

**MOTOROLA SOLUTIONS****DECLARATION OF COMPLIANCE SAR ASSESSMENT PCII REPORT Part 2 of 2****Motorola Solutions Inc.****EME Test Laboratory**

Motorola Solutions Malaysia Sdn Bhd (Innoplex)
 Plot 2A, Medan Bayan Lepas
 Mukim 12 SWD 11900 Bayan Lepas Penang, Malaysia.

Date of Report: 03/14/2022**Report Revision:** A

Responsible Engineer: Saw Sun Hock (EME Engineer)
Report Author: M. Akmal Naim Kasim (EME Senior Technician)
Date/s Tested: 12/28/2021 – 01/04/2022, 2/10/2022 – 2/11/2022, 2/24/2022 – 2/25/2022
Manufacturer: Motorola Solutions Inc.
DUT Description: Handheld Portable – PMUD3334A, XCVR 136-174 MHz, Display
Test TX mode(s): FM / TDMA (PTT)
Max. Power output: 2.4W(Analog), 3.3W(Digital)
Tx Frequency Bands: 136-174MHz
Signaling type: FM / TDMA
Model(s) Tested: PMUD3334A
Model(s) Certified: PMUD3334A & PMUD3335A
Serial Number(s): 546TQP0054, 546TYB9583
Classification: Occupational/Controlled
Applicant Name: Motorola Solutions Inc.
Applicant Address: 8000 West Sunrise Boulevard, Fort Lauderdale, Florida 33322
FCC ID: AZ489FT3835; 150.8-173.4 MHz
 This report contains results that are immaterial for FCC equipment approval, which are clearly identified.

IC: 109U-89FT3835; 138-174MHz
 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 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. 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.

Pei Loo Tey
(Approved Signatory)
Approval Date: 3/15/2022

Appendix C

Dipole Calibration Certificates

**Calibration Laboratory of
Schmid & Partner
Engineering AG**
Zeughausstrasse 43, 8004 Zurich, Switzerland



S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
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Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **Motorola Solutions MY**

Certificate No: **CLA150-4010_Jan20**

CALIBRATION CERTIFICATE

Object **CLA150 - SN: 4010**

Calibration procedure(s) **QA CAL-15.v9
Calibration Procedure for SAR Validation Sources below 700 MHz**

Calibration date: **January 17, 2020**

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	03-Apr-19 (No. 217-02892/02893)	Apr-20
Power sensor NRP-Z91	SN: 103244	03-Apr-19 (No. 217-02892)	Apr-20
Power sensor NRP-Z91	SN: 103245	03-Apr-19 (No. 217-02893)	Apr-20
Reference 20 dB Attenuator	SN: 5277 (20x)	04-Apr-19 (No. 217-02894)	Apr-20
Type-N mismatch combination	SN: 5047.2 / 06327	04-Apr-19 (No. 217-02895)	Apr-20
Reference Probe EX3DV4	SN: 3877	31-Dec-19 (No. EX3-3877_Dec19)	Dec-20
DAE4	SN: 654	27-Jun-19 (No. DAE4-654_Jun19)	Jun-20

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-18)	In house check: Jun-20
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-19)	In house check: Oct-20

	Name	Function	Signature
Calibrated by:	Michael Weber	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: January 20, 2020

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

**Calibration Laboratory of
Schmid & Partner
Engineering AG**
Zeughausstrasse 43, 8004 Zurich, Switzerland



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Accreditation No.: **SCS 0108**

Glossary:

TSL tissue simulating liquid
ConvF sensitivity in TSL / NORM x,y,z
N/A not applicable or not measured

Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
- IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

- DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The source is mounted in a touch configuration below the center marking of the flat phantom.
- Return Loss:** This parameter is measured with the source positioned under the liquid filled phantom (as described in the measurement condition clause). The Return Loss ensures low reflected power. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor $k=2$, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.10.3
Extrapolation	Advanced Extrapolation	
Phantom	ELI4 Flat Phantom	Shell thickness: 2 ± 0.2 mm
EUT Positioning	Touch Position	
Zoom Scan Resolution	$dx, dy = 4.0$ mm, $dz = 1.4$ mm	Graded Ratio = 1.4 (Z direction)
Frequency	150 MHz $\pm$ 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	52.3	0.76 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	$50.7 \pm 6 \%$	$0.78 \text{ mho/m} \pm 6 \%$
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	1 W input power	3.70 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	3.60 W/kg $\pm$ 18.4 % (k=2)

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	1 W input power	2.48 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	2.42 W/kg $\pm$ 18.0 % (k=2)

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	61.9	0.80 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	$63.4 \pm 6 \%$	$0.82 \text{ mho/m} \pm 6 \%$
Body TSL temperature change during test	< 0.5 °C	----	----

SAR result with Body TSL

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	1 W input power	3.74 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	3.69 W/kg $\pm$ 18.4 % (k=2)

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	1 W input power	2.52 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	2.48 W/kg $\pm$ 18.0 % (k=2)

Appendix (Additional assessments outside the scope of SCS 0108)**Antenna Parameters with Head TSL**

Impedance, transformed to feed point	49.3 Ω - 4.5 j Ω
Return Loss	- 26.7 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	53.0 Ω - 5.0 j Ω
Return Loss	- 24.9 dB

Appendix D
System Verification Check Scans**Additional EUT Data**

Manufactured by	SPEAG
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DASY5 Validation Report for Head TSL

Date: 17.01.2020

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: CLA150; Type: CLA150; Serial: CLA150 - SN: 4010

Communication System: UID 0 - CW; Frequency: 150 MHz

Medium parameters used: $f = 150$ MHz; $\sigma = 0.78$ S/m; $\epsilon_r = 50.7$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN3877; ConvF(12.45, 12.45, 12.45) @ 150 MHz; Calibrated: 31.12.2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn654; Calibrated: 27.06.2019
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1003
- DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474)

CLA Calibration for HSL-LF Tissue/CLA150, touch configuration, Pin=1W/Area Scan**(81x81x1):** Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 5.15 W/kg

CLA Calibration for HSL-LF Tissue/CLA150, touch configuration, Pin=1W/Zoom Scan,**dist=1.4mm (8x10x7)/Cube 0:** Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

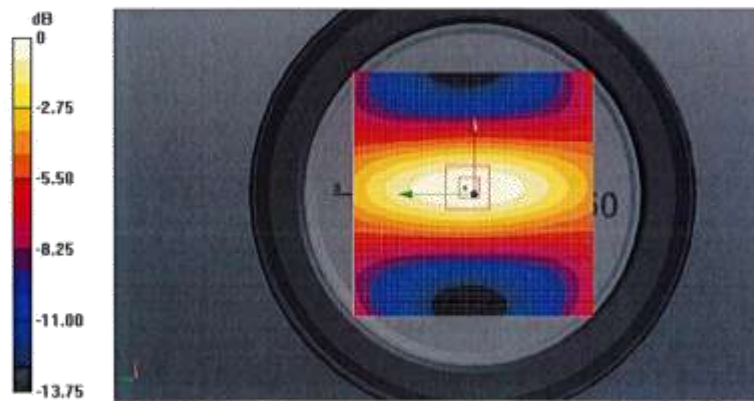
Reference Value = 80.09 V/m; Power Drift = -0.08 dB

Peak SAR (extrapolated) = 6.79 W/kg

SAR(1 g) = 3.7 W/kg; SAR(10 g) = 2.48 W/kg

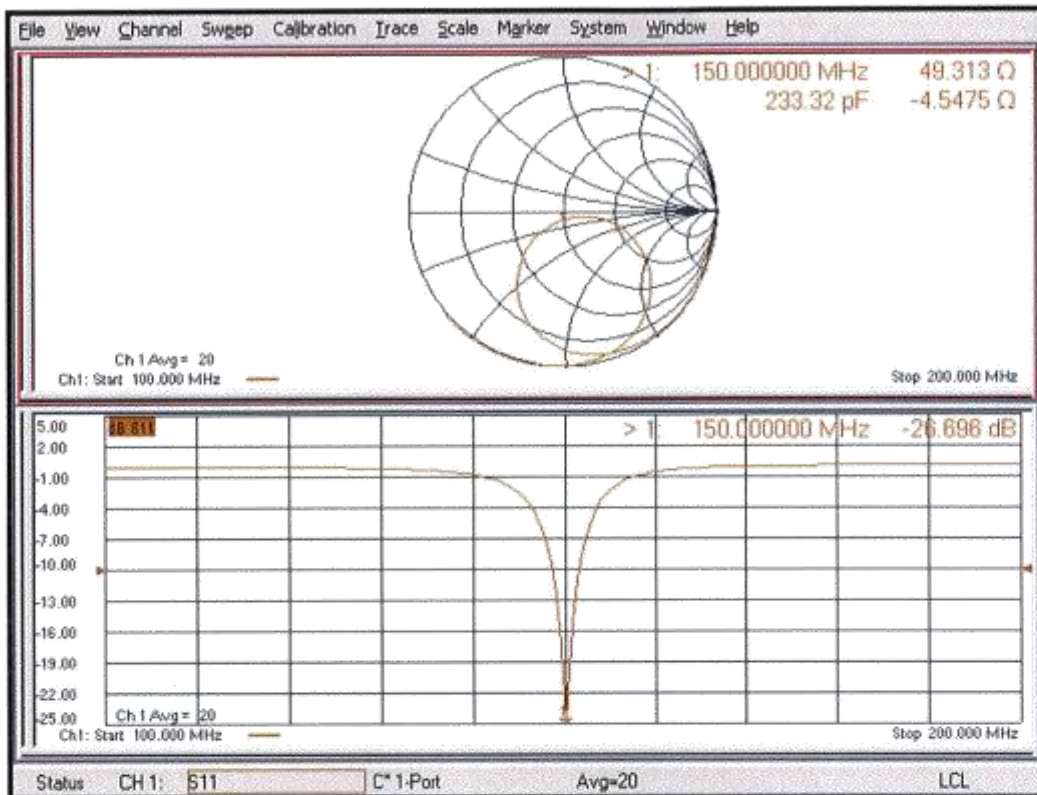
Ratio of SAR at M2 to SAR at M1 = 81.8%

Maximum value of SAR (measured) = 5.12 W/kg



0 dB = 5.15 W/kg = 7.12 dBW/kg

Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body TSL

Date: 17.01.2020

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: CLA150; Type: CLA150; Serial: CLA150 - SN: 4010

Communication System: UID 0 - CW; Frequency: 150 MHz

Medium parameters used: $f = 150$ MHz; $\sigma = 0.82$ S/m; $\epsilon_r = 63.4$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN3877; ConvF(11.51, 11.51, 11.51) @ 150 MHz; Calibrated: 31.12.2019
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn654; Calibrated: 27.06.2019
- Phantom: ELI v4.0; Type: QDOVA001BB; Serial: TP:1003
- DASY52 52.10.3(1513); SEMCAD X 14.6.13(7474)

CLA Calibration for MSL-LF Tissue/CLA150, touch configuration, Pin=1W/Area Scan**(81x81x1):** Interpolated grid: $dx=1.500$ mm, $dy=1.500$ mm

Maximum value of SAR (interpolated) = 5.23 W/kg

CLA Calibration for MSL-LF Tissue/CLA150, touch configuration, Pin=1W/Zoom Scan,**dist=1.4mm (8x10x7)/Cube 0:** Measurement grid: $dx=4$ mm, $dy=4$ mm, $dz=1.4$ mm

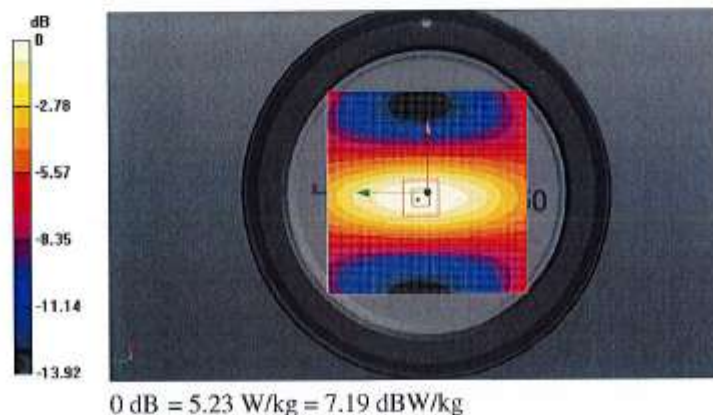
Reference Value = 77.88 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 6.83 W/kg

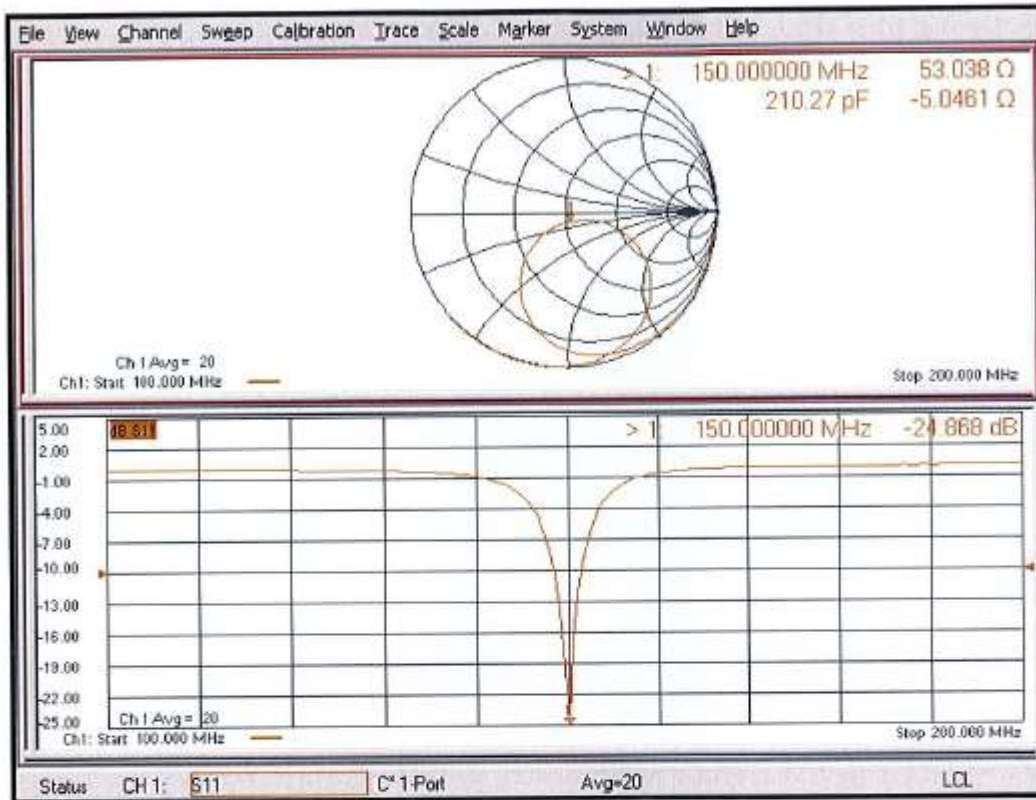
SAR(1 g) = 3.74 W/kg; SAR(10 g) = 2.52 W/kg

Ratio of SAR at M2 to SAR at M1 = 81.9%

Maximum value of SAR (measured) = 5.18 W/kg



Impedance Measurement Plot for Body TSL



Dipole Data

The table below includes dipole impedance and return loss measurement data measured by Motorola Solutions' EME lab. The results meet the requirements stated in KDB 865664.

Dipole 150-4010	Head			Body		
	Impedance		Return Loss	Impedance		Return Loss
Date Measured	real Ω	imag $j\Omega$	dB	real Ω	imag $j\Omega$	dB
04/13/2020	46.78	8.93	-20.21	48.73	5.98	-24.19
04/27/2021	47.63	6.69	-22.52	50.72	4.17	-23.25

Appendix D

System Verification Check Scans

Motorola Solutions, Inc. EME Laboratory

Date/Time: 2/23/2022 2:57:44 PM

Robot#: DASY5-PG-1 | Run#: BL-SYSP-150H-220223-13
 Dipole Model#: CLA150
 Phantom#: ELI5 1147
 Tissue Temp: 20.2 (C)
 Serial#: 4010
 Test Freq: 150.0000 (MHz)
 Start Power: 1000 (mW)
 Rotation (1D): 0.12 dB
 Adjusted SAR (1W): 3.66 mW/g (1g)

Comments:

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

Medium parameters used: $f = 150$ MHz; $\sigma = 0.72$ S/m; $\epsilon_r = 51.2$; $\rho = 1000$ kg/m³

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

Electronics: DAE4 Sn1488, Calibrated: 4/7/2021

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 = 82.36 V/m; Power Drift = 0.07 dB

Fast SAR: SAR(1 g) = 4.32 W/kg; SAR(10 g) = 3.08 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 5.03 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 = 82.36 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 5.92 W/kg

SAR(1 g) = 3.66 W/kg; SAR(10 g) = 2.41 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 15.1 mm

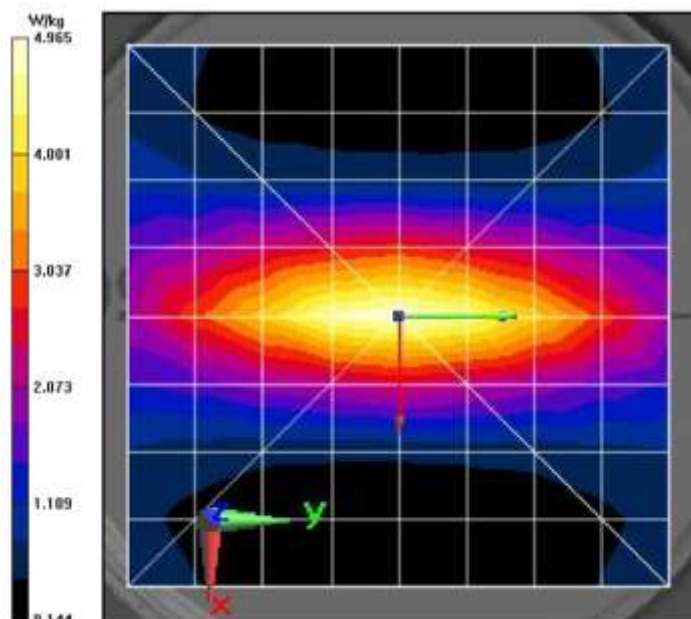
Ratio of SAR at M2 to SAR at M1 = 60.7%

Maximum value of SAR (measured) = 4.94 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) = 4.95 W/kg



Motorola Solutions, Inc. EME Laboratory

Date/Time: 2/25/2022 1:47:33 AM

Robot#: DASY5-PG-1 | Run#: FZ-SYSP-150B-220225-01
 Dipole Model#: CLA150
 Phantom#: ELI5 1103
 Tissue Temp: 19.0 (C)
 Serial#: 4010
 Test Freq: 150.0000 (MHz)
 Start Power: 1000 (mW)
 Rotation (1D): 0.1 dB
 Adjusted SAR (1W): 4.03 mW/g (1g)

Comments:

Communication System Band: CLA150, Communication System UID: 0, Duty Cycle: 1:1,
 Medium parameters used: $f = 150$ MHz; $\sigma = 0.79$ S/m; $\epsilon_r = 59.8$; $\rho = 1000$ kg/m³
 Probe: EX3DV4 - SN7486, Calibrated: 6/18/2021, Frequency: 150 MHz, ConvF(13.16, 13.16, 13.16) @ 150 MHz
 Electronics: DAE4 Sn1488, Calibrated: 4/7/2021

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

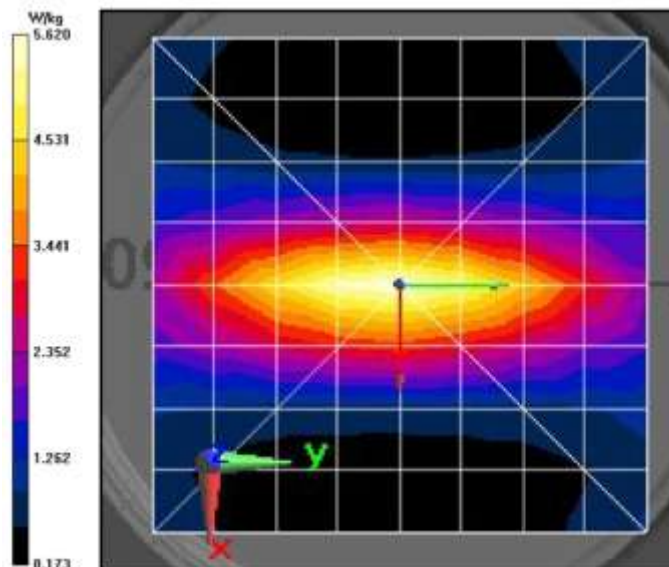
Interpolated grid: dx=1.500 mm, dy=1.500 mm
 Reference Value = 84.42 V/m; Power Drift = 0.03 dB
Fast SAR: SAR(1 g) = 4.74 W/kg; SAR(10 g) = 3.37 W/kg (SAR corrected for target medium)
 Maximum value of SAR (interpolated) = 5.76 W/kg

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 = 84.42 V/m; Power Drift = 0.03 dB
 Peak SAR (extrapolated) = 6.78 W/kg
SAR(1 g) = 4.03 W/kg; SAR(10 g) = 2.66 W/kg (SAR corrected for target medium)
 Smallest distance from peaks to all points 3 dB below = 17.5 mm
 Ratio of SAR at M2 to SAR at M1 = 60.7%
 Maximum value of SAR (measured) = 5.60 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) = 5.66 W/kg



Motorola Solutions, Inc. EME Laboratory

Date/Time: 12/29/2021 11:00:07 AM

Robot#: DASY5-PG-2 | Run#: BL(SAN)-SYSP-150H-211229-06
Dipole Model#: CLA150
Phantom#: ELI5 1147
Tissue Temp: 19.2 (C)
Serial#: 4010
Test Freq: 150.0000 (MHz)
Start Power: 1000 (mW)
Rotation (1D): 0.16 dB
Adjusted SAR (1W): 3.85 mW/g (1g)

Comments:

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

Medium parameters used: $f = 150$ MHz; $\sigma = 0.73$ S/m; $\epsilon_r = 49.9$; $\rho = 1000$ kg/m³

Probe: EX3DV4 - SN7534, Calibrated: 4/19/2021, Frequency: 150 MHz, ConvF(13.84, 13.84, 13.84) @ 150 MHz

Electronics: DAE4 Sn1598, Calibrated: 4/7/2021

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 = 86.92 V/m; Power Drift = -0.03 dB

Fast SAR: SAR(1 g) = 4.72 W/kg; SAR(10 g) = 3.32 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 5.65 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 = 86.92 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 6.92 W/kg

SAR(1 g) = 3.85 W/kg; SAR(10 g) = 2.44 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 15 mm

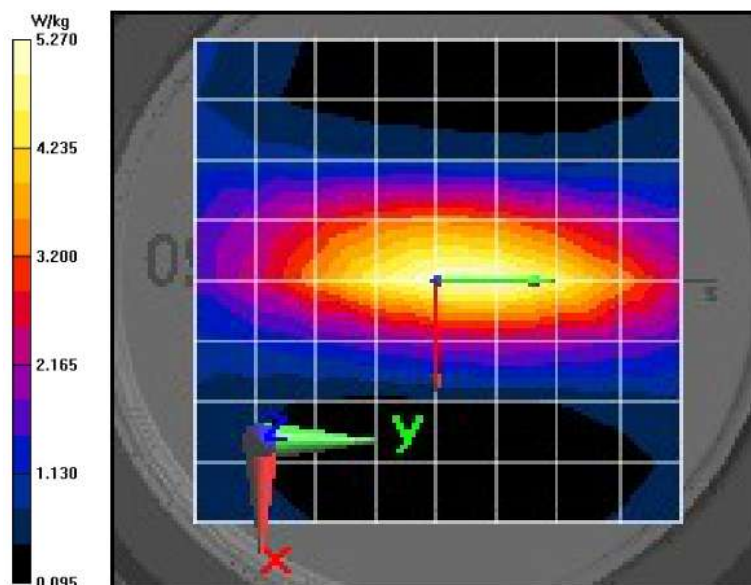
Ratio of SAR at M2 to SAR at M1 = 55.8%

Maximum value of SAR (measured) = 5.52 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) = 5.58 W/kg



Motorola Solutions, Inc. EME Laboratory

Date/Time: 12/29/2021 5:44:45 PM

Robot#: DASY5-PG-2 | Run#: BL(SAN)-SYSP-150H-211229-11
 Dipole Model#: CLA150
 Phantom#: ELI5 1147
 Tissue Temp: 19.6 (C)
 Serial#: 4010
 Test Freq: 150.0000 (MHz)
 Start Power: 1000 (mW)
 Rotation (1D): 0.150 dB
 Adjusted SAR (1W): 3.56 mW/g (1g)

Comments:

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

Medium parameters used: $f = 150$ MHz; $\sigma = 0.76$ S/m; $\epsilon_r = 50.1$; $\rho = 1000$ kg/m³

Probe: EX3DV4 - SN7534, Calibrated: 4/19/2021, Frequency: 150 MHz, ConvF(13.84, 13.84, 13.84) @ 150 MHz

Electronics: DAE4 Sn1598, Calibrated: 4/7/2021

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 = 84.62 V/m; Power Drift = -0.14 dB

Fast SAR: SAR(1 g) = 4.36 W/kg; SAR(10 g) = 3.09 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 5.38 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 = 84.62 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 6.46 W/kg

SAR(1 g) = 3.56 W/kg; SAR(10 g) = 2.3 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 15 mm

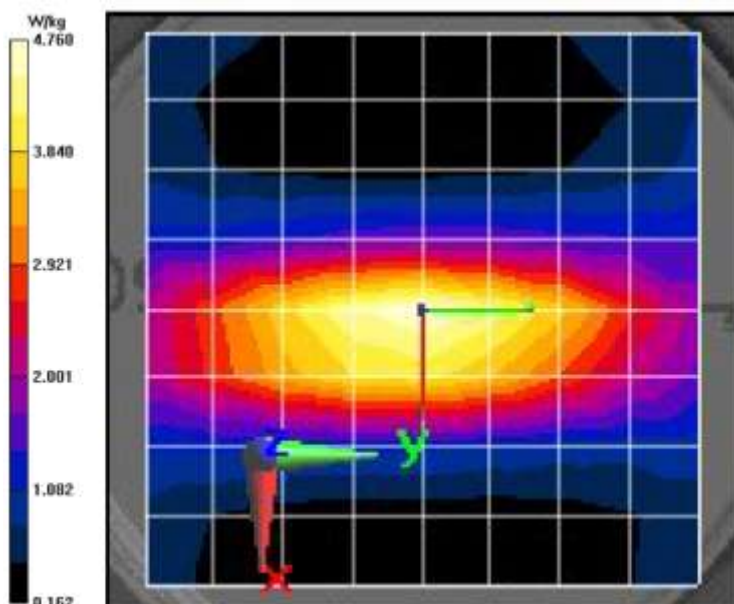
Ratio of SAR at M2 to SAR at M1 = 57.1%

Maximum value of SAR (measured) = 5.21 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) = 5.29 W/kg



Motorola Solutions, Inc. EME Laboratory

Date/Time: 12/30/2021 11:47:02 PM

Robot#: DASY5-PG-2 | Run#: MHI(DAN)-SYSP-150H-211230-21
 Dipole Model#: CLA150
 Phantom#: EL15 1147
 Tissue Temp: 19.5 (C)
 Serial#: 4010
 Test Freq: 150.0000 (MHz)
 Start Power: 1000 (mW)
 Rotation (1D): 0.15dB
 Adjusted SAR (1W): 3.58mW/g (1g)

Comments:

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

Medium parameters used: $f = 150$ MHz; $\sigma = 0.77$ S/m; $\epsilon_r = 50$; $\rho = 1000$ kg/m³

Probe: EX3DV4 - SN7534, Calibrated: 4/19/2021, Frequency: 150 MHz, ConvF(13.84, 13.84, 13.84) @ 150 MHz

Electronics: DAE4 Sn1598, Calibrated: 4/7/2021

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 = 82.40 V/m; Power Drift = -0.04 dB

Fast SAR: SAR(1 g) = 4.26 W/kg; SAR(10 g) = 3.03 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 5.27 W/kg

Below 2 GHz-Rev.3/System Performance Check/0-Degree Cube (6x6x7)/Cube 0:

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

Reference Value = 82.40 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 6.54 W/kg

SAR(1 g) = 3.58 W/kg; SAR(10 g) = 2.31 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 16.2 mm

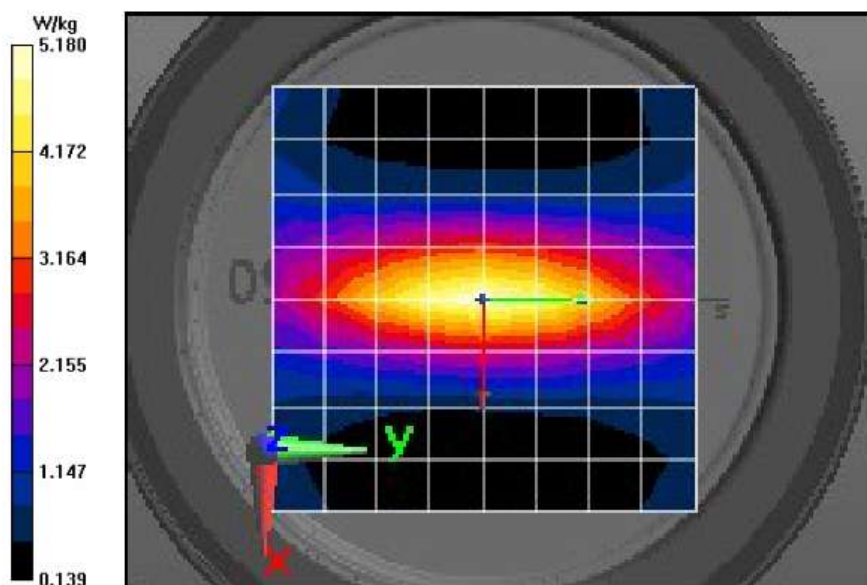
Ratio of SAR at M2 to SAR at M1 = 57.1%

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

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

grid: $dx=20$ mm, $dy=20$ mm, $dz=10$ mm

Maximum value of SAR (measured) = 5.23 W/kg



Motorola Solutions, Inc. EME Laboratory

Date/Time: 2/10/2022 1:03:36 PM

Robot#: DASY5-PG-2 | Run#: FZ-SYSP-150H-220210-04
 Dipole Model#: CLA150
 Phantom#: EL14 1022
 Tissue Temp: 21.0 (C)
 Serial#: 4010
 Test Freq: 150.0000 (MHz)
 Start Power: 1000 (mW)
 Rotation (1D): 0.14dB
 Adjusted SAR (1W): 3.79 mW/g (1g)

Comments:

Communication System Band: CLA150, Communication System UID: 0, Duty Cycle: 1:1,
 Medium parameters used: $f = 150$ MHz; $\sigma = 0.73$ S/m; $\epsilon_r = 52.3$; $\rho = 1000$ kg/m³
 Probe: EX3DV4 - SN7534, Calibrated: 4/19/2021, Frequency: 150 MHz, ConvF(13.84, 13.84, 13.84) @ 150 MHz
 Electronics: DAE4 Sn1598, Calibrated: 4/7/2021

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 = 84.72 V/m; Power Drift = 0.09 dB

Fast SAR: SAR(1 g) = 4.59 W/kg; SAR(10 g) = 3.25 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 5.37 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 = 84.72 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 6.52 W/kg

SAR(1 g) = 3.79 W/kg; SAR(10 g) = 2.45 W/kg (SAR corrected for target medium)

Smallest distance from peaks to all points 3 dB below = 15 mm

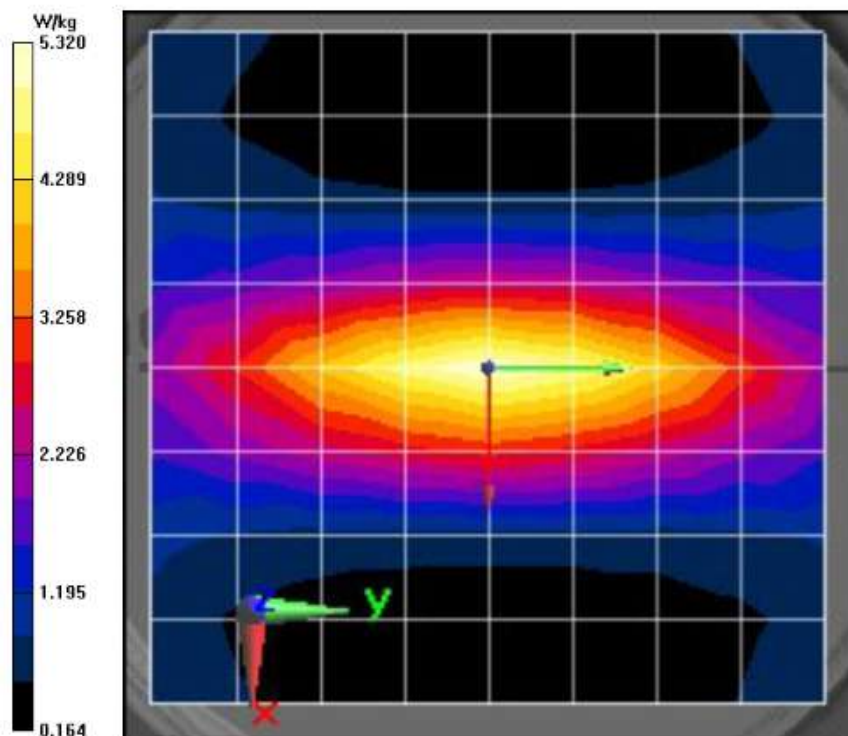
Ratio of SAR at M2 to SAR at M1 = 57.6%

Maximum value of SAR (measured) = 5.28 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) = 5.35 W/kg



Appendix E

DUT Scans

SAR assessment at TDMA Digital Mode –FCC Body

Table 17

Motorola Solutions, Inc. EME Laboratory

Date/Time: 2/25/2022 4:46:42 AM

Robot#: DASY5-PG-1 | Run#: FZ-AB-220225-04
 Model#: PMUD3334A
 Phantom#: ELI4 1103
 Tissue Temp: 19.1 (C)
 Serial#: 546TYB9583
 Antenna: PMAD4146B
 Test Freq: 156.0000 (MHz)
 Battery: PMNN4468B
 Carry Acc: PMLN7128A
 Audio Acc: PMLN7156A
 Start Power: 3.22 (W)

Comments:

Communication System Band: Tonga VHF, Communication System UID: 0, Duty Cycle: 1:1.99986,
 Medium parameters used: $f = 156$ MHz; $\sigma = 0.79$ S/m; $v_e = 59.7$; $\rho = 1000$ kg/m³
 Probe: EX3DV4 - SN7486, Calibrated: 6/18/2021, Frequency: 156 MHz, ConvF(13.16, 13.16, 13.16) @ 156 MHz
 Electronics: DAE4 Sn1488, Calibrated: 4/7/2021

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

Reference Value = 18.94 V/m; Power Drift = -0.19 dB

Fast SAR: SAR(1 g) = 0.445 W/kg; SAR(10 g) = 0.325 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 0.542 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 = 18.94 V/m; Power Drift = -0.18 dB

Peak SAR (extrapolated) = 0.760 W/kg

SAR(1 g) = 0.348 W/kg; SAR(10 g) = 0.223 W/kg (SAR corrected for target medium)

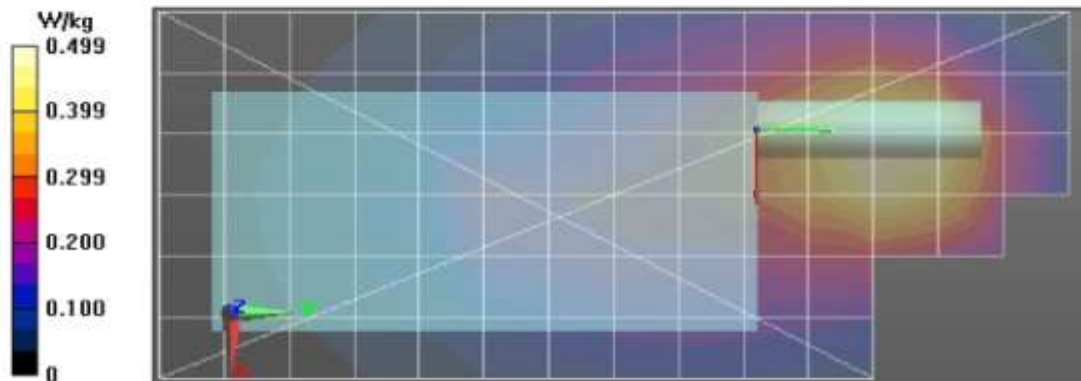
Smallest distance from peaks to all points 3 dB below = 20.2 mm

Ratio of SAR at M2 to SAR at M1 = 46.1%

Maximum value of SAR (measured) = 0.544 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) = 0.521 W/kg



SAR assessment at TDMA Digital Mode –FCC Face

Table 17

Motorola Solutions, Inc. EME Laboratory

Date/Time: 2/24/2022 10:30:11 AM

Robot#: DASY5-PG-1 | Run#: BL-FACE-220224-02#
 Model#: PMUD3334A
 Phantom#: EL15 1147
 Tissue Temp: 19.2 (C)
 Serial#: 546TYB9583
 Antenna: PMAD4155A
 Test Freq: 150.8000 (MHz)
 Battery: PMNN4468B
 Carry Acc: @ front
 Audio Acc: N/A
 Start Power: 3.25 (W)

Comments:

Communication System Band: Tonga VHF, Communication System UID: 0, Duty Cycle: 1;1.99986,
 Medium parameters used: $f = 151$ MHz; $\sigma = 0.72$ S/m; $\epsilon_r = 51.2$; $\rho = 1000$ kg/m³
 Probe: EX3DV4 - SN7486, Calibrated: 6/18/2021, Frequency: 150.8 MHz, ConvF(13.52, 13.52, 13.52) @ 150.8 MHz
 Electronics: DAE4 Sn1488, Calibrated: 4/7/2021

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

Reference Value = 32.06 V/m; Power Drift = -0.31 dB

Fast SAR: SAR(1 g) = 0.696 W/kg; SAR(10 g) = 0.537 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 0.791 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 = 32.06 V/m; Power Drift = -0.40 dB

Peak SAR (extrapolated) = 0.904 W/kg

SAR(1 g) = 0.624 W/kg; SAR(10 g) = 0.477 W/kg (SAR corrected for target medium)

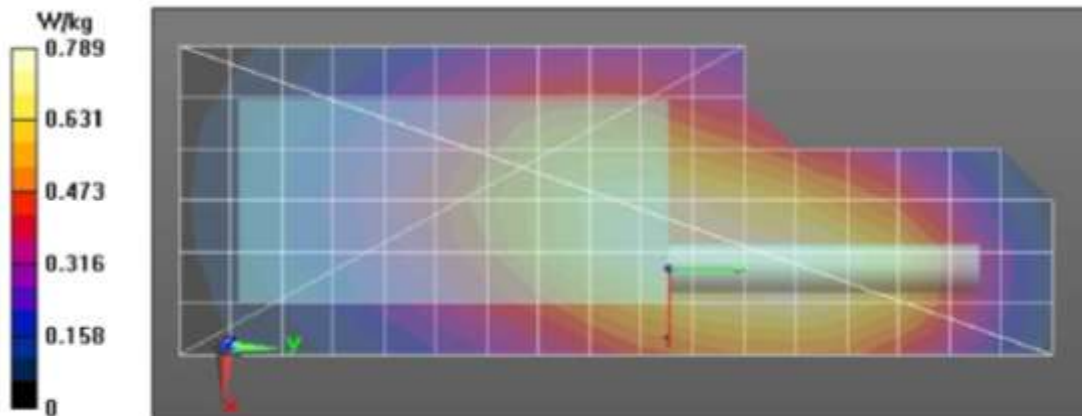
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

Ratio of SAR at M2 to SAR at M1 = 65.3%

Maximum value of SAR (measured) = 0.763 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) = 0.732 W/kg



SAR assessment at TDMA Digital Mode – ISED Body**Table 17****Motorola Solutions, Inc. EME Laboratory**

Date/Time: 2/25/2022 5:19:07 AM

Robot#: DASY5-PG-1 | Run#: FZ-AB-220225-05
 Model#: PMUD3334A
 Phantom#: ELI4 1103
 Tissue Temp: 19.1 (C)
 Serial#: 546TYB9583
 Antenna: PMAD4145B
 Test Freq: 144.0000 (MHz)
 Battery: PMNN4468B
 Carry Acc: PMLN7128A
 Audio Acc: PMLN7156A
 Start Power: 3.27 (W)

Comments:

Communication System Band: Tonga VHF, Communication System UID: 0, Duty Cycle: 1:1.99986,
 Medium parameters used: $f = 144$ MHz; $\sigma = 0.78$ S/m; $\epsilon_r = 60$; $\rho = 1000$ kg/m³
 Probe: EX3DV4 - SN7486, Calibrated: 6/18/2021, Frequency: 144 MHz, ConvF(13.16, 13.16, 13.16) @ 144 MHz
 Electronics: DAE4 Sn1488, Calibrated: 4/7/2021

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

Reference Value = 23.30 V/m; Power Drift = -0.30 dB

Fast SAR: SAR(1 g) = 0.591 W/kg; SAR(10 g) = 0.436 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 0.713 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 = 23.30 V/m; Power Drift = -0.36 dB

Peak SAR (extrapolated) = 0.895 W/kg

SAR(1 g) = 0.453 W/kg; SAR(10 g) = 0.301 W/kg (SAR corrected for target medium)

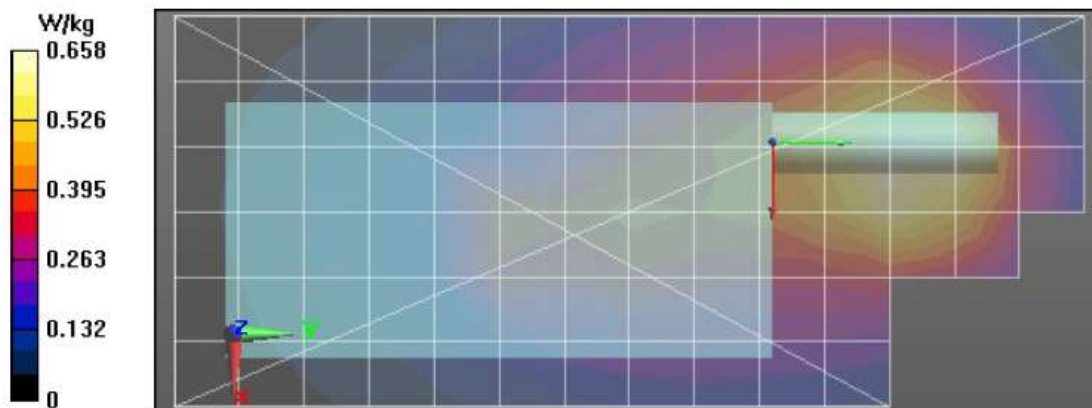
Smallest distance from peaks to all points 3 dB below = 23.4 mm

Ratio of SAR at M2 to SAR at M1 = 52.2%

Maximum value of SAR (measured) = 0.674 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) = 0.641 W/kg



SAR assessment at TDMA Digital Mode – ISED Face

Table 17

Motorola Solutions, Inc. EME Laboratory

Date/Time: 2/24/2022 9:46:30 AM

Robot#: DASY5-PG-1 | Run#: BL-FACE-220224-01#
 Model#: PMUD3334A
 Phantom#: ELI5 1147
 Tissue Temp: 19.2 (C)
 Serial#: 546TYB9583
 Antenna: PMAD4154A
 Test Freq: 140.0000 (MHz)
 Battery: PMNN4468B
 Carry Acc: @ front
 Audio Acc: N/A
 Start Power: 3.20 (W)

Comments:

Communication System Band: Tonga VHF, Communication System UID: 0, Duty Cycle: 1:1.99986,
 Medium parameters used: $f = 140$ MHz; $\sigma = 0.72$ S/m; $\epsilon_r = 51.7$; $\rho = 1000$ kg/m³
 Probe: EX3DV4 - SN7486, Calibrated: 6/18/2021, Frequency: 140 MHz, ConvF(13.52, 13.52, 13.52) @ 140 MHz
 Electronics: DAE4 Sn1488, Calibrated: 4/7/2021

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

Reference Value = 34.20 V/m; Power Drift = -0.13 dB

Fast SAR: SAR(1 g) = 0.765 W/kg; SAR(10 g) = 0.582 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 0.880 W/kg

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

Reference Value = 34.20 V/m; Power Drift = -0.19 dB

Peak SAR (extrapolated) = 1.01 W/kg

SAR(1 g) = 0.651 W/kg; SAR(10 g) = 0.488 W/kg (SAR corrected for target medium)

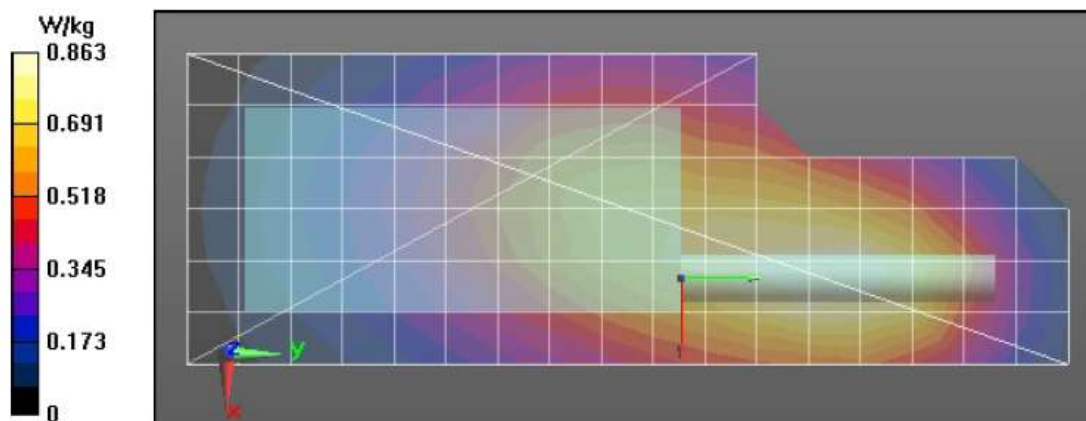
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

Ratio of SAR at M2 to SAR at M1 = 64.6%

Maximum value of SAR (measured) = 0.840 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) = 0.813 W/kg



SAR assessment at FM Analog Mode

Assessments at the Body with Body-worn PMLN7190A

Table 19

Motorola Solutions, Inc. EME Laboratory

Date/Time: 12/29/2021 11:47:09 PM

Robot#: DASY5-PG-2 | Run#: MHI-AB-211229-14
 Model#: PMUD3334A
 Phantom#: EL15 1147
 Tissue Temp: 20.2 (C)
 Serial#: 546TQP0054
 Antenna: PMAD4145B
 Test Freq: 150.8000 (MHz)
 Battery: PMNN4468B
 Carry Acc: PMLN7190A
 Audio Acc: PMLN7156A
 Start Power: 2.40 (W)

Comments:

Communication System Band: Tonga VHF, Communication System UID: 0, Duty Cycle: 1:1,
 Medium parameters used: $f = 151 \text{ MHz}$; $\sigma = 0.76 \text{ S/m}$; $\epsilon_r = 50$; $\rho = 1000 \text{ kg/m}^3$
 Probe: EX3DV4 - SN7534, Calibrated: 4/19/2021, Frequency: 150.8 MHz, ConvF(13.84, 13.84, 13.84) @ 150.8 MHz
 Electronics: DAE4 Sn1598, Calibrated: 4/7/2021

Below 2 GHz-Rev.3/Ab Scan/1-Area Scan (61x151x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Reference Value = 19.99 V/m; Power Drift = -0.06 dB

Fast SAR: SAR(1 g) = 0.357 W/kg; SAR(10 g) = 0.260 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 0.431 W/kg

Below 2 GHz-Rev.3/Ab Scan/3-Zoom Scan (6x6x7)/Cube 0: Measurement grid: $dx=7.5 \text{ mm}$, $dy=7.5 \text{ mm}$, $dz=5 \text{ mm}$

Reference Value = 19.99 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 0.595 W/kg

SAR(1 g) = 0.255 W/kg; SAR(10 g) = 0.166 W/kg (SAR corrected for target medium)

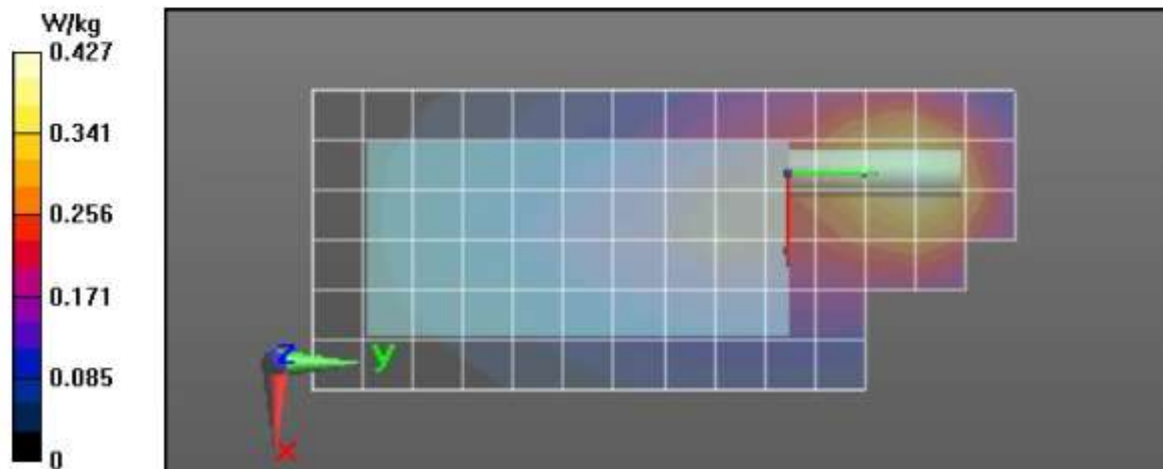
Smallest distance from peaks to all points 3 dB below = 29.5 mm

Ratio of SAR at M2 to SAR at M1 = 46.3%

Maximum value of SAR (measured) = 0.398 W/kg

Below 2 GHz-Rev.3/Ab 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) = 0.412 W/kg



Assessments at the Body with Body-worn PMLN7128A

Table 20

Motorola Solutions, Inc. EME Laboratory

Date/Time: 12/29/2021 4:34:09 PM

Robot#: DASY5-PG-2 | Run#: BL(SAN)-AB-211229-10
 Model#: PMUD3334A
 Phantom#: EL15 1147
 Tissue Temp: 20.2 (C)
 Serial#: 546TQP0054
 Antenna: PMAD4145B
 Test Freq: 150.8000 (MHz)
 Battery: PMNN4468B
 Carry Acc: PMLN7128A
 Audio Acc: PMLN7156A
 Start Power: 2.35 (W)

Comments:

Communication System Band: Timor VHF, Communication System UID: 0, Duty Cycle: 1:1,

Medium parameters used: $f = 151 \text{ MHz}$; $\sigma = 0.73 \text{ S/m}$; $\epsilon_r = 49.9$; $\rho = 1000 \text{ kg/m}^3$

Probe: EX3DV4 - SN7534, Calibrated: 4/19/2021, Frequency: 150.8 MHz, ConvF(13.84, 13.84, 13.84) @ 150.8 MHz

Electronics: DAE4 Sn1598, Calibrated: 4/7/2021

Below 2 GHz-Rev.3/Ab Scan/1-Area Scan (61x151x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Reference Value = 18.99 V/m; Power Drift = -0.19 dB

Fast SAR: SAR(1 g) = 0.392 W/kg; SAR(10 g) = 0.283 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 0.464 W/kg

Below 2 GHz-Rev.3/Ab 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 = 18.99 V/m; Power Drift = -0.25 dB

Peak SAR (extrapolated) = 0.688 W/kg

SAR(1 g) = 0.277 W/kg; SAR(10 g) = 0.171 W/kg (SAR corrected for target medium)

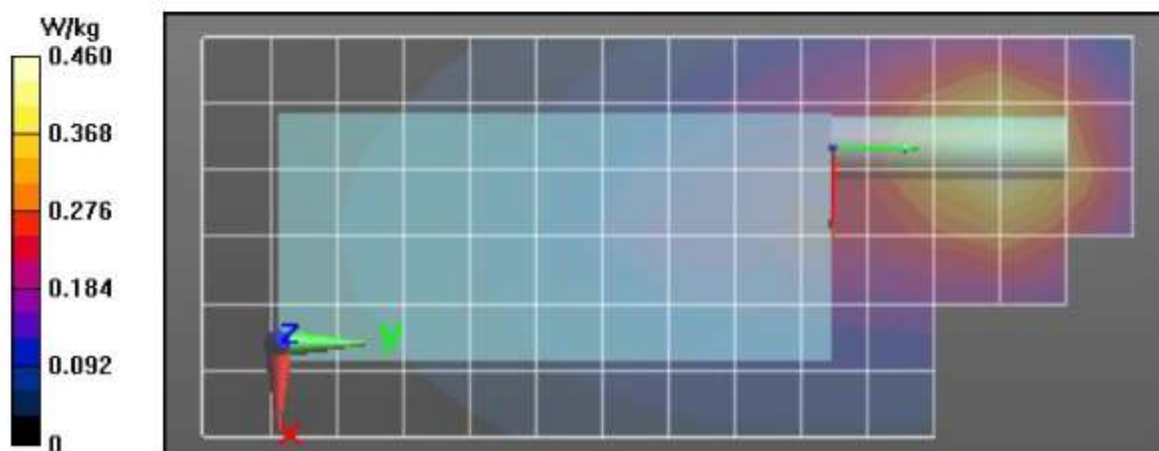
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid

Ratio of SAR at M2 to SAR at M1 = 41.6%

Maximum value of SAR (measured) = 0.451 W/kg

Below 2 GHz-Rev.3/Ab 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) = 0.437 W/kg



Assessment at the Body with other audio accessories

Assessment per “KDB 643646 D01 Body SAR Test Consideration for Audio Accessories without Built-in Antenna; Sec 1, A. when overall < 4.0 W/kg, SAR tested for that audio accessory is not necessary.” This was applicable to all remaining accessories.

SAR assessment at FM Analog Mode

Assessments at the Face

Table 22

Motorola Solutions, Inc. EME Laboratory

Date/Time: 12/29/2021 3:26:59 PM

Robot#: DASY5-PG-2 | Run#: BL(SAN)-FACE-211229-09
 Model#: PMUD3334A
 Phantom#: ELI5 1147
 Tissue Temp: 20.1 (C)
 Serial#: 546TQP0054
 Antenna: PMAD4145B
 Test Freq: 150.8000 (MHz)
 Battery: PMNN4468B
 Carry Acc: @ front
 Audio Acc: N/A
 Start Power: 2.39 (W)

Comments:

Communication System Band: Tonga VHF, Communication System UID: 0, Duty Cycle: 1:1,
 Medium parameters used: $f = 151$ MHz; $\sigma = 0.73$ S/m; $\epsilon_r = 49.9$; $\rho = 1000$ kg/m³
 Probe: EX3DV4 - SN7534, Calibrated: 4/19/2021, Frequency: 150.8 MHz, ConvF(13.84, 13.84, 13.84) @ 150.8 MHz
 Electronics: DAE4 Sn1598, Calibrated: 4/7/2021

Below 2 GHz-Rev.3/Face Scan/1-Area Scan (61x151x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 39.03 V/m; Power Drift = -0.44 dB

Fast SAR: SAR(1 g) = 1.34 W/kg; SAR(10 g) = 0.985 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 1.57 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 = 39.03 V/m; Power Drift = -0.61 dB

Peak SAR (extrapolated) = 2.18 W/kg

SAR(1 g) = 0.968 W/kg; SAR(10 g) = 0.643 W/kg (SAR corrected for target medium)

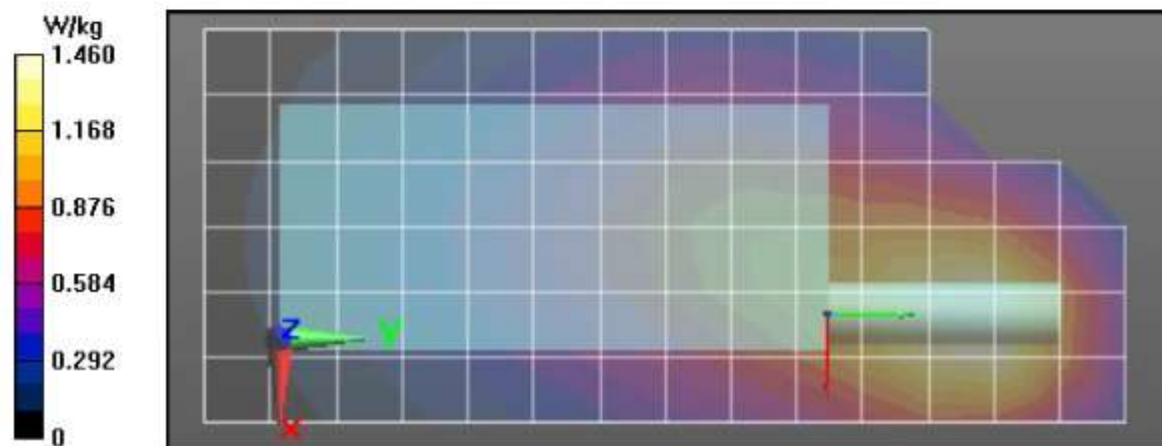
Smallest distance from peaks to all points 3 dB below = 24.2 mm

Ratio of SAR at M2 to SAR at M1 = 45.6%

Maximum value of SAR (measured) = 1.49 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) = 1.42 W/kg



SAR assessment at FM Analog Mode

Assessments ISED, Canada at the Body

Table 25

Motorola Solutions, Inc. EME Laboratory

Date/Time: 12/30/2021 7:13:30 AM

Robot#: DASY5-PG-2 | Run#: MHI-AB-211230-10#
 Model#: PMUD3334A
 Phantom#: EL15 1147
 Tissue Temp: 20.3 (C)
 Serial#: 546TQP0054
 Antenna: PMAD4145B
 Test Freq: 144.0000 (MHz)
 Battery: PMNN4468B
 Carry Acc: PMLN7128A
 Audio Acc: PMLN7156A
 Start Power: 2.36 (W)

Comments:

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

Medium parameters used: $f = 144$ MHz; $\sigma = 0.76$ S/m; $\epsilon_r = 50.5$; $\rho = 1000$ kg/m³

Probe: EX3DV4 - SN7534, Calibrated: 4/19/2021, Frequency: 144 MHz, ConvF(13.84, 13.84, 13.84) @ 144 MHz

Electronics: DAE4 Sn1598, Calibrated: 4/7/2021

Below 2 GHz-Rev.3/Ab Scan/1-Area Scan (61x151x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 30.62 V/m; Power Drift = -0.38 dB

Fast SAR: SAR(1 g) = 0.848 W/kg; SAR(10 g) = 0.615 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 1.02 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 = 30.62 V/m; Power Drift = -0.46 dB

Peak SAR (extrapolated) = 1.52 W/kg

SAR(1 g) = 0.599 W/kg; SAR(10 g) = 0.371 W/kg (SAR corrected for target medium)

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

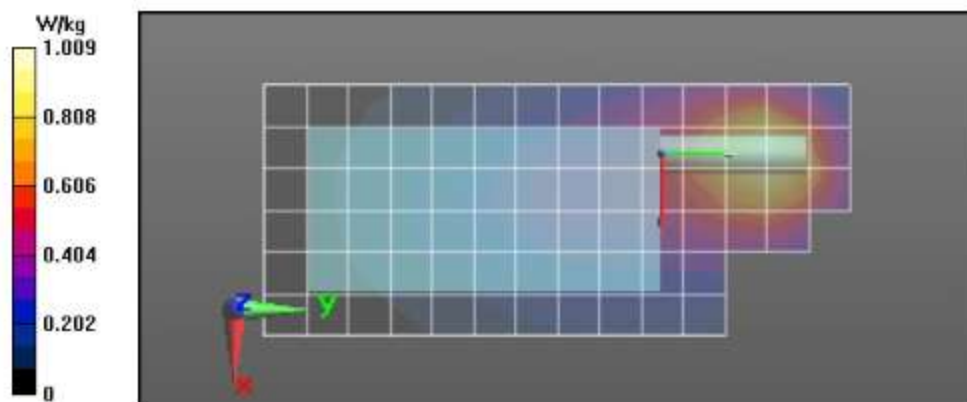
Ratio of SAR at M2 to SAR at M1 = 41.3%

Maximum value of SAR (measured) = 0.998 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) = 0.997 W/kg



Assessments ISED, Canada at the Face

Table 25

Motorola Solutions, Inc. EME Laboratory

Date/Time: 12/29/2021 3:26:59 PM

Robot#: DASY5-PG-2 | Run#: BL(SAN)-FACE-211229-09
 Model#: PMUD3334A
 Phantom#: ELI5 1147
 Tissue Temp: 20.1 (C)
 Serial#: 546TQP0054
 Antenna: PMAD4145B
 Test Freq: 150.8000 (MHz)
 Battery: PMNN4468B
 Carry Acc: @ front
 Audio Acc: N/A
 Start Power: 2.39 (W)

Comments:

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

Medium parameters used: $f = 151$ MHz; $\sigma = 0.73$ S/m; $\epsilon_r = 49.9$; $\rho = 1000$ kg/m³

Probe: EX3DV4 - SN7534, Calibrated: 4/19/2021, Frequency: 150.8 MHz, ConvF(13.84, 13.84) @ 150.8 MHz

Electronics: DAE4 Sn1598, Calibrated: 4/7/2021

Below 2 GHz-Rev.3/Face Scan/1-Area Scan (61x151x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Reference Value = 39.03 V/m; Power Drift = -0.44 dB

Fast SAR: SAR(1 g) = 1.34 W/kg; SAR(10 g) = 0.985 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 1.57 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 = 39.03 V/m; Power Drift = -0.61 dB

Peak SAR (extrapolated) = 2.18 W/kg

SAR(1 g) = 0.968 W/kg; SAR(10 g) = 0.643 W/kg (SAR corrected for target medium)

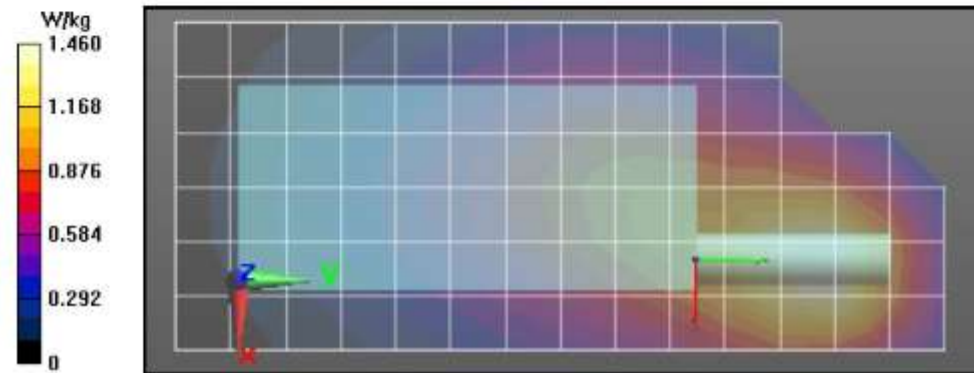
Smallest distance from peaks to all points 3 dB below = 24.2 mm

Ratio of SAR at M2 to SAR at M1 = 45.6%

Maximum value of SAR (measured) = 1.49 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) = 1.42 W/kg



APPENDIX F

Shortened Scan of Highest SAR configuration

Shortened Scan Table 26

Motorola Solutions, Inc. EME Laboratory Date/Time: 12/31/2021 5:22:40 AM

Robot#: DASY5-PG-2 | Run#: MHI(DAN)-FACE-211231-07#
 Model#: PMUD3334A
 Phantom#: ELI5 1147
 Tissue Temp: 19.5(C)
 Serial#: 546TQP0054
 Antenna: PMAD4145B
 Test Freq: 150.8000(MHz)
 Battery: PMNN4468B
 Carry Acc: @ front
 Audio Acc: N/A
 Start Power: 2.40(W)

Comments:

Communication System Band: Tonga VHF, Communication System UID: 0, Duty Cycle: 1:1,
 Medium parameters used: $f = 151 \text{ MHz}$; $\sigma = 0.77 \text{ S/m}$; $\epsilon_r = 50$; $\rho = 1000 \text{ kg/m}^3$
 Probe: EX3DV4 - SN7534, Calibrated: 4/19/2021, Frequency: 150.8 MHz, ConvF(13.84, 13.84, 13.84) @ 150.8 MHz
 Electronics: DAE4 Sn1598, Calibrated: 4/7/2021

Below 2 GHz-Rev.3/Face Scan/1-Area Scan (61x151x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Reference Value = 37.77 V/m; Power Drift = -0.36 dB

Fast SAR: SAR(1 g) = 1.3 W/kg; SAR(10 g) = 0.958 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 1.56 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 = 37.77 V/m; Power Drift = -0.43 dB

Fast SAR: SAR(1 g) = 1.21 W/kg; SAR(10 g) = 0.881 W/kg (SAR corrected for target medium)

Maximum value of SAR (interpolated) = 1.47 W/kg

Below 2 GHz-Rev.3/Face Scan/3-Zoom Scan (6x7x7)/Cube 0: Measurement grid: $dx=7.5 \text{ mm}$, $dy=7.5 \text{ mm}$, $dz=5 \text{ mm}$

Reference Value = 44.84 V/m; Power Drift = -0.42 dB

Peak SAR (extrapolated) = 2.15 W/kg

SAR(1 g) = 0.980 W/kg; SAR(10 g) = 0.661 W/kg (SAR corrected for target medium)

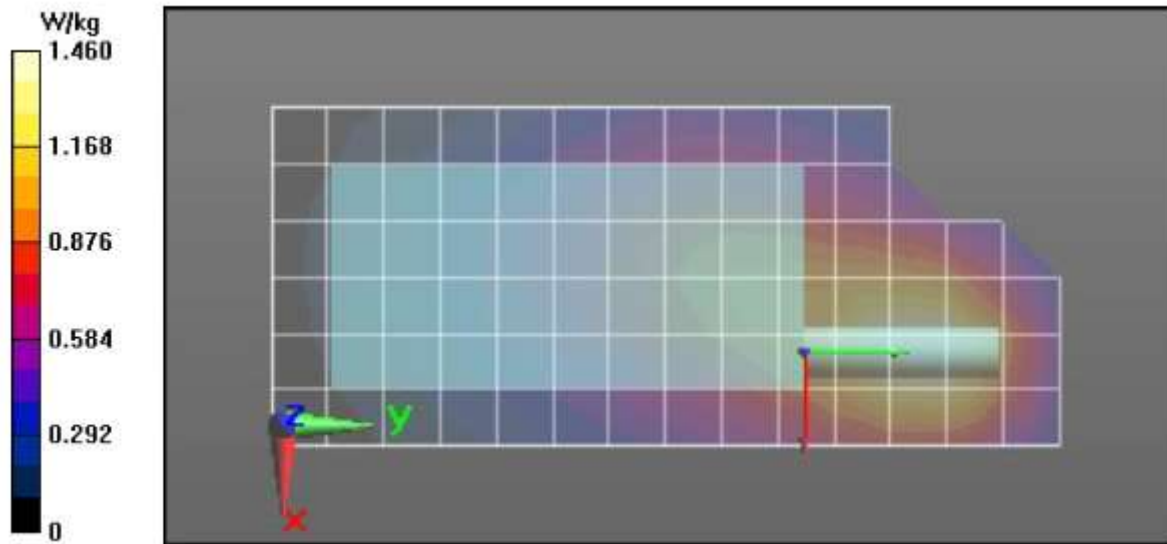
Smallest distance from peaks to all points 3 dB below = 24.6 mm

Ratio of SAR at M2 to SAR at M1 = 46.5%

Maximum value of SAR (measured) = 1.51 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) = 1.50 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	8	0.54
Full scan (area & zoom)	22	23	0.56

APPENDIX G

DUT Test Position Photos

1.0 Highest SAR Test Position per location

1.1 Body

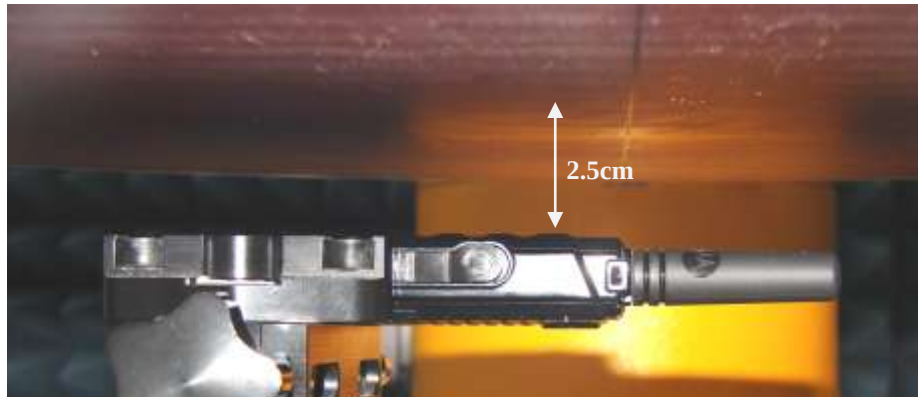
DUT with antenna PMAD4145B with offered battery PMNN4468B and body worn PMLN7128A against the phantom with PMLN7156A audio accessory attached.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
PMAD4145B	21	25	27

1.2 Face

Back of DUT with antenna PMAD4145B with offered battery PMNN4468B separated 2.5cm from the phantom without an audio accessory attached. Same position used for other antenna, internal WLAN antenna and batteries.



Antenna kit #	Separation Distances (mm)		
	@ bottom surface of the DUT	@ antenna's base	@ antenna's tip
PMAD4145A	28	29	29

APPENDIX H

DUT, Body worn and audio accessories Photos

Please refer to original filling report