

 MOTOROLA SOLUTIONS	    SMM 826 CERTIFICATE 2518.05																																														
SAR TEST REPORT (PCII)																																															
Motorola Solutions Inc. EME Test Laboratory Motorola Solutions Malaysia Sdn Bhd Plot 2A, Medan Bayan Lepas, Mukim 12 SWD 11900 Bayan Lepas Penang, Malaysia.	Date of Report: 08/02/2026 Report Revision: A																																														
<table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">Responsible Engineer:</td> <td>Alfred Hoe Kean Loon / Yeng Yee Yeong (EME Engineer)</td> </tr> <tr> <td>Report Author:</td> <td>Yeng Yee Yeong (EME Engineer)</td> </tr> <tr> <td>Date/s Tested:</td> <td>06/29/2026-06/30/2026, 07/01/2026-07/24/2026</td> </tr> <tr> <td>Test Location:</td> <td>Penang EME Laboratory</td> </tr> <tr> <td>Manufacturer:</td> <td>Motorola Solutions INC. (Plantation)</td> </tr> <tr> <td>Manufacturer Location:</td> <td>8000 West Sunrise Blv d MD 41-128, USA Plantation FL 333222-9947</td> </tr> <tr> <td>Hardware Receive Date:</td> <td>04/30/2026</td> </tr> <tr> <td>DUT Description:</td> <td>Handheld Portable – APX NEXT XE, IMPACT GREEN, REFRESH ALL BAND MODEL 4.5 PORTABLE; APX NEXT REFRESH ALL BAND MODEL 4.5 PORTABLE</td> </tr> <tr> <td>Test TX mode(s):</td> <td>CW (PTT), BT/BTLE, WLAN 2.4GHz, 5GHz, 6/6E, LTE, 5G NR</td> </tr> <tr> <td>Max. Power output:</td> <td>Refer Table 4</td> </tr> <tr> <td>Tx Frequency Bands:</td> <td>Refer Table 4</td> </tr> <tr> <td>Signaling type:</td> <td>Refer Table 4</td> </tr> <tr> <td>Model(s) Tested:</td> <td>H55TGT9PW8BN</td> </tr> <tr> <td>Model(s) Certified:</td> <td>Refer 1.0 Introduction</td> </tr> <tr> <td>(HVIN/PMN)</td> <td></td> </tr> <tr> <td>Serial Number(s):</td> <td>437ZCC3326, 437ZCC3325, 437ZCC3309, 437ZCC3308</td> </tr> <tr> <td>Classification:</td> <td>Occupational/Controlled Environment</td> </tr> <tr> <td>Applicant Name:</td> <td>Motorola Solutions Inc.</td> </tr> <tr> <td>Applicant Address:</td> <td>Plot 2A, Medan Bayan Lepas Mukim, 12 SWD, 11900 Bayan Lepas, Penang, Malaysia</td> </tr> <tr> <td>Firmware Version (FVIN):</td> <td>APX NEXT XE (D38.01.26); APX NEXT (R37.10.00)</td> </tr> <tr> <td>FCC ID:</td> <td>AZ489FT7184</td> </tr> <tr> <td></td> <td>This report contains results that are immaterial for FCC equipment approval, which are clearly identified.</td> </tr> <tr> <td>FCC Test Firm Registration Number:</td> <td>823256</td> </tr> </table> The test results clearly demonstrate compliance with Occupational/Controlled RF Exposure limits of 8 W/kg averaged over 1 gram per the requirements of FCC 47 CFR § 2.1093 Based on the information and the testing results provided herein, the undersigned certifies that when used as stated in the operating instructions supplied, said product complies with the national and international reference standards and guidelines listed in section 4.0 of this report (no deviation from standard methods). This report shall not be reproduced without written approval from an officially designated representative of the Motorola Solutions Inc EME Laboratory. I attest to the accuracy of the data and assume full responsibility for the completeness of these measurements. The results and statements contained in this report pertain only to the device(s) evaluated.  Saw Sun Hock (Approval Signatory) Approved Date: 08/03/2026		Responsible Engineer:	Alfred Hoe Kean Loon / Yeng Yee Yeong (EME Engineer)	Report Author:	Yeng Yee Yeong (EME Engineer)	Date/s Tested:	06/29/2026-06/30/2026, 07/01/2026-07/24/2026	Test Location:	Penang EME Laboratory	Manufacturer:	Motorola Solutions INC. (Plantation)	Manufacturer Location:	8000 West Sunrise Blv d MD 41-128, USA Plantation FL 333222-9947	Hardware Receive Date:	04/30/2026	DUT Description:	Handheld Portable – APX NEXT XE, IMPACT GREEN, REFRESH ALL BAND MODEL 4.5 PORTABLE; APX NEXT REFRESH ALL BAND MODEL 4.5 PORTABLE	Test TX mode(s):	CW (PTT), BT/BTLE, WLAN 2.4GHz, 5GHz, 6/6E, LTE, 5G NR	Max. Power output:	Refer Table 4	Tx Frequency Bands:	Refer Table 4	Signaling type:	Refer Table 4	Model(s) Tested:	H55TGT9PW8BN	Model(s) Certified:	Refer 1.0 Introduction	(HVIN/PMN)		Serial Number(s):	437ZCC3326, 437ZCC3325, 437ZCC3309, 437ZCC3308	Classification:	Occupational/Controlled Environment	Applicant Name:	Motorola Solutions Inc.	Applicant Address:	Plot 2A, Medan Bayan Lepas Mukim, 12 SWD, 11900 Bayan Lepas, Penang, Malaysia	Firmware Version (FVIN):	APX NEXT XE (D38.01.26); APX NEXT (R37.10.00)	FCC ID:	AZ489FT7184		This report contains results that are immaterial for FCC equipment approval, which are clearly identified.	FCC Test Firm Registration Number:	823256
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EX7b

APPENDICES

DUT Test Position Photos

DUT, Body worn and audio accessories Photos

Report Revision History

Date	Revision	Comments
08/02/2026	A	Initial release

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 H55TGT9PW8BN. The information herein is to show evidence of Permissive Change compliance for Qorvo RF PA replacement at the BP Board where only the LMR section will be impacted.

These devices are classify as Occupational/Controlled as below:

Models	Hardware Version ID Number (HVIN)	Product Marketing Name (PMN)	Description
H55TGT9PW8BN	NUW4100A	APX NEXT XE	APX NEXT XE, IMPACT GREEN, REFRESH ALL BAND MODEL 4.5 PORTABLE
H55TGT9PW8BN	NUW4101A	APX NEXT XE	APX NEXT XE, BLACK, REFRESH ALL BAND MODEL 4.5 PORTABLE
H55TGT9PW8BN	H55TGT9PW8BN	APX NEXT	APX NEXT REFRESH ALL BAND MODEL 4.5 PORTABLE

2.0 FCC SAR Summary

Table 1

Equipment Class	Frequency band (MHz)	Max Calc at Body (W/kg)	Max Calc at Face (W/kg)
		1g-SAR	1g-SAR
TNF	150.8-173.4	0.97	0.66 ⁽²⁾
	406.125-512	7.04 ⁽¹⁾	5.06 ⁽³⁾
	769-775	4.31	2.59
	799-824	5.72	2.79
	851-869	4.94	3.06
PCF	LTE B5	0.242	0.214
	LTE B12	0.071	0.110
	LTE B13	0.166	0.132
	LTE B14	0.084	0.142
	LTE B25	0.069	0.448
	LTE B66	0.079	0.331
	LTE B71	0.056	0.106
DTS	2412 – 2462 MHz (WLAN 2.4 GHz)	0.043	0.284
NII	5180 – 5825 MHz (WLAN 5 GHz)	0.048	0.370
6CD	5955 – 7115 (WLAN 6/6E)	0.014	0.144
PCF	5G NR N2	0.080	0.392
	5G NR N5	0.242	0.225
	5G NR N25	0.073	0.380
	5G NR N41	0.016	0.097
	5G NR N66	0.074	0.268
	5G NR N71	0.063	0.089
	5G NR N77 Part27Q	0.027	0.061
	5G NR N77 Part27O	0.011	0.052
*DSS	2402-2480MHz (Bluetooth)	NA	NA
**DXX	NFC 13.56MHz	NA	NA
Highest Simultaneous Transmission SAR		7.33 ⁽⁴⁾	5.12 ⁽⁵⁾
Equipment Class	Frequency band (MHz)	Reported APD (W/m ²)	Reported iPD (W/m ²)
6CD	5955 – 7115 (WLAN 6/6E)	NA	2.174

Notes:

⁽¹⁾ The new highest SAR result for the body is 7.04 W/kg, compared with the previously filed SAR result of 6.80 W/kg.

⁽²⁾ The new highest SAR result for Face is 0.66 W/kg, compared to the previously filed SAR result of 0.61 W/kg.

⁽³⁾ The new highest SAR result for Face is 5.06 W/kg compared with previous on filed SAR result of 4.97 W/kg.

⁽⁴⁾ The new highest simultaneous transmission SAR result for the body is 7.33 W/kg, compared to the previously filed SAR result of 6.98 W/kg.

⁽⁵⁾ The new highest simultaneous transmission SAR result for the face is 5.12 W/kg, compared to the previously filed SAR result of 5.02 W/kg.

3.0 Abbreviations / Definitions

BT:	Bluetooth
CNR:	Calibration Not Required
CW:	Continuous Wave
DSSS:	Direct Sequence Spread Spectrum
DUT:	Device Under Test
DTS:	Digital Transmission System
DXX:	Part 15 Low Power Communication Device Transmitter
EME:	Electromagnetic Energy
FHSS:	Frequency Hopping Spread Spectrum
FM:	Frequency Modulation
GFSK:	Gaussian Frequency-Shift Keying
LMR:	Land Mobile Radio
LTE:	Long Term Evolution
NA:	Not Applicable
OFDM:	Orthogonal Frequency Division Multiplexing
PTT:	Push to Talk
PCF:	PCS Licensed Transmitter Held to Face
PI2BPSK:	$\pi/2$ Binary Phase-Shift Keying
QPSK:	Quadrature Pulse Shift Key
RB:	Resource Blocks
RSM:	Remote Speaker Microphone
SAR:	Specific Absorption Rate
TNF:	Licensed Non-Broadcast Transmitter Held to Face
16QAM:	16 State Quadrature Amplitude Modulation
NFC:	Near Field Communication
SP:	Standard Power
LPI:	Low Power Indoor

Audio accessories: These accessories allow communication while the DUT is worn on the body.

Body worn accessories: These accessories allow the DUT to be worn on the body of the user.

Maximum Power: Defined as the upper limit of the production line final test station

4.0 Referenced Standards and Guidelines

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

- Federal Communications Commission, “Evaluating Compliance with FCC Guidelines for Human Exposure to Radio frequency Electromagnetic Fields”, OET Bulletin 65, FCC, Washington, D.C.: 1997.
- Institute of Electrical and Electronics Engineers (IEEE) C95.1-2019
- Ministry of Health (Canada) Safety Code 6 (2015), Limits of Human Exposure to Radio frequency Electromagnetic Fields in the Frequency Range from 3 kHz to 300 GHz
- RSS-102 (Issue 6)–Radio Frequency (RF) Exposure Compliance of Radio communication Apparatus (All Frequency Bands)
- ANATEL, Brazil Regulatory Authority, Resolution No 700 of September 28, 2018 “Approves the Regulation on the Assessment of Human Exposure to Electric, Magnetic and Electromagnetic Fields Associated with the Operation of Radio communication Transmitting Stations.
- IEC/IEEE 62209-1528-2020-Measurement procedure for the assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Part 1528: Human models, instrumentation, and procedures (Frequency range of 4 MHz to 10 GHz)
- IEC 62479:2010 Assessment of the compliance of low power electronic and electrical equipment with the basic restrictions related to human exposure to electromagnetic field (10 MHz to 300 GHz)
- FCC KDB – 643646 D01 SAR Test for PTT Radios v01r03
- FCC KDB – 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
- FCC KDB – 865664 D02 RF Exposure Reporting v01r02
- FCC KDB – 447498 D01 General RF Exposure Guidance v06
- FCC KDB – 941225 D05 SAR for LTE Devices v02r05
- FCC KDB – 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB – 648474 D04 Handset SAR v01r03
- TCB Workshop Notes – November 2017, October 2018, October 2020 & April 2021.

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

Table 3 (FCC-iPD)

Freq range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging time (minutes)
(Occupational /Controlled Exposure Environment)				
0.3-3.0	614	1.63	*(100)	<6
3.0-30	1842/f	4.89/f	*(900/f ²)	<6
30-300	61.4	0.163	1.0	<6
300-1500	-	-	f/300	<6
1500-10000	-	-	5	<6
(General Population /Uncontrolled Exposure Environment)				
0.3-3.0	614	1.63	*(100)	<30
3.0-30	824/f	2.19/f	*(180/f ²)	<30
30-300	27.5	0.073	1.0	<30
300-1500	-	-	f/1500	<30
1500-10000	-	-	1.0	<30

f = frequency in MHz, * = Plane-wave equivalent power density

W/cm² = 10*(mW/cm²)

6.0 Description of Device Under Test (DUT)

This portable device operates in the LMR bands using either frequency modulation (FM) with 100% transmit duty cycle or TDMA signals with maximum of 50% transmit duty cycle. For conservative assessment, FM signal was tested. This device also contains WLAN, LTE and 5G NR technologies for data applications and Bluetooth technology for short range wireless devices.

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

This device also incorporates GFSK Bluetooth transmission 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.

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 4

Technologies	Band (MHz)	Transmission	Duty Cycle (%)	Conducted (Average Detector) Maximum Power (W)
LMR	136-174	FM	*50	6.60
	380-520	FM	*50	5.70
	762-776; 792-806	FM	*50	2.99
	806-825; 851-870	FM	*50	3.60
LTE Band 2	1850-1910	QPSK, 16QAM	100	251.19 mW
LTE Band 4	1710-1755		100	
LTE Band 5	824 - 849		100	
LTE Band 12	699-716		100	
LTE Band 13	777-787		100	
LTE Band 14	788-798		100	
LTE Band 17	704 -716		100	
LTE Band 25	1850 - 1915		100	
LTE Band 66	1710 - 1780		100	
LTE Band 71	663 - 698		100	
5G NR N2	1850 - 1910	Pi/2BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM	100	251.19 mW
5G NR N5	824 - 849		100	
5G NR N25	1850 - 1915		100	
5G NR N41	2496 - 2690		100	
5G NR N66	1710 - 1780		100	
5G NR N71	663 - 698		100	
5G NR N77	3300 - 4200		100	
5G NR N78	3300 - 3800		100	
NFC	13.56	NFC	10	200 mW
BT 1.5	2402 - 2480	GFSK	77.26	89.2 mW
BT LE 4.0	2402 - 2480	GFSK	62.68	7.94 mW
BT LE 5.0	2402 - 2480	GFSK	33.13	7.94 mW

Notes: * includes 50% PTT operation

Table 4 (Continued)

Technologies	Band (MHz)	Transmission	Duty Cycle (%)	Conducted (Average Detector) Maximum Power (W)		
				Ant 0	Ant 1	Ant 0 + 1 (MIMO)
WLAN 802.11 b (22 MHz)	2412-2462	DSSS	99.2	89.13mw	89.13mw	177.83 mW
WLAN 802.11 g (20 MHz)		OFDM	94.9	70.79mW	70.79mW	141.25 mW
WLAN 802.11 n (20 MHz)			94.36	70.79mW	70.79mW	141.25 mW
WLAN 802.11 n (40 MHz)			89.08	70.79mW	70.79mW	141.25 mW
WLAN 802.11 ax (20 MHz)			90	Ch1-70.79mW, Ch6-89.13mw, Ch11-50.12mw	Ch1,6-70.79mW, Ch11-50.12mw	Others - 158.49mW, Ch1-141.25mW, Ch11-100mw
WLAN 802.11 ax (40 MHz)			90	70.79mW	70.79mW	141.25 mW
WLAN 802.11 a (20 MHz)	5180-5825	OFDM	100	Others - 44.67mW, Ch157,165 - 39.81mW Ch52,56,60,64 - 35.48mW, Ch36,40,44,48 - 31.62mW	Others - 44.67mW, Ch36,40,44,48,157,165 - 39.81mW	Others - 89.13mW Ch36,40,44,48 - 70.79mW, Ch52,56,60,64,157,165 - 79.43mw,
WLAN 802.11n (20 MHz)				Others - 39.81mW, Ch36,40,52,56,60,64,165 - 31.62mW, Ch44,48 - 28.18mW	Others - 39.81mW, Ch52,56,60,64,100,120,144,149,157,165 - 31.62mW, Ch44, 48 - 28.18mW	Others - 79.43mw, Ch44,48 - 56.23mW, Ch36,40 - 63.10mW, Ch52,56,60,64,165 - 70.79mW
WLAN 802.11n (40 MHz)				Others - 39.81mW, Ch151,159 - 35.48mW, Ch46,54 - 31.62mW, Ch38 - 22.39mW, Ch102 - 19.95mW, Ch62 - 12.59mW	Others - 39.81mW, Ch151,159 - 35.48mW, Ch46,54 - 31.62mW, Ch38 - 22.39mW, Ch102 - 15.85mW, Ch62 - 12.59mW	Others - 79.43mw, Ch62 - 25.12mW, Ch102 - 35.48mW, Ch38 - 44.67mW, Ch46 - 63.10mW, Ch54,151,159 - 70.79mW
WLAN 802.11ac (20 MHz)				Others - 39.81mW, Ch36,40,52,56,60,64,165 - 31.62mW, Ch44,48 - 28.18mW	Others - 39.81mW, Ch52,56,60,64,100,120,144,149,157,165 - 31.62mW, Ch44, 48 - 28.18mW	Others - 79.43mw, Ch44,48 - 56.23mW, Ch36,40 - 63.10mW, Ch52,56,60,64,165 - 70.79mW
WLAN 802.11ac (40 MHz)				Others - 39.81mW, Ch151,159 - 35.48mW, Ch46,54 - 31.62mW, Ch38 - 22.39mW, Ch102 - 19.95mW, Ch62 - 12.59mW	Others - 39.81mW, Ch151,159 - 35.48mW, Ch46,54 - 31.62mW, Ch38 - 22.39mW, Ch102 - 15.85mW, Ch62 - 12.59mW	Others - 79.43mw, Ch62 - 25.12mW, Ch102 - 35.48mW, Ch38 - 44.67mW, Ch46 - 63.10mW, Ch54,151,159 - 70.79mW
WLAN 802.11ac (80 MHz)				Others - 31.62mW, Ch42 - 19.95mW, Ch106 - 15.85mW, Ch58 - 12.59mW	Others - 31.62mW, Ch42 - 19.95mW, Ch58,106 - 12.59mW	Others - 63.10mW, Ch58 - 25.12mW, Ch106 - 28.18mW, Ch42 - 39.81mW
WLAN 802.11ac (160 MHz)				Ch114 - 25.12mW, Ch50 - 22.39mW	Ch50- 28.18mW, Ch114 - 25.12mW	22.39mW
WLAN 802.11 ax (20 MHz)				Others - 35.48mW, Ch36,40,44,48,52,56,60 - 31.62mW, Ch64 - 19.95mW	Ch120,144,149,157,165 - 35.48mW, Ch100 - 25.12mW, Ch64 - 19.95mW	Others - 70.79mW, Ch64 - 39.81mW, Ch100 - 56.23mW
WLAN 802.11 ax (40 MHz)				Others - 39.81mW, Ch159 - 31.62mW, Ch46,54 - 28.18mW, Ch38 - 25.12mW, Ch102 - 15.85mW, Ch62 -10mW	Others - 39.81mW, Ch46,54 - 28.18mW, Ch38 - 25.12mW, Ch102 - 15.85mW, Ch62 -10mW	Others - 79.43mW, Ch62 - 19.95mW, Ch102 - 31.62mW, Ch38 - 50.12mW. Ch46,54 - 63.10mW, Ch159 - 70.79mW
WLAN 802.11 ax (80 MHz)				Others - 31.62mW, Ch138 - 28.18mW, Ch42,106 - 25.12mW, Ch58 - 19.95mW	Others - 35.48mW, Ch42,122,155 - 31.62mW, Ch58,106 - 19.95mW	Others - 63.10mW, Ch58 -39.81mW, Ch106 - 44.67mW, Ch42 - 56.23mW
WLAN 802.11 ax (160 MHz)				Others - 11.22mW, Ch114 - 10mW	Others - 11.22mW, Ch114 - 10mW	Others - 22.39mW, Ch114 - 19.95mW

Table 4 (Continued)

Technologies	Band (MHz)	Transmission	Duty Cycle (%)	Conducted (Average Detector) Maximum Power (W)		
				Ant 0	Ant 1	Ant 0 + 1 (MIMO)
WLAN 802.11 a (20 MHz)	5955-7115	OFDMA	100	25.12mW(SP), 2mW(LPI)	25.12mW(SP), 2mW(LPI)	50.12mW (SP) Others - 6.31mW(LPI), Ch113, 233 - 3.98mW (LPI)
WLAN 802.11 ax (20 MHz)				25.12mW(SP), Ch233 - 5.01mW(LPI), Ch113 - 2.24mW(LPI)	25.12mW(SP), Ch233 - 5.01mW(LPI), Ch113 - 2.24mW(LPI)	50.12mW (SP) 5.01mW(LPI)
WLAN 802.11 ax (40 MHz)				25.12mW(SP), Ch107,227 - 3.98mW(LPI),	25.12mW(SP), Ch107 - 5.01mW(LPI), Ch227 - 3.98mW(LPI)	Others - 50.12mW, (SP), Ch171 - 39.81mW (SP), Others - 12.59mW(LPI), Ch107 - 8.91mW(LPI), Ch227 - 7.54mW(LPI)
WLAN 802.11 ax (80 MHz)				Others - 22.39mW(SP), Ch7 - 19.95mW(SP), Ch167 - 12.59mW(SP), Ch215 - 7.94mW(LPI), Ch119 - 6.31mW(LPI),	Others - 28.18mW(SP), Ch7 - 25.12mW(SP), Ch167 - 19.95mW(SP), Ch119 - 10mW(LPI), Ch215 - 7.94mW(LPI),	Others - 50.12mW(SP), Ch7,167 - 39.81mW(SP), Others - 19.95mW(LPI), Ch215 - 15.85mW(LPI)
WLAN 802.11 ax (160 MHz)				15.85mW(SP & LPI)	15.85mW(SP & LPI)	31.62mW(SP), Others - 39.81mW(LPI), Ch113,207 - 31.62mW(LPI)

Note: SP= Standard Power; LPI = Low Power Indoor

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

This device is offered with optional accessories. All accessories were individually evaluated during the test plan creation as per the guidelines outlined in section 4.0 to assess compliance of this device. The following sections identify the test criteria and details for each accessory category applicable for this filing only. Detail listing of all approved offered accessories available in the original filing report.

7.1 Antennas

Table 5

Antenna No.	Antenna Models	Description	Selected for test	Tested
1	AN000296A01	7/800 Stubby Antenna, 760 - 870 MHz, ¼ wave, -0.8 dBi gain	Yes	Yes
2	AN000297A01	All Band Whip Antenna, ¼ wave(VHF & UHF) & ½ wave(7/800), -0.6 dBi(UHF) gain	Yes	Yes
3	AN000369B02	UHF Stubby Antenna, ¼ wave, 0.86 dBi gain	Yes	Yes

7.2 Batteries

Table 6

Battery No.	Battery Models	Description	Selected for test	Tested	Comments
1	NNTN9217B	BATTERY PACK,BATTERY PACK,IMPRES GEN2, LIION,IP68, 4400T, UL2054 DIV 2	Yes	Yes	
2	PMNN4895A	BATTERY PACK,BATT IMPRES 2 LIION IP68 5800T	Yes	Yes	

7.3 Body worn Accessories

Table 7

Body worn No.	Body worn Models	Description	Selected for test	Tested	Comments
1	NTN8266B	2.5 inch Hard Plastic Belt Clip	Yes	Yes	Tested w/ PMLN8936A
2	RLN6488A	Boston Leather Anti-Sway Strap for Boston Leather Fireman's Radio Strap	Yes	Yes	Tested w/ PMLN8936A, PMLN8935A & AY000229A01
3	AY000229A01	Boston Leather Fireman's Radio Strap with button back holder - XL	Yes	Yes	Tested w/ PMLN8936A, PMLN8935A & RLN6488A
4	PMLN8936A	APX NEXT XE CLASSIC HOLSTER	Yes	Yes	Tested w/ AY000229A01 & RLN6488A
5	PMLN7947A	APX NEXT Classic Holster (Belt clip sold separately)	Yes	Yes	Paired with NTN8266B and PMLN7965B
6	PMLN8606A	APX NEXT UNIVERSAL MOUNT PLASTIC HOLSTER	Yes	Yes	Paired with NTN8266B
7	PMLN7948A	APX NEXT Hybrid Leather Carry Case with Standard Battery	Yes	Yes	Incompatible with battery PMNN4895A. Paired with NTN8266B and PMLN7965B

Notes: * Per KDB 643646 provision tests not required. For body-worn accessories with similar construction and operating configurations, test only the body-worn accessory within the group that is expected to result in the highest SAR.

7.4 Audio Accessories

Table 8

Audio No.	Audio Acc. Models	Description	Selected for test	Tested	Comments
1	PMMN4135B	XVP850 REMOTE SPEAKER MICROPHONE, WITH CHANNEL KNOB	Yes	Yes	
2	PMLN6129A	IMPRES 2 WIRE W/TRANS TUBE BLK	Yes	Yes	
3	BDN6783B	AUDIO ACCY ADPT 3.5MM W/PTT	Yes	Yes	Test with RLN5312B
4	RLN5312B	CMFRT EARPC W/MIC PTT BLK	Yes	Yes	Test with BDN6783B

8.0 Description of Test System

DASY5™ Test System



DASY8™ Test System



8.1 Descriptions of Robotics/Probes/Readout Electronics

Table 9

Dosimetric System type	System version	DAE type	Probe Type
Schmid & Partner Engineering AG SPEAG DASY 5	52.10.4.1527	DAE4	EX3DV4 (E-Field)
Schmid & Partner Engineering AG SPEAG DASY 8	V18.0.0.7250	DAE4	EX3DV4 (E-Field)

The DASY5™ and DASY8™ systems are operated per the instructions in the DASY5™ and DASY8™ User's Manual. The complete manual is available directly from SPEAG™. All measurement equipment used to assess SAR compliance was calibrated according to ISO/IEC 17025 A2LA guidelines. Section 9.0 presents additional test equipment information. Appendices B and C present the applicable calibration certificates.

8.2 Description of Phantom(s)

Table 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			

8.3 Description of Simulated Tissue

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

The simulated tissue mixture was mixed based on the Simulated Tissue Composition indicated in Table 11. 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	150 MHz	450 MHz	750 MHz	835 MHz
	Head	Head	Head	Head
Sugar	55.4	56.0	57.0	57.0
Diacetin	0	0	0	NA
De ionized-Water	38.35	39.1	40.12	40.45
Salt	5.15	3.8	1.78	1.45
HEC	1	1.0	1	1
Bact.	0.1	0.1	0.1	0.1

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	7511	07/23/2024	07/23/2027
SPEAG PROBE	EX3DV4	7940	01/23/2026	01/23/2029
SPEAG DAE	DAE4	1488	01/16/2024	01/16/2027
SPEAG DAE	DAE4	1598	05/13/2024	05/13/2027
POWER SOURCE	SE UMS 160 CB	4302	08/14/c2025	08/14/2026
POWER SOURCE	SE UMS 160 CA	4251	03/19/2026	03/19/2027
POWER AMPLIFIER	50W100D	0357646	CNR	CNR
AMPLIFIER	5S1G4	313326	CNR	CNR
VECTOR SIGNAL GENERATOR	E4438C	MY42081753	10/27/2025	10/27/2026
POWER METER	E4416A	MY54020002	10/16/2025	10/16/2026
POWER METER	E4416A	MY50001037	08/04/2025	08/04/2026
POWER SENSOR	E4412A	MY61060015	09/21/2025	09/21/2026
POWER SENSOR	E4412A	MY61020016	10/24/2025	10/24/2026
BI-DIRECTIONAL COUPLER	3022	81640	07/08/2025	07/08/2026*
BI-DIRECTIONAL COUPLER	3020A	41931	08/27/2025	08/27/2026
DATA LOGGER	DSB	16326831	12/18/2025	12/18/2026
DATA LOGGER	DSB	16326820	12/18/2025	12/18/2026
THERMOMETER	HH806AU	080307	08/29/2025	08/29/2026
TEMPERATURE PROBE	80PK-22	06032017	10/13/2025	10/13/2026
TEMPERATURE PROBE	80PK-22	05032017	01/24/2026	01/24/2027
NETWORK ANALYZER	E5071B	MY42403147	07/03/2025	07/03/2026*
NETWORK ANALYZER	E5071B	MY42403218	12/31/2025	12/31/2026
DATA LOGGER	DSB	16398050	10/13/2025	10/13/2026
THERMOMETER	HH202A	35881	01/24/2026	01/24/2027
DIELECTRIC ASSESSMENT KIT	DAK-3.5	1120	07/28/2025	07/28/2026
DIELECTRIC ASSESSMENT KIT	DAK-3.5	1156	03/30/2026	03/30/2027
SPEAG DIPOLE	CLA150	4010	07/16/2024	07/16/2027*
SPEAG DIPOLE	D450V3	1077	01/30/2025	01/30/2028
SPEAG DIPOLE	D750V3	1098	11/20/2024	11/20/2027
SPEAG DIPOLE	D835V2	4d029	04/24/2026	04/24/2029
SPEAG DIPOLE	D835V2	4d030	04/24/2026	04/24/2029
POWER METER	E4416A	GB41293218	08/04/2025	08/04/2026
POWER SENSOR	E9301B	MY50290001	10/14/2025	10/14/2026

Notes: * denotes Equipment used for test dates prior to equipment calibration due date.

10.0 SAR Measurement System Validation and Verification

Calibration certificates of the probes and dipoles are included in Appendix B & Appendix C of the report.

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								
09/09/2025	Head	150	7511	0.74	53.22	Pass	Pass	Pass
09/09/2025		450		0.84	43.78	Pass	Pass	Pass
09/05/2025		750		0.89	43.17	Pass	Pass	Pass
09/05/2025		835		0.90	42.94	Pass	Pass	Pass
03/07/2026		450	7940	0.89	42.61	Pass	Pass	Pass
03/07/2026		750		0.84	39.14	Pass	Pass	Pass
06/16/2026		835		0.91	38.67	Pass	Pass	Pass

10.2 System Verification

System check results and DASY plots for each day during the SAR assessment are included in Appendix of the report. System verification results are normalized to 1W. Appendix E includes DASY plots with the largest deviation from the qualified source SAR target for each dipole. The Table below summarizes the daily system check results used for the SAR assessment. 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	Deviation (%)
7511	IEEE/IEC Head	SPEAG CLA150 / 4010	3.59 ± 10%	3.88	3.88	06/30/2026@	8.1%
7511	IEEE/IEC Head	SPEAG D450V3 / 1077	4.53 ± 10%	1.21	4.84	06/29/2026@	6.8%
7940	IEEE/IEC Head		4.53 ± 10%	1.14	4.56	07/13/2026	0.7%
			4.53 ± 10%	1.08	4.32	07/14/2026@	-4.6%
			4.53 ± 10%	1.12	4.48	07/23/2026@	-1.1%
7511	IEEE/IEC Head	SPEAG D750V3 / 1098	8.52 ± 10%	0.27	8.54	07/01/2026@	0.3%
7940	IEEE/IEC Head	SPEAG D750V3 / 1142	8.56 ± 10%	0.26	8.20	07/23/2026	-4.2%
7940	IEEE/IEC Head	SPEAG D835V2 / 4d030	9.67 ± 10%	0.30	9.49	07/15/2026	-1.8%
7511	IEEE/IEC Head	SPEAG D835V2 / 4d029	9.63 ± 10%	2.23	8.92	07/02/2026@	-7.4%
			9.63 ± 10%	0.281	8.89	07/03/2026@	-7.7%

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

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
138.0000	IEEE/IEC Head	0.75 (0.71-0.79)	52.9 (50.2-55.5)	0.73	51.4	06/30/2026@
144.4000	IEEE/IEC Head	0.76 (0.72-0.79)	52.6 (49.9-55.2)	0.74	51.1	06/30/2026@
173.4000	IEEE/IEC Head	0.78 (0.74-0.82)	51.2 (48.6-53.8)	0.76	49.8	06/30/2026@
406.2000	IEEE/IEC Head	0.87 (0.83-0.91)	44 (41.8-46.2)	0.83	44.4	07/14/2026
423.0000	IEEE/IEC Head	0.87 (0.83-0.91)	43.8 (41.6-46.0)	0.86	43.5	06/29/2026
450.0125	IEEE/IEC Head	0.87 (0.83-0.91)	43.5 (41.3-45.7)	0.89	42.9	06/29/2026
				0.87	43.4	07/14/2026
459.1000	IEEE/IEC Head	0.87 (0.83-0.91)	43.5 (41.3-45.6)	0.90	42.8	06/29/2026@
				0.88	43.2	07/14/2026@
465.5000	IEEE/IEC Head	0.87 (0.83-0.91)	43.4 (41.2-45.6)	0.90	42.6	06/29/2026@
				0.88	43.7	07/13/2026
				0.88	41.6	07/23/2026@
769.9875	IEEE/IEC Head	0.89 (0.85-0.94)	41.8 (39.7-43.9)	0.81	38.6	07/15/2026
				0.90	43.5	07/01/2026
				0.84	42.4	07/23/2026
772.0000	IEEE/IEC Head	0.89 (0.85-0.94)	41.8 (39.7-43.9)	0.81	38.5	07/15/2026
774.0125	IEEE/IEC Head	0.89 (0.85-0.94)	41.8 (39.7-43.9)	0.81	38.5	07/15/2026
811.5000	IEEE/IEC Head	0.9 (0.81-0.99)	41.6 (37.4-45.8)	0.92	40.1	07/02/2026@
851.0125	IEEE/IEC Head	0.92 (0.87-0.96)	41.5 (39.4-43.6)	0.96	40.4	07/03/2026@
860.0000	IEEE/IEC Head	0.93 (0.88-0.97)	41.5 (39.4-43.6)	0.97	40.2	07/03/2026

Notes: '@' 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 $\pm 2^{\circ}\text{C}$ 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 – 23.1°C Avg. 22.4 °C
Tissue Temperature	18 – 25 °C	Range: 21.0 – 22.9°C Avg. 21.8°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	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5 \text{ mm}$
Maximum probe angle from probe axis to phantom surface normal at the measurement location		30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: Δx_{Area} , Δy_{Area}		$\leq 2 \text{ GHz: } \leq 15 \text{ mm}$ $2 - 3 \text{ GHz: } \leq 12 \text{ mm}$	$3 - 4 \text{ GHz: } \leq 12 \text{ mm}$ $4 - 6 \text{ GHz: } \leq 10 \text{ mm}$
		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: Δx_{Zoom} , Δy_{Zoom}		$\leq 2 \text{ GHz: } \leq 8 \text{ mm}$ $2 - 3 \text{ GHz: } \leq 5 \text{ mm}^*$	$3 - 4 \text{ GHz: } \leq 5 \text{ mm}^*$ $4 - 6 \text{ GHz: } \leq 4 \text{ mm}^*$
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{\text{Zoom}}(n)$	≤ 5 mm	$3 - 4 \text{ GHz: } \leq 4 \text{ mm}$ $4 - 5 \text{ GHz: } \leq 3 \text{ mm}$ $5 - 6 \text{ GHz: } \leq 2 \text{ mm}$
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 for LMR.

The Qorvo RF PA replacement is located at the BP Board where only the LMR section will be impacted. The AP Board remains unchanged. Therefore, SAR testing is not required for other technologies such as WLAN 2.4GHz, 5GHz, 6/6E, LTE & 5G NR and SAR results will be reused (refer to original filing).

12.3 DUT Positioning Procedures

The positioning of the device for each body location is described below and illustrated in Ex7b.

12.3.1 Body

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

12.3.2 Head

Not applicable.

12.3.3 Face

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

12.4 DUT Test Channels

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

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

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

$$Max_Calc = SAR_meas \cdot 10^{\frac{-Drift}{10}} \cdot \frac{P_max}{P_int} \cdot DC$$

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 DUT was assessed at the body and face using the highest applicable configuration found during initial compliance assessment on filed with the FCC. All modes of operation identified in section 6.0 were considered during the development of the test plan.

13.0 DUT Test Data

13.1 SAR Assessment for LMR VHF

13.1.1 Assessment at FCC for 150.8-173.4 MHz

Table 18

SAR Plot	Test Position	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)
1	Body	AN000297A01	NNTN9217B	PMLN7947A w/ NTN8266B	PMMN4135B	173.4000	6.59	-0.27	1.70	0.91
2	Face	AN000297A01	PMNN4895A	@ back	None	173.4000	6.58	-0.36	1.22	0.66

13.2 SAR Assessment for LMR UHF

13.2.1 Assessment at FCC for 406.125-512 MHz

Table 19

SAR Plot	Test Position	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)
3	Body	AN000369B02	NNTN9217B	PMLN8936A w/ AY000229A01 w/ RLN6488A	PMLN6129A	465.5000	5.69	-0.24	13.30	7.04
4	Face	AN000369B02	PMNN4895A	@ back	None	450.0125	5.65	-0.54	8.86	5.06

13.3 SAR Assessment for LMR 7/800

13.3.1 Assessment at FCC for 769-775 MHz

Table 20

SAR Plot	Test Position	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)
5	Body	AN000296A01	NNTN9217B	PMLN8936A w/ AY000229A01 w/ RLN6488A	None (BT)	769.9875	2.91	-0.14	7.76	4.12
6	Face	AN000296A01	NNTN9217B	@ back	None	769.9875	2.96	-0.32	4.02	2.19

13.3.2 Assessment at FCC for 799-824 MHz

Table 21

SAR Plot	Test Position	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)
7	Body	AN000296A01	NNTN9217B	PMLN8606A w/ NTN8266B	BDN6783B w/ RLN5312B	811.5000	3.56	-0.45	7.70	4.32
8	Face	AN000296A01	NNTN9217B	@ back	None	811.5000	3.55	-0.33	4.40	2.41

13.3.3 Assessment at FCC for 851-869 MHz

Table 22

SAR Plot	Test Position	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)
9	Body	AN000296A01	NNTN9217B	PMLN7948A w/ NTN8266B	PMMN4135B	851.0125	3.55	-0.39	8.10	4.49
10	Face	AN000296A01	NNTN9217B	@ Back	None	860.0000	3.50	-0.27	4.52	2.47

14.0 Assessment for Standalone BT and NFC

14.1 FCC assessment for BT

Per guidelines in KDB 447498, the following formula was used to determine the test exclusion to an antenna that transmits simultaneously with other antennas for test distance $\leq 50\text{mm}$. The closest separation distance from the Bluetooth Antenna to the phantom is 42mm with PMLN8936A (Holster) w/ AY00229A01(Fireman Strap) w/ RLN6488A (Anti Sway Strap), as indicated in the following picture:



KDB 447498 (4.3.1, b.1) for 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g test exclusion thresholds are determined by following:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] * [\sqrt{f(\text{GHz})}] = 0.6$$
, which is ≤ 3.0 for 1-g SAR or 7.5 for 10-g extremity

Where:

Max. power = 68.92mW (89.2mW*77.26% duty cycle)

Min test separation distance = 42 mm

f(MHz) = 2450 MHz

Per the result from the calculation above, the standalone SAR assessment was not required for Bluetooth band. Therefore, SAR results for Bluetooth are not reported herein.

14.2 FCC assessment for NFC

Per guidelines in KDB 447498, the following formula was used to determine the test exclusion to an antenna that transmits simultaneously with other antennas for test distance $\leq 50\text{mm}$. The closest separation distance from the Bluetooth Antenna to the phantom is 42mm with PMLN8936A (Holster) w/ AY00229A01(Fireman Strap) w/ RLN6488A (Anti Sway Strap), as indicated in the following picture:



KDB 447498 4.3.1, c.1) for below 100 MHz and test separation distances $\leq 50\text{ mm}$,

Power threshold the power threshold determined by the equation in c.1) for 50 mm and 100 MHz is multiplied by $1/2$

$$= 474\text{ mW} * 1/2$$

$$= 237\text{mW}$$

Where:

Max. power = 20 mW (200 mW*10% duty cycle)

Min. test separation distance = 42 mm

f (MHz) = 13.56 MHz

Based on above calculation, SAR test exclusion power threshold at 13.56 MHz is 237 mW. Maximum power for NFC is 20 mW, hence SAR test was not required for NFC.

15.0 Simultaneous Transmission

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

Table 23

Exposure Conditions	Item	Capable Simultaneous Transmit Configurations
Body-Worn	1	LMR + WLAN 2.4 GHz + WWAN + BT
	2	LMR + WLAN 5 GHz + WWAN + BT
	3*	LMR + WLAN 6/6E + WWAN + BT
Face	1	LMR + WLAN 2.4 GHz + WWAN + BT
	2	LMR + WLAN 5 GHz + WWAN + BT
	3*	LMR + WLAN 6/6E + WWAN + BT

Note: '*' apply Total Exposure Ratio (TER) calculation by combining SAR (W/kg) and Power Density (W/m²) measurement, using the applicable controlled environment SAR and power density limits.

Table 24

Exposure Conditions	Item	Capable Simultaneous Transmit Configurations
Body-Worn	1	WLAN 2.4 GHz + WWAN + BT
	2	WLAN 5 GHz + WWAN + BT
	3*	WLAN 6/6E + WWAN + BT
Face	1	WLAN 2.4 GHz + WWAN + BT
	2	WLAN 5 GHz + WWAN + BT
	3*	WLAN 6/6E + WWAN + BT

Note: '*' apply Total Exposure Ratio (TER) calculation by combining SAR (W/kg) and Power Density (W/m²) measurement, using the applicable uncontrolled environment SAR and power density limits.

15.1 Simultaneous Transmission Exclusion for BT

Per guidelines in KDB 447498, the following formula was used to determine the test exclusion to an antenna that transmits simultaneously with other antennas for test distances $\leq 50\text{mm}$:

The closest separation distance from the Bluetooth Antenna to the phantom is 42mm with PMLN8936A(Holster) w/ AY00229A01(Fireman Strap) w/ RLN6488A (Anti Sway Strap), as indicated in the picture below.



KDB 447498 4.3.2, b.2) for test separation distances $\leq 50\text{ mm}$,

$$\left[\frac{\text{max. power of channel, including tune-up tolerance, mW}}{\text{min. test separation distance, mm}} \right] * \left[\frac{\sqrt{f(\text{GHz})}}{X} \right] = 0.3 \text{ W/kg, which is } \leq 0.4 \text{ W/kg (1g)}$$

Where:

$X = 7.5$ for 1g-SAR

Max. Power = 68.92 mW (89.2 mW*77.26% duty cycle)

Min. test separation distance = 42mm

$f(\text{GHz}) = 2.48 \text{ GHz}$

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

15.2 Simultaneous Transmission Exclusion for NFC

Per guidelines in KDB 447498, the following formula was used to determine the test exclusion to an antenna that transmits simultaneously with other antennas for test distances $\leq 50\text{mm}$:

The closest separation distance from the NFC antenna to the phantom is 42mm with PMLN8936A (Holster) w/ AY00229A01(Fireman Strap) w/ RLN6488A (Anti Sway Strap), as indicated in the picture below.



KDB 447498 4.3.2, b.2) for test separation distances $\leq 50\text{ mm}$,

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] * [\sqrt{f(\text{GHz})} / X] = 0.1\text{ W/kg, which is } \leq 0.4\text{ W/kg (1g)}$$

Where:

$X = 7.5$ for 1g-SAR

Max. Power = 20mW (200 mW*10% duty cycle)

Min. test separation distance = 42mm

$f(\text{GHz}) = 13.56\text{ MHz}$

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

15.3 Simultaneous Transmission for LMR, WLAN 2.4GHz, WWAN and BT

Table 25 (Controlled Environment)

Exposure Condition	Configuration	Standalone SAR (W/kg)						Sum of SAR (W/kg)		
		VHF	UHF	7/800	2.4GHz	WWAN	BT	VHF + 2.4GHz+ WWAN+ BT	UHF + 2.4GHz+ WWAN+ BT	7/800 + 2.4GHz+ WWAN+ BT
FCC										
Body worn Exposure	PMLN8936A w/ AY000229A01 w/ RLN6488A	0.70	7.04	4.12	0.043	0.242	N/A	0.99	7.33	4.41
	PMLN7947A w/ NTN8266B	0.91	6.80	4.31	0.017	0.158	N/A	1.09	6.98	4.49
	PMLN8606A w/ NTN8266B	0.71	6.21	4.32	0.011	0.124	N/A	0.85	6.35	4.46
	PMLN7948A w/ NTN8266B	0.68	6.15	4.49	0.013	0.122	N/A	0.82	6.29	4.63
Face Exposure	Face Back (Display)	0.66	5.06	2.47	0.007	0.046	N/A	1.39	5.11	3.20

Notes: WWAN value is highest from LTE or 5G NR.

N/A – applied test exclusion as stated in Section 14.1 & 15.1

15.4 Simultaneous Transmission for LMR, WLAN 5GHz, WWAN and BT

Table 26 (Controlled Environment)

Exposure Condition	Configuration	Standalone SAR (W/kg)						Sum of SAR (W/kg)		
		VHF	UHF	7/800	5GHz	WWAN	BT	VHF + 5GHz+ WWAN+ BT	UHF + 5GHz+ WWAN+ BT	7/800 + 5GHz+ WWAN+ BT
FCC										
Body worn Exposure	PMLN8936A w/ AY000229A01 w/ RLN6488A	0.70	7.04	4.12	0.025	0.242	N/A	0.97	7.31	4.39
	PMLN7947A w/ NTN8266B	0.91	6.80	4.31	0.026	0.158	N/A	1.09	6.98	4.49
	PMLN8606A w/ NTN8266B	0.71	6.21	4.32	0.017	0.124	N/A	0.85	6.35	4.46
	PMLN7948A w/ NTN8266B	0.68	6.15	4.49	0.048	0.122	N/A	0.85	6.32	4.66
Face Exposure	Face Back (Display)	0.66	5.06	2.47	0.018	0.046	N/A	1.48	5.12	3.29

Notes: WWAN value is highest from LTE or 5G NR.

N/A – applied test exclusion as stated in Section 14.1 & 15.1

15.5 Simultaneous Transmission for WLAN 2.4GHz, WWAN and BT

Table 27 (Uncontrolled Environment)

Exposure Condition	Configuration	Standalone SAR (W/kg)			Sum of SAR (W/kg)
		2.4GHz	WWAN	BT	2.4GHz+ WWAN+ BT
FCC					
Body worn Exposure	PMLN8936A w/ AY000229A01 w/ RLN6488A	0.043	0.242	N/A	0.285
	PMLN7947A w/ NTN8266B	0.017	0.158	N/A	0.175
	PMLN8606A w/ NTN8266B	0.011	0.124	N/A	0.135
	PMLN7948A w/ NTN8266B	0.013	0.122	N/A	0.135
Face Exposure	Face Front (Non-Display)	0.284	0.448	N/A	0.732
	Face Back (Display)	0.007	0.046	N/A	0.053

Notes: WWAN value is highest from LTE or 5G NR.

N/A – applied test exclusion as stated in Section 14.1 & 15.

15.6 Simultaneous Transmission for WLAN 5GHz, WWAN and BT

Table 28 (Uncontrolled Environment)

Exposure Condition	Configuration	Standalone SAR (W/kg)			Sum of SAR (W/kg)
		5GHz	WWAN	BT	5GHz+ WWAN+ BT
FCC					
Body worn Exposure	PMLN8936A w/ AY000229A01 w/ RLN6488A	0.025	0.242	N/A	0.267
	PMLN7947A w/ NTN8266B	0.026	0.158	N/A	0.184
	PMLN8606A w/ NTN8266B	0.017	0.124	N/A	0.141
	PMLN7948A w/ NTN8266B	0.048	0.122	N/A	0.170
Face Exposure	Face Front (Non-Display)	0.370	0.448	N/A	0.818
	Face Back (Display)	0.018	0.046	N/A	0.064

Notes: WWAN value is highest from LTE or 5G NR.

N/A – applied test exclusion as stated in Section 14.1 & 15.1

15.7 Total Exposure Ratio

The Total Exposure Ratio (TER) is calculated by combining all SAR measurements and power density measurements after normalizing to their respective limits. The general expression is below.

$$TER = \sum_{a=1}^A \frac{SAR_a}{SAR_{a,limit}} + \sum_{b=1}^B \frac{psPD_b}{psPD_{b,limit}} < 1$$

15.7.1 Total Exposure Ratio Controlled Environment for LMR, WLAN 6/6E and WWAN

Table 29 (FCC)

		Exposure Ratio			Applicable Region	Total Exposure Ratio (TER) LMR(1) + WWAN(2) + iPD(3)	Total Exposure Limit
		LMR(1)	WWAN(2)	iPD(3)			
Exposure Condition	Reported Value	5.06	0.448	2.174			
	Applicable Limit	8					
Face Exposure	Ratio to Limit	0.63	0.06	0.043	FCC	0.73	<1

Note: Total Exposure Ratio (TER) calculation by combining SAR (W/kg) and Power Density (W/m²) measurement, using the applicable controlled environment SAR and power density limits.

15.7.2 Total Exposure Ratio Uncontrolled Environment for WLAN 6/6E and WWAN

Table 30 (FCC)

		Exposure Ratio		Applicable Region	Total Exposure Ratio (TER) WWAN(1) + iPD(2)	Total Exposure Limit
		WWAN(1)	iPD(2)			
Exposure Condition	Reported Value	0.448	2.174			
	Applicable Limit	1.6	10			
Face Exposure	Ratio to Limit	0.28	0.217	FCC	0.50	<1

Note: Total Exposure Ratio (TER) calculation by combining SAR (W/kg) and Power Density (W/m²) measurement, using the applicable uncontrolled environment SAR and power density limits.

16.0 Results Summary

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

Table 31

Equipment Class	Frequency band (MHz)	Max Calc at Body (W/kg)	Max Calc at Face (W/kg)
		1g-SAR	1g-SAR
TNF	150.8-173.4	0.91	0.66 ⁽²⁾
	406.125-512	7.04 ⁽¹⁾	5.06 ⁽³⁾
	769-775	4.12	2.19
	799-824	4.32	2.41
	851-869	4.49	2.47
PCF	LTE B5	0.242	0.214
	LTE B12	0.071	0.11
	LTE B13	0.166	0.132
	LTE B14	0.084	0.142
	LTE B25	0.069	0.448
	LTE B66	0.079	0.331
	LTE B71	0.056	0.106
DTS	2412 – 2462 MHz	0.043	0.284
	(WLAN 2.4 GHz)		
NII	5180 – 5825 MHz	0.048	0.37
	(WLAN 5 GHz)		
6CD	5955 – 7115	0.014	0.144
	(WLAN 6/6E)		
PCF	5G NR N2	0.080	0.392
	5G NR N5	0.242	0.225
	5G NR N25	0.073	0.38
	5G NR N41	0.016	0.097
	5G NR N66	0.074	0.268
	5G NR N71	0.063	0.089
	5G NR N77 Part27Q	0.027	0.061
	5G NR N77 Part27O	0.011	0.052
*DSS	2402-2480MHz (Bluetooth)	NA	NA
**DXX	NFC 13.56MHz	NA	NA
Highest Simultaneous Transmission SAR		7.33 ⁽⁴⁾	5.12 ⁽⁵⁾
Equipment Class	Frequency band (MHz)	Reported APD (W/m ²)	Reported iPD (W/m ²)
6CD	5955 – 7115	NA	2.174
	(WLAN 6/6E)		

Notes:

⁽¹⁾ The new highest SAR result for the body is 7.04 W/kg, compared with the previously filed SAR result of 6.80 W/kg.

⁽²⁾ The new highest SAR result for Face is 0.66 W/kg, compared to the previously filed SAR result of 0.61 W/kg.

⁽³⁾ The new highest SAR result for Face is 5.06 W/kg compared with previous on filed SAR result of 4.97 W/kg.

⁽⁴⁾ The new highest simultaneous transmission SAR result for the body is 7.33 W/kg, compared to the previously filed SAR result of 6.98 W/kg.

⁽⁵⁾ The new highest simultaneous transmission SAR result for the face is 5.12 W/kg, compared to the previously filed SAR result of 5.02 W/kg.

17.0 Variability Assessment

Per the guidelines in KDB 865664 SAR variability assessment is required for each frequency band with measured SAR results above 4.0 W/kg for occupational exposure condition. The Tables below include test results of the original measurement, the repeated measurement, and the ratio (SAR_{high}/SAR_{low}) for the highest SAR configuration in each of the frequency bands that fulfill the guidelines mentioned above.

Table 32 (UHF)

Test Position	Antenna	Battery	Carry Accessory	Cable Accessory	Test Freq. (MHz)	Adj. 1g-SAR (W/kg)	Ratio	Comments
Body	AN000369B02	NNTN9217B	PMLN8936A w/ AY000229A01 w/ RLN6488A	PMLN6129A	465.5000	7.03	1.02	No additional repeated scans are required due to the Ratio (SAR_{high}/SAR_{low}) < 1.20
						6.92		

Table 33 (769-775 MHz)

Test Position	Antenna	Battery	Carry Accessory	Cable Accessory	Test Freq. (MHz)	Adj. 1g-SAR (W/kg)	Ratio	Comments
Body	AN000296A01	NNTN9217B	PMLN8936A w/ AY000229A01 w/ RLN6488A	None (BT)	769.9875	4.01	1.01	No additional repeated scans are required due to the Ratio (SAR_{high}/SAR_{low}) < 1.20
						3.96		

Table 34 (799-824 MHz)

Test Position	Antenna	Battery	Carry Accessory	Cable Accessory	Test Freq. (MHz)	Adj. 1g-SAR (W/kg)	Ratio	Comments
Body	AN000296A01	NNTN9217B	PMLN8606A w/ NTN8266B	BDN6783B w/ RLN5312B	811.5000	4.27	1.06	No additional repeated scans are required due to the Ratio (SAR_{high}/SAR_{low}) < 1.20
						4.03		

Table 35 (851-869 MHz)

Test Position	Antenna	Battery	Carry Accessory	Cable Accessory	Test Freq. (MHz)	Adj. 1g-SAR (W/kg)	Ratio	Comments
Body	AN000296A01	NNTN9217B	PMLN7948A w/ NTN8266B	PMMN4135B	851.0125	4.43	1.06	No additional repeated scans are required due to the Ratio (SAR_{high}/SAR_{low}) < 1.20
						4.16		

18.0 Shortened Scan Assessment

A “shortened” scan using the highest SAR configuration overall from above was performed to validate the SAR drift of the full DASY8™ 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 demonstrate that the scaling methodology used to determine the calculated SAR results presented herein are valid.

Table 36

SAR Plot	Test Position	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)
11	Body	AN000369B02	NNTN9217B	PMLN8936A w/ AY000229A01 w/ RLN6488A	PMLN6129A	465.5000	5.70	-0.01	13.80	6.92

Shortened scan reflects highest SAR producing configuration and is compare to the full scan as shown in Table below.

Table 37

Scan Description	Referenced Table	Test Time (min.)	SAR 1g (W/kg)
Shorten scan (zoom)	36	16	6.92
Full scan (area & zoom)	19	30	7.04

19.0 Measurement System Uncertainty

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

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

Appendix A (Measurement Uncertainty)

Uncertainty Budget for Device Under Test, for 4 MHz to 300 MHz

Input quantity X_i (source of uncertainty)	IEEE 1528 section (2020)	Tol. ($\pm$ %)	Prob Dist	Div. ^a q_i	C_i (1 g)	C_i (10 g)	1 g U_i ($\pm$ %)	10 g U_i ($\pm$ %)
Measurement System								
Probe Calibration	8.4.1.1	13.3	N ($k = 2$)	2.00	1	1	6.7	6.7
Probe Calibration Drift	8.4.1.2	1.7	R	1.73	1	1	1.0	1.0
Probe linearity and detection limit	8.4.1.3	4.7	R	1.73	1	1	2.7	2.7
Broadband signal	8.4.1.4	0.6	R	1.73	1	1	0.3	0.3
Probe isotropy	8.4.1.5	7.6	R	1.73	1	1	4.4	4.4
Other probe and data acquisition errors	8.4.1.6	0.8	N	1.00	1	1	0.8	0.8
RF ambient and noise	8.4.1.7	1.8	N	1.00	1	1	1.8	1.8
Probe positioning errors	8.4.1.8	0.006 mm	N	1.00	0.04	0.04	0.1	0.1
Data processing errors	8.4.1.9	1.2	N	1.00	1	1	1.2	1.2
Phantom and Device								
Measurement of phantom conductivity(σ)	8.4.2.1	2.5	N	1.00	0.78	0.71	2.0	1.8
Temperature effects (medium)	8.4.2.2	5.4	R	1.73	0.78	0.71	2.4	2.2
Shell permittivity	8.4.2.3	14	R	1.73	0	0	0.0	0.0
Distance between the radiating element of the DUT and the phantom medium	8.4.2.4	2	N	1.00	2	2	4.0	4.0
Repeatability of positioning the DUT or source against the phantom	8.4.2.5	2.8	N	1.00	1	1	2.8	2.8
Device holder effects	8.4.2.6	4.55	N	1.00	1	1	4.6	4.6
Effect of operating mode on probe sensitivity	8.4.2.7	2.4	R	1.73	1	1	1.4	1.4
Time-average SAR	8.4.2.8	1.7	R	1.73	1	1	1.0	1.0
Variation in SAR due to drift in output of DUT	8.4.2.9	5	R	1.73	1	1	2.9	2.9
Validation antenna uncertainty (validation measurement only)	8.4.2.10	0	N	1.00	1	1	0.0	0.0
Uncertainty in accepted power (validation measurement only)	8.4.2.11	0	N	1.00	1	1	0.0	0.0
Corrections to the SAR result (if applied)								
Phantom deviation from target (ϵ', σ)	8.4.3.1	1.9	N	1.00	1	0.84	1.9	1.6
SAR scaling	8.4.3.2	0	R	1.73	1	1	0.0	0.0
Combined Standard Uncertainty			RSS				12.1	12.0
Expanded Uncertainty (95% CONFIDENCE LEVEL)			$k=2$				24.2	24.0

Uncertainty Budget for Device Under Test, for 300 MHz to 3000 MHz

Input quantity X_i (source of uncertainty)	IEEE 1528 section (2020)	Tol. ($\pm$ %)	Prob Dist	Div. ^a q_i	C_i (1 g)	C_i (10 g)	1 g u_i ($\pm$ %)	10 g u_i ($\pm$ %)
Measurement System								
Probe Calibration	8.4.1.1	11.0	N (k = 2)	2.00	1	1	5.5	5.5
Probe Calibration Drift	8.4.1.2	1.7	R	1.73	1	1	1.0	1.0
Probe linearity and detection limit	8.4.1.3	4.7	R	1.73	1	1	2.7	2.7
Broadband signal	8.4.1.4	2.8	R	1.73	1	1	1.6	1.6
Probe isotropy	8.4.1.5	7.6	R	1.73	1	1	4.4	4.4
Other probe and data acquisition errors	8.4.1.6	0.7	N	1.00	1	1	0.7	0.7
RF ambient and noise	8.4.1.7	1.8	N	1.00	1	1	1.8	1.8
Probe positioning errors	8.4.1.8	0.006 mm	N	1.00	0.14	0.14	0.1	0.1
Data processing errors	8.4.1.9	1.2	N	1.00	1	1	1.2	1.2
Phantom and Device								
Measurement of phantom conductivity(σ)	8.4.2.1	2.5	N	1.00	0.78	0.71	2.0	1.8
Temperature effects (medium)	8.4.2.2	3.3	R	1.73	0.78	0.71	1.5	1.4
Shell permittivity	8.4.2.3	14	R	1.73	0	0	0.0	0.0
Distance between the radiating element of the DUT and the phantom medium	8.4.2.4	2	N	1.00	2	2	4.0	4.0
Repeatability of positioning the DUT or source against the phantom	8.4.2.5	2.8	N	1.00	1	1	2.8	2.8
Device holder effects	8.4.2.6	4.55	N	1.00	1	1	4.6	4.6
Effect of operating mode on probe sensitivity	8.4.2.7	2.4	R	1.73	1	1	1.4	1.4
Time-average SAR	8.4.2.8	1.7	R	1.73	1	1	1.0	1.0
Variation in SAR due to drift in output of DUT	8.4.2.9	5	R	1.73	1	1	2.9	2.9
Validation antenna uncertainty (validation measurement only)	8.4.2.10	0	N	1.00	1	1	0.0	0.0
Uncertainty in accepted power (validation measurement only)	8.4.2.11	0	N	1.00	1	1	0.0	0.0
Corrections to the SAR result (if applied)								
Phantom deviation from target (ϵ', σ)	8.4.3.1	1.9	N	1.00	1	0.84	1.9	1.6
SAR scaling	8.4.3.2	0	R	1.73	1	1	0.0	0.0
Combined Standard Uncertainty			RSS				11.4	11.4
Expanded Uncertainty (95% CONFIDENCE LEVEL)			k=2				22.9	22.7

Uncertainty Budget for System Validation (dipole & flat phantom), for 4 MHz to 300 MHz

<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	$e = \frac{e}{f(d,k)}$	<i>f</i>	<i>g</i>	$h = \frac{h}{c \times f / e}$	$i = \frac{i}{c \times g / e}$
Uncertainty Component	IEEE 1528 section (2020)	Tol. (± %)	Prob Dist	Div. ^a _{q_i}	<i>c_i</i> (1 g)	<i>c_i</i> (10 g)	1 g <i>u_i</i> (±%)	10 g <i>u_i</i> (±%)
Measurement System								
Probe Calibration	8.4.1.1	13.3	N	2.00	1	1	6.7	6.7
Probe Calibration Drift	8.4.1.2	1.7	R	1.73	1	1	1.0	1.0
Probe linearity and detection limit	8.4.1.3	4.7	R	1.73	1	1	2.7	2.7
Broadband signal	8.4.1.4	0.0	R	1.73	1	1	0.0	0.0
Probe isotropy	8.4.1.5	4.7	R	1.73	1	1	2.7	2.7
Other probe and data acquisition errors	8.4.1.6	0.8	N	1.00	1	1	0.8	0.8
RF ambient and noise	8.4.1.7	0.6	N	1.00	1	1	0.6	0.6
Probe positioning errors	8.4.1.8	0.006 mm	N	1.00	0.04	0.04	0.1	0.1
Data processing errors	8.4.1.9	0.6	N	1.00	1	1	0.6	0.6
Phantom and Device								
Measurement of phantom conductivity(σ)	8.4.2.1	2.5	N	1.00	0.78	0.71	2.0	1.8
Temperature effects (medium)	8.4.2.2	5.4	R	1.73	0.78	0.71	2.4	2.2
Shell permittivity	8.4.2.3	14	R	1.73	0	0	0.0	0.0
Distance between the radiating element of the DUT and the phantom medium	8.4.2.4	1	N	1.00	2	2	2.0	2.0
Effect of operating mode on probe sensitivity	8.4.2.7	0	R	1.73	1	1	0.0	0.0
Time-average SAR	8.4.2.8	0	R	1.73	1	1	0.0	0.0
Validation antenna uncertainty (validation measurement only)	8.4.2.10	3.2	N	1.00	1	1	3.2	3.2
Uncertainty in accepted power (validation measurement only)	8.4.2.11	2	N	1.00	1	1	2.0	2.0
Corrections to the SAR result (if applied)								
Phantom deviation from target (ϵ, σ)	8.4.3.1	1.9	N	1.00	1	0.84	1.9	1.6
Combined Standard Uncertainty			RS S				9.6	9.5
Expanded Uncertainty (95% CONFIDENCE LEVEL)			<i>k</i> = 2				19.3	19.0

Uncertainty Budget for System Validation (dipole & flat phantom), for 300 MHz to 6000 MHz

<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	$e = \frac{e}{f(d,k)}$	<i>f</i>	<i>g</i>	$h = \frac{c \times f}{e}$	$i = \frac{c \times g}{e}$
Uncertainty Component	IEEE 1528 section (2020)	Tol. (± %)	Prob Dist	Div. ^a _{q_i}	<i>c_i</i> (1 g)	<i>c_i</i> (10 g)	1 g <i>u_i</i> (±%)	10 g <i>u_i</i> (±%)
Measurement System								
Probe Calibration	8.4.1.1	11.0	N	2.00	1	1	5.5	5.5
Probe Calibration Drift	8.4.1.2	1.7	R	1.73	1	1	1.0	1.0
Probe linearity and detection limit	8.4.1.3	4.7	R	1.73	1	1	2.7	2.7
Broadband signal	8.4.1.4	0.0	R	1.73	1	1	0.0	0.0
Probe isotropy	8.4.1.5	4.7	R	1.73	1	1	2.7	2.7
Other probe and data acquisition errors	8.4.1.6	1.2	N	1.00	1	1	1.2	1.2
RF ambient and noise	8.4.1.7	0.6	N	1.00	1	1	0.6	0.6
Probe positioning errors	8.4.1.8	0.005 mm	N	1.00	0.29	0.29	0.2	0.2
Data processing errors	8.4.1.9	0.6	N	1.00	1	1	0.6	0.6
Phantom and Device								
Measurement of phantom conductivity(σ)	8.4.2.1	2.5	N	1.00	0.78	0.71	2.0	1.8
Temperature effects (medium)	8.4.2.2	3.4	R	1.73	0.78	0.71	1.5	1.4
Shell permittivity	8.4.2.3	14	R	1.73	0.25	0.25	2.0	2.0
Distance between the radiating element of the DUT and the phantom medium	8.4.2.4	1.3	N	1.00	2	2	2.6	2.6
Effect of operating mode on probe sensitivity	8.4.2.7	0	R	1.73	1	1	0.0	0.0
Time-average SAR	8.4.2.8	0	R	1.73	1	1	0.0	0.0
Validation antenna uncertainty (validation measurement only)	8.4.2.10	3.2	N	1.00	1	1	3.2	3.2
Uncertainty in accepted power (validation measurement only)	8.4.2.11	2	N	1.00	1	1	2.0	2.0
Corrections to the SAR result (if applied)								
Phantom deviation from target (ϵ', σ)	8.4.3.1	1.9	N	1.00	1	0.84	1.9	1.6
Combined Standard Uncertainty			RS S				9.1	9.0
Expanded Uncertainty (95% CONFIDENCE LEVEL)			<i>k</i> = 2				18.2	18.0

Appendix D (SAR Summary Results Table for FCC PAG Review)

Table D.1: LMR UHF SAR Summary Results

LMR UHF SAR Summary Results (Freq in MHz)

Table #	Body /	Antenna No.	Battery No.	Body Worn No.	Audio No.	Front / Back	Max Calc. 1g SAR (W/kg)												
	Head /						F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	F13
	Face						406.2000	423.0000	430.0000	439.8000	450.0125	454.1000	459.1000	465.5000	469.9875	476.7000	481.0000	495.4000	512.0000
19	Body	3	1	4, 3, 2	2	Back								7.04					
19	Face	3	2	@ back	None	Back					5.06								

Table D.2: LMR VHF SAR Summary Results

LMR VHF SAR Summary Results (Freq in MHz)

Table #	Body /	Antenna No.	Battery No.	Body Worn No.	Audio No.	Front / Back	Max Calc. 1g SAR (W/kg)			
	Head /						F1	F2	F3	F4
	Face						150.8000	158.3000	165.9000	173.4000
18	Body	2	1	5, 1	1	Back				0.91
18	Face	2	2	@ back	None	Back				0.66

Table D.3: LMR 769-775 MHz SAR Summary Results

							Max Calc. 1g SAR (W/kg)		
Table #	Body /	Antenna No.	Battery No.	Body Worn No.	Audio No.	Front / Back	F1	F2	F3
	Head /								
	Face						769.9875	772.0000	774.0125
20	Body	1	1	4, 3, 2	None (BT)	Back	4.12		
20	Face	1	1	@ back	None	Back	2.19		

Table D.4: LMR 799-824 MHz SAR Summary Results

							Max Calc. 1g SAR (W/kg)		
Table #	Body /	Antenna No.	Battery No.	Body Worn No.	Audio No.	Front / Back	F1	F2	F3
	Head /								
	Face						799.9875	811.5000	823.9875
21	Body	1	1	6, 1	3, 4	Back		4.32	
21	Face	1	1	@ back	None	Back		2.41	

Table D.5: LMR 851-869 MHz SAR Summary Results

							Max Calc. 1g SAR (W/kg)		
Table #	Body /	Antenna No.	Battery No.	Body Worn No.	Audio No.	Front / Back	F1	F2	F3
	Head /								
	Face						851.0125	860.0000	868.9875
22	Body	1	1	7, 1	1	Back	4.49		
22	Face	1	1	@ back	None	Back		2.47	