MOTOROLA SOLUTIONS

SAMM 826

CERTIFICATE 2518.05

DECLARATION OF COMPLIANCE SAR ASSESSMENT

Motorola Solutions Inc.
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Date of Report: 11/3/2022
Report Revision: F

Responsible Engineer:	Hoe Kean Loon (EME Engineer)
Report Author:	Hoe Kean Loon (EME Engineer)
Date/s Tested:	07/28/2022-08/21/2022, 09/10/2022-09/22/2022
Manufacturer:	Motorola Solutions Inc.
DUT Description:	Handheld Portable – MOTOTRBO R7 8/900 2.5W TIA NKP BT WIFI GPS ENABLED – MOTOTRBO R7 8/900 2.5W TIA FKP BT WIFI GPS ENABLED
Test TX mode(s):	FM, Bluetooth, Bluetooth LE, WLAN
Max. Power output:	Refer table 3
Tx Frequency Bands:	Refer table 3
Signaling type:	FM, TDMA, FHSS, DSSS and OFDM
Model(s) Tested:	AAH06UCC9RB1AN (PMUF2001ABA) (IC Model: PMUF2001ABA) & AAH06UCN9RB1AN (PMUF2000ABB) (IC Model: PMUF2000ABB)
Model(s) Certified:	Refer to Table – Model(s) Certified
Serial Number(s):	865EYN0113, 865EYN0108, 865EYN0138, 865EYN0267 & 865EYN0111
Classification:	Occupational/Controlled
Applicant Name:	Motorola Solutions Inc.
Applicant Address:	8000 West Sunrise Boulevard, Fort Lauderdale, Florida 33322
FCC ID:	AZ489FT7169 This report contains results that are immaterial for FCC equipment approval, which are clearly identified.
IC:	109U-89FT7169 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 (no deviation from standard methods). This report shall not be reproduced without written approval from an officially designated representative of the Motorola Solutions Inc EME Laboratory.
I attest to the accuracy of the data and assume full responsibility for the completeness of these measurements. This reporting format is consistent with the suggested guidelines of the TIA TSB-150 December 2004. The results and statements contained in this report pertain only to the device(s) evaluated.

Saw Sun Hock (Approved Signatory)
Approval Date: 11/3/2022

APPENDICES

Exhibit 7B

DUT, Body worn and Audio accessories photos

Report Revision History

Date	Revision	Comments
09/23/2022	A	Initial release
10/6/2022	B	Update the DUT Description and Models name
10/7/2022	C	Update the DUT Positioning Procedures for Face
10/19/2022	D	Update the antenna gain
10/25/2022	E	Update the Model Super Tanapa Number
11/3/2022	F	Added FCC KDB – 248227 D01 802.11 Wi-Fi SAR v02r02 in section 4 Removed LTE information from Section 12.2

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 AAH06UCC9RB1AN (PMUF2001ABA) (IC Model: PMUF2001ABA) and AAH06UCN9RB1AN (PMUF2000ABB) (IC Model: PMUF2000ABB) is full evaluate at LMR. Wifi 2.4GHz and Wifi 5.0GHz is a variant model from the reference model with AAH06JDC9RA1AN (PMUD3492ABA) & AAH06JDN9RA1AN (PMUD3491ABB), FCC ID: AZ489FT7144, IC ID: 109U-89FT7144. These devices are classified as Occupational/Controlled.

Table – Model(s) Certified

Model Number	Description
AAH06UCC9RB1AN (PMUF2001ABA) (IC Model: PMUF2001ABA)	MOTOTRBO R7 8/900 2.5W TIA NKP BT WIFI GPS ENABLED
AAH06UCN9RB1AN (PMUF2000ABB) (IC Model: PMUF2000ABB)	MOTOTRBO R7 8/900 2.5W TIA FKP BT WIFI GPS ENABLED
AAH06UCC9RB1AN (PMUF2001AAA) (IC Model: PMUF2001AAA)	MOTOTRBO R7 8/900 2.5W TIA NKP BT WIFI GPS ENABLED
AAH06UCC9WB1AN (PMUF2001AAA) (IC Model: PMUF2001AAA)	MOTOTRBO R7 8/900 2.5W TIA NKP CFS BT WIFI GPS CAPABLE
AAH06UCC9WB1AN (PMUF2001ABA) (IC Model: PMUF2001ABA)	MOTOTRBO R7 8/900 2.5W TIA NKP CFS BT WIFI GPS CAPABLE
AAH06UCN9RB1AN (PMUF2000AAB) (IC Model: PMUF2000AAB)	MOTOTRBO R7 8/900 2.5W TIA FKP BT WIFI GPS ENABLED
AAH06UCN9WB1AN (PMUF2000AAB) (IC Model: PMUF2000AAB)	MOTOTRBO R7 8/900 2.5W TIA FKP CFS BT WIFI GPS CAPABLE
AAH06UCN9WB1AN (PMUF2000ABB) (IC Model: PMUF2000ABB)	MOTOTRBO R7 8/900 2.5W TIA FKP CFS BT WIFI GPS CAPABLE

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	806-824	2.70	0.74
	851-869	3.07	1.10
	896-901	3.87	1.46
	935-940	2.45	0.89
DTS	2412-2462 (WLAN 2.4GHz)	0.035	0.044
NII	5180-5825 (WLAN 5GHz)	0.119	0.105
*DSS	BT	NA	NA
Highest Simultaneous Transmission SAR	Sum of SAR (W/kg)	3.99	1.57

*Results not required per KDB (refer to sections 13.15 & 14.1)

3.0 Abbreviations / Definitions

BT: Bluetooth
CNR: Calibration Not Required
CW: Continuous Wave
DSS: Direct Spread Spectrum
DUT: Device Under Test
EDR: Enhanced Data Rate
EME: Electromagnetic Energy
FHSS: Frequency Hopping Spread Spectrum
FM: Frequency Modulation
LMR: Land Mobile Radio
NA: Not Applicable
OFDM: Orthogonal Frequency Division Multiplexing
PSM: Public Safety Microphone
PTT: Push to Talk
RSM: Remote Speaker Microphone
SAR: Specific Absorption Rate
TDMA: Time Division Multiple Access

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.

- IEC62209-1 (2016) Procedure to determine the specific absorption rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)
- Federal Communications Commission, “Evaluating Compliance with FCC Guidelines for Human Exposure to Radio frequency Electromagnetic Fields”, OET Bulletin 65, FCC, Washington, D.C.: 1997.
- IEEE 1528 (2013), Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
- American National Standards Institute (ANSI) / Institute of Electrical and Electronics Engineers (IEEE) C95. 1-1992
- Institute of Electrical and Electronics Engineers (IEEE) C95.1-2005
- International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998

- 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 5) – Radio Frequency (RF) Exposure Compliance of Radio communication Apparatus (All Frequency Bands)
- Australian Communications Authority Radio communications (Electromagnetic Radiation - Human Exposure) Standard (2014)
- ANATEL, Brazil Regulatory Authority, Resolution No. 303 of July 2, 2002 "Regulation of the limitation of exposure to electrical, magnetic, and electromagnetic fields in the radio frequency range between 9 kHz and 300 GHz." and “Attachment to resolution # 303 from July 2, 2002”
- IEC62209-2 Edition 1.0 2010-03, Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Human models, instrumentation, and procedures – Part 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).

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 D04 Interim General RF Exposure Guidance v01

FCC KDB – 248227 D01 802.11 Wi-Fi SAR v02r02

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)

These portable devices operate in the LMR bands using frequency modulation (FM) and TDMA signals incorporating traditional simplex two-way radio transmission protocol. These devices also contain WLAN (2.4GHz and 5GHz) technology for data capabilities over 802.11b/g/n/a/ac wireless networks and Bluetooth technology for short range wireless devices.

The LMR bands in these devices operate in a half duplex system. A half duplex system only allows the user to transmit or receive. These devices 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.

These devices also incorporates a Class 1 Bluetooth device which is a Frequency Hopping Spread Spectrum (FHSS) technology. The Bluetooth radio modem is used to wireless link audio accessories. The maximum actual transmission duty cycle is imposed by the Bluetooth standard. The maximum duty cycle for BT is 77% and BT LE is 62.74% (1M) and 33.64% (2M). Refer to section 14.0 Simultaneous Transmission Exclusion.

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

Technologies	Tx Band (MHz)	Transmission	Duty Cycle (%)	Max Power
LMR	806-825, 851-870, 896-902, 935-941	FM	50(1)	3.0W
Bluetooth	2402-2480	FHSS	77	12.02mW
Bluetooth LE (1M)	2402-2480	FHSS	62.74	7.94mW
Bluetooth LE (2M)	2400-2480	FHSS	33.64	7.94mW
WLAN 802.11b	2412-2462	DSSS	98.88	31.62mW
WLAN 802.11 g (20 MHz)	2412-2462	OFDM	96.88	31.62mW
WLAN 802.11 n (40 MHz)	2412-2462	OFDM	98.01	31.62mW
WLAN 802.11 a (20 MHz)	5180-5825(2)	OFDM	97.01	U-NII-1: 63.10mW; U-NII-2A: 63.10mW; U-NII-2C: 31.62mW U-NII-3: 31.62mW
WLAN 802.11 n/ac (20 MHz)	5180-5825(3)	OFDM	97.97	U-NII-1: 63.10mW; U-NII-2A: 63.10mW; U-NII-2C: 31.62mW U-NII-3: 31.62mW

(1) includes 50% PTT operation

(2) For WLAN 5 GHz EME tested WLAN 802.11a with highest power as stated in the table above. However, maximum power of WLAN 802.11a are channels 64 (50.12mW) &100 (19.95mW).

(3) For WLAN 5 GHz EME tested WLAN 802.11n/ac with highest power as stated in the table above. However, maximum power of WLAN 802.11n/ac are channels 36 (50.12mW), 64 (39.81mW) &100 (25.12mW).

The intended operating positions are “at the face” with the DUT at least 1 inch 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. Operation at the body without an audio accessory attached is possible by means of BT accessories.

7.0 Optional Accessories and Test Criteria

These device are 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 these devices. The following sections identify the test criteria and details for each accessory category. Refer to Exhibit 7B for antenna separation distances.

7.1 Antennas

There are optional removable antennas and one internal BT/WLAN antenna offered for this product. The Table below lists their descriptions.

Table 4

Antenna No.	Antenna Models	Description	Selected for test	Tested
1	AN000389A01	Internal Antenna PCB Assembly ¼ wave, 1560-1610MHz, 1.26dBi, 2400-2485MHz, 2.03dBi, 5150-5850MHz , 3.67dBi	Yes	Yes
2	PMAF4009A	800/900 Short Whip Antenna 806 - 870MHz, ¼ wave, 1.0dBi	Yes	Yes
3	PMAF4010A	800/900 Short Whip Antenna 894 - 941MHz, ¼ wave, 1.0dBi	Yes	Yes
4	PMAF4011A	800/900 Whip Antenna 806 - 870MHz, ¼ wave, 1.0dBi	Yes	Yes
5	PMAF4012A	800/900 Whip Antenna 896 - 941MHz, ¼ wave, 1.0dBi	Yes	Yes

7.2 Batteries

There are four batteries offered for this product. The Table below lists their descriptions.

Table 5

Battery No.	Battery Models	Description	Selected for test	Tested	Comments
1	PMNN4807A	Battery Pack, Battery Impres Li-ion IP68 2200T	Yes	Yes	
2	PMNN4808A	Battery Li-ion IP68 2450T	Yes	Yes	
3	PMNN4809A	Battery Pack, Battery Impres Li-ion IP68 2850T	Yes	Yes	Default battery for body testing
4	PMNN4810A	Battery Pack, Battery Impres Li-ion Tia4950 IP68 3200T	Yes	Yes	Default battery for face testing

7.3 Body worn Accessories

All body worn accessories were considered. The Table below lists the body worn accessories, and body worn accessory descriptions.

Table 6

Body worn No.	Body worn Models	Description	Selected for test	Tested	Comments
1	HLN6602A	Universal Chest pack.	Yes	Yes	
2	NTN5243A	Strap	Yes	Yes	Tested with PMLN8302A & PMLN8304A
3	PMLN4651A	Belt Clip 2 Inch	Yes	Yes	
4	PMLN7008A	Carry Accessory-Belt Clip,2.5-Inch Belt Clip	Yes	Yes	
5	PMLN8299A	Hard Leather Carry Case 3 Inch Swivel Belt Loop Display	No	No	By similarity to PMLN8302A
6	PMLN8300A	Hard Leather Carry Case 2.5 Inch Swivel Belt Loop Display	No	No	By similarity to PMLN8303A
7	PMLN8301A	Hard Leather Carry Case 3 Inch Fixed Belt Loop Display	No	No	By similarity to PMLN8304A
8	PMLN8302A	Hard Leather Carry Case 3 Inch Swivel Belt Loop Non Display	Yes	Yes	Tested with NTN5243A, RLN6488A & RLN6487A
9	PMLN8303A	Hard Leather Carry Case 2.5 Inch Swivel Belt Loop Non Display	No	No	By similarity to PMLN8302A
10	PMLN8304A	Hard Leather Carry Case 3 Inch Fixed Belt Loop Non Display	Yes	Yes	Tested with NTN5243A
11	RLN6486A	Fireman Radio Strap	No	No	By similarity to RLN6487A
12	RLN6487A	Fireman Radio Strap, XL	Yes	Yes	Tested with RLN6488A, PMLN8304A & PMLN8302A
13	RLN6488A	Anti-Sway Strap	Yes	Yes	Tested with RLN6488A, PMLN8304A & PMLN8302A

7.4 Audio Accessories

All audio accessories were considered. The Table below lists the offered audio accessories and their descriptions. Exhibit 7B illustrates photos of the tested audio accessories.

Table 7

Audio No.	Audio Acc. Models	Description	Selected for test	Tested	Comments
1	PMMN4128A	RM780 Impress Wind porting Remove Speaker Microphone, Large (IP68)	Yes	Yes	Default audio
2	PMLN8085A	Behind-The-Head Headset, CGAI Mini	No	No	By similarity with PMLN8086A
3	PMLN8086A	Over-The-Head Headset, CGAI Mini	Yes	Yes	
4	PMLN8265A	Accessory Kit, Headband Headset W/ Nexus	Yes	Yes	Tested withPMLN8297A
5	PMLN8266A	Accessory Kit, Neckband Headset W/ Nexus	No	No	By similarity with PMLN8265A
6	PMLN8267A	Accessory Kit, Hardhat Headset W/ Nexus	No	No	By similarity with PMLN8265A
7	PMLN8295A	2-Wire Swivel Loud Audio Earpiece With Ear tip	Yes	Yes	
8	PMLN8297A	Audio Accessory-Audio Adapter, CGAI -Mini PTT Nexus Adapter	Yes	Yes	Tested with PMLN8265A
9	PMLN8337A	1-Wire Single Ear bud With Removable Ear hook Loud Audio Earpiece	Yes	Yes	
10	PMLN8341A	Audio Accessory-Earpiece,1-Wire Xl Clear Tube Earpiece	No	No	By similarity with PMLN8337A
11	PMLN8342A	Audio Accessory-Earpiece,2-Wire Xl Clear Tube Earpiece	No	No	By similarity with PMLN8295A
12	PMLN8343A	Audio Accessory-Earpiece, 3-Wire XL Clear Tube Earpiece, CGAI Mini	Yes	Yes	
13	PMMN4131A	Audio Accessory-Remote Speaker Micro phone, Small Advance RSM, CGAI Mini	No	No	By similarity with PMMN4128A
14	PMMN4140A	Accessory Kit,RM760 RSM	No	No	By similarity with PMMN4128A

8.0 Description of 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	DAE3, 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. The E-field probe first scans a coarse grid over a large area inside the phantom in order to locate the interpolated maximum SAR distribution. After the coarse scan measurement, the probe is automatically moved to a position at the interpolated maximum. The subsequent scan can directly use this position as reference for the cube evaluations.

8.2 Descriptions of Robotics/Probes/Readout Electronics DASY 6

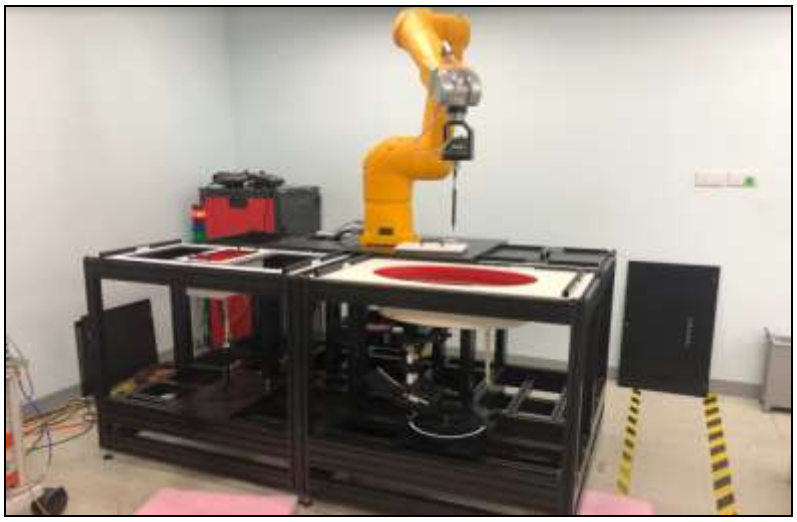


Table 9

Dosimetric System type	System version	DAE type	Probe Type
Schmid & Partner Engineering AG SPEAG DASY 6	V16.0.2.136	DAE4	EX3DV4 (E-Field)

The DASY6™ system is operated per the instructions in the DASY6™ 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.

8.3 Description of Phantom(s)

Table 10

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			

8.4 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. For Diacetin and similar type simulates, sugar and HEC ingredients are not needed. 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 11

Ingredients	900MHz	2450MHz(1)	5GHz (1)
	Head		
Sugar	56.5	NA	NA
Diacetin	NA	NA	NA
De ionized –Water	40.95	NA	NA
Salt	1.45	NA	NA
HEC	1	NA	NA
Bact.	0.1	NA	NA

Note: (1) SPEAG provided Motorola proprietary stimulant ingredients.

9.0 Additional Test Equipment

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

Table 12

Equipment Type	Model Number	Serial Number	Calibration Date	Calibration Due Date
SPEAG PROBE	EX3DV4	7485	04/25/2022	05/25/2023
SPEAG PROBE	EX3DV4	7594	04/26/2022	4/26/2023
SPEAG DAE	DAE4	850	04/14/2022	04/14/2023
SPEAG DAE	DAE4	729	06/09/2021	06/09/2022
POWER AMPLIFIER	50W1000A	14715	CNR	CNR
AMPLIFIER	5S1G4	312988	CNR	CNR
AMPLIFIER	5S4G11	312664	CNR	CNR
VECTOR SIGNAL GENERATOR	E4438C	MY42081753	08/27/2021	08/27/2022
VECTOR SIGNAL GENERATOR	E4438C	MY47272101	10/27/2021	10/27/2022
POWER METER	E4419B	MY45103725	06/12/2022	06/12/2023
POWER METER	E4418B	MY45107917	07/13/2022	07/13/2023
POWER METER	E4419B	MY45103725	06/12/2022	06/12/2023
POWER METER	E4418B	MY45107917	07/13/2022	07/13/2023
POWER SENSOR	E9301B	MY55210003	06/08/2022	06/08/2023
POWER SENSOR	E9301B	MY41495733	06/08/2022	06/08/2023
POWER SENSOR	E4412A	MY61050006	04/07/2022	04/07/2023
POWER SENSOR	E4412A	MY61060011	04/07/2022	04/07/2023
POWER SUORCE	E UMS 160 CA	4251	04/13/2022	04/13/2023
BI-DIRECTIONAL COUPLER	3020A	41935	08/04/2021	*08/04/2022
BI-DIRECTIONAL COUPLER	3020A	41931	07/20/2022	07/20/2023
BI-DIRECTIONAL COUPLER	3022	81640	06/29/2022	06/29/2023
BI-DIRECTIONAL COUPLER	3024	61182	06/30/2022	06/30/2023
DATA LOGGER	DSB	16398050	08/18/2021	*08/18/2022
DATA LOGGER	DSB	16326820	11/26/2021	11/26/2021
THERMOMETER	HH806AU	80307	11/26/2021	11/26/2022
TEMPERATURE PROBE	80PK-22	6032017	11/26/2021	11/26/2022
DIELECTRIC ASSESSMENT KIT	DAK-3.5	1120	10/06/2021	10/06/2022
DIGITAL THERMOMETER	1523	3492108	09/28/2021	09/28/2022
TEMPERATURE PROBE	PR-10L-4-100-1/4-6-BX	WNWR037791	09/17/2021	09/17/2022
NETWORK ANALYZER	E5071B	MY42403218	09/13/2021	09/13/2022
SPEAG DIPOLE	D900V2	1D025	09/20/2021	09/20/2022
SPEAG DIPOLE	D900V2	085	11/10/2021	11/10/2024
SPEAG DIPOLE	D2450V2	781	10/13/2021	10/13/2024
SPEAG DIPOLE	D5GHzV2	1022	07/16/2021	07/16/2024
SPEAG DIPOLE	D5GHZV2	1026	09/24/2021	09/24/2024
POWER METER	E4419B	GB42420608	11/24/2021	11/24/2022
POWER SENSOR	E9301B	MY55210003	06/08/2022	06/08/2023

Noted: * Indicated the equipment used for SAR assessment before calibration due date.

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 13

Dates	Probe Calibration Point		Probe SN	Measured Tissue Parameters		Validation		
				σ	ϵ_r	Sensitivity	Linearity	Isotropy
CW								
06/04/2022	Head	900	7485	1.00	40.8	Pass	Pass	Pass
WLAN								
06/17/2022	Head	5750	7485	5.05	33.1	Pass	Pass	Pass
06/19/2022	Head	2450	7594	1.78	38.7	Pass	Pass	Pass
06/30/2022	Head	5250		4.28	37.5	Pass	Pass	Pass
07/01/2022	Head	5600		4.70	35.0	Pass	Pass	Pass
07/01/2022	Head	5750		4.86	34.8	Pass	Pass	Pass

10.2 System Verification for LMR

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

Table 14

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
7485	IEEE/IEC Head	SPEAG D900V2 / 1D025	11.40 ± 10%	2.83	11.32	07/30/2022
				2.61	10.44	07/31/2022#
				2.88	11.52	08/01/2022#
				2.78	11.12	08/02/2022#
				2.73	10.92	08/03/2022#
				2.87	11.48	08/04/2022#
				2.84	11.36	08/05/2022#
				2.93	11.16	08/06/2022#
				2.96	11.36	08/07/2022
				2.70	10.80	08/08/2022#
				2.89	11.56	08/09/2022
				3.09	12.36	08/11/2022
				2.74	10.96	08/12/2022#
				2.68	10.72	08/13/2022#
				2.79	11.16	08/14/2022#
				2.69	10.76	08/20/2022
		SPEAG D900V2 / 085	10.90 ± 10%	2.68	10.72	09/10/2022
				2.75	11.00	09/17/2022

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 15

Frequency (MHz)	Tissue Type	Conductivity Target (S/m)	Dielectric Constant Target	Conductivity Meas. (S/m)	Dielectric Constant Meas.	Tested Date
806	IEEE/ IEC Head	0.90 (0.85-0.94)	41.6 (39.6-43.7)	0.90	42.6	08/01/2022#
				0.91	41.7	08/02/2022#
815		0.90 (0.85-0.94)	41.6 (39.5-43.7)	0.94	41.7	07/30/2022
				0.91	40.7	07/31/2022#
				0.91	42.4	08/01/2022
				0.91	41.7	08/02/2022
				0.90	42.0	08/13/2022
				0.91	40.9	08/14/2022
824		0.90 (0.85-0.94)	41.6 (39.5-43.6)	0.92	41.6	08/02/2022
				0.90	41.1	09/10/2022
851		0.92 (0.87-0.96)	41.5 (39.4-43.6)	0.95	41.2	08/02/2022#
				0.95	41.2	08/03/2022#
				0.95	41.0	08/04/2022#

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

Table 15(Continued)

Frequency (MHz)	Tissue Type	Conductivity Target (S/m)	Dielectric Constant Target	Conductivity Meas. (S/m)	Dielectric Constant Meas.	Tested Date
851	IEEE/ IEC Head	0.92 (0.87-0.96)	41.5 (39.4-43.6)	0.94	41.5	08/13/2022#
				0.94	40.4	08/14/2022#
				0.92	43.4	08/20/2022
860		0.93 (0.88-0.97)	41.5 (39.4-43.6)	0.97	41.0	08/05/2022
				0.95	40.3	08/14/2022#
869		0.94 (0.89-0.98)	41.5 (39.4-43.6)	0.98	40.8	08/05/2022
				0.96	40.2	08/14/2022#
896		0.97 (0.92-1.01)	41.5 (39.4-43.6)	0.99	39.9	08/07/2022
899		0.97 (0.92-1.02)	41.5 (39.4-43.6)	1.00	40.5	08/05/2022#
				1.00	39.7	08/06/2022#
				0.99	39.8	08/07/2022
900		0.97 (0.92-1.02)	41.5 (39.4-43.6)	0.97	41.5	07/30/2022
				0.94	40.5	07/31/2022#
				0.99	41.4	08/01/2022#
				1.00	40.6	08/02/2022#
				1.00	40.6	08/03/2022#
				1.00	40.3	08/04/2022#
				1.01	40.4	08/05/2022#
				1.01	39.7	08/06/2022#
				0.99	39.8	08/07/2022
				1.00	40.0	08/08/2022#
				0.99	40.0	08/09/2022
				1.00	39.8	08/11/2022
				0.98	40.7	08/12/2022#
				0.98	41.0	08/13/2022#
				0.99	39.8	08/14/2022#
				0.93	43.2	08/20/2022
				0.93	40.9	09/10/2022
				1.01	40.4	09/17/2022
901		0.97 (0.92-1.02)	41.5 (39.4-43.6)	0.99	41.0	08/13/2022
				1.01	40.4	09/17/2022
935		0.99 (0.94-1.04)	41.5 (39.4-43.5)	1.02	40.3	08/12/2022
				0.95	43.2	08/20/2022
938		0.99 (0.94-1.04)	41.5 (39.4-43.5)	1.04	39.6	08/08/2022#
				1.03	39.6	08/09/2022
				1.04	39.4	08/11/2022
				1.02	40.2	08/12/2022#
				0.95	43.2	08/20/2022
940		0.99 (0.94-1.04)	41.5 (39.4-43.5)	1.03	40.2	08/12/2022#
				0.95	43.2	08/20/2022

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°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 16

	Target	Measured
Ambient Temperature	18 – 25 ˚C	Range: 21.1 - 23.9˚C Avg. 22.78 ˚C
Tissue Temperature	18 – 25 ˚C	Range: 20.7 - 22.6˚C Avg. 21.2˚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 17

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.

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 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" is 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 Avg. SAR (W/kg)
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.

Refer following parts of the reports for SAR assessment results on respective technologies.

Part 1 for LMR (8/900MHz)

Part 2 for WLAN (2.4GHz and 5GHz)

13.0 DUT Test Data

13.1 LMR assessments at the Body for 806-824MHz band

Battery PMNN4809A 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 (806-824MHz) which are listed in Table 18. The channel with the highest conducted power will be identified as the default channel per KDB 643646 (SAR Test for PTT Radios). SAR plots of the highest results per Table (bolded) are presented in Appendix E.

Table 18

Test Freq (MHz)	Power (W)
806.0000	2.92
815.0000	3.00
824.0000	2.93

Assessments at the Body with Body worn HLN6602A

DUT assessment with offered antennas, default battery and above mentioned default body worn accessory per KDB 643646. Optional batteries were tested per the requirements of KDB 643646. Refer to Table 18 for highest output power channel.

Table 19

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#
PMAF4009A	PMNN4809A	HLN6602A	PMNN4128A	806.0000					
				815.0000	2.91	-0.89	2.53	1.60	BL-AB-220730-06
				824.0000					
PMAF4011A				806.0000					
				815.0000	3.00	-0.66	4.16	2.42	BL-AB-220730-09
				824.0000					
Assessment of Additional Batteries									
PMAF4011A	PMNN4808A	HLN6602A	PMNN4128A	806.0000					
				815.0000	2.86	-0.41	3.71	2.14	BL-AB-220730-16
				824.0000					
	PMNN4807A			806.0000					
				815.0000	3.00	-0.84	3.79	2.30	FZ-AB-220730-22
				824.0000					
	PMNN4810A			806.0000					
				815.0000	2.98	-0.69	2.31	1.36	FZ-AB-220731-02
				824.0000					

Assessments at the Body with Body worn PMLN4651A

DUT assessment with offered antennas, default battery and above mentioned body worn accessory per KDB 643646. Optional batteries were tested per the requirements of KDB 643646. Refer to Table 18 for highest output power channel.

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#
PMAF4009A	PMNN4809A	PMLN4651A	PMNN4128A	806.0000					
				815.0000	2.98	-0.50	1.34	0.76	BL-AB-220731-03
				824.0000					
PMAF4011A				806.0000					
				815.0000	2.94	-0.56	1.60	0.93	BL-AB-220731-04
				824.0000					
Assessment of Additional Batteries									
PMAF4011A	PMNN4808A	PMLN4651A	PMNN4128A	806.0000					
				815.0000	2.85	-0.45	1.16	0.68	BL-AB-220731-11
				824.0000					
	PMNN4807A			806.0000					
				815.0000	2.80	-0.53	1.54	0.93	BL-AB-220731-12
				824.0000					
	PMNN4810A			806.0000					
				815.0000	2.93	-0.43	1.11	0.63	BL-AB-220731-13
				824.0000					

Assessments at the Body with Body worn PMLN7008A

DUT assessment with offered antennas, default battery and above mentioned body worn accessory per KDB 643646. Optional batteries were tested per the requirements of KDB 643646. Refer to Table 18 for highest output power channel.

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#
PMAF4009A	PMNN4809A	PMLN7008A	PMNN4128A	806.0000					
				815.0000	2.94	-0.43	1.21	0.68	BL-AB-220731-10
				824.0000					
PMAF4011A				806.0000					
				815.0000	2.93	-0.56	1.44	0.84	BL-AB-220731-14
				824.0000					

Table 21 (Continued)

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#
Assessment of Additional Batteries									
PMAF4011A	PMNN4808A	PMLN7008A	PMNN4128A	806.0000					
				815.0000	2.87	-0.49	1.09	0.64	BL-AB-220731-15
				824.0000					
	PMNN4807A			806.0000					
				815.0000	2.77	-0.49	1.39	0.84	BL-AB-220731-16
				824.0000					
	PMNN4810A			806.0000					
				815.0000	2.93	-0.47	1.05	0.60	BL-AB-220731-17
				824.0000					

Assessments at the Body with Body worn PMLN8302A w/o belt loop w/ NTN5243A

DUT assessment with offered antennas, default battery and above mentioned default body worn accessory per KDB 643646. Optional batteries were tested per the requirements of KDB 643646. Refer to Table 18 for highest output power channel.

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#
PMAF4009A	PMNN4809A	PMLN8302A w/o belt loop w/ NTN5243A	PMNN4128A	806.0000					
				815.0000	3.00	-0.40	0.82	0.45	MFR(AMF)-AB-220813-16
				824.0000					
PMAF4011A				806.0000					
				815.0000	3.00	-0.56	0.78	0.44	MFR(AMF)-AB-220731-19
				824.0000					
Assessment of Additional Batteries									
PMAF4009A	PMNN4808A	PMLN8302A w/o belt loop w/ NTN5243A	PMNN4128A	806.0000					
				815.0000	2.98	-0.49	0.45	0.25	MFR(AMF)-AB-220731-20
				824.0000					
	PMNN4807A			806.0000					
				815.0000	2.86	-0.53	0.69	0.41	MFR(AMF)-AB-220731-21
				824.0000					

Table 22 (Continued)

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#
PMAF4009A	PMNN4807A	PMLN8302A w/o belt loop w/ NTN5243A	PMNN4128A	806.0000					
				815.0000	3.00	-0.39	0.42	0.23	MFR(AMF)-AB-220801-01#
				824.0000					

Assessments at the Body with Body worn PMLN8304A w/ NTN5243A

DUT assessment with offered antennas, default battery and above mentioned default body worn accessory per KDB 643646. Optional batteries were tested per the requirements of KDB 643646. Refer to Table 18 for highest output power channel.

Table 23

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#
PMAF4009A	PMNN4809A	PMLN8304A w/ NTN5243A	PMNN4128A	806.0000					
				815.0000	3.00	-0.82	0.35	0.21	MFR(AMF)-AB-220801-04
				824.0000					
PMAF4011A				806.0000					
				815.0000	3.00	-0.45	0.35	0.19	MFR(AMF)-AB-220801-05
				824.0000					
Assessment of Additional Batteries									
PMAF4009A	PMNN4808A	PMLN8304A w/ NTN5243A	PMNN4128A	806.0000					
				815.0000	2.97	-0.37	0.26	0.14	MFR(AMF)-AB-220801-06
				824.0000					
	PMNN4807A			806.0000					
				815.0000	2.87	-0.46	0.30	0.17	BL-AB-220801-07
				824.0000					
	PMNN4810A			806.0000					
				815.0000	2.98	-0.38	0.25	0.14	BL-AB-220801-08
				824.0000					

Assessments at the Body with Body worn PMLN8302A w/o belt loop w/ RLN6487A w/ RLN6488A

DUT assessment with offered antennas, default battery and above mentioned body worn accessory per KDB 643646. Optional batteries were tested per the requirements of KDB 643646. Refer to Table 18 for highest output power channel.

Table 24

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#
PMAF4009A	PMNN4809A	PMLN8302A w/o belt loop w/ RLN6487A w/ RLN6488A	PMNN4128A	806.0000					
				815.0000	2.86	-0.85	0.76	0.48	BL-AB-220814-10
				824.0000					
PMAF4011A				806.0000					
				815.0000	3.00	-0.39	1.21	0.66	BL-AB-220801-14
				824.0000					
Assessment of Additional Batteries									
PMAF4011A	PMNN4808A	PMLN8302A w/o belt loop w/ RLN6487A w/ RLN6488A	PMNN4128A	806.0000					
				815.0000	2.94	-0.26	0.59	0.32	BL-AB-220801-15
				824.0000					
	PMNN4807A			806.0000					
				815.0000	2.87	-0.28	1.01	0.56	BL-AB-220801-16
				824.0000					
	PMNN4810A			806.0000					
				815.0000	3.00	-0.52	0.75	0.42	BL-AB-220801-17
				824.0000					

Assessment at the Body with other audio accessories

Assessment per "KDB 643646 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.

Assessment of wireless BT configuration

Assessment using the overall highest SAR configuration at the body from above without an audio accessory attached. SAR plots of the highest results per Table (bolded) are presented in Appendix E.

Table 25

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#
PMAF4011A	PMNN4809A	HLN6602A	NONE	806.0000					
				815.0000	3.00	-0.43	4.89	**2.70**	BL-AB-220801-18
				824.0000					

13.2 LMR assessments at the Body for 851-869MHz band

Battery PMNN4809A 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 (851-869MHz) which are listed in Table 26. The channel with the highest conducted power will be identified as the default channel per KDB 643646 (SAR Test for PTT Radios). SAR plots of the highest results per Table (bolded) are presented in Appendix E.

Table 26

Test Freq (MHz)	Power (W)
851.0000	2.98
860.0000	2.95
869.0000	2.95

Assessments at the Body with Body worn HLN6602A

DUT assessment with offered antennas, default battery and above mentioned default body worn accessory per KDB 643646. Optional batteries were tested per the requirements of KDB 643646. Refer to Table 26 for highest output power channel.

Table 27

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#
PMAF4009A	PMNN4809A	HLN6602A	PMNN4128A	851.0000	2.92	-0.82	3.81	2.36	MFR(AMF)-AB-220802-21
				860.0000					
				869.0000					
PMAF4011A				851.0000	2.94	-0.53	4.38	2.52	BL-AB-220814-06#
				860.0000					
				869.0000					
Assessment of Additional Batteries									
PMAF4011A	PMNN4808A	HLN6602A	PMNN4128A	851.0000	2.87	-0.12	3.82	2.05	BL-AB-220820-02
				860.0000					
				869.0000					

Table 27 (Continued)

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#
PMAF4011A	PMNN4807A	HLN6602A	PMNN4128A	851.0000	2.75	-0.87	2.28	2.14	MFR(AMF)-AB-220803-01#
				860.0000					
				869.0000					
	PMNN4810A			851.0000	3.00	-0.61	2.66	2.19	BL-AB-220820-04
				860.0000					
				869.0000					

Assessments at the Body with Body worn PMLN4651A

DUT assessment with offered antennas, default battery and above mentioned body worn accessory per KDB 643646. Optional batteries were tested per the requirements of KDB 643646. Refer to Table 26 for highest output power channel.

Table 28

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#
PMAF4009A	PMNN4809A	PMLN4651A	PMNN4128A	851.0000	2.97	-0.82	2.10	1.28	MFR(AMF)-AB-220803-03#
				860.0000					
				869.0000					
PMAF4011A				851.0000	2.98	-0.65	1.94	1.13	MFR(AMF)-AB-220803-05
				860.0000					
				869.0000					
Assessment of Additional Batteries									
PMAF4009A	PMNN4808A	PMLN4651A	PMNN4128A	851.0000	2.85	-0.41	1.72	0.99	MFR(AMF)-AB-220803-06
				860.0000					
				869.0000					
	PMNN4807A			851.0000	2.77	-0.78	2.25	1.46	MFR(AMF)-AB-220803-07
				860.0000					
				869.0000					
	PMNN4810A			851.0000	2.91	-0.65	1.80	1.07	FZ-AB-220803-08
				860.0000					
				869.0000					

Assessments at the Body with Body worn PMLN7008A

DUT assessment with offered antennas, default battery and above mentioned body worn accessory per KDB 643646. Optional batteries were tested per the requirements of KDB 643646. Refer to Table 26 for highest output power channel.

Table 29

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#
PMAF4009A	PMNN4809A	PMLN7008A	PMNN4128A	851.0000	2.87	-0.89	2.14	1.37	FZ-AB-220803-09
				860.0000					
				869.0000					
PMAF4011A				851.0000	2.87	-0.57	1.82	1.08	FZ-AB-220803-10
				860.0000					
				869.0000					
Assessment of Additional Batteries									
PMAF4009A	PMNN4808A	PMLN7008A	PMNN4128A	851.0000	2.87	-0.33	1.77	1.00	FZ-AB-220803-11
				860.0000					
				869.0000					
	PMNN4807A			851.0000	2.87	-0.78	2.36	1.49	FZ-AB-220803-12
				860.0000					
				869.0000					
	PMNN4810A			851.0000	2.94	-0.62	1.77	1.04	FZ-AB-220803-13
				860.0000					
				869.0000					

Assessments at the Body with Body worn PMLN8302A w/o belt loop w/ NTN5243A

DUT assessment with offered antennas, default battery and above mentioned default body worn accessory per KDB 643646. Optional batteries were tested per the requirements of KDB 643646. Refer to Table 26 for highest output power channel.

Table 30

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#
PMAF4009A	PMNN4809A	PMLN8302A w/o belt loop w/ NTN5243A	PMNN4128A	851.0000	3.00	-0.76	0.91	0.54	MFR(AMF)-AB-220813-17
				860.0000					
				869.0000					
PMAF4011A				851.0000	2.98	-0.60	1.07	0.62	MFR(AMF)-AB-220813-19
				860.0000					
				869.0000					
Assessment of Additional Batteries									
PMAF4011A	PMNN4808A	PMLN8302A w/o belt loop w/ NTN5243A	PMNN4128A	851.0000	2.85	-0.01	0.75	0.39	BL-AB-220820-05
				860.0000					
				869.0000					
	PMNN4807A			851.0000	2.75	-0.76	1.31	0.85	BL-AB-220820-06
				860.0000					
				869.0000					
	PMNN4810A			851.0000	2.98	-0.62	0.74	0.43	BL-AB-220820-07
				860.0000					
				869.0000					

Assessments at the Body with Body worn PMLN8304A w/ NTN5243A

DUT assessment with offered antennas, default battery and above mentioned default body worn accessory per KDB 643646. Optional batteries were tested per the requirements of KDB 643646. Refer to Table 26 for highest output power channel.

Table 31

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#
PMAF4009A PMAF4011A	PMNN4809A	PMLN8304A w/ NTN5243A	PMNN4128A	851.0000	2.98	-0.61	0.52	0.30	MFR(AMF)-AB-220804-03#
				860.0000					
				869.0000					
	PMNN4810A			851.0000	2.97	-0.43	0.36	0.20	MFR(AMF)-AB-220804-05
				860.0000					
				869.0000					

Table 31 (Continued)

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#
Assessment of Additional Batteries									
PMAF4009A	PMNN4808A	PMLN8304A w/ NTN5243A	PMNN4128A	851.0000	2.87	-0.35	0.43	0.24	MFR(AMF)-AB-220804-06
				860.0000					
				869.0000					
	PMNN4807A			851.0000	2.78	-0.70	0.50	0.32	MFR(AMF)-AB-220804-07
				860.0000					
				869.0000					
	PMNN4810A			851.0000	2.90	-0.47	0.40	0.23	FZ-AB-220804-08
				860.0000					
				869.0000					

Assessments at the Body with Body worn PMLN8302A w/o belt loop w/ RLN6487A w/ RLN6488A

DUT assessment with offered antennas, default battery and above mentioned body worn accessory per KDB 643646. Optional batteries were tested per the requirements of KDB 643646. Refer to Table 26 for highest output power channel.

Table 32

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#
PMAF4009A	PMNN4809A	PMLN8302A w/o belt loop w/ RLN6487A w/ RLN6488A	PMNN4128A	851.0000	2.91	-0.48	2.37	1.36	FZ-AB-220804-10
				860.0000					
				869.0000					
PMAF4011A				851.0000	2.90	-0.92	1.65	1.05	FZ-AB-220804-14
				860.0000					
				869.0000					
Assessment of Additional Batteries									
PMAF4009A	PMNN4808A	PMLN8302A w/o belt loop w/ RLN6487A w/ RLN6488A	PMNN4128A	851.0000	2.87	-0.19	1.13	0.62	BL-AB-220804-16
				860.0000					
				869.0000					
	PMNN4807A			851.0000	2.70	-0.57	2.03	1.29	BL-AB-220804-18
				860.0000					
				869.0000					

Table 32 (Continued)

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#
PMAF4009A	PMNN4810A	PMLN8302A w/o belt loop w/ RLN6487A w/ RLN6488A	PMNN4128A	851.0000	2.91	-0.54	1.06	0.62	BL-AB-220804-20
				860.0000					
				869.0000					

Assessment at the Body with other audio accessories

Assessment per "KDB 643646 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.

Assessment of wireless BT configuration

Assessment using the overall highest SAR configuration at the body from above without an audio accessory attached. SAR plots of the highest results per Table (bolded) are presented in Appendix E.

Table 33

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#
PMAF4011A	PMNN4809A	HLN6602A	NONE	851.0000	3.00	-0.71	5.22	**3.07**	FZ-AB-220815-08#
				860.0000					
				869.0000					

13.3 LMR assessments at the Body for 896-901MHz band

Battery PMNN4809A 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 (896-901MHz) which are listed in Table 34. The channel with the highest conducted power will be identified as the default channel per KDB 643646 (SAR Test for PTT Radios). SAR plots of the highest results per Table (bolded) are presented in Appendix E.

Table 34

Test Freq (MHz)	Power (W)
896.0000	2.93
898.5000	2.95
901.0000	2.94

Assessments at the Body with Body worn HLN6602A

DUT assessment with offered antennas, default battery and above mentioned default body worn accessory per KDB 643646. Optional batteries were tested per the requirements of KDB 643646. Refer to Table 34 for highest output power channel.

Table 35

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#
PMAF4010A	PMNN4809A	HLN6602A	PMNN4128A	896.0000					
				898.5000	2.90	-0.54	4.18	3.54	BL-AB-220805-18
				901.0000					
PMAF4012A				896.0000					
				898.5000	2.87	-0.53	3.50	2.97	BL-AB-220805-19
				901.0000					
Assessment of Additional Batteries									
PMAF4010A	PMNN4808A	HLN6602A	PMNN4128A	896.0000					
				898.5000	2.80	-0.2	3.36	2.71	BL-AB-220805-20
				901.0000					
	PMNN4807A			896.0000					
				898.5000	2.93	-0.66	3.95	3.39	BL-AB-220805-21
				901.0000					
	PMNN4810A			896.0000					
				898.5000	2.83	-0.66	3.14	2.77	BL-AB-220805-22
				901.0000					

Assessments at the Body with Body worn PMLN4651A

DUT assessment with offered antennas, default battery and above mentioned body worn accessory per KDB 643646. Optional batteries were tested per the requirements of KDB 643646. Refer to Table 34 for highest output power channel.

Table 36

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#
PMAF4010A	PMNN4809A	PMLN4651A	PMNN4128A	896.0000					
				898.5000	2.88	-0.47	2.67	1.55	BL-AB-220806-01#
				901.0000					
PMAF4012A				896.0000					
				898.5000	2.88	-0.48	2.34	1.36	BL-AB-220806-02#
				901.0000					

Table 36 (Continued)

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#
Assessment of Additional Batteries									
PMAF4010A	PMNN4808A	PMLN4651A	PMNN4128A	896.0000					
				898.5000	2.80	-0.12	2.23	1.23	BL-AB-220806-03#
				901.0000					
	PMNN4807A			896.0000					
				898.5000	2.70	-0.57	2.99	1.89	BL-AB-220806-04#
				901.0000					
	PMNN4810A			896.0000					
				898.5000	2.83	-0.55	2.19	1.32	BL-AB-220806-05#
				901.0000					

Assessments at the Body with Body worn PMLN7008A

DUT assessment with offered antennas, default battery and above mentioned body worn accessory per KDB 643646. Optional batteries were tested per the requirements of KDB 643646. Refer to Table 34 for highest output power channel.

Table 37

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#
PMAF4010A	PMNN4809A	PMLN7008A	PMNN4128A	896.0000					
				898.5000	2.90	-0.49	2.51	1.45	FZ-AB-220806-07
				901.0000					
PMAF4012A				896.0000					
				898.5000	2.91	-0.51	2.29	1.33	FZ-AB-220806-09
				901.0000					
Assessment of Additional Batteries									
PMAF4010A	PMNN4808A	PMLN7008A	PMNN4128A	896.0000					
				898.5000	2.83	-0.07	2.11	1.14	FZ-AB-220806-10
				901.0000					
	PMNN4807A			896.0000					
				898.5000	2.70	-0.53	2.81	1.76	FZ-AB-220806-11
				901.0000					
	PMNN4810A			896.0000					
				898.5000	2.87	-0.55	2.05	1.22	FZ-AB-220806-12
				901.0000					

Assessments at the Body with Body worn PMLN8302A w/o belt loop w/ NTN5243A

DUT assessment with offered antennas, default battery and above mentioned default body worn accessory per KDB 643646. Optional batteries were tested per the requirements of KDB 643646. Refer to Table 34 for highest output power channel.

Table 38

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#
PMAF4010A	PMNN4809A	PMLN8302A w/o belt loop w/ NTN5243A	PMNN4128A	896.0000					
				898.5000	2.85	-0.49	1.94	1.14	FZ-AB-220806-13
				901.0000					
PMAF4012A				896.0000					
				898.5000	2.83	-0.61	2.19	1.34	FZ-AB-220806-15
				901.0000					
Assessment of Additional Batteries									
PMAF4012A	PMNN4808A	PMLN8302A w/o belt loop w/ NTN5243A	PMNN4128A	896.0000					
				898.5000	2.83	-0.51	1.35	0.80	FZ-AB-220806-16
				901.0000					
	PMNN4807A			896.0000					
				898.5000	2.68	-0.70	0.89	0.58	FZ-AB-220806-17
				901.0000					
	PMNN4810A			896.0000					
				898.5000	2.80	-0.89	0.68	0.45	FZ-AB-220806-18
				901.0000					

Assessments at the Body with Body worn PMLN8304A w/ NTN5243A

DUT assessment with offered antennas, default battery and above mentioned default body worn accessory per KDB 643646. Optional batteries were tested per the requirements of KDB 643646. Refer to Table 34 for highest output power channel.

Table 39

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#
PMAF4010A	PMNN4809A	PMLN8304A w/ NTN5243A	PMNN4128A	896.0000					
				898.5000	2.92	-0.55	0.63	0.37	BL-AB-220806-19
				901.0000					
PMAF4012A				896.0000					
				898.5000	2.88	-0.58	0.57	0.34	BL-AB-220806-20
				901.0000					

Table 39 (Continued)

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#
Assessment of Additional Batteries									
PMAF4010A	PMNN4808A	PMLN8304A w/ NTN5243A	PMNN4128A	896.0000					
				898.5000	2.75	-0.18	0.58	0.33	BL-AB-220806-21
				901.0000					
	PMNN4807A			896.0000					
				898.5000	2.72	-0.64	0.68	0.44	BL-AB-220806-22
				901.0000					
	PMNN4810A			896.0000					
				898.5000	2.90	-0.60	0.56	0.33	BL-AB-220806-23
				901.0000					

Assessments at the Body with Body worn PMLN8302A w/o belt loop w/ RLN6487A w/ RLN6488A

DUT assessment with offered antennas, default battery and above mentioned body worn accessory per KDB 643646. Optional batteries were tested per the requirements of KDB 643646. Refer to Table 34 for highest output power channel.

Table 40

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#
PMAF4010A	PMNN4809A	PMLN8302A w/o belt loop w/ RLN6487A w/ RLN6488A	PMNN4128A	896.0000					
				898.5000	2.98	-0.59	1.94	1.12	BL-AB-220806-24
				901.0000					
PMAF4012A				896.0000					
				898.5000	2.92	-0.42	2.16	1.22	BL-AB-220807-02#
				901.0000					
Assessment of Additional Batteries									
PMAF4012A	PMNN4808A	PMLN8302A w/o belt loop w/ RLN6487A w/ RLN6488A	PMNN4128A	896.0000					
				898.5000	2.83	-0.54	1.45	0.87	BL-AB-220807-03#
				901.0000					
	PMNN4807A			896.0000					
				898.5000	2.72	-0.64	1.78	1.14	BL-AB-220807-04#
				901.0000					
	PMNN4810A			896.0000					
				898.5000	2.85	-0.56	1.36	0.81	BL-AB-220807-05#
				901.0000					

Assessment at the Body with other audio accessories
Assessment per "KDB 643646 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.

Assessment of wireless BT configuration
Assessment using the overall highest SAR configuration at the body from above without an audio accessory attached. SAR plots of the highest results per Table (bolded) are presented in Appendix E.

Table 41

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#
PMAF4010A	PMNN4809A	HLN6602A	NONE	896.0000					
				898.5000	2.95	-0.69	6.26	**3.73**	BL-AB-220807-06#
				901.0000					

13.4 LMR assessments at the Body for 935-940MHz band

Battery PMNN4809A 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 (935-940MHz) which are listed in Table 42. The channel with the highest conducted power will be identified as the default channel per KDB 643646 (SAR Test for PTT Radios). SAR plots of the highest results per Table (bolded) are presented in Appendix E.

Table 42

Test Freq (MHz)	Power (W)
935.0000	2.95
937.5000	2.96
940.0000	2.96

Assessments at the Body with Body worn HLN6602A
DUT assessment with offered antennas, default battery and above mentioned default body worn accessory per KDB 643646. Optional batteries were tested per the requirements of KDB 643646. Refer to Table 42 for highest output power channel.

Table 43

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#
PMAF4010A	PMNN4809A	HLN6602A	PMNN4128A	935.0000					
				937.5000	3.00	-0.72	3.07	1.81	MFR(AMF)-AB-220808-08
				940.0000					
PMAF4012A				935.0000					
				937.5000	3.00	-0.75	2.86	1.70	MFR(AMF)-AB-220808-07
				940.0000					
Assessment of Additional Batteries									
PMAF4010A	PMNN4808A	HLN6602A	PMNN4128A	935.0000					
				937.5000	2.85	-0.83	2.05	1.31	MFR(AMF)-AB-220808-09
				940.0000					
	PMNN4807A			935.0000					
				937.5000	2.72	-0.78	3.08	2.03	MFR(AMF)-AB-220808-10
				940.0000					
	PMNN4810A			935.0000					
				937.5000	2.72	-0.70	2.27	1.47	MFR(AMF)-AB-220808-11
				940.0000					

Assessments at the Body with Body worn PMLN4651A

DUT assessment with offered antennas, default battery and above mentioned body worn accessory per KDB 643646. Optional batteries were tested per the requirements of KDB 643646. Refer to Table 42 for highest output power channel.

Table 44

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#
PMAF4010A	PMNN4809A	PMLN4651A	PMNN4128A	935.0000					
				937.5000	3.00	-0.80	1.68	1.01	MFR(AMF)-AB-220808-12
				940.0000					
PMAF4012A				935.0000					
				937.5000	3.00	-0.67	1.64	0.96	MFR(AMF)-AB-220808-13
				940.0000					

Table 44 (Continued)

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#
Assessment of Additional Batteries									
PMAF4010A	PMNN4808A	PMLN4651A	PMNN4128A	935.0000					
				937.5000	2.95	-0.72	1.24	0.74	MFR(AMF)-AB-220808-14
				940.0000					
	PMNN4807A			935.0000					
				937.5000	2.76	-0.75	1.58	1.02	FZ-AB-220808-15
				940.0000					
	PMNN4810A			935.0000					
				937.5000	2.76	-0.72	1.15	0.74	FZ-AB-220808-16
				940.0000					

Assessments at the Body with Body worn PMLN7008A

DUT assessment with offered antennas, default battery and above mentioned body worn accessory per KDB 643646. Optional batteries were tested per the requirements of KDB 643646. Refer to Table 42 for highest output power channel.

Table 45

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#
PMAF4010A	PMNN4809A	PMLN7008A	PMNN4128A	935.0000					
				937.5000	3.00	-0.76	1.64	0.98	FZ-AB-220808-17
				940.0000					
PMAF4012A				935.0000					
				937.5000	3.00	-0.70	1.53	0.90	FZ-AB-220808-18
				940.0000					
Assessment of Additional Batteries									
PMAF4010A	PMNN4808A	PMLN7008A	PMNN4128A	935.0000					
				937.5000	3.00	-0.72	1.18	0.70	FZ-AB-220809-01#
				940.0000					
	PMNN4807A			935.0000					
				937.5000	2.71	-0.65	1.53	0.98	FZ-AB-220809-02#
				940.0000					
	PMNN4810A			935.0000					
				937.5000	2.71	-0.66	1.07	0.69	FZ-AB-220809-03#
				940.0000					

Assessments at the Body with Body worn PMLN8302A w/o belt loop w/ NTN5243A

DUT assessment with offered antennas, default battery and above mentioned default body worn accessory per KDB 643646. Optional batteries were tested per the requirements of KDB 643646. Refer to Table 42 for highest output power channel.

Table 46

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#
PMAF4010A	PMNN4809A	PMLN8302A w/o belt loop w/ NTN5243A	PMNN4128A	935.0000					
				937.5000	3.00	-0.64	1.39	0.81	FZ-AB-220809-04#
				940.0000					
PMAF4012A				935.0000					
				937.5000	3.00	-0.79	1.46	0.88	FZ-AB-220809-05#
				940.0000					
Assessment of Additional Batteries									
PMAF4012A	PMNN4808A	PMLN8302A w/o belt loop w/ NTN5243A	PMNN4128A	935.0000					
				937.5000	2.86	-0.84	0.46	0.29	MFR(AMF)-AB-220820-08
				940.0000					
	PMNN4807A			935.0000					
				937.5000	2.81	-0.66	0.66	0.41	MFR(AMF)-AB-220820-09
				940.0000					
	PMNN4810A			935.0000					
				937.5000	2.70	-0.59	0.43	0.27	MFR(AMF)-AB-220820-10
				940.0000					

Assessments at the Body with Body worn PMLN8304A w/ NTN5243A

DUT assessment with offered antennas, default battery and above mentioned default body worn accessory per KDB 643646. Optional batteries were tested per the requirements of KDB 643646. Refer to Table 42 for highest output power channel.

Table 47

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#
PMAF4010A	PMNN4809A	PMLN8304A w/ NTN5243A	PMNN4128A	935.0000					
				937.5000	3.00	-0.84	0.40	0.24	MFR(AMF)-AB-220809-10
				940.0000					
PMAF4012A				935.0000					
				937.5000	3.00	-0.78	0.37	0.22	MFR(AMF)-AB-220809-11
				940.0000					
Assessment of Additional Batteries									
PMAF4010A	PMNN4808A	PMLN8302A w/o belt loop w/ NTN5243A	PMNN4128A	935.0000					
				937.5000	3.00	-0.71	0.29	0.17	MFR(AMF)-AB-220809-12
				940.0000					
	PMNN4807A			935.0000					
				937.5000	3.00	-0.78	0.34	0.20	MFR(AMF)-AB-220809-13
				940.0000					
	PMNN4810A			935.0000					
				937.5000	2.76	-0.69	0.26	0.17	MFR(AMF)-AB-220809-14
				940.0000					

Assessments at the Body with Body worn PMLN8302A w/o belt loop w/ RLN6487A w/ RLN6488A

DUT assessment with offered antennas, default battery and above mentioned body worn accessory per KDB 643646. Optional batteries were tested per the requirements of KDB 643646. Refer to Table 42 for highest output power channel.

Table 48

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#
PMAF4010A	PMNN4809A	PMLN8302A w/o belt loop w/ RLN6487A w/ RLN6488A	PMNN4128A	935.0000					
				937.5000	2.96	-0.54	2.33	1.34	BL-AB-220812-04
				940.0000					
PMAF4012A				935.0000					
				937.5000	2.97	-0.87	1.43	0.88	BL-AB-220812-06
				940.0000					

Table 48 (Continued)

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#
Assessment of Additional Batteries									
PMAF4010A	PMNN4808A	PMLN8302A w/o belt loop w/ RLN6487A w/ RLN6488A	PMNN4128A	935.0000					
				937.5000	2.86	-0.35	0.46	0.26	BL-AB-220811-02
				940.0000					
	PMNN4807A			935.0000					
				937.5000	2.85	-0.79	1.18	0.74	BL-AB-220811-05
				940.0000					
	PMNN4810A			935.0000					
				937.5000	2.80	-0.57	0.88	0.54	BL-AB-220811-07
				940.0000					

Assessment at the Body with other audio accessories

Assessment per "KDB 643646 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.

Assessment of wireless BT configuration

Assessment using the overall highest SAR configuration at the body from above without an audio accessory attached. SAR plots of the highest results per Table (bolded) are presented in Appendix E.

Table 49

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#
PMAF4010A	PMNN4807A	HLN6602A	NONE	935.0000					
				937.5000	2.85	-0.86	3.30	**2.12**	MFR(AMF)-AB-220820-11
				940.0000					

13.5 LMR assessments at the Face for 806-824MHz band

Battery PMNN4810A 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 (806-824MHz) which are listed in Table 50. The channel with the highest conducted power will be identified as the default channel per KDB 643646 (SAR Test for PTT Radios). SAR plots of the highest results per Table (bolded) are presented in Appendix E.

Table 50

Test Freq (MHz)	Power (W)
806.0000	2.91
815.0000	2.91
824.0000	2.86

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 50 for highest output power channel. SAR plots of the highest results per Table (bolded) are presented in Appendix E.

Table 51

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#
PMAF4009A	PMMN4810A	Radio @ front 2.5cm	None	806.0000	2.97	-0.70	0.78	**0.46**	MFR(AMF)-FACE-220801-20
				815.0000					
				824.0000					
PMAF4011A				806.0000	2.86	-0.07	0.86	0.44	MFR(AMF)-FACE-220801-21
				815.0000					
				824.0000					
Assessment of Additional Batteries									
PMAF4009A	PMMN4807A	Radio @ front 2.5cm	None	806.0000	2.83	-0.26	0.65	0.36	MFR(AMF)-FACE-220802-01#
				815.0000					
				824.0000					
	PMMN4808A			806.0000	2.89	0.11	0.65	0.34	MFR(AMF)-FACE-220802-02#
				815.0000					
				824.0000					
	PMMN4809A			806.0000	3.00	-0.02	0.64	0.32	MFR(AMF)-FACE-220802-03#
				815.0000					
				824.0000					

13.6 LMR assessment at the Face for 851-869MHz band

Battery PMNN4810A 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 (851-869MHz) which are listed in Table 52. The channel with the highest conducted power will be identified as the default channel per KDB 643646 (SAR Test for PTT Radios). SAR plots of the highest results per Table (bolded) are presented in Appendix E.

Table 52

Test Freq (MHz)	Power (W)
851.0000	2.96
860.0000	2.93
869.0000	2.92

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 52 for highest output power channel. SAR plots of the highest results per Table (bolded) are presented in Appendix E.

Table 53

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#
PMAF4009A	PMMN4810A	Radio @ front 2.5cm	None	851.0000	2.94	-0.53	1.75	1.01	BL-FACE-220804-22
				860.0000					
				869.0000					
PMAF4011A				851.0000	2.93	-0.48	1.93	**1.10**	BL-FACE-220805-01#
				860.0000					
				869.0000					
Assessment of Additional Batteries									
PMAF4011A	PMMN4807A	Radio @ front 2.5cm	None	851.0000	2.70	-0.56	1.50	0.95	BL-FACE-220805-02#
				860.0000					
				869.0000					
	PMMN4808A			851.0000	2.70	0.15	1.79	0.97	BL-FACE-220805-03#
				860.0000					
				869.0000					
	PMMN4809A			851.0000	2.87	-0.71	1.50	0.92	BL-FACE-220805-04#
				860.0000					
				869.0000					

13.7 LMR assessments at the Face for 896-901MHz band

Battery PMNN4810A was selected as the default battery for assessments at the Body 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 (896-901MHz) which are listed in Table 54. The channel with the highest conducted power will be identified as the default channel per KDB 643646 (SAR Test for PTT Radios). SAR plots of the highest results per Table (bolded) are presented in Appendix E.

Table 54

Test Freq (MHz)	Power (W)
896.0000	2.86
898.5000	2.87
901.0000	2.85

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 54 for highest output power channel. SAR plots of the highest results per Table (bolded) are presented in Appendix E.

Table 55

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#
PMAF4010A	PMMN4810A	Radio @ front 2.5cm	None	896.0000					
				898.5000	3.00	-0.48	1.82	1.02	MFR(AMF)-FACE-220807-08
				901.0000					
PMAF4012A				896.0000					
				898.5000	3.00	-0.60	1.62	0.93	MFR(AMF)-FACE-220807-09
				901.0000					
Assessment of Additional Batteries									
PMAF4010A	PMMN4807A	Radio @ front 2.5cm	None	896.0000					
				898.5000	2.81	-0.52	1.70	**1.02**	MFR(AMF)-FACE-220807-10
				901.0000					
	PMMN4808A			896.0000					
				898.5000	2.95	-0.10	1.69	0.88	MFR(AMF)-FACE-220807-11
				901.0000					
	PMMN4809A			896.0000					
				898.5000	3.00	-0.42	1.62	0.89	MFR(AMF)-FACE-220807-12
				901.0000					

13.8 LMR assessments at the Face for 935-940MHz band

Battery PMNN4810A 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 (935-940MHz) which are listed in Table 56. The channel with the highest conducted power will be identified as the default channel per KDB 643646 (SAR Test for PTT Radios). SAR plots of the highest results per Table (bolded) are presented in Appendix E.

Table 56

Test Freq (MHz)	Power (W)
935.0000	2.68
937.5000	2.66
940.0000	2.65

DUT assessment with offered antennas, default battery with front of DUT positioned 2.5cm facing phantom per KDB 643646 SAR. Optional batteries were tested per the requirements of KDB 643646. Refer to Table 56 for highest output power channel. SAR plots of the highest results per Table (bolded) are presented in Appendix E.

Table 57

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#
PMAF4010A	PMMN4810A	Radio @ front 2.5cm	None	935.0000	2.73	-0.47	1.45	**0.89**	BL-FACE-220812-07
				937.5000					
				940.0000					
PMAF4012A				935.0000	2.73	-0.52	1.35	0.84	BL-FACE-220812-08
				937.5000					
				940.0000					
Assessment of Additional Batteries									
PMAF4010A	PMMN4807A	Radio @ front 2.5cm	None	935.0000	2.73	-0.60	1.34	0.85	BL-FACE-220812-09
				937.5000					
				940.0000					
	PMMN4808A			935.0000	2.89	-0.70	1.25	0.76	BL-FACE-220812-10
				937.5000					
				940.0000					
	PMMN4809A			935.0000	3.00	-0.65	1.49	0.87	BL-FACE-220812-11
				937.5000					
				940.0000					

13.9 Assessment for ISED, Canada

Based on the assessment results for body and face per KDB643646 D01, additional tests were not required for ISED, Canada frequency range (8/900MHz) as the testing performed is in compliance with the Industry Canada frequency range.

As per ISED Notice 2016-DRS001, additional tests were required for low, mid and high frequency channels for the configuration with the highest SAR value. The SAR results are in Table below. SAR plot is included in Appendix E for highest configurations.

Table 58

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 (806-824MHz)									
PMAF4011A	PMNN4809A	HLN6602A	None	806.0000	2.95	-0.03	3.59	1.84	BL-AB-220802-10
				815.0000	3.00	-0.43	4.89	**2.70**	BL-AB-220801-18
				824.0000	2.95	-0.39	4.71	2.62	BL-AB-220802-11
Face (806-824MHz)									
PMAF4009A	PMNN4810A	Radio @ front 2.5cm	None	806.0000	2.97	-0.70	0.78	0.46	MFR(AMF)-FACE-220801-20
				815.0000	3.00	-0.27	0.83	0.44	MFR(AMF)-FACE-220802-05
				824.0000	3.00	-0.22	1.32	**0.74**	FZ-FACE-220910-07

Table 59

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 (851-869MHz)									
PMAF4011A	PMNN4809A	HLN6602A	None	851.0000	3.00	-0.71	5.22	**3.07**	FZ-AB-220815-08#
				860.0000	2.92	-0.65	4.25	2.57	MFR(AMF)-AB-220814-18
				869.0000	2.89	-0.61	4.23	2.53	MFR(AMF)-AB-220815-01#
Face (851-869MHz)									
PMAF4010A	PMNN4810A	Radio @ front 2.5cm	None	851.0000	2.93	-0.48	1.93	**1.10**	BL-FACE-220805-01#
				860.0000	2.85	-0.58	1.52	0.91	FZ-FACE-220805-08
				869.0000	2.85	-0.44	1.57	0.91	FZ-FACE-220805-09

Table 60

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 (896-901MHz)									
PMAF4010A	PMNN4809A	HLN6602A	None	896.0000	3.00	-0.60	6.21	3.57	BL-AB-220807-15
				898.5000	2.95	-0.69	6.26	3.73	BL-AB-220807-06#
				901.0000	3.00	-0.60	6.74	**3.87**	BL-AB-220807-16
Face (896-901MHz)									
PMAF4010A	PMNN4807A	Radio @ front 2.5cm	None	896.0000	2.88	-0.64	1.67	1.01	MFR(AMF)-FACE-220807-13
				898.5000	2.81	-0.52	1.70	1.02	MFR(AMF)-FACE-220807-10
				901.0000	2.85	-0.43	2.52	**1.46**	FZ-FACE-220917-02

Table 61

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 (935-940MHz)									
PMAF4010A	PMNN4807A	HLN6602A	None	935.0000	2.83	-0.65	3.98	**2.45**	MFR(AMF)-AB-220820-14
				937.5000	2.85	-0.86	3.30	2.12	MFR(AMF)-AB-220820-11
				940.0000	2.85	-0.93	3.36	2.19	MFR(AMF)-AB-220820-13
Face (935-940MHz)									
PMAF4010A	PMNN4810A	Radio @ front 2.5cm	None	935.0000	2.73	-0.47	1.45	**0.89**	BL-FACE-220812-07
				937.5000	2.79	-0.53	1.30	0.79	MFR(AMF)-FACE-220813-01#
				940.0000	2.72	-0.46	1.27	0.78	MFR(AMF)-FACE-220813-02#

13.10 System Verification for WLAN

System verification checks were conducted each day during the SAR assessment. The results are normalized to 1W. Appendix C includes DASY plots for each day during the SAR assessment. The Table below summarizes the daily system check results used for the SAR assessment.

Table 62

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
7594	IEEE/IEC Head	SPEAG D2450V2/781	52.70 ± 10%	12.80	51.20	08/02/2022#
				1.54	48.73	08/03/2022#
				12.80	51.20	08/12/2022
		SPEAG D5GHzV2_ 5250MHz / 1022	81.30 ± 10%	2.42	76.58	08/08/2022#
		SPEAG D5GHzV2_ 5600MHz / 1022	83.10 ± 10%	2.61	82.59	08/08/2022#
				2.71	85.76	08/09/2022#
				2.65	83.86	08/16/2022
		SPEAG D5GHzV2_ 5750MHz / 1022	81.50 ± 10%	7.82	78.20	08/11/2022
7485	IEEE/IEC Head	SPEAG D5GHzV2_ 5750MHz / 1022	81.50 ± 10%	2.37	75.00	09/22/2022

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

13.11 Equivalent Tissue Test Results for WLAN

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 (refer Part 1). The Table below summarizes the measured tissue parameters used for the SAR assessment.

Table 63

Frequency (MHz)	Tissue Type	Conductivity Target (S/m)	Dielectric Constant Target	Conductivity Meas. (S/m)	Dielectric Constant Meas.	Tested Date
2412	IEEE/ IEC Head	1.77 (1.68-1.86)	39.3 (35.3-43.2)	1.68	39.1	08/02/2022#
				1.75	38.7	08/03/2022
2437		1.79 (1.70-1.88)	39.2 (35.3-43.1)	1.77	38.7	08/03/2022#
				1.71	39.0	08/12/2022
2450		1.80 (1.72-1.89)	39.2 (35.3-43.1)	1.71	30.0	08/02/2022#
				1.78	38.7	08/03/2022#
				1.72	39.0	08/12/2022
2462		1.81 (1.72-1.90)	39.2 (35.3-43.1)	1.79	38.6	08/03/2022#
				1.74	38.9	08/12/2022

Table 63 (Continued)

Frequency (MHz)	Tissue Type	Conductivity Target (S/m)	Dielectric Constant Target	Conductivity Meas. (S/m)	Dielectric Constant Meas.	Tested Date
5250	IEEE/ IEC Head	4.71 (4.24-5.18)	36.0 (32.4-39.5)	4.32	36.8	08/08/2022#
5260		4.72 (4.25-5.19)	35.9 (32.3-39.5)	4.33	36.7	08/08/2022#
5300		4.76 (4.28-5.24)	35.9 (32.3-39.5)	4.39	36.7	08/08/2022#
5320		4.78 (4.30-5.26)	35.9 (32.0-39.5)	4.39	36.6	08/08/2022#
5500		4.97 (4.47-5.46)	35.7 (32.1-39.2)	4.58	36.3	08/08/2022#
				4.71	34.3	08/09/2022#
5560		5.03 (4.53-5.53)	35.6 (32.0-39.1)	4.65	36.2	08/08/2022#
				4.78	34.2	08/09/2022#
5600		5.07 (4.56-5.58)	35.5 (32.0-39.1)	4.69	3.61	08/08/2022#
				4.82	34.2	08/09/2022#
				4.73	36.0	08/16/2022
5640		5.11 (4.60-5.62)	35.5 (31.9-39.0)	4.86	34.1	08/09/2022#
				4.78	35.9	08/16/2022
5660		5.13 (4.62-5.64)	35.4 (31.9-39.0)	4.69	34.9	08/11/2022
5745		5.22 (4.69-5.74)	35.4 (31.8-38.9)	4.78	34.7	08/11/2022
				4.78	32.0	09/22/2022
5750		5.22 (4.70-5.74)	35.4 (31.8-38.9)	4.79	34.7	08/11/2022
				4.79	32.0	09/22/2022
5825		5.30 (4.77-5.83)	35.3 (31.7-38.8)	4.87	34.6	08/11/2022

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

13.12 DUT Test Data for WLAN

System verification checks were conducted each day during the SAR assessment. The results are normalized to 1W. Appendix C includes DASY plots for each day during the SAR assessment. The Table below summarizes the daily system check results used for the SAR assessment.

a. For 2.4GHz 802.11 g/n SAR testing is not required when then highest reported SAR for DSSS is adjusted by ratio of OFDM to DSSS specified maximum output power and adjusted SAR is ≤1.2 W/kg.

b. U-NII-1 SAR testing not required when U-NII-2A band highest reported SAR for a test configuration is ≤1.2 W/kg.

c. For all positions/configurations, when reported SAR is >0.8W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤1.2 W/kg or all required test positions/configurations are tested.

13.13 Assessment for WLAN 2.4GHz (802.11b/g/n) for FCC and ISED, Canada

Output Power Data

These power measurements were used to determine the necessary modes for SAR testing according to KDB 248227.

Table 64

Band	802.11	Ch. BW	Ch.	Freq. (MHz)	Measured conducted power (W)
2.4 GHz	b	20	1	2412	0.0229
			6	2437	0.0226
			11	2462	0.0216
	g	20	1	2412	0.0220
			6	2437	0.0217
			11	2462	0.0208
	n	20	1	2412	0.0234
			6	2437	0.0231
			11	2462	0.0222

Table below indicated the SAR results that have performed based on previous highest configurations and across the frequencies bands. SAR plots of the highest results per Table (bolded) are presented in the Appendix E.

Table 65

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									
AN000389A01	PMNN4807A	HLN6602A	None	2412.0000	0.023	-0.22	0.024	**0.035**	AR-AB-220803-13
				2437.0000	0.023	-0.08	0.022	0.032	MA-AB-220812-19
				2462.0000	0.022	-0.18	0.018	0.028	MA-AB-220812-20
Face									
AN000389A01	PMNN4807A	Radio @ front 2.5cm	None	2412.0000	0.023	-0.07	0.028	0.039	MA-FACE-220803-08#
				2437.0000	0.023	-0.04	0.031	**0.044**	MA-FACE-220804-05#
				2462.0000	0.022	-0.01	0.026	0.022	MA-FACE-220804-06#

13.14 Assessment for WLAN 5GHz (802.11a/n/ac) for FCC and ISED, Canada

Output Power Data

These power measurements were used to determine the necessary modes for SAR testing according to KDB 248227.

Table 66

Band	802.11	Ch. BW	Ch.	Freq. (MHz)	Measured conducted power (W)
U-NII-1 (5.15-5.25GHz)	a	20	36	5180	0.0467
			40	5200	0.0473
			44	5220	0.0481
			48	5240	0.0468
	n	20	36	5180	0.0489
			40	5200	0.0495
			44	5220	0.0504
			48	5240	0.0490
	ac	20	36	5180	0.0488
			40	5200	0.0495
			44	5220	0.0502
			48	5240	0.0488
U-NII-2A (5.25-5.35GHz)	a	20	52	5260	0.0452
			56	5280	0.0439
			60	5300	0.0457
			64	5320	0.0352
	n	20	52	5260	0.0471
			56	5280	0.0457
			60	5300	0.0479
			64	5320	0.0367
	ac	20	52	5260	0.0470
			56	5280	0.0457
			60	5300	0.0479
			64	5320	0.0366
U-NII-2C (5.47-5.65 GHz)	a	20	100	5500	0.0151
			112	5560	0.0234
			116	5580	0.0227
			128	5640	0.0234
	n	20	100	5500	0.0158
			112	5560	0.0246
			116	5580	0.0238
			128	5640	0.0245
	ac	20	100	5500	0.0159
			112	5560	0.0246
			116	5580	0.0238
			128	5640	0.0245

Table 66 (Continued)

Band	802.11	Ch. BW	Ch.	Freq. (MHz)	Measured conducted power (W)
U-NII-3 (5.65-5.85 GHz)	a	20	132	5660	0.0227
			149	5745	0.0251
			165	5825	0.0232
	n	20	132	5660	0.0238
			149	5745	0.0232
			165	5825	0.0243
	ac	20	132	5660	0.0238
			149	5745	0.0262
			165	5825	0.0243

Table below indicated the SAR results that have performed based on previous highest configurations and across the frequencies bands. SAR plots of the highest results per Table (bolded) are presented in the Appendix E.

Assessments at the Body U-NII-2A (5.25-5.35GHz)

Table 67

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#
Spot check – Body Configuration									
AN000389A01	PMNN4807A	HLN6602A	None	5260.0000	0.046	-0.09	0.082	**0.119**	AR-AB-220809-01#
				5300.0000	0.047	-0.03	0.069	0.096	AR-AB-220809-03#
				5320.0000	0.036	0.08	0.049	0.089	AR-AB-220809-05#
Spot check – Face Configuration									
AN000389A01	PMNN4808A	Radio @ front 2.5cm	None	5260.0000	0.046	-1.97*	0.047	**0.105**	MA-FACE-220809-08#
				5300.0000	0.047	-1.17*	0.050	0.092	MA-FACE-220809-10#
				5320.0000	0.036	-0.27	0.049	0.095	MA-FACE-220809-12#

Note: * Measured SAR value is low enough where a SAR drift measurement was not practical

Assessments at the Body U-NII-2C (5.47-5.65GHz)

Table 68

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									
AN000389A01	PMNN4809A	HLN6602A	None	5500.0000	0.016	-0.84*	0.026	0.041	MA-AB-220809-16#
				5560.0000	0.025	0.37	0.038	0.049	MA-AB-220809-19#
				5640.0000	0.025	-1.11*	0.041	**0.068**	AM-AB-220816-19
Face									
AN000389A01	PMNN4808A	Radio @ front 2.5cm	None	5500.0000	0.016	-3.92*	0.010	0.032	AR-FACE-220810-04#
				5560.0000	0.025	-0.50	0.034	0.050	AR-FACE-220810-07#
				5640.0000	0.025	-0.57*	0.037	**0.055**	AR-FACE-220810-09#

Note: * Measured SAR value is low enough where a SAR drift measurement was not practical

Assessments at the Body U-NII-3 (5.65-5.85 GHz)

Table 69

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									
AN000389A01	PMNN4807A	HLN6602A	None	5660.0000	0.024	-0.18	0.035	0.049	AM-AB-220811-11
				5745.0000	0.027	-2.52*	0.027	**0.059**	AM-AB-220811-14
				5825.0000	0.025	6.82*	0.026	0.034	AM-AB-220811-15
Face									
AN000389A01	PMNN4810A	Radio @ front 2.5cm	None	5660.0000	0.024	0.24	0.029	0.039	AR-FACE-220811-06
				5745.0000	0.025	0.44	0.059	**0.077**	BL-FACE-220922-09
				5825.0000	0.025	-2.05*	0.015	0.031	AR-FACE-220811-10

Note: * Measured SAR value is low enough where a SAR drift measurement was not practical

13.15 Assessment at the Bluetooth band

13.15.1 FCC Requirement

Per guidelines in KDB 447498 D04 Interim General RF Exposure Guidance v01, SAR-based thresholds are derived based on frequency, power and separation distance of the RF source.

The SAR-based exemption formula indicated below, applies for single fixed, mobile and portable RF sources with available maximum time-average power or effective radiated power (ERP), whichever is greater, or less than or equal to the threshold *P*th(mw) refer to Table B2.

*P*th (mW) = $ERP_{20cm}(\frac{d}{20})^{x}$ *for distance* $d \leq 20$ *cm*

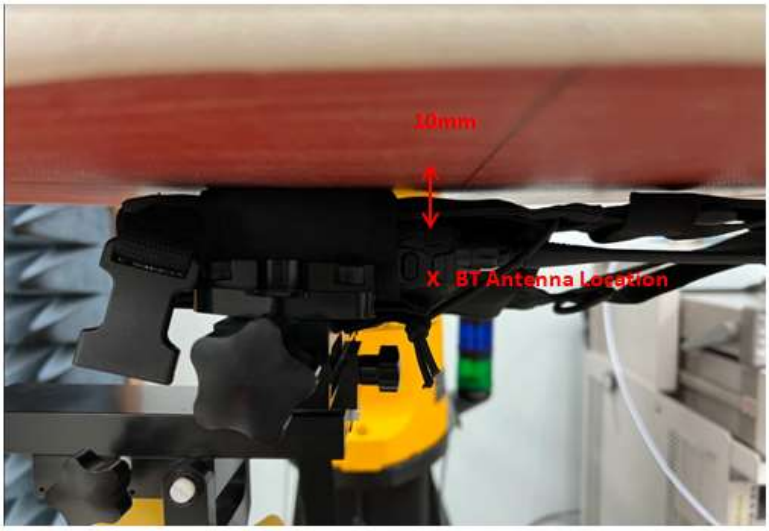
Where $x = -log10\left(\frac{60}{ERP_{20}\sqrt{f}}\right)$

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive).

Table B.2—Example Power Thresholds (mW)

Frequency (MHz)	Distance (mm)									
	5	10	15	20	25	30	35	40	45	50
300	39	65	88	110	129	148	166	184	201	217
450	22	44	67	89	112	135	158	180	203	226
835	9	25	44	66	90	116	145	175	207	240
1900	3	12	26	44	66	92	122	157	195	236
2450	3	10	22	38	59	83	111	143	179	219
3600	2	8	18	32	49	71	96	125	158	195
5800	1	6	14	25	40	58	80	106	136	169

The closest separation distance from the outer housing (location of the antenna will be indicated in Ex7B) to the phantom is 10mm with a universal Chest pack, as indicated in the picture below.



13.15.2 ISED Canada Requirement

Based on RSS-102 Issue 5, exemption limits for SAR evaluation for controlled devices at Bluetooth frequency band with separation distance ≤ 5 mm was 20 mW.

Standalone Bluetooth transmitter operates at maximum time-averaged power:
= 12.02 mW * 77%
= 9.2554 mW or 9.65 dBm

Equivalent isotropically radiated power (EIRP):
= Maximum conducted power, dBm + Antenna gain, dBi
= 9.65 dBm + (2.03 dBi)
= 11.68 dBm or 14.7 mW

Since the output power level, 16.6 mW is below the threshold power level of 20 mW, SAR test is not required for Bluetooth.

13.16 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 70

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#
PMAF4010A	PMNN4809A	HLN6602A	None	901.0000	3.00	-0.38	6.03	**3.29**	BL-AB-220813-15

14.0 Simultaneous Transmission

The Table below summarizes the simultaneous transmissions conditions for this device.

Table 71

Exposure Conditions	Item	Capable Simultaneous Transmit Configurations
Body-Worn	1	LMR + WLAN 2.4 GHz
	2	LMR + WLAN 5 GHz
	3	LMR + WLAN 2.4 GHz + BT
	4	LMR + WLAN 5 GHz + BT
Face	1	LMR + WLAN 2.4 GHz
	2	LMR + WLAN 5 GHz
	3	LMR + WLAN 2.4 GHz + BT
	4	LMR + WLAN 5 GHz + BT

WLAN 2.4 GHz and 5GHz share the same antenna, only one technology to transmit at a single time.

14.1 Simultaneous transmission exclusion for BT LE

Per guidelines in KDB 447498 D04 Interim General RF Exposure Guidance v01, SAR-based exemption may be considered for test exemption for portable device exposure conditions; therefore, the following formula was used to determine exemption for simultaneous transmission:

$$[(P_i / P_{th}) + (Evaluated_k / Exposure\ Limit_k)] = 0.64, \text{ which is} < 1$$

where:
the available maximum time-averaged power (P_i)
= 9.255 mW (12.02 mW * 77% duty cycle)

the exemption threshold power (Pth) according to Table B.2 in 13.10 = 59 mW

the maximum reported SAR portable RF source k in the device from an existing evaluation ($Evaluated_k$) = 1.69 W/kg

the occupational/controlled specific absorption rate (SAR) limit for portable sources ($Exposure\ Limit_k$) = 8 W/kg

Per the result from the calculation above, simultaneous exclusion is applied and therefore SAR results are not reported herein.

14.2 Simultaneous Transmission between LMR, WLAN 2.4GHz and WLAN 5GHz.

Table 72

Exposure condition	Sum of SAR (W/kg)				
	LMR	2.4GHz	5GHz	LMR + 2.4GHz	LMR + 5GHz
Body worn Exposure	3.87	0.035	0.119	3.91	3.99
Face Exposure	1.46	0.044	0.105	1.50	1.57

15.0 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 73

Designator	Frequency band (MHz)	Max Calc at Body (W/kg)	Max Calc at Face (W/kg)
		1g-SAR	1g-SAR
FCC US			
LMR	8/900 MHz	3.87	1.46
WLAN	2412-2462 MHz	0.035	0.044
	5180-5825 MHz	0.119	0.105
BT	2402-2485 MHz	NA	NA
Simultaneous Results		3.99	1.57
ISED Canada			
LMR	8/900 MHz	3.87	1.46
WLAN	2412-2462 MHz	0.035	0.044
	5180-5825 MHz	0.119	0.105
BT	2402-2485 MHz	NA	NA
Simultaneous Results		3.99	1.57
Overall			
LMR	8/900 MHz	3.87	1.46
WLAN	2412-2462 MHz	0.035	0.044
	5180-5825 MHz	0.119	0.105
BT	2402-2485 MHz	NA	NA
Simultaneous Results		3.99	1.57

All results are scaled to the maximum output power.

16.0 Variability Assessment

Per the guidelines in KDB 865664 SAR variability assessment is not required because SAR results are below 4.0W/kg (Occupational) and 0.8W/kg (General Population).

17.0 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 (Occupational) and 1.5W/kg (General Population).

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 Device Under Test, for 800 MHz to 3 GHz

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.**	***ci*** **(1 g)**	***ci*** **(10 g)**	**1 g** ***ui*** **(±%)**	**10 g** ***ui*** **(±%)**	***vi***
Measurement System									
Probe Calibration	E.2.1	6.0	N	1.00	1	1	6.0	6.0	∞
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				11	11	419
Expanded Uncertainty (95% CONFIDENCE LEVEL)			*k*=2				22	22	

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 3 to 6 GHz

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	7.0	N	1.00	1	1	7.0	7.0	∞
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	2.0	R	1.73	1	1	1.2	1.2	∞
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	1.0	R	1.73	1	1	0.6	0.6	∞
Probe Positioning w.r.t Phantom	E.6.3	4.0	R	1.73	1	1	2.3	2.3	∞
Max. SAR Evaluation (ext., int., avg.)	E.5	2.1	R	1.73	1	1	1.2	1.2	∞
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	∞
Dielectric Parameter Correction	--	1.4	N	1.00	1	0.79	1.4	1.1	∞
Liquid Conductivity (measurement)	E.3.3	3.3	N	1.00	0.64	0.43	2.1	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	12	504
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

Uncertainty Budget for System Validation (dipole & flat phantom) for 800 MHz to 3 GHz

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	6.0	N	1.00	1	1	6.0	6.0	∞
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				9	9	99999
Expanded Uncertainty (95% CONFIDENCE LEVEL)			*k*=2				18	17	

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 System Validation (dipole & flat phantom) for 3 to 6 GHz

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	7.0	N	1.00	1	1	7.0	7.0	∞
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	2.0	R	1.73	1	1	1.2	1.2	∞
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	1.0	R	1.73	1	1	0.6	0.6	∞
Probe Positioning w.r.t. Phantom	E.6.3	4.0	R	1.73	1	1	2.3	2.3	∞
Max. SAR Evaluation (ext., int., avg.)	E.5	2.1	R	1.73	1	1	1.2	1.2	∞
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	∞
Dielectric Parameter Correction	--	1.4	N	1.00	1	0.79	1.4	1.1	∞
Liquid Conductivity (measurement)	E.3.3	3.3	R	1.73	0.64	0.43	1.2	0.8	∞
Liquid Permittivity (measurement)	E.3.3	1.9	R	1.73	0.6	0.49	0.6	0.5	∞
Combined Standard Uncertainty			RSS				10	10	99999
Expanded Uncertainty (95% CONFIDENCE LEVEL)			*k*=2				19	19	

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