



PART 0 SAR CHAR REPORT

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FCC ID: A3LSMN981W

APPLICANT: SAMSUNG ELECTRONICS CO., LTD

Report Type: Part 0 SAR Characterization
DUT Type: Portable Handset
Model(s): SM-N981W

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

Test results reported herein relate only to the item(s) tested.


Randy Ortanez
President



FCC ID: A3LSMN981W		PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Document S/N: 1M2005050082-20.A3L	Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset		Page 1 of 11

TABLE OF CONTENTS

1	DEVICE UNDER TEST	3
1.1	Device Overview	3
1.2	Time-Averaging for SAR and Power Density	3
1.3	Nomenclature for Part 0 Report	4
1.4	Bibliography	4
2	SAR AND POWER DENSITY MEASUREMENTS	5
2.1	SAR Definition	5
2.2	SAR Measurement Procedure	5
3	SAR CHARACTERIZATION	7
3.1	DSI and SAR Determination	7
3.2	SAR Design Target	7
3.3	SAR Char	7
4	EQUIPMENT LIST	10
5	MEASUREMENT UNCERTAINTIES	11
	APPENDIX A: SAR TEST RESULTS FOR P_{Limit} CALCULATIONS	1

FCC ID: A3LSMN981W	 PCTEST Proud to be part of the Samsung	PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Document S/N: 1M2005050082-20.A3L	Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset		Page 2 of 11

1 DEVICE UNDER TEST

1.1 Device Overview

Band & Mode	Operating Modes	Tx Frequency
Cell. CDMA/EVDO	Voice/Data	824.70 - 848.31 MHz
GSM/GPRS/EDGE 850	Voice/Data	824.20 - 848.80 MHz
GSM/GPRS/EDGE 1900	Voice/Data	1850.20 - 1909.80 MHz
UMTS 850	Voice/Data	826.40 - 846.60 MHz
UMTS 1750	Voice/Data	1712.4 - 1752.6 MHz
UMTS 1900	Voice/Data	1852.4 - 1907.6 MHz
LTE Band 71	Voice/Data	665.5 - 695.5 MHz
LTE Band 12	Voice/Data	699.7 - 715.3 MHz
LTE Band 13	Voice/Data	779.5 - 784.5 MHz
LTE Band 5 (Cell)	Voice/Data	824.7 - 848.3 MHz
LTE Band 66 (AWS)	Voice/Data	1710.7 - 1779.3 MHz
LTE Band 4 (AWS)	Voice/Data	1710.7 - 1754.3 MHz
LTE Band 25 (PCS)	Voice/Data	1850.7 - 1914.3 MHz
LTE Band 2 (PCS)	Voice/Data	1850.7 - 1909.3 MHz
LTE Band 30	Voice/Data	2307.5 - 2312.5 MHz
LTE Band 7	Voice/Data	2502.5 - 2567.5 MHz
LTE Band 41	Voice/Data	2502.5 - 2687.5 MHz
LTE Band 38	Voice/Data	2572.5 - 2617.5 MHz
NR Band n71	Data	665.5 - 695.5 MHz
NR Band n66 (AWS)	Data	1712.5 - 1777.5 MHz
NR Band n41	Data	2510 - 2679.99 MHz
2.4 GHz WLAN	Voice/Data	2412 - 2462 MHz
U-NII-1	Voice/Data	5180 - 5240 MHz
U-NII-2A	Voice/Data	5260 - 5320 MHz
U-NII-2C	Voice/Data	5500 - 5720 MHz
U-NII-3	Voice/Data	5745 - 5825 MHz
Bluetooth	Data	2402 - 2480 MHz
NFC	Data	13.56 MHz
MST	Data	555 Hz - 8.33 kHz
WPT - D2D	N/A	110 kHz - 148 kHz
WPT- Stylus	N/A	0.53 - 0.6 MHz

This device uses the Qualcomm® Smart Transmit feature to control and manage transmitting power in real time and to ensure the time-averaged RF exposure is in compliance with the FCC requirement at all times for 2G/3G/4G/5G WWAN operations. Additionally, this device supports WLAN/BT/NFC/MST technologies, but the output power of these modems is not controlled by the Smart Transmit algorithm.

1.2 Time-Averaging for SAR

This device is enabled with Qualcomm® Smart Transmit algorithm to control and manage transmitting power in real time and to ensure that the time-averaged RF exposure from 2G/3G/4G/5G Sub-6 NR WWAN is in compliance with FCC requirements. This Part 0 report shows SAR characterization of WWAN radios for 2G/3G/4G/5G Sub-6 NR. Characterization is achieved by determining P_{Limit} for 2G/3G/4G/5G Sub-6 NR that corresponds to the exposure design targets after accounting for all device design related uncertainties, i.e., SAR_design_target (< FCC SAR limit) for sub-6 radio. The SAR characterization is denoted as SAR Char in this report. Section 1.3 includes a nomenclature of the specific terms used in this report.

The compliance test under the static transmission scenario and simultaneous transmission analysis are reported in Part 1 report. The validation of the time-averaging algorithm and compliance under the dynamic (time- varying)

FCC ID: A3LSMN981W	 PCTEST Proud to be part of the Samsung ecosystem	PART 0 SAR CHAR REPORT	 Approved by: Quality Manager
Document S/N: 1M2005050082-20.A3L	Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset	Page 3 of 11

transmission scenario for WWAN technologies are reported in Part 2 report (report SN could be found in Section 1.4 – Bibliography).

1.3 Nomenclature for Part 0 Report

Technology	Term	Description
2G/3G/4G/5G Sub-6 NR	P_{limit}	Power level that corresponds to the exposure design target (<i>SAR_design_target</i>) after accounting for all device design related uncertainties
	P_{max}	Maximum tune up output power
	<i>SAR_design_target</i>	Target SAR level < FCC SAR limit after accounting for all device design related uncertainties
	<i>SAR Char</i>	Table containing <i>Plimit</i> for all technologies and bands

1.4 Bibliography

Report Type	Report Serial Number
FCC SAR Evaluation Report (Part 1)	1M2005050082-01-R2.A3L
RF Exposure Part 2 Test Report	1M2005050082-25-R1.A3L
RF Exposure Compliance Summary	1M2005050082-26-R1.A3L

FCC ID: A3LSMN981W	 PCTEST Proud to be part of	PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Document S/N: 1M2005050082-20.A3L	Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset	Page 4 of 11	

2 SAR AND POWER DENSITY MEASUREMENTS

2.1 SAR Definition

Specific Absorption Rate is defined as the time derivative (rate) of the incremental energy (dU) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dV) of a given density (ρ). It is also defined as the rate of RF energy absorption per unit mass at a point in an absorbing body (see Equation 2-1).

Equation 2-1
SAR Mathematical Equation

$$SAR = \frac{d}{dt} \left(\frac{dU}{dm} \right) = \frac{d}{dt} \left(\frac{dU}{\rho dv} \right)$$

SAR is expressed in units of Watts per Kilogram (W/kg).

$$SAR = \frac{\sigma \cdot E^2}{\rho}$$

where:

σ	=	conductivity of the tissue-simulating material (S/m)
ρ	=	mass density of the tissue-simulating material (kg/m ³)
E	=	Total RMS electric field strength (V/m)

NOTE: The primary factors that control rate of energy absorption were found to be the wavelength of the incident field in relation to the dimensions and geometry of the irradiated organism, the orientation of the organism in relation to the polarity of field vectors, the presence of reflecting surfaces, and whether conductive contact is made by the organism with a ground plane.[6]

2.2 SAR Measurement Procedure

The evaluation was performed using the following procedure compliant to FCC KDB Publication 865664 D01v01r04 and IEEE 1528-2013:

1. The SAR distribution at the exposed side of the head or body was measured at a distance no greater than 5.0 mm from the inner surface of the shell. The area covered the entire dimension of the device-head and body interface and the horizontal grid resolution was determined per FCC KDB Publication 865664 D01v01r04 (See Table 2-1) and IEEE 1528-2013.
2. Table 2-1) and IEEE 1528-2013.
3. The point SAR measurement was taken at the maximum SAR region determined from Step 1 to enable the monitoring of SAR fluctuations/drifts during the 1g/10g cube evaluation. SAR at this fixed point was measured and used as a reference value.

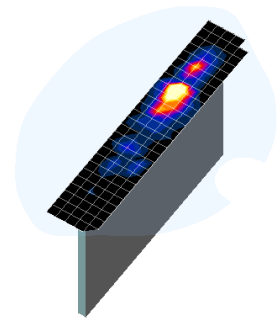


Figure 2-1
Sample SAR Area Scan

FCC ID: A3LSMN981W	 PCTEST Provided to be part of the product	PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Document S/N: 1M2005050082-20.A3L	Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset		Page 5 of 11

4. Based on the area scan data, the peak of the region with maximum SAR was determined by spline interpolation. Around this point, a volume was assessed according to the measurement resolution and volume size requirements of FCC KDB Publication 865664 D01v01r04 (See Table 2-1) and IEEE 1528-2013. On the basis of this data set, the spatial peak SAR value was evaluated with the following procedure (see references or the DASY manual online for more details):
 - a. SAR values at the inner surface of the phantom are extrapolated from the measured values along the line away from the surface with spacing no greater than that in Table 2-1. The extrapolation was based on a least-squares algorithm. A polynomial of the fourth order was calculated through the points in the z-axis (normal to the phantom shell).
 - b. After the maximum interpolated values were calculated between the points in the cube, the SAR was averaged over the spatial volume (1g or 10g) using a 3D-Spline interpolation algorithm. The 3D-spline is composed of three one-dimensional splines with the “Not a knot” condition (in x, y, and z directions). The volume was then integrated with the trapezoidal algorithm. One thousand points (10 x 10 x 10) were obtained through interpolation, in order to calculate the averaged SAR.
 - c. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.
5. The SAR reference value, at the same location as step 2, was re-measured after the zoom scan was complete to calculate the SAR drift. If the drift deviated by more than 5%, the SAR test and drift measurements were repeated.

Table 2-1
Area and Zoom Scan Resolutions per FCC KDB Publication 865664 D01v01r04*

Frequency	Maximum Area Scan Resolution (mm) ($\Delta x_{\text{area}}, \Delta y_{\text{area}}$)	Maximum Zoom Scan Resolution (mm) ($\Delta x_{\text{zoom}}, \Delta y_{\text{zoom}}$)	Maximum Zoom Scan Spatial Resolution (mm)			Minimum Zoom Scan Volume (mm) (x,y,z)
			Uniform Grid	Graded Grid		
				$\Delta z_{\text{zoom}}(n)$	$\Delta z_{\text{zoom}}(1)^*$	
≤2 GHz	≤15	≤8	≤5	≤4	≤1.5* $\Delta z_{\text{zoom}}(n-1)$	≥30
2-3 GHz	≤12	≤5	≤5	≤4	≤1.5* $\Delta z_{\text{zoom}}(n-1)$	≥30
3-4 GHz	≤12	≤5	≤4	≤3	≤1.5* $\Delta z_{\text{zoom}}(n-1)$	≥28
4-5 GHz	≤10	≤4	≤3	≤2.5	≤1.5* $\Delta z_{\text{zoom}}(n-1)$	≥25
5-6 GHz	≤10	≤4	≤2	≤2	≤1.5* $\Delta z_{\text{zoom}}(n-1)$	≥22

*Also compliant to IEEE 1528-2013 Table 6

FCC ID: A3LSMN981W	 PCTEST Proud to be part of	PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Document S/N: 1M2005050082-20.A3L	Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset		Page 6 of 11

3 SAR CHARACTERIZATION

3.1 DSI and SAR Determination

This device uses different Device State Index (DSI) to configure different time averaged power levels based on certain exposure scenarios. Depending on the detection scheme implemented in the smartphone, the worst-case SAR was determined by measurements for the relevant exposure conditions for that DSI. Detailed descriptions of the detection mechanisms are included in the operational description.

When 1g SAR and 10g SAR exposure comparison is needed, the worst-case was determined from SAR normalized to 1g or 10g SAR limit.

The device state index (DSI) conditions used in Table 3-1 represent different exposure scenarios.

Table 3-1
DSI and Corresponding Exposure Scenarios

Scenario	Description	SAR Test Cases
Head (DSI = 2)	- Device positioned next to head - Receiver Active	Head SAR per KDB Publication 648474 D04
Hotspot mode (DSI = 3)	- Device transmits in hotspot mode near body - Hotspot Mode Active	Hotspot SAR per KDB Publication 941225 D06
Phablet Grip (DSI=1 or 4)	- Device is held with hand and grip sensor is triggered - Grip sensor triggered or earjack is active	Phablet SAR per KDB Publication 648474 D04 & KDB Publication 616217 D04
Phablet (DSI = 0)	- Device is held with hand and grip sensor is not triggered - Distance grip sensor not triggered	Phablet SAR per KDB Publication 648474 D04 & KDB Publication 616217 D04
Body-worn (DSI = 0)	Device being used with a body-worn accessory	Body-worn SAR per KDB Publication 648474 D04

3.2 SAR Design Target

SAR_design_target is determined by ensuring that it is less than FCC SAR limit after accounting for total device designed related uncertainties specified by the manufacturer (see Table 3-2).

Table 3-2
***SAR_design_target* Calculations**

<i>SAR_design_target</i>			
$SAR_design_target < SAR_regulatory_limit \times 10^{\frac{-Total\ Uncertainty}{10}}$			
1g SAR (W/kg)		10g SAR (W/kg)	
<i>Total Uncertainty</i>	1.0 dB	<i>Total Uncertainty</i>	1.0 dB
<i>SAR_regulatory_limit</i>	1.6 W/kg	<i>SAR_regulatory_limit</i>	4.0 W/kg
<i>SAR_design_target</i>	1.0 W/kg	<i>SAR_design_target</i>	2.5 W/kg

3.3 SAR Char

SAR test results corresponding to *Pmax* for each antenna/technology/band/DSI can be found in Appendix A.

FCC ID: A3LSMN981W	 PCTEST Proud to be part of the Samsung ecosystem	PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Document S/N: 1M2005050082-20.A3L	Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset	Page 7 of 11	

P_{limit} is calculated by linearly scaling with the measured SAR at the P_{part0} to correspond to the SAR_{design_target} . When $P_{limit} < P_{max}$, P_{part0} was used as P_{limit} in the Smart Transmit EFS. When $P_{limit} > P_{max}$ and $P_{part0}=P_{max}$, calculated P_{limit} was used in the Smart Transmit EFS. All reported SAR obtained from the P_{part0} SAR tests was less than $SAR_{Design_target}+ 1$ dB Uncertainty. The final P_{limit} determination for each exposure scenario corresponding to SAR_{design_target} are shown in Table 3-3.

Table 3-3
 P_{Limit} Determination

Device State Index (DSI)	P_{Limit} Determination Scenarios
0	The worst-case SAR exposure is determined as maximum SAR normalized to the limit among: 1. Body Worn SAR 2. Extremity SAR measured at 8, 6 and 11 mm spacing for back, front, bottom respectively 3. Extremity SAR measured at 0 mm for left and right surfaces
1 or 4	P_{limit} is calculated based on 10g Extremity SAR at 0 mm for back, front, and bottom surfaces
2	P_{limit} is calculated based on 1g Head SAR
3	P_{limit} is calculated based on 1g Hotspot SAR at 10 mm

Note:

For DSI = 0, P_{limit} is calculated by:

$$P_{limit} = \min\{ P_{limit} \text{ corresponding to 1g Body Worn SAR evaluation at 15 mm spacing,} \\ P_{limit} \text{ corresponding to 10g Extremity SAR evaluation at 6~11 mm spacing,} \\ P_{limit} \text{ corresponding to 10g Extremity SAR evaluation at 0 mm for left and right surfaces} \}$$

FCC ID: A3LSMN981W	 PCTEST Proud to be part of the Samsung ecosystem	PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Document S/N: 1M2005050082-20.A3L	Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset	Page 8 of 11	

Table 3-4
SAR Characterizations

Exposure Scenario:	Body-Worn	Phablet	Phablet	Head	Hotspot	Earjack	Maximum Tune-up Output Power*
Averaging Volume:	1g	10g	10g	1g	1g	10g	
Spacing:	15 mm	8 mm, 6 mm, 11 mm	0 mm	0 mm	10 mm	0 mm	
DSI:	0	0	1	2	3	4	
Technology/Band	Plimit corresponding to 1mW/g (SAR_design_target)						Pmax
CDMA/EVDO BC0	28.7		26.7	32.3	25.6	26.7	24.8
GSM/GPRS/EDGE 850 MHz	29.2		28.6	32.8	27.6	28.6	24.8
GSM/GPRS/EDGE 1900 MHz	25.5		18.8	31.6	18.8	18.8	21.3
UMTS B5	29.0		27.1	32.8	26.2	27.1	24.5
UMTS B4	24.2		19.0	31.9	19.0	19.0	23.0
UMTS B2	24.4		18.0	31.6	18.0	18.0	23.0
LTE FDD B71	32.0		27.4	35.2	27.4	27.4	24.8
LTE FDD B12	31.9		27.6	34.1	27.6	27.6	24.8
LTE FDD B13	29.6		28.5	32.3	27.5	28.5	24.8
LTE FDD B5	29.4		27.2	32.4	26.7	27.2	24.8
LTE FDD B66/4	24.8		19.0	32.6	19.0	19.0	23.0
LTE FDD B25/2	25.3		18.0	31.8	18.0	18.0	23.0
LTE FDD B30	26.4		20.5	33.4	18.0	20.5	23.2
LTE FDD B7	26.7		20.5	33.1	19.5	20.5	23.0
LTE TDD B41	26.3		20.0	33.3	19.0	20.0	22.0
LTE TDD B38	26.3		19.0	33.3	19.0	19.0	21.5
NR FDD n71	31.9		27.7	35.0	27.7	27.7	24.8
NR FDD n66	24.3		19.0	32.9	19.0	19.0	23.5
NR TDD n41	24.8		24.8	14.0	24.1	24.8	18.0

Notes:

- For all modes/bands, when Hotspot Mode (DSI=3) and Extremity sensor (DSI=1) are triggered at the same time, DSI=3 takes priority, thus the P_{limit} for DSI=3 is set to be less or equal to P_{limit} for DSI=1.
- When $P_{max} < P_{limit}$, the DUT will operate at a power level up to P_{max} .
- P_{limit} for DSI=1 and DSI =4 are the same.
- For NR Band n41, when RCV is active, DSI=2 takes priority over all levels.

FCC ID: A3LSMN981W	 Proud to be part of	PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Document S/N: 1M2005050082-20.A3L	Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset	Page 9 of 11	

4

EQUIPMENT LIST

For SAR measurements

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
Agilent	E4404B	Spectrum Analyzer (8GHz-6.7GHz)	1/16/2020	Triennial	1/16/2023	US41441489
Agilent	8753ES	S-Parameter Network Analyzer	12/31/2019	Annual	12/31/2020	US39170122
Agilent	8753ES	S-Parameter Network Analyzer	8/26/2019	Annual	8/26/2020	MY40000670
Agilent	8753ES	S-Parameter Vector Network Analyzer	9/19/2019	Annual	9/19/2020	MY40003841
Agilent	E4432B	ESG-D Series Signal Generator	7/14/2019	Annual	7/14/2020	US40053896
Agilent	E4438C	ESG Vector Signal Generator	3/8/2019	Biennial	3/8/2021	MY42082385
Agilent	E4438C	ESG Vector Signal Generator	3/11/2019	Biennial	3/11/2021	MY43099700
Agilent	E4438C	ESG Vector Signal Generator	12/13/2019	Annual	12/13/2020	MY42082659
Agilent	E5515C	8960 Series 10 Wireless Communications Test Set	2/10/2020	Annual	2/10/2021	GB42230325
Agilent	E5515C	Wireless Communications Test Set	1/14/2020	Triennial	1/14/2023	GB43044447
Agilent	E5515C	Wireless Communications Test Set	6/26/2019	Annual	6/26/2020	MY50267125
Agilent	E5515C	Wireless Communications Test Set	2/26/2020	Annual	2/26/2021	GB44400860
Agilent	E5515C	Wireless Communications Test Set	9/25/2019	Annual	9/25/2020	GB4304278
Agilent	N5182A	MMG Vector Signal Generator	5/13/2020	Annual	5/13/2021	MY4309603
Agilent	N5182A	MMG Vector Signal Generator	2/19/2020	Annual	2/19/2021	MY4120551
Agilent	N9030A	PXA Signal Analyzer (44GHz)	6/12/2019	Annual	6/12/2020	MY5350166
Amplifier Research	1551G6	Amplifier	CBT	N/A	CBT	433972
Amplifier Research	1551G6	Amplifier	CBT	N/A	CBT	433974
Amplifier Research	1551G6	Amplifier	CBT	N/A	CBT	433976
Anritsu	MA24106A	USB Power Sensor	2/27/2020	Annual	2/27/2021	1244524
Anritsu	MA24106A	USB Power Sensor	10/10/2019	Annual	10/10/2020	1344545
Anritsu	MA24106A	USB Power Sensor	10/10/2019	Annual	10/10/2020	1344559
Anritsu	MA2411B	Pulse Power Sensor	1/21/2020	Annual	1/21/2021	1207470
Anritsu	MA2411B	Pulse Power Sensor	12/4/2019	Annual	12/4/2020	1126066
Anritsu	ML2495A	Power Meter	12/17/2019	Annual	12/17/2020	941001
Anritsu	ML2496A	Power Meter	3/23/2020	Annual	3/23/2021	1351001
Anritsu	MT8821C	Radio Communication Analyzer	3/10/2020	Annual	3/10/2021	6200901190
Anritsu	MT8821C	Radio Communication Analyzer	10/7/2019	Annual	10/7/2020	6201664756
Anritsu	MT8821C	Radio Communication Analyzer	2/22/2020	Annual	2/22/2021	620438603
Anritsu	MT8821C	Radio Communication Analyzer	11/22/2019	Annual	11/22/2020	6262044715
Anritsu	MT8862A	Wireless Connectivity Test Set	8/8/2019	Annual	8/8/2020	6261782395
COMTECH	AR85729-5	Solid State Amplifier	CBT	N/A	CBT	M155A00-009
COMTECH	AR85729-5/575B	Solid State Amplifier	CBT	N/A	CBT	M3W1A00-1002
Control Company	4040	Therm./Clock/Humidity Monitor	6/29/2020	Biennial	6/29/2021	192291455
Control Company	4040	Therm./Clock/Humidity Monitor	6/29/2019	Biennial	6/29/2021	192291460
Control Company	4040	Therm./Clock/Humidity Monitor	6/29/2019	Biennial	6/29/2021	192291463
Control Company	4352	Long Stem Thermometer	1/24/2020	Biennial	1/24/2022	200043588
Control Company	4352	Long Stem Thermometer	1/24/2020	Biennial	1/24/2022	200043655
Control Company	4352	Long Stem Thermometer	1/24/2020	Biennial	1/24/2022	200043647
Control Company	4352	Ultra Long Stem Thermometer	11/29/2018	Biennial	11/29/2020	181766816
Control Company	4352	Ultra Long Stem Thermometer	11/29/2018	Biennial	11/29/2020	181766817
Keyight	772D	Dual Directional Coupler	CBT	N/A	CBT	MY52180215
Keyight Technologies	85038E	Standard Mechanical Calibration Kit (DC to 9GHz, 3.5mm)	7/22/2019	Annual	7/22/2020	MY53401181
NCL	BW-N60S+	6dB Attenuator	CBT	N/A	CBT	1139
MiniCircuits	SLP-2400+	Low Pass Filter	CBT	N/A	CBT	R8979500903
MiniCircuits	VLF-6000+	Low Pass Filter	CBT	N/A	CBT	N/A
MiniCircuits	VLF-6000+	Low Pass Filter	CBT	N/A	CBT	N/A
MiniCircuits	BW-N20W5	Power Attenuator	CBT	N/A	CBT	1226
MiniCircuits	BW-N20W5+	DC to 18 GHz Precision Fixed 20 dB Attenuator	CBT	N/A	CBT	N/A
MiniCircuits	NLP-1200+	Low Pass Filter DC to 1000 MHz	CBT	N/A	CBT	N/A
MiniCircuits	NLP-2950+	Low Pass Filter DC to 2700 MHz	CBT	N/A	CBT	N/A
Narda	BW-S3W2	Attenuator (3dB)	CBT	N/A	CBT	120
Pasternack	PE2208-6	Bidirectional Coupler	CBT	N/A	CBT	N/A
Pasternack	PE2209-10	Bidirectional Coupler	CBT	N/A	CBT	N/A
Seekonk	NC-100	Torque Wrench	7/18/2019	Annual	7/18/2020	N/A
Rohde & Schwarz	CMW500	Radio Communication Tester	3/27/2020	Annual	3/27/2021	128633
Rohde & Schwarz	CMW500	Radio Communication Tester	8/14/2019	Annual	8/14/2020	140544
Rohde & Schwarz	CMW500	Radio Communication Tester	10/14/2019	Annual	10/14/2020	164642
Rohde & Schwarz	CMW500	Wideband Radio Communication Tester	2/4/2020	Annual	2/4/2021	162125
Rohde & Schwarz	CMW500	Wideband Radio Communication Tester	11/14/2019	Annual	11/14/2020	164948
Rohde & Schwarz	ZNL66	Vector Network Analyzer	10/11/2019	Annual	10/11/2020	101307
Rohde & Schwarz	CMW500	Wideband Radio Communication Tester	7/12/2019	Annual	7/12/2020	145645
Rohde & Schwarz	CMW500	Wideband Radio Communication Tester	7/24/2019	Annual	7/24/2020	151849
SPEAG	D750V3	750 MHz SAR Dipole	3/11/2020	Annual	3/11/2021	1054
SPEAG	D835V2	835 MHz SAR Dipole	1/13/2020	Annual	1/13/2021	440132
SPEAG	D1750V2	1750 MHz SAR Dipole	10/22/2018	Biennial	10/22/2020	1150
SPEAG	D1900V2	1900 MHz SAR Dipole	10/23/2018	Biennial	10/23/2020	50149
SPEAG	D1900V2	1900 MHz SAR Dipole	2/21/2019	Biennial	2/21/2021	50148
SPEAG	D1900V2	1900 MHz SAR Dipole	10/23/2018	Biennial	10/23/2020	50380
SPEAG	D2300V2	2300 MHz SAR Dipole	8/13/2018	Biennial	8/13/2020	1073
SPEAG	D2450V2	2450 MHz SAR Dipole	8/14/2019	Annual	8/14/2020	719
SPEAG	D2600V2	2600 MHz SAR Dipole	6/14/2019	Biennial	6/14/2021	1864
SPEAG	D50GHV2	5 GHz SAR Dipole	1/16/2018	Triennial	1/16/2021	1057
SPEAG	D750V3	750 MHz SAR Dipole	3/16/2020	Annual	3/16/2021	1003
SPEAG	D835V2	835 MHz SAR Dipole	3/13/2019	Biennial	3/13/2021	48047
SPEAG	D1765V2	1765 MHz SAR Dipole	5/23/2018	Triennial	5/23/2021	1008
SPEAG	D50GHV2	5 GHz SAR Dipole	9/17/2019	Annual	9/17/2020	1191
SPEAG	D50GHV2	5 GHz SAR Dipole	8/10/2018	Biennial	8/10/2020	1237
SPEAG	DAE4	Dasy Data Acquisition Electronics	7/11/2019	Annual	7/11/2020	1322
SPEAG	DAE4	Dasy Data Acquisition Electronics	9/17/2019	Annual	9/17/2020	1333
SPEAG	DAE4	Dasy Data Acquisition Electronics	1/13/2020	Annual	1/13/2021	1558
SPEAG	DAE4	Dasy Data Acquisition Electronics	4/15/2020	Annual	4/15/2021	1407
SPEAG	DAE4	Dasy Data Acquisition Electronics	3/12/2020	Annual	3/12/2021	1368
SPEAG	DAE4	Dasy Data Acquisition Electronics	12/5/2019	Annual	12/5/2020	1533
SPEAG	DAE4	Dasy Data Acquisition Electronics	7/11/2019	Annual	7/11/2020	1323
SPEAG	DAE4	Dasy Data Acquisition Electronics	5/20/2020	Annual	5/20/2021	728
SPEAG	DAE-3.5	Dielectric Assessment Kit	10/22/2019	Annual	10/22/2020	1091
SPEAG	EX3DV4	SAR Probe	7/16/2019	Annual	7/16/2020	7410
SPEAG	EX3DV4	SAR Probe	9/19/2019	Annual	9/19/2020	7551
SPEAG	EX3DV4	SAR Probe	1/21/2020	Annual	1/21/2021	3589
SPEAG	EX3DV4	SAR Probe	4/21/2020	Annual	4/21/2021	7357
SPEAG	EX3DV4	SAR Probe	3/17/2020	Annual	3/17/2021	7527
SPEAG	EX3DV4	SAR Probe	12/11/2019	Annual	12/11/2020	7571
SPEAG	EX3DV4	SAR Probe	7/15/2019	Annual	7/15/2020	7547
SPEAG	EX3DV4	SAR Probe	5/18/2020	Annual	5/18/2021	7538

Note:

1. CBT (Calibrated Before Testing). Prior to testing, the measurement paths containing a cable, amplifier, attenuator, coupler or filter were connected to a calibrated source (i.e. a signal generator) to determine the losses of the measurement path. The power meter offset was then adjusted to compensate for the measurement system losses. This level offset is stored within the power meter before measurements are made. This calibration verification procedure applies to the system verification and output power measurements. The calibrated reading is then taken directly from the power meter after compensation of the losses for all final power measurements.
2. Each equipment item was used solely within its respective calibration period.

FCC ID: A3LSMN981W	 PCTEST Proud to be part of 	PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Document S/N: 1M2005050082-20.A3L	Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset		Page 10 of 11

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REV 1.0

06/01/2019

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5 MEASUREMENT UNCERTAINTIES

For SAR Measurements

a	c	d	e = f(d,k)	f	g	h = c x f/e	i = c x g/e	k
Uncertainty Component	Tol. (± %)	Prob. Dist.	Div.	c _i 1gm	c _i 10 gms	1gm u _i (± %)	10gms u _i (± %)	v _i
Measurement System								
Probe Calibration	6.55	N	1	1.0	1.0	6.6	6.6	∞
Axial Isotropy	0.25	N	1	0.7	0.7	0.2	0.2	∞
Hemishperical Isotropy	1.3	N	1	0.7	0.7	0.9	0.9	∞
Boundary Effect	2.0	R	1.73	1.0	1.0	1.2	1.2	∞
Linearity	0.3	N	1	1.0	1.0	0.3	0.3	∞
System Detection Limits	0.25	R	1.73	1.0	1.0	0.1	0.1	∞
Readout Electronics	0.3	N	1	1.0	1.0	0.3	0.3	∞
Response Time	0.8	R	1.73	1.0	1.0	0.5	0.5	∞
Integration Time	2.6	R	1.73	1.0	1.0	1.5	1.5	∞
RF Ambient Conditions - Noise	3.0	R	1.73	1.0	1.0	1.7	1.7	∞
RF Ambient Conditions - Reflections	3.0	R	1.73	1.0	1.0	1.7	1.7	∞
Probe Positioner Mechanical Tolerance	0.4	R	1.73	1.0	1.0	0.2	0.2	∞
Probe Positioning w/ respect to Phantom	6.7	R	1.73	1.0	1.0	3.9	3.9	∞
Extrapolation, Interpolation & Integration algorithms for Max. SAR Evaluation	4.0	R	1.73	1.0	1.0	2.3	2.3	∞
Test Sample Related								
Test Sample Positioning	2.7	N	1	1.0	1.0	2.7	2.7	35
Device Holder Uncertainty	1.67	N	1	1.0	1.0	1.7	1.7	5
Output Power Variation - SAR drift measurement	5.0	R	1.73	1.0	1.0	2.9	2.9	∞
SAR Scaling	0.0	R	1.73	1.0	1.0	0.0	0.0	∞
Phantom & Tissue Parameters								
Phantom Uncertainty (Shape & Thickness tolerances)	7.6	R	1.73	1.0	1.0	4.4	4.4	∞
Liquid Conductivity - measurement uncertainty	4.2	N	1	0.78	0.71	3.3	3.0	10
Liquid Permittivity - measurement uncertainty	4.1	N	1	0.23	0.26	1.0	1.1	10
Liquid Conductivity - Temperature Uncertainty	3.4	R	1.73	0.78	0.71	1.5	1.4	∞
Liquid Permittivity - Temperature Uncertainty	0.6	R	1.73	0.23	0.26	0.1	0.1	∞
Liquid Conductivity - deviation from target values	5.0	R	1.73	0.64	0.43	1.8	1.2	∞
Liquid Permittivity - deviation from target values	5.0	R	1.73	0.60	0.49	1.7	1.4	∞
Combined Standard Uncertainty (k=1)	RSS					11.5	11.3	60
Expanded Uncertainty (95% CONFIDENCE LEVEL)	k=2					23.0	22.6	

FCC ID: A3LSMN981W	 PCTEST Provided to be part of the product	PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Document S/N: 1M2005050082-20.A3L	Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset	Page 11 of 11	

APPENDIX A: SAR TEST RESULTS FOR P_{Limit} CALCULATIONS

Table A-1
DSI = 2 P_{Limit} Calculations – 2G/3G Head SAR

MEASUREMENT RESULTS										
FREQUENCY		Mode/Band	Service	Conducted Power [dBm]	Side	Test Position	Duty Cycle	SAR (1g)	Plimit	Minimum Plimit
MHz	Ch.							(W/kg)	[dBm]	[dBm]
836.52	384	CDMA BC0 (\$22H)	RC3 / SO55	24.78	Right	Cheek	1:1	0.125	33.81	32.26
836.52	384	CDMA BC0 (\$22H)	RC3 / SO55	24.78	Right	Tilt	1:1	0.090	35.24	
836.52	384	CDMA BC0 (\$22H)	RC3 / SO55	24.78	Left	Cheek	1:1	0.178	32.28	
836.52	384	CDMA BC0 (\$22H)	RC3 / SO55	24.78	Left	Tilt	1:1	0.084	35.54	
836.52	384	CDMA BC0 (\$22H)	EVDO Rev. A	24.81	Right	Cheek	1:1	0.138	33.41	
836.52	384	CDMA BC0 (\$22H)	EVDO Rev. A	24.81	Right	Tilt	1:1	0.084	35.57	
836.52	384	CDMA BC0 (\$22H)	EVDO Rev. A	24.81	Left	Cheek	1:1	0.180	32.26	
836.52	384	CDMA BC0 (\$22H)	EVDO Rev. A	24.81	Left	Tilt	1:1	0.071	36.30	
836.60	190	GSM 850	GSM	32.88	Right	Cheek	1:8.3	0.078	34.76	32.82
836.60	190	GSM 850	GSM	32.88	Right	Tilt	1:8.3	0.050	36.69	
836.60	190	GSM 850	GSM	32.88	Left	Cheek	1:8.3	0.122	32.82	
836.60	190	GSM 850	GSM	32.88	Left	Tilt	1:8.3	0.055	36.28	
1880.00	661	GSM 1900	GSM	29.08	Right	Cheek	1:8.3	0.067	31.62	31.62
1880.00	661	GSM 1900	GSM	29.08	Right	Tilt	1:8.3	0.040	33.86	
1880.00	661	GSM 1900	GSM	29.08	Left	Cheek	1:8.3	0.057	32.32	
1880.00	661	GSM 1900	GSM	29.08	Left	Tilt	1:8.3	0.041	33.75	
836.60	4183	UMTS 850	RMC	24.94	Right	Cheek	1:1	0.118	34.22	32.77
836.60	4183	UMTS 850	RMC	24.94	Right	Tilt	1:1	0.087	35.54	
836.60	4183	UMTS 850	RMC	24.94	Left	Cheek	1:1	0.165	32.77	
836.60	4183	UMTS 850	RMC	24.94	Left	Tilt	1:1	0.080	35.91	
1732.40	1412	UMTS 1750	RMC	23.22	Right	Cheek	1:1	0.136	31.88	31.88
1732.40	1412	UMTS 1750	RMC	23.22	Right	Tilt	1:1	0.091	33.63	
1732.40	1412	UMTS 1750	RMC	23.22	Left	Cheek	1:1	0.101	33.18	
1732.40	1412	UMTS 1750	RMC	23.22	Left	Tilt	1:1	0.081	34.14	
1880.00	9400	UMTS 1900	RMC	23.11	Right	Cheek	1:1	0.141	31.62	31.62
1880.00	9400	UMTS 1900	RMC	23.11	Right	Tilt	1:1	0.065	34.98	
1880.00	9400	UMTS 1900	RMC	23.11	Left	Cheek	1:1	0.101	33.07	
1880.00	9400	UMTS 1900	RMC	23.11	Left	Tilt	1:1	0.091	33.52	

For some bands/modes, a lower P_{Limit} was selected as a more conservative evaluation.

FCC ID: A3LSMN981W	 PCTEST Proud to be part of 	PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset			APPENDIX A: Page 1 of 19

Table A-2
DSI = 2 P_{Limit} Calculations – 4G Head SAR

MEASUREMENT RESULTS															
FREQUENCY			Mode	Bandwidth [MHz]	Conducted Power [dBm]	MPR [dB]	Side	Test Position	Modulation	RB Size	RB Offset	Duty Cycle	SAR (1g)	PLimit	Minimum PLimit
MHz	Ch.												(W/kg)	[dBm]	[dBm]
680.5	133297	Mid	LTE Band 71	20	25.15	0	Right	Cheek	QPSK	1	0	1:1	0.073	36.52	35.15
680.5	133297	Mid	LTE Band 71	20	24.36	1	Right	Cheek	QPSK	50	0	1:1	0.055	36.96	
680.5	133297	Mid	LTE Band 71	20	25.15	0	Right	Tilt	QPSK	1	0	1:1	0.039	39.24	
680.5	133297	Mid	LTE Band 71	20	24.36	1	Right	Tilt	QPSK	50	0	1:1	0.029	39.74	
680.5	133297	Mid	LTE Band 71	20	25.15	0	Left	Cheek	QPSK	1	0	1:1	0.100	35.15	
680.5	133297	Mid	LTE Band 71	20	24.36	1	Left	Cheek	QPSK	50	0	1:1	0.073	35.73	
680.5	133297	Mid	LTE Band 71	20	25.15	0	Left	Tilt	QPSK	1	0	1:1	0.037	39.47	
680.5	133297	Mid	LTE Band 71	20	24.36	1	Left	Tilt	QPSK	50	0	1:1	0.026	40.21	
707.5	23095	Mid	LTE Band 12	10	25.02	0	Right	Cheek	QPSK	1	0	1:1	0.083	35.83	34.10
707.5	23095	Mid	LTE Band 12	10	24.19	1	Right	Cheek	QPSK	25	12	1:1	0.071	35.68	
707.5	23095	Mid	LTE Band 12	10	25.02	0	Right	Tilt	QPSK	1	0	1:1	0.054	37.70	
707.5	23095	Mid	LTE Band 12	10	24.19	1	Right	Tilt	QPSK	25	12	1:1	0.051	37.11	
707.5	23095	Mid	LTE Band 12	10	25.02	0	Left	Cheek	QPSK	1	0	1:1	0.116	34.38	
707.5	23095	Mid	LTE Band 12	10	24.19	1	Left	Cheek	QPSK	25	12	1:1	0.102	34.10	
707.5	23095	Mid	LTE Band 12	10	25.02	0	Left	Tilt	QPSK	1	0	1:1	0.056	37.54	
707.5	23095	Mid	LTE Band 12	10	24.19	1	Left	Tilt	QPSK	25	12	1:1	0.044	37.76	
782.0	23230	Mid	LTE Band 13	10	25.05	0	Right	Cheek	QPSK	1	49	1:1	0.133	33.81	32.26
782.0	23230	Mid	LTE Band 13	10	24.27	1	Right	Cheek	QPSK	25	0	1:1	0.086	34.93	
782.0	23230	Mid	LTE Band 13	10	25.05	0	Right	Tilt	QPSK	1	49	1:1	0.062	37.13	
782.0	23230	Mid	LTE Band 13	10	24.27	1	Right	Tilt	QPSK	25	0	1:1	0.045	37.74	
782.0	23230	Mid	LTE Band 13	10	25.05	0	Left	Cheek	QPSK	1	49	1:1	0.190	32.26	
782.0	23230	Mid	LTE Band 13	10	24.27	1	Left	Cheek	QPSK	25	0	1:1	0.144	32.69	
782.0	23230	Mid	LTE Band 13	10	25.05	0	Left	Tilt	QPSK	1	49	1:1	0.086	35.71	
782.0	23230	Mid	LTE Band 13	10	24.27	1	Left	Tilt	QPSK	25	0	1:1	0.061	36.42	
836.5	20525	Mid	LTE Band 5 (Cell)	10	25.33	0	Right	Cheek	QPSK	1	0	1:1	0.127	34.29	32.39
836.5	20525	Mid	LTE Band 5 (Cell)	10	24.49	1	Right	Cheek	QPSK	25	12	1:1	0.107	34.20	
836.5	20525	Mid	LTE Band 5 (Cell)	10	25.33	0	Right	Tilt	QPSK	1	0	1:1	0.095	35.55	
836.5	20525	Mid	LTE Band 5 (Cell)	10	24.49	1	Right	Tilt	QPSK	25	12	1:1	0.072	35.92	
836.5	20525	Mid	LTE Band 5 (Cell)	10	25.33	0	Left	Cheek	QPSK	1	0	1:1	0.197	32.39	
836.5	20525	Mid	LTE Band 5 (Cell)	10	24.49	1	Left	Cheek	QPSK	25	12	1:1	0.151	32.70	
836.5	20525	Mid	LTE Band 5 (Cell)	10	25.33	0	Left	Tilt	QPSK	1	0	1:1	0.080	36.30	
836.5	20525	Mid	LTE Band 5 (Cell)	10	24.49	1	Left	Tilt	QPSK	25	12	1:1	0.059	36.78	

For some bands/modes, a lower P_{Limit} was selected as a more conservative evaluation.

FCC ID: A3LSMN981W	 PCTEST Proud to be part of 	PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset	APPENDIX A: Page 2 of 19		

Table A-3
DSI = 2 P_{Limit} Calculations – 4G Head SAR

MEASUREMENT RESULTS															
FREQUENCY			Mode	Bandwidth [MHz]	Conducted Power [dBm]	MPR [dB]	Side	Test Position	Modulation	RB Size	RB Offset	Duty Cycle	SAR (1g)	PLimit	Minimum PLimit
MHz	Ch.												(W/kg)	[dBm]	[dBm]
1770.0	132572	High	LTE Band 66 (AWS)	20	23.21	0	Right	Cheek	QPSK	1	0	1:1	0.108	32.88	32.62
1770.0	132572	High	LTE Band 66 (AWS)	20	22.26	1	Right	Cheek	QPSK	50	25	1:1	0.092	32.62	
1770.0	132572	High	LTE Band 66 (AWS)	20	23.21	0	Right	Tilt	QPSK	1	0	1:1	0.081	34.13	
1770.0	132572	High	LTE Band 66 (AWS)	20	22.26	1	Right	Tilt	QPSK	50	25	1:1	0.060	34.48	
1770.0	132572	High	LTE Band 66 (AWS)	20	23.21	0	Left	Cheek	QPSK	1	0	1:1	0.073	34.58	
1770.0	132572	High	LTE Band 66 (AWS)	20	22.26	1	Left	Cheek	QPSK	50	25	1:1	0.054	34.94	
1770.0	132572	High	LTE Band 66 (AWS)	20	23.21	0	Left	Tilt	QPSK	1	0	1:1	0.070	34.76	
1770.0	132572	High	LTE Band 66 (AWS)	20	22.26	1	Left	Tilt	QPSK	50	25	1:1	0.054	34.94	
1882.5	26365	Mid	LTE Band 25 (PCS)	20	23.22	0	Right	Cheek	QPSK	1	99	1:1	0.139	31.79	31.79
1882.5	26365	Mid	LTE Band 25 (PCS)	20	22.31	1	Right	Cheek	QPSK	50	50	1:1	0.109	31.94	
1882.5	26365	Mid	LTE Band 25 (PCS)	20	23.22	0	Right	Tilt	QPSK	1	99	1:1	0.065	35.09	
1882.5	26365	Mid	LTE Band 25 (PCS)	20	22.31	1	Right	Tilt	QPSK	50	50	1:1	0.054	34.99	
1882.5	26365	Mid	LTE Band 25 (PCS)	20	23.22	0	Left	Cheek	QPSK	1	99	1:1	0.083	34.03	
1882.5	26365	Mid	LTE Band 25 (PCS)	20	22.31	1	Left	Cheek	QPSK	50	50	1:1	0.074	33.62	
1882.5	26365	Mid	LTE Band 25 (PCS)	20	23.22	0	Left	Tilt	QPSK	1	99	1:1	0.060	35.44	
1882.5	26365	Mid	LTE Band 25 (PCS)	20	22.31	1	Left	Tilt	QPSK	50	50	1:1	0.047	35.59	
2310.0	27710	Mid	LTE Band 30	10	23.72	0	Right	Cheek	QPSK	1	49	1:1	0.107	33.43	33.43
2310.0	27710	Mid	LTE Band 30	10	22.77	1	Right	Cheek	QPSK	25	12	1:1	0.083	33.58	
2310.0	27710	Mid	LTE Band 30	10	23.72	0	Right	Tilt	QPSK	1	49	1:1	0.052	36.56	
2310.0	27710	Mid	LTE Band 30	10	22.77	1	Right	Tilt	QPSK	25	12	1:1	0.050	35.78	
2310.0	27710	Mid	LTE Band 30	10	23.72	0	Left	Cheek	QPSK	1	49	1:1	0.063	35.73	
2310.0	27710	Mid	LTE Band 30	10	22.77	1	Left	Cheek	QPSK	25	12	1:1	0.052	35.61	
2310.0	27710	Mid	LTE Band 30	10	23.72	0	Left	Tilt	QPSK	1	49	1:1	0.075	34.97	
2310.0	27710	Mid	LTE Band 30	10	22.77	1	Left	Tilt	QPSK	25	12	1:1	0.061	34.92	
2535.0	21100	Mid	LTE Band 7	20	23.26	0	Right	Cheek	QPSK	1	0	1:1	0.105	33.05	33.05
2535.0	21100	Mid	LTE Band 7	20	22.38	1	Right	Cheek	QPSK	50	25	1:1	0.071	33.87	
2535.0	21100	Mid	LTE Band 7	20	23.26	0	Right	Tilt	QPSK	1	0	1:1	0.062	35.34	
2535.0	21100	Mid	LTE Band 7	20	22.38	1	Right	Tilt	QPSK	50	25	1:1	0.047	35.66	
2535.0	21100	Mid	LTE Band 7	20	23.26	0	Left	Cheek	QPSK	1	0	1:1	0.092	33.62	
2535.0	21100	Mid	LTE Band 7	20	22.38	1	Left	Cheek	QPSK	50	25	1:1	0.072	33.81	
2535.0	21100	Mid	LTE Band 7	20	23.26	0	Left	Tilt	QPSK	1	0	1:1	0.092	33.62	
2535.0	21100	Mid	LTE Band 7	20	22.38	1	Left	Tilt	QPSK	50	25	1:1	0.078	33.46	
2506.0	39750	Low	LTE Band 41	20	24.27	0	Right	Cheek	QPSK	1	99	1:1.58	0.079	33.31	33.31
2506.0	39750	Low	LTE Band 41	20	23.24	1	Right	Cheek	QPSK	50	0	1:1.58	0.059	33.55	
2506.0	39750	Low	LTE Band 41	20	24.27	0	Right	Tilt	QPSK	1	99	1:1.58	0.040	36.26	
2506.0	39750	Low	LTE Band 41	20	23.24	1	Right	Tilt	QPSK	50	0	1:1.58	0.032	36.20	
2506.0	39750	Low	LTE Band 41	20	24.27	0	Left	Cheek	QPSK	1	99	1:1.58	0.063	34.29	
2506.0	39750	Low	LTE Band 41	20	23.24	1	Left	Cheek	QPSK	50	0	1:1.58	0.047	34.53	
2506.0	39750	Low	LTE Band 41	20	24.27	0	Left	Tilt	QPSK	1	99	1:1.58	0.065	34.15	
2506.0	39750	Low	LTE Band 41	20	23.24	1	Left	Tilt	QPSK	50	0	1:1.58	0.053	34.01	

For some bands/modes, a lower P_{Limit} was selected as a more conservative evaluation.

FCC ID: A3LSMN981W	 Proud to be part of 	PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset	APPENDIX A: Page 3 of 19		

Table A-4
DSI = 2 P_{Limit} Calculations – 5G Head SAR

MEASUREMENT RESULTS															
FREQUENCY			Mode	Bandwidth [MHz]	Conducted Power [dBm]	MPR [dB]	Side	Test Position	Modulation	RB Size	RB Offset	Duty Cycle	SAR (1g)	PLimit	Minimum PLimit
MHz	Ch.												(W/kg)	[dBm]	[dBm]
680.50	136100	Mid	NR Band n71	20	25.03	0.0	Right	Cheek	DFT-s-OFDM QPSK	1	1	1:1	0.048	38.22	35.00
680.50	136100	Mid	NR Band n71	20	25.01	0.0	Right	Cheek	DFT-s-OFDM QPSK	50	28	1:1	0.042	38.78	
680.50	136100	Mid	NR Band n71	20	25.03	0.0	Right	Tilt	DFT-s-OFDM QPSK	1	1	1:1	0.026	40.88	
680.50	136100	Mid	NR Band n71	20	25.01	0.0	Right	Tilt	DFT-s-OFDM QPSK	50	28	1:1	0.020	42.00	
680.50	136100	Mid	NR Band n71	20	25.03	0.0	Left	Cheek	DFT-s-OFDM QPSK	1	1	1:1	0.085	35.74	
680.50	136100	Mid	NR Band n71	20	25.01	0.0	Left	Cheek	DFT-s-OFDM QPSK	50	28	1:1	0.078	36.09	
680.50	136100	Mid	NR Band n71	20	25.03	0.0	Left	Tilt	DFT-s-OFDM QPSK	1	1	1:1	0.031	40.12	
680.50	136100	Mid	NR Band n71	20	25.01	0.0	Left	Tilt	DFT-s-OFDM QPSK	50	28	1:1	0.022	41.59	
680.50	136100	Mid	NR Band n71	20	23.26	1.5	Left	Cheek	CP-OFDM QPSK	1	1	1:1	0.067	35.00	
1770.00	354000	High	NR Band n66	20	23.86	0.0	Right	Cheek	DFT-s-OFDM QPSK	1	104	1:1	0.102	33.77	32.88
1770.00	354000	High	NR Band n66	20	23.96	0.0	Right	Cheek	DFT-s-OFDM QPSK	50	28	1:1	0.119	33.20	
1770.00	354000	High	NR Band n66	20	23.86	0.0	Right	Tilt	DFT-s-OFDM QPSK	1	104	1:1	0.073	35.23	
1770.00	354000	High	NR Band n66	20	23.96	0.0	Right	Tilt	DFT-s-OFDM QPSK	50	28	1:1	0.085	34.67	
1770.00	354000	High	NR Band n66	20	23.86	0.0	Left	Cheek	DFT-s-OFDM QPSK	1	104	1:1	0.077	35.00	
1770.00	354000	High	NR Band n66	20	23.96	0.0	Left	Cheek	DFT-s-OFDM QPSK	50	28	1:1	0.082	34.82	
1770.00	354000	High	NR Band n66	20	23.86	0.0	Left	Tilt	DFT-s-OFDM QPSK	1	104	1:1	0.071	35.35	
1770.00	354000	High	NR Band n66	20	23.96	0.0	Left	Tilt	DFT-s-OFDM QPSK	50	28	1:1	0.081	34.88	
1720.00	344000	Low	NR Band n66	20	22.12	1.5	Right	Cheek	CP-OFDM QPSK	1	1	1:1	0.084	32.88	
2592.99	518598	Mid	NR Band n41	100	20.15	0.0	Right	Cheek	DFT-s-OFDM QPSK	1	1	1:4	0.234	20.44	18.88
2592.99	518598	Mid	NR Band n41	100	19.96	0.0	Right	Cheek	DFT-s-OFDM QPSK	135	0	1:4	0.213	20.66	
2592.99	518598	Mid	NR Band n41	100	20.15	0.0	Right	Tilt	DFT-s-OFDM QPSK	1	1	1:4	0.335	18.88	
2592.99	518598	Mid	NR Band n41	100	19.96	0.0	Right	Tilt	DFT-s-OFDM QPSK	135	0	1:4	0.305	19.10	
2592.99	518598	Mid	NR Band n41	100	20.15	0.0	Left	Cheek	DFT-s-OFDM QPSK	1	1	1:4	0.161	22.06	
2592.99	518598	Mid	NR Band n41	100	19.96	0.0	Left	Cheek	DFT-s-OFDM QPSK	135	0	1:4	0.161	21.87	
2592.99	518598	Mid	NR Band n41	100	20.15	0.0	Left	Tilt	DFT-s-OFDM QPSK	1	1	1:4	0.193	21.27	
2592.99	518598	Mid	NR Band n41	100	19.96	0.0	Left	Tilt	DFT-s-OFDM QPSK	135	0	1:4	0.175	21.51	
2592.99	518598	Mid	NR Band n41	100	20.17	0.0	Right	Tilt	CP-OFDM QPSK	1	1	1:4	0.305	19.31	

For some bands/modes, a lower P_{Limit} was selected as a more conservative evaluation.

FCC ID: A3LSMN981W	 PCTEST Proud to be part of 	PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset			APPENDIX A: Page 4 of 19

Table A-5
DSI = 0 P_{Limit} Calculations – 2G/3G Body-Worn SAR

MEASUREMENT RESULTS										
FREQUENCY		Mode/Band	Service	Conducted Power [dBm]	Spacing (mm)	Side	Duty Cycle	SAR (1g)	PLimit	Minimum PLimit
MHz	Ch.							(W/kg)	[dBm]	[dBm]
836.52	384	CDMA BC0 (\$22H)	TDSO / SO32	24.79	15	Back	1:1	0.409	28.67	28.67
836.52	384	CDMA BC0 (\$22H)	TDSO / SO32	24.79	15	Front	1:1	0.314	29.82	
836.60	190	GSM 850	GSM	32.88	15	Back	1:8.3	0.283	29.16	29.16
836.60	190	GSM 850	GSM	32.88	15	Front	1:8.3	0.236	29.95	
1880.00	661	GSM 1900	GSM	29.08	15	Back	1:8.3	0.276	25.47	25.47
1880.00	661	GSM 1900	GSM	29.08	15	Front	1:8.3	0.229	26.28	
836.60	4183	UMTS 850	RMC	24.94	15	Back	1:1	0.391	29.02	29.02
836.60	4183	UMTS 850	RMC	24.94	15	Front	1:1	0.292	30.29	
1712.40	1312	UMTS 1750	RMC	23.35	15	Back	1:1	0.725	24.75	24.25
1732.40	1412	UMTS 1750	RMC	23.22	15	Back	1:1	0.763	24.39	
1752.60	1513	UMTS 1750	RMC	23.18	15	Back	1:1	0.782	24.25	
1732.40	1412	UMTS 1750	RMC	23.22	15	Front	1:1	0.621	25.29	
1852.40	9262	UMTS 1900	RMC	23.06	15	Back	1:1	0.658	24.88	24.35
1880.00	9400	UMTS 1900	RMC	23.11	15	Back	1:1	0.709	24.60	
1907.60	9538	UMTS 1900	RMC	23.16	15	Back	1:1	0.761	24.35	
1880.00	9400	UMTS 1900	RMC	23.11	15	Front	1:1	0.566	25.58	

For some bands/modes, a lower P_{Limit} was selected as a more conservative evaluation.

FCC ID: A3LSMN981W	 PCTEST Proud to be part of 	PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset			APPENDIX A: Page 5 of 19

Table A-6
DSI = 0 P_{Limit} Calculations – 4G Body-Worn SAR

MEASUREMENT RESULTS															
FREQUENCY			Mode	Bandwidth [MHz]	Conducted Power [dBm]	MPR [dB]	Modulation	RB Size	RB Offset	Spacing (mm)	Side	Duty Cycle	SAR (1g)	PLimit	Minimum PLimit
MHz	Ch.	(W/kg)											[dBm]	[dBm]	
680.50	133297	Mid	LTE Band 71	20	25.15	0	QPSK	1	0	15	Back	1:1	0.209	31.95	31.95
680.50	133297	Mid	LTE Band 71	20	24.36	1	QPSK	50	0	15	Back	1:1	0.167	32.13	
680.50	133297	Mid	LTE Band 71	20	25.15	0	QPSK	1	0	15	Front	1:1	0.165	32.98	
680.50	133297	Mid	LTE Band 71	20	25.15	1	QPSK	50	0	15	Front	1:1	0.115	34.54	
707.50	23095	Mid	LTE Band 12	10	25.02	0	QPSK	1	0	15	Back	1:1	0.205	31.90	31.86
707.50	23095	Mid	LTE Band 12	10	24.19	1	QPSK	25	12	15	Back	1:1	0.171	31.86	
707.50	23095	Mid	LTE Band 12	10	25.02	0	QPSK	1	0	15	Front	1:1	0.176	32.56	
707.50	23095	Mid	LTE Band 12	10	24.19	1	QPSK	25	12	15	Front	1:1	0.146	32.55	
782.00	23230	Mid	LTE Band 13	10	25.05	0	QPSK	1	49	15	Back	1:1	0.354	29.56	29.56
782.00	23230	Mid	LTE Band 13	10	24.27	1	QPSK	25	0	15	Back	1:1	0.287	29.69	
782.00	23230	Mid	LTE Band 13	10	25.05	0	QPSK	1	49	15	Front	1:1	0.303	30.24	
782.00	23230	Mid	LTE Band 13	10	24.27	1	QPSK	25	0	15	Front	1:1	0.244	30.40	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.33	0	QPSK	1	0	15	Back	1:1	0.390	29.42	29.37
836.50	20525	Mid	LTE Band 5 (Cell)	10	24.49	1	QPSK	25	12	15	Back	1:1	0.325	29.37	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.33	0	QPSK	1	0	15	Front	1:1	0.318	30.31	
836.50	20525	Mid	LTE Band 5 (Cell)	10	24.49	1	QPSK	25	12	15	Front	1:1	0.264	30.27	
1720.00	132072	Low	LTE Band 66 (AWS)	20	23.16	0	QPSK	1	50	15	Back	1:1	0.680	24.83	24.77
1745.00	132322	Mid	LTE Band 66 (AWS)	20	23.15	0	QPSK	1	50	15	Back	1:1	0.689	24.77	
1770.00	132572	High	LTE Band 66 (AWS)	20	23.21	0	QPSK	1	0	15	Back	1:1	0.682	24.87	
1770.00	132572	High	LTE Band 66 (AWS)	20	22.26	1	QPSK	50	25	15	Back	1:1	0.538	24.95	
1720.00	132072	Low	LTE Band 66 (AWS)	20	22.24	1	QPSK	100	0	15	Back	1:1	0.552	24.82	
1770.00	132572	High	LTE Band 66 (AWS)	20	23.21	0	QPSK	1	0	15	Front	1:1	0.541	25.88	
1770.00	132572	High	LTE Band 66 (AWS)	20	22.26	1	QPSK	50	25	15	Front	1:1	0.437	25.86	
1860.00	26140	Low	LTE Band 25 (PCS)	20	23.15	0	QPSK	1	0	15	Back	1:1	0.553	25.72	25.32
1882.50	26365	Mid	LTE Band 25 (PCS)	20	23.22	0	QPSK	1	99	15	Back	1:1	0.520	26.06	
1905.00	26590	High	LTE Band 25 (PCS)	20	23.14	0	QPSK	1	50	15	Back	1:1	0.605	25.32	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	22.31	1	QPSK	50	50	15	Back	1:1	0.434	25.94	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	23.22	0	QPSK	1	99	15	Front	1:1	0.427	26.92	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	22.31	1	QPSK	50	50	15	Front	1:1	0.348	26.89	
2310.00	27710	Mid	LTE Band 30	10	23.72	0	QPSK	1	49	15	Back	1:1	0.538	26.41	26.41
2310.00	27710	Mid	LTE Band 30	10	22.77	1	QPSK	25	12	15	Back	1:1	0.430	26.44	
2310.00	27710	Mid	LTE Band 30	10	23.72	0	QPSK	1	49	15	Front	1:1	0.514	26.61	
2310.00	27710	Mid	LTE Band 30	10	22.77	1	QPSK	25	12	15	Front	1:1	0.432	26.42	
2535.00	21100	Mid	LTE Band 7	20	23.26	0	QPSK	1	0	15	Back	1:1	0.458	26.65	26.65
2535.00	21100	Mid	LTE Band 7	20	22.38	1	QPSK	50	25	15	Back	1:1	0.336	27.12	
2535.00	21100	Mid	LTE Band 7	20	23.26	0	QPSK	1	0	15	Front	1:1	0.345	27.88	
2535.00	21100	Mid	LTE Band 7	20	22.38	1	QPSK	50	25	15	Front	1:1	0.275	27.99	
2506.00	39750	Low	LTE Band 41	20	24.27	0	QPSK	1	99	15	Back	1:1.58	0.369	26.61	26.33
2506.00	39750	Low	LTE Band 41	20	23.24	1	QPSK	50	0	15	Back	1:1.58	0.311	26.33	
2506.00	39750	Low	LTE Band 41	20	24.27	0	QPSK	1	99	15	Front	1:1.58	0.265	28.05	
2506.00	39750	Low	LTE Band 41	20	23.24	1	QPSK	50	0	15	Front	1:1.58	0.223	27.77	

For some bands/modes, a lower P_{Limit} was selected as a more conservative evaluation.

FCC ID: A3LSMN981W	 PCTEST Proud to be part of 	PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset			APPENDIX A: Page 6 of 19

Table A-7
DSI = 0 P_{Limit} Calculations – 5G Body-Worn SAR

MEASUREMENT RESULTS															
FREQUENCY			Mode	Bandwidth [MHz]	Conducted Power [dBm]	MPR [dB]	Modulation	RB Size	RB Offset	Spacing (mm)	Side	Duty Cycle	SAR (1g)	PLimit	Minimum PLimit
MHz	Ch.												(W/kg)	[dBm]	[dBm]
680.50	136100	Mid	NR Band n71	20	25.03	0.0	DFT-s-OFDM QPSK	1	1	15	Back	1:1	0.195	32.13	31.92
680.50	136100	Mid	NR Band n71	20	25.01	0.0	DFT-s-OFDM QPSK	50	28	15	Back	1:1	0.201	31.98	
680.50	136100	Mid	NR Band n71	20	25.03	0.0	DFT-s-OFDM QPSK	1	1	15	Front	1:1	0.136	33.69	
680.50	136100	Mid	NR Band n71	20	25.01	0.0	DFT-s-OFDM QPSK	50	28	15	Front	1:1	0.145	33.40	
680.50	136100	Mid	NR Band n71	20	23.26	1.5	CP-OFDM QPSK	1	1	15	Back	1:1	0.136	31.92	
1720.00	344000	Low	NR Band n66	20	23.81	0.0	DFT-s-OFDM QPSK	1	104	15	Back	1:1	0.818	24.68	24.36
1745.00	349000	Mid	NR Band n66	20	23.85	0.0	DFT-s-OFDM QPSK	1	1	15	Back	1:1	0.790	24.87	
1770.00	354000	High	NR Band n66	20	23.86	0.0	DFT-s-OFDM QPSK	1	104	15	Back	1:1	0.746	25.13	
1720.00	344000	Low	NR Band n66	20	23.79	0.0	DFT-s-OFDM QPSK	50	28	15	Back	1:1	0.737	25.12	
1745.00	349000	Mid	NR Band n66	20	23.81	0.0	DFT-s-OFDM QPSK	50	28	15	Back	1:1	0.881	24.36	
1770.00	354000	High	NR Band n66	20	23.96	0.0	DFT-s-OFDM QPSK	50	28	15	Back	1:1	0.847	24.68	
1720.00	344000	Low	NR Band n66	20	22.71	1.0	DFT-s-OFDM QPSK	100	0	15	Back	1:1	0.611	24.85	
1770.00	354000	High	NR Band n66	20	23.86	0.0	DFT-s-OFDM QPSK	1	104	15	Front	1:1	0.585	26.19	
1770.00	354000	High	NR Band n66	20	23.96	0.0	DFT-s-OFDM QPSK	50	28	15	Front	1:1	0.653	25.81	
1720.00	344000	Low	NR Band n66	20	22.12	1.5	CP-OFDM QPSK	1	1	15	Back	1:1	0.515	25.00	
2592.99	518598	Mid	NR Band n41	100	23.34	0.0	DFT-s-OFDM QPSK	1	137	15	Back	1:4	0.051	30.24	30.05
2592.99	518598	Mid	NR Band n41	100	23.15	0.0	DFT-s-OFDM QPSK	135	69	15	Back	1:4	0.051	30.05	
2592.99	518598	Mid	NR Band n41	100	23.34	0.0	DFT-s-OFDM QPSK	1	137	15	Front	1:4	0.031	32.41	
2592.99	518598	Mid	NR Band n41	100	23.35	0.0	DFT-s-OFDM QPSK	135	69	15	Front	1:4	0.032	32.28	
2592.99	518598	Mid	NR Band n41	100	22.28	1.5	CP-OFDM QPSK	1	1	15	Back	1:4	0.038	30.46	

For some bands/modes, a lower P_{Limit} was selected as a more conservative evaluation.

FCC ID: A3LSMN981W	 PCTEST Proud to be part of 	PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset			APPENDIX A: Page 7 of 19

Table A-8
DSI = 3 P_{Limit} Calculations – 2G/3G Hotspot SAR

MEASUREMENT RESULTS											
FREQUENCY		Mode/Band	Service	Conducted Power [dBm]	Spacing (mm)	Side	# of GPRS Slots	Duty Cycle	SAR (1g)	PLimit	Minimum PLimit
MHz	Ch.								(W/kg)	[dBm]	[dBm]
824.70	1013	CDMA BC0 (\$22H)	EVDO Rev. 0	24.85	10	Back	N/A	1:1	0.833	25.64	25.64
836.52	384	CDMA BC0 (\$22H)	EVDO Rev. 0	24.90	10	Back	N/A	1:1	0.805	25.84	
848.31	777	CDMA BC0 (\$22H)	EVDO Rev. 0	24.64	10	Back	N/A	1:1	0.704	26.16	
836.52	384	CDMA BC0 (\$22H)	EVDO Rev. 0	24.90	10	Front	N/A	1:1	0.645	26.80	
836.52	384	CDMA BC0 (\$22H)	EVDO Rev. 0	24.90	10	Bottom	N/A	1:1	0.387	29.02	
836.52	384	CDMA BC0 (\$22H)	EVDO Rev. 0	24.90	10	Right	N/A	1:1	0.091	35.31	
836.52	384	CDMA BC0 (\$22H)	EVDO Rev. 0	24.90	10	Left	N/A	1:1	0.288	30.31	
824.20	128	GSM 850	GPRS	29.45	10	Back	3	1:2.76	0.540	27.70	27.55
836.60	190	GSM 850	GPRS	29.38	10	Back	3	1:2.76	0.549	27.55	
848.80	251	GSM 850	GPRS	29.49	10	Back	3	1:2.76	0.519	27.91	
836.60	190	GSM 850	GPRS	29.38	10	Front	3	1:2.76	0.463	28.29	
836.60	190	GSM 850	GPRS	29.38	10	Bottom	3	1:2.76	0.374	29.22	
836.60	190	GSM 850	GPRS	29.38	10	Right	3	1:2.76	0.053	37.71	
836.60	190	GSM 850	GPRS	29.38	10	Left	3	1:2.76	0.273	30.59	
1880.00	661	GSM 1900	GPRS	21.74	10	Back	4	1:2.076	0.361	22.98	19.34
1880.00	661	GSM 1900	GPRS	21.74	10	Front	4	1:2.076	0.308	23.67	
1850.20	512	GSM 1900	GPRS	21.52	10	Bottom	4	1:2.076	0.640	20.28	
1880.00	661	GSM 1900	GPRS	21.74	10	Bottom	4	1:2.076	0.836	19.34	
1909.80	810	GSM 1900	GPRS	21.63	10	Bottom	4	1:2.076	0.810	19.36	
1880.00	661	GSM 1900	GPRS	21.74	10	Right	4	1:2.076	0.065	30.43	
1880.00	661	GSM 1900	GPRS	21.74	10	Left	4	1:2.076	0.048	31.75	
826.40	4132	UMTS 850	RMC	25.03	10	Back	N/A	1:1	0.742	26.33	26.22
836.60	4183	UMTS 850	RMC	24.94	10	Back	N/A	1:1	0.744	26.22	
846.60	4233	UMTS 850	RMC	24.87	10	Back	N/A	1:1	0.650	26.74	
836.60	4183	UMTS 850	RMC	24.94	10	Front	N/A	1:1	0.500	27.95	
836.60	4183	UMTS 850	RMC	24.94	10	Bottom	N/A	1:1	0.363	29.34	
836.60	4183	UMTS 850	RMC	24.94	10	Right	N/A	1:1	0.096	35.12	
836.60	4183	UMTS 850	RMC	24.94	10	Left	N/A	1:1	0.266	30.69	
1732.40	1412	UMTS 1750	RMC	19.38	10	Back	N/A	1:1	0.581	21.74	19.39
1732.40	1412	UMTS 1750	RMC	19.38	10	Front	N/A	1:1	0.447	22.88	
1712.40	1312	UMTS 1750	RMC	19.40	10	Bottom	N/A	1:1	0.860	20.05	
1732.40	1412	UMTS 1750	RMC	19.38	10	Bottom	N/A	1:1	0.942	19.64	
1752.60	1513	UMTS 1750	RMC	19.39	10	Bottom	N/A	1:1	1.000	19.39	
1732.40	1412	UMTS 1750	RMC	19.38	10	Right	N/A	1:1	0.098	29.47	
1732.40	1412	UMTS 1750	RMC	19.38	10	Left	N/A	1:1	0.061	31.53	
1880.00	9400	UMTS 1900	RMC	18.92	10	Back	N/A	1:1	0.480	22.11	18.93
1880.00	9400	UMTS 1900	RMC	18.92	10	Front	N/A	1:1	0.443	22.46	
1852.40	9262	UMTS 1900	RMC	18.79	10	Bottom	N/A	1:1	0.871	19.39	
1880.00	9400	UMTS 1900	RMC	18.92	10	Bottom	N/A	1:1	0.907	19.34	
1907.60	9538	UMTS 1900	RMC	18.91	10	Bottom	N/A	1:1	0.995	18.93	
1880.00	9400	UMTS 1900	RMC	18.92	10	Right	N/A	1:1	0.093	29.24	
1880.00	9400	UMTS 1900	RMC	18.92	10	Left	N/A	1:1	0.051	31.84	

For some bands/modes, a lower P_{Limit} was selected as a more conservative evaluation.

FCC ID: A3LSMN981W		PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset			APPENDIX A: Page 8 of 19

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REV 1.0
06/01/2019

Table A-9
DSI = 3 P_{Limit} Calculations – 4G Hotspot SAR

MEASUREMENT RESULTS															
FREQUENCY			Mode	Bandwidth [MHz]	Conducted Power [dBm]	MPR [dB]	Modulation	RB Size	RB Offset	Spacing (mm)	Side	Duty Cycle	SAR (1g)	PLimit	Minimum PLimit [dBm]
MHz	Ch.												(W/kg)	[dBm]	
680.50	133297	Mid	LTE Band 71	20	25.15	0	QPSK	1	0	10	Back	1:1	0.344	29.78	29.77
680.50	133297	Mid	LTE Band 71	20	24.36	1	QPSK	50	0	10	Back	1:1	0.288	29.77	
680.50	133297	Mid	LTE Band 71	20	25.15	0	QPSK	1	0	10	Front	1:1	0.231	31.51	
680.50	133297	Mid	LTE Band 71	20	24.36	1	QPSK	50	0	10	Front	1:1	0.193	31.50	
680.50	133297	Mid	LTE Band 71	20	25.15	0	QPSK	1	0	10	Bottom	1:1	0.185	32.48	
680.50	133297	Mid	LTE Band 71	20	24.36	1	QPSK	50	0	10	Bottom	1:1	0.150	32.60	
680.50	133297	Mid	LTE Band 71	20	25.15	0	QPSK	1	0	10	Right	1:1	0.101	35.11	
680.50	133297	Mid	LTE Band 71	20	24.36	1	QPSK	50	0	10	Right	1:1	0.079	35.38	
680.50	133297	Mid	LTE Band 71	20	25.15	0	QPSK	1	0	10	Left	1:1	0.175	32.72	
680.50	133297	Mid	LTE Band 71	20	24.36	1	QPSK	50	0	10	Left	1:1	0.141	32.87	
707.50	23095	Mid	LTE Band 12	10	25.02	0	QPSK	1	0	10	Back	1:1	0.382	29.20	29.04
707.50	23095	Mid	LTE Band 12	10	24.19	1	QPSK	25	12	10	Back	1:1	0.327	29.04	
707.50	23095	Mid	LTE Band 12	10	25.02	0	QPSK	1	0	10	Front	1:1	0.254	30.97	
707.50	23095	Mid	LTE Band 12	10	24.19	1	QPSK	25	12	10	Front	1:1	0.210	30.97	
707.50	23095	Mid	LTE Band 12	10	25.02	0	QPSK	1	0	10	Bottom	1:1	0.244	31.15	
707.50	23095	Mid	LTE Band 12	10	24.19	1	QPSK	25	12	10	Bottom	1:1	0.206	31.05	
707.50	23095	Mid	LTE Band 12	10	25.02	0	QPSK	1	0	10	Right	1:1	0.103	34.89	
707.50	23095	Mid	LTE Band 12	10	24.19	1	QPSK	25	12	10	Right	1:1	0.076	35.38	
707.50	23095	Mid	LTE Band 12	10	25.02	0	QPSK	1	0	10	Left	1:1	0.245	31.13	
707.50	23095	Mid	LTE Band 12	10	24.19	1	QPSK	25	12	10	Left	1:1	0.213	30.91	
782.00	23230	Mid	LTE Band 13	10	25.05	0	QPSK	1	49	10	Back	1:1	0.567	27.51	27.48
782.00	23230	Mid	LTE Band 13	10	24.27	1	QPSK	25	0	10	Back	1:1	0.477	27.48	
782.00	23230	Mid	LTE Band 13	10	25.05	0	QPSK	1	49	10	Front	1:1	0.435	28.67	
782.00	23230	Mid	LTE Band 13	10	24.27	1	QPSK	25	0	10	Front	1:1	0.355	28.77	
782.00	23230	Mid	LTE Band 13	10	25.05	0	QPSK	1	49	10	Bottom	1:1	0.344	29.68	
782.00	23230	Mid	LTE Band 13	10	24.27	1	QPSK	25	0	10	Bottom	1:1	0.295	29.57	
782.00	23230	Mid	LTE Band 13	10	25.05	0	QPSK	1	49	10	Right	1:1	0.117	34.37	
782.00	23230	Mid	LTE Band 13	10	24.27	1	QPSK	25	0	10	Right	1:1	0.085	34.98	
782.00	23230	Mid	LTE Band 13	10	25.05	0	QPSK	1	49	10	Left	1:1	0.305	30.21	
782.00	23230	Mid	LTE Band 13	10	24.27	1	QPSK	25	0	10	Left	1:1	0.235	30.56	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.33	0	QPSK	1	0	10	Back	1:1	0.712	26.81	26.70
836.50	20525	Mid	LTE Band 5 (Cell)	10	24.49	1	QPSK	25	12	10	Back	1:1	0.601	26.70	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.33	0	QPSK	1	0	10	Front	1:1	0.455	28.75	
836.50	20525	Mid	LTE Band 5 (Cell)	10	24.49	1	QPSK	25	12	10	Front	1:1	0.370	28.81	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.33	0	QPSK	1	0	10	Bottom	1:1	0.344	29.96	
836.50	20525	Mid	LTE Band 5 (Cell)	10	24.49	1	QPSK	25	12	10	Bottom	1:1	0.277	30.07	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.33	0	QPSK	1	0	10	Right	1:1	0.093	35.65	
836.50	20525	Mid	LTE Band 5 (Cell)	10	24.49	1	QPSK	25	12	10	Right	1:1	0.071	35.98	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.33	0	QPSK	1	0	10	Left	1:1	0.282	30.83	
836.50	20525	Mid	LTE Band 5 (Cell)	10	24.49	1	QPSK	25	12	10	Left	1:1	0.226	30.95	

For some bands/modes, a lower P_{Limit} was selected as a more conservative evaluation.

FCC ID: A3LSMN981W	 PCTEST Proud to be part of 	PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset			APPENDIX A: Page 9 of 19

Table A-10
DSI = 3 P_{Limit} Calculations – 4G Hotspot SAR

MEASUREMENT RESULTS														
FREQUENCY		Mode	Bandwidth [MHz]	Conducted Power [dBm]	MPR [dB]	Modulation	RB Size	RB Offset	Spacing [mm]	Side	Duty Cycle	SAR [W/kg]	PLimit [dBm]	
MHz	Ch.													
1720.00	13072	Low	LTE Band 66 (AWS)	20	19.18	0	QPSK	1	50	10	Back	1.1	0.488	22.30
1720.00	13072	Low	LTE Band 66 (AWS)	20	19.23	0	QPSK	50	25	10	Back	1.1	0.517	22.10
1720.00	13072	Low	LTE Band 66 (AWS)	20	19.18	0	QPSK	1	50	10	Front	1.1	0.448	22.67
1720.00	13072	Low	LTE Band 66 (AWS)	20	19.23	0	QPSK	50	25	10	Front	1.1	0.469	22.52
1720.00	13072	Low	LTE Band 66 (AWS)	20	19.18	0	QPSK	1	50	10	Bottom	1.1	0.909	19.59
1745.00	13232	Mid	LTE Band 66 (AWS)	20	18.88	0	QPSK	1	50	10	Bottom	1.1	0.963	19.04
1770.00	132572	High	LTE Band 66 (AWS)	20	19.17	0	QPSK	1	50	10	Bottom	1.1	0.900	19.63
1720.00	132072	Low	LTE Band 66 (AWS)	20	19.23	0	QPSK	50	25	10	Bottom	1.1	0.956	19.43
1745.00	13232	Mid	LTE Band 66 (AWS)	20	19.21	0	QPSK	50	25	10	Bottom	1.1	0.961	19.29
1770.00	132572	High	LTE Band 66 (AWS)	20	19.20	0	QPSK	50	25	10	Bottom	1.1	0.954	19.40
1720.00	132072	Low	LTE Band 66 (AWS)	20	19.18	0	QPSK	100	0	10	Bottom	1.1	0.940	19.43
1720.00	132072	Low	LTE Band 66 (AWS)	20	19.18	0	QPSK	1	50	10	Right	1.1	0.097	29.31
1720.00	132072	Low	LTE Band 66 (AWS)	20	19.23	0	QPSK	50	25	10	Right	1.1	0.099	29.27
1720.00	132072	Low	LTE Band 66 (AWS)	20	19.18	0	QPSK	1	50	10	Left	1.1	0.052	32.02
1720.00	132072	Low	LTE Band 66 (AWS)	20	19.23	0	QPSK	50	25	10	Left	1.1	0.055	31.83
1905.00	26590	High	LTE Band 25 (PCS)	20	18.77	0	QPSK	1	0	10	Back	1.1	0.481	21.95
1905.00	26590	High	LTE Band 25 (PCS)	20	18.89	0	QPSK	50	50	10	Back	1.1	0.541	21.56
1905.00	26590	High	LTE Band 25 (PCS)	20	18.77	0	QPSK	1	0	10	Front	1.1	0.417	22.57
1905.00	26590	High	LTE Band 25 (PCS)	20	18.89	0	QPSK	50	50	10	Front	1.1	0.456	22.30
1860.00	26140	Low	LTE Band 25 (PCS)	20	18.63	0	QPSK	1	0	10	Bottom	1.1	0.952	18.84
1882.50	26365	Mid	LTE Band 25 (PCS)	20	18.50	0	QPSK	1	99	10	Bottom	1.1	0.965	18.65
1905.00	26590	High	LTE Band 25 (PCS)	20	18.77	0	QPSK	1	0	10	Bottom	1.1	1.020	18.68
1860.00	26140	Low	LTE Band 25 (PCS)	20	18.67	0	QPSK	50	0	10	Bottom	1.1	0.988	18.72
1882.50	26365	Mid	LTE Band 25 (PCS)	20	18.74	0	QPSK	50	50	10	Bottom	1.1	1.040	18.57
1905.00	26590	High	LTE Band 25 (PCS)	20	18.89	0	QPSK	50	50	10	Bottom	1.1	1.140	18.32
1905.00	26590	High	LTE Band 25 (PCS)	20	18.73	0	QPSK	100	0	10	Bottom	1.1	1.090	18.36
1905.00	26590	High	LTE Band 25 (PCS)	20	18.77	0	QPSK	1	0	10	Right	1.1	0.062	30.85
1905.00	26590	High	LTE Band 25 (PCS)	20	18.89	0	QPSK	50	50	10	Right	1.1	0.071	30.38
1905.00	26590	High	LTE Band 25 (PCS)	20	18.77	0	QPSK	1	0	10	Left	1.1	0.051	31.69
1905.00	26590	High	LTE Band 25 (PCS)	20	18.89	0	QPSK	50	50	10	Left	1.1	0.054	31.57
2310.00	27730	Mid	LTE Band 30	10	18.27	0	QPSK	1	49	10	Back	1.1	0.290	23.65
2310.00	27730	Mid	LTE Band 30	10	18.33	0	QPSK	25	12	10	Back	1.1	0.301	23.54
2310.00	27730	Mid	LTE Band 30	10	18.27	0	QPSK	1	49	10	Front	1.1	0.278	23.83
2310.00	27730	Mid	LTE Band 30	10	18.33	0	QPSK	25	12	10	Front	1.1	0.297	23.60
2310.00	27730	Mid	LTE Band 30	10	18.27	0	QPSK	1	49	10	Bottom	1.1	0.725	19.73
2310.00	27730	Mid	LTE Band 30	10	18.33	0	QPSK	25	12	10	Bottom	1.1	0.764	19.50
2310.00	27730	Mid	LTE Band 30	10	18.23	0	QPSK	50	0	10	Bottom	1.1	0.746	19.50
2310.00	27730	Mid	LTE Band 30	10	18.27	0	QPSK	1	49	10	Right	1.1	0.059	30.56
2310.00	27730	Mid	LTE Band 30	10	18.33	0	QPSK	25	12	10	Right	1.1	0.066	30.00
2535.00	21100	Mid	LTE Band 7	20	19.77	0	QPSK	1	0	10	Back	1.1	0.437	23.37
2535.00	21100	Mid	LTE Band 7	20	19.86	0	QPSK	50	25	10	Back	1.1	0.416	23.67
2535.00	21100	Mid	LTE Band 7	20	19.77	0	QPSK	1	0	10	Front	1.1	0.312	24.83
2535.00	21100	Mid	LTE Band 7	20	19.86	0	QPSK	50	25	10	Front	1.1	0.306	25.00
2510.00	20950	Low	LTE Band 7	20	19.71	0	QPSK	1	0	10	Bottom	1.1	0.807	20.64
2535.00	21100	Mid	LTE Band 7	20	19.77	0	QPSK	1	0	10	Bottom	1.1	0.737	21.10
21350.00	21350	High	LTE Band 7	20	19.68	0	QPSK	1	0	10	Bottom	1.1	0.657	21.50
2510.00	20950	Low	LTE Band 7	20	19.84	0	QPSK	50	25	10	Bottom	1.1	0.773	20.96
2535.00	21100	Mid	LTE Band 7	20	19.86	0	QPSK	50	25	10	Bottom	1.1	0.728	21.24
21350.00	21350	High	LTE Band 7	20	19.84	0	QPSK	50	25	10	Bottom	1.1	0.691	21.45
21350.00	21350	High	LTE Band 7	20	19.75	0	QPSK	100	0	10	Bottom	1.1	0.658	21.57
2535.00	21100	Mid	LTE Band 7	20	19.77	0	QPSK	1	0	10	Right	1.1	0.130	28.63
2535.00	21100	Mid	LTE Band 7	20	19.86	0	QPSK	50	25	10	Right	1.1	0.134	28.59
2506.00	39750	Low	LTE Band 41	20	21.43	0	QPSK	1	0	10	Back	1.158	0.343	24.09
2506.00	39750	Low	LTE Band 41	20	21.42	0	QPSK	50	0	10	Back	1.158	0.339	24.13
2506.00	39750	Low	LTE Band 41	20	21.43	0	QPSK	1	0	10	Front	1.158	0.264	25.23
2506.00	39750	Low	LTE Band 41	20	21.42	0	QPSK	50	0	10	Front	1.158	0.269	25.14
2506.00	39750	Low	LTE Band 41	20	21.43	0	QPSK	1	0	10	Bottom	1.158	0.704	20.97
2549.50	40185	Low-Mid	LTE Band 41	20	21.26	0	QPSK	1	0	10	Bottom	1.158	0.833	21.28
2593.00	40620	Mid	LTE Band 41	20	21.20	0	QPSK	1	50	10	Bottom	1.158	0.543	21.87
2636.50	41055	Mid-High	LTE Band 41	20	21.14	0	QPSK	1	50	10	Bottom	1.158	0.444	22.68
2680.00	41490	High	LTE Band 41	20	20.95	0	QPSK	1	50	10	Bottom	1.158	0.441	22.52
2506.00	39750	Low	LTE Band 41	20	21.42	0	QPSK	50	0	10	Bottom	1.158	0.711	20.92
2549.50	40185	Low-Mid	LTE Band 41	20	21.30	0	QPSK	50	25	10	Bottom	1.158	0.635	21.29
2593.00	40620	Mid	LTE Band 41	20	21.23	0	QPSK	50	25	10	Bottom	1.158	0.545	21.88
2636.50	41055	Mid-High	LTE Band 41	20	21.27	0	QPSK	50	25	10	Bottom	1.158	0.460	22.66
2680.00	41490	High	LTE Band 41	20	21.09	0	QPSK	50	25	10	Bottom	1.158	0.456	22.51
2506.00	39750	Low	LTE Band 41	20	21.32	0	QPSK	100	0	10	Bottom	1.158	0.667	20.96
2506.00	39750	Low	LTE Band 41	20	21.43	0	QPSK	1	0	10	Right	1.158	0.128	28.37
2506.00	39750	Low	LTE Band 41	20	21.42	0	QPSK	50	0	10	Right	1.158	0.133	28.20

For some bands/modes, a lower P_{Limit} was selected as a more conservative evaluation.

FCC ID: A3LSMN981W	 Proud to be part of 	PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset			APPENDIX A: Page 10 of 19

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REV 1.0
06/01/2019

Table A-11
DSI = 3 P_{Limit} Calculations – 5G Hotspot SAR

MEASUREMENT RESULTS															
FREQUENCY			Mode	Bandwidth [MHz]	Conducted Power [dBm]	MPR [dB]	Modulation	RB Size	RB Offset	Spacing (mm)	Side	Duty Cycle	SAR (1g)	PLimit	Minimum PLimit
MHz	Ch.												(W/kg)	[dBm]	[dBm]
680.50	136100	Mid	NR Band n71	20	25.03	0.0	DFT-s-OFDM QPSK	1	1	10	Back	1:1	0.312	30.09	29.79
680.50	136100	Mid	NR Band n71	20	25.01	0.0	DFT-s-OFDM QPSK	50	28	10	Back	1:1	0.333	29.79	
680.50	136100	Mid	NR Band n71	20	25.03	0.0	DFT-s-OFDM QPSK	1	1	10	Front	1:1	0.201	32.00	
680.50	136100	Mid	NR Band n71	20	25.01	0.0	DFT-s-OFDM QPSK	50	28	10	Front	1:1	0.210	31.79	
680.50	136100	Mid	NR Band n71	20	25.03	0.0	DFT-s-OFDM QPSK	1	1	10	Bottom	1:1	0.164	32.88	
680.50	136100	Mid	NR Band n71	20	25.01	0.0	DFT-s-OFDM QPSK	50	28	10	Bottom	1:1	0.167	32.78	
680.50	136100	Mid	NR Band n71	20	25.03	0.0	DFT-s-OFDM QPSK	1	1	10	Right	1:1	0.090	35.49	
680.50	136100	Mid	NR Band n71	20	25.01	0.0	DFT-s-OFDM QPSK	50	28	10	Right	1:1	0.080	35.98	
680.50	136100	Mid	NR Band n71	20	25.03	0.0	DFT-s-OFDM QPSK	1	1	10	Left	1:1	0.174	32.62	
680.50	136100	Mid	NR Band n71	20	25.01	0.0	DFT-s-OFDM QPSK	50	28	10	Left	1:1	0.167	32.78	
680.50	136100	Mid	NR Band n71	20	23.26	1.5	CP-OFDM QPSK	1	1	10	Back	1:1	0.216	29.92	
1770.00	354000	High	NR Band n66	20	19.98	0.0	DFT-s-OFDM QPSK	1	1	10	Back	1:1	0.664	21.76	19.49
1770.00	354000	High	NR Band n66	20	19.95	0.0	DFT-s-OFDM QPSK	50	28	10	Back	1:1	0.622	22.01	
1770.00	354000	High	NR Band n66	20	19.98	0.0	DFT-s-OFDM QPSK	1	1	10	Front	1:1	0.516	22.85	
1770.00	354000	High	NR Band n66	20	19.95	0.0	DFT-s-OFDM QPSK	50	28	10	Front	1:1	0.491	23.04	
1720.00	344000	Low	NR Band n66	20	19.97	0.0	DFT-s-OFDM QPSK	1	1	10	Bottom	1:1	1.110	19.52	
1745.00	349000	Mid	NR Band n66	20	19.94	0.0	DFT-s-OFDM QPSK	1	1	10	Bottom	1:1	1.110	19.49	
1770.00	354000	High	NR Band n66	20	19.98	0.0	DFT-s-OFDM QPSK	1	1	10	Bottom	1:1	1.120	19.49	
1720.00	344000	Low	NR Band n66	20	19.94	0.0	DFT-s-OFDM QPSK	50	28	10	Bottom	1:1	1.080	19.61	
1745.00	349000	Mid	NR Band n66	20	19.90	0.0	DFT-s-OFDM QPSK	50	28	10	Bottom	1:1	1.090	19.53	
1770.00	354000	High	NR Band n66	20	19.95	0.0	DFT-s-OFDM QPSK	50	28	10	Bottom	1:1	1.030	19.82	
1770.00	354000	High	NR Band n66	20	19.89	0.0	DFT-s-OFDM QPSK	100	0	10	Bottom	1:1	1.040	19.72	
1770.00	354000	High	NR Band n66	20	19.98	0.0	DFT-s-OFDM QPSK	1	1	10	Right	1:1	0.117	29.30	
1770.00	354000	High	NR Band n66	20	19.95	0.0	DFT-s-OFDM QPSK	50	28	10	Right	1:1	0.100	29.95	
1770.00	354000	High	NR Band n66	20	19.98	0.0	DFT-s-OFDM QPSK	1	1	10	Left	1:1	0.057	32.42	
1770.00	354000	High	NR Band n66	20	19.95	0.0	DFT-s-OFDM QPSK	50	28	10	Left	1:1	0.050	32.96	
1770.00	354000	High	NR Band n66	20	19.85	0.0	CP-OFDM QPSK	1	1	10	Bottom	1:1	1.050	19.64	
2592.99	518598	Mid	NR Band n41	100	23.34	0.0	DFT-s-OFDM QPSK	1	137	10	Back	1:4	0.092	27.68	24.08
2592.99	518598	Mid	NR Band n41	100	23.15	0.0	DFT-s-OFDM QPSK	135	69	10	Back	1:4	0.094	27.40	
2592.99	518598	Mid	NR Band n41	100	23.34	0.0	DFT-s-OFDM QPSK	1	137	10	Front	1:4	0.061	29.47	
2592.99	518598	Mid	NR Band n41	100	23.15	0.0	DFT-s-OFDM QPSK	135	69	10	Front	1:4	0.064	29.07	
2592.99	518598	Mid	NR Band n41	100	23.34	0.0	DFT-s-OFDM QPSK	1	137	10	Top	1:4	0.192	24.49	
2592.99	518598	Mid	NR Band n41	100	23.15	0.0	DFT-s-OFDM QPSK	135	69	10	Top	1:4	0.202	24.08	
2592.99	518598	Mid	NR Band n41	100	23.34	0.0	DFT-s-OFDM QPSK	1	137	10	Left	1:4	0.029	32.70	
2592.99	518598	Mid	NR Band n41	100	23.15	0.0	DFT-s-OFDM QPSK	135	69	10	Left	1:4	0.030	32.36	
2592.99	518598	Mid	NR Band n41	100	22.28	1.5	CP-OFDM QPSK	1	1	10	Top	1:4	0.158	24.27	

For some bands/modes, a lower P_{Limit} was selected as a more conservative evaluation.

FCC ID: A3LSMN981W	 PCTEST Proud to be part of 	PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset	APPENDIX A: Page 11 of 19		

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REV 1.0
06/01/2019

Table A-12
DSI = 0 P_{Limit} Calculations – 2G/3G Phablet SAR

MEASUREMENT RESULTS											
FREQUENCY		Mode/Band	Service	Conducted Power [dBm]	Spacing	Side	# of GPRS Slots	Duty Cycle	SAR (10g)	PLimit	Minimum PLimit
MHz	Ch.								(W/kg)	[dBm]	[dBm]
836.52	384	CDMA BC0 (\$22H)	EVDO Rev. 0	24.85	8	Back	N/A	1:1	0.480	32.02	32.01
836.52	384	CDMA BC0 (\$22H)	EVDO Rev. 0	24.85	6	Front	N/A	1:1	0.481	32.01	
836.52	384	CDMA BC0 (\$22H)	EVDO Rev. 0	24.85	11	Bottom	N/A	1:1	0.155	36.93	
836.52	384	CDMA BC0 (\$22H)	EVDO Rev. 0	24.85	0	Right	N/A	1:1	0.298	34.09	
836.52	384	CDMA BC0 (\$22H)	EVDO Rev. 0	24.85	0	Left	N/A	1:1	0.291	34.19	
836.60	190	GSM 850	GPRS	29.72	8	Back	3	1:2.76	0.423	33.01	33.01
836.60	190	GSM 850	GPRS	29.72	6	Front	3	1:2.76	0.329	34.10	
836.60	190	GSM 850	GPRS	29.72	11	Bottom	3	1:2.76	0.152	37.45	
836.60	190	GSM 850	GPRS	29.72	0	Right	3	1:2.76	0.183	36.64	
836.60	190	GSM 850	GPRS	29.72	0	Left	3	1:2.76	0.191	36.46	
1880.00	661	GSM 1900	GPRS	26.45	8	Back	3	1:2.76	0.548	28.61	26.94
1880.00	661	GSM 1900	GPRS	26.45	6	Front	3	1:2.76	0.636	27.96	
1880.00	661	GSM 1900	GPRS	26.45	11	Bottom	3	1:2.76	0.805	26.94	
1880.00	661	GSM 1900	GPRS	26.45	0	Right	3	1:2.76	0.362	30.41	
1880.00	661	GSM 1900	GPRS	26.45	0	Left	3	1:2.76	0.224	32.50	
826.40	4132	UMTS 850	RMC	24.69	8	Back	N/A	1:1	0.451	32.13	32.13
826.40	4132	UMTS 850	RMC	24.69	6	Front	N/A	1:1	0.437	32.26	
826.40	4132	UMTS 850	RMC	24.69	11	Bottom	N/A	1:1	0.152	36.85	
826.40	4132	UMTS 850	RMC	24.69	0	Right	N/A	1:1	0.315	33.69	
826.40	4132	UMTS 850	RMC	24.69	0	Left	N/A	1:1	0.311	33.74	
1732.40	1412	UMTS 1750	RMC	23.22	8	Back	N/A	1:1	1.060	26.95	26.52
1732.40	1412	UMTS 1750	RMC	23.22	6	Front	N/A	1:1	1.170	26.52	
1732.40	1412	UMTS 1750	RMC	23.22	11	Bottom	N/A	1:1	1.100	26.79	
1732.40	1412	UMTS 1750	RMC	23.22	0	Right	N/A	1:1	0.506	30.16	
1732.40	1412	UMTS 1750	RMC	23.22	0	Left	N/A	1:1	0.304	32.37	
1880.00	9400	UMTS 1900	RMC	23.11	8	Back	N/A	1:1	1.010	27.05	26.33
1880.00	9400	UMTS 1900	RMC	23.11	6	Front	N/A	1:1	1.190	26.33	
1880.00	9400	UMTS 1900	RMC	23.11	11	Bottom	N/A	1:1	1.190	26.33	
1880.00	9400	UMTS 1900	RMC	23.11	0	Right	N/A	1:1	0.588	29.40	
1880.00	9400	UMTS 1900	RMC	23.11	0	Left	N/A	1:1	0.376	31.34	

For some bands/modes, a lower P_{Limit} was selected as a more conservative evaluation.
 Data highlighted in blue was tested and provided by the manufacturer.

FCC ID: A3LSMN981W	 PCTEST Proud to be part of 	PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset			APPENDIX A: Page 12 of 19

Table A-13
DSI = 1 P_{Limit} Calculations – 2G/3G Phablet SAR

MEASUREMENT RESULTS											
FREQUENCY		Mode/Band	Service	Conducted Power [dBm]	Spacing (mm)	Side	# of GPRS Slots	Duty Cycle	SAR (10g)	PLimit	Minimum PLimit
MHz	Ch.								(W/kg)	[dBm]	[dBm]
836.52	384	CDMA BC0 (\$22H)	EVDO Rev. 0	24.85	0	Back	N/A	1:1	1.619	26.74	26.74
836.52	384	CDMA BC0 (\$22H)	EVDO Rev. 0	24.85	0	Front	N/A	1:1	1.549	26.93	
836.52	384	CDMA BC0 (\$22H)	EVDO Rev. 0	24.85	0	Bottom	N/A	1:1	0.818	29.70	
836.52	384	CDMA BC0 (\$22H)	EVDO Rev. 0	24.85	0	Right	N/A	1:1	0.298	34.09	
836.52	384	CDMA BC0 (\$22H)	EVDO Rev. 0	24.85	0	Left	N/A	1:1	0.291	34.19	
836.60	190	GSM 850	GPRS	29.72	0	Back	3	1:2.76	1.172	28.58	28.58
836.60	190	GSM 850	GPRS	29.72	0	Front	3	1:2.76	1.169	28.59	
836.60	190	GSM 850	GPRS	29.72	0	Bottom	3	1:2.76	0.690	30.88	
836.60	190	GSM 850	GPRS	29.72	0	Right	3	1:2.76	0.183	36.64	
836.60	190	GSM 850	GPRS	29.72	0	Left	3	1:2.76	0.191	36.46	
1880.00	661	GSM 1900	GPRS	21.74	0	Back	4	1:2.076	1.310	21.37	20.08
1880.00	661	GSM 1900	GPRS	21.74	0	Front	4	1:2.076	1.180	21.82	
1850.20	512	GSM 1900	GPRS	21.52	0	Bottom	4	1:2.076	1.660	20.12	
1880.00	661	GSM 1900	GPRS	21.74	0	Bottom	4	1:2.076	1.760	20.08	
1909.80	810	GSM 1900	GPRS	21.63	0	Bottom	4	1:2.076	1.560	20.50	
1880.00	661	GSM 1900	GPRS	26.45	0	Right	3	1:2.76	0.362	30.41	
1880.00	661	GSM 1900	GPRS	26.45	0	Left	3	1:2.76	0.224	32.50	
826.40	4132	UMTS 850	RMC	24.69	0	Back	N/A	1:1	1.429	27.12	27.12
826.40	4132	UMTS 850	RMC	24.69	0	Front	N/A	1:1	1.399	27.21	
826.40	4132	UMTS 850	RMC	24.69	0	Bottom	N/A	1:1	0.705	30.19	
826.40	4132	UMTS 850	RMC	24.69	0	Right	N/A	1:1	0.315	33.69	
826.40	4132	UMTS 850	RMC	24.69	0	Left	N/A	1:1	0.311	33.74	
1732.40	1412	UMTS 1750	RMC	19.38	0	Back	N/A	1:1	1.620	21.26	20.22
1732.40	1412	UMTS 1750	RMC	19.38	0	Front	N/A	1:1	1.540	21.48	
1712.40	1312	UMTS 1750	RMC	19.40	0	Bottom	N/A	1:1	2.070	20.22	
1732.40	1412	UMTS 1750	RMC	19.38	0	Bottom	N/A	1:1	2.050	20.24	
1752.60	1513	UMTS 1750	RMC	19.39	0	Bottom	N/A	1:1	1.980	20.40	
1732.40	1412	UMTS 1750	RMC	23.22	0	Right	N/A	1:1	0.506	30.16	
1732.40	1412	UMTS 1750	RMC	23.22	0	Left	N/A	1:1	0.304	32.37	
1880.00	9400	UMTS 1900	RMC	18.92	0	Back	N/A	1:1	1.330	21.66	19.61
1880.00	9400	UMTS 1900	RMC	18.92	0	Front	N/A	1:1	1.250	21.93	
1852.40	9262	UMTS 1900	RMC	18.79	0	Bottom	N/A	1:1	2.070	19.61	
1880.00	9400	UMTS 1900	RMC	18.92	0	Bottom	N/A	1:1	2.060	19.76	
1907.60	9538	UMTS 1900	RMC	18.91	0	Bottom	N/A	1:1	2.040	19.79	
1880.00	9400	UMTS 1900	RMC	23.11	0	Right	N/A	1:1	0.588	29.40	
1880.00	9400	UMTS 1900	RMC	23.11	0	Left	N/A	1:1	0.376	31.34	

For some bands/modes, a lower P_{Limit} was selected as a more conservative evaluation.
Data highlighted in blue was tested and provided by the manufacturer.

FCC ID: A3LSMN981W	 PCTEST Proud to be part of 	PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset			APPENDIX A: Page 13 of 19

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REV 1.0
06/01/2019

Table A-14
DSI = 0 P_{Limit} Calculations – 4G Phablet SAR

MEASUREMENT RESULTS															
FREQUENCY			Mode	Bandwidth [MHz]	Conducted Power [dBm]	MPR [dB]	Modulation	RB Size	RB Offset	Spacing (mm)	Side	Duty Cycle	SAR (10g)	PLimit	Minimum PLimit
MHz	Ch.												(W/kg)	[dBm]	[dBm]
680.50	133297	Mid	LTE Band 71	20	24.87	0	QPSK	1	0	8	Back	1:1	0.228	35.27	35.27
680.50	133297	Mid	LTE Band 71	20	24.87	0	QPSK	1	0	6	Front	1:1	0.208	35.67	
680.50	133297	Mid	LTE Band 71	20	24.87	0	QPSK	1	0	11	Bottom	1:1	0.050	41.86	
680.50	133297	Mid	LTE Band 71	20	24.87	0	QPSK	1	0	0	Right	1:1	0.102	38.76	
680.50	133297	Mid	LTE Band 71	20	24.87	0	QPSK	1	0	0	Left	1:1	0.133	37.61	
707.50	23095	Mid	LTE Band 12	10	25.02	0	QPSK	1	0	8	Back	1:1	0.241	35.18	35.18
707.50	23095	Mid	LTE Band 12	10	25.02	0	QPSK	1	0	6	Front	1:1	0.238	35.23	
707.50	23095	Mid	LTE Band 12	10	25.02	0	QPSK	1	0	11	Bottom	1:1	0.051	41.92	
707.50	23095	Mid	LTE Band 12	10	25.02	0	QPSK	1	0	0	Right	1:1	0.113	38.47	
707.50	23095	Mid	LTE Band 12	10	25.02	0	QPSK	1	0	0	Left	1:1	0.131	37.83	
782.00	23230	Mid	LTE Band 13	10	24.98	0	QPSK	1	0	8	Back	1:1	0.390	33.05	32.83
782.00	23230	Mid	LTE Band 13	10	24.98	0	QPSK	1	0	6	Front	1:1	0.410	32.83	
782.00	23230	Mid	LTE Band 13	10	24.98	0	QPSK	1	0	11	Bottom	1:1	0.098	39.05	
782.00	23230	Mid	LTE Band 13	10	24.98	0	QPSK	1	0	0	Right	1:1	0.229	35.36	
782.00	23230	Mid	LTE Band 13	10	24.98	0	QPSK	1	0	0	Left	1:1	0.240	35.16	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.07	0	QPSK	1	0	8	Back	1:1	0.438	32.63	32.35
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.07	0	QPSK	1	0	6	Front	1:1	0.468	32.35	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.07	0	QPSK	1	0	11	Bottom	1:1	0.142	37.53	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.07	0	QPSK	1	0	0	Right	1:1	0.269	34.75	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.07	0	QPSK	1	0	0	Left	1:1	0.281	34.56	

For some bands/modes, a lower P_{Limit} was selected as a more conservative evaluation.
Data highlighted in blue was tested and provided by the manufacturer.

FCC ID: A3LSMN981W	 PCTEST Proud to be part of 	PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset			APPENDIX A: Page 14 of 19

Table A-15
DSI = 0 P_{Limit} Calculations – 4G Phablet SAR

MEASUREMENT RESULTS															
FREQUENCY			Mode	Bandwidth [MHz]	Conducted Power [dBm]	MPR [dB]	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (10g)	PLimit	Minimum PLimit
MHz	Ch.												(W/kg)	[dBm]	[dBm]
1770.00	132572	High	LTE Band 66 (AWS)	20	23.21	0	QPSK	1	0	8	Back	1:1	0.849	27.90	26.26
1770.00	132572	High	LTE Band 66 (AWS)	20	22.26	1	QPSK	50	25	8	Back	1:1	0.722	27.65	
1770.00	132572	High	LTE Band 66 (AWS)	20	23.21	0	QPSK	1	0	6	Front	1:1	1.090	26.82	
1770.00	132572	High	LTE Band 66 (AWS)	20	22.26	1	QPSK	50	25	6	Front	1:1	0.915	26.63	
1770.00	132572	High	LTE Band 66 (AWS)	20	23.21	0	QPSK	1	0	11	Bottom	1:1	1.240	26.26	
1770.00	132572	High	LTE Band 66 (AWS)	20	22.26	1	QPSK	50	25	11	Bottom	1:1	0.958	26.43	
1770.00	132572	High	LTE Band 66 (AWS)	20	23.21	0	QPSK	1	0	0	Right	1:1	0.520	30.03	
1770.00	132572	High	LTE Band 66 (AWS)	20	22.26	1	QPSK	50	25	0	Right	1:1	0.417	30.04	
1770.00	132572	High	LTE Band 66 (AWS)	20	23.21	0	QPSK	1	0	0	Left	1:1	0.275	32.80	
1770.00	132572	High	LTE Band 66 (AWS)	20	22.26	1	QPSK	50	25	0	Left	1:1	0.226	32.70	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	23.22	0	QPSK	1	99	8	Back	1:1	0.790	28.22	25.96
1882.50	26365	Mid	LTE Band 25 (PCS)	20	22.31	1	QPSK	50	50	8	Back	1:1	0.697	27.86	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	23.22	0	QPSK	1	99	6	Front	1:1	1.000	27.20	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	22.31	1	QPSK	50	50	6	Front	1:1	0.867	26.91	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	23.22	0	QPSK	1	99	11	Bottom	1:1	1.280	26.13	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	22.31	1	QPSK	50	50	11	Bottom	1:1	1.080	25.96	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	23.22	0	QPSK	1	99	0	Right	1:1	0.494	30.26	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	22.31	1	QPSK	50	50	0	Right	1:1	0.445	29.81	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	23.22	0	QPSK	1	99	0	Left	1:1	0.260	33.05	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	22.31	1	QPSK	50	50	0	Left	1:1	0.225	32.77	
2310.00	27710	Mid	LTE Band 30	10	23.72	0	QPSK	1	49	8	Back	1:1	0.598	29.93	27.22
2310.00	27710	Mid	LTE Band 30	10	22.77	1	QPSK	25	12	8	Back	1:1	0.499	29.77	
2310.00	27710	Mid	LTE Band 30	10	23.72	0	QPSK	1	49	6	Front	1:1	0.854	28.38	
2310.00	27710	Mid	LTE Band 30	10	22.77	1	QPSK	25	12	6	Front	1:1	0.712	28.22	
2310.00	27710	Mid	LTE Band 30	10	23.72	0	QPSK	1	49	11	Bottom	1:1	1.060	27.45	
2310.00	27710	Mid	LTE Band 30	10	22.77	1	QPSK	25	12	11	Bottom	1:1	0.897	27.22	
2310.00	27710	Mid	LTE Band 30	10	23.72	0	QPSK	1	49	0	Right	1:1	0.593	29.97	
2310.00	27710	Mid	LTE Band 30	10	22.77	1	QPSK	25	12	0	Right	1:1	0.497	29.79	
2535.00	21100	Mid	LTE Band 7	20	23.26	0	QPSK	1	0	8	Back	1:1	0.608	29.40	28.09
2535.00	21100	Mid	LTE Band 7	20	22.38	1	QPSK	50	25	8	Back	1:1	0.450	29.83	
2535.00	21100	Mid	LTE Band 7	20	23.26	0	QPSK	1	0	6	Front	1:1	0.509	30.17	
2535.00	21100	Mid	LTE Band 7	20	22.38	1	QPSK	50	25	6	Front	1:1	0.409	30.24	
2535.00	21100	Mid	LTE Band 7	20	23.26	0	QPSK	1	0	11	Bottom	1:1	0.692	28.84	
2535.00	21100	Mid	LTE Band 7	20	22.38	1	QPSK	50	25	11	Bottom	1:1	0.531	29.11	
2535.00	21100	Mid	LTE Band 7	20	23.26	0	QPSK	1	0	0	Right	1:1	0.823	28.09	
2535.00	21100	Mid	LTE Band 7	20	22.38	1	QPSK	50	25	0	Right	1:1	0.643	28.28	
2506.00	39750	Low	LTE Band 41	20	24.27	0	QPSK	1	99	8	Back	1:1.58	0.429	29.94	27.68
2506.00	39750	Low	LTE Band 41	20	23.24	1	QPSK	50	0	8	Back	1:1.58	0.370	29.55	
2506.00	39750	Low	LTE Band 41	20	24.27	0	QPSK	1	99	6	Front	1:1.58	0.407	30.17	
2506.00	39750	Low	LTE Band 41	20	23.24	1	QPSK	50	0	6	Front	1:1.58	0.352	29.77	
2506.00	39750	Low	LTE Band 41	20	24.27	0	QPSK	1	99	11	Bottom	1:1.58	0.546	28.89	
2506.00	39750	Low	LTE Band 41	20	23.24	1	QPSK	50	0	11	Bottom	1:1.58	0.463	28.58	
2506.00	39750	Low	LTE Band 41	20	24.27	0	QPSK	1	99	0	Right	1:1.58	0.654	28.11	
2506.00	39750	Low	LTE Band 41	20	23.24	1	QPSK	50	0	0	Right	1:1.58	0.569	27.68	

For some bands/modes, a lower P_{Limit} was selected as a more conservative evaluation.

FCC ID: A3LSMN981W	 PCTEST Proud to be part of element	PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset			APPENDIX A: Page 15 of 19

Table A-16
DSI = 1 P_{Limit} Calculations – 4G Phablet SAR

MEASUREMENT RESULTS															
FREQUENCY			Mode	Bandwidth [MHz]	Conducted Power [dBm]	MPR [dB]	Modulation	RB Size	RB Offset	Spacing (mm)	Side	Duty Cycle	SAR (10g)	PLimit	Minimum PLimit
MHz	Ch.												(W/kg)	[dBm]	[dBm]
680.50	133297	Mid	LTE Band 71	20	24.87	0	QPSK	1	0	0	Back	1:1	1.389	27.42	27.42
680.50	133297	Mid	LTE Band 71	20	24.87	0	QPSK	1	0	0	Front	1:1	1.270	27.81	
680.50	133297	Mid	LTE Band 71	20	24.87	0	QPSK	1	0	0	Bottom	1:1	0.798	29.83	
680.50	133297	Mid	LTE Band 71	20	24.87	0	QPSK	1	0	0	Right	1:1	0.102	38.76	
680.50	133297	Mid	LTE Band 71	20	24.87	0	QPSK	1	0	0	Left	1:1	0.133	37.61	
707.50	23095	Mid	LTE Band 12	10	25.02	0	QPSK	1	0	0	Back	1:1	1.387	27.58	27.58
707.50	23095	Mid	LTE Band 12	10	25.02	0	QPSK	1	0	0	Front	1:1	1.310	27.83	
707.50	23095	Mid	LTE Band 12	10	25.02	0	QPSK	1	0	0	Bottom	1:1	0.826	29.83	
707.50	23095	Mid	LTE Band 12	10	25.02	0	QPSK	1	0	0	Right	1:1	0.113	38.47	
707.50	23095	Mid	LTE Band 12	10	25.02	0	QPSK	1	0	0	Left	1:1	0.131	37.83	
782.00	23230	Mid	LTE Band 13	10	24.98	0	QPSK	1	0	0	Back	1:1	0.851	29.66	28.46
782.00	23230	Mid	LTE Band 13	10	24.98	0	QPSK	1	0	0	Front	1:1	1.121	28.46	
782.00	23230	Mid	LTE Band 13	10	24.98	0	QPSK	1	0	0	Bottom	1:1	0.461	32.32	
782.00	23230	Mid	LTE Band 13	10	24.98	0	QPSK	1	0	0	Right	1:1	0.229	35.36	
782.00	23230	Mid	LTE Band 13	10	24.98	0	QPSK	1	0	0	Left	1:1	0.240	35.16	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.07	0	QPSK	1	0	0	Back	1:1	1.547	27.15	27.15
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.07	0	QPSK	1	0	0	Front	1:1	1.422	27.52	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.07	0	QPSK	1	0	0	Bottom	1:1	0.761	30.24	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.07	0	QPSK	1	0	0	Right	1:1	0.269	34.75	
836.50	20525	Mid	LTE Band 5 (Cell)	10	25.07	0	QPSK	1	0	0	Left	1:1	0.281	34.56	
1720.00	132072	Low	LTE Band 66 (AWS)	20	19.18	0	QPSK	1	50	0	Back	1:1	1.410	21.67	19.75
1720.00	132072	Low	LTE Band 66 (AWS)	20	19.23	0	QPSK	50	25	0	Back	1:1	1.480	21.51	
1720.00	132072	Low	LTE Band 66 (AWS)	20	19.18	0	QPSK	1	50	0	Front	1:1	1.330	21.92	
1720.00	132072	Low	LTE Band 66 (AWS)	20	19.23	0	QPSK	50	25	0	Front	1:1	1.400	21.75	
1720.00	132072	Low	LTE Band 66 (AWS)	20	19.18	0	QPSK	1	50	0	Bottom	1:1	2.050	20.04	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	18.88	0	QPSK	1	50	0	Bottom	1:1	2.010	19.83	
1770.00	132572	High	LTE Band 66 (AWS)	20	19.17	0	QPSK	1	50	0	Bottom	1:1	1.980	20.18	
1720.00	132072	Low	LTE Band 66 (AWS)	20	19.23	0	QPSK	50	25	0	Bottom	1:1	2.200	19.79	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	19.21	0	QPSK	50	25	0	Bottom	1:1	2.130	19.91	
1770.00	132572	High	LTE Band 66 (AWS)	20	19.20	0	QPSK	50	25	0	Bottom	1:1	2.070	20.02	
1720.00	132072	Low	LTE Band 66 (AWS)	20	19.16	0	QPSK	100	0	0	Bottom	1:1	2.180	19.75	
1770.00	132572	High	LTE Band 66 (AWS)	20	23.21	0	QPSK	1	0	0	Right	1:1	0.520	30.03	
1770.00	132572	High	LTE Band 66 (AWS)	20	22.26	1	QPSK	50	25	0	Right	1:1	0.417	30.04	
1770.00	132572	High	LTE Band 66 (AWS)	20	23.21	0	QPSK	1	0	0	Left	1:1	0.275	32.80	
1770.00	132572	High	LTE Band 66 (AWS)	20	22.26	1	QPSK	50	25	0	Left	1:1	0.226	32.70	
1905.00	26590	High	LTE Band 25 (PCS)	20	18.77	0	QPSK	1	0	0	Back	1:1	1.160	22.10	20.61
1905.00	26590	High	LTE Band 25 (PCS)	20	18.89	0	QPSK	50	50	0	Back	1:1	1.250	21.90	
1905.00	26590	High	LTE Band 25 (PCS)	20	18.77	0	QPSK	1	0	0	Front	1:1	1.150	22.14	
1905.00	26590	High	LTE Band 25 (PCS)	20	18.89	0	QPSK	50	50	0	Front	1:1	1.230	21.97	
1905.00	26590	High	LTE Band 25 (PCS)	20	18.77	0	QPSK	1	0	0	Bottom	1:1	1.490	21.02	
1860.00	26140	Low	LTE Band 25 (PCS)	20	18.67	0	QPSK	50	0	0	Bottom	1:1	1.600	20.61	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	18.74	0	QPSK	50	50	0	Bottom	1:1	1.540	20.84	
1905.00	26590	High	LTE Band 25 (PCS)	20	18.89	0	QPSK	50	50	0	Bottom	1:1	1.610	20.80	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	23.22	0	QPSK	1	99	0	Right	1:1	0.494	30.26	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	22.31	1	QPSK	50	50	0	Right	1:1	0.445	29.81	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	23.22	0	QPSK	1	99	0	Left	1:1	0.260	33.05	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	22.31	1	QPSK	50	50	0	Left	1:1	0.225	32.77	

For some bands/modes, a lower P_{Limit} was selected as a more conservative evaluation.
Data highlighted in blue was tested and provided by the manufacturer.

FCC ID: A3LSMN981W	 PCTEST Proud to be part of 	PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset			APPENDIX A: Page 16 of 19

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REV 1.0
06/01/2019

Table A-17
DSI = 1 P_{Limit} Calculations – 4G Phablet SAR

MEASUREMENT RESULTS															
FREQUENCY			Mode	Bandwidth [MHz]	Conducted Power [dBm]	MPR [dB]	Modulation	RB Size	RB Offset	Spacing (mm)	Side	Duty Cycle	SAR (10g)	PLimit	Minimum PLimit [dBm]
													[W/kg]	[dBm]	
MHz	Ch.														
2310.00	27710	Mid	LTE Band 30	10	20.85	0	QPSK	1	0	0	Back	1:1	1.370	23.46	23.34
2310.00	27710	Mid	LTE Band 30	10	20.79	0	QPSK	25	12	0	Back	1:1	1.390	23.34	
2310.00	27710	Mid	LTE Band 30	10	20.85	0	QPSK	1	0	0	Front	1:1	1.040	24.66	
2310.00	27710	Mid	LTE Band 30	10	20.79	0	QPSK	25	12	0	Front	1:1	1.060	24.52	
2310.00	27710	Mid	LTE Band 30	10	20.85	0	QPSK	1	0	0	Bottom	1:1	1.150	24.22	
2310.00	27710	Mid	LTE Band 30	10	20.79	0	QPSK	25	12	0	Bottom	1:1	1.210	23.94	
2310.00	27710	Mid	LTE Band 30	10	23.72	0	QPSK	1	49	0	Right	1:1	0.593	29.97	
2310.00	27710	Mid	LTE Band 30	10	22.77	1	QPSK	25	12	0	Right	1:1	0.497	29.79	
21350.00	21350	High	LTE Band 7	20	20.83	0	QPSK	1	0	0	Back	1:1	1.540	22.93	21.75
21350.00	21350	High	LTE Band 7	20	20.94	0	QPSK	50	25	0	Back	1:1	1.600	22.88	
21350.00	21350	High	LTE Band 7	20	20.83	0	QPSK	1	0	0	Front	1:1	1.510	23.02	
21350.00	21350	High	LTE Band 7	20	20.94	0	QPSK	50	25	0	Front	1:1	1.490	23.19	
2510.00	20850	Low	LTE Band 7	20	20.68	0	QPSK	1	99	0	Bottom	1:1	1.900	21.87	
2535.00	21100	Mid	LTE Band 7	20	20.71	0	QPSK	1	0	0	Bottom	1:1	1.870	21.97	
21350.00	21350	High	LTE Band 7	20	20.83	0	QPSK	1	0	0	Bottom	1:1	1.800	22.26	
2510.00	20850	Low	LTE Band 7	20	20.87	0	QPSK	50	25	0	Bottom	1:1	2.040	21.75	
2535.00	21100	Mid	LTE Band 7	20	20.91	0	QPSK	50	25	0	Bottom	1:1	1.920	22.06	
21350.00	21350	High	LTE Band 7	20	20.94	0	QPSK	50	25	0	Bottom	1:1	1.850	22.25	
1905.00	26590	High	LTE Band 7	20	20.80	0	QPSK	100	0	0	Bottom	1:1	1.810	22.20	
2535.00	21100	Mid	LTE Band 7	20	23.26	0	QPSK	1	0	0	Right	1:1	0.823	28.09	
2535.00	21100	Mid	LTE Band 7	20	22.38	1	QPSK	50	25	0	Right	1:1	0.643	28.28	
2506.00	39750	Low	LTE Band 41	20	22.65	0	QPSK	1	50	0	Back	1:1.58	1.570	22.68	
2549.50	40185	Low-Mid	LTE Band 41	20	22.54	0	QPSK	1	0	0	Back	1:1.58	1.500	22.77	
2593.00	40620	Mid	LTE Band 41	20	22.44	0	QPSK	1	50	0	Back	1:1.58	1.260	23.43	
2636.50	41055	Mid-High	LTE Band 41	20	22.33	0	QPSK	1	0	0	Back	1:1.58	1.260	23.32	
2680.00	41490	High	LTE Band 41	20	22.37	0	QPSK	1	50	0	Back	1:1.58	1.560	22.43	
2506.00	39750	Low	LTE Band 41	20	22.73	0	QPSK	50	0	0	Back	1:1.58	1.680	22.47	
2549.50	40185	Low-Mid	LTE Band 41	20	22.53	0	QPSK	50	25	0	Back	1:1.58	1.500	22.76	
2593.00	40620	Mid	LTE Band 41	20	22.55	0	QPSK	50	50	0	Back	1:1.58	1.290	23.44	
2636.50	41055	Mid-High	LTE Band 41	20	22.44	0	QPSK	50	25	0	Back	1:1.58	1.400	22.97	
2680.00	41490	High	LTE Band 41	20	22.38	0	QPSK	50	25	0	Back	1:1.58	1.630	22.25	
2506.00	39750	Low	LTE Band 41	20	22.64	0	QPSK	100	0	0	Back	1:1.58	1.650	22.46	
2506.00	39750	Low	LTE Band 41	20	22.65	0	QPSK	1	50	0	Front	1:1.58	1.310	23.47	
2506.00	39750	Low	LTE Band 41	20	22.73	0	QPSK	50	0	0	Front	1:1.58	1.370	23.36	
2506.00	39750	Low	LTE Band 41	20	22.65	0	QPSK	1	50	0	Bottom	1:1.58	1.570	22.68	
2549.50	40185	Low-Mid	LTE Band 41	20	22.54	0	QPSK	1	0	0	Bottom	1:1.58	1.500	22.77	
2593.00	40620	Mid	LTE Band 41	20	22.44	0	QPSK	1	50	0	Bottom	1:1.58	1.470	22.76	
2636.50	41055	Mid-High	LTE Band 41	20	22.33	0	QPSK	1	0	0	Bottom	1:1.58	1.710	21.99	
2680.00	41490	High	LTE Band 41	20	22.37	0	QPSK	1	50	0	Bottom	1:1.58	2.280	20.78	
2506.00	39750	Low	LTE Band 41	20	22.73	0	QPSK	50	0	0	Bottom	1:1.58	1.670	22.50	
2549.50	40185	Low-Mid	LTE Band 41	20	22.53	0	QPSK	50	25	0	Bottom	1:1.58	1.520	22.70	
2593.00	40620	Mid	LTE Band 41	20	22.55	0	QPSK	50	50	0	Bottom	1:1.58	1.510	22.75	
2636.50	41055	Mid-High	LTE Band 41	20	22.44	0	QPSK	50	25	0	Bottom	1:1.58	1.900	21.65	
2680.00	41490	High	LTE Band 41	20	22.38	0	QPSK	50	25	0	Bottom	1:1.58	2.390	20.59	
2506.00	39750	Low	LTE Band 41	20	22.64	0	QPSK	100	0	0	Bottom	1:1.58	1.630	22.51	
2506.00	39750	Low	LTE Band 41	20	24.27	0	QPSK	1	99	0	Right	1:1.58	0.654	28.11	
2506.00	39750	Low	LTE Band 41	20	23.24	1	QPSK	50	0	0	Right	1:1.58	0.569	27.68	

For some bands/modes, a lower P_{Limit} was selected as a more conservative evaluation.

FCC ID: A3LSMN981W		PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset			APPENDIX A: Page 17 of 19

Table A-18
DSI = 0 P_{Limit} Calculations – 5G Phablet SAR

MEASUREMENT RESULTS															
FREQUENCY			Mode	Bandwidth [MHz]	Conducted Power [dBm]	MPR [dB]	Modulation	RB Size	RB Offset	Spacing (mm)	Side	Duty Cycle	SAR (10g)	PLimit	Minimum PLimit
MHz	Ch.												(W/kg)	[dBm]	[dBm]
680.50	136100	Mid	NR Band n71	20	24.86	0.0	DFT-s-OFDM QPSK	1	1	8	Back	1:1	0.212	35.58	35.58
680.50	136100	Mid	NR Band n71	20	24.86	0.0	DFT-s-OFDM QPSK	1	1	6	Front	1:1	0.208	35.66	
680.50	136100	Mid	NR Band n71	20	24.86	0.0	DFT-s-OFDM QPSK	1	1	11	Bottom	1:1	0.058	41.21	
680.50	136100	Mid	NR Band n71	20	24.86	0.0	DFT-s-OFDM QPSK	1	1	0	Right	1:1	0.077	39.97	
680.50	136100	Mid	NR Band n71	20	24.86	0.0	DFT-s-OFDM QPSK	1	1	0	Left	1:1	0.131	37.67	
1770.00	354000	High	NR Band n66	20	23.86	0.0	DFT-s-OFDM QPSK	1	104	8	Back	1:1	0.922	28.19	27.04
1770.00	354000	High	NR Band n66	20	23.96	0.0	DFT-s-OFDM QPSK	50	28	8	Back	1:1	1.010	27.90	
1770.00	354000	High	NR Band n66	20	23.86	0.0	DFT-s-OFDM QPSK	1	104	6	Front	1:1	1.110	27.39	
1770.00	354000	High	NR Band n66	20	23.96	0.0	DFT-s-OFDM QPSK	50	28	6	Front	1:1	1.190	27.18	
1770.00	354000	High	NR Band n66	20	23.86	0.0	DFT-s-OFDM QPSK	1	104	11	Bottom	1:1	1.140	27.27	
1770.00	354000	High	NR Band n66	20	23.96	0.0	DFT-s-OFDM QPSK	50	28	11	Bottom	1:1	1.230	27.04	
1770.00	354000	High	NR Band n66	20	23.86	0.0	DFT-s-OFDM QPSK	1	104	0	Right	1:1	0.519	30.69	
1770.00	354000	High	NR Band n66	20	23.96	0.0	DFT-s-OFDM QPSK	50	28	0	Right	1:1	0.537	30.64	
1770.00	354000	High	NR Band n66	20	23.86	0.0	DFT-s-OFDM QPSK	1	104	0	Left	1:1	0.289	33.23	
1770.00	354000	High	NR Band n66	20	23.96	0.0	DFT-s-OFDM QPSK	50	28	0	Left	1:1	0.302	33.14	
2592.99	518598	Mid	NR Band n41	100	24.19	0.0	DFT-s-OFDM QPSK	1	1	0	Back	1:4	0.121	31.32	24.75
2592.99	518598	Mid	NR Band n41	100	24.19	0.0	DFT-s-OFDM QPSK	1	1	0	Front	1:4	0.145	30.54	
2592.99	518598	Mid	NR Band n41	100	24.19	0.0	DFT-s-OFDM QPSK	1	1	0	Top	1:4	0.549	24.75	
2592.99	518598	Mid	NR Band n41	100	24.19	0.0	DFT-s-OFDM QPSK	1	1	0	Left	1:4	0.140	30.69	

For some bands/modes, a lower P_{Limit} was selected as a more conservative evaluation.
Data highlighted in blue was tested and provided by the manufacturer.

FCC ID: A3LSMN981W	 PCTEST Proud to be part of 	PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset			APPENDIX A: Page 18 of 19

Table A-19
DSI = 1 P_{Limit} Calculations – 5G Phablet SAR

MEASUREMENT RESULTS															
FREQUENCY			Mode	Bandwidth [MHz]	Conducted Power [dBm]	MPR [dB]	Modulation	RB Size	RB Offset	Spacing (mm)	Side	Duty Cycle	SAR (10g)	PLimit	Minimum PLimit
MHz	Ch.												(W/kg)	[dBm]	[dBm]
680.50	136100	Mid	NR Band n71	20	24.86	0.0	DFT-s-OFDM QPSK	1	1	0	Back	1:1	1.310	27.67	27.67
680.50	136100	Mid	NR Band n71	20	24.86	0.0	DFT-s-OFDM QPSK	1	1	0	Front	1:1	1.208	28.02	
680.50	136100	Mid	NR Band n71	20	24.86	0.0	DFT-s-OFDM QPSK	1	1	0	Bottom	1:1	0.881	29.39	
680.50	136100	Mid	NR Band n71	20	24.86	0.0	DFT-s-OFDM QPSK	1	1	0	Right	1:1	0.077	39.97	
680.50	136100	Mid	NR Band n71	20	24.86	0.0	DFT-s-OFDM QPSK	1	1	0	Left	1:1	0.131	37.67	
1770.00	354000	High	NR Band n66	20	19.98	0.0	DFT-s-OFDM QPSK	1	1	0	Back	1:1	1.640	21.81	19.59
1770.00	354000	High	NR Band n66	20	19.95	0.0	DFT-s-OFDM QPSK	50	28	0	Back	1:1	1.640	21.78	
1770.00	354000	High	NR Band n66	20	19.98	0.0	DFT-s-OFDM QPSK	1	1	0	Front	1:1	1.550	22.06	
1770.00	354000	High	NR Band n66	20	19.95	0.0	DFT-s-OFDM QPSK	50	28	0	Front	1:1	1.530	22.08	
1720.00	344000	Low	NR Band n66	20	19.97	0.0	DFT-s-OFDM QPSK	1	1	0	Bottom	1:1	2.670	19.68	
1745.00	349000	Mid	NR Band n66	20	19.94	0.0	DFT-s-OFDM QPSK	1	1	0	Bottom	1:1	2.640	19.70	
1770.00	354000	High	NR Band n66	20	19.98	0.0	DFT-s-OFDM QPSK	1	1	0	Bottom	1:1	2.570	19.86	
1720.00	344000	Low	NR Band n66	20	19.94	0.0	DFT-s-OFDM QPSK	50	28	0	Bottom	1:1	2.710	19.59	
1745.00	349000	Mid	NR Band n66	20	19.90	0.0	DFT-s-OFDM QPSK	50	28	0	Bottom	1:1	2.640	19.66	
1770.00	354000	High	NR Band n66	20	19.95	0.0	DFT-s-OFDM QPSK	50	28	0	Bottom	1:1	2.580	19.81	
1770.00	354000	High	NR Band n66	20	19.89	0.0	DFT-s-OFDM QPSK	100	0	0	Bottom	1:1	2.620	19.69	
1770.00	354000	High	NR Band n66	20	23.86	0.0	DFT-s-OFDM QPSK	1	104	0	Right	1:1	0.519	30.69	
1770.00	354000	High	NR Band n66	20	23.96	0.0	DFT-s-OFDM QPSK	50	28	0	Right	1:1	0.537	30.64	
1770.00	354000	High	NR Band n66	20	23.86	0.0	DFT-s-OFDM QPSK	1	104	0	Left	1:1	0.289	33.23	
1770.00	354000	High	NR Band n66	20	23.96	0.0	DFT-s-OFDM QPSK	50	28	0	Left	1:1	0.302	33.14	
1770.00	354000	High	NR Band n66	20	19.85	0.0	CP-OFDM QPSK	1	1	0	Bottom	1:1	2.500	19.85	
2592.99	518598	Mid	NR Band n41	100	24.19	0.0	DFT-s-OFDM QPSK	1	1	0	Back	1:4	0.121	31.32	24.75
2592.99	518598	Mid	NR Band n41	100	24.19	0.0	DFT-s-OFDM QPSK	1	1	0	Front	1:4	0.145	30.54	
2592.99	518598	Mid	NR Band n41	100	24.19	0.0	DFT-s-OFDM QPSK	1	1	0	Top	1:4	0.549	24.75	
2592.99	518598	Mid	NR Band n41	100	24.19	0.0	DFT-s-OFDM QPSK	1	1	0	Left	1:4	0.140	30.69	

For some bands/modes, a lower P_{Limit} was selected as a more conservative evaluation.
Data highlighted in blue was tested and provided by the manufacturer.

FCC ID: A3LSMN981W	 PCTEST Proud to be part of 	PART 0 SAR CHAR REPORT		Approved by: Quality Manager
Test Dates: 06/03/20 – 07/13/20	DUT Type: Portable Handset			APPENDIX A: Page 19 of 19