



**DECLARATION OF COMPLIANCE SAR ASSESSMENT Part 2 of 3**

<b>Motorola Solutions Inc.</b> <b>EME Test Laboratory</b> Motorola Solutions Malaysia Sdn Bhd Plot 2A, Medan Bayan Lepas, Mukim 12 SWD 11900 Bayan Lepas Penang, Malaysia.	<b>Date of Report: 07/30/2024</b> <b>Report Revision: C</b>
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<b>Responsible Engineer:</b> <b>Report Author:</b> <b>Date/s Tested:</b> <b>Manufacturer:</b> <b>Manufacturer Location:</b> <b>DUT Description:</b> <b>Test TX mode(s):</b> <b>Max. Power output:</b> <b>Nominal Power:</b> <b>Tx Frequency Bands:</b> <b>Signaling type:</b> <b>Model(s) Tested:</b> <b>Model(s) Certified:</b> (HVIN/PMN) <b>Serial Number(s):</b> <b>Classification:</b> <b>Firmware Version (FVIN):</b> <b>Applicant Name:</b> <b>Applicant Address:</b> <b>FCC ID:</b> <b>FCC Test Firm Registration Number:</b> <b>IC:</b> <b>IC Test Site registration:</b>	Alfred Hoe Kean Loon (EME Engineer) Alfred Hoe Kean Loon (EME Engineer) 4/8/2024 – 4/10/2024, 4/18/2024 - 4/22/2024, 4/25/2024-5/6/2024, 5/09/2024, 5/15/2024, 5/17/2024 – 5/22/2024, 5/31/2024-6/3/2024, 6/8/2024 Motorola Solutions Malaysia Sdn. Bhd. Plot 2A, Medan Bayan Lepas, Mukim 12 SWD, 11900 Bayan Lepas, Penang, Malaysia Handheld Portable – APX N70 Single Band VHF Portable Radio, Model 4.5 CW (PTT), WLAN2.4GHz, WLAN5GHz, LTE, NFC Refer table 3 (part 1 of 3) Refer table 3 (part 1 of 3) Refer table 3 (part 1 of 3) Refer table 3 (part 1 of 3) H35KET9PW8AN Refer 1.0 Introduction (part 1 of 3) 022TAF1517, 022TAF1510 Occupational/Controlled Environment D03.75.46 Motorola Solutions Inc. Plot 2A, Medan Bayan Lepas, Mukim 12 SWD, 11900 Bayan Lepas, Penang, Malaysia AZ489FT7149 This report contains results that are immaterial for FCC equipment approval, which are clearly identified. 823256 109U-89FT7149 This report contains results that are immaterial for ISED equipment approval, which are clearly identified. 24843
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The test results clearly demonstrate compliance with Occupational/Controlled Environment RF Exposure limits of 8 W/kg averaged over 1 gram per the requirements of FCC 47 CFR § 2.1093 and RSS-102 (Issue 5)

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

Saw Sun Hock (Approval Signatory)  
 Approved Date: 07/30/2024

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**1.0 System Validation for LTE**

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

**Table 1**

Dates	Probe Calibration Point		Probe SN	Measured Tissue Parameters		Validation		
				$\sigma$	$\epsilon_r$	Sensitivity	Linearity	Isotropy
<b>CW</b>								
12/29/2024	Head	750	7594	0.87	42.77	Pass	Pass	Pass
1/5/2024	Head	1800		1.39	40.60	Pass	Pass	Pass
<b>LTE</b>								
1/4/2024	Head	750	7594	0.86	42.42	Pass	Pass	Pass
1/5/2024	Head	1800		1.39	40.60	Pass	Pass	Pass

**2.0 System Verification for LTE**

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 (Bolded). The Table below summarizes the daily system check results used for the SAR assessment.

**Table 2**

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 (%)
7594	IEEE/I EC Head	SPEAG D750V3 / 1098	8.54 +/- 10%	0.285	9.02	04/30/2024	5.6
				0.287	9.08	05/01/2024	<b>6.3</b>
				0.275	8.70	05/02/2024	1.9
				0.286	9.05	05/03/2024	6.0
				0.279	8.83	05/04/2024	3.4
				0.283	8.96	05/05/2024	4.9
				0.285	9.02	05/06/2024	5.6
		0.287	9.08	05/16/2024	6.3		
		SPEAG D1800V2 / 2D120	38.30 +/- 10%	1.15	36.39	04/25/2024	-5.0
				1.17	37.03	04/26/2024 @	-3.3
				1.15	36.39	04/27/2024@	-5.0
				1.15	36.39	04/28/2024@	-5.0
				1.13	35.76	04/29/2024	<b>-6.6</b>
				1.17	37.03	05/17/2024	-3.3

### 3.0 Equivalent Tissue Test Results for LTE

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 3**

Frequency (MHz)	Tissue Type	Conductivity Target (S/m)	Dielectric Constant Target	Conductivity Meas. (S/m)	Dielectric Constant Meas.	Tested Date
708	IEEE/ IEC Head	0.89 (0.84-0.93)	42.1 (40.0-44.2)	0.867	41.701	04/30/2024
				0.870	42.233	05/01/2024
				0.874	40.200	05/16/2024
750		0.89 (0.85-0.93)	41.9 (39.8-44.0)	0.882	41.57	04/30/2024
				0.885	42.097	05/01/2024
				0.916	43.282	05/02/2024
				0.909	42.032	05/03/2024
				0.867	40.172	05/04/2024
				0.882	40.346	05/05/2024
				0.882	40.297	05/06/2024
782		0.89 (0.85-0.94)	41.7 (39.7-43.8)	0.888	40.06	05/16/2024
				0.896	42.002	05/01/2024
	0.927			43.171	05/02/2024	
793	0.90 (0.85-0.94)	41.7 (39.6-43.8)	0.921	42.032	05/03/2024	
			0.925	41.904	05/03/2024	
			0.881	40.047	05/04/2024	
1733	1.36 (1.29-1.43)	40.1 (38.1-42.1)	0.897	40.221	05/05/2024	
			0.896	40.182	05/06/2024	
			1.330	38.723	04/27/2024	
			1.372	38.949	04/28/2024	
			1.320	39.168	04/29/2024	
			1.323	38.474	05/16/2024@	

**Table 3 (Continued)**

Frequency (MHz)	Tissue Type	Conductivity Target (S/m)	Dielectric Constant Target	Conductivity Meas. (S/m)	Dielectric Constant Meas.	Tested Date
1800	IEEE/ IEC Head	1.40 (1.33-1.47)	40.0 (38.0-42.0)	1.36	38.172	04/25/2024
				1.371	39.638	04/26/2024@
				1.369	38.603	04/27/2024@
				1.412	38.856	04/28/2024@
				1.358	39.07	04/29/2024
				1.361	38.213	05/17/2024
1860		1.40 (1.33-1.47)	40.0 (38.0-42.0)	1.394	38.079	04/25/2024@
				1.402	39.565	04/26/2024@
				1.396	38.305	05/16/2024@
1880		1.40 (1.33-1.47)	40.0 (38.0-42.0)	1.409	38.275	05/16/2024@
1900		1.40 (1.33-1.47)	40.0 (38.0-42.0)	1.417	38.025	04/25/2025
				1.425	39.527	04/26/2024@
	1.420			38.244	05/16/2024@	

## 4.0 DUT Test Data for LTE

SAR test reduction is applied using the following criteria according to KDB 941225 D05:

- a. Per Section 5.2.1, SAR is required for QPSK 1RB allocation for the largest bandwidth
  - The required channel and RB offset combination with the highest maximum output power is required for SAR.
  - When the reported SAR  $\leq 0.8$  W/kg, testing of the remaining required test channels are not required. Otherwise, SAR is required for the remaining required test channels using the RB offset configuration with highest output power for that channel.
  - When the reported SAR for a required test channel is  $> 1.45$  W/kg, SAR is required for all RB offset configuration for that channel.
- b. Per Section 5.2.2, SAR is required for QPSK 50% RB allocation using the largest bandwidth following the same procedures outline in Section 5.2.1.
- c. Per Section 5.2.3, QPSK SAR is not required for 100% allocation when the highest maximum output power for the 100% allocation is less than the highest maximum output power of the 1RB and 50%RB allocation and the reported for the 1RB and 50% RB allocation is  $< 0.8$  W/kg.
- d. Per Section 5.2.4, SAR test is required for higher modulation when the highest maximum output power for the configuration in higher order modulation is  $> 1/2$  dB higher than same configuration in QPSK or when the reported SAR for the QPSK configuration is  $> 1.45$  W/kg.

## 4.1 Assessments for LTE band 12 (699-716 MHz) Output Power Data

These power measurements were used to determine the necessary modes for SAR testing according to KDB 941225.

Table 4

Band	BW (MHz)	Modulation	RB Size	RB Offset	Measured power (dBm)			Max power (dBm)	Target MPR
Channel					23095				
Frequency (MHz)					707.50				
12	10	QPSK	1	0	23.37			24.00	0.00
			1	24	23.16				
			1	49	23.24				
			25	0	22.12			24.00	1.00
			25	12	22.13				
			25	25	22.10				
		50	0	22.22			24.00	1.00	
		16QAM	1	0	22.91			24.00	1.00
			1	24	22.59				
			1	49	22.74				
			25	0	21.27			24.00	2.00
			25	12	21.24				
			25	25	21.16				
		50	0	21.25			24.00	2.00	
Channel					23025	23095	23165	Max power (dBm)	Target MPR
Frequency (MHz)					700.50	707.50	714.50		
12	5.0	QPSK	1	0	23.16	23.04	23.23	24.00	0.00
			1	12	23.34	23.05	23.12		
			1	24	22.94	23.15	22.48		
			12	0	22.05	22.14	22.26	24.00	1.00
			12	6	22.14	22.11	22.35		
			12	13	22.12	22.14	22.36		
		25	0	22.15	22.13	22.30	24.00	1.00	
		16QAM	1	0	22.02	22.31	22.35	24.00	1.00
			1	12	22.24	22.45	22.58		
			1	24	21.92	22.37	22.10		
			12	0	20.98	21.19	21.26	24.00	2.00
			12	6	21.15	21.13	21.30		
			12	13	21.11	21.20	21.28		
		25	0	21.23	21.15	21.32	24.00	2.00	
Channel					23017	23095	23173	Max power (dBm)	Target MPR
Frequency (MHz)					699.70	707.50	715.30		
12	3.0	QPSK	1	0	23.00	23.04	23.18	24.00	0.00
			1	7	23.06	23.17	23.17		
			1	14	22.89	23.11	23.21		
			8	0	22.07	22.18	22.25	24.00	1.00
			8	3	22.06	22.11	22.25		
			8	7	22.04	22.15	22.25		
		15	0	22.07	22.09	22.21	24.00	1.00	
		16QAM	1	0	22.70	22.24	22.29	24.00	1.00
			1	7	22.78	22.50	22.49		
			1	14	22.48	22.10	22.22		
			8	0	21.28	21.19	21.26	24.00	2.00
			8	3	21.26	21.17	21.34		
			8	7	21.26	21.18	21.24		
		15	0	21.11	21.09	21.30	24.00	2.00	

**Table 4 (Continued)**

Band	BW (MHz)	Modulation	RB Size	RB Offset	Measured power (dBm)			Max power (dBm)	Target MPR
					23017	23095	23173		
Channel					699.70	707.50	715.30		
Frequency (MHz)									
12	1.4	QPSK	1	0	22.99	23.08	23.18	24.00	0.00
			1	2	23.05	23.08	23.23		
			1	5	22.97	23.16	23.13		
			3	0	23.08	23.14	23.22	24.00	0.00
			3	1	23.17	23.10	23.12		
			3	3	22.87	23.09	23.24		
		6	0	22.06	22.06	22.08	24.00	1.00	
		16QAM	1	0	22.05	22.23	22.33	24.00	1.00
			1	2	22.06	22.14	22.56		
			1	5	22.07	22.27	22.13		
			3	0	22.29	22.07	22.28	24.00	1.00
			3	1	22.29	22.14	22.19		
			3	3	22.17	22.14	22.22		
			6	0	21.10	21.13	21.10	24.00	2.00



**Assessments at the Body**

Table below presents the data of the body assessment. SAR plots of the highest results per Table 5 (bolded) are present in the Appendix E.

**Table 5**

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#
1 RB									
AN000413A01	PMNN4816A	PMLN8371A w/ PMLN8507A	None	707.5000	0.217	-0.07	0.077	<b>0.091</b>	EMR-AB-240430-02
		PMLN8371A w/ PMLN8508A		707.5000	0.217	0.10	0.075	0.087	EMR-AB-240430-03
		PMLN8372A w/ PMLN8507A		707.5000	0.217	-0.06	0.070	0.082	EMR-AB-240430-04
		PMLN8372A w/ PMLN8508A		707.5000	0.217	0.04	0.069	0.080	EMR-AB-240430-05
		PMLN8372A w/ PMLN5409A		707.5000	0.217	-0.16	0.043	0.052	AR-AB-240430-08

Table 5 (Continued)

Antenna	Battery	Carry Accessory	Cable Accessory	Test Freq (MHz)	Init Pwr (W)	SAR Drift (dB)	Meas. 1g-SAR (W/kg)	Max Calc. 1g-SAR (W/kg)	Run#
50 % RB									
AN000413A01	PMNN4816A	PMLN8371A w/ PMLN8507A	None	707.5000	0.163	-0.08	0.053	0.066	EMR-AB-240430-19
		PMLN8371A w/ PMLN8508A		707.5000	0.163	-0.18	0.053	0.067	EMR-AB-240430-20
		PMLN8372A w/ PMLN8507A		707.5000	0.163	-0.06	0.045	0.056	EMR-AB-240430-21
		PMLN8372A w/ PMLN8508A		707.5000	0.163	-0.08	0.045	0.056	EMR-AB-240430-22
		PMLN8372A w/ PMLN5409A		707.5000	0.163	-0.11	0.030	0.038	EMR-AB-240430-25
Assessment of Additional Battery									
AN000413A01	PMNN4817A	PMLN8371A w/ PMLN8507A	None	707.5000	0.22	-0.07	0.072	0.085	AR-AB-240501-12
	PMNN4818A	PMLN8507A		707.5000	0.217	-0.17	0.053	0.064	AR-AB-240501-13

**Assessments at the Face**

Table below presents the data of the face assessment.

**Table 6**

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#
1 RB									
AN000413A01	PMNN4817A	Radio @ front 2.5cm	None	707.5000	0.217	0.04	0.035	0.041	AR-FACE-240501-14
		Radio @ back 2.5cm		707.5000	0.217	-0.20	0.047	<b>0.057</b>	AR-FACE-240501-17
50 % RB									
AN000413A01	PMNN4817A	Radio @ front 2.5cm	None	707.5000	0.163	-0.26	0.023	0.030	AR-FACE-240501-15
		Radio @ back 2.5cm		707.5000	0.163	-0.14	0.036	0.045	AR-FACE-240501-16
Assessment of Additional Battery									
AN000413A01	PMNN4816A	Radio @ front 2.5cm	None	707.5000	0.217	0.06	0.042	0.049	BL-FACE-240516-18
	PMNN4818A			707.5000	0.217	-0.14	0.021	0.025	BL-FACE-240516-19
	PMNN4816A	Radio @ back 2.5cm		707.5000	0.217	-0.03	0.041	0.048	BL-FACE-240516-20
	PMNN4818A			707.5000	0.217	-0.04	0.035	0.041	BL-FACE-240516-21

**Additional Assessments for ISED Canada**

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

### 4.2 SAR assessments for LTE band 13 (777-787 MHz)

#### Output Power Data

These power measurements were used to determine the necessary modes for SAR testing according to KDB 941225.

**Table 7**

Band	BW (MHz)	Modulation	RB Size	RB Offset	Measured power (dBm)			Max power (dBm)	Target MPR
						23230			
<b>Channel</b>						<b>23230</b>			
<b>Frequency (MHz)</b>						<b>782.00</b>			
13	10	QPSK	1	0		23.42		24.00	0.00
			1	24		23.08			
			1	49		23.23			
			25	0		22.41		24.00	1.00
			25	12		22.31			
			25	25		22.14			
		50	0		22.42		24.00	1.00	
		16QAM	1	0		22.74		24.00	1.00
			1	24		22.79			
			1	49		22.80			
			25	0		21.59		24.00	2.00
			25	12		21.37			
			25	25		21.30			
		50	0		21.41		24.00	2.00	
<b>Channel</b>						<b>23230</b>		<b>Max power (dBm)</b>	<b>Target MPR</b>
<b>Frequency (MHz)</b>						<b>782.00</b>			
13	5.0	QPSK	1	0		23.26		24.00	0.00
			1	12		23.14			
			1	24		23.18			
			12	0		22.15		24.00	1.00
			12	6		22.25			
			12	13		22.21			
		25	0		22.26		24.00	1.00	
		16QAM	1	0		22.15		24.00	1.00
			1	12		22.01			
			1	24		22.02			
			12	0		21.18		24.00	2.00
			12	6		21.25			
			12	13		21.29			
		25	0		21.36		24.00	2.00	

Table below indicates the SAR results that have been performed based on previous highest configurations. SAR plots of the highest results per Table 7 (bolded) are present in the Appendix E.

**Table 8**

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#
1 RB									
AN000413A01	PMNN4816A	PMLN8371A w/ PMLN8507A	None	782.0000	0.220	-0.35	0.065	<b>0.081</b>	BL-AB-240501-22
		PMLN8371A w/ PMLN8508A		782.0000	0.220	-0.05	0.063	0.073	BL-AB-240501-23
		PMLN8372A w/ PMLN8507A		782.0000	0.220	-0.40	0.060	0.075	BL-AB-240502-02
		PMLN8372A w/ PMLN8508A		782.0000	0.220	-0.38	0.060	0.075	BL-AB-240502-03
		PMLN8372A w/ PMLN5409A		782.0000	0.220	-0.14	0.043	0.051	BL-AB-240502-06
50 % RB									
AN000413A01	PMNN4816A	PMLN8371A w/ PMLN8507A	None	782.0000	0.174	0.08	0.048	0.055	AR-AB-240502-17
		PMLN8371A w/ PMLN8508A		782.0000	0.174	-0.09	0.052	0.061	AR-AB-240502-18
		PMLN8372A w/ PMLN8507A		782.0000	0.174	-0.40	0.045	0.057	BL-AB-240502-19

**Table 8 (Continued)**

Antenna	Battery	Carry Accessory	Cable Accessory	Test Freq (MHz)	Init Pwr (W)	SAR Drift (dB)	Meas. 1g-SAR (W/kg)	Max Calc. 1g-SAR (W/kg)	Run#
AN000413A01	PMNN4816A	PMLN8372A w/ PMLN8508A	None	782.0000	0.174	-0.32	0.044	0.054	BL-AB-240502-20
		PMLN8372A w/ PMLN5409A		782.0000	0.174	-0.11	0.029	0.034	BL-AB-240502-23
Assessment of Additional Battery									
AN000413A01	PMNN4817A	PMLN8371A w/ PMLN8507A	None	782.0000	0.220	-0.32	0.058	0.072	AR-AB-240503-12
	PMNN4818A	PMLN8507A		782.0000	0.220	0.08	0.055	0.063	AR-AB-240503-13

**Assessments at the Face**

Table below presents the data of the face assessment.

**Table 9**

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#
1 RB									
AN000413A01	PMNN4817A	Radio @ front 2.5cm	None	782.0000	-0.27	0.04	0.027	0.033	BL-FACE-240503-14
		Radio @ back 2.5cm		782.0000	-0.21	-0.20	0.047	0.057	BL-FACE-240503-17
50 % RB									
AN000413A01	PMNN4817A	Radio @ front 2.5cm	None	782.0000	-0.31	-0.26	0.022	0.027	BL-FACE-240503-15
		Radio @ back 2.5cm		782.0000	-0.22	-0.14	0.037	0.045	BL-FACE-240503-16
Assessment of Additional Battery									
AN000413A01	PMNN4816A	Radio @ front 2.5cm	None	782.0000	0.22	-0.14	0.038	0.045	BL-FACE-240503-19
	PMNN4818A			782.0000	0.22	-0.15	0.021	0.025	BL-FACE-240503-20
	PMNN4816A	Radio @ back 2.5cm		782.0000	0.220	-0.16	0.054	<b>0.064</b>	BL-FACE-240503-18
	PMNN4818A			782.0000	0.220	0.05	0.039	0.045	BL-FACE-240503-21

**Additional Assessments for ISED Canada**

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

**4.3 SAR assessments for LTE band 14 (788-798 MHz)**

**Output Power Data**

These power measurements were used to determine the necessary modes for SAR testing according to KDB 941225.

**Table 10**

Band	BW (MHz)	Modulation	RB Size	RB Offset	Measured power (dBm)		Max power (dBm)	Target MPR
					Channel	Frequency (MHz)		
14	10	QPSK	1	0		23.38	24.00	0.00
			1	24		23.27		
			1	49		23.18		
			25	0		22.31	24.00	1.00
			25	12		22.26		
			25	25		22.29		
		50	0		22.26	24.00	1.00	
		16QAM	1	0		22.39	24.00	1.00
			1	24		22.81		
			1	49		22.80		
			25	0		21.41	24.00	2.00
			25	12		21.32		
			25	25		21.38		
		50	0		21.26	24.00	2.00	
<b>Channel</b>					<b>23330</b>		<b>Max power (dBm)</b>	<b>Target MPR</b>
<b>Frequency (MHz)</b>					<b>793.00</b>			
14	5.0	QPSK	1	0		23.30	24.00	0.00
			1	12		23.24		
			1	24		23.26		
			12	0		22.25	24.00	1.00
			12	6		22.24		
			12	13		22.27		
		25	0		22.22	24.00	1.00	
		16QAM	1	0		22.18	24.00	1.00
			1	12		22.12		
			1	24		22.17		
			12	0		21.29	24.00	2.00
			12	6		21.23		
			12	13		21.20		
		25	0		21.31	24.00	2.00	

Table below indicates the SAR results that have been performed based on previous highest configurations. SAR plots of the highest results per Table 11 (bolded) are present in the Appendix E.

**Table 11**

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#
1 RB									
AN000413A01	PMNN4816A	PMLN8371A w/ PMLN8507A	None	793.0000	0.218	-0.20	0.082	0.099	EMR-AB-240503-03
		PMLN8371A w/ PMLN8508A		793.0000	0.218	-0.30	0.082	<b>0.102</b>	EMR-AB-240503-04
		PMLN8372A w/ PMLN8507A		793.0000	0.218	-0.28	0.076	0.094	EMR-AB-240503-05
		PMLN8372A w/ PMLN8508A		793.0000	0.218	-0.30	0.075	0.093	EMR-AB-240503-06
		PMLN8372A w/ PMLN5409A		793.0000	0.218	-0.06	0.053	0.062	EMR-AB-240503-09
50 % RB									
AN000413A01	PMNN4816A	PMLN8371A w/ PMLN8507A	None	793.0000	0.170	-0.03	0.058	0.068	BL-AB-240504-20
		PMLN8371A w/ PMLN8508A		793.0000	0.170	0.00	0.062	0.073	BL-AB-240504-21
		PMLN8372A w/ PMLN8507A		793.0000	0.170	0.25	0.052	0.061	BL-AB-240505-02
		PMLN8372A w/ PMLN8508A		793.0000	0.170	-0.26	0.054	0.067	BL-AB-240505-03
		PMLN8372A w/ PMLN5409A		793.0000	0.170	-0.04	0.027	0.032	BL-AB-240505-06
Assessment of Additional Battery									
AN000413A01	PMNN4817A	PMLN8372A w/ PMLN8508A	None	793.0000	0.218	-0.41	0.075	0.095	AR-AB-240505-17
	PMNN4818A			793.0000	0.218	-0.13	0.058	0.069	AR-AB-240505-18



### Assessments at the Face

Table below presents the data of the face assessment.

**Table 12**

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#
1 RB									
AN000413A01	PMNN4817A	Radio @ front 2.5cm	None	793.0000	0.218	-0.40	0.028	0.035	AR-FACE-240506-02
		Radio @ back 2.5cm		793.0000	0.218	-0.05	0.052	0.061	AR-FACE-240505-19
50 % RB									
AN000413A01	PMNN4817A	Radio @ front 2.5cm	None	793.0000	0.170	-0.41	0.020	0.026	AR-FACE-240505-21
		Radio @ back 2.5cm		793.0000	0.170	0.09	0.037	0.043	AR-FACE-240505-20
Assessment of Additional Battery									
AN000413A01	PMNN4816A	Radio @ front 2.5cm	None	793.0000	0.218	-0.15	0.036	0.043	AR-FACE-240506-03
	PMNN4818A			793.0000	0.218	-0.06	0.020	0.023	AR-FACE-240506-04
	PMNN4816A	Radio @ back 2.5cm		793.0000	0.218	-0.03	0.058	<b>0.068</b>	AR-FACE-240506-06
	PMNN4818A			793.0000	0.218	-0.08	0.034	0.040	AR-FACE-240506-05

### Additional Assessments for ISED Canada

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

### 4.4 SAR assessments for LTE band 4 (1710-1755 MHz)

#### Output Power Data

These power measurements were used to determine the necessary modes for SAR testing according to KDB 941225.

**Table 13**

Band	BW (MHz)	Modulation	RB Size	RB Offset	Measured power (dBm)			Max power (dBm)	Target MPR
					Channel	20175			
Frequency (MHz)					1732.50				
4	20	QPSK	1	0		23.54		24.00	0.00
			1	49		23.53			
			1	99		23.44			
			50	0		22.45			
			50	25		22.42			
			50	50		22.42			
		16QAM	100	0		22.40		24.00	1.00
			1	0		22.64			
			1	49		22.83			
			1	99		22.63			
			50	0		21.40			
			50	25		21.44			
			50	50		21.38			
			100	0		21.44			
Channel					20025	20175	20325	Max power (dBm)	Target MPR
Frequency (MHz)					1717.50	1732.50	1747.50		
4	15	QPSK	1	0	23.58	23.52	23.48	24.00	0.00
			1	37	23.35	23.44	23.07		
			1	74	23.41	23.33	23.45		
			36	0	22.46	22.43	22.41		
			36	19	22.47	22.38	22.28		
			36	39	22.47	22.34	22.29		
		16QAM	75	0	22.38	22.43	22.25	24.00	1.00
			1	0	22.08	22.82	22.78		
			1	37	22.91	22.65	22.58		
			1	74	22.25	22.53	22.80		
			36	0	21.49	21.42	21.41		
			36	19	21.46	21.43	21.27		
			36	39	21.46	21.46	21.29		
			75	0	21.37	21.35	21.23		
Channel					20000	20175	20350	Max power (dBm)	Target MPR
Frequency (MHz)					1715.00	1732.50	1750.00		
4	10	QPSK	1	0	23.64	23.55	23.57	24.00	0.00
			1	24	23.31	23.43	23.61		
			1	49	23.65	23.49	23.73		
			25	0	22.41	22.34	22.27		
			25	12	22.38	22.40	22.25		
			25	25	22.49	22.51	22.40		
		16QAM	50	0	22.52	22.47	22.35	24.00	1.00
			1	0	22.86	22.78	22.62		
			1	24	22.99	22.53	22.57		
			1	49	22.88	22.49	22.58		
			25	0	21.50	21.38	21.40		
			25	12	21.45	21.41	21.34		
			25	25	21.56	21.52	21.44		
			50	0	21.50	21.43	21.34		

Table 13 (Continued)

Channel					19975	20175	20375	Max power (dBm)	Target MPR
Frequency (MHz)					1712.50	1732.50	1752.50		
4	5.0	QPSK	1	0	23.51	23.62	23.46	24.00	0.00
			1	12	23.27	23.41	23.59		
			1	24	23.33	23.45	23.24		
			12	0	22.43	22.40	22.34	24.00	1.00
			12	6	22.34	22.39	22.33		
			12	13	22.34	22.35	22.30		
			25	0	22.40	22.42	22.25	24.00	1.00
		16QAM	1	0	22.49	22.84	22.42	24.00	1.00
			1	12	22.34	22.29	22.51		
			1	24	22.27	22.72	22.34		
			12	0	21.49	21.45	21.29	24.00	2.00
			12	6	21.39	21.44	21.21		
			12	13	21.30	21.37	21.25		
			25	0	21.43	21.37	21.33	24.00	2.00
Channel					19965	20175	20385	Max power (dBm)	Target MPR
Frequency (MHz)					1711.50	1732.50	1753.50		
4	3.0	QPSK	1	0	23.45	23.49	23.35	24.00	0.00
			1	7	23.31	23.59	23.26		
			1	14	23.35	23.40	23.30		
			8	0	22.34	22.41	22.32	24.00	1.00
			8	3	22.43	22.36	22.31		
			8	7	22.37	22.32	22.30		
			15	0	22.48	22.38	22.34	24.00	1.00
		16QAM	1	0	22.58	22.54	22.34	24.00	1.00
			1	7	22.60	22.45	22.33		
			1	14	22.94	22.48	22.28		
			8	0	21.60	21.37	21.37	24.00	2.00
			8	3	21.67	21.37	21.35		
			8	7	21.52	21.37	21.37		
			15	0	21.53	21.35	21.36	24.00	2.00
Channel					19957	20175	20393	Max power (dBm)	Target MPR
Frequency (MHz)					1710.70	1732.50	1754.30		
4	1.4	QPSK	1	0	23.44	23.31	23.22	24.00	0.00
			1	2	23.36	23.36	23.38		
			1	5	23.41	23.32	23.25		
			3	0	23.41	23.45	23.34	24.00	0.00
			3	1	23.37	23.45	23.39		
			3	3	23.24	23.42	23.37		
			6	0	22.32	22.31	22.23	24.00	1.00
		16QAM	1	0	22.43	22.44	22.43	24.00	1.00
			1	2	22.36	22.53	22.46		
			1	5	22.41	22.46	22.48		
			3	0	22.60	22.37	22.41	24.00	1.00
			3	1	22.63	22.49	22.46		
			3	3	22.66	22.32	22.35		
			6	0	21.32	21.38	21.30	24.00	2.00

Table below indicates the SAR results that have been performed based on previous highest configurations. SAR plots of the highest results per Table 14 (bolded) are present in the Appendix E.

**Table 14**

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#
1 RB									
AN000413A01	PMNN4816A	PMLN8371A w/ PMLN8507A	None	1732.5000	0.226	-0.18	0.004	0.005	EMR-AB-240427-21
		PMLN8371A w/ PMLN8508A		1732.5000	0.226	-0.10	0.005	0.006	EMR-AB-240427-22
		PMLN8372A w/ PMLN8507A		1732.5000	0.226	-0.01	0.004	0.004	EMR-AB-240428-01@
		PMLN8372A w/ PMLN8508A		1732.5000	0.226	-0.15	0.004	0.005	EMR-AB-240428-02@
		PMLN8372A w/ PMLN5409A		1732.5000	0.226	-0.10	0.017	<b>0.019</b>	EMR-AB-240428-06
50 RB									
AN000413A01	PMNN4816A	PMLN8371A w/ PMLN8507A	None	1732.5000	0.176	0.02	0.003	0.003	EMR-AB-240428-24
		PMLN8371A w/ PMLN8508A		1732.5000	0.176	-0.37	0.002	0.002	EMR-AB-240428-25
		PMLN8372A w/ PMLN8507A		1732.5000	0.176	-0.22	0.001	0.002	EMR-AB-240429-01@
		PMLN8372A w/ PMLN8508A		1732.5000	0.176	-0.28	0.001	0.001	EMR-AB-240429-03
		PMLN8372A w/ PMLN5409A		1732.5000	0.176	-0.08	0.011	0.013	EMR-AB-240429-06
Assessment of Additional Battery									
AN000413A01	PMNN4817A	PMLN8373A w/ PMLN5407A	None	1732.5000	0.226	-0.06	0.015	0.017	EMR-AB-240517-08@
	PMNN4818A			1732.5000	0.136	-0.14	0.014	0.017	EMR-AB-240517-09@

### Assessments at the Face

Table below presents the data of the face assessment.

**Table 15**

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#
1 RB									
AN000413A01	PMNN4817A	Radio @ front 2.5cm	None	1732.5000	0.226	-0.25	0.136	0.161	EMR-FACE-240429-21
		Radio @ back 2.5cm		1732.5000	0.226	-0.30	0.003	0.004	BL-FACE-240429-19
50 % RB									
AN000413A01	PMNN4817A	Radio @ front 2.5cm	None	1732.5000	0.176	-0.11	0.099	0.115	EMR-FACE-240429-22
		Radio @ back 2.5cm		1732.5000	0.176	-0.19	0.001	0.002	BL-FACE-240429-20
Assessment of Additional Battery									
AN000413A01	PMNN4816A	Radio @ front 2.5cm	None	1732.5000	0.226	-0.09	0.177	<b>0.202</b>	EMR-FACE-240429-23
	PMNN4818A			1732.5000	0.226	-0.41	0.116	0.142	EMR-FACE-240429-24
	PMNN4816A	Radio @ back 2.5cm		1732.5000	0.226	0.03	0.004	0.005	EMR-FACE-240429-25
	PMNN4818A			1732.5000	0.226	-0.09	0.007	0.008	EMR-FACE-240429-26

### Additional Assessments for ISED Canada

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

### 4.5 SAR assessments for LTE band 2 (1850-1910 MHz)

#### Output Power Data

These power measurements were used to determine the necessary modes for SAR testing according to KDB 941225.

**Table 16**

Band	BW (MHz)	Modulation	RB Size	RB Offset	Measured power (dBm)			Max power (dBm)	Target MPR
					Channel	18700	18900		
Frequency (MHz)					1860.00	1880.00	1900.00		
2	20	QPSK	1	0	23.44	23.55	23.58	24.00	0.00
			1	49	23.44	23.35	23.41		
			1	99	23.24	23.08	23.22		
			50	0	22.42	22.32	22.41	24.00	1.00
			50	25	22.44	22.24	22.41		
			50	50	22.33	22.09	22.29		
		100	0	22.35	22.24	22.35	24.00	1.00	
		16QAM	1	0	22.75	22.77	22.95	24.00	1.00
			1	49	22.75	22.46	22.87		
			1	99	22.52	22.33	22.73		
			50	0	21.42	21.35	21.42	24.00	2.00
			50	25	21.46	21.26	21.45		
			50	50	21.33	21.07	21.34		
		100	0	21.41	21.21	21.32	24.00	2.00	
Channel					18675	18900	19125	Max power (dBm)	Target MPR
Frequency (MHz)					1857.50	1880.00	1902.50		
2	15	QPSK	1	0	23.48	23.52	23.62	24.00	0.00
			1	37	23.24	22.98	23.38		
			1	74	23.56	23.48	23.33		
			36	0	22.41	22.31	22.33	24.00	1.00
			36	19	22.37	22.20	22.39		
			36	39	22.46	22.18	22.39		
		75	0	22.46	22.31	22.49	24.00	1.00	
		16QAM	1	0	22.95	22.70	22.70	24.00	1.00
			1	37	22.99	22.30	22.68		
			1	74	22.85	22.58	22.88		
			36	0	21.49	21.28	21.35	24.00	2.00
			36	19	21.44	21.25	21.39		
			36	39	21.48	21.23	21.42		
		75	0	21.47	21.29	21.35	24.00	2.00	
Channel					18650	18900	19150	Max power (dBm)	Target MPR
Frequency (MHz)					1855.00	1880.00	1905.00		
2	10	QPSK	1	0	23.61	23.40	23.51	24.00	0.00
			1	24	23.46	23.28	23.50		
			1	49	23.05	23.34	23.06		
			25	0	22.36	22.07	22.45	24.00	1.00
			25	12	22.25	22.17	22.30		
			25	25	22.23	22.26	22.36		
		50	0	22.29	22.17	22.39	24.00	1.00	
		16QAM	1	0	22.92	22.52	22.66	24.00	1.00
			1	24	22.88	22.35	22.44		
			1	49	22.99	22.47	22.41		
			25	0	21.41	21.12	21.55	24.00	2.00
			25	12	21.36	21.16	21.41		
			25	25	21.30	21.27	21.47		
		50	0	21.36	21.17	21.44	24.00	2.00	

Table below indicates the SAR results that have been performed based on previous highest configurations. SAR plots of the highest results per Table 13 (bolded) are present in the 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#
1 RB									
AN000413A01	PMNN4816A	PMLN8371A w/ PMLN8507A	None	1900.0000	0.228	0.41	0.010	0.011	AR-AB-240425-02
		PMLN8371A w/ PMLN8508A		1900.0000	0.228	0.30	0.009	0.010	AR-AB-240425-03
		PMLN8372A w/ PMLN8507A		1900.0000	0.228	-0.05	0.004	0.005	AR-AB-240425-04
		PMLN8372A w/ PMLN8508A		1900.0000	0.228	-0.20	0.005	0.006	EMR-AB-240425-05
		PMLN8372A w/ PMLN5407A		1900.0000	0.228	0.09	0.006	0.007	EMR-AB-240425-06
		PMLN8372A w/ PMLN5408A		1900.0000	0.228	-0.06	0.007	0.008	EMR-AB-240425-07
		PMLN8372A w/ PMLN5409A		1900.0000	0.228	-0.20	0.013	0.015	EMR-AB-240425-08

Table 17 (Continued)

Antenna	Battery	Carry Accessory	Cable Accessory	Test Freq (MHz)	Init Pwr (W)	SAR Drift (dB)	Meas. 1g-SAR (W/kg)	Max Calc. 1g-SAR (W/kg)	Run#
50 % RB									
AN000413A01	PMNN4816A	PMLN8371A w/ PMLN8507A	None	1900.0000	0.175	-0.41	0.010	0.012	AR-AB-240426-01@
		PMLN8371A w/ PMLN8508A		1900.0000	0.175	-0.14	0.008	0.010	AR-AB-240426-03
		PMLN8372A w/ PMLN8507A		1900.0000	0.175	-0.02	0.005	0.006	AR-AB-240426-04
		PMLN8372A w/ PMLN8508A		1900.0000	0.175	0.07	0.005	0.005	AR-AB-240426-05
		PMLN8372A w/ PMLN5407A		1900.0000	0.175	-0.10	0.006	0.007	AR-AB-240426-06
		PMLN8372A w/ PMLN5408A		1900.0000	0.175	0.17	0.007	0.008	BL-AB-240426-07
		PMLN8372A w/ PMLN5409A		1900.0000	0.175	0.19	0.013	0.0148	BL-AB-240426-08
		Assessment of Additional Battery							
AN000413A01	PMNN4817A	PMLN8372A w/ PMLN5407A	None	1900.0000	0.228	-0.29	0.018	<b>0.021</b>	BL-AB-240517-02@
	PMNN4818A	PMLN5407A		1900.0000	0.228	-0.36	0.013	0.016	BL-AB-240517-03@



**Assessments at the Face**

Table below presents the data of the face assessment.

**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#
1 RB									
AN000413A01	PMNN4817A	Radio @ front 2.5cm	None	1900.0000	0.228	0.02	0.107	0.118	AR-FACE-240427-01@
		Radio @ back 2.5cm		1900.0000	0.228	-0.09	0.007	0.008	AR-FACE-240427-04
50 % RB									
AN000413A01	PMNN4817A	Radio @ front 2.5cm	None	1900.0000	0.175	-0.07	0.084	0.097	AR-FACE-240427-02@
		Radio @ back 2.5cm		1900.0000	0.175	0.05	0.006	0.007	AR-FACE-240427-05
Assessment of Additional Battery									
AN000413A01	PMNN4816A	Radio @ front 2.5cm	None	1900.0000	0.228	0.14	0.110	<b>0.121</b>	BL-FACE-240517-04@
	PMNN4818A			1900.0000	0.228	-0.14	0.091	0.104	BL-FACE-240517-05@
	PMNN4816A	Radio @ back 2.5cm		1900.0000	0.235	0.04	0.003	0.003	EMR-FACE-240517-15@
	PMNN4818A			1900.0000	0.235	-0.02	0.005	0.005	BL-FACE-240517-06@

**Additional Assessments for ISED Canada**

As per ISED Notice 2016-DRS001, additional tests were required for the low, mid and high frequency channels for the configuration with the highest SAR value. The SAR results are in Tables below. SAR plot of the highest results per Table 19 (bolded) are present in the 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									
AN000413A01	PMNN4817A	PMLN8373A w/ PMLN5409A	None	1860.0000	0.221	0.24	0.022	<b>0.025</b>	EMR-AB-240517-10@
AN000413A01	PMNN4817A	PMLN8373A w/ PMLN5409A	None	1880.0000	0.227	0.15	0.021	0.023	EMR-AB-240517-11@
AN000413A01	PMNN4817A	PMLN8373A w/ PMLN5409A	None	1900.0000	0.228	-0.29	0.018	0.021	BL-AB-240517-02@
Face									
AN000413A01	PMNN4817A	Radio @ front 2.5cm	None	1860.0000	0.222	-0.01	0.128	<b>0.146</b>	EMR-FACE-240517-12@
AN000413A01	PMNN4817A	Radio @ front 2.5cm	None	1880.0000	0.235	-0.14	0.113	0.125	EMR-FACE-240517-13@
AN000413A01	PMNN4817A	Radio @ front 2.5cm	None	1900.0000	0.228	0.14	0.110	0.121	BL-FACE-240517-04@