

APPENDIX D: SAR TISSUE SPECIFICATIONS

Measurement Procedure for Tissue verification:

- 1) The network analyzer and probe system was configured and calibrated.
- 2) The probe was immersed in the tissue. The tissue was placed in a nonmetallic container. Trapped air bubbles beneath the flange were minimized by placing the probe at a slight angle.
- 3) The complex admittance with respect to the probe aperture was measured
- 4) The complex relative permittivity ϵ' can be calculated from the below equation (Pournaropoulos and Misra):

$$Y = \frac{j2\omega\epsilon_r\epsilon_0}{[\ln(b/a)]^2} \int_a^b \int_a^b \int_0^\pi \cos\phi' \frac{\exp[-j\omega r(\mu_0\epsilon_r'\epsilon_0)^{1/2}]}{r} d\phi' d\rho' d\rho$$

where Y is the admittance of the probe in contact with the sample, the primed and unprimed coordinates refer to source and observation points, respectively, $r^2 = \rho^2 + \rho'^2 - 2\rho\rho'\cos\phi'$, ω is the angular frequency, and $j = \sqrt{-1}$.

3 Composition / Information on ingredients

3.2 Mixtures

Description: Aqueous solution with surfactants and inhibitors

Declarable, or hazardous components:

CAS: 107-21-1 EINECS: 203-473-3 Reg.nr.: 01-2119456816-28-0000	Ethanediol STOT RE 2, H373; Acute Tox. 4, H302	>1.0-4.9%
CAS: 68608-26-4 EINECS: 271-781-5 Reg.nr.: 01-2119527859-22-0000	Sodium petroleum sulfonate Eye Irrit. 2, H319	< 2.9%
CAS: 107-41-5 EINECS: 203-489-0 Reg.nr.: 01-2119539582-35-0000	Hexylene Glycol / 2-Methyl-pentane-2,4-diol Skin Irrit. 2, H315; Eye Irrit. 2, H319	< 2.9%
CAS: 68920-66-1 NLP: 500-236-9 Reg.nr.: 01-2119489407-26-0000	Alkoxyated alcohol, > C₁₆ Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319	< 2.0%

Additional information:

For the wording of the listed risk phrases refer to section 16.

Not mentioned CAS-, EINECS- or registration numbers are to be regarded as Proprietary/Confidential.

The specific chemical identity and/or exact percentage concentration of proprietary components is withheld as a trade secret.

Figure D-1

Note: Liquid recipes are proprietary SPEAG. Since the composition is approximate to the actual liquids utilized, the manufacturer tissue-equivalent liquid data sheets are provided below.

FCC ID A3LSMS948U	RF EXPOSURE PART 1 TEST REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX D: Page 1 of 3

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s p e a g

Measurement Certificate / Material Test

Item Name **Head Tissue Simulating Liquid (HBL600-10000V6)**
Product No. SL AAH U16 BC (Batch: 240521-1)
Manufacturer **SPEAG**

Measurement Method

TSL dielectric parameters measured using calibrated DAK probe.

Target Parameters

Target parameters as defined in the IEEE 1528 and IEC 62209 compliance standards.

Test Condition

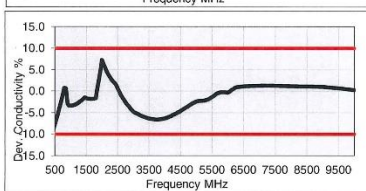
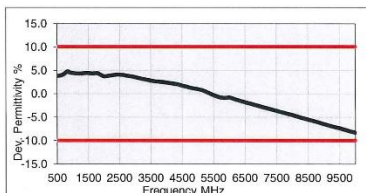
Ambient Condition 22°C ; 30% humidity
TSL Temperature 22°C
Test Date 22-May-24
Operator CL

Additional Information

TSL Density
TSL Heat-capacity

Results

f [MHz]	Measured			Target		Diff.to Target [%]	
	e'	e''	sigma	eps	sigma	Δ-eps	Δ-sigma
600	44.4	25.1	0.84	42.7	0.88	3.9	-4.7
750	43.8	21.2	0.89	41.9	0.89	4.4	-0.4
800	43.6	20.3	0.90	41.7	0.90	4.6	0.3
825	43.6	19.9	0.91	41.6	0.91	4.8	0.4
835	43.6	19.7	0.92	41.5	0.91	4.9	0.9
850	43.5	19.5	0.92	41.5	0.92	4.8	0.4
900	43.4	18.8	0.94	41.5	0.97	4.6	-3.1
1400	42.4	14.9	1.16	40.6	1.18	4.5	-1.6
1450	42.3	14.7	1.18	40.5	1.20	4.4	-1.7
1600	42.1	14.2	1.26	40.3	1.28	4.4	-1.9
1625	42.1	14.1	1.28	40.3	1.30	4.5	-1.4
1640	42.1	14.1	1.29	40.3	1.31	4.6	-1.2
1650	42.0	14.0	1.29	40.2	1.31	4.4	-1.8
1700	41.9	13.9	1.32	40.2	1.34	4.3	-1.6
1750	41.8	13.8	1.35	40.1	1.37	4.3	-1.5
1800	41.8	13.7	1.38	40.0	1.40	4.5	-1.4
1810	41.8	13.7	1.39	40.0	1.40	4.5	-0.7
1825	41.8	13.7	1.40	40.0	1.40	4.5	0.0
1850	41.7	13.7	1.41	40.0	1.40	4.3	0.7
1900	41.6	13.6	1.44	40.0	1.40	4.0	2.9
1950	41.5	13.5	1.47	40.0	1.40	3.8	5.0
2000	41.5	13.5	1.50	40.0	1.40	3.8	7.1
2050	41.4	13.5	1.54	39.9	1.44	3.7	6.6
2100	41.3	13.4	1.57	39.8	1.49	3.7	5.4
2150	41.3	13.4	1.60	39.7	1.53	3.9	4.3
2200	41.2	13.4	1.64	39.6	1.58	3.9	3.9
2250	41.1	13.4	1.68	39.6	1.62	3.9	3.6
2300	41.0	13.4	1.71	39.5	1.67	3.9	2.6
2350	41.0	13.4	1.75	39.4	1.71	4.1	2.3
2400	40.9	13.4	1.79	39.3	1.76	4.1	2.0
2450	40.8	13.4	1.83	39.2	1.80	4.1	1.7
2500	40.7	13.4	1.87	39.1	1.85	4.0	0.8
2550	40.7	13.4	1.91	39.1	1.91	4.2	0.0
2600	40.6	13.5	1.95	39.0	1.96	4.1	-0.7



3500	39.0	14.0	2.73	37.9	2.91	2.8	-6.4
3700	38.7	14.1	2.91	37.7	3.12	2.6	-6.6
5200	36.2	15.7	4.55	36.0	4.66	0.6	-2.2
5250	36.1	15.8	4.60	35.9	4.71	0.4	-2.2
5300	36.0	15.8	4.66	35.9	4.76	0.3	-2.1
5500	35.5	16.0	4.89	35.6	4.96	-0.3	-1.4
5600	35.3	16.1	5.02	35.5	5.07	-0.6	-0.9
5700	35.1	16.2	5.15	35.4	5.17	-0.8	-0.4
5800	35.0	16.3	5.26	35.3	5.27	-0.9	-0.3
6000	34.8	16.3	5.46	35.1	5.48	-0.8	-0.4
6500	33.8	17.0	6.14	34.5	6.07	-1.8	1.1
7000	33.0	17.3	6.73	33.9	6.65	-2.7	1.3
7500	32.1	17.6	7.33	33.3	7.24	-3.6	1.3
8000	31.2	17.8	7.93	32.7	7.84	-4.6	1.2
8500	30.4	18.1	8.54	32.1	8.45	-5.5	1.1
9000	29.5	18.3	9.17	31.5	9.08	-6.4	1.0
9500	28.7	18.5	9.78	31.0	9.71	-7.4	0.7
10000	27.9	18.7	10.38	30.4	10.36	-8.3	0.2

Figure D-2
600 – 10000 MHz Head Tissue Equivalent Matter

FCC ID A3LSMS948U	RF EXPOSURE PART 1 TEST REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX D: Page 2 of 3

Measurement Certificate / Material Test

Item Name	Head Tissue Simulating Liquid (HBL4-250V3)
Product No.	SL-AAH 005 AD (Batch: 250129-1)
Manufacturer	SPEAG

Measurement Method

TSL dielectric parameters measured using calibrated DAK probe.

Setup Validation

Validation results were within $\pm 2.5\%$ towards the target values of Methanol.

Target Parameters

Target parameters as defined in the IEEE 1528 and IEC 62209 compliance standards.

Test Condition

Ambient	Environment temperature ($22 \pm 3^\circ\text{C}$ and humidity $< 70\%$)
TSL Temperature	22°C
Test Date	5-Feb-25
Operator	CL

Additional Information

TSL Density	1.042 g/cm ³
TSL Heat-capacity	3.574 kJ/(kg·K)

f [MHz]	Measured		Target		Diff. to Target [%]		
	ϵ'	ϵ''	ϵ'	ϵ''	$\Delta\epsilon'$	$\Delta\epsilon''$	
5	53.4	2692.47	0.72	55.5	0.75	-3.7	-4.0
10	53.3	1301.69	0.72	55.5	0.75	-3.9	-4.0
15	53.3	868.51	0.72	55.3	0.75	-3.7	-4.0
20	53.3	651.94	0.73	55.1	0.75	-3.3	-2.7
25	53.3	522.03	0.73	55.0	0.75	-3.1	-2.7
30	53.3	435.45	0.73	55.0	0.75	-3.1	-2.7
35	53.2	373.64	0.73	54.9	0.75	-3.1	-2.7
40	53.2	327.33	0.73	54.8	0.75	-2.9	-2.7
45	53.1	291.35	0.73	54.7	0.75	-2.9	-2.7
50	53.0	262.60	0.73	54.6	0.75	-2.8	-2.7
55	52.9	239.10	0.73	54.4	0.75	-2.8	-2.8
60	52.8	219.54	0.73	54.3	0.75	-2.8	-2.9
65	52.7	203.02	0.73	54.2	0.75	-2.8	-2.9
70	52.6	188.87	0.74	54.1	0.75	-2.8	-1.6
75	52.5	176.62	0.74	54.0	0.75	-2.8	-1.7
80	52.4	165.91	0.74	53.9	0.75	-2.7	-1.7
85	52.3	156.47	0.74	53.8	0.75	-2.7	-1.8
90	52.2	148.09	0.74	53.7	0.75	-2.7	-1.9
95	52.1	140.60	0.74	53.5	0.75	-2.7	-1.9
100	52.0	133.87	0.74	53.4	0.75	-2.7	-2.0
105	51.9	127.78	0.75	53.3	0.76	-2.6	-0.7
110	51.8	122.26	0.75	53.2	0.76	-2.6	-0.7
115	51.7	117.22	0.75	53.1	0.76	-2.6	-0.8
120	51.6	112.61	0.75	53.0	0.76	-2.6	-0.9
125	51.5	108.37	0.75	52.9	0.76	-2.6	-0.9
130	51.4	104.46	0.76	52.8	0.76	-2.6	0.4
135	51.3	100.85	0.76	52.6	0.76	-2.5	0.3
140	51.2	97.49	0.76	52.5	0.76	-2.5	0.2
145	51.1	94.37	0.76	52.4	0.76	-2.5	0.2
150	51.0	91.46	0.76	52.3	0.76	-2.5	0.1
155	50.9	88.74	0.77	52.1	0.76	-2.2	1.0
160	50.8	86.20	0.77	51.8	0.77	-2.0	0.5
165	50.7	83.81	0.77	51.6	0.77	-1.7	0.0
170	50.6	81.56	0.77	51.4	0.77	-1.5	-0.5
175	50.5	79.45	0.77	51.1	0.78	-1.2	-0.9
180	50.4	77.45	0.78	50.9	0.78	-1.0	-0.1
185	50.3	75.56	0.78	50.7	0.78	-0.7	-0.6
190	50.3	73.78	0.78	50.4	0.79	-0.3	-1.0
195	50.2	72.09	0.78	50.2	0.79	0.0	-1.5
200	50.1	70.48	0.78	50.0	0.80	0.3	-2.0
205	50.0	68.96	0.79	49.7	0.80	0.5	-1.2
210	49.9	67.51	0.79	49.5	0.80	0.8	-1.6
215	49.8	66.13	0.79	49.3	0.81	1.1	-2.1
220	49.8	64.81	0.79	49.0	0.81	1.6	-2.5
225	49.7	63.56	0.80	48.8	0.81	1.8	-1.7
230	49.6	62.35	0.80	48.6	0.82	2.1	-2.1
235	49.5	61.21	0.80	48.3	0.82	2.4	-2.6
240	49.4	60.10	0.80	48.1	0.82	2.7	-3.0
245	49.4	59.05	0.80	47.9	0.83	3.2	-3.4
250	49.3	58.04	0.81	47.6	0.83	3.5	-2.7

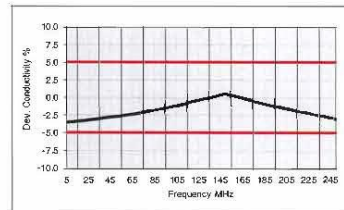
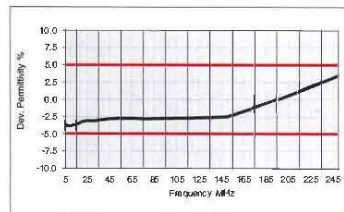


Figure D-3
5– 250 MHz Head Tissue Equivalent Matter

FCC ID A3LSMS948U	RF EXPOSURE PART 1 TEST REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX D: Page 3 of 3

APPENDIX E: MULTI-TX AND ANTENNA SAR CONSIDERATIONS

E.1 Introduction

The following procedures adopted from FCC KDB Publication 447498 D04v01 are applicable to devices with built-in unlicensed transmitters such as 802.11 and Bluetooth devices which may simultaneously transmit with the licensed transmitter

E.2 Simultaneous Transmission Procedures

This device contains transmitters that may operate simultaneously. Therefore, simultaneous transmission analysis is required. Per FCC KDB Publication 447498 D04v01 and IEEE 1528-2013 Section 6.3.4.1.2, simultaneous transmission SAR test exclusion may be applied when the sum of the 1g SAR for all the simultaneous transmitting antennas in a specific physical test configuration is ≤ 1.6 W/kg (or 4 W/kg for 10g). The different test positions in an exposure condition may be considered collectively to determine SAR test exclusion according to the sum of 1g or 10g SAR. Alternatively, simultaneous transmission SAR test exclusion may be evaluated using Total Exposure Ratio (TER). The different test positions in an exposure condition may be considered collectively to determine SAR test exclusion according to the TER.

Per FCC KDB Publication 941225 D06v02r01, the devices edges with antennas more than 2.5 cm from edge are not required to be evaluated for SAR (“-”).

This device is enabled with Qualcomm® Smart Transmit Plus with pre-defined antenna groups (AG0 and AG1) and 1 mmW module group (MG). Sub6 and mmW antennas cannot be decoupled from each other due to lack of regulatory criteria. This device operates using GEN2_SUB6 (Sub6-favor mode) which assumes all mmW modules (MG) are collocated with each sub6 AG0 and AG1 in this device. The Simultaneous transmission analysis is performed per antenna groups. Below analysis demonstrates the mutually exclusive operation of AG0 and AG1, and the compliance between each antenna group with non-Smart Transmit Radios. For this model, WWAN/WLAN/BT/NTN/mmWave Radios are managed under Smart Transmit. Non-Smart Transmit Radios include NFC/UWB.

When operating in the same antenna group, the compliance under dynamic transmission condition, including all supported simultaneous transmission scenarios, should be assessed and demonstrated in the Part 2 Report during algorithm validation. Therefore, no further simultaneous analysis is needed within an antenna group.

When all WWAN/WLAN/BT/mmWave Radios are managed under Smart Transmit, TER for WWAN/WLAN/BT/mmWave is covered in Part 2 testing. Only external radios outside of WWAN/WLAN/BT/mmWave (UWB, NFC) require TER analysis with WWAN/WLAN/BT/mmWave during simultaneous transmissions. NTN transmission is also managed under Smart transmit; however, simultaneous analysis with modes outside of NTN are not evaluated because NTN is the only available radio in satellite mode.

E.3 Sub6 Antenna Groups

The 2nd generation of Smart Transmit (GEN2) operates based on pre-defined antenna groups (AG). Sub6/WLAN/BT Tx Antennas and/or mmW module groups (MG) in the device are grouped based on spatial variation of RF exposure distributions, where the RF exposure of one AG is mutually exclusive from other AG. This is accomplished by demonstrating either of below conditions for all exposure scenarios:

- a) Sum of SAR of one antenna from each of the sub6 AGs and the RF exposure from radios outside Smart Transmit is less than regulatory limits. This condition must be demonstrated for all antenna combinations of sub6 AGs.

(or)

FCC ID A3LSMS948U	RF EXPOSURE PART 1 TEST REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX E: Page 1 of 14

- b) Every antenna from each sub6 AG meets SPLSR criteria (Section 4.3.2(c) in FCC KDB 447498 D04) with every antenna from another sub6 AG. This criteria must be demonstrated for all antenna combinations for each pair of AGs.

This device supports two AGs: AG0 and AG1, with AG0 having 4 antennas (A, B, C, D) and AG1 having 5 antennas (E, F, G, H, I) and MG having 1 antenna (L) The conditions are verified through the following criteria:

- i) In Sub6-favor mode: All mmW antennas are assumed to collocate with each sub6 antenna group (AG). Also, since all mmW MGs are controlled by Smart Transmit, maximum mmW exposure is given by maximum out of all mmW modules:

$$\max.\text{norm.exp.mmW} = \max.\text{norm.exp.MG}$$

- ii) Sum of SAR: Demonstrate that the sum of $\max.\text{norm.exp.AG0}$ and $\max.\text{norm.exp.AG1}$ and the reported normalized SAR values from radios outside Smart Transmit (denoted as $\text{reported.norm.exp.ER}$) should be less than the regulatory limit for each supported DSI following the below procedure:

1. Obtain the worst-case *adjusted SAR* for each antenna group, i.e., maximum *reported SAR* at EFS $P_{\text{limit}} + \text{unc}$ (or max of $\{P_{\text{max}} + \text{unc}, \text{EFS } P_{\text{limit}}\}$ when $\text{EFS } P_{\text{limit}} > P_{\text{max}}$) out of all supported technologies, frequency bands and antennas in AG0 and AG1, then normalized to the regulatory limit to get the maximum normalized SAR for each antenna group, denoted as: $\max.\text{norm.exp.AG0}$ and $\max.\text{norm.exp.AG1}$

2. For external radios outside of Smart Transmit (NFC/UWB): Obtain the worst-case RF exposure for each external radio normalized to regulatory limit to get the normalized SAR for each external radio, denoted as: $\text{reported.norm.exp.NFC}$ and $\text{reported.norm.exp.UWB}$

3. Demonstrate that the sum of these RF exposures meets: $\{\max.\text{norm.exp.AG0} + \max.\text{norm.exp.AG1} + \text{reported.norm.exp.NFC} + \text{reported.norm.exp.UWB}\} \leq 1$.

- iii) SPLSR or composite exposure distribution criteria: when TER sum of an antenna pair is over the limit for a DSI/exposure position, SPLSR or composite exposure distribution can be done to demonstrate simultaneous transmission compliance.

1. SPLSR analysis for sub6 antenna pairs: For each antenna, obtain the highest *adjusted SAR* at EFS $P_{\text{limit}} + \text{unc}$ (or max of $\{P_{\text{max}} + \text{unc}, \text{EFS } P_{\text{limit}}\}$ when $\text{EFS } P_{\text{limit}} > P_{\text{max}}$) out of all supported technologies for each frequency band. Using these values, demonstrate for a given DSI that every antenna from one AG meets SPLSR criteria with every antenna in another AG for all frequency bands. This criterion must be demonstrated for all antenna pair combinations irrespective of supported simultaneous transmission scenarios as given below for each DSI. As it can be seen, these include all combinations of antenna groups, antennas, and frequency bands.

- If SPLSR criteria evaluation and analysis are needed to determine compliance for a certain DSI configuration, SPLSR is performed by taking the highest reported SAR for each of the supported technologies and bands per antenna, along with the peak SAR locations. Per Qualcomm guidance, only Y-axis coordinates are recorded in the analysis for calculation simplicity (assumes all 0mm of separation on the x-axis). Peak locations are documented in the Highest Report ER and Hotspot Location Section below for each DSI configuration. For bottom AG0, Y_min coordinates represents the worst-case hotspot location that is closest to the top AG1. Similarly, for top AG1, Y_max coordinate represents the worst-case hotspot location that is closest to the bottom AG0
- The following formula is used to calculate the SPLSR between AG0 and AG1 for each exposure configuration:

FCC ID A3LSMS948U	RF EXPOSURE PART 1 TEST REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX E: Page 2 of 14

$$SPLSR = \frac{(Max\ SAR\ Top\ Set + Max\ SAR\ Bottom\ Set)^{1.5}}{|Y_{max} - Y_{min}|}$$

E.4 Exposure Ratios

Exposure ratio (ER) for different transmitters is calculated as following:

$$ER_{SAR,n} = \frac{SAR_n}{SAR_{limit}}$$

$$ER_{PD,n} = \frac{PD_n}{PD_{limit}}$$

Where:

- SAR_n is the SAR value for the n -th transmitter/test frequency
- SAR_{limit} is the basic restriction limit that is applicable to the n -th transmitter/test frequency
- P_{txm} is the higher of maximum time-averaged conducted power or EIRP associated with the m -th UWB transmitter
- PD_l is the PD value for the l -th transmitter/test frequency
- PD_{limit} is the basic restriction limit that is applicable for the l -th transmitter/test frequency

Compliance with the SAR-PD-UWB based RF exposure limits is achieved if $TER_{SAR-PD-UWB} \leq 1$. When $TER_{SAR-PD-UWB} > 1$, SPLSR is additionally evaluated per below equation:

$$SPLSR = \frac{(ER_j + ER_k)^{1.5}}{R}$$

Where:

- ER_j and ER_k are exposure ratio of transmitter j and k
- R is the distance between transmitter j and k

When SPLSR is ≤ 0.02 for 1g exposure conditions or SPLSR is ≤ 0.013 for 10g exposure conditions simultaneous SAR evaluation is not required.

FCC ID A3LSMS948U	RF EXPOSURE PART 1 TEST REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX E: Page 3 of 14

E.5 Head (DSI = 1) SAR Antenna Group Analysis

Table E-1
DSI=1 Held-to-ear AG0 Highest Adjusted Ratio to Limit

AG0 Ratio to Limit						
	Configuration	A	B	C	D	Max
Head	Right Cheek	0.155	0.154	0.172	0.000	0.172
	Right Tilt	0.111	0.122	0.046	0.000	0.122
	Left Cheek	0.143	0.124	0.028	0.000	0.143
	Left Tilt	0.116	0.098	0.024	0.000	0.116

Table E-2
DSI=1 Held-to-ear AG1 Highest Adjusted Ratio to Limit

AG1 Ratio to Limit								
	Configuration	E	F	G	H	I	MIMO	Max
Head	Right Cheek	0.744	0.806	0.654	0.800	0.547	0.756	0.806
	Right Tilt	0.570	0.866	0.465	0.129	0.066	0.586	0.866
	Left Cheek	0.850	0.477	0.223	0.643	0.672	0.806	0.850
	Left Tilt	0.845	0.576	0.250	0.107	0.085	0.518	0.845

Table E-3
Held-to-ear UWB Highest Ratio to Limit

	Configuration	UWB
Head	Right Cheek	0.001
	Right Tilt	0.002
	Left Cheek	0.001
	Left Tilt	0.001

Table E-4
DSI=1 Held-to-ear AG Verification

	Configuration	AG0 Ratio to Limit	AG1 Ratio to Limit	UWB Ratio to Limit	AG0 + AG1 + UWB Ratio to Limit
Head	Right Cheek	0.172	0.806	0.001	0.979
	Right Tilt	0.122	0.866	0.002	0.990
	Left Cheek	0.143	0.850	0.001	0.994
	Left Tilt	0.116	0.845	0.001	0.962

Notes:

- For all combinations where the TER sum of AG0+AG1+UWB is not greater than 1, there's no further analysis required for compliance demonstration.

FCC ID A3LSMS948U	RF EXPOSURE PART 1 TEST REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX E: Page 4 of 14

E.6 Body-worn (DSI = 0) SAR Antenna Group Analysis

Table E-5
DSI=0 Body-worn AG0 Highest Adjusted Ratio to Limit

AG0 Ratio to Limit						
	Configuration	A	B	C	D	Max
Body-worn	Back	0.869	0.947	0.454	0.718	0.947
	Front	0.852	0.555	0.518	0.009	0.852

Table E-6
DSI=0 Body-worn AG1 Highest Adjusted Ratio to Limit

AG1 Ratio to Limit								
	Configuration	E	F	G	H	I	MIMO	Max
Body-worn	Back	0.914	0.939	0.697	0.449	0.642	0.650	0.939
	Front	0.692	0.676	0.571	0.423	0.612	0.311	0.692

Table E-7
Body-worn UWB Highest Ratio to Limit

	Configuration	UWB
Body-worn	Back	0.001
	Front	0.001

Table E-8
DSI=0 Body-worn AG Verification

Bodyworn	Configuration	AG0 Ratio to Limit	AG1 Ratio to Limit	UWB Ratio to Limit	AG0 + AG1 + UWB Ratio to Limit
	Back	0.947	0.939	0.001	See Table Below
	Front	0.852	0.692	0.001	See Table Below

Back									
Bottom Set			Top Set					Bottom Set + Top Set Ratio to Limit	SPLSR
AG0			AG1			UWB			
Antenna	Ratio to Limit	Position	Antenna	Ratio to Limit	Position	Ratio to Limit	Position		
Ant A	0.869	63.5	Ant E	0.914	-62.2	0.001	-92.8	1.784	0.02
Ant A	0.869	63.5	Ant F	0.939	-74.5	0.001	-92.8	1.809	0.02
Ant A	0.869	63.5	Ant G	0.697	-54.7	0.001	-92.8	1.567	0.02
Ant A	0.869	63.5	Ant H	0.449	-35.0	0.001	-92.8	1.319	0.02
Ant A	0.869	63.5	Ant I	0.642	-34.7	0.001	-92.8	1.512	0.02
Ant A	0.869	63.5	MIMO	0.65	-51.8	0.001	-92.8	1.520	0.02
Ant B	0.947	81.6	Ant E	0.914	-62.2	0.001	-92.8	1.862	0.02
Ant B	0.947	81.6	Ant F	0.939	-74.5	0.001	-92.8	1.887	0.02
Ant B	0.947	81.6	Ant G	0.697	-54.7	0.001	-92.8	1.645	0.02
Ant B	0.947	81.6	Ant H	0.449	-35.0	0.001	-92.8	1.397	0.01
Ant B	0.947	81.6	Ant I	0.642	-34.7	0.001	-92.8	1.590	0.02
Ant B	0.947	81.6	MIMO	0.65	-51.8	0.001	-92.8	1.598	0.02
Ant C	0.454	57.4	Ant E	0.914	-62.2	0.001	-92.8	1.369	0.01
Ant C	0.454	57.4	Ant F	0.939	-74.5	0.001	-92.8	1.394	0.01
Ant C	0.454	57.4	Ant G	0.697	-54.7	0.001	-92.8	1.152	0.01
Ant C	0.454	57.4	Ant H	0.449	-35.0	0.001	-92.8	0.904	N/A
Ant C	0.454	57.4	Ant I	0.642	-34.7	0.001	-92.8	1.097	0.01
Ant C	0.454	57.4	MIMO	0.65	-51.8	0.001	-92.8	1.105	0.01
Ant D	0.718	71.1	Ant E	0.914	-62.2	0.001	-92.8	1.633	0.02
Ant D	0.718	71.1	Ant F	0.939	-74.5	0.001	-92.8	1.658	0.01
Ant D	0.718	71.1	Ant G	0.697	-54.7	0.001	-92.8	1.416	0.01
Ant D	0.718	71.1	Ant H	0.449	-35.0	0.001	-92.8	1.168	0.01
Ant D	0.718	71.1	Ant I	0.642	-34.7	0.001	-92.8	1.361	0.02
Ant D	0.718	71.1	MIMO	0.65	-51.8	0.001	-92.8	1.369	0.01
Front									
Bottom Set			Top Set					Bottom Set + Top Set Ratio to Limit	SPLSR
AG0			AG1			UWB			
Antenna	Ratio to Limit	Position	Antenna	Ratio to Limit	Position	Ratio to Limit	Position		
Ant A	0.852	68.1	Ant E	0.692	-77.2	0.001	-97.5	1.545	0.01
Ant A	0.852	68.1	Ant F	0.676	-78.7	0.001	-97.5	1.529	0.01
Ant A	0.852	68.1	Ant G	0.571	-51.6	0.001	-97.5	1.424	0.01
Ant A	0.852	68.1	Ant H	0.423	-33.7	0.001	-97.5	1.276	0.01
Ant A	0.852	68.1	Ant I	0.612	-33.5	0.001	-97.5	1.465	0.02
Ant A	0.852	68.1	MIMO	0.311	-54.5	0.001	-97.5	1.164	0.01
Ant B	0.555	84.1	Ant E	0.692	-77.2	0.001	-97.5	1.248	0.01
Ant B	0.555	84.1	Ant F	0.676	-78.7	0.001	-97.5	1.232	0.01
Ant B	0.555	84.1	Ant G	0.571	-51.6	0.001	-97.5	1.127	0.01
Ant B	0.555	84.1	Ant H	0.423	-33.7	0.001	-97.5	0.979	N/A
Ant B	0.555	84.1	Ant I	0.612	-33.5	0.001	-97.5	1.168	0.01
Ant B	0.555	84.1	MIMO	0.311	-54.5	0.001	-97.5	0.867	N/A
Ant C	0.518	58.5	Ant E	0.692	-77.2	0.001	-97.5	1.211	0.01
Ant C	0.518	58.5	Ant F	0.676	-78.7	0.001	-97.5	1.195	0.01
Ant C	0.518	58.5	Ant G	0.571	-51.6	0.001	-97.5	1.090	0.01
Ant C	0.518	58.5	Ant H	0.423	-33.7	0.001	-97.5	0.942	N/A
Ant C	0.518	58.5	Ant I	0.612	-33.5	0.001	-97.5	1.131	0.01
Ant C	0.518	58.5	MIMO	0.311	-54.5	0.001	-97.5	0.830	N/A
Ant D	0.009	66.1	Ant E	0.692	-77.2	0.001	-97.5	0.702	N/A
Ant D	0.009	66.1	Ant F	0.676	-78.7	0.001	-97.5	0.686	N/A
Ant D	0.009	66.1	Ant G	0.571	-51.6	0.001	-97.5	0.581	N/A
Ant D	0.009	66.1	Ant H	0.423	-33.7	0.001	-97.5	0.433	N/A
Ant D	0.009	66.1	Ant I	0.612	-33.5	0.001	-97.5	0.622	N/A
Ant D	0.009	66.1	MIMO	0.311	-54.5	0.001	-97.5	0.321	N/A

Notes:

1. For all combinations where the TER sum of AG0+AG1+UWB is not greater than 1, there's no further analysis required for compliance demonstration.
2. No evaluation was performed to determine the aggregate 1g SAR for these configurations as the SPLS ratio between the antenna pairs was not greater than 0.02 per FCC KDB 447498 D04v01. Please see the Highest Report ER and Hotspot Location Section for Y-axis peak locations

FCC ID A3LSMS948U	RF EXPOSURE PART 1 TEST REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX E: Page 6 of 14

E.7 Hotspot (DSI = 0) SAR Antenna Group Analysis

Table E-9
DSI=0 Hotspot AG0 Adjusted Ratio to Limit

AG0 Ratio to Limit						
	Configuration	A	B	C	D	Max
Hotspot	Back	0.869	0.947	0.454	0.718	0.947
	Front	0.852	0.555	0.518	0.009	0.852
	Top	-	-	-	-	-
	Bottom	0.822	0.338	0.123	0.020	0.822
	Right	0.201	0.209	0.340	-	0.340
	Left	0.208	-	-	0.011	0.208

Table E-10
DSI=1 Hotspot AG1 Adjusted Ratio to Limit

AG1 Ratio to Limit								
	Configuration	E	F	G	H	I	MIMO	Max
Hotspot	Back	0.914	0.939	0.697	0.449	0.635	0.516	0.939
	Front	0.692	0.676	0.571	0.423	0.612	0.281	0.692
	Top	0.387	0.591	0.114	-	0.009	0.079	0.591
	Bottom	-	-	-	-	-	-	-
	Right	0.328	-	-	-	0.061	0.036	0.328
	Left	-	0.100	0.554	0.056	-	0.344	0.554

Table E-11
DSI=0 Hotspot AG Verification

Hotspot		AG0 Ratio to Limit	AG1 Ratio to Limit	AG0 + AG1 Ratio to Limit
	Back	0.947	0.939	See Table Below
	Front	0.852	0.692	See Table Below
	Top	-	0.591	0.591
	Bottom	0.822	-	0.822
	Right	0.340	0.328	0.668
	Left	0.238	0.554	0.792

FCC ID A3LSMS948U	RF EXPOSURE PART 1 TEST REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX E: Page 7 of 14

Back							
AG0			AG1			AG0 + AG1 Ratio to Limit	SPLSR
Antenna	Ratio to Limit	Position	Antenna	Ratio to Limit	Position		
Ant A	0.869	63.5	Ant E	0.914	-63.5	1.783	0.02
Ant A	0.869	63.5	Ant F	0.939	-74.5	1.808	0.02
Ant A	0.869	63.5	Ant G	0.697	-54.7	1.566	0.02
Ant A	0.869	63.5	Ant H	0.449	-35.0	1.318	0.02
Ant A	0.869	63.5	Ant I	0.635	-34.8	1.504	0.02
Ant A	0.869	63.5	MIMO	0.516	-51.8	1.385	0.01
Ant B	0.947	81.6	Ant E	0.914	-63.5	1.861	0.02
Ant B	0.947	81.6	Ant F	0.939	-74.5	1.886	0.02
Ant B	0.947	81.6	Ant G	0.697	-54.7	1.644	0.02
Ant B	0.947	81.6	Ant H	0.449	-35.0	1.396	0.01
Ant B	0.947	81.6	Ant I	0.635	-34.8	1.582	0.02
Ant B	0.947	81.6	MIMO	0.516	-51.8	1.463	0.01
Ant C	0.454	57.4	Ant E	0.914	-63.5	1.368	0.01
Ant C	0.454	57.4	Ant F	0.939	-74.5	1.393	0.01
Ant C	0.454	57.4	Ant G	0.697	-54.7	1.151	0.01
Ant C	0.454	57.4	Ant H	0.449	-35.0	0.903	N/A
Ant C	0.454	57.4	Ant I	0.635	-34.8	1.089	0.01
Ant C	0.454	57.4	MIMO	0.516	-51.8	0.97	N/A
Ant D	0.718	71.1	Ant E	0.914	-63.5	1.632	0.02
Ant D	0.718	71.1	Ant F	0.939	-74.5	1.657	0.01
Ant D	0.718	71.1	Ant G	0.697	-54.7	1.415	0.01
Ant D	0.718	71.1	Ant H	0.449	-35.0	1.167	0.01
Ant D	0.718	71.1	Ant I	0.635	-34.8	1.353	0.01
Ant D	0.718	71.1	MIMO	0.516	-51.8	1.234	0.01

Front							
AG0			AG1			AG0 + AG1 Ratio to Limit	SPLSR
Antenna	Ratio to Limit	Position	Antenna	Ratio to Limit	Position		
Ant A	0.852	68.1	Ant E	0.692	-78.1	1.544	0.01
Ant A	0.852	68.1	Ant F	0.676	-78.7	1.528	0.01
Ant A	0.852	68.1	Ant G	0.571	-51.6	1.423	0.01
Ant A	0.852	68.1	Ant H	0.423	-33.7	1.275	0.01
Ant A	0.852	68.1	Ant I	0.612	-33.5	1.464	0.02
Ant A	0.852	68.1	MIMO	0.281	-54.5	1.133	0.01
Ant B	0.555	84.1	Ant E	0.692	-78.1	1.247	0.01
Ant B	0.555	84.1	Ant F	0.676	-78.7	1.231	0.01
Ant B	0.555	84.1	Ant G	0.571	-51.6	1.126	0.01
Ant B	0.555	84.1	Ant H	0.423	-33.7	0.978	N/A
Ant B	0.555	84.1	Ant I	0.612	-33.5	1.167	0.01
Ant B	0.555	84.1	MIMO	0.281	-54.5	0.836	N/A
Ant C	0.518	58.5	Ant E	0.692	-78.1	1.21	0.01
Ant C	0.518	58.5	Ant F	0.676	-78.7	1.194	0.01
Ant C	0.518	58.5	Ant G	0.571	-51.6	1.089	0.01
Ant C	0.518	58.5	Ant H	0.423	-33.7	0.941	N/A
Ant C	0.518	58.5	Ant I	0.612	-33.5	1.13	0.01
Ant C	0.518	58.5	MIMO	0.281	-54.5	0.799	N/A
Ant D	0.009	66.1	Ant E	0.692	-78.1	0.701	N/A
Ant D	0.009	66.1	Ant F	0.676	-78.7	0.685	N/A
Ant D	0.009	66.1	Ant G	0.571	-51.6	0.58	N/A
Ant D	0.009	66.1	Ant H	0.423	-33.7	0.432	N/A
Ant D	0.009	66.1	Ant I	0.612	-33.5	0.621	N/A
Ant D	0.009	66.1	MIMO	0.281	-54.5	0.29	N/A

Notes:

1. For all combinations where the TER sum of AG0+AG1 is not greater than 1, there's no further analysis required for compliance demonstration.
2. No evaluation was performed to determine the aggregate 1g SAR for these configurations as the SPLS ratio between the antenna pairs was not greater than 0.02 per FCC KDB 447498 D04v01. Please see the Highest Report ER and Hotspot Location Section for Y-axis peak locations

FCC ID A3LSMS948U	RF EXPOSURE PART 1 TEST REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX E: Page 8 of 14

E.8 Phablet (DSI = 0) SAR Antenna Group Analysis

Per FCC KDB Publication 648474 D04 Handset SAR, Phablet SAR tests were not required if wireless router 1g SAR (scaled to the maximum output power, including tolerance) < 1.2 W/kg. Therefore no further analysis beyond the tables included in this section was required to determine that possible simultaneous transmission scenarios would not exceed the SAR limit.

Table E-12
DSI=0 Phablet AG1 Highest Adjusted Ratio to Limit

AG1 Ratio to Limit						
	Configuration	E	G	I	MIMO	Max
Phablet	Back	0.091	0.253	0.087	0.476	0.476
	Front	0.093	0.126	0.226	0.262	0.262
	Top	0.058	0.069	0.002	0.167	0.167
	Bottom	-	-	-	-	-
	Right	0.037	-	0.062	0.042	0.062
	Left	-	0.398	0.002	0.586	0.586

Table E-13
Simultaneous Transmission Scenarios of NFC/UWB/WPT (Phablet)

NFC, UWB, etc.					
	Configuration	UWB	NFC	WPT	UWB + NFC + WPT Ratio to Limit
Phablet	Back	0.000	0.002	0.000	0.002
	Front	0.000	0.000	0.000	0.000
	Top	0.001	0.000	0.000	0.001
	Bottom	0.000	0.000	0.000	0.000
	Right	0.001	0.000	0.000	0.001
	Left	0.000	0.000	0.000	0.000

Note: Please refer to the WPT report (SN: 1M2508250078-33.A3L) for the WPT exposure ratio values.

Table E-14
DSI=0 Phablet AG Verification

	Configuration	AG1 Ratio to Limit	NFC + UWB + WPT Ratio to Limit	AG1 + NFC + UWB + WPT Ratio to Limit
Phablet	Back	0.476	0.002	0.478
	Front	0.262	0.000	0.262
	Top	0.167	0.001	0.168
	Bottom	-	0.000	0.000
	Right	0.062	0.001	0.063
	Left	0.586	0.000	0.586

Notes:

- For all combinations where the TER sum of AG1+UWB+NFC+WPT is not greater than 1, there's no further analysis required for compliance demonstration.

FCC ID A3LSMS948U	RF EXPOSURE PART 1 TEST REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX E: Page 9 of 14

E.9 Power Density Theoretical Calculations

Table E-15
Worst Case PD Theoretical Exposure

PD Antennas - Theoretical Worst Case						
Antenna	Bands	PD Design Target (W/m ²)	PD Uncertainty (dB)	Permanent Back off (dB)	PD Limit (W/m ²)	Theoretical Ratio to Limit
L	n258/n261/n260	7.24	1.4	0.3	10	0.933

Table E-16
DSI = 0 Phablet MG Verification

Phablet	Configuration	MG PD Ratio to Limit	NFC + UWB + WPT Ratio to Limit	MG + NFC + UWB + WPT Ratio to Limit
	Back	0.933	0.002	0.935
	Front	0.933	0.000	0.933
	Top	0.933	0.001	0.934
	Bottom	-	0.000	0.000
	Right	-	0.001	0.001
	Left	0.933	0.000	0.933

Notes:

1. For all combinations where the TER sum of MG+UWB+NFC+WPT is not greater than 1, there's no further analysis required for compliance demonstration.

FCC ID A3LSMS948U	RF EXPOSURE PART 1 TEST REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX E: Page 10 of 14

E.10 Highest Report SAR and SAR Hotspot Locations

As a conservative assessment, the distances between Bottom Set and Top Set were determined using the y-axis coordinates of the peak locations only (assumes 0 mm separation on x/z axis)

Table E-17
DSI=0 Body-worn Back Peak Y Coordinates

Antenna Group	Antenna	Mode/Band	ER	Y-Coord
AG0	A	GSM 850	0.459	70.7
AG1	E	GSM 850	0.606	-81.5
AG0	A	GSM 1900	0.837	82.5
AG0	A	UMTS 850	0.551	75.1
AG1	E	UMTS 850	0.855	-82.2
AG0	A	UMTS 1750	0.841	87.8
AG0	A	UMTS 1900	0.849	81.9
AG0	A	LTE Band 71	0.594	70.5
AG1	E	LTE Band 71	0.622	-85.9
AG0	A	LTE Band 12	0.620	70.1
AG1	E	LTE Band 12	0.782	-86.6
AG0	A	LTE Band 13	0.658	70.8
AG1	E	LTE Band 13	0.564	-85.7
AG0	A	LTE Band 14	0.721	70.8
AG1	E	LTE Band 14	0.577	-87.0
AG0	A	LTE Band 26	0.612	63.5
AG1	E	LTE Band 26	0.725	-85.9
AG0	A	LTE Band 66	0.691	84.8
AG1	F	LTE Band 66	0.509	-78.7
AG0	A	LTE Band 25	0.801	83.9
AG1	F	LTE Band 25	0.467	-79.6
AG0	A	LTE Band 30	0.869	84.1
AG1	F	LTE Band 30	0.756	-80.5
AG0	B	LTE Band 7	0.947	84.3
AG1	F	LTE Band 7	0.893	-78.5
AG0	B	LTE Band 41	0.831	84.3
AG1	F	LTE Band 41	0.939	-78.7
AG1	F	LTE Band 48	0.933	-76.2
AG0	A	NR Band n71	0.463	73.7
AG1	E	NR Band n71	0.632	-84.7
AG0	A	NR Band n12	0.613	74.1
AG1	E	NR Band n12	0.914	-84.9
AG0	A	NR Band n14	0.622	73.3
AG1	E	NR Band n14	0.696	-83.7
AG0	A	NR Band n26	0.623	70.5
AG1	E	NR Band n26	0.766	-83.7
AG0	A	NR Band n70	0.766	82.3
AG1	F	NR Band n70	0.735	-84.0
AG0	A	NR Band n66	0.768	81.5
AG1	F	NR Band n66	0.705	-84.0
AG0	A	NR Band n25	0.493	81.2
AG1	F	NR Band n25	0.625	-84.0
AG0	A	NR Band n30	0.517	77.0
AG1	F	NR Band n30	0.639	-85.4
AG0	B	NR Band n7	0.852	81.6
AG1	F	NR Band n7	0.603	-80.6
AG0	B	NR Band n41	0.897	84.9
AG0	D	NR Band n41	0.718	72.4
AG1	E	NR Band n41	0.470	-77.7
AG1	F	NR Band n41	0.842	-76.9
AG0	C	NR Band n48	0.208	58.6
AG0	D	NR Band n48	0.119	71.1
AG1	F	NR Band n48	0.858	-74.5
AG1	H	NR Band n48	0.449	-36.5
AG0	C	NR Band n77	0.454	57.4
AG0	D	NR Band n77	0.398	72.9
AG1	F	NR Band n77	0.770	-79.0
AG1	H	NR Band n77	0.400	-35.0
AG1	G	2.4 GHz WIFI	0.666	-54.7
AG1	I	2.4 GHz WIFI	0.635	-34.8
AG1	MIMO	2.4 GHz WIFI	0.516	-51.8
AG1	E	5 GHz WIFI	0.680	-62.2
AG1	G	5 GHz WIFI	0.455	-67.0
AG1	MIMO	5 GHz WIFI	0.569	-63.0
AG1	E	6 GHz WIFI	0.318	-64.8
AG1	G	6 GHz WIFI	0.156	-68.2
AG1	MIMO	6 GHz WIFI	0.309	-63.5
AG1	G	2.4 GHz Bluetooth	0.697	-57.5
AG1	I	2.4 GHz Bluetooth	0.642	-34.7
AG1	MIMO	2.4 GHz Bluetooth	0.650	-53.9
N/A	H	UWB	0.001	-92.8

FCC ID A3LSMS948U	RF EXPOSURE PART 1 TEST REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX E: Page 11 of 14

Table E-18
DSI=0 Body-worn Front Peak Y Coordinates

Antenna Group	Antenna	Mode/Band	ER	Y-Coord
AG0	A	GSM 850	0.243	73.2
AG1	E	GSM 850	0.436	-91.9
AG0	A	GSM 1900	0.609	90.2
AG0	A	UMTS 850	0.264	76.6
AG1	E	UMTS 850	0.588	-88.3
AG0	A	UMTS 1750	0.612	88.5
AG0	A	UMTS 1900	0.738	85.8
AG0	A	LTE Band 71	0.299	71.1
AG1	E	LTE Band 71	0.467	-88.1
AG0	A	LTE Band 12	0.336	70.2
AG1	E	LTE Band 12	0.692	-88.4
AG0	A	LTE Band 13	0.329	71.2
AG1	E	LTE Band 13	0.532	-88.5
AG0	A	LTE Band 14	0.349	71.2
AG1	E	LTE Band 14	0.478	-87.7
AG0	A	LTE Band 26	0.329	69.1
AG1	E	LTE Band 26	0.588	-87.8
AG0	A	LTE Band 66	0.768	88.9
AG1	F	LTE Band 66	0.480	-83.3
AG0	A	LTE Band 25	0.775	87.8
AG1	F	LTE Band 25	0.457	-82.5
AG0	A	LTE Band 30	0.852	88.4
AG1	F	LTE Band 30	0.676	-81.8
AG0	B	LTE Band 7	0.555	84.9
AG1	F	LTE Band 7	0.561	-78.7
AG0	B	LTE Band 41	0.444	85.0
AG1	F	LTE Band 41	0.654	-81.8
AG1	F	LTE Band 48	0.303	-81.8
AG0	A	NR Band n71	0.222	70.2
AG1	E	NR Band n71	0.395	-87.6
AG0	A	NR Band n12	0.313	69.0
AG1	E	NR Band n12	0.591	-85.9
AG0	A	NR Band n14	0.332	71.2
AG1	E	NR Band n14	0.453	-85.2
AG0	A	NR Band n26	0.311	68.1
AG1	E	NR Band n26	0.508	-85.2
AG0	A	NR Band n70	0.688	86.7
AG1	F	NR Band n70	0.478	-85.9
AG0	A	NR Band n66	0.683	86.7
AG1	F	NR Band n66	0.442	-85.9
AG0	A	NR Band n25	0.497	85.5
AG1	F	NR Band n25	0.385	-85.1
AG0	A	NR Band n30	0.706	76.0
AG1	F	NR Band n30	0.519	-87.5
AG0	B	NR Band n7	0.478	84.1
AG1	F	NR Band n7	0.415	-82.0
AG0	B	NR Band n41	0.465	84.1
AG0	D	NR Band n41	0.009	66.1
AG1	E	NR Band n41	0.279	-81.7
AG1	F	NR Band n41	0.528	-82.4
AG0	C	NR Band n48	0.159	59.6
AG0	D	NR Band n48	0.000	95.5
AG1	F	NR Band n48	0.348	-79.6
AG1	H	NR Band n48	0.396	-33.7
AG0	C	NR Band n77	0.518	58.5
AG0	D	NR Band n77	0.004	75.1
AG1	F	NR Band n77	0.309	-90.5
AG1	H	NR Band n77	0.423	-39.1
AG1	G	2.4 GHz WIFI	0.571	-51.6
AG1	I	2.4 GHz WIFI	0.612	-33.5
AG1	MIMO	2.4 GHz WIFI	0.281	-54.5
AG1	E	5 GHz WIFI	0.153	-77.7
AG1	G	5 GHz WIFI	0.151	-66.9
AG1	MIMO	5 GHz WIFI	0.169	-64.5
AG1	E	6 GHz WIFI	0.043	-77.2
AG1	G	6 GHz WIFI	0.079	-62.4
AG1	MIMO	6 GHz WIFI	0.084	-69.5
AG1	G	2.4 GHz Bluetooth	0.362	-52.3
AG1	I	2.4 GHz Bluetooth	0.591	-33.7
AG1	MIMO	2.4 GHz Bluetooth	0.311	-78.0
N/A	H	UWB	0.001	-97.5

FCC ID A3LSMS948U	RF EXPOSURE PART 1 TEST REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX E: Page 12 of 14

Table E-19
DSI=0 Hotspot Back Side Peak Y Coordinates

Antenna Group	Antenna	Mode/Band	ER	Y-Coord
AG0	A	GSM 850	0.459	70.7
AG1	E	GSM 850	0.606	-81.5
AG0	A	GSM 1900	0.837	82.5
AG0	A	UMTS 850	0.551	75.1
AG1	E	UMTS 850	0.855	-82.2
AG0	A	UMTS 1750	0.841	87.8
AG0	A	UMTS 1900	0.849	81.9
AG0	A	LTE Band 71	0.594	70.5
AG1	E	LTE Band 71	0.622	-85.9
AG0	A	LTE Band 12	0.620	70.1
AG1	E	LTE Band 12	0.782	-86.6
AG0	A	LTE Band 13	0.658	70.8
AG1	E	LTE Band 13	0.564	-85.7
AG0	A	LTE Band 14	0.721	70.8
AG1	E	LTE Band 14	0.577	-87.0
AG0	A	LTE Band 26	0.612	63.5
AG1	E	LTE Band 26	0.725	-85.9
AG0	A	LTE Band 66	0.691	84.8
AG1	F	LTE Band 66	0.509	-78.7
AG0	A	LTE Band 25	0.801	83.9
AG1	F	LTE Band 25	0.467	-79.6
AG0	A	LTE Band 30	0.869	84.1
AG1	F	LTE Band 30	0.756	-80.5
AG0	B	LTE Band 7	0.947	84.3
AG1	F	LTE Band 7	0.893	-78.5
AG0	B	LTE Band 41	0.831	84.3
AG1	F	LTE Band 41	0.939	-78.7
AG1	F	LTE Band 48	0.933	-76.2
AG0	A	NR Band n71	0.463	73.7
AG1	E	NR Band n71	0.632	-84.7
AG0	A	NR Band n12	0.613	74.1
AG1	E	NR Band n12	0.914	-84.9
AG0	A	NR Band n14	0.622	73.3
AG1	E	NR Band n14	0.696	-83.7
AG0	A	NR Band n26	0.623	70.5
AG1	E	NR Band n26	0.766	-83.7
AG0	A	NR Band n70	0.766	82.3
AG1	F	NR Band n70	0.735	-84.0
AG0	A	NR Band n66	0.768	81.5
AG1	F	NR Band n66	0.705	-84.0
AG0	A	NR Band n25	0.493	81.2
AG1	F	NR Band n25	0.625	-84.0
AG0	A	NR Band n30	0.517	77.0
AG1	F	NR Band n30	0.639	-85.4
AG0	B	NR Band n7	0.852	81.6
AG1	F	NR Band n7	0.603	-80.6
AG0	B	NR Band n41	0.897	84.9
AG0	D	NR Band n41	0.718	72.4
AG1	E	NR Band n41	0.470	-77.7
AG1	F	NR Band n41	0.842	-76.9
AG0	C	NR Band n48	0.208	58.6
AG0	D	NR Band n48	0.119	71.1
AG1	F	NR Band n48	0.858	-74.5
AG1	H	NR Band n48	0.449	-36.5
AG0	C	NR Band n77	0.454	57.4
AG0	D	NR Band n77	0.398	72.9
AG1	F	NR Band n77	0.770	-79.0
AG1	H	NR Band n77	0.400	-35.0
AG1	G	2.4 GHz WIFI	0.666	-54.7
AG1	I	2.4 GHz WIFI	0.635	-34.8
AG1	MIMO	2.4 GHz WIFI	0.516	-51.8
AG1	E	5 GHz WIFI	0.383	-63.5
AG1	G	5 GHz WIFI	0.409	-64.5
AG1	MIMO	5 GHz WIFI	0.466	-62.5
AG1	E	6 GHz WIFI	0.318	-64.8
AG1	G	6 GHz WIFI	0.156	-68.2
AG1	MIMO	6 GHz WIFI	0.309	-63.5
AG1	G	2.4 GHz Bluetooth	0.697	-57.5

FCC ID A3LSMS948U	RF EXPOSURE PART 1 TEST REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX E: Page 13 of 14

Table E-20
DSI=0 Hotspot Front Side Peak Y Coordinates

Antenna Group	Antenna	Mode/Band	ER	Y-Coord
AG0	A	GSM 850	0.243	73.2
AG1	E	GSM 850	0.436	-91.9
AG0	A	GSM 1900	0.609	90.2
AG0	A	UMTS 850	0.264	76.6
AG1	E	UMTS 850	0.588	-88.3
AG0	A	UMTS 1750	0.612	88.5
AG0	A	UMTS 1900	0.738	85.8
AG0	A	LTE Band 71	0.299	71.1
AG1	E	LTE Band 71	0.467	-88.1
AG0	A	LTE Band 12	0.336	70.2
AG1	E	LTE Band 12	0.692	-88.4
AG0	A	LTE Band 13	0.329	71.2
AG1	E	LTE Band 13	0.532	-88.5
AG0	A	LTE Band 14	0.349	71.2
AG1	E	LTE Band 14	0.478	-87.7
AG0	A	LTE Band 26	0.329	69.1
AG1	E	LTE Band 26	0.588	-87.8
AG0	A	LTE Band 66	0.768	88.9
AG1	F	LTE Band 66	0.480	-83.3
AG0	A	LTE Band 25	0.775	87.8
AG1	F	LTE Band 25	0.457	-82.5
AG0	A	LTE Band 30	0.852	88.4
AG1	F	LTE Band 30	0.676	-81.8
AG0	B	LTE Band 7	0.555	84.9
AG1	F	LTE Band 7	0.561	-78.7
AG0	B	LTE Band 41	0.444	85.0
AG1	F	LTE Band 41	0.654	-81.8
AG1	F	LTE Band 48	0.303	-81.8
AG0	A	NR Band n71	0.222	70.2
AG1	E	NR Band n71	0.395	-87.6
AG0	A	NR Band n12	0.313	69.0
AG1	E	NR Band n12	0.591	-85.9
AG0	A	NR Band n14	0.332	71.2
AG1	E	NR Band n14	0.453	-85.2
AG0	A	NR Band n26	0.311	68.1
AG1	E	NR Band n26	0.508	-85.2
AG0	A	NR Band n70	0.688	86.7
AG1	F	NR Band n70	0.478	-85.9
AG0	A	NR Band n66	0.683	86.7
AG1	F	NR Band n66	0.442	-85.9
AG0	A	NR Band n25	0.497	85.5
AG1	F	NR Band n25	0.385	-85.1
AG0	A	NR Band n30	0.706	76.0
AG1	F	NR Band n30	0.519	-87.5
AG0	B	NR Band n7	0.478	84.1
AG1	F	NR Band n7	0.415	-82.0
AG0	B	NR Band n41	0.465	84.1
AG0	D	NR Band n41	0.009	66.1
AG1	E	NR Band n41	0.279	-81.7
AG1	F	NR Band n41	0.528	-82.4
AG0	C	NR Band n48	0.159	59.6
AG0	D	NR Band n48	0.000	95.5
AG1	F	NR Band n48	0.348	-79.6
AG1	H	NR Band n48	0.396	-33.7
AG0	C	NR Band n77	0.518	58.5
AG0	D	NR Band n77	0.004	75.1
AG1	F	NR Band n77	0.309	-90.5
AG1	H	NR Band n77	0.423	-39.1
AG1	G	2.4 GHz WIFI	0.571	-51.6
AG1	I	2.4 GHz WIFI	0.612	-33.5
AG1	MIMO	2.4 GHz WIFI	0.281	-54.5
AG1	E	5 GHz WIFI	0.128	-78.1
AG1	G	5 GHz WIFI	0.151	-66.9
AG1	MIMO	5 GHz WIFI	0.199	-72.6
AG1	E	6 GHz WIFI	0.043	-77.2
AG1	G	6 GHz WIFI	0.079	-62.4
AG1	MIMO	6 GHz WIFI	0.084	-69.5
AG1	G	2.4 GHz Bluetooth	0.362	-52.3

E.11 Conclusion

The above numerical summed TER results and SPLSR for all the combinations of antenna groups are sufficient to show that AG0 is mutually exclusive from AG1 and that MG TER is <1. TER simultaneous transmission cases will not exceed the SAR limit or PD limit and therefore no measured volumetric simultaneous SAR summation is required per FCC KDB Publication 447498 D04v01 and IEEE 1528- 2013 Section 6.3.4.1.

FCC ID A3LSMS948U	RF EXPOSURE PART 1 TEST REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX E: Page 14 of 14

APPENDIX F: POWER REDUCTION VERIFICATION

Per the May 2017 TCBC Workshop Notes, demonstration of proper functioning of the power reduction mechanisms is required to support the corresponding SAR configurations. The verification process included the evaluation of output power levels or device state indices for individual or multiple triggering mechanisms.

F.1 Power Verification Procedure

The power verification was performed according to the following procedure:

1. A base station simulator was used to establish a conducted RF connection and the output power was monitored for all states before and after a power reduction mechanism was triggered.
2. Step 1 was repeated for all relevant modes and frequency bands for the mechanism being investigated.
3. Steps 1 and 2 were repeated for all individual power reduction mechanisms. The device state index as displayed on the device UI was recorded before and after the mechanism was triggered.

FCC ID A3LSMS948U	RF EXPOSURE PART 1 TEST REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX F: Page 1 of 2

F.2 Main Antenna Verification Summary

- Low band refers to: GSM850, UMTS B5, LTE B12/13/14/26/5/71, NR n71/12/14/26/5; Mid band refers to: GSM1900, UMTS B2/4, LTE B2/4/25/66, NR n66/70/25/2; High band refers to: LTE B7/30/38/41, NR n30/7/38/41; Ultra High band refers to: LTE B48, NR n48/77/78.
- This device uses different Device State Indices (DSI) to configure different time averaged power levels based on certain exposure scenarios. For this device, DSI = 1 represents the case where the device is held-to-ear. DSI = 0 is configured when the device cannot detect the held-to-ear use conditions.

Table F-1
Power Measurement Verification for WWAN Antennas

Mode/Band	Device State Index (DSI)	
	Free Space	Mechanism #1 (Head)
Low Band Ant E	0	1
Mid Band Ant A	0	1
Mid Band Ant F	0	1
High Band Ant A	0	1
High Band Ant B	0	1
High Band Ant F	0	1
Ultra High Band ULMIMO	0	1
Ultra High Band Ant F	0	1

F.3 WIFI Verification Summary

Table F-2
Power Measurement Verification WIFI

Mode/Band	Device State Index (DSI)	
	Un-triggered	Mechanism #1 (Head)
2.4 GHz WLAN Ant G	0	1
2.4 GHz WLAN Ant I	0	1
5 GHz WLAN Ant G	0	1
5 GHz WLAN Ant E	0	1
6 GHz WLAN Ant G	0	1
6 GHz WLAN Ant E	0	1

*Note: MIMO WIFI modes were not evaluated due to equipment limitations.

FCC ID A3LSMS948U	RF EXPOSURE PART 1 TEST REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX F: Page 2 of 2

APPENDIX G: SAR SYSTEM VALIDATION

Per FCC KDB Publication 865664 D02v01r02, SAR system validation status should be documented to confirm measurement accuracy. The SAR systems (including SAR probes, system components and software versions) used for this device were validated against its performance specifications prior to the SAR measurements. Reference dipoles were used with the required tissue- equivalent media for system validation, according to the procedures outlined in FCC KDB Publication 865664 D01v01r04 and IEEE 1528-2013. Since SAR probe calibrations are frequency dependent, each probe calibration point was validated at a frequency within the valid frequency range of the probe calibration point, using the system that normally operates with the probe for routine SAR measurements and according to the required tissue-equivalent media.

A tabulated summary of the system validation status including the validation date(s), measurement frequencies, SAR probes and tissue dielectric parameters has been included.

Table G-1
SAR System Validation Summary

SAR System	Freq. (MHz)	Date	Probe SN	DAE	Probe Cal Point		Cond. (σ)	Perm. (ε _r)	CW VALIDATION			MOD. VALIDATION		
									SENSITIVITY	PROBE LINEARITY	PROBE ISOTROPY	MOD. TYPE	DUTY FACTOR	PAR
G	13	05/06/2025	7539	1415	13	Head	0.718	53.401	PASS	PASS	PASS	N/A	N/A	N/A
G	750	06/04/2025	7488	1415	750	Head	0.870	40.461	PASS	PASS	PASS	N/A	N/A	N/A
O	750	07/23/2025	7718	1407	750	Head	0.883	42.967	PASS	PASS	PASS	N/A	N/A	N/A
S	750	07/31/2025	7661	1558	750	Head	0.866	43.376	PASS	PASS	PASS	N/A	N/A	N/A
L	835	05/01/2025	7659	1272	835	Head	0.920	40.468	PASS	PASS	PASS	GMSK	PASS	N/A
G	835	06/04/2025	7488	1415	835	Head	0.898	40.223	PASS	PASS	PASS	GMSK	PASS	N/A
O	835	07/23/2025	7718	1407	835	Head	0.916	42.748	PASS	PASS	PASS	GMSK	PASS	N/A
S	835	07/31/2025	7661	1558	835	Head	0.895	43.120	PASS	PASS	PASS	GMSK	PASS	N/A
N	1750	02/05/2025	7410	1213	1750	Head	1.340	38.895	PASS	PASS	PASS	N/A	N/A	N/A
L	1750	06/02/2025	7659	1272	1750	Head	1.341	39.242	PASS	PASS	PASS	N/A	N/A	N/A
M	1750	08/20/2025	7713	1530	1750	Head	1.348	39.305	PASS	PASS	PASS	N/A	N/A	N/A
N	1900	01/23/2025	7410	1213	1900	Head	1.467	39.470	PASS	PASS	PASS	GMSK	PASS	N/A
L	1900	06/02/2025	7659	1272	1900	Head	1.341	39.242	PASS	PASS	PASS	GMSK	PASS	N/A
M	1900	08/20/2025	7713	1530	1900	Head	1.432	39.046	PASS	PASS	PASS	GMSK	PASS	N/A
Q	2300	08/19/2025	3914	1639	2300	Head	0.868	40.614	PASS	PASS	PASS	N/A	N/A	N/A
S3	2300	09/04/2025	7640	1645	2300	Head	1.692	41.227	PASS	PASS	PASS	N/A	N/A	N/A
S	2450	07/31/2025	7661	1558	2450	Head	1.806	40.546	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
S3	2450	09/05/2025	7640	1645	2450	Head	1.784	40.207	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
S5	2450	09/09/2025	7565	1466	2450	Head	1.794	38.730	PASS	PASS	PASS	OFDM/TDD	PASS	PASS
S	2600	07/31/2025	7661	1558	2600	Head	1.921	40.293	PASS	PASS	PASS	TDD	PASS	N/A
S3	2600	09/08/2025	7640	1645	2600	Head	1.917	40.388	PASS	PASS	PASS	TDD	PASS	N/A
S2	3500	09/08/2025	7402	1502	3500	Head	2.793	39.650	PASS	PASS	PASS	TDD	PASS	N/A
J	3500	09/12/2025	7660	1678	3500	Head	2.785	38.330	PASS	PASS	PASS	TDD	PASS	N/A
S2	3700	09/08/2025	7402	1502	3700	Head	2.996	39.144	PASS	PASS	PASS	TDD	PASS	N/A
J	3700	09/12/2025	7660	1678	3700	Head	2.980	37.992	PASS	PASS	PASS	TDD	PASS	N/A
J	3900	09/12/2025	7660	1678	3900	Head	3.169	37.699	PASS	PASS	PASS	TDD	PASS	N/A
S1	5250	09/04/2025	7637	1652	5250	Head	4.507	34.843	PASS	PASS	PASS	OFDM	N/A	PASS
S5	5250	09/22/2025	7546	1368	5250	Head	4.588	36.094	PASS	PASS	PASS	OFDM	N/A	PASS
S1	5600	09/04/2025	7637	1652	5600	Head	4.894	34.133	PASS	PASS	PASS	OFDM	N/A	PASS
S5	5600	09/22/2025	7546	1368	5600	Head	4.588	36.094	PASS	PASS	PASS	OFDM	N/A	PASS
S1	5750	09/05/2025	7637	1652	5750	Head	5.199	34.208	PASS	PASS	PASS	OFDM	N/A	PASS
S5	5750	09/22/2025	7546	1368	5750	Head	5.228	35.078	PASS	PASS	PASS	OFDM	N/A	PASS
S1	5850	09/05/2025	7637	1652	5850	Head	5.313	33.912	PASS	PASS	PASS	OFDM	N/A	PASS
S5	5850	09/22/2025	7546	1368	5850	Head	5.267	34.966	PASS	PASS	PASS	OFDM	N/A	PASS
R	6500	02/27/2025	7570	1638	6500	Head	5.868	34.355	PASS	PASS	PASS	OFDM	N/A	PASS
R	8000	03/29/2025	7570	1638	8000	Head	7.384	31.711	PASS	PASS	PASS	N/A	N/A	N/A

NOTE: The probes have been calibrated for both CW and modulated signals. Modulations in the table above represent test configurations for which the measurement system has been validated per FCC KDB Publication 865664 D01v01r04 for scenarios when CW probe calibrations are used with other signal types. SAR systems were validated for modulated signals with a periodic duty cycle, such as GMSK, or with a high peak to average ratio (>5 dB), such as OFDM according to FCC KDB Publication 865664 D01v01r04.

FCC ID: A3LSMS948U	RF EXPOSURE PART 1 TEST REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX G: Page 1 of 1

APPENDIX I: RU SAR EXCLUSION

I.1 IEEE 802.11ax/be RU SAR Exclusion

To make the most efficient use of the additional available subcarriers (data tones), IEEE 802.11ax/be can utilize Orthogonal Frequency-Division Multiple Access (OFDMA) which divides the existing 802.11 channels into smaller subchannels called Resource Units (RUs). Possible RU sizes are: 26T, 52T, 52T+26T, 106T, 106T+26T, 242T, 484T, 484T+242T, 996T, 996T+484T, 996T+484T+242T, 996T*2, and for WIFI 6E additionally 996T*2+484T, 996T*3, 996T*3+484T, 996T*4.

Per FCC Guidance, 802.11ax/be was considered a higher order 802.11 mode when compared to a/b/g/n/ac to apply KDB Publication 248227 D01v02r02 for OFDM mode selection. Therefore, SAR tests were not required for 802.11ax/be based on the maximum allowed output powers of OFDM modes and the reported SAR values. Per FCC Guidance, maximum conducted powers were performed for each RU size to demonstrate that the output powers would not be higher than the other OFDM 802.11 modes. Please refer to 1M2508250078-17, 19, 21, 25 for IEEE 802.11ax/be RU powers.

I.2 IEEE 802.11ax/be RU Target Powers

I.2.1 2.4 GHz WLAN 802.11ax/be RU WLAN Output Power

The below table is applicable in the following conditions:

- Pmax
- DSI=0 (Body-worn, Hotspot or Phablet)

Band		IEEE 802.11ax/be RU (in dBm)											
		SISO Ant G (in dBm)				SISO Ant I (in dBm)				Antenna G & Antenna I in MIMO			
		26T	52T, 52T + 26T	106T, 106T + 26T	242T	26T	52T, 52T + 26T	106T, 106T + 26T	242T	26T	52T, 52T + 26T	106T, 106T + 26T	242T
2.45 GHz	Maximum	14	15	17	18	14	15	17	18	14	15	17	18
					ch. 1: 15.5 ch. 11: 17.0				ch. 1: 15.5 ch. 11: 17.0				ch. 1: 15.5 ch. 11: 17.0
	Nominal	13	14	16	17	13	14	16	17	13	14	16	17
					ch. 1: 14.5 ch. 11: 16.0				ch. 1: 14.5 ch. 11: 16.0				ch. 1: 14.5 ch. 11: 16.0

The below table is applicable in the following conditions:

- DSI=1 (Head)

Band		IEEE 802.11ax/be RU (in dBm)											
		SISO Ant G (in dBm)				SISO Ant I (in dBm)				Antenna G & Antenna I in MIMO			
		26T	52T, 52T + 26T	106T, 106T + 26T	242T	26T	52T, 52T + 26T	106T, 106T + 26T	242T	26T	52T, 52T + 26T	106T, 106T + 26T	242T
2.45 GHz	Maximum	14	15	16	16	14	15	16	16	14	15	16	16
					ch. 1: 15.5				ch. 1: 15.5				ch. 1: 15.5
	Nominal	13	14	15	15	13	14	15	15	13	14	15	15
					ch. 1: 14.5				ch. 1: 14.5				ch. 1: 14.5

FCC ID A3LSMS948U	RF EXPOSURE PART 1 TEST REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX I: Page 1 of 3

I.2.2 5 GHz WLAN 802.11ax/be RU WLAN Output Power

The below table is applicable in the following conditions:

- P_{max}

[illegible]

The below table is applicable in the following conditions:

- DSI=1 (Head)

Mode	Band	IEEE 802.11ax/aE RU (in dBm)																			
		SSB										SSB									
		Antenna G										Antenna E									
		20T	8T, 5T + 20T	10T, 10T + 20T	24T	484T, 484T + 24T	994T, 994T + 484T 994T + 484T + 24T	994T*2, 994T*2 + 484T, 994T*2 + 484T + 24T	20T	8T, 5T + 20T	10T, 10T + 20T	24T	484T, 484T + 24T	994T, 994T + 484T 994T + 484T + 24T	994T*2, 994T*2 + 484T, 994T*2 + 484T + 24T	20T	8T, 5T + 20T	10T, 10T + 20T	24T	484T, 484T + 24T	994T, 994T + 484T 994T + 484T + 24T
Antenna G & Antenna E in MIMO																					
5 GHz Wi-Fi (20MHz BW)	UN1-1	10.0	12.5	15.0	18.0			10.0	12.5	15.0	18.0				10.0	12.5	15.0	18.0			
	UN1-2A	10.0	12.5	15.0	18.0			10.0	12.5	15.0	18.0				10.0	12.5	15.0	18.0			
	UN1-20	10.0	12.5	15.0	18.0			10.0	12.5	15.0	18.0				10.0	12.5	15.0	18.0			
	UN1-2	10.0	12.5	15.0	18.0			10.0	12.5	15.0	18.0				10.0	12.5	15.0	18.0			
	UN1-3A	9.0	11.5	14.0	16.0			9.0	11.5	14.0	16.0				9.0	11.5	14.0	16.0			
	UN1-3	9.0	11.5	14.0	16.0			9.0	11.5	14.0	16.0				9.0	11.5	14.0	16.0			
5 GHz Wi-Fi (40MHz BW)	UN1-1	10.0	12.5	15.0	18.0	18.0		10.0	12.5	15.0	18.0	18.0	15.0		10.0	12.5	15.0	18.0	18.0	15.0	
	UN1-2A	10.0	12.5	15.0	18.0	18.0		10.0	12.5	15.0	18.0	18.0	15.0		10.0	12.5	15.0	18.0	18.0	15.0	
	UN1-20	10.0	12.5	15.0	18.0	18.0		10.0	12.5	15.0	18.0	18.0	15.0		10.0	12.5	15.0	18.0	18.0	15.0	
	UN1-2	10.0	12.5	15.0	18.0	18.0		10.0	12.5	15.0	18.0	18.0	15.0		10.0	12.5	15.0	18.0	18.0	15.0	
	UN1-3A	9.0	11.5	14.0	16.0	15.0		9.0	11.5	14.0	16.0	15.0	15.0		9.0	11.5	14.0	16.0	15.0	15.0	
	UN1-3	9.0	11.5	14.0	16.0	15.0		9.0	11.5	14.0	16.0	15.0	15.0		9.0	11.5	14.0	16.0	15.0	15.0	
5 GHz Wi-Fi (80MHz BW)	UN1-1	10.0	12.5	15.0	18.0	15.0	15.0	10.0	12.5	15.0	18.0	18.0	15.0	15.0	10.0	12.5	15.0	18.0	18.0	15.0	15.0
	UN1-2A	10.0	12.5	15.0	18.0	18.0	18.0	10.0	12.5	15.0	18.0	18.0	15.0	15.0	10.0	12.5	15.0	18.0	18.0	15.0	15.0
	UN1-20	10.0	12.5	15.0	18.0	18.0	18.0	10.0	12.5	15.0	18.0	18.0	15.0	15.0	10.0	12.5	15.0	18.0	18.0	15.0	15.0
	UN1-2	10.0	12.5	15.0	18.0	18.0	18.0	10.0	12.5	15.0	18.0	18.0	15.0	15.0	10.0	12.5	15.0	18.0	18.0	15.0	15.0
	UN1-3A	9.0	11.5	14.0	16.0	15.0	15.0	10.0	12.5	15.0	18.0	18.0	15.0	15.0	10.0	12.5	15.0	18.0	18.0	15.0	15.0
	UN1-3	9.0	11.5	14.0	16.0	15.0	15.0	10.0	12.5	15.0	18.0	18.0	15.0	15.0	10.0	12.5	15.0	18.0	18.0	15.0	15.0
5 GHz Wi-Fi (160MHz BW)	UN1-1	10.0	12.5	15.0	18.0	15.0	15.0	10.0	12.5	15.0	18.0	18.0	15.0	15.0	10.0	12.5	15.0	18.0	18.0	15.0	15.0
	UN1-2A	10.0	12.5	15.0	18.0	18.0	18.0	10.0	12.5	15.0	18.0	18.0	15.0	15.0	10.0	12.5	15.0	18.0	18.0	15.0	15.0
	UN1-20	10.0	12.5	15.0	18.0	18.0	18.0	10.0	12.5	15.0	18.0	18.0	15.0	15.0	10.0	12.5	15.0	18.0	18.0	15.0	15.0
	UN1-2	10.0	12.5	15.0	18.0	18.0	18.0	10.0	12.5	15.0	18.0	18.0	15.0	15.0	10.0	12.5	15.0	18.0	18.0	15.0	15.0
	UN1-3A	9.0	11.5	14.0	16.0	15.0	15.0	10.0	12.5	15.0	18.0	18.0	15.0	15.0	10.0	12.5	15.0	18.0	18.0	15.0	15.0
	UN1-3	9.0	11.5	14.0	16.0	15.0	15.0	10.0	12.5	15.0	18.0	18.0	15.0	15.0	10.0	12.5	15.0	18.0	18.0	15.0	15.0

The below table is applicable in the following conditions:

- DSI=0 (Body-worn, Hotspot or Phablet)

Mode	Band	IEEE Std. 14a.4a (in dBm)															
		Antenna G								Antenna E							
		SISO								MIMO							
		Antenna G								Antenna E and Antenna E in MIMO							
		26T	52T, 52T + 26T	104T, 104T + 26T	142T	484T, 484T + 242T	967T, 967T + 484T	1934T, 1934T + 967T	2897T, 2897T + 1934T	26T	52T, 52T + 26T	104T, 104T + 26T	142T	484T, 484T + 242T	967T, 967T + 484T	1934T, 1934T + 967T	2897T, 2897T + 1934T
1 GHz WPT (d0A-BV)	USB-120G24-34	Mean/10	10.0	12.5	14.0	14.0	14.0	14.0	14.0	10.0	10.0	12.5	14.0	14.0	14.0	14.0	14.0
	USB-120G24-34	Normal	8.0	11.0	13.0	13.0	13.0	13.0	13.0	8.0	8.0	11.0	13.0	13.0	13.0	13.0	13.0
1 GHz WPT (d0A-BV)	USB-120G24-34	Mean/10	10.0	12.5	14.0	14.0	14.0	14.0	14.0	10.0	10.0	12.5	14.0	14.0	14.0	14.0	14.0
	USB-120G24-34	Normal	8.0	11.0	13.0	13.0	13.0	13.0	13.0	8.0	8.0	11.0	13.0	13.0	13.0	13.0	13.0
1 GHz WPT (d0A-BV)	USB-120G24-34	Mean/10	10.0	12.5	14.0	14.0	14.0	14.0	14.0	10.0	10.0	12.5	14.0	14.0	14.0	14.0	14.0
	USB-120G24-34	Normal	8.0	11.0	13.0	13.0	13.0	13.0	13.0	8.0	8.0	11.0	13.0	13.0	13.0	13.0	13.0
1 GHz WPT (d0A-BV)	USB-120G24-34	Mean/10	10.0	12.5	14.0	14.0	14.0	14.0	14.0	10.0	10.0	12.5	14.0	14.0	14.0	14.0	14.0
	USB-120G24-34	Normal	8.0	11.0	13.0	13.0	13.0	13.0	13.0	8.0	8.0	11.0	13.0	13.0	13.0	13.0	13.0
1 GHz WPT (d0A-BV)	USB-120G24-34	Mean/10	10.0	12.5	14.0	14.0	14.0	14.0	14.0	10.0	10.0	12.5	14.0	14.0	14.0	14.0	14.0
	USB-120G24-34	Normal	8.0	11.0	13.0	13.0	13.0	13.0	13.0	8.0	8.0	11.0	13.0	13.0	13.0	13.0	13.0

FCC ID A3LSMS948U	RF EXPOSURE PART 1 TEST REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX I: Page 2 of 3

I.2.3 6 GHz WLAN Maximum 802.11ax/be RU WLAN Output Power

The below table is applicable in the following conditions:

- P_{max}

Region		2019												2020												2021											
		Q1				Q2				Q3				Q4				Q1				Q2				Q3				Q4							
Region	Period	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Region A	2019-01-01	10	12	15	18	20	22	25	28	30	32	35	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98
	2019-02-01	12	15	18	20	22	25	28	30	32	35	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98	
	2019-03-01	15	18	20	22	25	28	30	32	35	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98		
	2019-04-01	18	20	22	25	28	30	32	35	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98			
	2019-05-01	20	22	25	28	30	32	35	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98				
Region B	2019-01-01	15	18	20	22	25	28	30	32	35	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98		
	2019-02-01	18	20	22	25	28	30	32	35	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98			
	2019-03-01	20	22	25	28	30	32	35	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98				
	2019-04-01	22	25	28	30	32	35	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98					
	2019-05-01	25	28	30	32	35	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98						
Region C	2019-01-01	20	22	25	28	30	32	35	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98				
	2019-02-01	22	25	28	30	32	35	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98					
	2019-03-01	25	28	30	32	35	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98						
	2019-04-01	28	30	32	35	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98							
	2019-05-01	30	32	35	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98								
Region D	2019-01-01	25	28	30	32	35	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98						
	2019-02-01	28	30	32	35	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98							
	2019-03-01	30	32	35	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98								
	2019-04-01	32	35	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98									
	2019-05-01	35	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98										
Region E	2019-01-01	30	32	35	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98								
	2019-02-01	32	35	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98									
	2019-03-01	35	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98										
	2019-04-01	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98											
	2019-05-01	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98												
Region F	2019-01-01	35	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98										
	2019-02-01	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98											
	2019-03-01	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98												
	2019-04-01	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98													
	2019-05-01	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98														
Region G	2019-01-01	40	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98												
	2019-02-01	42	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98													
	2019-03-01	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98														
	2019-04-01	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98															
	2019-05-01	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98																
Region H	2019-01-01	45	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98														
	2019-02-01	48	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98															
	2019-03-01	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98																
	2019-04-01	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98																	
	2019-05-01	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98																		
Region I	2019-01-01	50	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98																
	2019-02-01	52	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98																	
	2019-03-01	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98																		
	2019-04-01	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98																			
	2019-05-01	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98																				
Region J	2019-01-01	55	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98																		
	2019-02-01	58	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98																			
	2019-03-01	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98																				
	2019-04-01	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98																					
	2019-05-01	65	68	70	72	75	78	80	82	85	88	90	92	95	98																						
Region K	2019-01-01	60	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98																				
	2019-02-01	62	65	68	70	72	75	78	80	82	85	88	90	92	95	98																					
	2019-03-01	65	68	70	72	75	78	80	82	85	88	90	92	95	98																						
	2019-04-01	68	70	72	75	78	80	82	85	88	90	92	95	98																							
	2019-05-01	70	72	75	78	80	82	85	88	90	92	95	98																								
Region L	2019-01-01	65	68	70	72	75	78	80	82	85	88	90	92	95	98																						
	2019-02-01	68	70	72	75	78	80	82	85	88	90	92	95	98																							
	2019-03-01	70	72	75	78	80	82	85	88	90	92	95	98																								
	2019-04-01	72	75	78	80	82	85	88	90	92	95	98																									
	2019-05-01	75	78	80	82	85	88	90	92	95	98																										
Region M	2019-01-01	70	72	75	78	80	82	85	88	90	92	95	98																								
	2019-02-01	72	75	78	80	82	85	88	90	92	95	98																									
	2019-03-01	75	78	80	82	85	88	90	92	95	98																										
	2019-04-01	78	80	82	85	88	90	92	95	98																											
	2019-05-01	80	82	85	88	90	92	95	98																												
Region N	2019-01-01	75	78	80	82	85	88	90	92	95	98																										
	2019-02-01	78	80	82	85	88	90	92	95	98																											
	2019-03-01	80	82	85	88	90	92	95	98																												
	2019-04-01	82	85	88	90	92	95	98																													
	2019-05-01	85	88	90	92	95	98																														
Region O	2019-01-01	80	82	85	88	90	92	95	98																												
	2019-02-01	82	85	88	90	92	95	98																													
	2019-03-01	85	88	90	92	95	98																														
	2019-04-01	88	90	92</																																	

The below table is applicable in the following conditions:

- DSI=0 (Body-worn or Phablet)

Area	Risk	2019																														2020																														2021																														2022																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
		Q1						Q2						Q3						Q4						Q1						Q2						Q3						Q4						Q1						Q2						Q3						Q4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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The below table is applicable in the following conditions:

- DSI=1 (Head)

[illegible]

FCC ID A3LSMS948U	RF EXPOSURE PART 1 TEST REPORT	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX I: Page 3 of 3