

**MOTOROLA SOLUTIONS**

CERTIFICATE 2518.05

SMM 826

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

Motorola Solutions Malaysia Sdn Bhd

Plot 2A, Medan Bayan Lepas,

Mukim 12 SWD 11900 Bayan Lepas Penang, Malaysia.

Date of Report: 07/02/2024**Report Revision:** B

Responsible Engineer: Puteri Alifah Ilyana Binti Nor Rahim (EME Engineer)
Report Author: Puteri Alifah Ilyana Binti Nor Rahim (EME Engineer)
Date/s Tested: 5/15/2024-5/16/2024 & 5/24/2024
Manufacturer: Motorola Solutions Inc.
Manufacturer Location: Sanmina, Penang
DUT Description: Handheld Portable – TANAPA BPR 50DX 136-174 MHz 5W NKP
Test TX mode(s): CW (PTT)
Max. Power output: Refer Table 3
Nominal Power: Refer Table 3
Tx Frequency Bands: Refer Table 3
Signaling type: Refer Table 3
Model(s) Tested: AAH88LDK8AD5BN
Model(s) Certified: Refer Section 1.0 Introduction
(HVIN/PMN)
Serial Number(s): 02721AE0323
Classification: Occupational/Controlled Environment
Firmware Version (FVIN): I001.058
Applicant Name: Motorola Solutions Inc.
Applicant Address: Plot 2A, Medan Bayan Lepas, Mukim 12 SWD, 11900 Bayan Lepas, Penang, Malaysia
FCC ID: AZ489FT3856
This report contains results that are immaterial for FCC equipment approval, which are clearly identified.
FCC Test Firm Registration Number: 823256
IC: 109U-89FT3856
This report contains results that are immaterial for ISED equipment approval, which are clearly identified.
IC Test Site registration: 24843

The test results clearly demonstrate compliance with Occupational/Controlled RF Exposure limits of 8 W/kg averaged over 1 gram per the requirements of FCC 47 CFR § 2.1093 and RSS-102 (Issue 5)

Based on the information and the testing results provided herein, the undersigned certifies that when used as stated in the operating instructions supplied, said product complies with the national and international reference standards and guidelines listed in section 4.0 of this report (no deviation from standard methods). This report shall not be reproduced without written approval from an officially designated representative of the Motorola Solutions Inc EME Laboratory. I attest to the accuracy of the data and assume full responsibility for the completeness of these measurements. This reporting format is consistent with the suggested guidelines of the TIA TSB-150 December 2004. The results and statements contained in this report pertain only to the device(s) evaluated.

Saw Sun Hock (Approval Signatory)**Approved Date: 07/02/2024**

Appendix D

System Verification Check Scans

Table 13

5/16/24, 2:10 PM

__0_CW_150-00MHz.html

Motorola Solutions, EME Laboratory

2024-05-16, 13:45

System Performance Check Report

Summary

Dipole	Frequency [MHz]	TSL	Power [dBm]	Dev. 1g [%]	Dev. 10g [%]
CLA-150 – SN4016	150.0	HSL	30.0	7.3	5.0

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	0		CW, 0--	150.0, 0	10.14	0.770	49.9

Hardware Setup

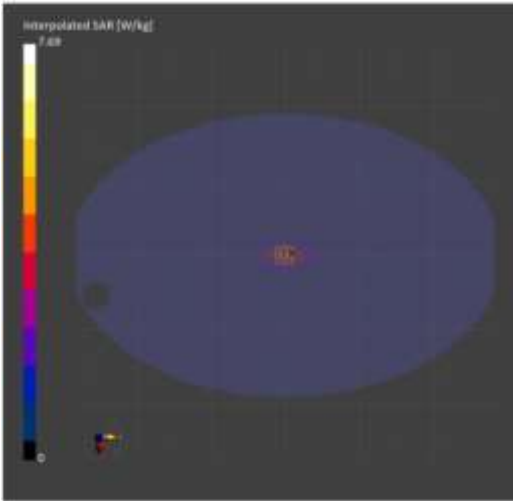
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V4.0 (20deg probe tilt) – 1011	HSL150 , 2024-May-16	EX3DV4 – SN3612, 2021-10-22	DAE4 Sn1483, 2022-10-10

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 90.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 15.0	6.0 x 6.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	n/a	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	2024-05-16, 13:45	2024-05-16, 13:53
psSAR1g [W/Kg]	4.13	4.05
psSAR10g [W/Kg]	2.95	2.61
Power Drift [dB]	-0.00	0.01
TSL Correction	Positive / Negative	Positive / Negative



Appendix E

DUT Scans

Highest SAR Configuration of LMR assessments at the FCC Body (150.8-173.4 MHz)

Table 18

5/27/24, 1:55 PM

BACK_0-00_AN000465A01_PMNN4847A_PMLN8600A_PMLN6542A_0_CW_159-10MHz.html

Motorola Solutions, EME Laboratory

2024-05-27, 13:26

Measurement Report for PMUD3535A, 02721AE0323,BACK, Custom Band, CW, Channel 159100 (159.1 MHz)

Device Under Test Properties

Model	Serial Number	Dimensions [mm]
PMUD3535A	02721AE0323	121.0 x 60.0 x 35.0

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	BACK, 0.00	Custom Band	CW, 0--	159.1, 159100	10.14	0.732	49.7

Hardware Setup

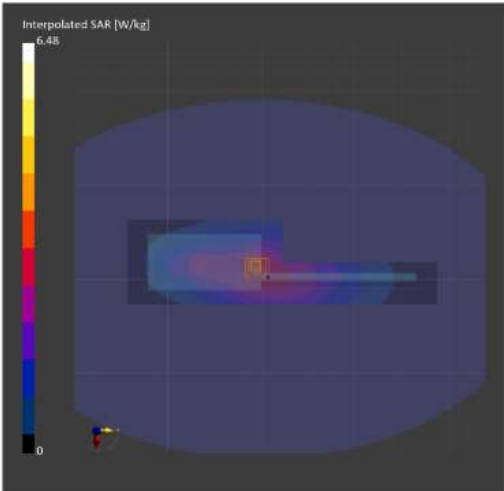
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V4.0 (20deg probe tilt) - 1011	HSL150 , 2024-May-27	EX3DV4 - SN3612, 2021-10-22	DAE4 Sn1483, 2022-10-10

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 330.0	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	n/a	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	2024-05-27, 13:26	2024-05-27, 13:37
psSAR1g [W/Kg]	3.29	3.24
psSAR10g [W/Kg]	2.42	2.22
Power Drift [dB]	0.07	-0.52
TSL Correction	Positive only	Positive only
M2/M1 [%]		73.2
Dist 3dB Peak [mm]		18.8



Highest SAR Configuration of LMR assessments at the FCC Face (150.8-173.4MHz)

Table 20

5/15/24, 5:47 AM

FRONT_25-00_AN000465A01_PMNN4847A_front_NA_0_CW_159-10MHz.html

Motorola Solutions, EME Laboratory

2024-05-15, 05:26

Measurement Report for PMUD3535A, 02721AE023,FRONT, Custom Band, CW, Channel 159100 (159.1 MHz)

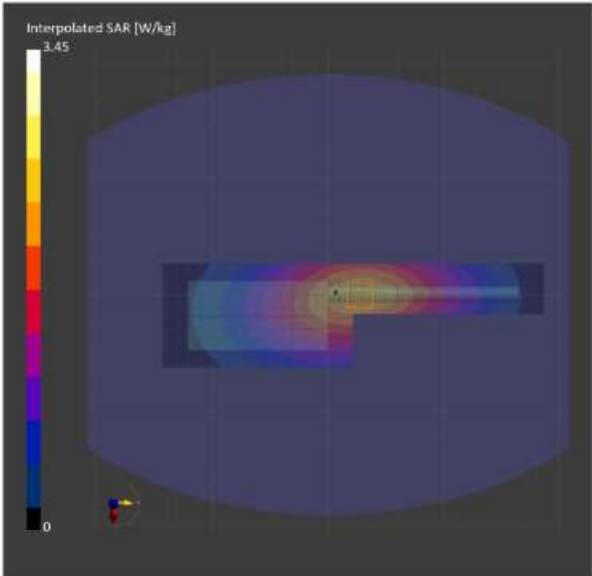
Device Under Test Properties		
Model	Serial Number	Dimensions [mm]
PMUD3535A	02721AE023	121.0 x 60.0 x 35.0

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	Custom Band	CW, 0--	159.1, 159100	10.14	0.742	49.5

Hardware Setup			
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V4.0 (20deg probe tilt) - 1011	HSL150 , 2024-May-14	EX3DV4 - SN3612, 2021-10-22	DAE4 Sn1483, 2022-10-10

Scans Setup		
	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 330.0	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	n/a	Yes
Grading Ratio	n/a	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	All points
Scan Method	Measured	Measured

Measurement Results		
	Area Scan	Zoom Scan
Date	2024-05-15, 05:26	2024-05-15, 05:42
psSAR1g [W/Kg]	2.38	2.24
psSAR10g [W/Kg]	1.83	1.71
Power Drift [dB]	-0.19	-0.63
TSL Correction	Positive only	Positive only
M2/M1 [%]		82.7
Dist 3dB Peak [mm]		> 15.0



Highest SAR Configuration of LMR assessments at outside FCC Frequency range Body

(136-174 MHz)

Table 21

5/29/24, 4:59 PM

BACK_0-00_AN000464A01_PMNN4847A_PMLN8600A_PMLN6542A_0_CW_138-00MHz.html

Motorola Solutions, EME Laboratory

2024-05-29, 16:46

Measurement Report for PMUD3535A, 02721AE0323,BACK, CLA150, CW, Channel 38 (138.0 MHz)

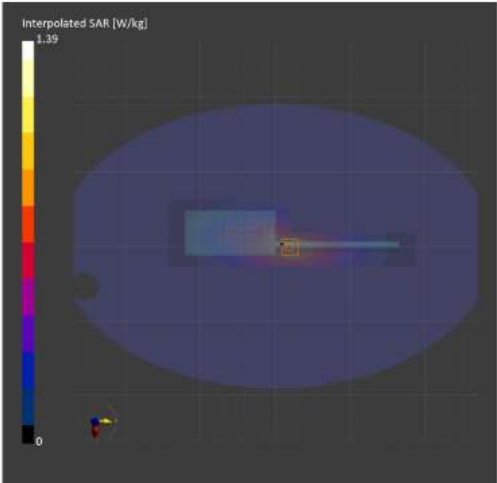
Device Under Test Properties							
Model		Serial Number		Dimensions [mm]			
PMUD3535A		02721AE0323		121.0 x 60.0 x 35.0			

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	BACK, 0.00	CLA150	CW, 0--	138.0, 38	10.14	0.777	52.6

Hardware Setup			
Phantom		TSL, Measured Date	Probe, Calibration Date
ELI V4.0 (20deg probe tilt) - 1011		HSL150 , 2024-May-29	EX3DV4 - SN3612, 2021-10-22
		DAE, Calibration Date	
		DAE4 Sn1483, 2022-10-10	

Scans Setup		
	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 330.0	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	n/a	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	2024-05-29, 16:46	2024-05-29, 16:57
psSAR1 g [W/Kg]	0.856	0.852
psSAR10g [W/Kg]	0.660	0.628
Power Drift [dB]	-0.05	-0.16
TSL Correction	Positive only	Positive only
M2/M1 [%]		82.9
Dist 3dB Peak [mm]		> 15.0



Highest SAR Configuration of LMR assessments at outside FCC Frequency range Face

(136-174 MHz)

Table 21

5/16/24, 4:21 PM

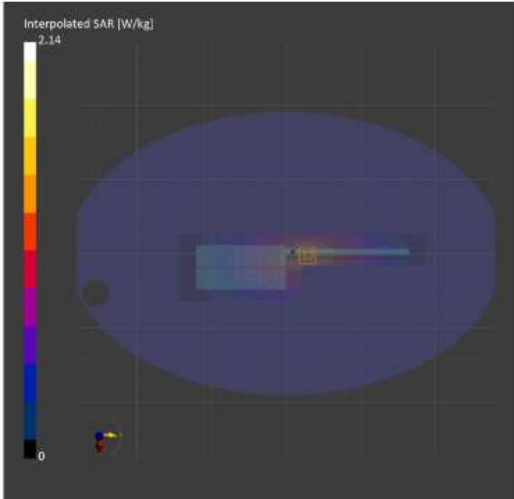
FRONT_25-00_AN000464A01_PMNN4847A_front_NA_0_CW_138-00MHz.html

Motorola Solutions, EME Laboratory

2024-05-16, 16:08

Measurement Report for PMUD3535A, 02721AE0323,FRONT, CLA150, CW, Channel 38 (138.0 MHz)

Device Under Test Properties							
Model		Serial Number		Dimensions [mm]			
PMUD3535A		02721AE0323		121.0 x 60.0 x 35.0			
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	CLA150	CW, 0--	138.0, 38	10.14	0.762	50.5
Hardware Setup							
Phantom		TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date	
ELI V4.0 (20deg probe tilt) - 1011		HSL150 , 2024-May-16		EX3DV4 - SN3612, 2021-10-22		DAE4 Sn1483, 2022-10-10	
Scans Setup				Measurement Results			
		Area Scan	Zoom Scan			Area Scan	Zoom Scan
Grid Extents [mm]		90.0 x 330.0	30.0 x 30.0 x 30.0	Date		2024-05-16, 16:08	2024-05-16, 16:18
Grid Steps [mm]		15.0 x 15.0	6.0 x 6.0 x 1.5	psSAR1g [W/Kg]		1.33	1.34
Sensor Surface [mm]		3.0	1.4	psSAR10g [W/Kg]		1.03	1.02
Graded Grid		n/a	Yes	Power Drift [dB]		-0.08	-0.25
Grading Ratio		n/a	1.5	TSL Correction		Positive only	Positive only
MAIA		N/A	N/A	M2/M1 [%]			82.4
Surface Detection		VMS + 6p	VMS + 6p	Dist 3dB Peak [mm]			> 15.0
Scan Method		Measured	Measured				



Highest SAR Configuration of LMR assessments at the ISED, Canada Body (138-174MHz)

Table 22

5/27/24, 1:55 PM

BACK_0-00_AN000465A01_PMNN4847A_PMLN8600A_PMLN6542A_0_CW_159-10MHz.html

Motorola Solutions, EME Laboratory

2024-05-27, 13:26

Measurement Report for PMUD3535A, 02721AE0323,BACK, Custom Band, CW, Channel 159100 (159.1 MHz)

Device Under Test Properties

Model	Serial Number	Dimensions [mm]
PMUD3535A	02721AE0323	121.0 x 60.0 x 35.0

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	BACK, 0.00	Custom Band	CW, 0--	159.1, 159100	10.14	0.732	49.7

Hardware Setup

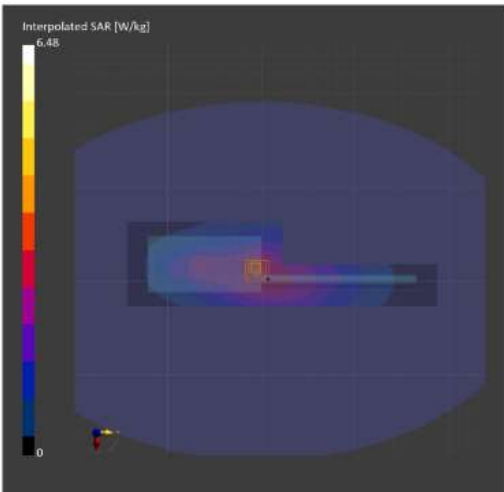
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V4.0 (20deg probe tilt) - 1011	HSL150 , 2024-May-27	EX3DV4 - SN3612, 2021-10-22	DAE4 Sn1483, 2022-10-10

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 330.0	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	n/a	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	2024-05-27, 13:26	2024-05-27, 13:37
psSAR1g [W/Kg]	3.29	3.24
psSAR10g [W/Kg]	2.42	2.22
Power Drift [dB]	0.07	-0.52
TSL Correction	Positive only	Positive only
M2/M1 [%]		73.2
Dist 3dB Peak [mm]		18.8



Highest SAR Configuration of LMR assessments at the ISED, Canada Face (138-174 MHz)

Table 22

5/15/24, 5:47 AM

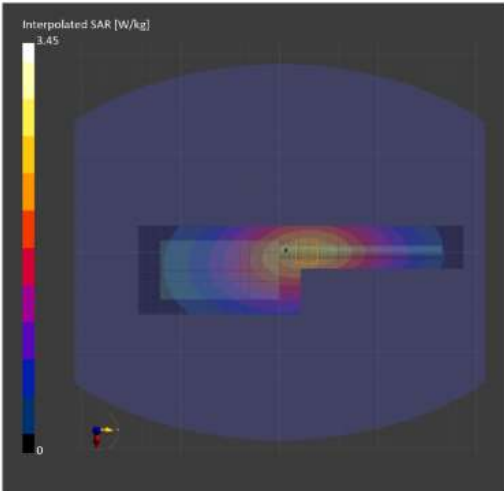
FRONT_25-00_AN000465A01_PMNN4847A_ front_NA_0_CW_159-10MHz.html

Motorola Solutions, EME Laboratory

2024-05-15, 05:26

Measurement Report for PMUD3535A, 02721AE023,FRONT, Custom Band, CW, Channel 159100 (159.1 MHz)

Device Under Test Properties							
Model		Serial Number			Dimensions [mm]		
PMUD3535A		02721AE023			121.0 x 60.0 x 35.0		
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	Custom Band	CW, 0--	159.1, 159100	10.14	0.742	49.5
Hardware Setup							
Phantom		TSL, Measured Date		Probe, Calibration Date		DAE, Calibration Date	
ELI V4.0 (20deg probe tilt) - 1011		HSL150 , 2024-May-14		EX3DV4 - SN3612, 2021-10-22		DAE4 Sn1483, 2022-10-10	
Scans Setup				Measurement Results			
		Area Scan	Zoom Scan			Area Scan	Zoom Scan
Grid Extents [mm]		90.0 x 330.0	30.0 x 30.0 x 30.0	Date		2024-05-15, 05:26	2024-05-15, 05:42
Grid Steps [mm]		15.0 x 15.0	6.0 x 6.0 x 1.5	psSAR1 g [W/Kg]		2.38	2.24
Sensor Surface [mm]		3.0	1.4	psSAR10g [W/Kg]		1.83	1.71
Graded Grid		n/a	Yes	Power Drift [dB]		-0.19	-0.63
Grading Ratio		n/a	1.5	TSL Correction		Positive only	Positive only
MAIA		N/A	N/A	M2/M1 [%]			82.7
Surface Detection		VMS + Gp	All points	Dist 3dB Peak [mm]			> 15.0
Scan Method		Measured	Measured				



APPENDIX F

Shortened Scan of Highest SAR configuration

Shortened Scan Assessment

Table 23

5/28/24, 5:43 AM

BACK_0-00_AN000465A01_PMNN4847A_PMLN8600A_PMLN6542A_0_CW_159-10MHz.html

Motorola Solutions, EME Laboratory

2024-05-28, 05:18

Measurement Report for PMUD3535A, 02721AE0323,BACK, Custom Band, CW, Channel 159100 (159.1 MHz)

Device Under Test Properties

Model	Serial Number	Dimensions [mm]
PMUD3535A	02721AE0323	121.0 x 60.0 x 35.0

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	BACK, 0.00	Custom Band	CW, 0--	159.1, 159100	10.14	0.732	49.7

Hardware Setup

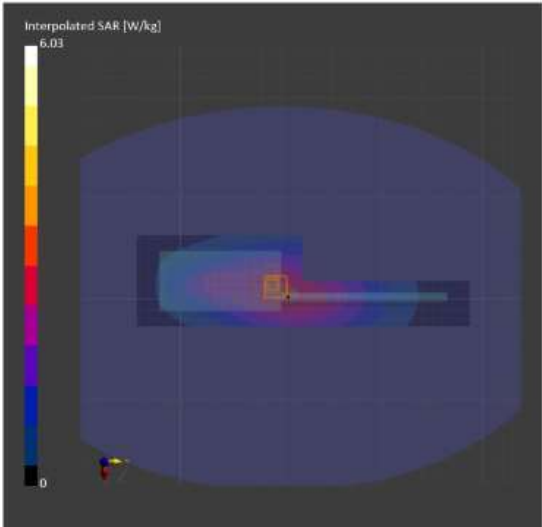
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V4.0 (20deg probe tilt) – 1011	HSL150 , 2024-May-28	EX3DV4 – SN3612, 2021-10-22	DAE4 Sn1483, 2022-10-10

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	90.0 x 330.0	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	n/a	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	2024-05-28, 05:18	2024-05-28, 05:34
psSAR1g [W/Kg]	3.17	3.18
psSAR10g [W/Kg]	2.35	2.23
Power Drift [dB]	-0.21	-0.35
TSL Correction	Positive only	Positive only
M2/M1 [%]		76.3
Dist 3dB Peak [mm]		> 15.0



APPENDIX G

DUT Test Position Photos

Photos are available in Exhibit 7B

APPENDIX H

DUT, Body worn and audio accessories Photos

Photos are available in Exhibit 7B