SAMM 826

CERTIFICATE 2518.05

DECLARATION OF COMPLIANCE SAR ASSESSMENT Part 1 of 2

Motorola Solutions Inc.
EME Test Laboratory
Motorola Solutions Malaysia Sdn Bhd
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Date of Report: 04/14/2025
Report Revision: B

Responsible Engineer:	Puteri Alifah Ilyana Binti Nor Rahim (EME Engineer)
Report Author:	Muhammad Zakwan Bin Zaidi (EME Senior Technician)
Date/s Tested:	12/25/2024-12/27/2024, 01/23/2025-01/28/2025, 02/04/2025-02/06/2025, 02/14/2025, 02/18/2025, 02/07/2025-02/28/2025.
Test Location:	Penang EME Laboratory
Manufacturer:	Motorola Solutions Malaysia Sdn Bhd.
Manufacturer Location:	Plot 2A, Medan Bayan Lepas Mukim, 12 SWD, 11900 Bayan Lepas, Penang, Malaysia
DUT Description:	Handheld Portable – APX N70 XE Single Band 7/800MHz Portable Radio, Model 4.5 (Green)
Test TX mode(s):	CW (PTT), BT, WLAN, LTE
Max. Power output:	Refer table 3
Tx Frequency Bands:	Refer table 3
Signaling type:	Refer table 3
Model(s) Tested:	H35UCT9PW8AN (ISED Model: NUF5200)
Model(s) Certified: (HVIN/PMN)	Refer 1.0 Introduction
Serial Number(s):	0950DAW027 & 0950DAW033
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):	D05.85.64
FCC ID:	AZ489FT7147
FCC Test Firm Registration Number:	823256
IC:	109U-89FT7147
ISED Test Site registration:	24843

The test results clearly demonstrate compliance with Occupational/Controlled RF Exposure limits of 8 W/kg averaged over 1 gram per the requirements of FCC 47 CFR § 2.1093 and RSS-102 (Issue 6)

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

Saw Sun Hock (Approval Signatory)
Approved Date: 04/14/2025

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Report Revision History

Date	Revision	Comments
03/27/2025	A	Initial release
04/14/2025	B	Update cover page (DUT description and Model tested). Update table in Section 17.0 (Result Summary)

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 H35UCT9PW8AN. The information herein is to show evidence of Class II Permissive Change compliance for adding new model H35UCT9PW8AN into existing Aloha family (FCC ID: AZ489FT7147). This device is electrically and software identical to Aloha model except for mechanical difference where the radio has a XE top control. New body worn accessories are introduced to this device (refer to Table 6). This device is classified as Occupational/Controlled and model certified is listed as below:

Models	Hardware Version ID Number (HVIN)	Product Marketing Name (PMN)	Description
H35UCT9PW8AN	NUF5200	APX N70 XE	APX N70 XE Single Band 7/800 MHz Portable Radio, Model 4.5 (Green)
H35UCT9PW8AN-H	NUF5200	APX N70 XE	APX N70 XE 7/800MHz Model 4.5 Portable (Green)
H35UCT9PW8AN	NUF5201	APX N70 XE	APX N70 XE Single Band 7/800MHz Portable Radio, Model 4.5 (Black)
H35UCT9PW8AN-H	NUF5201	APX N70 XE	APX N70 XE Single Band 7/800MHz Portable Radio, Model 4.5 (Black)
H35UCT9PW8AN	H35UCT9PW8AN	APX N70	APX N70 Single Band 7/800MHz Portable Radio, Model 4.5
H35UCT9PW8AN-H	H35UCT9PW8AN-H	APX N70	APX N70 7/800MHz 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	762 – 776 MHz (LMR)	2.62[1]	1.79
	792 – 824 MHz (LMR)	3.23[2]	2.19
	851 – 870 MHz (LMR)	3.87[3]	2.19
PCF	LTE B12	0.122[4]	0.071
	LTE B13	0.200[5]	0.078[5]
	LTE B14	0.228[6]	0.079
	LTE B4	0.094[7]	0.269
	LTE B2	0.046[8]	0.174
DTS	2412 – 2462 MHZ (WLAN 2.4 GHz)	0.068[9]	0.328
NII	5180 – 5825 MHz (WLAN 5 GHz)	0.028	0.603
*DSS	2402-2480MHz (Bluetooth)	NA	NA
**NFC	13.56MHz	NA	NA
Highest Simultaneous Transmission SAR		4.10[10]	2.79[10]

*Results not required per KDB (refer to sections 14.1 & 16.1)

**Results not required per KDB (refer to sections 14.3 & 16.2)

Notes:

[1] New highest SAR value 762-776 MHz for body-worn accessory is 2.62 W/kg compared to previous on file SAR value of 2.38 W/kg.

[2] New highest SAR value at 792-824MHz for body-worn accessory is 3.23 W/kg compared to previous on file SAR value of 1.22 W/kg.

[3] New highest SAR value at 851-870 MHz for body-worn accessory is 3.87 W/kg compared to previous on file SAR value of 0.99 W/kg.

[4] New highest SAR value at LTE B12 for body-worn accessory is 0.122 W/kg compared to previous on file SAR value of 0.121 W/kg.

[5] New highest SAR value at LTE B13 for body-worn accessory and face are 0.200 W/kg & 0.078 W/kg compared to previous on file SAR value of 0.99 W/kg & 0.56 W/kg.

[6] New highest SAR value at LTE B14 for body-worn accessory is 0.228 W/kg compared to previous on file SAR value of 0.118 W/kg.

[7] New highest SAR value at LTE B4 for body-worn accessory is 0.094 W/kg compared to previous on file SAR value of 0.023 W/kg.

[8] New highest SAR value at LTE B2 for body-worn accessory is 0.046 W/kg compared to previous on file SAR value of 0.018 W/kg.

[9] New highest SAR value at WLAN 2.4GHz for body-worn accessory is 0.068 W/kg compared to previous on file SAR value of 0.055 W/kg.

[10] New highest simultaneous transmission SAR value for body-worn accessory & face is 4.10 W/kg & 2.79 W/kg compared to previous on file SAR value of 2.48 W/kg & 2.72 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
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
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

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

4.0 Referenced Standards and Guidelines

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

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

- FCC KDB – 643646 D01 SAR Test for PTT Radios v01r03
- FCC KDB – 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
- FCC KDB – 865664 D02 RF Exposure Reporting v01r02
- FCC KDB – 447498 D01 General RF Exposure Guidance v06
- FCC KDB – 941225 D05 SAR for LTE Devices v02r05
- FCC KDB – 941225 D01 3G SAR Procedures v03r01
- FCC KDB – 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB – 648474 D04 Handset SAR v01r03

5.0 SAR Limits

Table 2

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

6.0 Description of Device Under Test (DUT)

This portable device operates in the LMR bands using frequency modulation (FM) incorporating traditional simplex two-way radio transmission protocol. This device also contains WLAN and LTE 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 3

Technologies	Band (MHz)	Transmission	Duty Cycle (%)	Conducted (Average Detector) Maximum Power (W)
LMR	762-776, 792-806	FM	*50	2.99 W
LMR	806-825, 851-870	FM	*50	3.60 W
WLAN 802.11 b (22 MHz)	2412-2462	DSSS	99.97	141.25 mW
WLAN 802.11 g (20 MHz)		OFDM	99.80	89.1 mW
WLAN 802.11 n (20 MHz)			94.36	
WLAN 802.11 n (40 MHz)			99.80	
WLAN 802.11 a (20 MHz)	5180-5825	OFDM	99.80	79.43 mW
WLAN 802.11 n/ac (20 MHz)			95.59	
WLAN 802.11 n/ac (40 MHz)			99.60	
WLAN 802.11 ac (80 MHz)			96.15	

Table 3 (Continued)

Technologies	Band (MHz)	Transmission	Duty Cycle (%)	Conducted (Average Detector) Maximum Power (W)
LTE Band 2	1850-1910	QPSK, 16QAM	100	252 mW
LTE Band 4	1710-1755	QPSK, 16QAM	100	
LTE Band 12	699-716	QPSK, 16QAM	100	
LTE Band 13	777-787	QPSK, 16QAM	100	
LTE Band 14	788-798	QPSK, 16QAM	100	
NFC	13.56	NFC	100	35 mW
BT 1.5	2400 - 2485	GFSK	78	19.95 mW
BT LE	2400 - 2485	GFSK	62.68	5.01 mW

Note –
* includes 50% PTT operation

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. The following sections identify the test criteria and details for each accessory category applicable for this PCII filing only. Detail listing of all approved offered accessories available in the original filing report.

7.1 Antennas

Table 4

Antenna No.	Antenna Models	Description	Selected for test	Tested
1	AN000411A01	7/800 Whip Antenna (762-870MHz), ½ wave, 1 dBi gain	Yes	Yes
2	AN000418A01	Stubby Antenna, 795-870MHzMHz, ¼ wave, 2dBi	Yes	Yes
3	AN000413A01	Antenna LTE Main, Low Band, Mid Band 699 - 2155 MHz, 699-716MHz (-2.9dBi), 777-787MHz (-1.5dBi), 788-798MHz (-1.7dBi), 1850-1910MHz (1.1dBi), 1710-1755MHz (1.9dBi)	Yes	Yes
4	AN000413A03	Antenna Wifi/BT 2400 - 2480MHz, 5150 - 5850 MHz, 2412MHz (0.07dBi), 2437MHz (0.21dBi), 2462MHz (0.38dBi), 5180MHz (4.6dBi), 5500MHz (3.3dBi), 5825MHz (3.1dBi)	Yes	Yes

7.2 Battery

Table 5

Battery No.	Battery Models	Description	Selected for test	Tested	Comments
1	PMNN4816A	Standard 3200mAh (new 18650 Li-Ion cell) Non-UL battery	Yes	Yes	
2	PMNN4817A	High Capacity 4400mAH (using RN 2170 Li-Ion cell) Non-UL battery	Yes	Yes	
3	PMNN4818A	UL 3650mAH (using RN 2170 Li-Ion cell) UL battery	Yes	Yes	

7.3 Body worn Accessories

Table 6

Body worn No.	Body worn Models	Description	Selected for test	Tested	Comments
1	PMLN8507A	Carry Accessory - Belt clip, APX N70 2.5" belt clip	Yes	Yes	Paired with PMLN8689A
2	PMLN8508A	Carry Accessory - Belt clip, APX N70 3" belt clip	Yes	Yes	Paired with PMLN8689A
3	PMLN8689A*	APX N70 XE CLASSIC HOLSTER	Yes	Yes	Paired with PMLN8507A, PMLN8508A, AY000229A01, RLN6486A, and RLN6488A
4	PMLN8690A*	APX N70 XE LEATHER CARRY CASE	Yes	Yes	Only compatible with battery PMNN4818A. Paired with AY000229A01, RLN6486A, and RLN6488A
5	AY000223A01*	CARRY ACCESSORY-STRAP,WITH BUTTON BACK HOLDER	No	No	By similarity to AY000229A01
6	AY000229A01*	CARRY ACCESSORY-STRAP,XL, WITH BUTTON BACK HOLDER	Yes	Yes	Paired with PMLN8689A, PMLN8690A, and RLN6488A
7	RLN6487A*	FIREMAN'S RADIO STRAP, XL	Yes	Yes	Paired with PMLN8689A, PMLN8690A, and RLN6488A
8	RLN6488A*	ANTI-SWAY STRAP	Yes	Yes	Paired with PMLN8689A, PMLN8690A, AY000229A01 and RLN6487A
9	RLN6486A*	FIREMAN'S RADIO STRAP	No	No	By similarity to RLN6487A

Note - *New body worn introduced for this model

7.4 Audio Accessories

None of audio accessory applicable for this PCII filing.

8.0 Description of Test System

DASY5™ Test System

8.1 Descriptions of Robotics/Probes/Readout Electronics

Table 8

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

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

8.2 Description of Phantom(s)

Table 9

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

8.3 Description of Simulated Tissue

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

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

Simulated Tissue Composition (percent by mass)

Table 10

Ingredients	750MHz (1)	835MHz (1)	1800MHz (1)	2450MHz (1)	5Hz (1)
	Head	Head	Head	Head	Head
Sugar	NA	NA	NA	NA	NA
Diacetin	NA	NA	NA	NA	NA
De ionized-Water	NA	NA	NA	NA	NA
Salt	NA	NA	NA	NA	NA
HEC	NA	NA	NA	NA	NA
Bact.	NA	NA	NA	NA	NA

Note: (1) SPEAG provides Motorola proprietary stimulant ingredients for the 5GHz band.

9.0 Additional Test Equipment

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

Table 11

Equipment Type	Model Number	Serial Number	Calibration Date	Calibration Due Date
SPEAG PROBE	EX3DV4	7511	07/23/24	07/23/27
SPEAG PROBE	EX3DV4	7486	01/19/24	01/19/27
SPEAG PROBE	EX3DV4	7882	06/25/24	06/25/27
SPEAG DAE	DAE4	1294	12/08/23	12/08/26
SPEAG DAE	DAE4	1483	10/10/22	10/10/25
SPEAG DAE	DAE4	850	04/14/22	04/14/25
POWER POWER	10W1000C	312859	CNR	CNR
POWER AMPLIFIER	50W100D	0357646	CNR	CNR
POWER AMPLIFIER	5S1G4	313326	CNR	CNR
POWER AMPLIFIER	5S4G11	312664	CNR	CNR
SIGNAL GENERATOR (VECTOR ESG 250KHZ-6GHZ)	E4438C	MY45091093	08/17/24	08/17/25
VECTOR SIGNAL GENERATOR	E4438C	MY42081753	09/14/24	09/14/25
BI-DIRECTIONAL COUPLER	3020A	41935	08/20/24	08/20/25
BI-DIRECTIONAL COUPLER	3020A	40295	06/13/24	06/13/25
BI-DIRECTIONAL COUPLER	3024	61136	08/05/24	08/05/25
BI-DIRECTIONAL COUPLER	3022	77115	08/05/24	08/05/25
POWER METER	E4419B	MY45103725	07/18/24	07/18/25
POWER METER	E4416A	MY50001037	09/06/24	09/06/25
POWER METER	E4419B	MY45102105	10/24/24	10/24/25
POWER METER	E4417A	MY45100552	10/10/24	10/10/25
POWER SENSOR	E4412A	MY61060011	04/29/24	04/29/25
POWER SENSOR	E9301B	MY41495733	09/12/24	09/12/25
POWER SENSOR	E4412A	US38488023	05/31/24	05/31/25
POWER SENSOR	E4412A	MY61060015	08/31/24	08/31/25
POWER SOURCE	SE UMS 160 CA	4251	04/02/24	04/02/25
POWER SOURCE	SE UMS 160CB	4320	08/06/24	08/06/25
DATA LOGGER	DSB	16398050	09/07/24	09/07/25
DATA LOGGER	DSB	16326820	12/08/24	12/08/25
DATA LOGGER	DSB	16326831	12/08/24	12/08/25
DIGITAL THERMOMETER	1523	3492108	01/23/24	01/23/25*
TEMPERATURE PROBE	PR-10L-4-100-1/4-6-BX	WNWR037791	01/26/24	01/26/25*
NETWORK ANALYZER	E5071B	MY42403147	06/06/24	06/06/25
TEMPERATURE PROBE	80PK-22	05032017	12/28/23	12/28/24*

Note: "*" Equipment used for test dates prior to equipment calibration due date.

Table 11 (Continued)

Equipment Type	Model Number	Serial Number	Calibration Date	Calibration Due Date
THERMOMETER	HH202A	35881	01/17/24	01/17/25*
THERMOMETER	HH806AU	080307	08/10/24	08/10/25
TEMPERATURE PROBE	80PK-22	05032017	01/08/25	01/08/26
THERMOMETER	HH202A	35881	01/08/25	01/08/26
DIELECTRIC ASSESSMENT KIT	DAK-3.5	1156	04/08/24	04/08/25
SPEAG DIPOLE	D750V3	1142	10/24/22	10/24/25
SPEAG DIPOLE	D835V2	4d029	07/16/24	07/16/27
SPEAG DIPOLE	D1800V2	2D120	10/28/22	10/28/25
SPEAG DIPOLE	D2450V2	703	01/12/23	01/12/26
SPEAG DIPOLE	D5GHZV2	1026	07/17/24	07/17/27
SPEAG DIPOLE	D5GHzV2	1022	04/11/24	04/11/27
WIDEBAND RADIO COMMUNICATION TESTER	CMW500	171180	08/11/24	08/11/25
POWER SENSOR	E9301B	MY55210006	02/01/24	02/01/25*
POWER SENSOR	E9301B	MY55210003	07/19/24	07/19/25
POWER METER	E4418B	GB40206480	01/15/24	01/15/25*

Note: "*" Equipment used for test dates prior to equipment 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 12

Dates	Probe Calibration Point		Probe SN	Measured Tissue Parameters		Validation		
				σ	ϵ_r	Sensitivity	Linearity	Isotropy
CW								
09/29/2024	Head	750	7511	0.82	45.37	Pass	Pass	Pass
09/29/2024	Head	835		0.75	45.15	Pass	Pass	Pass
10/01/2024	Head	1800		1.26	40.23	Pass	Pass	Pass
11/29/2024	Head	2450		1.78	41.48	Pass	Pass	Pass
12/01/2024	Head	5250		4.38	38.82	Pass	Pass	Pass
12/01/2024	Head	5500		4.67	38.43	Pass	Pass	Pass
12/02/2024	Head	5800		5.00	38.39	Pass	Pass	Pass
07/10/2024	Head	1800	7882	1.36	39.15	Pass	Pass	Pass
07/11/2024	Head	5500		4.73	33.15	Pass	Pass	Pass
04/04/2024	Head	750	7486	0.86	42.00	Pass	Pass	Pass
04/06/2024	Head	1800		1.35	42.14	Pass	Pass	Pass
LTE								
10/01/2024	Head	1800	7511	1.26	40.23	Pass	Pass	Pass
08/02/2024	Head	1800	7882	1.37	42.45	Pass	Pass	Pass
04/04/2024	Head	750	7486	0.86	42.00	Pass	Pass	Pass
04/06/2024	Head	1800		1.35	42.14	Pass	Pass	Pass
WLAN								
11/29/2024	Head	2450	7511	1.88	41.04	Pass	Pass	Pass
12/01/2024	Head	5250		4.38	38.82	Pass	Pass	Pass
12/01/2024	Head	5500		4.64	38.93	Pass	Pass	Pass
12/02/2024	Head	5800		5.00	38.39	Pass	Pass	Pass
07/15/2024	Head	5500	7882	4.78	34.64	Pass	Pass	Pass

10.2 System Verification

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

Table 13

Probe Serial #	Tissue Type	Dipole Kit / Serial #	Ref SAR @ 1W (W/kg)	System Check Results Measured (W/kg)	System Check Test Results when normalized to 1W (W/kg)	Tested Date	Deviation (%)
7511	IEEE/IEC Head	SPEAG D835V3 / 4d029	9.79 ± 10%	0.293	9.27	12/25/2024@	-5.3
				0.291	9.21	12/26/2025	-5.9
				0.316	10.00	01/10/2025@	2.1
				0.307	9.72	01/11/2025	-0.8
				0.302	9.56	01/25/2024	-2.4
				0.285	9.02	02/27/2025	**-7.9**
		SPEAG D1800V2 / 278	37.60 ±10%	1.13	35.76	01/25/2025	**-4.9**
		SPEAG D2450V2 / 703	52.30± 10%	1.64	51.90	12/28/2024	-0.8
				1.74	55.06	12/29/2024	**5.3**
				1.61	50.95	02/27/2025@	-3.5
		SPEAG D5250V2 / 1026	78.70 ± 10%	7.31	73.10	12/29/2024	-7.1
				7.34	73.40	12/30/2024@	-6.7
				7.29	72.90	12/31/2024@	-7.4
		SPEAG D5500V2 / 1026	85.80 ± 10%	8.12	81.20	01/04/2025@	-5.4
			84.40 ± 10%	7.92	79.20	01/05/2025@	-6.2
		SPEAG D5800V2 / 1026	80.70 ± 10%	7.34	73.40	01/05/2025@	-9.0
				7.28	72.80	01/06/2025@	**-9.8**
7486		SPEAG D750V3 / 1142	8.46 ± 10%	2.06	8.24	12/26/2024@	3.2
				0.276	8.73	12/27/2024@	**3.2**
		SPEAG D1800V2 / 2D120	38.30 ± 10%	1.27	40.19	12/29/2024	4.9
				1.14	36.08	12/30/2024	**-5.8**
				1.17	37.03	12/31/2024	-3.3
7882		SPEAG D1800V2 / 2D120	38.30 ± 10%	1.19	37.66	01/23/2025	-1.7
		SPEAG D5500V2 / 1026	85.80 ± 10%	8.88	88.80	02/20/2025	3.5

Note: '@' 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 14

Frequency (MHz)	Tissue Type	Conductivity Target (S/m)	Dielectric Constant Target	Conductivity Meas. (S/m)	Dielectric Constant Meas.	Tested Date
707.5	IEEE/ IEC Head	0.89 (0.84-0.93)"	42.1 (40-44.2)"	0.814	44.274	12/26/2024@
750		0.89 (0.85-0.93)"	41.9 (39.8-44)"	0.829	44.144	12/26/2024@
				0.888	40.506	12/27/2024@
				0.858	43.721	12/28/2024@
772		0.89 (0.85-0.94)"	41.8 (39.7-43.9)"	0.865	40.880	02/27/2025
774		0.89 (0.85-0.94)"	41.8 (39.7-43.9)"	0.866	40.851	02/27/2025
769.1		0.89 (0.85-0.94)"	41.8 (39.7-43.9)"	0.839	44.156	12/25/2024
				0.839	43.458	01/11/2025
782		0.89 (0.85-0.94)"	41.7 (39.7-43.8)"	0.919	40.011	12/27/2024@
				0.869	43.640	12/28/2024
793		0.90 (0.85-0.94)"	41.7 (39.6-43.8)"	0.930	39.851	12/27/2024@
				0.873	43.603	12/28/2024@
799.1		0.90 (0.85-0.94)"	41.7 (39.6-43.8)"	0.846	42.104	01/25/2025
811.5		0.90 (0.85-0.94)"	41.6 (39.5-43.7)"	0.851	42.076	01/25/2025
824		0.90 (0.85-0.94)"	41.6 (39.5-43.6)"	0.858	44.018	12/25/2024@
				0.860	44.467	12/26/2024
				0.854	44.297	01/10/2025
835		0.90 (0.86-0.95)"	41.5 (39.4-43.6)"	0.862	43.991	12/25/2024
				0.864	44.446	12/26/2024@
				0.859	44.276	01/10/2025@
				0.862	43.275	01/11/2025
				0.858	42.025	01/25/2025
				0.930	39.342	02/27/2025
851		0.92 (0.87-0.96)"	41.5 (39.4-43.6)"	0.870	44.415	12/26/2024@
				0.865	44.276	01/10/2025@
				0.864	41.974	01/25/2025
860		0.93 (0.88-0.97)"	41.5 (39.4-43.6)"	0.867	41.941	01/25/2025
869		0.94 (0.89-0.98)"	41.5 (39.4-43.6)"	0.870	41.914	01/25/2025

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

Table 14 (Continued)

Frequency (MHz)	Tissue Type	Conductivity Target (S/m)	Dielectric Constant Target	Conductivity Meas. (S/m)	Dielectric Constant Meas.	Tested Date
1732.5	IEEE/ IEC Head	1.36 (1.29-1.43)"	40.1 (38.1-42.1)"	1.296	42.112	12/29/2024
				1.329	42.773	12/30/2024
				1.316	42.646	12/31/2024
				1.285	42.410	01/23/2025
1800		1.40 (1.33-1.47)"	40.0 (38-42)"	1.337	42.003	12/29/2024
				1.371	42.687	12/30/2024
				1.357	42.369	12/31/2024
				1.325	42.345	01/23/2025
				1.317	39.868	01/25/2025@
1860		1.40 (1.33-1.47)"	40.0 (38-42)"	1.352	39.795	01/25/2025@
1880		1.40 (1.33-1.47)"	40.0 (38-42)"	1.419	42.590	12/30/2024
				1.406	42.251	12/31/2024
1900		1.0 (1.33-1.47)"	40.0 (38-42)"	1.432	42.577	12/30/2024
				1.376	39.739	01/25/2025@
2412		1.77 (1.68-1.86)"	39.3 (35.3-43.2)"	1.654	38.259	02/27/2025@
2437		1.79 (1.7-1.88)"	39.2 (35.3-43.1)"	1.772	42.211	12/28/2024
				1.831	41.469	12/29/2024
2450		1.80 (1.71-1.89)"	39.2 (35.3-43.1)"	1.782	42.190	12/28/2024
				1.842	41.441	12/29/2024
				1.681	38.214	02/27/2025@
2462		1.81 (1.72-1.9)"	39.2 (35.3-43.1)"	1.690	38.200	02/27/2025
5250		4.71 (4.24-5.18)"	36.0 (32.4-39.5)"	4.723	35.952	12/29/2024
				4.746	36.548	12/30/2024@
				4.511	35.941	12/31/2024@
5290		4.75 (4.28-5.23)"	35.9 (32.3-39.5)"	4.773	35.884	12/29/2024
				4.793	36.479	12/30/2024@
				4.550	35.880	12/31/2024@
5530		5.00 (4.5-5.5)"	35.6 (32-39.2)"	4.603	39.021	01/04/2025@
				4.637	32.371	01/05/2025
				4.576	38.994	02/20/2024
5500		4.97 (4.47-5.46)"	35.7 (32.1-39.2)"	4.603	39.021	01/04/2025@
				4.606	32.431	01/05/2025
				4.576	38.994	02/20/2025
5775		5.25 (4.72-5.77)"	35.3 (31.8-38.9)"	4.910	31.886	01/05/2025@
				4.957	32.303	01/06/2025@
5800		5.27 (4.74-5.8)"	35.3 (31.8-38.8)"	4.938	31.841	01/05/2025@
				4.991	32.279	01/06/2025@

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 +/ - 2ºC of the temperature at which the dielectric properties were determined. The liquid depth within the phantom used for measurements was at least 15cm. Additional precautions are routinely taken to ensure the stability of the simulated tissue such as covering the phantoms when scans are not actively in process in order to minimize evaporation. The lab environment is continuously monitored. The Table below presents the range and average environmental conditions during the SAR tests reported herein:

Table 15

	Target	Measured
Ambient Temperature	18 – 25 ˚C	Range: 18.6 – 23.2˚C Avg. 21.8 ˚C
Tissue Temperature	18 – 25 ˚C	Range: 21.2-23.2˚C Avg. 22.2˚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 16

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

12.2 DUT Configuration(s)

The DUT is a portable device operational at the body and face as described in section 6.0 while using the applicable accessories listed in section 7.0. All accessories listed in section 7.0 of this report were considered when implementing the guidelines specified in KDB 643646. KDB 248227 D01 applied to WLAN test configurations. KDB 941225 was applied to LTE test configurations.

12.3 DUT Positioning Procedures

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

12.3.1 Body

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

12.3.2 Head

Not applicable.

12.3.3 Face

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

12.4 DUT Test Channels

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

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

Where

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

12.5 SAR Result Scaling Methodology

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

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

P_max = Maximum Power (W)
P_int = Initial Power (W)
Drift = DASY drift results (dB)
SAR_meas = Measured 1-g 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 and ISED. 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 LMR assessments for 769-775MHz band at Body & Face.

The new derivative model was assessed with the previous highest applicable configuration at the Body and Face. Body assessments are done with the newly introduced body-worn accessories which are compatible with this new derivative model. SAR plot of the highest result per Table 17 (bolded) are presented in Appendix E.

Table 17

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									
AN000418A01	PMNN4816A	PMLN8689A w/ PMLN8507A	None	769.1000	2.94	-0.07	3.83	1.98	EMR-AB-241225-07
		PMLN8689A w/ PMLN8508A			2.91	-0.14	3.80	2.02	EMR-AB-241225-03
		PMLN8689A w/ AY000229A01 w/ RLN6488A			2.94	-0.26	4.86	**2.62**	MFR-AB-250111-04
		PMLN8689A w/ RLN6487A w/ RLN6488A			2.97	0.06	5.06	2.55	BL-AB-241225-11
	PMNN4818A	PMLN8690A w/ AY000229A01 w/ RLN6488A			2.95	0.33	4.36	2.21	BL-AB-241225-10
Face									
AN000411A01	PMNN4817A	None, 2.5cm @ back	None	772.0000	2.95	-0.67	1.44	**0.85**	BL-FACE-241225-13

13.2 LMR assessments for 799-824MHz band at Body & Face

The new derivative model was assessed with the previous highest applicable configuration at the Body and Face. Body assessments are done with the newly introduced body-worn accessories which are compatible with this new derivative model. SAR plot of the highest result per Table 18 (bolded) are presented in Appendix E.

Table 18

Antenna	Battery	Carry Accessory	Cable Accessory	Test Freq (MHz)	Init Pwr (W)	SAR Drift (dB)	Meas. 1g-SAR (W/kg)	Max Calc. 1g-SAR (W/kg)	Run#
Body									
AN000411A01	PMNN4816A	PMLN8689A w/ PMLN8507A	None	824.0000	3.46	0.41	1.22	0.63	BL-AB-241226-03@
		PMLN8689A w/ PMLN8508A			3.46	0.14	1.35	0.70	BL-AB-241226-04@
		PMLN8689A w/ AY000229A01 w/ RLN6488A			3.47	0.79	6.23	**3.23**	MIN-AB-250110-07
		PMLN8689A w/ RLN6487A w/ RLN6488A			3.48	-0.23	3.29	1.79	MIN-AB-250110-09
	PMNN4818A	PMLN8690A w/ AY000229A01 w/ RLN6488A			3.45	0.32	3.16	1.65	EMR-AB-241226-08
Face									
AN000411A01	PMNN4816A	None 2.5cm @ back	None	824.0000	3.44	-0.51	2.36	**1.39**	BL-FACE-241226-01@

13.3 LMR assessments for 851-869MHz band at Body & Face.

The new derivative model was asses with the previous highest applicable configuration at the Body and Face. Body assessments are done with the newly introduced body-worn accessories which are compatible with this new derivative model. SAR plot of the highest result per Table 19 (bolded) are presented in Appendix E.

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#
Body									
AN000411A01	PMNN4816A	PMLN8689A w/ PMLN8507A	None	851.0000	3.58	-0.08	1.29	0.66	BL-AB-241226-19
		PMLN8689A w/ PMLN8508A			3.56	-0.34	1.40	0.77	BL-AB-241226-20
		PMLN8689A w/ AY000229A01 w/ RLN6488A			3.52	-0.38	6.94	**3.87**	MAN-AB-250111-02@
		PMLN8689A w/ RLN6487Aw/ RLN6488A			3.60	-0.02	5.02	2.52	BL-AB-241226-16
	PMNN4818A	PMLN8690A w/ AY000229A01 w/ RLN6488A			3.60	-0.45	2.66	1.48	BL-AB-241226-15
Face									
AN000418A01	PMNN4817A	None 2.5cm @ back	None	851.0000	3.56	-0.27	3.40	**1.83**	BL-FACE-241227-01@

13.4 Additional LMR assessment for ISED, Canada

Based on the assessment results for body and face, additional tests were not required for the Industry Canada frequency range as the testing performed is in compliance with Industry Canada frequency range.

As per ISED Notice 2016-DRS001, additional tests only required the low, mid and high frequency channels for the highest configuration from Body (768-776MHz) that previous original filing (exceeded on filed SAR value). The SAR results are in table below. SAR plots of the highest result (bolded) are present in Appendix E.

Table 20

Antenna	Battery	Carry Accessory	Cable Accessory	Test Freq (MHz)	Init Pwr (W)	SAR Drift (dB)	Meas. 1g-SAR (W/kg)	Max Calc. 1g-SAR (W/kg)	Run#
Body									
AN000411A01	PMNN4816A	PMLN8689A w/ AY000229A01 w/ RLN6488A	None	769.1000	2.94	-0.26	4.86	**2.62**	MFR-AB-250111-04
				772.0000	2.92	0.30	4.64	2.38	MIN-AB-250227-09
				774.0000	2.90	0.23	4.48	2.31	MIN-AB-250227-10

As per ISED Notice 2016-DRS001, additional tests only required the low, mid and high frequency channels for the highest configuration from Body (798-824MHz) that previous original filing (exceeded on filed SAR value). The SAR results are in table below. SAR plots of the highest result (bolded) are present in Appendix E.

Table 21

Antenna	Battery	Carry Accessory	Cable Accessory	Test Freq (MHz)	Init Pwr (W)	SAR Drift (dB)	Meas. 1g-SAR (W/kg)	Max Calc. 1g-SAR (W/kg)	Run#
Body									
AN000411A01	PMNN4816A	PMLN8689A w/ AY000229A01 w/ RLN6488A	None	799.1000	2.95	-0.42	3.85	2.15	MFR-AB-250125-05
				811.5000	3.60	0.73	5.25	2.63	MFR-AB-250125-06
				824.000	3.47	0.79	6.23	**3.23**	MIN-AB-250110-07

As per ISED Notice 2016-DRS001, additional tests only required the low, mid and high frequency channels for the highest configuration from Body (851-869MHz) that previous original filing (exceeded on filed SAR value). The SAR results are in table below. SAR plots of the highest result (bolded) are present in Appendix E.

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#
Body									
AN000411A01	PMNN4816A	PMLN8689A w/ AY000229A01 w/ RLN6488A	None	851.0000	3.52	-0.38	6.94	**3.87**	MAN-AB-250111-02@
				860.0000	3.60	-0.95	2.88	1.79	MFR-AB-250125-03
				869.0000	3.59	-0.82	3.96	2.40	MFR-AB-250125-04

13.5 LTE assessments for FCC & ISED

13.5.1 LTE B2 (1850-1910 MHz) assessments at the Body & Face

The new derivative model was assessed with the previous highest applicable configuration at the Body and Face. Body assessments are done with the newly introduced body-worn accessories which are compatible with this new derivative model. SAR plot of the highest result per Table 23 (bolded) are presented in Appendix E.

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#
Body (1RB, BW = 20MHz, Offset = Low)									
AN000411A01	PMNN4816A	PMLN8689A w/ PMLN8507A	None	1880.0000	0.210	-0.40	0.027	0.036	ZIQ-AB-241230-07
		PMLN8689A w/ PMLN8508A			0.210	-0.23	0.023	0.029	ZIQ-AB-241230-06
		PMLN8689A w/ AY000229A01 w/ RLN6488A			0.210	-0.27	0.035	0.045	ZIQ-AB-241231-02
		PMLN8689A w/ RLN6487A w/ RLN6488A			0.210	-0.41	0.035	**0.046**	ZIQ-AB-241231-05
	PMNN4818A	PMLN8690A w/ AY000229A01 w/ RLN6488A			0.215	-0.43	0.021	0.027	ZIQ-AB-241231-04
Face (1RB, BW = 20MHz, Offset = Low)									
AN000411A01	PMNN4816A	None 2.5cm @ front	None	1900.0000	0.219	-0.09	0.135	**0.159**	ZIQ-FACE-241230-05

13.5.2 LTE B4 (1710-1755 MHz) assessments at the Body & Face

The new derivative model was assessed with the previous highest applicable configuration at the Body and Face. Body assessments are done with the newly introduced body-worn accessories which are compatible with this new derivative model. SAR plot of the highest result per Table 24 (bolded) are presented in Appendix E.

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#
Body (1RB, BW = 20MHz, Offset = Mid)									
AN000411A01	PMNN4817A	PMLN8689A w/ PMLN8507A	None	1732.5000	0.216	-0.29	0.075	**0.094**	BL-AB-250123-05
		PMLN8689A w/ PMLN8508A			0.216	-0.05	0.076	0.090	ZIQ-AB-241229-06
		PMLN8689A w/ AY000229A01 w/ RLN6488A			0.216	-0.20	0.043	0.053	ZIQ-AB-241229-08
		PMLN8689A w/ RLN64878A w/ RLN6488A			0.216	-0.28	0.048	0.060	ZIQ-AB-241230-03
	PMNN4818A	PMLN8690A w/ AY000229A01 w/ RLN6488A			0.220	-0.33	0.034	0.042	ZIQ-AB-241229-08
Face (1RB, BW = 20MHz, Offset = Mid)									
AN000411A01	PMNN4817A	None 2.5cm @ front	None	1732.5000	0.216	-0.15	0.205	**0.248**	ZIQ-FACE-241231-03

13.5.3 LTE B12 (699-716 MHz) assessments at the Body & Face

The new derivative model was assessed with the previous highest applicable configuration at the Body and Face. Body assessments are done with the newly introduced body-worn accessories which are compatible with this new derivative model. SAR plot of the highest result per Table 25 (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#
Body (1RB, BW = 10MHz, Offset = High)									
AN000411A01	PMNN4816A	PMLN8689A w/ PMLN8507A	None	707.5000	0.210	-0.33	0.065	0.084	ZIQ-AB-241227-01@
		PMLN8689A w/ PMLN8508A			0.210	-0.42	0.065	0.086	ZIQ-AB-241227-02@
		PMLN8689A w/ AY000229A01 w/ RLN6488A			0.210	-0.39	0.092	0.121	ZIQ-AB-241227-03@
	PMNN4818A	PMLN8690A w/ AY000229A01 w/ RLN6488A			0.211	-0.24	0.097	**0.122**	ZIQ-AB-241227-05@
		PMLN8690A w/ RLN64878A w/ RLN6488A			0.211	-0.44	0.086	0.114	ZIQ-AB-241227-06@
Face (1RB, BW = 10MHz, Offset = High)									
AN000411A01	PMNN4816A	None 2.5cm @ front	None	707.5000	0.214	-0.18	0.040	**0.049**	ZIQ-FACE-241227-07@

13.5.4 LTE B13 (777-787 MHz) assessments at the Body & Face

The new derivative model was assessed with the previous highest applicable configuration at the Body and Face. Body assessments are done with the newly introduced body-worn accessories which are compatible with this new derivative model. SAR plot of the highest result per Table 26 (bolded) are presented in Appendix E.

Table 26

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 (1RB, BW = 10MHz, Offset = Low)									
AN000411A01	PMNN4817A	PMLN8689A w/ PMLN8507A	None	782.0000	0.212	-0.16	0.122	0.150	ZIQ-AB-241228-06@
		PMLN8689A w/ PMLN8508A			0.212	-0.15	0.117	0.144	ZIQ-AB-241228-08@
		PMLN8689A w/ AY000229A01 w/ RLN6488A			0.212	-0.44	0.152	**0.200**	ZIQ-AB-241228-09@
		PMLN8689A w/ RLN64878A w/ RLN6488A			0.212	-0.28	0.149	0.189	MHN-AB-241228-13
	PMNN4818A	PMLN8690A w/ AY000229A01 w/ RLN6488A			0.215	-0.13	0.121	0.146	ZIQ-AB-241228-11@
Face (1RB, BW = 10MHz, Offset = Low)									
AN000411A01	PMNN4817A	None 2.5cm @ back	None	782.0000	0.212	-0.27	0.062	**0.078**	MHN-FACE-241228-14

13.5.5 LTE B14 (788-798 MHz) assessments at the Body & Face

The new derivative model was assessed with the previous highest applicable configuration at the Body and Face. Body assessments are done with the newly introduced body-worn accessories which are compatible with this new derivative model. SAR plot of the highest result per Table 27 (bolded) are presented in Appendix E.

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#
Body (1RB, BW = 10MHz, Offset = Low)									
AN000411A01	PMNN4816A	PMLN8689A w/ PMLN8507A	None	793.0000	0.224	-0.38	0.109	0.134	MHN-AB-241227-09
		PMLN8689A w/ PMLN8508A			0.224	-0.12	0.114	0.132	MHN-AB-241227-11
		PMLN8689A w/ AY000229A01 w/ RLN6488A			0.224	-0.41	0.173	0.214	MHN-AB-241228-01@
		PMLN8689A w/ RLN64878A w/ RLN6488A			0.224	-0.42	0.186	**0.228**	ZIQ-AB-241228-04@
	PMNN4818A	PMLN8690A w/ AY000229A01 w/ RLN6488A			0.210	0.28	0.129	0.155	MHN-AB-241228-03@
Face (1RB, BW = 10MHz, Offset = Low)									
AN000411A01	PMNN4817A	None 2.5cm @ back	None	793.0000	0.222	-0.29	0.065	**0.079**	MHN-FACE-241229-01@

13.5.6 Additional Assessments per ISED Notice 2016-DRS001

As per ISED Notice 2016-DRS001, additional tests only required the low, mid and high frequency channels for the highest configuration from Body (LTE Band 2) that previous original filing (exceeded on filed SAR value). The SAR results are in table below. SAR plots of the highest result (bolded) are present in Appendix E.

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#
Body (1RB, BW = 20MHz, Offset = Low)									
AN000411A01	PMNN4816A	PMLN8689A w/ AY000229A01 w/ RLN6488A	None	1860.0000	0.221	0.02	0.032	0.036	MIN-AB-250126-01@
				1880.0000	0.210	-0.41	0.035	**0.046**	ZIQ-AB-241231-05
				1900.0000	0.219	-0.49	0.027	0.035	MIN-AB-250126-02@

LTE Band 4, 12, 13 and 14 only has one channel; no additional tests were required for low, mid and high frequency channels as per ISED Notice 2016-DRS001.

13.6 WLAN Assessments for FCC & ISED

13.6.1 WLAN 2.4 GHz Assessments at the Body & Face

The new derivative model was assessed with the previous highest applicable configuration at the Body and Face. Body assessments are done with the newly introduced body-worn accessories which are compatible with this new derivative model. SAR plot of the highest result per Table 29 (bolded) are presented in Appendix E.

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#
Body (802.11b, 22MHz)									
AN000411A01	PMNN4816A	PMLN8689A w/ PMLN8507A	None	2437.0000	0.098	-0.25	0.022	0.034	EMR-AB-241228-06
		PMLN8689A w/ PMLN8508A			0.098	0.07	0.020	0.029	EMR-AB-241228-07
		PMLN8689A w/ AY000229A01 w/ RLN6488A			0.098	-0.25	0.014	0.021	EMR-AB-241228-09
	PMNN4818A	PMLN8690A w/ AY000229A01 w/ RLN6488A			0.098	-0.39	0.034	0.054	BL-AB-241229-02
		PMLN8690A w/ RLN6487A w/ RLN6488A			0.098	-0.43	0.043	**0.068**	BL-AB-241229-03
Face (802.11b, 22MHz)									
AN000411A01	PMNN4816A	None 2.5cm @ front	None	2437.0000	0.098	0.01	0.146	**0.210**	BL-FACE-241229-04

13.6.2 WLAN 5.0 GHz (U-NII-2A 5.25-5.35 GHz) Assessments at the Body & Face

The new derivative model was assessed with the previous highest applicable configuration at the Body and Face. Body assessments are done with the newly introduced body-worn accessories which are compatible with this new derivative model. SAR plot of the highest result per Table 30 (bolded) are presented in Appendix E.

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#
Body (802.11ac, 80MHz BW)									
AN000411A01	PMNN4817A	PMLN8689A w/ PMLN8507A	None	5290.0000	0.055	-0.99*	0.010	0.017	EMR-AB-241230-04
		PMLN8689A w/ PMLN8508A			0.055	-1.38*	0.008	0.016	BL-AB-241231-02@
		PMLN8689A w/ AY000229A01 w/ RLN6488A			0.055	-1.87*	0.007	0.016	BL-AB-241231-04@
		PMLN8690A w/ RLN6487A w/ RLN6488A			0.055	0.01	0.013	**0.018**	EMR-AB-250101-01@
	PMNN4818A	PMLN8690A w/ AY000229A01 w/ RLN6488A			0.057	-0.40	0.005	0.008	EMR-AB-241231-08
Face (802.11ac, 80MHz BW)									
AN000411A01	PMNN4816A	None 2.5cm @ front	None	5290.0000	0.058	-0.34	0.267	**0.381**	BL-FACE-241229-06

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

13.6.3 WLAN 5.0 GHz (U-NII-2C 5.47-5.65 GHz) Assessments at the Body & Face

The new derivative model was assessed with the previous highest applicable configuration at the Body and Face. Body assessments are done with the newly introduced body-worn accessories which are compatible with this new derivative model. SAR plot of the highest result per Table 31 (bolded) are presented in Appendix E.

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#
Body (802.11ac, 80MHz BW)									
AN000411A01	PMNN4816A	PMLN8689A w/ PMLN8507A	None	5530.0000	0.062	0.70*	0.014	0.017	MAN-AB-250104-03
		PMLN8689A w/ PMLN8508A			0.062	-3.48*	0.009	**0.024**	EMR-AB-250220-02
		PMLN8689A w/ AY000229A01 w/ RLN6488A			0.062	0.04	0.011	0.014	MFR-AB-250104-06
		PMLN8690A w/ RLN6487A w/ RLN6488A			0.062	-0.82*	0.015	0.022	MAN-AB-250105-06
	PMNN4818A	PMLN8690A w/ AY000229A01 w/ RLN6488A			0.061	-0.37	0.010	0.014	MFR-AB-250105-02@
Face (802.11ac, 80MHz BW)									
AN000411A01	PMNN4816A	None 2.5cm @ front	None	5530.0000	0.062	0.14	0.220	**0.273**	MFR-FACE-250105-08

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

13.6.4 WLAN 5.0 GHz (U-NII-2C 5.65-5.85 GHz) Assessments at the Body & Face

The new derivative model was assessed with the previous highest applicable configuration at the Body and Face. Body assessments are done with the newly introduced body-worn accessories which are compatible with this new derivative model. SAR plot of the highest result per Table 32 (bolded) are presented in Appendix E.

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#
Body (802.11ac, 80MHz BW)									
AN000411A01	PMNN4817A	PMLN8689A w/ PMLN8507A	None	5775.0000	0.060	-0.30	0.009	0.012	MFR-AB-250106-02@
		PMLN8689A w/ PMLN8508A			0.060	-1.03*	0.009	0.014	MAN-AB-250106-04@
		PMLN8689A w/ AY000229A01 w/ RLN6488A			0.060	-4.64*	0.001	0.003	MAN-AB-250106-08
		PMLN8690A w/ RLN6487A w/ RLN6488A			0.060	-1.57*	0.009	**0.016**	MFR-AB-250107-01@
	PMNN4818A	PMLN8690A w/ AY000229A01 w/ RLN6488A			0.060	-0.15	0.002	0.003	MFR-AB-250106-10
Face (802.11ac, 80MHz BW)									
AN000411A01	PMNN4816A	None 2.5cm @ front	None	5775.0000	0.061	-0.19	0.186	**0.244**	MFR-FACE-250106-01@

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

13.6.5 Additional Assessments per ISED Notice 2016-DRS001

As per ISED Notice 2016-DRS001, additional tests only required the low, mid and high frequency channels for the highest configuration from Body (WLAN 2.4GHz) that previous original filing (exceeded on filed SAR value). The SAR results are in table below. SAR plots of the highest result (bolded) are present in Appendix E.

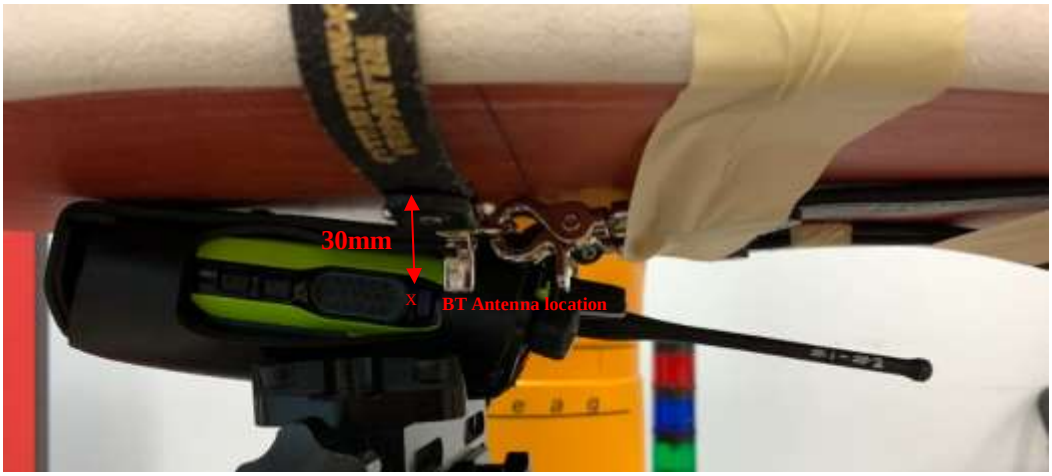
Table 33

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#
Body (802.11b, 22MHz)									
AN000411A01	PMNN4818A	PMLN8690A w/ RLN6487A w/ RLN6488A	None	2412.0000	0.097	-0.29	0.029	0.045	MFR-AB-250228-08@
				2437.0000	0.098	-0.43	0.043	**0.068**	BL-AB-241229-03
				2462.0000	0.097	-0.20	0.030	0.046	MAN-AB-250227-13

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 for standalone Bluetooth transmitter. The closest separation distance from the Bluetooth Antenna to the phantom is 30mm with PMLN8689A (Leather carry case) w/ AY000229A01 (Fireman Strap) w/ RLN6488A (Anti Sway Strap), as indicated in the following picture:



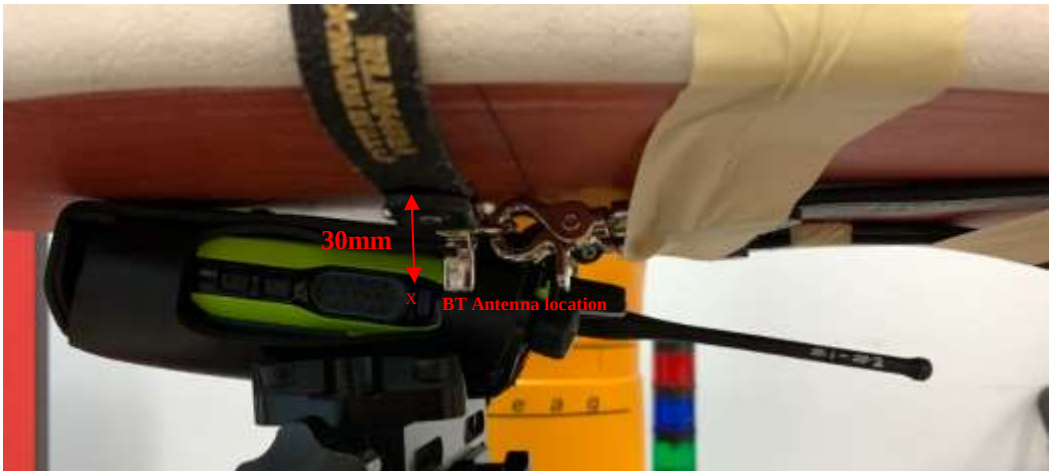
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] *[√ F(GHz)] = 0.6, which is ≤ 3 for 1-g SAR or 7.5 for 10-g extremity

Where:
Max. power = 15.56mW (19.95mW*78% duty cycle)
Min. test separation distance = 30mm
F(GHz) = 2.48 GHz

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 ISED assessment for BT

The closest separation distance from the Bluetooth Antenna to the phantom is 30mm with PMLN8689A (Leather carry case) w/ AY000229A01 (Fireman Strap) w/ RLN6488A (Anti Sway Strap), as indicated in the following picture:



Based on the Table 11 from RSS-102 (Issue 6), by applying interpolation formula at separation distance 30mm, the power limit is 89mW.

Table 11: Power limits for exemption from routine SAR evaluation based on the separation distance

Frequency (MHz)	≤ 5 mm (mW)	10 mm (mW)	15 mm (mW)	20 mm (mW)	25 mm (mW)	30 mm (mW)	35 mm (mW)	40 mm (mW)	45 mm (mW)	> 50 mm (mW)
≤ 300	45	116	139	163	189	216	246	280	319	362
450	32	71	87	104	124	147	175	208	248	296
835	21	32	41	54	72	96	129	172	228	298
1900	6	10	18	33	57	92	138	194	257	323
2450	3	7	16	32	56	89	128	170	209	245
3500	2	6	15	29	50	72	94	114	134	158
5800	1	5	13	23	32	41	54	74	102	128

Where:
Max. power = 15.56mW (19.95mW*78% duty cycle)

Since the output power level, 15.56mW is below the power limit of 89mW, SAR test is exempt for Bluetooth.

14.3 FCC assessment for NFC

Based on below calculation, SAR test exclusion power threshold at 13.56 MHz is 443 mW. Maximum power for NFC is 35 mW, hence SAR test was not required for NFC.

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**:**
For 100 MHz to 1500 MHz:
{[Power allowed at *numeric threshold* for 50 mm at 100 MHz] + [(test separation distance – 50 mm) · (f(MHz)/150)]} mW
= 474.3 mW

Where:
Power allowed at *numeric threshold* for 50 mm at 100 MHz = 474.3 mW
Test separation distance = 50 mm

KDB 447498 4.3.1, c.1) for below 100 MHz and test separation distances >50 mm and <200 mm,
Power threshold at the corresponding test separation distance at 100 MHz in step b) is multiply by [1+log (100/f (MHz))]
= 474.3 mW * [1+log (100/13.56 MHz)]
= 885.9 mW

Where:
f (MHz)= 13.56 MHz

KDB 447498 4.3.1, c.2) for below 100 MHz and test separation distances ≤50 mm,
Power threshold determined by equation in c) 1) is multiplied by ½
= 885.9 mW * 0.5
= 443.0 mW

14.4 ISED assessment for NFC

The closest separation distance from the NFC coil to the phantom is 50mm (NFC coil are located inside battery) with PMLN8689A (Leather carry case) w/ AY000229A01 (Fireman Strap) w/ RLN6488A (Anti Sway Strap), as indicated in the following picture:

By referring to RSS-102 (Issue 6) Section 7.1.8 SAR estimation for exempted transmitters

$$SAR_{estimated} = \frac{P_{max}}{P_{max,exemption}} \times 0.25 \times SAR_{limit}\ W/kg$$

Where :

P_{max} = 35 mW

$P_{max,exemption}$: 362 mW (refer to Table 11 below)

Distance: 50 mm (Based on the NFC coil location against the phantom)

Table 11: Power limits for exemption from routine SAR evaluation based on the separation distance

Frequency (MHz)	≤ 5 mm (mW)	10 mm (mW)	15 mm (mW)	20 mm (mW)	25 mm (mW)	30 mm (mW)	35 mm (mW)	40 mm (mW)	45 mm (mW)	> 50 mm (mW)
≤ 300	45	116	139	163	189	216	246	280	319	362
450	32	71	87	104	124	147	175	208	248	296
835	21	32	41	54	72	96	129	172	228	298
1900	6	10	18	33	57	92	138	194	257	323
2450	3	7	16	32	56	89	128	170	209	245
3500	2	6	15	29	50	72	94	114	134	158
5800	1	5	13	23	32	41	54	74	102	128

$SARestimated$ = (35/362)*(0.25*1.6) = 0.039 W/kg

15.0 Shortened Scan Assessment

A "shortened" scan using the highest SAR configuration overall from above was performed to validate the SAR drift of the full 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 34

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#
AN000411A01	PMNN4816A	PMLN8689A w/ AY000229A01 w/ RLN6488A	None	851.0000	3.60	-0.27	6.21	3.30	MFR-AB-250125-07

16.0 Simultaneous Transmission

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

Table 35

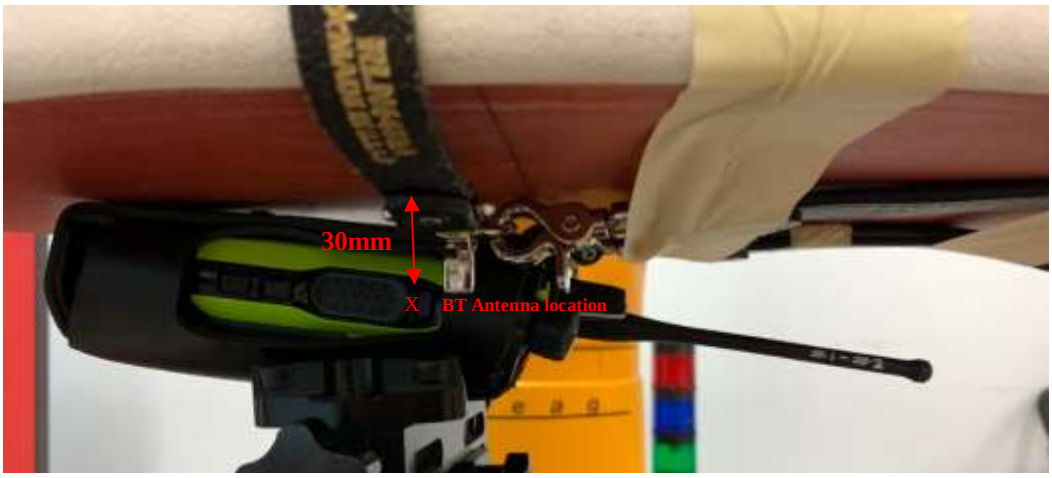
Exposure Conditions	Item	Capable Simultaneous Transmit Configurations
Body-Worn	1	LMR + WLAN 2.4 GHz
	2	LMR + WLAN 5 GHz + BT
	3	LMR + BT
	4	LMR + LTE
	5	LMR + BT + LTE
	6	BT + LTE
Face	1	LMR + WLAN 2.4 GHz
	2	LMR + WLAN 5 GHz + BT
	3	LMR + BT
	4	LMR + LTE
	5	LMR + BT + LTE
	6	BT + LTE

BT, WLAN 2.4 GHz and 5GHz are sharing the same antenna, only one technology to transmit at a single time. Except the WLAN 5GHz with BT. WLAN 2.4GHz and BT are in the same frequency range, thus only WLAN 2.4GHz is selected for simultaneous transmission as WLAN 2.4GHz power is higher than BT power. Since standalone BT is exempted, simultaneous transmission for BT is excluded as well.

16.1 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 ≤ 50mm:

The closest separation distance from the Bluetooth Antenna to the phantom is 30mm with a leather carry case and strap, as indicated in the picture below.



[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] *[√F(GHz)/X] = 0.1 W/kg, which is ≤ 0.4 W/kg (1g)
Where:

X = 7.5 for 1g-SAR; 18.75 for 10g
Max. Power = 15.57 mW (19.95 mW*78% duty cycle)
Min. test separation distance = 30mm
F(GHz) = 2.48 GHz

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

16.2 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 ≤ 50mm:

The closest separation distance from the NFC antenna to the phantom is 50mm with a leather carry case and strap, as indicated in the picture below.

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] *[√F(GHz)/X] = 0.1 W/kg, which is ≤ 0.4 W/kg (1g)
Where:

X = 7.5 for 1g-SAR; 18.75 for 10g
Max. Power = 35 mW (35 mW*100% duty cycle)
Min. test separation distance = 50mm
F(GHz) = 13.56 MHz

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

16.3 Simultaneous Transmission for LMR, BT, WLAN 2.4GHz and 5GHz

Table 36

Exposure condition	Standalone SAR (W/kg)				Sum of SAR (W/kg)		
	LMR	2.4GHz	5GHz	LTE	LMR + 2.4GHz	LMR + 5GHz	LMR + LTE
Body worn Exposure	3.87	0.068	0.028	0.228	3.94	3.90	4.10
Face Exposure	2.19	0.328	0.603	0.269	2.52	2.79	2.46

17.0 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 37

Frequency band (MHz)	Max Calc at Body (W/kg)	Max Calc at Face (W/kg)
	1g-SAR	1g-SAR
FCC US		
762 – 776 MHz (LMR)	2.62[1]	1.79
792 – 824 MHz (LMR)	3.23[2]	2.19
851 – 870 MHz (LMR)	3.87[3]	2.19
LTE B12	0.122[4]	0.071
LTE B13	0.200[5]	0.078[5]
LTE B14	0.228[6]	0.079
LTE B4	0.094[7]	0.269
LTE B2	0.046[8]	0.174
2412 – 2462 MHZ (WLAN 2.4 GHz)	0.068[9]	0.328
5180 – 5825 MHz (WLAN 5 GHz)	0.028	0.603
2402-2480MHz (Bluetooth)	NA	NA
NFC	NA	NA
Highest Simultaneous Transmission SAR	4.10[10]	2.79[10]

Note:

[1] New highest SAR value at 762-776 MHz for body-worn accessory is 2.62 W/kg compared to previous on file SAR value of 2.38 W/kg.

[2] New highest SAR value at 792-824MHz for body-worn accessory is 3.23 W/kg compared to previous on file SAR value of 1.22 W/kg.

[3] New highest SAR value at 851-870 MHz for body-worn accessory is 3.87 W/kg compared to previous on file SAR value of 0.99 W/kg.

[4] New highest SAR value at LTE B12 for body-worn accessory is 0.122 W/kg compared to previous on file SAR value of 0.121 W/kg.

[5] New highest SAR value at LTE B13 for body-worn accessory and face are 0.200 W/kg & 0.078 W/kg compared to previous on file SAR value of 0.99 W/kg & 0.56 W/kg.

[6] New highest SAR value at LTE B14 for body-worn accessory is 0.228 W/kg compared to previous on file SAR value of 0.118 W/kg.

[7] New highest SAR value at LTE B4 for body-worn accessory is 0.094 W/kg compared to previous on file SAR value of 0.023 W/kg.

[8] New highest SAR value at LTE B2 for body-worn accessory is 0.046 W/kg compared to previous on file SAR value of 0.018 W/kg.

[9] New highest SAR value at WLAN 2.4GHz for body-worn accessory is 0.068 W/kg compared to previous on file SAR value of 0.055 W/kg.

[10] New highest simultaneous transmission SAR value for body-worn accessory & face is 4.10 W/kg & 2.79 W/kg compared to previous on file SAR value of 2.48 W/kg & 2.72 W/kg.

Table 38

Frequency band (MHz)	Max Calc at Body (W/kg)	Max Calc at Face (W/kg)
	1g-SAR	1g-SAR
ISED Canada		
762 – 776 MHz (LMR)	2.62[1]	1.79
792 – 824 MHz (LMR)	3.23[2]	2.19
851 – 870 MHz (LMR)	3.87[3]	2.19
LTE B12	0.122[4]	0.071
LTE B13	0.200[5]	0.078[5]
LTE B14	0.228[6]	0.079
LTE B4	0.094[7]	0.269
LTE B2	0.046[8]	0.174
2412 – 2462 MHZ (WLAN 2.4 GHz)	0.068[9]	0.328
5180 – 5825 MHz (WLAN 5 GHz)	0.028	0.603
2402-2480MHz (Bluetooth)	NA	NA
NFC	0.039	0.039
Highest Simultaneous Transmission SAR	4.14[10]	2.83[10]

Note:

[1] New highest SAR value at 762-776 MHz for body-worn accessory is 2.62 W/kg compared to previous on file SAR value of 2.38 W/kg.

[2] New highest SAR value at 792-824MHz for body-worn accessory is 3.23 W/kg compared to previous on file SAR value of 1.22 W/kg.

[3] New highest SAR value at 851-870 MHz for body-worn accessory is 3.87 W/kg compared to previous on file SAR value of 0.99 W/kg.

[4] New highest SAR value at LTE B12 for body-worn accessory is 0.122 W/kg compared to previous on file SAR value of 0.121 W/kg.

[5] New highest SAR value at LTE B13 for body-worn accessory and face are 0.200 W/kg & 0.078 W/kg compared to previous on file SAR value of 0.99 W/kg & 0.56 W/kg.

[6] New highest SAR value at LTE B14 for body-worn accessory is 0.228 W/kg compared to previous on file SAR value of 0.118 W/kg.

[7] New highest SAR value at LTE B4 for body-worn accessory is 0.094 W/kg compared to previous on file SAR value of 0.023 W/kg.

[8] New highest SAR value at LTE B2 for body-worn accessory is 0.046 W/kg compared to previous on file SAR value of 0.018 W/kg.

[9] New highest SAR value at WLAN 2.4GHz for body-worn accessory is 0.068 W/kg compared to previous on file SAR value of 0.055 W/kg.

[10] New highest simultaneous transmission SAR value for body-worn accessory & face is 4.14 W/kg & 2.83 W/kg compared to previous on file SAR value of 2.48 W/kg & 2.72 W/kg.

Table 39

Frequency band (MHz)	Max Calc at Body (W/kg)	Max Calc at Face (W/kg)
	1g-SAR	1g-SAR
Overall		
762 – 776 MHz (LMR)	2.62[1]	1.79
792 – 824 MHz (LMR)	3.23[2]	2.19
851 – 870 MHz (LMR)	3.87[3]	2.19
LTE B12	0.122[4]	0.071
LTE B13	0.200[5]	0.078[5]
LTE B14	0.228[6]	0.079
LTE B4	0.094[7]	0.269
LTE B2	0.046[8]	0.174
2412 – 2462 MHZ (WLAN 2.4 GHz)	0.068[9]	0.328
5180 – 5825 MHz (WLAN 5 GHz)	0.028	0.603
2402-2480MHz (Bluetooth)	NA	NA
NFC	0.039	0.039
Highest Simultaneous Transmission SAR	4.14[10]	2.83[10]

Note:

[1] New highest SAR value at 762-776 MHz for body-worn accessory is 2.62 W/kg compared to previous on file SAR value of 2.38 W/kg.

[2] New highest SAR value at 792-824MHz for body-worn accessory is 3.23 W/kg compared to previous on file SAR value of 1.22 W/kg.

[3] New highest SAR value at 851-870 MHz for body-worn accessory is 3.87 W/kg compared to previous on file SAR value of 0.99 W/kg.

[4] New highest SAR value at LTE B12 for body-worn accessory is 0.122 W/kg compared to previous on file SAR value of 0.121 W/kg.

[5] New highest SAR value at LTE B13 for body-worn accessory and face are 0.200 W/kg & 0.078 W/kg compared to previous on file SAR value of 0.99 W/kg & 0.56 W/kg.

[6] New highest SAR value at LTE B14 for body-worn accessory is 0.228 W/kg compared to previous on file SAR value of 0.118 W/kg.

[7] New highest SAR value at LTE B4 for body-worn accessory is 0.094 W/kg compared to previous on file SAR value of 0.023 W/kg.

[8] New highest SAR value at LTE B2 for body-worn accessory is 0.046 W/kg compared to previous on file SAR value of 0.018 W/kg.

[9] New highest SAR value at WLAN 2.4GHz for body-worn accessory is 0.068 W/kg compared to previous on file SAR value of 0.055 W/kg.

[10] New highest simultaneous transmission SAR value for body-worn accessory & face is 4.14 W/kg & 2.83 W/kg compared to previous on file SAR value of 2.48 W/kg & 2.72 W/kg.

The test results clearly demonstrate compliance with FCC/ISED Occupational/Controlled RF Exposure limits of 8 W/kg averaged over 1 gram per the requirements of FCC 47 CFR § 2.1093 and ISED RSS-102 (Issue 6).

18.0 Variability Assessment

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

19.0 System Uncertainty

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

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