MOTOROLA SOLUTIONS

SAMM 826

CERTIFICATE 2518.05

DECLARATION OF COMPLIANCE SAR ASSESSMENT

Motorola Solutions Inc.
EME Test Laboratory
Motorola Solutions Malaysia Sdn Bhd
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Date of Report: 02/06/2025
Report Revision: C

Responsible Engineer:	Alfred Hoe (EME Engineer)
Report Author:	Alfred Hoe (EME Engineer)
Date/s Tested:	12/17/2024-12/18/2024, 01/07/2024, 01/09/2024, 01/11/2024
Test Location:	Penang EME Laboratory
Manufacturer:	Motorola Solutions Malaysia Sdn Bhd.
Manufacturer Location:	Plot 2A, Medan Bayan Lepas Mukim, 12 SWD, 11900 Bayan Lepas, Penang, Malaysia
DUT Description:	RMV2080 VHF BRUS, 8Ch,Non-Display, Fixed Antenna, 2.0Watts, Black, Li-Ion
Test TX mode(s):	CW (PTT)
Max. Power output:	Refer table 3
Tx Frequency Bands:	Refer table 3
Signaling type:	Refer table 3
Model(s) Tested:	RMV2080BHLAA
Model(s) Certified: (HVIN/PMN)	Refer 1.0 Introduction
Serial Number(s):	0245AX4579, 0245AX4578
Classification:	Occupational/Controlled Environment
Applicant Name:	Motorola Solutions Inc.
Applicant Address:	Plot 2A, Medan Bayan Lepas Mukim, 12 SWD, 11900 Bayan Lepas, Penang, Malaysia
Firmware Version (FVIN):	R02.02
FCC ID:	AZ489FT3857
FCC Test Firm Registration Number:	823256
IC:	109U-89FT3857
ISED 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 6)

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. The results and statements contained in this report pertain only to the device(s) evaluated.

Saw Sun Hock (Approval Signatory)
Approved Date: 02/07/2025

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APPENDICES

Report Revision History

Date	Revision	Comments
01/14/2025	A	Initial release
02/03/2025	B	Update Model(s) Certified Table
02/06/2025	C	Split out the Appendices B & C

1.0 Introduction

This report details the utilization, test setup, test equipment, and test results of the Specific Absorption Rate (SAR) measurements performed at the Motorola Solutions Inc. EME Test Laboratory for handheld portable model number RMV2080BHLAA. This device is classify as Occupational/Controlled Environment and models certified is list as below:

Models	Hardware Version ID Number (HVIN)	Product Marketing Name (PMN)	Description
RMV2080BHLAA	N/A	RMV2080	RMV2080 VHF BRUS, 8CH, Non-Display, Fixed Antenna, 2.0Watts, Black, Li-Ion
N/A	MUD3255	RMV2080	RMV2080 VHF BRUS, 8CH, Non-Display, Fixed Antenna, 2.0Watts, Black, Li-Ion

2.0 FCC SAR Summary

Table 1

Equipment Class	Frequency band (MHz)	Max Calc at Body (W/kg)	Max Calc at Face (W/kg)
		1g-SAR	1g-SAR
TNF	150.8-170 (LMR)	0.632	0.961

3.0 Abbreviations / Definitions

CNR: Calibration Not Required
CW: Continuous Wave
DUT: Device Under Test
EME: Electromagnetic Energy
FM: Frequency Modulation
LMR: Land Mobile Radio
NA: Not Applicable
PTT: Push to Talk
SAR: Specific Absorption Rate
TNF: Licensed Non-Broadcast Transmitter Held to Face

Audio accessories: These accessories allow communication while the DUT is worn on the body.
Body worn accessories: These accessories allow the DUT to be worn on the body of the user.
Maximum Power: Defined as the upper limit of the production line final test station

4.0 Referenced Standards and Guidelines

This product is designed to comply with the following applicable national and international standards and guidelines.

- Federal Communications Commission, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio frequency Electromagnetic Fields", OET Bulletin 65, FCC, Washington, D.C.: 1997.
- Institute of Electrical and Electronics Engineers (IEEE) C95.1-2019
- Ministry of Health (Canada) Safety Code 6 (2015), Limits of Human Exposure to Radio frequency Electromagnetic Fields in the Frequency Range from 3 kHz to 300 GHz
- RSS-102 (Issue 6) – Radio Frequency (RF) Exposure Compliance of Radio communication Apparatus (All Frequency Bands)
- ANATEL, Brazil Regulatory Authority, Resolution No 700 of September 28, 2018 "Approves the Regulation on the Assessment of Human Exposure to Electric, Magnetic and Electromagnetic Fields Associated with the Operation of Radio communication Transmitting Stations.
- IEC/IEEE 62209-1528-2020- Measurement procedure for the assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices - Part 1528: Human models, instrumentation, and procedures (Frequency range of 4 MHz to 10 GHz)
- FCC KDB – 643646 D01 SAR Test for PTT Radios v01r03
- FCC KDB – 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
- FCC KDB – 865664 D02 RF Exposure Reporting v01r02
- FCC KDB – 447498 D01 General RF Exposure Guidance v06

5.0 SAR Limits

Table 2

EXPOSURE LIMITS	SAR (W/kg)	
	(General Population / Uncontrolled Exposure Environment)	(Occupational / Controlled Exposure Environment)
Spatial Average - ANSI - (averaged over the whole body)	0.08	0.4
Spatial Peak - ANSI - (averaged over any 1-g of tissue)	1.6	8.0
Spatial Peak – ICNIRP/ANSI - (hands/wrists/feet/ankles averaged over 10-g)	4.0	20.0
Spatial Peak - ICNIRP - (Head and Trunk 10-g)	2.0	10.0

6.0 Description of Device Under Test (DUT)

This portable device operates in the LMR bands using frequency modulation (FM) signals incorporating traditional simplex two-way radio transmission protocol.

The model represented under this filing utilizes a fixed antenna and is capable of transmitting in the 150.8-170MHz band. The nominal output powers are 1.8W with maximum output powers of 2.0W as defined by upper limit of the production line final test station.

The LMR bands in this device operate in a half duplex system. A half duplex system only allows the user to transmit or receive. This device cannot transmit and receive simultaneously. The user must stop transmitting in order to receive a signal or listen for a response, regardless of PTT button or use of voice activated audio accessories. This type of operation, along with the RF safety booklet, which instructs the user to transmit no more than 50% of the time, justifies the use of 50% duty factor for this device.

Table 3 below summarizes the technologies, bands, maximum duty cycles and maximum output powers. Maximum output powers are defined as upper limit of the production line final test station.

Table 3

Technology	Transmit Band (MHz)	Transmission	Duty Cycle (%)	Conducted (Average Detector) Maximum Power (W)
LMR	150.8-170	FM	50*	2.00

Note - * includes 50% PTT operation

The intended operating positions are “at the face” with the DUT at least 2.5 cm from the mouth, and “at the body” by means of the offered body worn accessories. Body worn audio and PTT operation is accomplished by means of optional remote accessories that are connected to the radio.

7.0 Optional Accessories and Test Criteria

This device is offered with optional accessories. All accessories were individually evaluated during the test plan creation to determine if testing was required per the guidelines outlined in "SAR Test Reduction Considerations for Occupational PTT Radios" FCC KDB 643646 to assess compliance of this device. The following sections identify the test criteria and details for each accessory category. Refer to Exhibit 7B for antenna separation distances.

7.1 Antenna

Table 4

Antenna No.	Antenna Models	Description	Selected for test	Tested
1	Non Removable	150.8-170MHz, ¼ wave, 3dBi	Yes	Yes

7.2 Batteries

Table 5

Battery No.	Battery Models	Description	Selected for test	Tested	Comments
1	PMNN4453A	RM/RVA/XT High Cap BATT LIION-3000	Yes	Yes	Default battery for face testing
2	PMNN4434A	RM/RVA/XT STD BATT LIION-2100	Yes	Yes	Default battery for body testing

7.3 Body worn Accessory

Table 6

Body worn No.	Body worn Models	Description	Selected for test	Tested	Comments
1	PMLN6455A	RMX Series Holster	Yes	Yes	

7.4 Audio Accessories

Table 7

Audio No.	Audio Acc. Models	Description	Selected for test	Tested	Comments
1	HKLN4606A	ACCESSORY KIT,REMOTE SPEAKER MIC, W/PTT, SLIM PLUG, PVC FREE	Yes	Yes	Default Audio
2	HKLN4601A	ACCESSORY KIT,DUAL PIN SURVEILLANCE W/PTT, SLIM PLUG, PVC FREE	Yes	No*	
3	HKLN4604A	ACCESSORY KIT,SWIVEL EARPIECE, W/PTT, SLIM PLUG, PVC FREE	Yes	No*	
4	HKLN4605A	ACCESSORY KIT,EARBUD W/PTT, MIC, SLIM PLUG,PVC FREE	Yes	No*	
5	HKLN4599A	AUDIO ACCESSORY-HEADSET,EARPIECE W/PTT, MIC, SLIM PLUG, PVC FREE	Yes	No*	
6	HKLN4599B	AUDIO ACCESSORY-HEADSET,EARPIECE W/PTT, MIC, SLIM PLUG, PVC FREE	Yes	No*	
7	HCSN4000D	(56517) Earpiece w/ PTT Mic	Yes	No*	
8	HCSN4001C	(56518) Earpiece w/Boom Mic	Yes	No*	
9	HMN9030A	Remote Speaker Mic	Yes	No*	
10	HMN9038A	(53865) Headset W/swivel Boom Mic	Yes	No*	
11	HMN9039E	(53863) Earpiece w/Boom Mic	Yes	No*	
12	NTN9159F	(53815) Lightweight Headset	Yes	No*	
13	RMN5114A	Light Weight Temple Transducer Headset	Yes	No*	
14	HKLN4477B	Earpiece Surveilance Mic	No	No	By similarity to HKLN4601A
15	HMN9025D	(53866) Earbud w/PTT Mic	No	No	By similarity to HKLN4605A
16	HMN9026D	(53862) Remote Spk Mic	No	No	By similarity to HKLN4606A
17	RLN5714B	Earpiece w/Inline Mic	No	No	By similarity to HCSN4000D
18	RLN6423A	(52730) Swivel Earpiece	No	No	By similarity to HCSN4000D

Note - * Intended for test. Per KDB provision tests not required

8.0 Description of Test System

DASY5™ Test System

8.1 Descriptions of Robotics/Probes/Readout Electronics

Table 8

Dosimetric System type	System version	DAE type	Probe Type
Schmid & Partner Engineering AG SPEAG DASY 5	52.10.4.1527	DAE4	EX3DV4 (E-Field)

The **DASY5™ system** is operated per the instructions in the DASY5™ Users Manual. The complete manual is available directly from SPEAG™. All measurement equipment used to assess SAR compliance was calibrated according to ISO/IEC 17025 A2LA guidelines. Section 9.0 presents additional test equipment information. Appendices B and C present the applicable calibration certificates.

8.2 Description of Phantom(s)

Table 9

Phantom Type	Phantom(s) Used	Material Parameters	Phantom Dimensions LxWxD (mm)	Material Thickness (mm)	Support Structure Material	Loss Tangent (wood)
Triple Flat	NA	200MHz -6GHz; Er = 3-5, Loss Tangent = ≤0.05	280x175x175	2mm +/- 0.2mm	Wood	< 0.05
SAM	NA	300MHz -6GHz; Er = < 5, Loss Tangent = ≤0.05	Human Model			
Oval Flat	√	300MHz -6GHz; Er = 4+/- 1, Loss Tangent = ≤0.05	600x400x190			

8.3 Description of Simulated Tissue

The sugar based simulate tissue is produced by placing the correct measured amount of De-ionized water into a large container. Each of the dried ingredients are weighed and added to the water carefully to avoid clumping. If the solution has a high sugar concentration the water is pre-heated to aid in dissolving the ingredients. The solution is mixed thoroughly, covered, and allowed to sit overnight prior to use.

The simulated tissue mixture was mixed based on the Simulated Tissue Composition indicated in Table 10. During the daily testing of this product, the applicable mixture was used to measure the Di-electric parameters at each of the tested frequencies to verify that the Di-electric parameters were within the tolerance of the tissue specifications.

Simulated Tissue Composition (percent by mass)

Table 10

Ingredients	150MHz
	Head
Sugar	55.4
Diacetin	NA
De ionized-Water	38.35
Salt	5.15
HEC	1
Bact.	0.1

9.0 Additional Test Equipment

The Table below lists additional test equipment used during the SAR assessment.

Table 11

Equipment Type	Model Number	Serial Number	Calibration Date	Calibration Due Date
SPEAG PROBE	EX3DV4	7511	07/23/24	07/23/27
SPEAG PROBE	EX3DV4	7486	01/19/24	01/19/27
SPEAG DAE	DAE4	850	04/14/22	04/14/25
SPEAG DAE	DAE4	1483	10/10/25	10/10/25
POWER AMPLIFIER	10W1000C	312859	CNR	CNR
POWER AMPLIFIER	50W100D	0357646	CNR	CNR
SIGNAL GENERATOR (VECTOR ESG 250KHZ-6GHZ)	E4438C	MY45091093	08/17/24	08/17/25
SIGNAL GENERATOR (VECTOR ESG 250KHZ-6GHZ)	E4438C	MY42081753	19/14/24	19/14/25
BI-DIRECTIONAL COUPLER	3020A	41935	08/20/24	08/20/25
BI-DIRECTIONAL COUPLER	3020A	40295	06/13/24	06/13/25
POWER METER	E4419B	MY45103725	07/18/24	07/18/25
POWER SENSOR	E4412A	MY61060011	04/29/24	04/29/25
POWER SENSOR	E4412A	MY61050006	04/29/24	04/29/25
POWER SENSOR	E4412A	US38488023	05/31/24	05/31/25
POWER SENSOR	E4412A	MY61060015	08/31/24	08/31/25
POWER METER	E4416A	MY50001037	09/06/24	09/06/25
POWER METER	E4419B	MY45102105	10/24/24	10/24/25
POWER METER	E4417A	MY45100552	10/10/24	10/10/25
*DATA LOGGER	DSB	16398306	12/31/23	12/31/24
DATA LOGGER	DSB	16398050	07/09/24	07/09/25
DATA LOGGER	DSB	16326820	08/12/24	08/12/25
NETWORK ANALYZER	E5071B	MY42403147	06/06/24	06/06/25
THERMOMETER	HH202A	35881	01/17/24	01/17/25
THERMOMETER	HH806AU	080307	08/10/24	08/10/25
DIGITAL THERMOMETER	1523	3492108	01/23/24	01/23/25
TEMPERATURE PROBE	80PK-22	05032017	12/28/23	12/28/24
TEMPERATURE PROBE	PR-10L-4-100-1/4-6-BX	WNWR037791	01/26/24	01/26/25
DIELECTRIC ASSESSMENT KIT	DAK-12	1069	04/08/24	04/08/25
SPEAG DIPOLE	CLA150	4016	01/06/23	01/06/26
POWER SENSOR	E9301B	MY55210006	02/01/24	02/01/25
POWER METER	E4418B	GB40206480	01/15/24	01/15/25

10.0 SAR Measurement System Validation and Verification

DASY output files of the probe/dipole calibration certificates and system verification test results are included in appendices B, C & D respectively.

10.1 System Validation

The SAR measurement system was validated according to procedures in KDB 865664. The validation status summary Table is below.

Table 12

Dates	Probe Calibration Point		Probe SN	Measured Tissue Parameters		Validation		
				σ	ϵ_r	Sensitivity	Linearity	Isotropy
CW								
09/25/2024	Head	150	7511	0.78	59.13	Pass	Pass	Pass
04/03/2024	Head	150	7486	0.78	51.03	Pass	Pass	Pass

10.2 System Verification

System verification checks were conducted each day during the SAR assessment. The results are normalized to 1W. Appendix D includes DASY plots with the largest deviation from the qualified source SAR target for each dipole. The Table below summarizes the daily system check results used for the SAR assessment.

Table 13

Probe Serial #	Tissue Type	Dipole Kit / Serial #	Ref SAR @ 1W (W/kg)	System Check Results Measured (W/kg)	System Check Test Results when normalized to 1W (W/kg)	Tested Date	Deviation (%)
7511	IEEE/IEC Head	SPEAG CLA150 / 4016e	3.77 ± 10%	3.88	3.88	12/17/2024@	2.9
7486				4.01	4.01	01/06/2024@	6.4
				3.53	3.53	01/11/2024@	**-6.4**

Note: '@' indicates that system verification check covers next test day

10.3 Equivalent Tissue Test Results

Simulated tissue prepared for SAR measurements is measured daily and within 24 hours prior to actual SAR testing to verify that the tissue is within +/- 5% of target parameters at the center of the transmit band. This measurement is done using the applicable equipment indicated in section 9.0. The Table below summarizes the measured tissue parameters used for the SAR assessment.

Table 14

Frequency (MHz)	Tissue Type	Conductivity Target (S/m)	Dielectric Constant Target	Conductivity Meas. (S/m)	Dielectric Constant Meas.	Tested Date
150.0000	IEEE/ IEC Head	0.76 (0.72-0.80)	52.3 (49.7-54.9)	0.788	49.691	12/17/2024@
				0.731	53.618	01/06/2024@
				0.769	49.899	01/10/2024@
150.8000		0.76 (0.72-0.80)	52.3 (49.6-54.9)	0.788	49.657	12/17/2024@
				0.732	53.581	01/06/2024@
				0.770	49.860	01/10/2024@
157.2000		0.77 (0.73-0.80)	52.0 (49.4-54.6)	0.793	49.378	12/17/2024@
165.2000		0.77 (0.73-0.81)	51.6 (49.0-54.2)	0.799	49.050	12/17/2024@
170.0000		0.77 (0.74-0.81)	51.4 (48.0-53.9)	0.802	48.859	12/17/2024@

Note: '@' indicates that tissue test result covers next test day (within 24 hours)

11.0 Environmental Test Conditions

The EME Laboratory's ambient environment is well controlled resulting in very stable simulated tissue temperature and therefore stable dielectric properties. Simulated tissue temperature is measured prior to each scan to insure it is within +/ - 2^{o}C of the temperature at which the dielectric properties were determined. The liquid depth within the phantom used for measurements was at least 15cm. Additional precautions are routinely taken to ensure the stability of the simulated tissue such as covering the phantoms when scans are not actively in process in order to minimize evaporation. The lab environment is continuously monitored. The Table below presents the range and average environmental conditions during the SAR tests reported herein:

Table 15

	Target	Measured
Ambient Temperature	18 – 25 ˚C	Range: 18.7 – 23.3˚C Avg. 21.9 ˚C
Tissue Temperature	18 – 25 ˚C	Range: 21.2 – 23..1˚C Avg. 21.7˚C

Relative humidity target range is a recommended target

The EME Lab RF environment uses a Spectrum Analyzer to monitor for extraneous large signal RF contaminants that could possibly affect the test results. If such unwanted signals are discovered the SAR scans are repeated.

12.0 DUT Test Setup and Methodology

12.1 Measurements

SAR measurements were performed using the DASY system described in section 8.0 using zoom scans. Oval flat phantoms filled with applicable simulated tissue were used for body and face testing.

The Table below includes the step sizes and resolution of area and zoom scans per KDB 865664 requirements.

Table 16

Description		≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface		5 ± 1 mm	½·δ·ln(2) ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location		30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: ΔxArea, ΔyArea		≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
		When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	
Maximum zoom scan spatial resolution: ΔxZoom, ΔyZoom		≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: ΔzZoom(n)	≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details. * When zoom scan is required and the reported SAR from the area scan based 1-g SAR estimation procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.			

12.2 DUT Configuration(s)

The DUT is a portable device operational at the body and face as described in section 6.0 while using the applicable accessories listed in section 7.0. All accessories listed in section 7.0 of this report were considered when implementing the guidelines specified in KDB 643646. KDB 941225 was applied to LTE test configurations.

12.3 DUT Positioning Procedures

The positioning of the device for each body location is described below and illustrated in Appendix G.

12.3.1 Body

The DUT was positioned in normal use configuration against the phantom with the offered body worn accessory as well as with and without the offered audio accessories as applicable.

12.3.2 Head

Not applicable.

12.3.3 Face

The DUT was positioned with its' front and back sides separated 2.5cm from the phantom.

12.4 DUT Test Channels

The number of test channels was determined by using the following IEEE 1528 equation. The use of this equation produces the same or more test channels compared to the FCC KDB 447498 number of test channels formula.

$$N_c = 2 * roundup[10 * (f_{high} - f_{low}) / f_c] + 1$$

Where

N_c = Number of channels
F_{high} = Upper channel
F_{low} = Lower channel
F_c = Center channel

12.5 SAR Result Scaling Methodology

The calculated 1-gram and 10-gram averaged SAR results indicated as "Max Calc. 1g-SAR" in the data Tables is determined by scaling the measured SAR to account for power leveling variations and drift. Appendix F includes a shortened scan to justify SAR scaling for drift. For this device the "Max Calc. 1g-SAR" are scaled using the following formula:

$$Max\_Calc = SAR\_meas \cdot 10^{\frac{-Drift}{10}} \cdot \frac{P\_\max}{P\_\text{int}} \cdot DC$$

P_max = Maximum Power (W)
P_int = Initial Power (W)
Drift = DASY drift results (dB)
SAR_meas = Measured 1-g
DC = Transmission mode duty cycle in % where applicable
50% duty cycle is applied for PTT operation

Note: for conservative results, the following are applied:
If P_int > P_max, then P_max/P_int = 1.
Drift = 1 for positive drift

Additional SAR scaling was applied using the methodologies outlined in FCC KDB 865664 using tissue sensitivity values. SAR was scaled for conditions where the tissue permittivity was measured above the nominal target and for tissue conductivity that was measured below the nominal target. Negative or reduced SAR scaling is not permitted.

12.6 DUT Test Plan

The guidelines and requirements outlined in section 4.0 were used to assess compliance of this device. All modes of operation identified in section 6.0 were considered during the development of the test plan. All tests were performed in CW and 50% duty cycle was applied to PTT configurations in the final results.

13.0 DUT Test Data

13.1 LMR assessments at the Body for 150.8-170MHz band

Battery PMNN4434A was selected as the default battery for assessments at the Body because it is the thinnest battery (refer to Exhibit 7B for battery illustration). The default battery was used during conducted power measurements for all test channels within FCC allocated frequency range (150.8-170MHz) which are listed in Table 17. The channel with the highest conducted power will be identified as the default channel per KDB 643646 (SAR Test for PTT Radios).

Table 17

Test Freq (MHz)	Power (W)
150.8000	1.68
157.2000	1.78
165.2000	1.85
170.0000	1.75

Assessments at the Body with Body worn PMLN6455A

DUT assessment with offered antennas, default battery and, default body worn accessory per KDB 643646. Optional batteries were tested per the requirements of KDB 643646. Refer to Table 17 for highest output power channel. SAR plots of the highest results per Table (bolded) are presented in Appendix E.

Table 18

Antenna	Battery	Carry Accessory	Cable Accessory	Test Freq (MHz)	Init Pwr (W)	SAR Drift (dB)	Meas. 1g-SAR (W/kg)	Max Calc. 1g-SAR (W/kg)	Run#
Fixed	PMNN4434A	PMLN6455A	HKLN4606A	150.8000					
				157.2000					
				165.2000	1.85	-0.76	0.696	**0.448**	EMR-AB-241218-03@
				170.0000					
Assessment of Additional Batteries									
Fixed	PMNN4453A	PMLN6455A	HKLN4606A	165.2000	1.85	-0.32	0.657	0.391	BL-AB-241218-06@

Assessment at the Body with other audio accessories

Assessment of additional audio accessories per "KDB 643646 Body SAR Test Consideration for Audio Accessories without Built-in Antenna" Section 1, A. when overall <4.0W/kg, SAR tested for others audio accessory is not necessary." This was applicable to all remaining accessories.

13.2 LMR assessment at the Face for 150.8-170MHz band

Battery PMNN4453A was selected as the default battery for assessments at the Face because it has the highest capacity (refer to Exhibit 7B for battery illustration). The default battery was used during conducted power measurements for all test channels within FCC allocated frequency range (150.8-170MHz) which are listed in Table 19. The channel with the highest conducted power will be identified as the default channel per KDB 643646 (SAR Test for PTT Radios).

Table 19

Test Freq (MHz)	Power (W)
150.8000	1.65
157.2000	1.75
165.2000	1.81
170.0000	1.71

DUT assessment with offered antennas, default battery with front of DUT positioned 2.5cm facing phantom per KDB 643646. Optional batteries were tested per the requirements of KDB 643646. Refer to Table 19 for highest output power channel. SAR plots of the highest results per Table (bolded) are presented in Appendix E.

Table 20

Antenna	Battery	Carry Accessory	Cable Accessory	Test Freq (MHz)	Init Pwr (W)	SAR Drift (dB)	Meas. 1g-SAR (W/kg)	Max Calc. 1g-SAR (W/kg)	Run#
Fixed	PMNN4453A	None @ front	None	150.8000					
				157.2000					
				165.2000	1.81	-0.47	0.792	**0.488**	BL-FACE-241218-07@
				170.0000					
Assessment of Additional Batteries									
Fixed	PMNN4434A	None @ front	None	165.2000	1.85	-0.67	0.738	0.465	BL-FACE-241218-08@

13.3 Assessment for ISED, Canada

Based on the assessment results for body and face per KDB643646, additional tests were not required for ISED, Canada frequency range (150.8-170MHz) as the testing performed is in compliance with Industry Canada frequency range.

As per ISED Notice 2016-DRS001, additional tests were required for the low, mid and high frequency channels for the configuration with the highest SAR value. The SAR results are in Table 21 below. SAR plots of the highest results per Table (bolded) are presented in Appendix E.

Table 21

Antenna	Battery	Carry Accessory	Cable Accessory	Test Freq (MHz)	Init Pwr (W)	SAR Drift (dB)	Meas. 1g-SAR (W/kg)	Max Calc. 1g-SAR (W/kg)	Run#
Body									
Fixed	PMNN4434A	PMLN6455A	HKLN4606A	150.8000	1.68	-0.64	0.917	**0.632**	BL-AB-241218-11@
				165.2000	1.85	-0.76	0.696	0.448	EMR-AB-241218-03@
				170.0000	1.75	-0.54	0.310	0.201	BL-AB-241218-12@
Face									
Fixed	PMNN4453A	None @ front	None	150.8000	1.65	-0.54	1.400	**0.961**	ZIQ-FACE-250107-02@
				165.2000	1.81	-0.47	0.792	0.488	BL-FACE-241218-07@
				170.0000	1.71	-0.33	0.502	0.317	BL-FACE-241218-10@

13.4 Shortened Scan Assessment

A "shortened" scan using the highest SAR configuration overall from above was performed to validate the SAR drift of the full DASY5™ coarse and zoom scans. Note that the shortened scan represents the zoom scan performance result; this is obtained by first running a coarse scan to find the peak area and then, using a newly charged battery, a zoom scan only was performed. The results of the shortened cube scan presented in Appendix D demonstrate that the scaling methodology used to determine the calculated SAR results presented herein are valid. The SAR result from the Table below is provided in Appendix F.

Table 22

Antenna	Battery	Carry Accessory	Cable Accessory	Test Freq (MHz)	Init Pwr (W)	SAR Drift (dB)	Meas. 1g-SAR (W/kg)	Max Calc. 1g-SAR (W/kg)	Run#
Fixed	PMNN4453A	None @ front	None	150.8000	1.65	-0.15	1.31	0.822	MHN-FACE-250111-02@

14.0 Results Summary

Based on the test guidelines from section 4.0 and satisfying frequencies within FCC bands and ISED Canada Frequency bands, the highest Operational Maximum Calculated 1-gram average SAR values found for this filing:

Table 23

Designator	Frequency band (MHz)	Max Calc at Body (W/kg)	Max Calc at Face (W/kg)
		1g-SAR	1g-SAR
FCC US			
LMR	150.8-170	0.632	0.961
ISED Canada			
LMR	150.8-170	0.632	0.961

All results are scaled to the maximum output power.

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 6).

15.0 Variability Assessment

Per the guidelines in KDB 865664 SAR variability assessment is not required because SAR results are below 4.0W/kg (Occupational)

16.0 System Uncertainty

A system uncertainty analysis is not required for this report per KDB 865664 because the highest report SAR value for Occupational exposure is less than 7.5W/kg.

Per the guidelines of ISO/IEC 17025 a reported system uncertainty is required and therefore measurement uncertainty budget is included in Appendix A.

Appendix A

Measurement Uncertainty Budget

Uncertainty Budget for System Validation (Dipole & Flat Phantom) for 150 MHz

a	*b*	*c*	*d*	*e = f(d,k)*	*f*	*g*	*h = c x f / e*	*i = c x g / e*	*k*
Uncertainty Component	**IEEE 1528 section**	**Tol. (± %)**	**Prob. Dist.**	**Div.**	**c_i (1 g)**	**c_i (10 g)**	**1 g u_i (±%)**	**10 g u_i (±%)**	**v_i**
Measurement System									
Probe Calibration	E.2.1	6.7	N	1.00	1	1	6.7	6.7	□
Axial Isotropy	E.2.2	4.7	R	1.73	1	1	2.7	2.7	□
Spherical Isotropy	E.2.2	9.6	R	1.73	0	0	0.0	0.0	□
Boundary Effect	E.2.3	1.0	R	1.73	1	1	0.6	0.6	□
Linearity	E.2.4	4.7	R	1.73	1	1	2.7	2.7	□
System Detection Limits	E.2.5	1.0	R	1.73	1	1	0.6	0.6	□
Readout Electronics	E.2.6	0.3	N	1.00	1	1	0.3	0.3	□
Response Time	E.2.7	1.1	R	1.73	1	1	0.6	0.6	□
Integration Time	E.2.8	0.0	R	1.73	1	1	0.0	0.0	□
RF Ambient Conditions - Noise	E.6.1	3.0	R	1.73	1	1	1.7	1.7	□
RF Ambient Conditions - Reflections	E.6.1	0.0	R	1.73	1	1	0.0	0.0	□
Probe Positioner Mechanical Tolerance	E.6.2	0.4	R	1.73	1	1	0.2	0.2	□
Probe Positioning w.r.t. Phantom	E.6.3	1.4	R	1.73	1	1	0.8	0.8	□
Max. SAR Evaluation (ext., int., avg.)	E.5	3.4	R	1.73	1	1	2.0	2.0	□
Dipole									
Dipole Axis to Liquid Distance	8, E.4.2	2.0	R	1.73	1	1	1.2	1.2	□
Input Power and SAR Drift Measurement	8, 6.6.2	5.0	R	1.73	1	1	2.9	2.9	□
Phantom and Tissue Parameters									
Phantom Uncertainty	E.3.1	4.0	R	1.73	1	1	2.3	2.3	□
Liquid Conductivity (target)	E.3.2	5.0	R	1.73	0.64	0.43	1.8	1.2	□
Liquid Conductivity (measurement)	E.3.3	3.3	R	1.73	0.64	0.43	1.2	0.8	□
Liquid Permittivity (target)	E.3.2	5.0	R	1.73	0.6	0.49	1.7	1.4	□
Liquid Permittivity (measurement)	E.3.3	1.9	R	1.73	0.6	0.49	0.6	0.5	□
Combined Standard Uncertainty			RSS				10	9	99999
Expanded Uncertainty (95% CONFIDENCE LEVEL)			*k*=2				19	18	

Notes for uncertainty budget Tables:
a) Column headings *a*-*k* are given for reference.
b) Tol. - tolerance in influence quantity.
c) Prob. Dist. – Probability distribution
d) N, R - normal, rectangular probability distributions
e) Div. - divisor used to translate tolerance into normally distributed standard uncertainty
f) *ci* - sensitivity coefficient that should be applied to convert the variability of the uncertainty component into a variability of SAR.
g) *ui* – SAR uncertainty
h) *vi* - degrees of freedom for standard uncertainty and effective degrees of freedom for the expanded uncertainty

Uncertainty Budget for Device Under Test, for 150 MHz

a	*b*	*c*	*d*	*e = f(d,k)*	*f*	*g*	*h = c x f / e*	*i = c x g / e*	*k*
Uncertainty Component	**IEEE 1528 section**	**Tol. (± %)**	**Prob Dist**	**Div.**	**c_i (1 g)**	**c_i (10 g)**	**1 g u_i (±%)**	**10 g u_i (±%)**	**v_i**
Measurement System									
Probe Calibration	E.2.1	6.7	N	1.00	1	1	6.7	6.7	□
Axial Isotropy	E.2.2	4.7	R	1.73	0.707	0.707	1.9	1.9	□
Hemispherical Isotropy	E.2.2	9.6	R	1.73	0.707	0.707	3.9	3.9	□
Boundary Effect	E.2.3	1.0	R	1.73	1	1	0.6	0.6	□
Linearity	E.2.4	4.7	R	1.73	1	1	2.7	2.7	□
System Detection Limits	E.2.5	1.0	R	1.73	1	1	0.6	0.6	□
Readout Electronics	E.2.6	0.3	N	1.00	1	1	0.3	0.3	□
Response Time	E.2.7	1.1	R	1.73	1	1	0.6	0.6	□
Integration Time	E.2.8	1.1	R	1.73	1	1	0.6	0.6	□
RF Ambient Conditions - Noise	E.6.1	3.0	R	1.73	1	1	1.7	1.7	□
RF Ambient Conditions - Reflections	E.6.1	0.0	R	1.73	1	1	0.0	0.0	□
Probe Positioner Mech. Tolerance	E.6.2	0.4	R	1.73	1	1	0.2	0.2	□
Probe Positioning w.r.t Phantom	E.6.3	1.4	R	1.73	1	1	0.8	0.8	□
Max. SAR Evaluation (ext., int., avg.)	E.5	3.4	R	1.73	1	1	2.0	2.0	□
Test sample Related									
Test Sample Positioning	E.4.2	3.2	N	1.00	1	1	3.2	3.2	29
Device Holder Uncertainty	E.4.1	4.0	N	1.00	1	1	4.0	4.0	8
SAR drift	6.6.2	5.0	R	1.73	1	1	2.9	2.9	□
Phantom and Tissue Parameters									
Phantom Uncertainty	E.3.1	4.0	R	1.73	1	1	2.3	2.3	□
Liquid Conductivity (target)	E.3.2	5.0	R	1.73	0.64	0.43	1.8	1.2	□
Liquid Conductivity (measurement)	E.3.3	3.3	N	1.00	0.64	0.43	2.1	1.4	□
Liquid Permittivity (target)	E.3.2	5.0	R	1.73	0.6	0.49	1.7	1.4	□
Liquid Permittivity (measurement)	E.3.3	1.9	N	1.00	0.6	0.49	1.1	0.9	□
Combined Standard Uncertainty			RSS				12	11	482
Expanded Uncertainty (95% CONFIDENCE LEVEL)			*k*=2				23	23	

Notes for uncertainty budget Tables:
a) Column headings *a-k* are given for reference.
b) Tol. - tolerance in influence quantity.
c) Prob. Dist. – Probability distribution
d) N, R - normal, rectangular probability distributions
e) Div. - divisor used to translate tolerance into normally distributed standard uncertainty
f) *ci* - sensitivity coefficient that should be applied to convert the variability of the uncertainty component into a variability of SAR.
g) *ui* – SAR uncertainty
h) *vi* - degrees of freedom for standard uncertainty and effective degrees of freedom for the expanded uncertainty

Appendix D

System Verification Check Scans

Motorola Solutions, Inc. EME Laboratory

Date/Time: 1/11/2025 1:57:44 AM

Robot#: DASY5-Pg-3 | Run#:	MHN-SYSP-150H-250111-01@
Dipole Model#	CLA-150
Phantom#:	ELI4 1103
Tissue Temp:	22.5 (C)
Serial#:	4016
Test Freq:	150.0000(MHz)
Start Power:	1000 (mW)
Rotation (1D):	0.085 dB
Adjusted SAR (1W):	3.53 mW/g (1g)

Comments:

Communication System Band: CLA150, Communication System UID: 0, Duty Cycle: 1:1,
Medium parameters used: f = 150 MHz; σ = 0.769 S/m; ε_r = 49.899; ρ = 1000 kg/m^3
Probe: EX3DV4 - SN7486, Calibrated: 1/19/2024, Frequency: 150 MHz, ConvF(13.4, 13.4, 13.4) @ 150 MHz
Electronics: DAE4 Sn1483, Calibrated: 10/10/2022

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

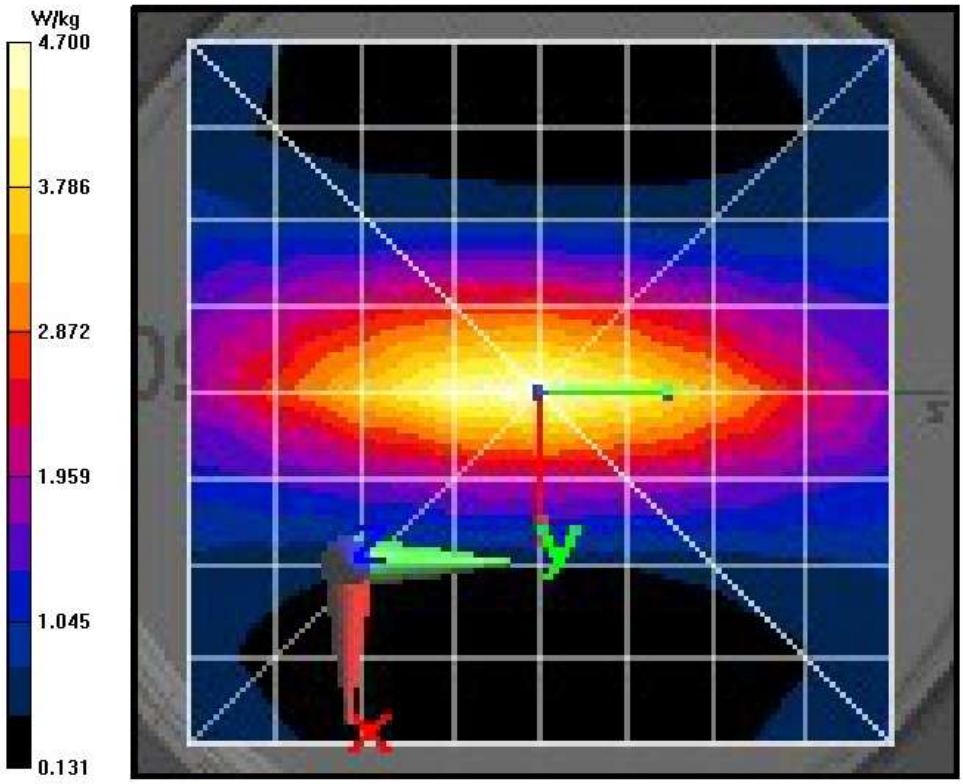
Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 78.40 V/m; Power Drift = 0.11 dB
Fast SAR: SAR(1 g) = 3.87 W/kg; SAR(10 g) = 2.73 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 4.82 W/kg

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 = 78.40 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 6.35 W/kg
SAR(1 g) = 3.53 W/kg; SAR(10 g) = 2.27 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 = 57.9%
Maximum value of SAR (measured) = 5.16 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) = 4.93 W/kg



Appendix E

DUT Scans

FCC Body Assessments at LMR VHF

Motorola Solutions, Inc. EME Laboratory

Date/Time: 12/18/2024 2:21:13 AM

Robot#: DASY5-PG-2 | Run#: EMR-AB-241218-03@

Model#:	PMUD3255C
Phantom#:	ELI4 1028
Tissue Temp:	21.8 (C)
Serial#:	0245AX4579
Antenna:	Fixed Antenna
Test Freq:	165.2000 (MHz)
Battery:	PMNN4434A
Carry Acc:	PMLN6455A
Audio Acc:	HKLN4606A
Start Power:	1.85 (W)

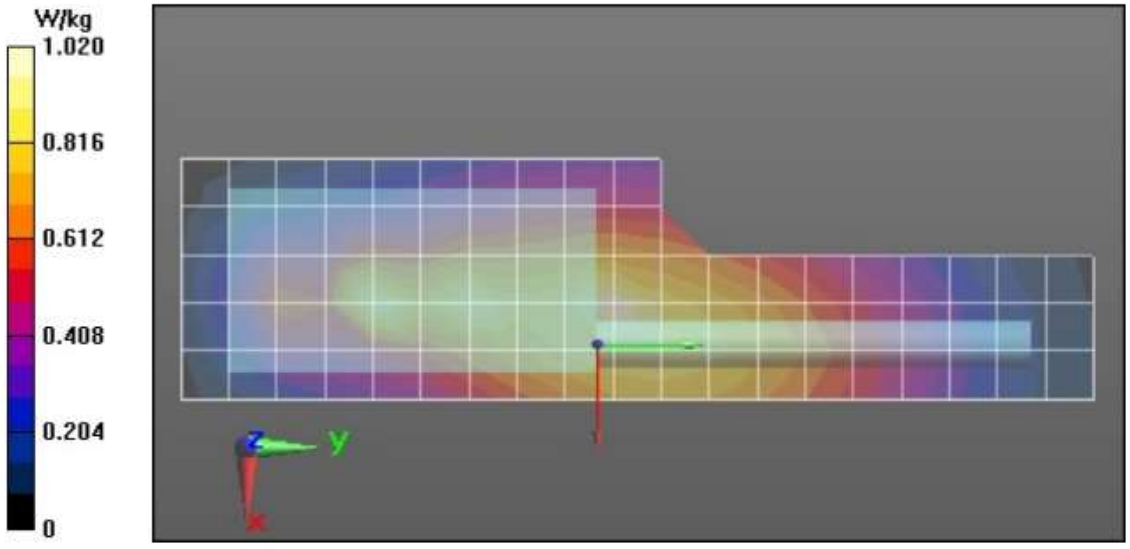
Comments:

Communication System Band: Solomon VHF, Communication System UID: 0, Duty Cycle: 1:1,
Medium parameters used: f = 165.2 MHz; σ = 0.799 S/m; ε_r = 49.05; ρ = 1000 kg/m^3
Probe: EX3DV4 - SN7511, Calibrated: 7/23/2024, Frequency: 165.2 MHz, ConvF(12.04, 12.04, 12.04) @ 165.2 MHz
Electronics: DAE4 Sn1294, Calibrated: 2/22/2022

Below 2 GHz-Rev.3/Ab Scan/1-Area Scan (51x191x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 34.03 V/m; Power Drift = -0.53 dB
Fast SAR: SAR(1 g) = 0.844 W/kg; SAR(10 g) = 0.622 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 1.03 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 = 34.03 V/m; Power Drift = -0.76 dB
Peak SAR (extrapolated) = 1.15 W/kg
SAR(1 g) = 0.696 W/kg; SAR(10 g) = 0.512 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 = 62.8%
Maximum value of SAR (measured) = 0.948 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) = 0.943 W/kg



FCC Face Assessments at LMR VHF

Motorola Solutions, Inc. EME Laboratory

Date/Time: 12/18/2024 8:00:31 AM

Robot#: DASY5-PG-2 | Run#: BL-FACE-241218-07@
Model#: PMUD3255C
Phantom#: ELI4 1028
Tissue Temp: 21.5 (C)
Serial#: 0245AX4579
Antenna: Fixed Antenna
Test Freq: 165.2000 (MHz)
Battery: PMNN4453A
Carry Acc: @ front
Audio Acc: N/A
Start Power: 1.81 (W)

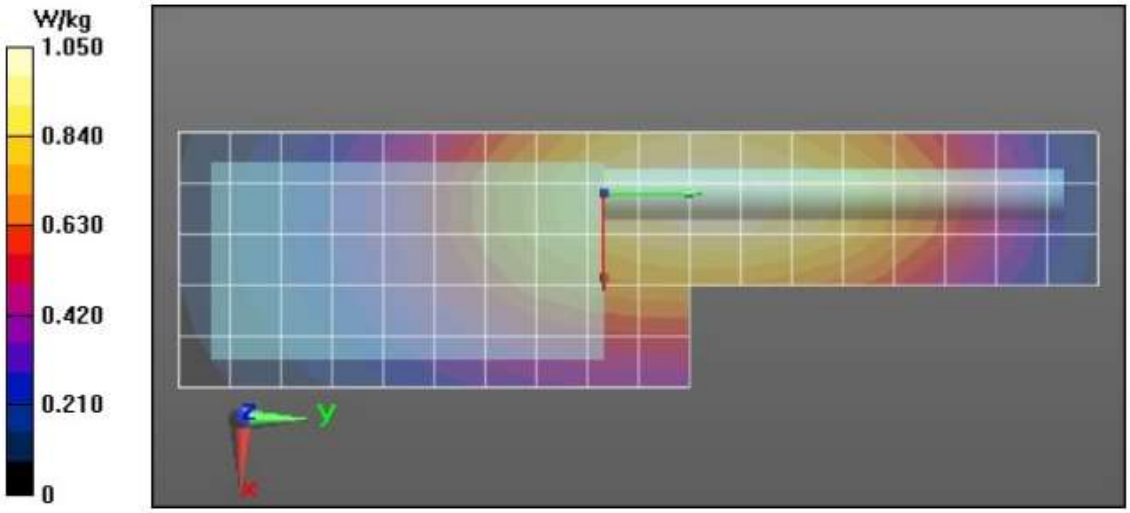
Comments:

Communication System Band: Solomon VHF, Communication System UID: 0, Duty Cycle: 1:1,
Medium parameters used: f = 165.2 MHz; σ = 0.799 S/m; ε_r = 49.05; ρ = 1000 kg/m^3
Probe: EX3DV4 - SN7511, Calibrated: 7/23/2024, Frequency: 165.2 MHz, ConvF(12.04, 12.04, 12.04) @ 165.2 MHz
Electronics: DAE4 Sn1294, Calibrated: 2/22/2022

Below 2 GHz-Rev.3/Face Scan/1-Area Scan (51x181x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 37.14 V/m; Power Drift = -0.34 dB
Fast SAR: SAR(1 g) = 0.887 W/kg; SAR(10 g) = 0.682 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 1.05 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 = 37.14 V/m; Power Drift = -0.47 dB
Peak SAR (extrapolated) = 1.22 W/kg
SAR(1 g) = 0.792 W/kg; SAR(10 g) = 0.599 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 = 67.2%
Maximum value of SAR (measured) = 1.02 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) = 1.01 W/kg



ISED Body Assessments at LMR VHF

Motorola Solutions, Inc. EME Laboratory

Date/Time: 12/18/2024 10:54:20 AM

Robot#: DASY5-PG-2 | Run#: BL-AB-241218-11@
Model#: PMUD3255C
Phantom#: ELI4 1028
Tissue Temp: 21.2 (C)
Serial#: 0245AX4578
Antenna: Fixed Antenna
Test Freq: 150.8000 (MHz)
Battery: PMNN4434A
Carry Acc: PMLN6455A
Audio Acc: HKLN4606A
Start Power: 1.68 (W)

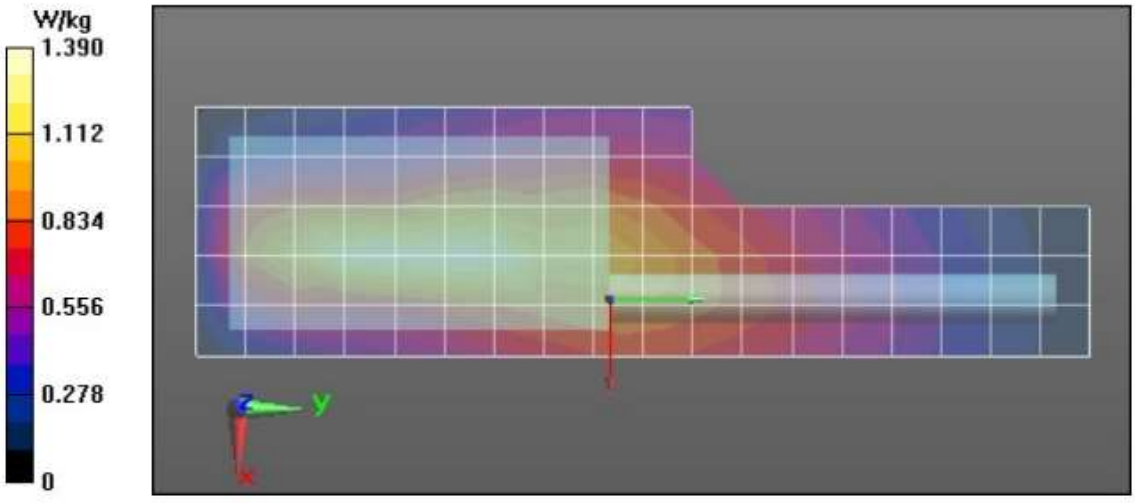
Comments:

Communication System Band: Solomon VHF, Communication System UID: 0, Duty Cycle: 1:1,
Medium parameters used: f = 150.8 MHz; σ = 0.788 S/m; ε_r = 49.657; ρ = 1000 kg/m^3
Probe: EX3DV4 - SN7511, Calibrated: 7/23/2024, Frequency: 150.8 MHz, ConvF(12.04, 12.04, 12.04) @ 150.8 MHz
Electronics: DAE4 Sn1294, Calibrated: 2/22/2022

Below 2 GHz-Rev.3/Ab Scan/1-Area Scan (51x181x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 35.13 V/m; Power Drift = -0.44 dB
Fast SAR: SAR(1 g) = 1.16 W/kg; SAR(10 g) = 0.833 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 1.41 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 = 35.13 V/m; Power Drift = -0.64 dB
Peak SAR (extrapolated) = 2.12 W/kg
SAR(1 g) = 0.917 W/kg; SAR(10 g) = 0.592 W/kg (SAR corrected for target medium)
Smallest distance from peaks to all points 3 dB below = 21.6 mm
Ratio of SAR at M2 to SAR at M1 = 46.9%
Maximum value of SAR (measured) = 1.45 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) = 1.44 W/kg



ISED Face Assessments at LMR VHF

Motorola Solutions, Inc. EME Laboratory

Date/Time: 1/7/2025 9:48:43 AM

Robot#: DASY5-PG-3 | Run#:	ZIQ-FACE-250107-02@
Model#:	PMUD3255C
Phantom#:	ELI5 1147
Tissue Temp:	22.1 (C)
Serial#:	0245AX4578
Antenna:	Fixed Antenna
Test Freq:	150.8000 (MHz)
Battery:	PMNN4434A
Carry Acc:	@ front
Audio Acc:	N/A
Start Power:	1.65 (W)

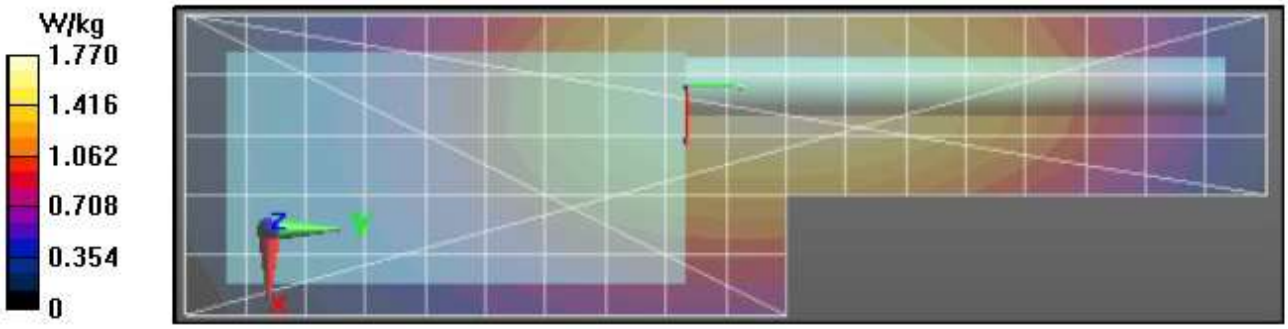
Comments:

Communication System Band: Solomon VHF, Communication System UID: 0, Duty Cycle: 1:1,
Medium parameters used: f = 150.8 MHz; σ = 0.732 S/m; ε_r = 53.581; ρ = 1000 kg/m^3
Probe: EX3DV4 - SN7486, Calibrated: 1/19/2024, Frequency: 150.8 MHz, ConvF(13.4, 13.4, 13.4) @ 150.8 MHz
Electronics: DAE4 Sn1483, Calibrated: 10/10/2022

Below 2 GHz-Rev.3/Face Scan/1-Area Scan (51x181x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 50.07 V/m; Power Drift = -0.35 dB
Fast SAR: SAR(1 g) = 1.56 W/kg; SAR(10 g) = 1.2 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 1.78 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 = 50.07 V/m; Power Drift = -0.54 dB
Peak SAR (extrapolated) = 1.93 W/kg
SAR(1 g) = 1.4 W/kg; SAR(10 g) = 1.09 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 = 71.1%
Maximum value of SAR (measured) = 1.69 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) = 1.66 W/kg



Appendix F

Shorten Scan of Highest SAR Configuration

Shortened Scan
Table 22

Motorola Solutions, Inc. EME Laboratory
Date/Time: 1/11/2025 2:46:56 AM

Robot#: DASY5-PG-2 | Run#:	MHN-FACE-250111-02@
Model#:	PMUD3255C
Phantom#:	ELI4 1103
Tissue Temp:	23.1 (C)
Serial#:	0245AX4578
Antenna:	Fixed Antenna
Test Freq:	150.8000 (MHz)
Battery:	PMNN4453A
Carry Acc:	@ front
Audio Acc:	N/A
Start Power:	1.65 (W)

Comments: Shorten Scan

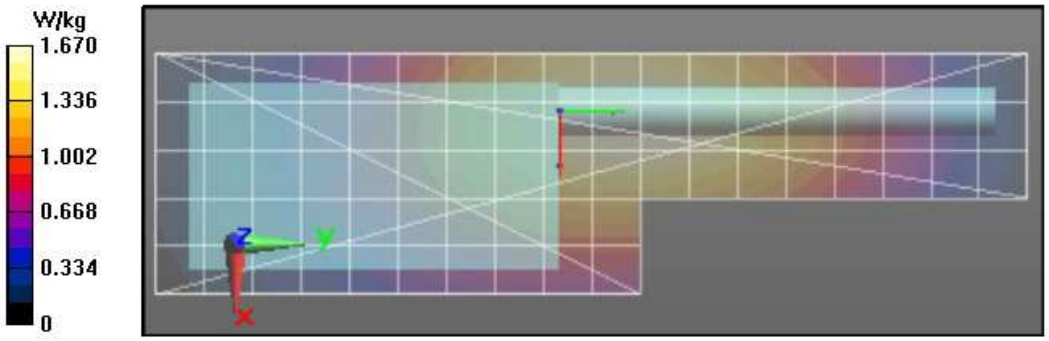
Communication System Band: Solomon VHF, Communication System UID: 0, Duty Cycle: 1:1,
Medium parameters used: f = 150.8 MHz; σ = 0.77 S/m; ε_r = 49.86; ρ = 1000 kg/m^3
Probe: EX3DV4 - SN7486, Calibrated: 1/19/2024, Frequency: 150.8 MHz, ConvF(13.4, 13.4, 13.4) @ 150.8 MHz
Electronics: DAE4 Sn1483, Calibrated: 10/10/2022

Below 2 GHz-Rev.3/Face Scan/1-Area Scan (51x181x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Reference Value = 47.50 V/m; Power Drift = -0.31 dB
Fast SAR: SAR(1 g) = 1.43 W/kg; SAR(10 g) = 1.1 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 1.70 W/kg

Below 2 GHz-Rev.3/Face Scan/2-Volume 2D Scan (41x41x1): Interpolated grid: dx=0.7500 mm, dy=0.7500 mm, dz=1.000 mm
Reference Value = 47.50 V/m; Power Drift = -0.38 dB
Fast SAR: SAR(1 g) = 1.38 W/kg; SAR(10 g) = 1.05 W/kg (SAR corrected for target medium)
Maximum value of SAR (interpolated) = 1.65 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 = 46.67 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 1.93 W/kg
SAR(1 g) = 1.31 W/kg; SAR(10 g) = 0.999 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 = 69%
Maximum value of SAR (measured) = 1.67 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) = 1.64 W/kg



Shortened scan reflect highest SAR producing configurations and is compared to full scan

Scan Description	Referenced Table	Test Time (min.)	SAR 1g (W/kg)
Shorten scan (zoom)	22	12	0.822
Full scan (area & zoom)	21	45	0.961

Appendix G

DUT Test Position Photos

Photos available in Exibit 7B

Appendix H

DUT, Body worn and audio accessories Photos

Photos available in Exibit 7B