

	  <p>MS ISO/IEC 17025 TESTING SAMM No. 0826</p>	  <p>CERTIFICATE 2518.05</p>
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**DECLARATION OF COMPLIANCE SAR ASSESSMENT PCII Report Part 1 of 2**


<p><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.</p>	<p><b>Date of Report:</b> 05/17/2021 <b>Report Revision:</b> B</p>
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<p><b>Responsible Engineer:</b> <b>Report Author:</b> <b>Date/s Tested:</b> <b>Manufacturer:</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>  <b>Serial Number(s):</b> <b>Classification:</b> <b>Applicant Name:</b> <b>Applicant Address:</b> <b>FCC ID:</b> <b>FCC Test Firm Registration Number:</b></p>	<p>Ch'ng Jian Sheng (EME Engineer) Ch'ng Jian Sheng (EME Engineer) 03/18/2021 – 04/22/2021 Motorola Solutions Inc. Handheld Portable – EVOLVE SMART HANDHELD W STD BATTERY EVOLVE-I IS SMART HANDHELD W IS HICAP BATT  LTE, WCDMA, BT &amp; WLAN Refer to Table 3 Refer to Table 3 Refer to Table 3 QPSK, 16QAM, FHSS, DSSS, OFDM, RMC/AMR 12.2Kbps, HSDPA, HSUPA HK2136A [HKUN4166B], HK2137A [HKUN4165A] HK2136A [HKUN4166B], HK2156A [HKUN4166AA], HK2137A [HKUN4165A] 845DWY0050, 845DWY0064, 845DXA0043, 845DXA0121, 845DXA0145 Occupational/Controlled Motorola Solutions Inc. 8000 West Sunrise Boulevard, Fort Lauderdale, Florida 33322 AZ489FT7134; LTE, WCDMA, WLAN 2.4GHz, WLAN 5GHz, Bluetooth 823256</p>
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The test results clearly demonstrate compliance with FCC Occupational/Controlled RF Exposure limits of 1.6 W/kg averaged over 1 gram per the requirements of FCC 47 CFR § 2.1093.

Based on the information and the testing results provided herein, the undersigned certifies that when used as stated in the operating instructions supplied, said product complies with the national and international reference standards and guidelines listed in section 4.0 of this report (no deviation from standard methods). This report shall not be reproduced without written approval from an officially designated representative of the Motorola Solutions Inc EME Laboratory.

I attest to the accuracy of the data and assume full responsibility for the completeness of these measurements. 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.

<p><b>Saw Sun Hock</b> <b>(Approved Signatory)</b> <b>Approval Date: 5/17/2021</b></p>	
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**Report Revision History**

Date	Revision	Comments
04/23/2021	A	Initial release
05/17/2021	B	Removed “50% duty cycle is applied for PTT operation” statement in Section 12.5

### 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 HK2136A [HKUN4166B] and HK2137A [HKUN4165A]. These devices are classified as Occupational/Controlled.

The information herein is to show evidence of Class II Permissive Change compliance for changes made to existing on file battery BT000593A01 for EVOLVE radio, addition of new EVOLVE-i radio model HK2137A [HKUN4165A] and new battery BT000594A01 for EVOLVE-i radio into existing NITRO Portable, EVOLVE Series (FCC ID: AZ489FT7134). The new battery is an Intrinsic Safe (IS) battery while the new model is an Intrinsic Safe (IS) model.

### 2.0 FCC SAR Summary

**Table 1**

Equipment Class	Frequency Band		Head	Hotspot	Body
			1g-SAR (W/kg)		
Licensed	WCDMA	Band 2	1.06	1.06	0.41
		Band 5	1.30 <sup>1</sup>	0.50 <sup>1</sup>	0.31 <sup>1</sup>
	LTE	Band 12/17	0.99 <sup>2</sup>	0.39 <sup>2</sup>	0.36 <sup>2</sup>
		Band 13	0.87 <sup>3</sup>	0.32 <sup>3</sup>	0.26 <sup>3</sup>
		Band 5	1.04 <sup>4</sup>	0.42 <sup>4</sup>	0.26 <sup>4</sup>
		Band 4	1.13 <sup>5</sup>	0.76	0.45 <sup>5</sup>
		Band 2	1.11 <sup>6</sup>	0.67	0.35
		Band 7	0.88	0.98	0.35 <sup>7</sup>
		Band 48/42/43	1.41 <sup>8</sup>	0.47 <sup>8</sup>	0.26 <sup>8</sup>
DTS	WLAN	2.4GHz WLAN	0.27 <sup>9</sup>	0.09	0.03
NII		5GHz WLAN	0.09	N/A	0.05
DSS	Bluetooth	2.4GHz Bluetooth	0.09	0.04	0.01
Simultaneous Results			1.56 <sup>10</sup>	1.14	0.49
Equipment Class	Frequency Band		Product Specific 10g SAR (W/kg)		
NII	WLAN	5GHz WLAN	0.17		

**Notes:**

- <sup>1</sup> New highest SAR value at WCDMA B5 for Head, Hotspot & Body are 1.30, 0.50 & 0.31 W/kg compared to previous on file SAR value of 0.71, 0.17 and 0.10 W/kg respectively.
- <sup>2</sup> New highest SAR value at LTE B12/17 for Head, Hotspot & Body are 0.99, 0.39 & 0.36 W/kg compared to previous on file SAR value of 0.28, 0.12 & 0.10 W/kg respectively.
- <sup>3</sup> New highest SAR value at LTE B13 for Head, Hotspot & Body are 0.87, 0.32 & 0.26 W/kg compared to previous on file SAR value of 0.43, 0.10 & 0.10 W/kg respectively.
- <sup>4</sup> New highest SAR value at LTE B5 for Head, Hotspot & Body are 1.04, 0.42 & 0.26 W/kg compared to previous on file SAR value of 0.60, 0.14 & 0.10 W/kg respectively.
- <sup>5</sup> New highest SAR value at LTE B4 for Head & Body are 1.13 & 0.45 W/kg compared to previous on file SAR value of 1.05 & 0.43 W/kg respectively.
- <sup>6</sup> New highest SAR value at LTE B2 for Head is 1.11 W/kg compared to previous on file SAR value of 1.01 W/kg.
- <sup>7</sup> New highest SAR value at LTE B7 for Body is 0.35 W/kg compared to previous on file SAR value of 0.32 W/kg.
- <sup>8</sup> New highest SAR value at LTE B48/42/43 for Head, Hotspot & Body are 1.41, 0.47 & 0.26 W/kg compared to previous on file SAR value of 1.05, 0.42 & 0.22 W/kg respectively.
- <sup>9</sup> New highest SAR value at WLAN 2.4GHz for Head is 0.27 W/kg compared to previous on file SAR value of 0.21 W/kg.
- <sup>10</sup> New highest simultaneous transmission SAR value for Head is 1.56 W/kg compared to previous on file SAR value of 1.29 W/kg.

### 3.0 Abbreviations / Definitions

BT: Bluetooth  
CNR: Calibration Not Required  
CW: Continuous Wave  
DSS: Direct Spread Spectrum  
DUT: Device Under Test  
EME: Electromagnetic Energy  
FHSS: Frequency Hopping Spread Spectrum  
LTE: Long Term Evolution  
NA: Not Applicable  
OFDM: Orthogonal Frequency Division Multiplexing  
QPSK: Quadrature Pulse Shift Key  
RSM: Remote Speaker Microphone  
SAR: Specific Absorption Rate  
TDD: Time Division Duplex  
VoLTE; Voice over LTE  
16QAM: 16 State Quadrature Amplitude Modulation

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

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

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

#### 4.0 Referenced Standards and Guidelines

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

- IEC62209-1 (2016) Procedure to determine the specific absorption rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)
- Federal Communications Commission, “Evaluating Compliance with FCC Guidelines for Human Exposure to Radio frequency Electromagnetic Fields”, OET Bulletin 65, FCC, Washington, D.C.: 1997.
- IEEE 1528 (2013), Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques
- American National Standards Institute (ANSI) / Institute of Electrical and Electronics Engineers (IEEE) C95. 1-1992
- Institute of Electrical and Electronics Engineers (IEEE) C95.1-2005
- International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998
- Australian Communications Authority Radio communications (Electromagnetic Radiation - Human Exposure) Standard (2014)
- ANATEL, Brazil Regulatory Authority, Resolution No. 303 of July 2, 2002 "Regulation of the limitation of exposure to electrical, magnetic, and electromagnetic fields in the radio frequency range between 9 kHz and 300 GHz." and “Attachment to resolution # 303 from July 2, 2002”
- IEC62209-2 Edition 1.0 2010-03, Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Human models, instrumentation, and procedures – Part 2: Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz).
- FCC KDB – 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)

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

**Table 3**

Technologies	Tx Band (MHz)	Transmission	Duty Cycle (%)	Max Power (W)	
WCDMA B2	1852.4-1907.6	RMC/AMR 12.2Kbps, HSDPA, HSUPA	100	0.251	
WCDMA B5	826.4-846.6			0.224	
LTE B12/17	699.7-715.3/ 706.5-713.5	QPSK, 16QAM		0.200	
LTE B13	779.5-784.5			0.224	
LTE B5	824.7-848.3			0.112	
LTE B4	1710.7-1754.3			0.063	
LTE B2	1850.7-1909.3			98.28	0.028
LTE B7	2502.5-2567.5			98.16	0.018
LTE B48/42/43	3552.5-3697.5/ 3552.5-3597.5/ 3602.5-3697.5	DSSS	62.9	0.014	
WLAN 802.11b	2412-2462		100	0.025	
WLAN 802.11g			98.28	0.020	
WLAN 802.11n (20MHz)			98.16	0.014	
WLAN 802.11n (40MHz)		94.93	0.014		
WLAN 802.11a	5180-5720	OFDM	97.93	0.025	
	5745-5825			0.020	
WLAN 802.11n (20MHz)	5180-5825		98.52	0.020	
WLAN 802.11n (40MHz)	5180-5825	OFDM	96.32	0.014	
BT	2402-2480	FHSS	76.61	0.020	
BT LE				0.003	



Remarks:

1. These devices support LTE B12 and 17. Since the supported frequency span for LTE B17 falls within the support frequency span for LTE B12 and both LTE bands have the same maximum power as well as sharing the same transmission path, therefore, SAR was only assessed for LTE B12.
2. These devices support LTE B42/43 and 48. Since the supported frequency span for LTE 42/43 falls within the support frequency span for LTE B48 and the LTE bands have the same maximum power and share the same transmission path; therefore, SAR was only assessed for LTE 48.
3. These devices support VoIP in WCDMA and LTE (e.g. for 3rd-party VOIP).
4. These devices support hotspot operation for 2.4GHz WLAN and tethering application for Bluetooth.
5. WLAN 5GHz in the devices do not support hotspot function.

The intended operating positions are “at the head” with the DUT positioned touching the ear and either touching the cheek or tilted 15° from the cheek, and “at the body” by means of the offered body worn accessories as well as “hotspot mode” with the DUT position at a separation distance of 10mm from the phantom.

For Head SAR test of WWAN Antenna, the test is evaluated with the audio receiver on. This only works in voice mode when the user is making a call at the Head position. The audio receiver is triggered through VOIP with the CMW500 during the test to simulate the Head user case scenario. When the audio receiver is on, the maximum power is reduced. The following table summarizes the key power reduction information of WWAN Antenna triggered by for the applicable bands.

**Table 4**

WWAN Bands	WWAN Antenna		Power Reduction (dB)
	Maximum Power (dBm)		
	Receiver off (Full Power)	Receiver on (For Head)	
WCDMA B2	24.0	19.0	5.0
LTE B2	23.0	19.0	4.0
LTE B4	23.0	19.5	3.5
LTE B7	23.5	16.5	7.0
LTE B42/43/48	20.5	17.5	3.0

## 7.0 Optional Accessories and Test Criteria

These devices are 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

There are internal LTE/WCDMA and WLAN/BT antenna in this product. The Table below lists their descriptions.

**Table 5**

Antenna No.	Antenna Models	Description	Selected for test	Tested
1	NA	Antenna - Main 698-960MHz/1710-2690MHz/3400-3800MHz	Yes	Yes
2	NA	Wifi/BT/GNSS 1559-1606MHz, 2.4-2.5GHz, 5-6GHz	Yes	Yes

### 7.2 Batteries

There are two batteries applicable for this PCII filing. The Table below lists their descriptions.

**Table 6**

Battery No.	Battery Models	Description	Selected for test	Tested	Comments
1	BT000593A01	BATT LIION 5800T Non IS	Yes	Yes	Only compatible with EVOLVE radio
2	BT000594A01	BATTERY PACK,IS HICAP BATT LIION 5800T	Yes	Yes	Only compatible with EVOLVE-i radio

### 7.3 Body worn Accessories

These are the body worn applicable for this PCII filing. The Table below lists their descriptions.

**Table 7**

Body worn No.	Body worn Models	Description	Selected for test	Tested	Comments
1	PMLN6970A	Belt Clip holster	Yes	Yes	Tested with PMLN7965B or PMLN8266B
2	PMLN7965B	Belt Clip 3 inch	Yes	Yes	Tested with PMLN6970A
3	NNTN8266B	Belt Clip 2.5 inch	Yes	Yes	Tested with PMLN6970A

**7.4 Audio Accessories**

No audio accessories are applicable for this PCII filing.

**8.0 Description of Test System**



**8.1 Descriptions of Robotics/Probes/Readout Electronics**

**Table 8**

Dosimetric System type	System version	DAE type	Probe Type
Schmid & Partner Engineering AG SPEAG DASY 5	52.10.2.1527	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. The E-field probe first scans a coarse grid over a large area inside the phantom in order to locate the interpolated maximum SAR distribution. After the coarse scan measurement, the probe is automatically moved to a position at the interpolated maximum. The subsequent scan can directly use this position as reference for the cube evaluations.

**8.2 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	√	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. For Diacetin and similar type simulates, sugar and HEC ingredients are not needed. The solution is mixed thoroughly, covered, and allowed to sit overnight prior to use.

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

**Simulated Tissue Composition (percent by mass)**

**Table 10**

Ingredients	750MHz	835MHz	1800MHz	1900MHz	2450MHz
	Head	Head	Head	Head	Head
Sugar	57.0	57.0	NA	NA	NA
Diacetin	0	NA	51.5	51.5	51.0
De ionized-Water	40.12	40.45	47.82	48.03	48.75
Salt	1.78	1.45	0.58	0.37	0.15
HEC	1	1	NA	NA	NA
Bact.	0.1	0.1	0.1	0.1	0.1

**Table 10 (continued)**

Ingredients	2600MHz	3500MHz <sup>(1)</sup>	5GHz <sup>(1)</sup>
	Head	Head	Head
Sugar	NA	NA	NA
Diacetin	51.0	NA	NA
De ionized-Water	48.75	NA	NA
Salt	0.15	NA	NA
HEC	NA	NA	NA
Bact.	0.1	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	7519	05/29/2020	05/29/2021
SPEAG Probe	EX3DV4	7364	08/20/2020	08/20/2021
SPEAG Probe	EX3DV4	7485	08/20/2020	08/20/2021
SPEAG DAE	DAE4	1294	05/27/2020	05/27/2021
SPEAG DAE	DAE4	1483	08/12/2020	08/12/2021
SPEAG DAE	DAE4	688	08/13/2020	08/13/2021
Amplifier	5S1G4	312988	CNR	CNR
Amplifier	5S4G11	312664	CNR	CNR
Amplifier	50W 1000A	14715	CNR	CNR
Amplifier	5S1G4	313326	CNR	CNR
Amplifier	10W1000C	312859	CNR	CNR
Amplifier	5S4G11	312663	CNR	CNR
Bi-Directional Coupler	3022	77115	07/09/2020	07/09/2021
Bi-Directional Coupler	3024	61178	11/23/2020	11/23/2021
Bi-Directional Coupler	3020A	41931	07/09/2020	07/09/2021
Bi-Directional Coupler	3022	81639	09/02/2020	09/02/2021
Bi-Directional Coupler	3024	61136	07/09/2020	07/09/2021
Power Sensor	8481B	3318A10982	11/03/2020	11/03/2021
Power Sensor	8481B	MY41091243	11/03/2020	11/03/2021
Power Sensor*	E9301B	MY50280001	04/22/2020	04/22/2021
Power Sensor	E9301B	MY41495733	05/18/2020	05/18/2021
Power Sensor*	E9301B	MY55210006	04/22/2020	04/22/2021
Vector Signal Generator	E4438C	MY47272101	10/29/2019	10/29/2021
Vector Signal Generator	E4438C	MY42081753	09/05/2019	09/05/2021
Power Meter	E4419B	MY45103725	06/10/2020	06/10/2021
Power Meter	E4418B	MY45107917	07/01/2020	07/01/2021
Power Meter	E4418B	MY45100911	08/30/2019	08/30/2021
Power Meter	E4418B	MY45100739	12/03/2020	12/03/2021
Power Meter	E4416A	MY50001037	08/30/2019	08/30/2021
Temperature & Humidity Logger	DSB	16398050	08/03/2020	08/03/2021
Thermometer	HH806AU	080307	11/25/2020	11/25/2021
Temperature Probe	80PK-22	06032017	11/25/2020	11/25/2021
Network Analyzer	E5071B	MY42403147	12/01/2020	12/01/2021
Dielectric Assessment Kit	DAK-3.5	1120	08/12/2020	08/12/2021
SPEAG Dipole	D2450V2	782	02/20/2020	02/20/2023
SPEAG Dipole	D2450V2	703	10/16/2018	10/26/2021
SPEAG Dipole	D5GHZV2	1026	10/18/2018	10/18/2021
SPEAG Dipole	D5GHZV2	1027	01/31/2020	01/31/2023
SPEAG Dipole	D750V3	1098	10/15/2018	10/15/2021

\*Equipment used for SAR evaluation prior to calibration due date

**Table 11 (continued)**

Equipment Type	Model Number	Serial Number	Calibration Date	Calibration Due Date
SPEAG Dipole	D750V3	1142	11/20/2019	11/20/2020
SPEAG Dipole	D835V2	4D030	10/15/2018	10/15/2021
SPEAG Dipole	D1800V2	278	10/15/2018	10/15/2021
SPEAG Dipole	D1800V2	2d119	05/17/2018	05/17/2021
SPEAG Dipole	D1900V2	5D065	10/30/2019	10/30/2022
SPEAG Dipole	D2600V2	1002	04/09/2019	04/09/2022
SPEAG Dipole	D3500V2	1008	10/18/2018	10/18/2021
SPEAG Dipole	D3500V2	1015	02/19/2019	02/19/2022
Wideband Radio Communication Tester	CMW500	153170	11/10/2020	11/10/2022
WLAN Power Sensor	NRP-Z11	120907	08/19/2020	08/19/2021

**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			
			$\sigma$	$\epsilon_r$	Sensitivity	Linearity	Isotropy	
CW								
09/30/2020	Head	750	7485	0.85	41.4	Pass	Pass	Pass
09/30/2020		835		0.93	40.3	Pass	Pass	Pass
10/04/2020		1800		1.33	39.9	Pass	Pass	Pass
10/04/2020		1900		1.43	39.5	Pass	Pass	Pass
10/02/2020		2600		1.98	35.3	Pass	Pass	Pass
10/06/2020		3500		2.81	35.0	Pass	Pass	Pass
01/10/2021		5250		4.46	32.8	Pass	Pass	Pass
07/03/2020		750		7519	0.85	42.7	Pass	Pass
07/05/2020		1800	1.35		40.5	Pass	Pass	Pass
07/05/2020		1900	1.44		40.0	Pass	Pass	Pass
07/14/2020		2450	1.78		35.5	Pass	Pass	Pass
07/08/2020		2600	1.97		35.1	Pass	Pass	Pass
07/13/2020		3500	3.04		35.3	Pass	Pass	Pass
09/18/2020		2450	7364	1.84	35.6	Pass	Pass	Pass
09/22/2020		5250		4.36	32.6	Pass	Pass	Pass
09/21/2020		5600		4.64	32.2	Pass	Pass	Pass
09/22/2020		5750		4.88	31.9	Pass	Pass	Pass

**Table 12 (continued)**

LTE								
09/30/2020	Head	750 (1 RB)	7485	0.85	41.4	Pass	Pass	Pass
09/30/2020		835 (1 RB)		0.93	40.3	Pass	Pass	Pass
10/04/2020		1800(1 RB)		1.33	39.9	Pass	Pass	Pass
10/04/2020		1800 (50% RB)		1.33	39.9	Pass	Pass	Pass
10/04/2020		1900 (1 RB)		1.43	39.5	Pass	Pass	Pass
10/04/2020		1900 (50% RB)		1.43	39.5	Pass	Pass	Pass
10/02/2020		2600 (1 RB)		1.98	35.3	Pass	Pass	Pass
10/06/2020		3500 (1 RB)		2.81	35.0	Pass	Pass	Pass
10/06/2020		3500 (50% RB)		2.81	35.0	Pass	Pass	Pass
07/03/2020		Head		750(1 RB)	7519	0.85	42.7	Pass
07/05/2020	1800(1 RB)		1.35	40.5		Pass	Pass	Pass
07/05/2020	1800 (50% RB)		1.35	40.5		Pass	Pass	Pass
07/05/2020	1900 (1 RB)		1.44	40.0		Pass	Pass	Pass
07/05/2020	1900 (50% RB)		1.44	40.0		Pass	Pass	Pass
07/08/2020	2600 (1 RB)		1.97	35.1		Pass	Pass	Pass
07/13/2020	3500 (1 RB)		3.04	35.3		Pass	Pass	Pass
07/13/2020	3500 (50% RB)		3.04	35.3		Pass	Pass	Pass
802.11a								
01/10/2021	Head	5250	7485	4.46	32.8	Pass	Pass	Pass
09/22/2020		5250	7364	4.36	32.6	Pass	Pass	Pass
09/23/2020		5600		4.59	32.0	Pass	Pass	Pass
09/24/2020		5750		4.73	34.1	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 for each day during the SAR assessment. 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
7485		SPEAG D750V3 / 1098	8.23 +/- 10%	2.10	8.40	03/19/2021
		SPEAG D835V2 / 4d030	9.55 +/- 10%	2.41	9.64	03/18/2021#
		SPEAG D1800V2 / 278	38.70 +/- 10%	9.67	38.68	03/21/2021
		SPEAG D1900V2 / 5d065	39.50 +/- 10%	9.54	38.16	03/21/2021#
		SPEAG D2600V2 / 1002	56.10 +/- 10%	14.80	59.20	03/20/2021
		SPEAG D3500V2 / 1008	64.60 +/- 10%	6.55	65.50	03/20/2021#
		SPEAG D5GHzV2 / 1027	80.60 +/- 10%	6.70	67.00	03/22/2021
7519	IEEE/IEC Head	SPEAG D5GHzV2 / 1027	80.60 +/- 10%	8.07	80.70	04/21/2021
		SPEAG D750V3 / 1142	8.52 +/- 10%	7.87	78.70	04/22/2021
				2.33	9.32	04/21/2021
		SPEAG D835V2 / 4d030	9.55 +/- 10%	2.13	8.52	04/09/2021
				2.40	9.60	04/07/2021
				2.41	9.64	04/08/2021
				2.39	9.56	04/09/2021#
				2.59	10.36	04/10/2021
		SPEAG D1800V2 / 278	38.70 +/- 10%	2.59	10.36	04/20/2021
				9.51	38.04	03/25/2021
				9.90	39.60	04/13/2021
		SPEAG D1800V2 / 2d119	39.30 +/- 10%	9.89	39.56	04/21/2021
				10.10	40.40	03/24/2021#
		SPEAG D1900V2 / 5d065	40.50 +/- 10%	9.54	38.16	04/08/2021
				10.20	40.80	04/20/2021
				9.45	37.80	04/12/2021
		SPEAG D2450V2 / 782	54.40 +/- 10%	12.80	51.20	03/19/2021#
13.50	54.00			04/19/2021		
14.40	57.60			04/20/2021		
SPEAG D2600V2 / 1002	56.10 +/- 10%	14.70	58.80	03/25/2021		
		14.40	57.60	04/14/2021		
SPEAG D3500V2 / 1008	64.60 +/- 10%	6.68	66.80	03/26/2021		
		6.62	66.20	04/06/2021		
		7.20	72.00	04/11/2021		
		7.14	71.40	04/12/2021		
		6.48	64.80	04/14/2021		
		6.81	68.10	04/20/2021		

Note: # denotes that the system verification check covers next test day (within 24 hours)



**Table 13 (continued)**

7364	IEEE/IEC Head	SPEAG D2450V2 / 703	52.90 +/- 10%	13.40	53.60	04/10/2021
				12.90	51.60	04/11/2021
		SPEAG D5GHzV2_ 5250MHz / 1026	81.00 +/- 10%	8.05	80.50	03/24/2021#
				7.90	79.00	03/28/2021#
				7.80	78.00	03/29/2021
				7.42	74.20	04/12/2021#
				7.71	77.10	04/14/2021
		SPEAG D5GHzV2_ 5600MHz / 1026	85.90 +/- 10%	8.44	84.40	03/24/2021#
				8.23	82.30	03/25/2021#
				8.29	82.90	03/27/2021
				8.43	84.30	04/13/2021
				8.31	83.10	04/14/2021
				8.33	83.30	04/15/2021
		SPEAG D5GHzV2_ 5750MHz / 1026	82.00 +/- 10%	8.64	86.40	04/16/2021
				7.84	78.40	03/24/2021#
				7.75	77.50	03/25/2021#
				7.75	77.50	03/27/2021
				7.91	79.10	03/28/2021
8.02	80.20			03/29/2021		
7.55	75.50			04/13/2021		
7.80	78.00	04/14/2021				
7.48	74.80	04/15/2021				

Note: # denotes that the system verification check 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
708	IEEE/IEC Head	0.89 (0.84-0.93)	42.1 (40-44.2)	0.85	42.3	03/19/2021
				0.85	42.5	04/09/2021
				0.85	42.3	04/21/2021
750		0.89 (0.85-0.93)	41.9 (39.8-44)	0.89	41.7	03/19/2021
				0.89	41.9	04/09/2021
				0.89	41.7	04/21/2021
782		0.89 (0.85-0.94)	41.7 (39.7-43.8)	0.89	41.3	03/18/2021#
				0.93	41.4	04/09/2021
				0.88	41.8	04/20/2021

Note: # denotes that the tissue test result covers next test day (within 24 hours)

**Table 14 (continued)**

835		0.9 (0.86-0.95)	41.5 (39.4-43.6)	0.94	40.6	03/18/2021#
				0.90	39.6	04/07/2021
				0.92	41.4	04/08/2021
				0.93	40.5	04/09/2021#
				0.93	40.9	04/10/2021
				0.93	41.1	04/20/2021
836		0.89 (0.84-0.93)	42 (39.9-44.1)	0.95	40.6	03/18/2021#
				0.90	39.6	04/07/2021
				0.93	41.1	04/20/2021
837		0.9 (0.86-0.95)	41.5 (39.4-43.6)	0.95	40.6	03/18/2021#
				0.93	40.5	04/09/2021#
				0.93	40.7	04/10/2021
				0.93	41.1	04/20/2021
1733		1.36 (1.29-1.43)	40.1 (38.1-42.1)	1.36	39.2	03/21/2021
				1.37	38.4	03/25/2021
				1.37	39.6	04/13/2021
				1.39	38.5	04/21/2021
1800		1.4 (1.33-1.47)	40 (38-42)	1.42	38.9	03/21/2021
				1.44	38.0	03/25/2021
				1.43	39.3	04/13/2021
				1.45	38.2	04/21/2021
1880		1.4 (1.33-1.47)	40 (38-42)	1.36	38.5	03/21/2021#
				1.36	38.5	04/08/2021
				1.35	39.7	04/11/2021#
1900		1.4 (1.33-1.47)	40 (38-42)	1.38	38.5	03/21/2021#
				1.45	41.0	03/24/2021#
				1.38	38.5	04/08/2021
				1.36	39.7	04/11/2021#
				1.41	41.5	04/20/2021
1908		1.4 (1.33-1.47)	40 (38-42)	1.39	38.4	03/21/2021
				1.46	40.9	03/24/2021
				1.39	38.4	04/08/2021
				1.42	41.5	04/20/2021
2402		1.76 (1.67-1.85)	39.3 (35.4-43.2)	1.78	35.9	03/19/2021#
				1.81	36.0	04/11/2021#
				1.79	35.8	04/19/2021
				1.82	35.8	04/20/2021
2412		1.77 (1.68-1.86)	39.3 (35.3-43.2)	1.79	35.8	03/19/2021#
				1.69	35.6	04/10/2021
				1.80	35.7	04/19/2021
				1.83	35.7	04/20/2021

Note: # denotes that the tissue test result covers next test day (within 24 hours)

**Table 14 (continued)**

2450	IEEE/IEC Head	1.8 (1.71-1.89)	39.2 (35.3-43.1)	1.82	35.7	03/19/2021#
				1.73	35.5	04/10/2021
				1.86	35.9	04/11/2021#
				1.84	35.6	04/19/2021
				1.86	35.6	04/20/2021
2535		1.89 (1.8-1.99)	39.1 (35.2-43)	1.93	35.9	03/20/2021
				1.98	35.7	03/25/2021
				1.94	35.5	04/14/2021
2560		1.92 (1.82-2.01)	39.1 (35.1-43)	1.95	35.8	03/20/2021
1.96				35.4	04/14/2021	
2600		1.96 (1.86-2.06)	39 (35.1-42.9)	1.99	35.6	03/20/2021
				2.04	35.5	03/25/2021
				2.01	35.2	04/14/2021
3500		2.91 (2.62-3.2)	37.9 (34.1-41.7)	2.87	36.5	03/19/2021#
				2.80	34.3	03/22/2021
				2.80	34.4	03/25/2021#
				2.73	34.2	04/06/2021
				3.14	36.8	04/11/2021
				2.83	36.2	04/12/2021
	2.76			34.6	04/14/2021	
	2.78			36.1	04/20/2021	
3560	2.97 (2.68-3.27)	37.8 (34.1-41.6)	2.92	36.5	03/19/2021#	
			2.84	34.2	03/22/2021	
			2.85	34.4	03/25/2021#	
			3.19	36.7	04/11/2021#	
			2.86	36.1	04/12/2021#	
			2.81	34.5	04/14/2021	
			2.83	36.0	04/20/2021	
5250	4.71 (4.24-5.18)	36 (32.4-39.5)	4.40	34.2	03/24/2021#	
			4.24	33.3	03/25/2021	
			4.31	33.0	03/28/2021#	
			4.29	33.8	03/29/2021	
			4.29	36.2	04/12/2021#	
			4.53	36.2	04/13/2021#	
			4.56	35.3	04/14/2021#	
			4.40	33.8	04/21/2021	
			4.34	33.1	04/22/2021	
5260	4.72 (4.25-5.19)	35.9 (32.3-39.5)	4.25	33.3	03/24/2021#	
			4.32	33.0	03/28/2021#	
			4.30	36.2	04/12/2021#	
			4.54	36.2	04/13/2021#	
			4.57	35.3	04/14/2021#	
			4.41	33.8	04/21/2021	
			4.35	33.1	04/22/2021	

Note: # denotes that the tissue test result covers next test day (within 24 hours)

**Table 14 (continued)**

5600	IEEE/IEC Head	5.07 (4.56-5.58)	35.5 (32-39.1)	4.73	33.8	03/24/2021#
				4.57	32.8	03/25/2021#
				4.93	32.6	03/27/2021
				4.63	35.8	04/12/2021#
				4.89	35.7	04/13/2021#
				4.93	34.8	04/14/2021#
				4.75	34.1	04/15/2021#
5620		5.09 (4.58-5.6)	35.5 (31.9-39)	4.59	32.8	03/24/2021#
				4.66	33.6	03/25/2021#
				4.96	32.6	03/27/2021
				4.65	35.8	04/12/2021#
				4.92	35.7	04/13/2021#
				4.92	35.7	04/14/2021#
				4.77	34.0	04/15/2021#
5745		5.22 (4.69-5.74)	35.4 (31.8-38.9)	4.71	32.7	03/24/2021#
				4.74	33.5	03/25/2021#
				4.78	33.2	03/29/2021
				4.78	35.6	04/12/2021
				5.06	35.5	04/13/2021
				5.09	34.5	04/14/2021
				5750	5.22 (4.7-5.74)	35.4 (31.8-38.9)
5.72		32.6	03/25/2021#			
5.09		32.4	03/27/2021			
4.80		32.4	03/28/2021			
4.78		33.2	03/29/2021			
4.78		35.6	04/12/2021			
5.06		35.5	04/13/2021			
5.10		34.5	04/14/2021			

Note: # denotes that the tissue test result covers next test day (within 24 hours)

### 11.0 Environmental Test Conditions

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

**Table 15**

	Target	Measured
Ambient Temperature	18 – 25 °C	Range: 20.1 - 23.9°C Avg. 22.0 °C
Tissue Temperature	18 – 25 °C	Range: 20.7 - 22.6°C Avg. 21.6°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 and SAM phantoms filled with applicable simulated tissue were used for body and head 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	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ 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. KDB 941225 D05 and D01 were applied to LTE & WCDMA test configuration and KDB 248227 D01 applied to WLAN test configurations. CMW500 Communication Test set was used for LTE & WCDMA testing.

**12.3 DUT Positioning Procedures**

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

**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**

The DUT was positioned touching the ear while either touching the cheek or tilted 15° from the cheek.

**12.3.3 Hotspot**

The DUT was positioned with a test separation of 10mm from the phantom.

## 12.4 DUT Test Channels

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

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

Where

$N_c$  = Number of channels

$F_{\text{high}}$  = Upper channel

$F_{\text{low}}$  = Lower channel

$F_c$  = Center channel

## 12.5 SAR Result Scaling Methodology

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

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

$P_{\text{max}}$  = Maximum Power (W)

$P_{\text{int}}$  = Initial Power (W)

Drift = DASY drift results (dB)

SAR\_meas = Measured 1-g or 10-g Avg. SAR (W/kg)

DC = Transmission mode duty cycle in % where applicable

Note: for conservative results, the following are applied:

If  $P_{\text{int}} > P_{\text{max}}$ , then  $P_{\text{max}}/P_{\text{int}} = 1$ .

Drift = 1 for positive drift

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

## 12.6 DUT Test Plan

The guidelines and requirements outlined in section 4.0 were used to assess compliance of this device. All modes of operation identified in section 6.0 were considered during the development of the test plan

### 13.0 DUT Test Data

#### 13.1 Assessments at the Body for changed battery BT000593A01 with EVOLVE radio

The changed battery was assessed with the previous highest applicable configuration for each of the applicable technologies WWAN (LTE & WCDMA), WLAN 2.4GHz, WLAN 5GHz & Bluetooth. SAR plots of the highest results per technology (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#
WCDMA B2									
WWAN Antenna	BT000593A01	PMLN6970A w/ NNTN8266B	None	1880.0000	0.206	-0.03	0.332	0.407	MA(MHI)-AB-210322-01#
WCDMA B5									
WWAN Antenna	BT000593A01	PMLN6970A w/ NNTN8266B	None	836.4000	0.212	0.25	0.137	0.162	BL(MHI)-AB-210318-15
LTE B12									
WWAN Antenna	BT000593A01	PMLN6970A w/ NNTN8266B	None	707.5000	0.214	0.10	0.348	0.364	MA-AB-210319-12
LTE B13									
WWAN Antenna	BT000593A01	PMLN6970A w/ NNTN8266B	None	782.0000	0.160	0.07	0.136	0.190	MA-AB-210318-09
LTE B5									
WWAN Antenna	BT000593A01	PMLN6970A w/ NNTN8266B	None	836.5000	0.191	0.01	0.142	0.167	MA-AB-210318-14
LTE B4									
WWAN Antenna	BT000593A01	PMLN6970A w/ NNTN8266B	None	1732.5000	0.174	0.00	0.390	<b>0.448</b>	MA(MHI)-AB-210321-03
LTE B2									
WWAN Antenna	BT000593A01	PMLN6970A w/ NNTN8266B	None	1880.0000	0.199	-0.11	0.321	0.331	MA(MHI)-AB-210321-08
LTE B7									
WWAN Antenna	BT000593A01	PMLN6970A w/ NNTN8266B	None	2535.0000	0.181	-0.06	0.206	0.258	MA(MHI)-AB-210320-13
LTE B48									
WWAN Antenna	BT000593A01	PMLN6970A w/ PMLN7965B	None	3560.0000	0.109	-0.13	0.121	0.128	AR(FZ)-AB-210322-07
WLAN 2.4GHz									
WLAN/BT Antenna	BT000593A01	PMLN6970A w/ NNTN8266B	None	2412.0000	0.061	-0.03	0.026	<b>0.027</b>	AMN-AB-210319-06



**Table 17 (continued)**

WLAN 5.3GHz									
WLAN/BT Antenna	BT000593A01	PMLN6970A w/ PMLN7965B	None	5260.0000	0.019	-0.31	0.031	<b>0.045</b>	AR(FZ)-AB-210422-14
WLAN 5.5GHz									
WLAN/BT Antenna	BT000593A01	PMLN6970A w/ PMLN7965B	None	5620.0000	0.022	-0.31	0.023	0.028	BL(MFR)-AB-210325-06#
WLAN 5.8GHz									
WLAN/BT Antenna	BT000593A01	PMLN6970A w/ PMLN7965B	None	5745.0000	0.016	0.14	0.017	0.021	BL(MFR)-AB-210325-09#
Bluetooth									
WLAN/BT Antenna	BT000593A01	PMLN6970A w/ NNTN8266B	None	2402.0000	0.056	0.17	0.009	<b>0.010</b>	BL-AB-210319-10

**13.2 Assessments for Hotspot for changed battery BT000593A01 with EVOLVE radio**

The changed battery was assessed with the previous highest applicable configuration for each of the applicable technologies WWAN (LTE & WCDMA), WLAN 2.4GHz & Bluetooth. SAR plots of the highest results per technology (bolded) are presented in Appendix E.

**Table 18**

Antenna	Battery	Separation distance	Cable Accessory	Test Freq (MHz)	Init Pwr (W)	SAR Drift (dB)	Meas. 1g-SAR (W/kg)	Max Calc. 1g-SAR (W/kg)	Run#
WCDMA B2									
WWAN Antenna	BT000593A01	Front 10mm	None	1907.6000	0.207	-0.01	0.587	<b>0.713</b>	MA(MHI)-AB-210321-12
WCDMA B5									
WWAN Antenna	BT000593A01	Front 10mm	None	836.4000	0.212	0.02	0.244	0.289	BL(MHI)-AB-210318-16
LTE B12									
WWAN Antenna	BT000593A01	Front 10mm	None	707.5000	0.214	0.04	0.369	0.386	MA-AB-210319-14
LTE B13									
WWAN Antenna	BT000593A01	Front 10mm	None	782.0000	0.160	-0.04	0.184	0.260	BL(MHI)-AB-210318-17
LTE B5									
WWAN Antenna	BT000593A01	Front 10mm	None	836.5000	0.191	0.10	0.247	0.290	BL(MHI)-AB-210318-18
LTE B4									
WWAN Antenna	BT000593A01	Front 10mm	None	1732.5000	0.174	0.13	0.616	0.708	MA(MHI)-AB-210321-04
LTE B2									
WWAN Antenna	BT000593A01	Front 10mm	None	1880.0000	0.199	-0.01	0.534	0.538	MA(MHI)-AB-210321-09

**Table 18 (continued)**

LTE B7									
WWAN Antenna	BT000593A01	Front 10mm	None	2560.0000	0.172	-0.14	0.626	0.842	MA(MHI)-AB-210320-04#
LTE B48									
WWAN Antenna	BT000593A01	Front 10mm	None	3560.0000	0.109	-0.02	0.339	0.350	KKL(MHI)-AB-210406-05
WLAN 2.4GHz									
WLAN/BT Antenna	BT000593A01	Back 10mm	None	2412.0000	0.061	-0.27	0.081	<b>0.090</b>	BL-AB-210319-08
Bluetooth									
WLAN/BT Antenna	BT000593A01	Back 10mm	None	2402.0000	0.056	-0.36	0.031	<b>0.037</b>	BL-AB-210320-01#

**13.3 Assessments at the Head for changed battery BT000593A01 with EVOLVE radio**

The changed battery was assessed with the previous highest applicable configuration for each of the applicable technologies WWAN (LTE & WCDMA), WLAN 2.4GHz, WLAN 5GHz & Bluetooth. SAR plots of the highest results per technology (bolded) are presented in Appendix E.

**Table 19**

Antenna	Battery	Head Position	Cable Accessory	Test Freq (MHz)	Init Pwr (W)	SAR Drift (dB)	Meas. 1g-SAR (W/kg)	Max Calc. 1g-SAR (W/kg)	Run#
WCDMA B2									
WWAN Antenna	BT000593A01	Left Tilted	None	1907.6000	0.067	0.29	0.822	<b>0.969</b>	AMN-LEAR-210324-02
WCDMA B5									
WWAN Antenna	BT000593A01	Left Tilted	None	836.4000	0.209	-0.13	0.668	0.827	BL(MHI)-LEAR-210319-05#
LTE B12									
WWAN Antenna	BT000593A01	Left Cheek	None	707.5000	0.214	-0.16	0.907	0.985	AR(BAD)-LEAR-210421-03
LTE B13									
WWAN Antenna	BT000593A01	Left Cheek	None	782.0000	0.160	0.01	0.560	0.784	BL(MHI)-LEAR-210319-07#
LTE B5									
WWAN Antenna	BT000593A01	Left Tilted	None	836.5000	0.191	-0.12	0.643	0.775	BL(MHI)-LEAR-210319-06#
LTE B4									
WWAN Antenna	BT000593A01	Left Tilted	None	1732.5000	0.076	0.09	0.778	0.906	BL-LEAR-210325-12
LTE B2									
WWAN Antenna	BT000593A01	Left Tilted	None	1900.0000	0.071	0.14	0.727	0.815	BL-LEAR-210325-09#

**Table 19 (continued)**

LTE B7									
WWAN Antenna	BT000593A01	Left Tilted	None	2535.0000	0.042	-0.11	0.654	0.719	AMN-LEAR-210325-15
LTE B48									
WWAN Antenna	BT000593A01	Left Tilted	None	3560.0000	0.054	-0.14	0.636	0.685	AMN-LEAR-210326-05#
WLAN 2.4GHz									
WLAN/BT Antenna	BT000593A01	Right Tilted	None	2412.0000	0.061	-0.23	0.180	<b>0.198</b>	BL-REAR-210320-05#
WLAN 5.3GHz									
WLAN/BT Antenna	BT000593A01	Right Cheek	None	5260.0000	0.019	0.08	0.063	<b>0.084</b>	AR-REAR-210329-01#
WLAN 5.5GHz									
WLAN/BT Antenna	BT000593A01	Right Tilted	None	5620.0000	0.022	-0.43	0.037	0.046	AR-REAR-210327-05
WLAN 5.8GHz									
WLAN/BT Antenna	BT000593A01	Right Tilted	None	5745.0000	0.016	0.12	0.035	0.043	AR-REAR-210329-05
Bluetooth									
WLAN/BT Antenna	BT000593A01	Right Cheek	None	2402.0000	0.056	-0.20	0.071	<b>0.082</b>	BL-REAR-210320-06#

**13.4 Assessments for Phablet condition (Product Specific 10g SAR Exposure) for changed battery BT000593A01 with EVOLVE radio**

The changed battery was assessed with the previous highest applicable configuration for WLAN 5GHz with Phablet test condition as WLAN5GHz do not support hotspot operation. SAR plots of the highest result (bolded) are presented in Appendix E.

**Table 20**

Antenna	Battery	Separation distance	Cable Accessory	Test Freq (MHz)	Init Pwr (W)	SAR Drift (dB)	Meas. 10g-SAR (W/kg)	Max Calc. 10g-SAR (W/kg)	Run#
WLAN 5.3GHz									
WLAN/BT Antenna	BT000593A01	Back 0mm	None	5260.0000	0.020	-0.13	0.073	0.101	BL(MFR)-AB-210325-10#
WLAN 5.5GHz									
WLAN/BT Antenna	BT000593A01	Back 0mm	None	5620.0000	0.019	0.01	0.120	0.161	BL(MFR)-AB-210326-05#
WLAN 5.8GHz									
WLAN/BT Antenna	BT000593A01	Back 0mm	None	5745.0000	0.016	-0.02	0.131	<b>0.163</b>	BL(MFR)-AB-210326-04#

### 13.5 Assessments at the Body for new EVOLVE-i model with new battery BT000594A01

The new EVOLVE-i model and battery BT000594A01 were assessed with the previous highest applicable configuration for each of the applicable technologies and bands WWAN (LTE & WCDMA), LTE, WLAN 2.4GHz, WLAN 5GHz & Bluetooth. SAR plots of the highest results per technology (bolded) are presented in Appendix E.

**Table 21**

Antenna	Battery	Carry Accessory	Cable Accessory	Test Freq (MHz)	Init Pwr (W)	SAR Drift (dB)	Meas. 1g-SAR (W/kg)	Max Calc. 1g-SAR (W/kg)	Run#
WCDMA B2									
WWAN Antenna	BT000594A01	PMLN6970A w/ NNTN8266B	None	1880.0000	0.198	-0.04	0.312	0.399	AMN-AB-210408-08
WCDMA B5									
WWAN Antenna	BT000594A01	PMLN6970A w/ NNTN8266B	None	836.4000	0.207	0.10	0.256	0.310	AR(BAD)-AB-210407-13
LTE B12									
WWAN Antenna	BT000594A01	PMLN6970A w/ NNTN8266B	None	707.5000	0.209	-0.10	0.250	0.274	AR(BAD)-AB-210409-03
LTE B13									
WWAN Antenna	BT000594A01	PMLN6970A w/ NNTN8266B	None	782.0000	0.209	0.12	0.245	0.263	AR(BAD)-AB-210409-04
LTE B5									
WWAN Antenna	BT000594A01	PMLN6970A w/ NNTN8266B	None	836.5000	0.208	0.14	0.243	0.262	AR(BAD)-AB-210410-01#
LTE B4									
WWAN Antenna	BT000594A01	PMLN6970A w/ NNTN8266B	None	1732.5000	0.174	0.07	0.373	<b>0.428</b>	BL(SAN)-AB-210413-08
LTE B2									
WWAN Antenna	BT000594A01	PMLN6970A w/ NNTN8266B	None	1880.0000	0.169	-0.01	0.294	0.349	AMN-AB-210412-02#
LTE B7									
WWAN Antenna	BT000594A01	PMLN6970A w/ NNTN8266B	None	2535.0000	0.151	-0.09	0.231	0.350	AMN-AB-210414-03
LTE B48									
WWAN Antenna	BT000594A01	PMLN6970A w/ PMLN7965B	None	3560.0000	0.097	-0.08	0.220	0.259	BL(SAN)-AB-210413-05#
WLAN 2.4GHz									
WLAN/BT Antenna	BT000594A01	PMLN6970A w/ NNTN8266B	None	2412.0000	0.053	-0.10	0.008	<b>0.010</b>	MA(AF)-AB-210410-04

**Table 21 (continued)**

WLAN 5.3GHz									
WLAN/BT Antenna	BT000594A01	PMLN6970A w/ PMLN7965B	None	5260.0000	0.016	0.28	0.012	<b>0.019</b>	MA(AF)-AB-210413-11#
WLAN 5.5GHz									
WLAN/BT Antenna	BT000594A01	PMLN6970A w/ PMLN7965B	None	5620.0000	0.017	0.06	0.002	0.003	MA(AF)-AB-210413-12#
WLAN 5.8GHz									
WLAN/BT Antenna	BT000594A01	PMLN6970A w/ PMLN7965B	None	5745.0000	0.012	-0.32	0.0001	0.0002	AMN(MFR)-AB-210413-13#
Bluetooth									
WLAN/BT Antenna	BT000594A01	PMLN6970A w/ NNTN8266B	None	2402.0000	0.046	0.39	0.001	<b>0.002</b>	AMN(MFR)-AB-210412-06#

**13.6 Assessments for Hotspot for new EVOLVE-i model with new battery BT000594A01**

The new Non-IS battery was assessed with the previous highest applicable configuration for each of the applicable technologies and bands (WCDMA, LTE, WLAN 2.4GHz & Bluetooth). SAR plots of the highest results per technology (bolded) are presented in Appendix E.

**Table 22**

Antenna	Battery	Separation distance	Cable Accessory	Test Freq (MHz)	Init Pwr (W)	SAR Drift (dB)	Meas. 1g-SAR (W/kg)	Max Calc. 1g-SAR (W/kg)	Run#
WCDMA B2									
WWAN Antenna	BT000594A01	Front 10mm	None	1907.6000	0.194	0.03	0.818	<b>1.058</b>	AMN-AB-210408-06
WCDMA B5									
WWAN Antenna	BT000594A01	Front 10mm	None	836.4000	0.207	0.32	0.416	0.504	AR(BAD)-AB-210407-12
LTE B12									
WWAN Antenna	BT000594A01	Front 10mm	None	707.5000	0.209	0.13	0.308	0.330	AMN-AB-210409-07
LTE B13									
WWAN Antenna	BT000594A01	Front 10mm	None	782.0000	0.209	0.07	0.302	0.324	AMN-AB-210409-06
LTE B5									
WWAN Antenna	BT000594A01	Front 10mm	None	836.5000	0.208	0.11	0.387	0.417	AR(BAD)-AB-210410-02#
LTE B4									
WWAN Antenna	BT000594A01	Front 10mm	None	1732.5000	0.174	0.07	0.662	0.760	BL(SAN)-AB-210413-09
LTE B2									
WWAN Antenna	BT000594A01	Front 10mm	None	1880.0000	0.169	0.03	0.569	0.673	AMN-AB-210412-03#

**Table 22 (continued)**

LTE B7									
WWAN Antenna	BT000594A01	Front 10mm	None	2560.0000	0.149	-0.23	0.617	0.978	AMN-AB-210414-04
LTE B48									
WWAN Antenna	BT000594A01	Front 10mm	None	3560.0000	0.097	-0.17	0.391	0.469	BL(SAN)-AB-210413-04#
WLAN 2.4GHz									
WLAN/BT Antenna	BT000594A01	Back 10mm	None	2412.0000	0.053	0.32	0.062	<b>0.074</b>	MA(AF)-AB-210410-05
Bluetooth									
WLAN/BT Antenna	BT000594A01	Back 10mm	None	2402.0000	0.046	0.25	0.022	<b>0.030</b>	AMN(MFR)-AB-210412-07#

**13.7 Assessments at the Head for new EVOLVE-i model with new battery BT000594A01**

The new Non-IS battery was assessed with the previous highest applicable configuration for each of the applicable technologies and bands (WWAN, WLAN 2.4GHz, WLAN 5GHz & Bluetooth). SAR plots of the highest results per technology (bolded) are presented in Appendix E.

**Table 23**

Antenna	Battery	Head Position	Cable Accessory	Test Freq (MHz)	Init Pwr (W)	SAR Drift (dB)	Meas. 1g-SAR (W/kg)	Max Calc. 1g-SAR (W/kg)	Run#
WCDMA B2									
WWAN Antenna	BT000594A01	Left Tilted	None	1907.6000	0.061	-0.04	0.810	1.059	AR(BAD)-LEAR-210408-15
WCDMA B5									
WWAN Antenna	BT000594A01	Left Tilted	None	836.4000	0.207	-0.12	1.040	1.300	AMN(MFR)-LEAR-210420-10
LTE B12									
WWAN Antenna	BT000594A01	Left Cheek	None	707.5000	0.209	0.01	0.811	0.869	AR(BAD)-LEAR-210409-13
LTE B13									
WWAN Antenna	BT000594A01	Left Cheek	None	782.0000	0.209	-0.09	0.797	0.872	AR(BAD)-LEAR-210409-15
LTE B5									
WWAN Antenna	BT000594A01	Left Cheek	None	836.5000	0.208	0.00	0.969	1.044	BL-LEAR-210410-11
LTE B4									
WWAN Antenna	BT000594A01	Left Tilted	None	1732.5000	0.069	0.04	0.871	1.130	AMN-LEAR-210413-11
LTE B2									
WWAN Antenna	BT000594A01	Left Tilted	None	1900.0000	0.059	-0.03	0.810	1.107	BL(SAN)-LEAR-210412-10#

**Table 23 (continued)**

LTE B7									
WWAN Antenna	BT000594A01	Left Tilted	None	2535.0000	0.033	0.05	0.642	0.875	AR(BAD)-LEAR-210414-11
LTE B48									
WWAN Antenna	BT000594A01	Left Tilted	None	3560.0000	0.041	-0.32	0.956	<b>1.406</b>	AMN-LEAR-210414-15
WLAN 2.4GHz									
WLAN/BT Antenna	BT000594A01	Right Cheek	None	2412.0000	0.053	-0.13	0.222	<b>0.272</b>	AR(BAD)-REAR-210419-06
WLAN 5.3GHz									
WLAN/BT Antenna	BT000594A01	Right Cheek	None	5260.0000	0.016	0.13	0.057	<b>0.089</b>	AR-REAR-210415-07#
WLAN 5.5GHz									
WLAN/BT Antenna	BT000594A01	Right Cheek	None	5620.0000	0.017	0.32	0.022	0.034	AR-LEAR-210416-07#
WLAN 5.8GHz									
WLAN/BT Antenna	BT000594A01	Right Cheek	None	5745.0000	0.012	-0.42	0.024	0.044	AR-REAR-210415-08#
Bluetooth									
WLAN/BT Antenna	BT000594A01	Right Cheek	None	2402.0000	0.046	0.05	0.064	<b>0.086</b>	MA(AF)-REAR-210412-14#

**13.8 Assessments for Phablet condition (Product Specific 10g SAR Exposure) for new EVOLVE-i model with new battery BT000594A01**

The new Non-IS battery was assessed with the previous highest applicable configuration for WLAN 5GHz with Phablet test condition as WLAN5GHz do not support hotspot operation. SAR plot of the highest result (bolded) are presented in Appendix E.

**Table 24**

Antenna	Battery	Separation distance	Cable Accessory	Test Freq (MHz)	Init Pwr (W)	SAR Drift (dB)	Meas. 10g-SAR (W/kg)	Max Calc. 10g-SAR (W/kg)	Run#
WLAN 5.3GHz									
WLAN/BT Antenna	BT000594A01	Back 0mm	None	5260.0000	0.016	-0.33	0.044	0.073	AMN(MFR)-AB-210413-14#
WLAN 5.5GHz									
WLAN/BT Antenna	BT000594A01	Back 0mm	None	5620.0000	0.017	-0.07	0.107	<b>0.167</b>	AR-AB-210414-04#
WLAN 5.8GHz									
WLAN/BT Antenna	BT000594A01	Back 0mm	None	5745.0000	0.012	-0.40	0.069	0.126	AR-AB-210414-06#

### 14.0 Simultaneous Transmission Configurations

The Table below summarizes the simultaneous transmissions between WWAN (LTE & WCDMA), WLAN 2.4GHz, WLAN 5GHz and Bluetooth.

**Table 25**

No.	Simultaneous Transmission Configurations	Body	Hotspot	Head
1	WWAN + WLAN 2.4GHz	Yes	Yes	Yes
2	WWAN + WLAN 5GHz	Yes		Yes
3	WWAN + WLAN 5GHz + Bluetooth	Yes		Yes
4	WLAN 5GHz + Bluetooth	Yes		Yes
5	WWAN + Bluetooth	Yes	Yes	Yes

Remarks:

1. The device will choose either WCDMA or LTE according to the network signal condition; therefore, they will not operate simultaneously at any moment.
2. 2.4GHz WLAN supports hotspot operation and Bluetooth supports tethering applications.
3. WLAN 5GHz does not support hotspot function.
4. The device will choose either WLAN 2.4GHz or WLAN5GHz according to the network signal condition; therefore, they will not operate simultaneously at any moment.
5. WLAN 2.4GHz and Bluetooth share the same antenna so cannot transmit simultaneously.
6. From Table 25 above, simultaneous transmission analysis/summation for WWAN + WLAN5GHz + Bluetooth can represent WWAN + WLAN 5GHz or WLAN 5GHz + Bluetooth or WWAN + Bluetooth.

The highest SAR configuration for Head, Body-worn and Hotspot are at the WWAN bands. Additional scans were performed at the similar use-case configuration as the highest SAR configuration for each of the applicable simultaneous transmission technologies.

#### 14.1 Simultaneous Transmission for WWAN and WLAN 2.4GHz

**Table 26 (Body)**

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#
WWAN (LTE B4)									
WWAN Antenna	BT000593A01	PMLN6970A w/ NTN8266B	None	1732.5000	0.174	0.00	0.390	0.448	MA(MHI)-AB-210321-03
WLAN 2.4GHz									
WLAN/BT Antenna	BT000593A01	PMLN6970A w/ NTN8266B	None	2412.0000	0.061	-0.03	0.026	0.027	AMN-AB-210319-06



**Table 27 (Hotspot)**

Antenna	Battery	Separation distance	Cable Accessory	Test Freq (MHz)	Init Pwr (W)	SAR Drift (dB)	Meas. 1g-SAR (W/kg)	Max Calc. 1g-SAR (W/kg)	Run#
WWAN (WCDMA B2)									
WWAN Antenna	BT000594A01	Front 10mm	None	1907.6000	0.194	0.03	0.818	1.058	AMN-AB-210408-06
WLAN 2.4GHz									
WLAN/BT Antenna	BT000594A01	Front 10mm	None	2412.0000	0.053	-0.12	0.066	0.080	AR(BAD)-AB-210420-02

**Table 28 (Head)**

Antenna	Battery	Head Position	Cable Accessory	Test Freq (MHz)	Init Pwr (W)	SAR Drift (dB)	Meas. 1g-SAR (W/kg)	Max Calc. 1g-SAR (W/kg)	Run#
WWAN (LTE B48)									
WWAN Antenna	BT000594A01	Left Tilted	None	3560.0000	0.041	-0.32	0.956	1.406	AMN-LEAR-210414-15
WLAN 2.4GHz									
WLAN/BT Antenna	BT000594A01	Left Tilted	None	2412.0000	0.053	-0.14	0.121	0.149	AMN-LEAR-210419-02

**14.2 Simultaneous Transmission for WWAN, WLAN 5GHz and Bluetooth****Table 29 (Body)**

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#
WWAN (LTE B4)									
WWAN Antenna	BT000593A01	PMLN6970A w/ NTN8266B	None	1732.5000	0.174	0.00	0.390	0.448	MA(MHI)-AB-210321-03
WLAN 5GHz									
WWAN Antenna	BT000593A01	PMLN6970A w/ NTN8266B	None	5260.0000	0.019	-0.15	0.020	0.028	AMN(MFR)-AB-210421-08
Bluetooth									
WLAN/BT Antenna	BT000593A01	PMLN6970A w/ NTN8266B	None	2402.0000	0.056	0.17	0.009	0.010	BL-AB-210319-10

**Table 30 (Hotspot)**

Antenna	Battery	Separation distance	Cable Accessory	Test Freq (MHz)	Init Pwr (W)	SAR Drift (dB)	Meas. 1g-SAR (W/kg)	Max Calc. 1g-SAR (W/kg)	Run#
WWAN (WCDMA B2)									
WWAN Antenna	BT000594A01	Front 10mm	None	1907.6000	0.194	0.03	0.818	1.058	AMN-AB-210408-06
Bluetooth									
WLAN/BT Antenna	BT000594A01	Front 10mm	None	2402.0000	0.046	0.15	0.018	0.024	AMN(MFR)-AB-210420-04

**Table 31 (Head)**

Antenna	Battery	Head Position	Cable Accessory	Test Freq (MHz)	Init Pwr (W)	SAR Drift (dB)	Meas. 1g-SAR (W/kg)	Max Calc. 1g-SAR (W/kg)	Run#
WWAN (LTE B48)									
WWAN Antenna	BT000594A01	Left Tilted	None	3560.0000	0.041	-0.32	0.956	1.406	AMN-LEAR-210414-15
WLAN 5GHz									
WLAN/BT Antenna	BT000594A01	Left Tilted	None	5260.0000	0.016	0.04	0.013	<b>0.020</b>	AMN(MFR)-LEAR-210421-10
Bluetooth									
WLAN/BT Antenna	BT000594A01	Left Tilted	None	2402.0000	0.046	0.35	0.035	0.047	AR(BAD)-LEAR-210419-08

The combined 1g-SAR results for each of the simultaneous configurations for the applicable test positions are indicated in the following Table:

**Table 32**

Designator	Frequency bands	Combined 1g-SAR (W/kg)
<b>Body</b>		
FCC	WWAN + WLAN 2.4GHz	0.475
	WWAN + WLAN 5GHz + Bluetooth	0.486
<b>Hotspot</b>		
FCC	WWAN + WLAN 2.4GHz	1.138
	WWAN + Bluetooth	1.082
<b>Head</b>		
FCC	WWAN + WLAN 2.4GHz	1.555
	WWAN + WLAN 5GHz + Bluetooth	1.473

### 15.0 Results Summary

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

**Table 33**

Equipment Class	Frequency Band		Head	Hotspot	Body
			1g-SAR (W/kg)		
Licensed	WCDMA	Band 2	1.06	1.06	0.41
		Band 5	1.30	0.50	0.31
	LTE	Band 12/17	0.99	0.39	0.36
		Band 13	0.87	0.32	0.26
		Band 5	1.04	0.42	0.26
		Band 4	1.13	0.76	0.45
		Band 2	1.11	0.67	0.35
		Band 7	0.88	0.98	0.35
		Band 48/42/43	1.41	0.47	0.26
		DTS	WLAN	2.4GHz WLAN	0.27
NII	5GHz WLAN	0.09		N/A	0.05
DSS	Bluetooth	2.4GHz Bluetooth	0.09	0.04	0.01
Simultaneous Results			1.56	1.14	0.49
Equipment Class	Frequency Band		Product Specific 10g SAR (W/kg)		
NII	WLAN	5GHz WLAN	0.17		

All results are scaled to the maximum output power.

The test results clearly demonstrate compliance with FCC Occupational/Controlled RF Exposure limits of 1.6 W/kg averaged over 1 gram per the requirements of FCC 47 CFR § 2.1093.

**16.0 Variability Assessment**

Per the guidelines in KDB 865664 SAR variability assessment is required because SAR results are above 0.8W/kg (General population),

The Table below includes test results of the original measurement(s), the repeated measurement(s), and the ratio ( $SAR_{high}/SAR_{low}$ ) for the applicable test configuration(s) in each frequency band.

**Table 34 (WCDMA B2)**

Run#	Antenna	Battery	Carry Accessory	Cable Accessory	Test Freq. (MHz)	Adj Calc. 1g-SAR (W/kg)	Ratio	Comments
AMN-LEAR-210324-02	WWAN Antenna	BT000593A01	Left Tilted	None	1907.6000	0.822	1.17	No additional repeated scans is required due to the Ratio ( $SAR_{high}/SAR_{low}$ ) < 1.20
AR(BAD)-LEAR-210420-13						0.701		

**Table 35 (WCDMA B5)**

Run#	Antenna	Battery	Carry Accessory	Cable Accessory	Test Freq. (MHz)	Adj Calc. 1g-SAR (W/kg)	Ratio	Comments
AMN(RY)-LEAR-210407-10	WWAN Antenna	BT000594A01	Left Tilted	None	836.4000	1.040	1.03	No additional repeated scans is required due to the Ratio ( $SAR_{high}/SAR_{low}$ ) < 1.20
AMN(MFR)-LEAR-210420-10						1.069		

**Table 36 (LTE B12)**

Run#	Antenna	Battery	Carry Accessory	Cable Accessory	Test Freq. (MHz)	Adj Calc. 1g-SAR (W/kg)	Ratio	Comments
MA-LEAR-210319-17	WWAN Antenna	BT000593A01	Left Cheek	None	707.5000	0.869	1.08	No additional repeated scans is required due to the Ratio ( $SAR_{high}/SAR_{low}$ ) < 1.20
AR(BAD)-LEAR-210421-03						0.941		

**Table 37 (LTE B13)**

Run#	Antenna	Battery	Carry Accessory	Cable Accessory	Test Freq. (MHz)	Adj Calc. 1g-SAR (W/kg)	Ratio	Comments
AR(BAD)-LEAR-210409-15	WWAN Antenna	BT000594A01	Left Cheek	None	782.0000	0.814	1.04	No additional repeated scans is required due to the Ratio ( $SAR_{high}/SAR_{low}$ ) < 1.20
AMN(MFR)-LEAR-210420-08						0.779		

**Table 38 (LTE B5)**

Run#	Antenna	Battery	Carry Accessory	Cable Accessory	Test Freq. (MHz)	Adj Calc. 1g-SAR (W/kg)	Ratio	Comments
BL-LEAR-210410-11	WWAN Antenna	BT000594A01	Left Cheek	None	836.5000	0.969	1.02	No additional repeated scans is required due to the Ratio (SAR <sub>high</sub> /SAR <sub>low</sub> ) < 1.20
AMN(MFR)-LEAR-210420-09						0.946		

**Table 39 (LTE B4)**

Run#	Antenna	Battery	Carry Accessory	Cable Accessory	Test Freq. (MHz)	Adj Calc. 1g-SAR (W/kg)	Ratio	Comments
AMN-LEAR-210413-11	WWAN Antenna	BT000594A01	Left Tilted	None	1732.5000	0.871	1.00	No additional repeated scans is required due to the Ratio (SAR <sub>high</sub> /SAR <sub>low</sub> ) < 1.20
AR(BAD)-LEAR-210421-05						0.867		

**Table 40 (LTE B2)**

Run#	Antenna	Battery	Carry Accessory	Cable Accessory	Test Freq. (MHz)	Adj Calc. 1g-SAR (W/kg)	Ratio	Comments
BL(SAN)-LEAR-210412-10#	WWAN Antenna	BT000594A01	Left Tilted	None	1900.0000	0.816	1.01	No additional repeated scans is required due to the Ratio (SAR <sub>high</sub> /SAR <sub>low</sub> ) < 1.20
AR(BAD)-LEAR-210420-12						0.811		

**Table 41 (LTE B48)**

Run#	Antenna	Battery	Carry Accessory	Cable Accessory	Test Freq. (MHz)	Adj Calc. 1g-SAR (W/kg)	Ratio	Comments
AMN-LEAR-210414-15	WWAN Antenna	BT000594A01	Left Tilted	None	3560.0000	1.029	1.11	No additional repeated scans is required due to the Ratio (SAR <sub>high</sub> /SAR <sub>low</sub> ) < 1.20
AMN(MFR)-LEAR-210420-06						0.930		

## 17.0 System Uncertainty

A system uncertainty analysis is required for this report per KDB 865664 because the highest report SAR value for General Population exposure is more than 1.5W/kg.

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