] | 8.0 | 1.4 |
| Graded Grid | No | Yes |
| Grading Ratio | n/a | 1.5 |
| MAIA | N/A | N/A |
| Surface Detection | VMS + 6p | VMS + 6p |
| Scan Method | Measured | Measured |

## Measurement Results

| | Area Scan | Zoom Scan |
|---|---|---|
| Date | 2021-06-22, 17:59 | 2021-06-22, 18:08 |
| psSAR1g [W/Kg] | 4.90 | 5.05 |
| psSAR10g [W/Kg] | 3.59 | 3.80 |
| Power Drift [dB] | -0.05 | -0.12 |
| TSL Correction | Positive only | Positive only |
| M2/M1 [%] | | 85.6 |
| Dist 6dB Peak [mm] | | > 15.0 |



# (WLAN 2.4GHz)

Motorola Solutions, EME Laboratory

2021-06-23, 04:16

Measurement Report for AAH90ZDU9RH1AN (PMUE5674B), 734TXK0049,FRONT, WLAN 2.4GHz, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle), Channel 6 (2437.0 MHz)

## Device Under Test Properties

| Model | Serial Number | Dimensions [mm] |
|---|---|---|
| AAH90ZDU9RH1AN (PMUE5674B) | 734TXK0049 | 213.0 x 78.0 x 40.0 |

## Exposure Conditions

| Phantom Section, TSL | Position, Test Distance [mm] | Band | Group, UID | Frequency [MHz], Channel Number | Conversion Factor | TSL Conductivity [S/m] | TSL Permittivity |
|---|---|---|---|---|---|---|---|
| Flat, HSL | FRONT, 0.00 | WLAN 2.4GHz | WLAN, 10415-AAA | 2437.0, 6 | 7.68 | 1.87 | 35.4 |

## Hardware Setup

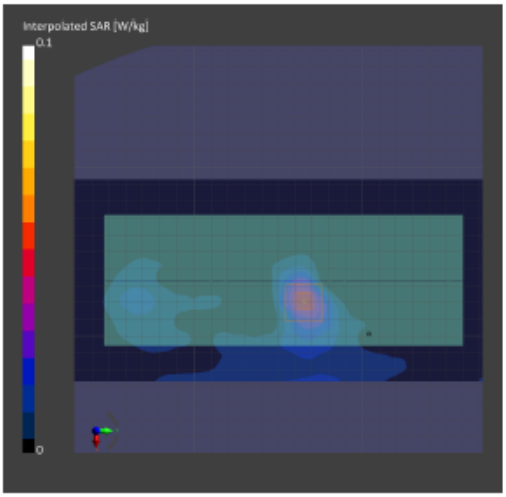
| Phantom | TSL, Measured Date | Probe, Calibration Date | DAE, Calibration Date |
|---|---|---|---|
| ELI V4.0 (20deg probe tilt) - 1016 | HSL2450 , 2021-Jun-17 | EX3DV4 - SN7594, 2020-12-10 | DAE4 Sn1488, 2021-04-07 |

## Scans Setup

| | Area Scan | Zoom Scan |
|---|---|---|
| Grid Extents [mm] | 120.0 x 264.0 | 30.0 x 30.0 x 30.0 |
| Grid Steps [mm] | 12.0 x 12.0 | 5.0 x 5.0 x 1.5 |
| Sensor Surface [mm] | 3.0 | 1.4 |
| Graded Grid | No | Yes |
| Grading Ratio | n/a | 1.5 |
| MAIA | N/A | N/A |
| Surface Detection | VMS + 6p | VMS + 6p |
| Scan Method | Measured | Measured |

## Measurement Results

| | Area Scan | Zoom Scan |
|---|---|---|
| Date | 2021-06-23, 04:16 | 2021-06-23, 04:24 |
| psSAR1g [W/Kg] | 0.038 | 0.036 |
| psSAR10g [W/Kg] | 0.018 | 0.015 |
| Power Drift [dB] | -0.26 | -0.14 |
| TSL Correction | Positive only | Positive only |
| M2/M1 [%] | | 70.4 |
| Dist 3dB Peak [mm] | | > 15.0 |



# (WLAN 5GHz)

Motorola Solutions, EME Laboratory

2021-06-23, 21:15

Measurement Report for AAH90ZDU9RH1AN (PMUE5674B), 734TXK0049,FRONT, WLAN 5GHz, IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle), Channel 106 (5530.0 MHz)

## Device Under Test Properties

| Model | Serial Number | Dimensions [mm] |
|---|---|---|
| AAH90ZDU9RH1AN (PMUE5674B) | 734TXK0049 | 213.0 x 80.0 x 40.0 |

## Exposure Conditions

| Phantom Section, TSL | Position, Test Distance [mm] | Band | Group, UID | Frequency [MHz], Channel Number | Conversion Factor | TSL Conductivity [S/m] | TSL Permittivity |
|---|---|---|---|---|---|---|---|
| Flat, HSL | FRONT, 0.00 | WLAN 5GHz | WLAN, 10626-AAB | 5530.0, 106 | 5.03 | 4.60 | 38.5 |

## Hardware Setup

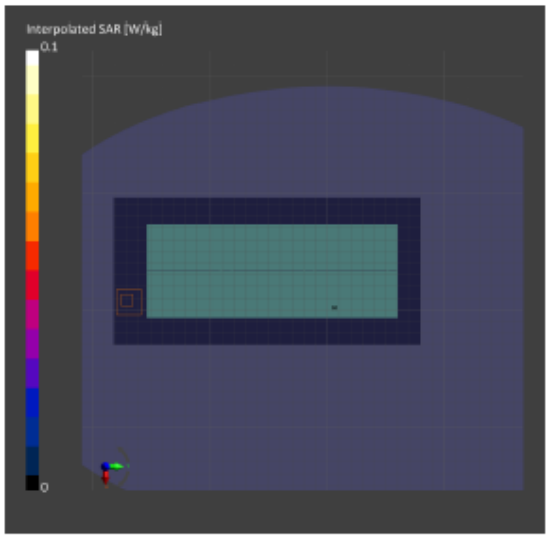
| Phantom | TSL, Measured Date | Probe, Calibration Date | DAE, Calibration Date |
|---|---|---|---|
| ELI V4.0 (20deg probe tilt) - 1016 | HSL5500 , 2021-Jun-23 | EX3DV4 - SN7594, 2020-12-10 | DAE4 Sn1488, 2021-04-07 |

## Scans Setup

| | Area Scan | Zoom Scan |
|---|---|---|
| Grid Extents [mm] | 126.0 x 252.0 | 28.0 x 28.0 x 22.0 |
| Grid Steps [mm] | 9.0 x 9.0 | 4.0 x 4.0 x 1.4 |
| Sensor Surface [mm] | 3.0 | 1.4 |
| Graded Grid | No | Yes |
| Grading Ratio | n/a | 1.4 |
| MAIA | N/A | N/A |
| Surface Detection | VMS + 6p | VMS + 6p |
| Scan Method | Measured | Measured |

## Measurement Results

| | Area Scan | Zoom Scan |
|---|---|---|
| Date | 2021-06-23, 21:15 | 2021-06-23, 21:44 |
| psSAR1g [W/Kg] | 0.003 | |
| psSAR10g [W/Kg] | 0 | |
| Power Drift [dB] | -0.83 | -1.64 |
| TSL Correction | Positive only | Positive only |
| M2/M1 [%] | | 71.8 |
| Dist 3dB Peak [mm] | | > 14.0 |



# (LTE)

## Motorola Solutions, Inc. EME Laboratory

**Date/Time: 6/26/2021 1:41:06 AM**

Robot#: DASY5-PG-3 | Run#: AMN-AB-210626-02#
Model#: AAH90ZDU9RH1AN (PMUE5674B)
Phantom#: ELI4 1050
Tissue Temp: 21.5 (C)
Serial#: 734TXK0049
Antenna: AN000343A01
Test Freq: 793.0000 (MHz)
Battery: PMNN4803A
Carry Acc: PMLN8126A w/ PMLN7008A (DUT @ Front)
Audio Acc: None
Start Power: 0.188 (W)

Comments:

Communication System Band: Band 14, E-UTRA/FDD (788.0 - 798.0 MHz), Communication System UID: 10175 - CAG, Duty Cycle: 1:3.73594,

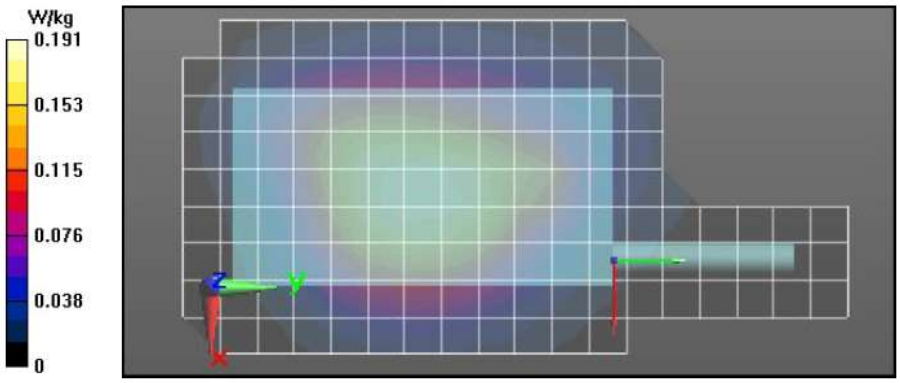
Medium parameters used: f = 793 MHz; $\sigma = 0.93$ S/m; $\varepsilon_r = 41.3$; $\rho = 1000$ kg/m$^3$

Probe: EX3DV4 - SN7533, Calibrated: 4/19/2021, Frequency: 793 MHz, ConvF(10.83, 10.83, 10.83) @ 793 MHz
Electronics: DAE3 Sn374, Calibrated: 4/8/2021

**Below 2 GHz-Rev.3/Ab Scan/1-Area Scan (91x181x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 13.80 V/m; Power Drift = -0.03 dB
**Fast SAR: SAR(1 g) = 0.156 W/kg; SAR(10 g) = 0.110 W/kg** (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 0.196 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 = 13.80 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.211 W/kg
**SAR(1 g) = 0.160 W/kg; SAR(10 g) = 0.119 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 = 75.7%
Maximum value of SAR (measured) = 0.194 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) = 0.193 W/kg



# Table 18 – Assessments at the Face (LMR)

Motorola Solutions, EME Laboratory

2021-06-22, 22:01

Measurement Report for AAH90ZDU9RH1AN (PMUE5674B), 784TXK0049,FRONT, D450, CW, Channel 50 (450.0 MHz)

## Device Under Test Properties

| Model | Serial Number | Dimensions [mm] |
|---|---|---|
| AAH90ZDU9RH1AN (PMUE5674B) | 784TXK0049 | 214.0 x 80.0 x 40.0 |

## Exposure Conditions

| Phantom Section, TSL | Position, Test Distance [mm] | Band | Group, UID | Frequency [MHz], Channel Number | Conversion Factor | TSL Conductivity [S/m] | TSL Permittivity |
|---|---|---|---|---|---|---|---|
| Flat, HSL | FRONT, 25.00 | D450 | CW, 0-- | 450.0, 50 | 11.48 | 0.88 | 41.7 |

## Hardware Setup

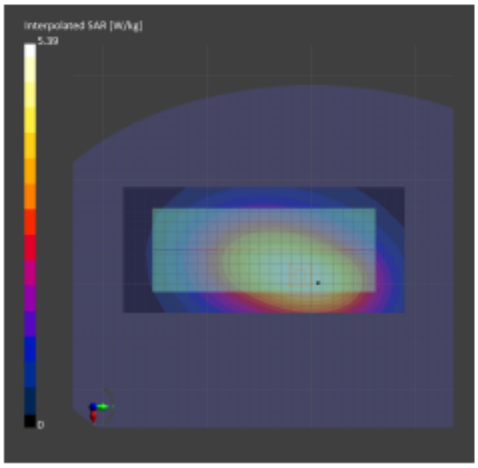
| Phantom | TSL, Measured Date | Probe, Calibration Date | DAE, Calibration Date |
|---|---|---|---|
| ELI V4.0 (20deg probe tilt) - 1016 | HSL450 , 2021-Jun-22 | EX3DV4 - SN7594, 2020-12-10 | DAE4 Sn1408, 2021-04-07 |

## Scans Setup

| | Area Scan | Zoom Scan |
|---|---|---|
| Grid Extents [mm] | 120.0 x 270.0 | 30.0 x 30.0 x 30.0 |
| Grid Steps [mm] | 15.0 x 15.0 | 5.0 x 5.0 x 1.5 |
| Sensor Surface [mm] | 2.0 | 1.4 |
| Graded Grid | No | Yes |
| Grading Ratio | n/a | 1.5 |
| MAIA | N/A | N/A |
| Surface Detection | VMS + 6p | VMS + 6p |
| Scan Method | Measured | Measured |

## Measurement Results

| | Area Scan | Zoom Scan |
|---|---|---|
| Date | 2021-06-22, 22:01 | 2021-06-22, 22:07 |
| psSAR1g [W/Kg] | 4.04 | 4.09 |
| psSAR10g [W/Kg] | 2.54 | 2.60 |
| Power Drift [dB] | -0.07 | -0.17 |
| TSL Correction | Positive only | Positive only |
| M2/M1 [%] | | 85.0 |
| Dist 6dB Peak [mm] | | > 15.0 |



# (WLAN 2.4GHz)

Motorola Solutions, EME Laboratory

2021-06-23, 06:14

Measurement Report for AAH90ZDU9RH1AN (PMUE5674B), 734TXK0049,FRONT, WLAN 2.4GHz, IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle), Channel 6 (2437.0 MHz)

## Device Under Test Properties

| Model | Serial Number | Dimensions [mm] |
|---|---|---|
| AAH90ZDU9RH1AN (PMUE5674B) | 734TXK0049 | 213.0 x 78.0 x 40.0 |

## Exposure Conditions

| Phantom Section, TSL | Position, Test Distance [mm] | Band | Group, UID | Frequency [MHz], Channel Number | Conversion Factor | TSL Conductivity [S/m] | TSL Permittivity |
|---|---|---|---|---|---|---|---|
| Flat, HSL | FRONT, 25.00 | WLAN 2.4GHz | WLAN, 10415-AAA | 2437.0, 6 | 7.68 | 1.87 | 35.4 |

## Hardware Setup

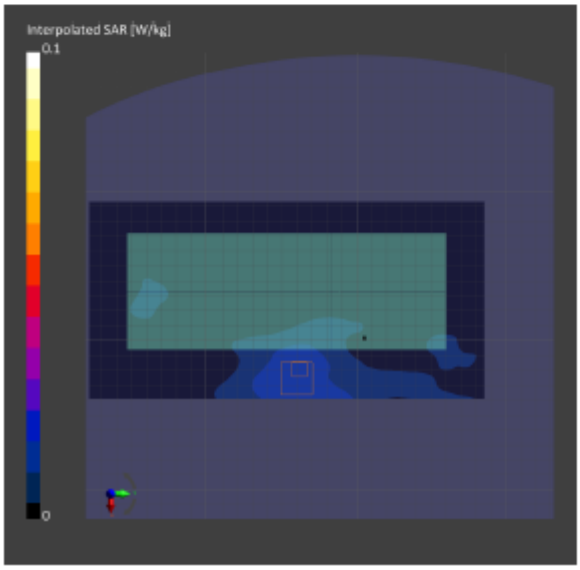
| Phantom | TSL, Measured Date | Probe, Calibration Date | DAE, Calibration Date |
|---|---|---|---|
| ELI V4.0 (20deg probe tilt) - 1016 | HSL2450 , 2021-Jun-17 | EX3DV4 - SN7594, 2020-12-10 | DAE4 Sn1488, 2021-04-07 |

## Scans Setup

| | Area Scan | Zoom Scan |
|---|---|---|
| Grid Extents [mm] | 120.0 x 264.0 | 30.0 x 30.0 x 30.0 |
| Grid Steps [mm] | 12.0 x 12.0 | 5.0 x 5.0 x 1.5 |
| Sensor Surface [mm] | 3.0 | 1.4 |
| Graded Grid | No | Yes |
| Grading Ratio | n/a | 1.5 |
| MAIA | N/A | N/A |
| Surface Detection | VMS + 6p | VMS + 6p |
| Scan Method | Measured | Measured |

## Measurement Results

| | Area Scan | Zoom Scan |
|---|---|---|
| Date | 2021-06-23, 06:14 | 2021-06-23, 06:22 |
| psSAR1g [W/Kg] | 0.015 | 0.013 |
| psSAR10g [W/Kg] | 0.009 | 0.007 |
| Power Drift [dB] | -0.84 | -0.31 |
| TSL Correction | Positive only | Positive only |
| M2/M1 [%] | | 95.4 |
| Dist 3dB Peak [mm] | | > 15.0 |



# (WLAN 5GHz)

Motorola Solutions, EME Laboratory

2021-06-23, 23:10

Measurement Report for AAH90ZDU9RH1AN (PMUE5674B), 734TXK0049,FRONT, WLAN 5GHz, IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle), Channel 58 (5290.0 MHz)

## Device Under Test Properties

| Model | Serial Number | Dimensions [mm] |
|---|---|---|
| AAH90ZDU9RH1AN (PMUE5674B) | 734TXK0049 | 213.0 x 80.0 x 40.0 |

## Exposure Conditions

| Phantom Section, TSL | Position, Test Distance [mm] | Band | Group, UID | Frequency [MHz], Channel Number | Conversion Factor | TSL Conductivity [S/m] | TSL Permittivity |
|---|---|---|---|---|---|---|---|
| Flat, HSL | FRONT, 25.00 | WLAN 5GHz | WLAN, 10626-AAB | 5290.0, 58 | 5.45 | 4.35 | 38.8 |

## Hardware Setup

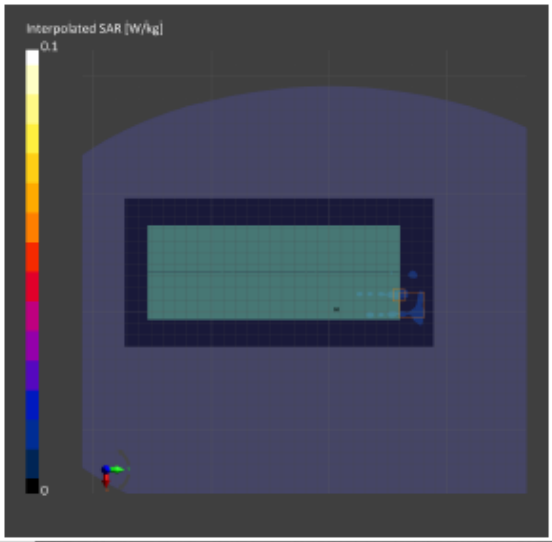
| Phantom | TSL, Measured Date | Probe, Calibration Date | DAE, Calibration Date |
|---|---|---|---|
| ELI V4.0 (20deg probe tilt) - 1016 | HSL5500 , 2021-Jun-23 | EX3DV4 - SN7594, 2020-12-10 | DAE4 Sn1488, 2021-04-07 |

## Scans Setup

| | Area Scan | Zoom Scan |
|---|---|---|
| Grid Extents [mm] | 126.0 x 252.0 | 28.0 x 28.0 x 22.0 |
| Grid Steps [mm] | 9.0 x 9.0 | 4.0 x 4.0 x 1.4 |
| Sensor Surface [mm] | 3.0 | 1.4 |
| Graded Grid | No | Yes |
| Grading Ratio | n/a | 1.4 |
| MAIA | N/A | N/A |
| Surface Detection | VMS + 6p | VMS + 6p |
| Scan Method | Measured | Measured |

## Measurement Results

| | Area Scan | Zoom Scan |
|---|---|---|
| Date | 2021-06-23, 23:10 | 2021-06-23, 23:26 |
| psSAR1g [W/Kg] | 0.006 | |
| psSAR10g [W/Kg] | 0.002 | |
| Power Drift [dB] | -1.35 | -0.97 |
| TSL Correction | Positive only | Positive only |
| M2/M1 [%] | | 92.1 |
| Dist 3dB Peak [mm] | | > 14.0 |



# (LTE)

## Motorola Solutions, Inc. EME Laboratory

**Date/Time: 6/26/2021 4:35:19 AM**

Robot#: DASY5-PG-3 | Run#: AMN-FACE-210626-06#
Model#: AAH90ZDU9RH1AN (PMUE5674B)
Phantom#: ELI4 1050
Tissue Temp: 21.6 (C)
Serial#: 734TXK0049
Antenna: AN000343A01
Test Freq: 793.0000 (MHz)
Battery: PMNN4805A
Carry Acc: Front @ 2.5cm
Audio Acc: None
Start Power: 0.188 (W)

Comments:

Communication System Band: Band 14, E-UTRA/FDD (788.0 - 798.0 MHz), Communication System UID: 10175 - CAG, Duty Cycle: 1:3.73594,

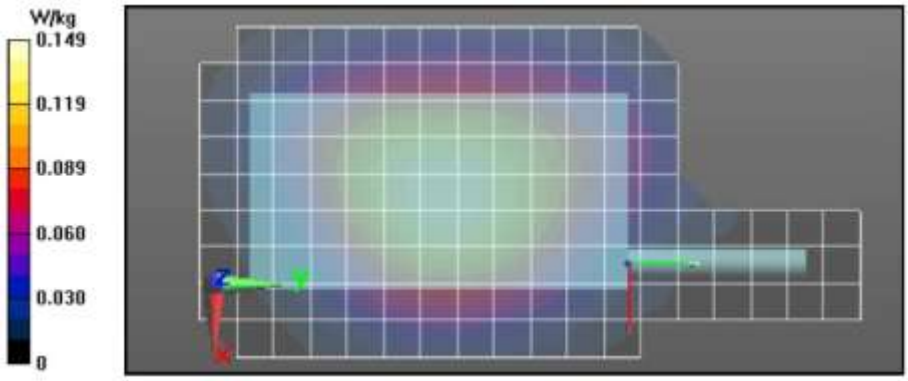
Medium parameters used: f = 793 MHz; $\sigma$ = 0.93 S/m; $\varepsilon_r$ = 41.3; $\rho$ = 1000 kg/m$^3$

Probe: EX3DV4 - SN7533, Calibrated: 4/19/2021, Frequency: 793 MHz, ConvF(10.83, 10.83, 10.83) @ 793 MHz
Electronics: DAE3 Sn374, Calibrated: 4/8/2021

**Below 2 GHz-Rev.3/Face Scan/1-Area Scan (91x181x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 11.91 V/m; Power Drift = 0.01 dB
**Fast SAR: SAR(1 g) = 0.121 W/kg; SAR(10 g) = 0.086 W/kg** (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 0.153 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 = 11.91 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.166 W/kg
**SAR(1 g) = 0.125 W/kg; SAR(10 g) = 0.093 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 = 74.8%
Maximum value of SAR (measured) = 0.151 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) = 0.152 W/kg



# Table 18 – Assessments for ISED Canada (LTE) (Band 7 – Body)

## Motorola Solutions, Inc. EME Laboratory

**Date/Time: 6/28/2021 1:57:19 AM**

Robot#: DASY5-PG-3 | Run#: AR-AB-210628-02#
Model#: AAH90ZDU9RH1AN (PMUE5674B)
Phantom#: ELI4 1028
Tissue Temp: 21.4 (C)
Serial#: 734TXK0049
Antenna: AN000346A01
Test Freq: 2560.0000 (MHz)
Battery: PMNN4805A
Carry Acc: PMLN8126A w/ PMLN7008A (DUT @ Front)
Audio Acc: None
Start Power: 0.1622 (W)

Comments: 1RB = Offset low (BW 20MHz)

Communication System Band: Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz), Communication System UID: 10169 - CAE, Duty Cycle: 1:3.73852,

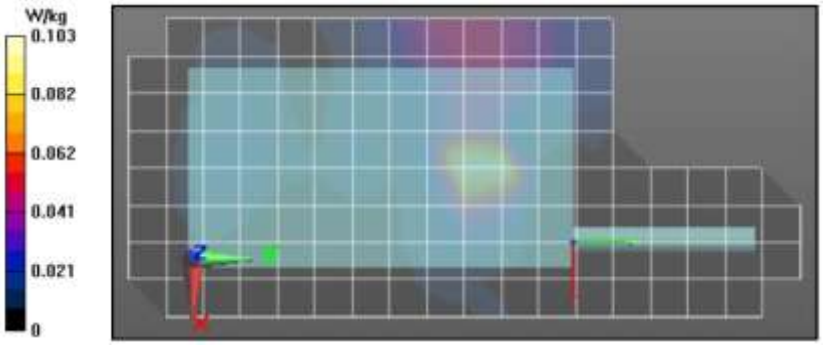
Medium parameters used: f = 2560 MHz; $\sigma$ = 2.01 S/m; $\varepsilon_r$ = 37.2; $\rho$ = 1000 kg/m$^3$

Probe: EX3DV4 - SN7533, Calibrated: 4/19/2021, Frequency: 2560 MHz, ConvF(7.74, 7.74, 7.74) @ 2560 MHz
Electronics: DAE3 Sn374, Calibrated: 4/8/2021

**Below 2 GHz-Rev.3/Ab Scan/1-Area Scan (91x181x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 6.903 V/m; Power Drift = -0.07 dB
**Fast SAR: SAR(1 g) = 0.087 W/kg; SAR(10 g) = 0.038 W/kg** (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 0.162 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 = 6.903 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.180 W/kg
**SAR(1 g) = 0.078 W/kg; SAR(10 g) = 0.034 W/kg** (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 10.6 mm
Ratio of SAR at M2 to SAR at M1 = 42.7%
Maximum value of SAR (measured) = 0.136 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) = 0.135 W/kg



# (Band 7 – Face)

## Motorola Solutions, Inc. EME Laboratory

**Date/Time: 8/4/2021 4:42:44 PM**

Robot#: DASY5-PG-3 | Run#: AMN-FACE-210804-13
Model#: AAH90ZDU9RH1AN (PMUE5674B)
Phantom#: ELI4 1028
Tissue Temp: 19.8 (C)
Serial#: 734TXK0049
Antenna: AN000346A01
Test Freq: 2510.0000 (MHz)
Battery: PMNN4805A
Carry Acc: Front @ 2.5cm
Audio Acc: None
Start Power: 0.177 (W)

Comments:

Communication System Band: Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz), Communication System UID: 10169 - CAE, Duty Cycle: 1:3.73852,

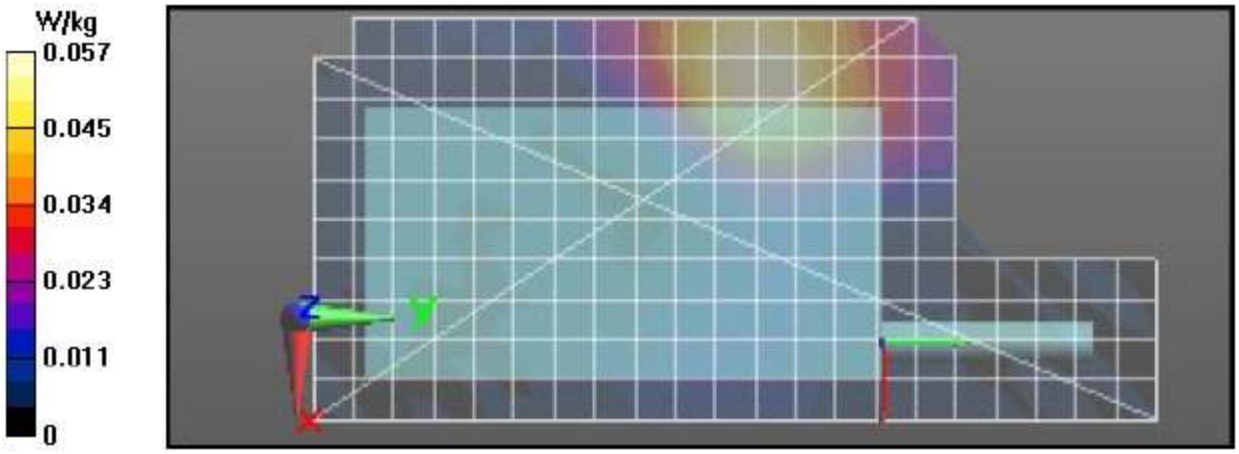
Medium parameters used: f = 2510 MHz; $\sigma$ = 1.94 S/m; $\varepsilon_r$ = 35.7; $\rho$ = 1000 kg/m$^3$

Probe: EX3DV4 - SN7533, Calibrated: 4/19/2021, Frequency: 2510 MHz, ConvF(7.74, 7.74, 7.74) @ 2510 MHz
Electronics: DAE3 Sn374, Calibrated: 4/8/2021

**2-3 GHz-Rev.3/Face Scan/1-Area Scan (101x211x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm
Reference Value = 3.442 V/m; Power Drift = 0.45 dB
**Fast SAR: SAR(1 g) = 0.040 W/kg; SAR(10 g) = 0.023 W/kg** (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 0.0582 W/kg

**2-3 GHz-Rev.3/Face Scan/3-Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.442 V/m; Power Drift = 0.38 dB
Peak SAR (extrapolated) = 0.0740 W/kg
**SAR(1 g) = 0.038 W/kg; SAR(10 g) = 0.022 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 = 50.4%
Maximum value of SAR (measured) = 0.0595 W/kg

**2-3 GHz-Rev.3/Face Scan/4-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 0.0570 W/kg



# (Band 48 - Body)

## Motorola Solutions, Inc. EME Laboratory

**Date/Time: 6/27/2021 2:12:45 AM**

Robot#: DASY5-PG-3 | Run#: AMN-AB-210627-03#
Model#: AAH90ZDU9RH1AN (PMUE5674B)
Phantom#: ELI5 1150
Tissue Temp: 21.2 (C)
Serial#: 734TXK0049
Antenna: AN000343A01
Test Freq: 3690.0000 (MHz)
Battery: PMNN4805A
Carry Acc: PMLN8127A w/ PMLN5407A (DUT @ Front)
Audio Acc: None
Start Power: 0.096 (W)

Comments: 1RB = Offset Low (BW 20M)

Communication System Band: Band 48, E-UTRA/TDD (3550.0 - 3700.0 MHz), Communication System UID: 10435 - AAF, Duty Cycle: 1:6.05899,

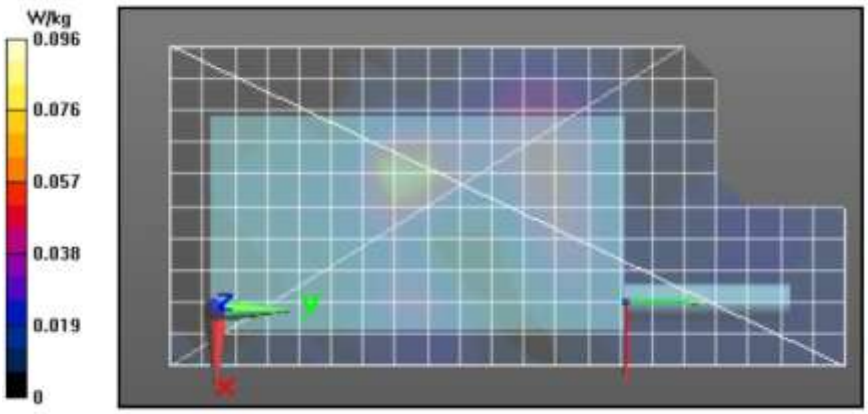
Medium parameters used: f = 3690 MHz; $\sigma$ = 2.82 S/m; $\varepsilon_r$ = 38.7; $\rho$ = 1000 kg/m$^3$

Probe: EX3DV4 - SN7533, Calibrated: 4/19/2021, Frequency: 3690 MHz, ConvF(7.01, 7.01, 7.01) @ 3690 MHz
Electronics: DAE3 Sn374, Calibrated: 4/8/2021

**3-4 GHz-Rev.5/Full Ab Scan/1-Area Scan (101x211x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm
Reference Value = 3.515 V/m; Power Drift = -0.08 dB
**Fast SAR: SAR(1 g) = 0.054 W/kg; SAR(10 g) = 0.022 W/kg** (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 0.101 W/kg

**3-4 GHz-Rev.5/Full Ab Scan/2-Zoom Scan (7x7x11)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 3.515 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.134 W/kg
**SAR(1 g) = 0.053 W/kg; SAR(10 g) = 0.023 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 = 49.7%
Maximum value of SAR (measured) = 0.0953 W/kg

**3-4 GHz-Rev.5/Full Ab Scan/3-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 0.0952 W/kg



# (Band 48 - Face)

## Motorola Solutions, Inc. EME Laboratory

**Date/Time: 7/16/2021 6:12:19 AM**

Robot#: DASY5-PG-3 | Run#: MA(BAD)-FACE-210716-05#
Model#: AAH90ZDU9RH1AN (PMUE5674B)
Phantom#: ELI4 1109
Tissue Temp: 21.6 (C)
Serial#: 734TXK0049
Antenna: AN000343A01
Test Freq: 3560.0000 (MHz)
Battery: PMNN4805A
Carry Acc: Front @ 2.5cm
Audio Acc: None
Start Power: 0.115 (W)

Comments: Full Scan

Communication System Band: Band 48, E-UTRA/TDD (3550.0 - 3700.0 MHz), Communication System UID: 10435 - AAF, Duty Cycle: 1:6.05899,

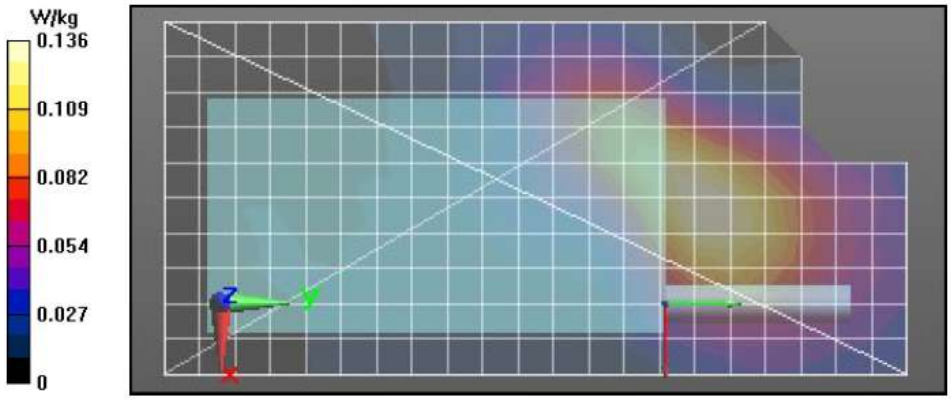
Medium parameters used: f = 3560 MHz; $\sigma$ = 3.17 S/m; $\varepsilon_r$ = 38.4; $\rho$ = 1000 kg/m$^3$

Probe: EX3DV4 - SN7533, Calibrated: 4/19/2021, Frequency: 3560 MHz, ConvF(7.26, 7.26, 7.26) @ 3560 MHz
Electronics: DAE3 Sn374, Calibrated: 4/8/2021

**3-4 GHz-Rev.5/Full Face Scan/1-Area Scan (101x211x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm
Reference Value = 6.600 V/m; Power Drift = 0.10 dB
**Fast SAR: SAR(1 g) = 0.082 W/kg; SAR(10 g) = 0.043 W/kg** (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 0.139 W/kg

**3-4 GHz-Rev.5/Full Face Scan/2-Zoom Scan (7x7x11)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=3mm
Reference Value = 6.600 V/m; Power Drift = 0.21 dB
Peak SAR (extrapolated) = 0.193 W/kg
**SAR(1 g) = 0.076 W/kg; SAR(10 g) = 0.037 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 = 52.2%
Maximum value of SAR (measured) = 0.138 W/kg

**3-4 GHz-Rev.5/Full Face Scan/3-Z-Axis Scan (1x1x17):** Measurement grid: dx=20mm, dy=20mm, dz=10mm
Maximum value of SAR (measured) = 0.142 W/kg



# Table 19 – Shortened Scan

Motorola Solutions, EME Laboratory

2021-06-22, 23:42

Measurement Report for AAH90ZDU9RH1AN (PMUE5674B), 734TXK0049,FRONT, D450, CW, Channel 70 (470.0 MHz)

## Device Under Test Properties

| Model | Serial Number | Dimensions [mm] |
|---|---|---|
| AAH90ZDU9RH1AN (PMUE5674B) | 734TXK0049 | 243.0 x 80.0 x 40.0 |

## Exposure Conditions

| Phantom Section, TSL | Position, Test Distance [mm] | Band | Group, UID | Frequency [MHz], Channel Number | Conversion Factor | TSL Conductivity [S/m] | TSL Permittivity |
|---|---|---|---|---|---|---|---|
| Flat, HSL | FRONT, 0.00 | D450 | CW, 0-- | 470.0, 70 | 11.43 | 0.90 | 41.2 |

## Hardware Setup

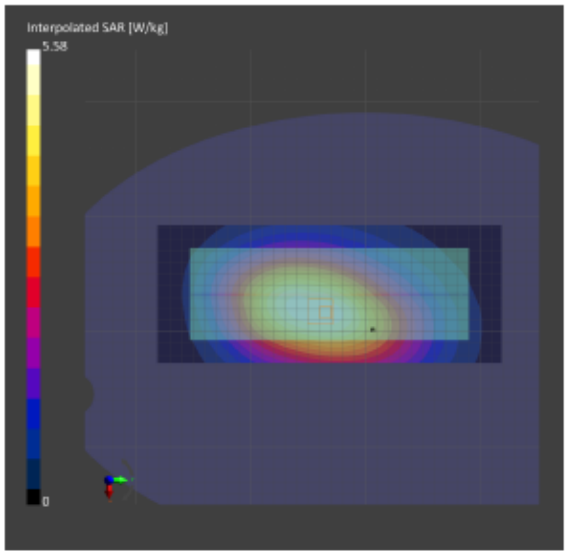
| Phantom | TSL, Measured Date | Probe, Calibration Date | DAE, Calibration Date |
|---|---|---|---|
| ELI V4.0 (20deg probe tilt) - 1016 | HSL450 , 2021-Jun-22 | EX3DV4 - SN7594, 2020-12-10 | DAE4 Sn1488, 2021-04-07 |

## Scans Setup

| | Area Scan | Zoom Scan |
|---|---|---|
| Grid Extents [mm] | 120.0 x 300.0 | 30.0 x 30.0 x 30.0 |
| Grid Steps [mm] | 15.0 x 15.0 | 6.0 x 6.0 x 1.5 |
| Sensor Surface [mm] | 3.0 | 1.4 |
| Graded Grid | No | Yes |
| Grading Ratio | n/a | 1.5 |
| MAIA | N/A | N/A |
| Surface Detection | VMS + 6p | VMS + 6p |
| Scan Method | Measured | Measured |

## Measurement Results

| | Area Scan | Zoom Scan |
|---|---|---|
| Date | 2021-06-22, 23:42 | 2021-06-22, 23:50 |
| psSAR1g [W/Kg] | 4.97 | 5.10 |
| psSAR10g [W/Kg] | 3.63 | 3.81 |
| Power Drift [dB] | -0.07 | -0.14 |
| TSL Correction | Positive only | Positive only |
| M2/M1 [%] | | 84.9 |
| Dist 3dB Peak [mm] | | > 15.0 |



# APPENDIX F
# DUT Test Position Photos

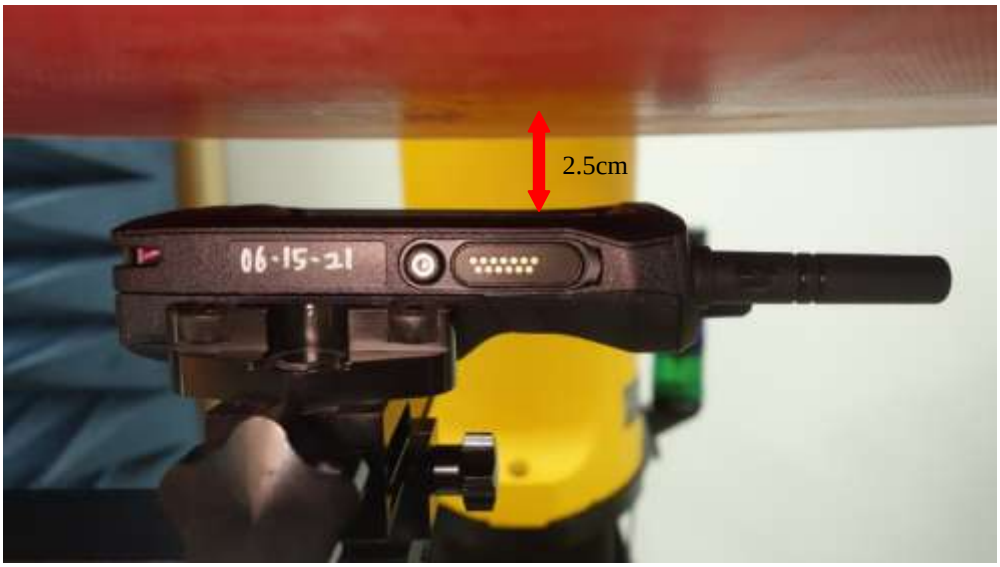
## 1.0 Highest SAR Test Position per location

### 1.1 Body

DUT w/ antenna PMAE4071A with offered battery PMNN4805A and body worn kit PMLN8126A with PMLN4651A against the phantom without an audio accessory attached.


### 1.2 Face

Back of DUT w/ antenna AN000350A01 with offered battery PMNN4804A separated 2.5cm from the phantom without an audio accessory attached.



# APPENDIX G
# DUT, Body worn and audio accessories Photos

**Please refer to original filing report**