

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. 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.

MediaTek TAS (TA-SAR/TA-PD) current implementation assumes hotspots from sub6 (UMTS/LTE/5G NR FR1) radios and 5G NR FR2. Therefore, for a total of 100% exposure margin, if sub6 radios uses x , then the exposure margin left for 5G NR FR2 is capped to y . Thus, the compliance equation for sub6 + 5G NR FR2 + WLAN + BT is

$$\begin{aligned}x * A + y * B + m &\leq 1 \\x + y &= g \leq 1 \\g + m &\leq 1\end{aligned}$$

Where, A is normalized reported time-averaged SAR exposure ratio from sub6, and $A \leq 1.0$; B is normalized reported time-averaged exposure ratio from 5G NR FR2, and $B \leq 1.0$. Let m = normalized reported time-averaged SAR exposure ratio from WLAN + BT, then for compliance

$$\begin{aligned}x * A + y * B + m &\leq 1 \quad (1) \\x * A + y * B &\leq x * \max(A, B) + (g - x) * \max(A, B) \leq \max(A, B) \\x * A + (g - x) * B + m &\leq \max(A, B) + m \leq 1.0 \quad (2)\end{aligned}$$

If $A + m \leq 1.0$ and $B + m \leq 1.0$ can be proven, then “ $x * A + y * B + m \leq 1.0$ ”. Therefore, simultaneous transmission analysis for sub6 + 5G NR FR2 + WLAN + BT can be performed in two steps.

Step 1: Prove total exposure ratio (TER) of sub6 + WLAN + BT < 1

Step 2: Prove total exposure ratio (TER) of 5G NR FR2 + WLAN + BT < 1

Else, if $A + m > 1.0$ and/or $B + m > 1.0$, then the following need to hold true for compliance:

- i. A and m need to be checked if decoupled based on SPLSR criteria
- ii. $y * B + m \leq 1.0$ (or B and m need to be checked if decoupled based on SPLSR), and
- iii. $x * A + y * B \leq 1.0$

Note iii is covered in Part 2 report and notes i and ii are covered in the Part 1 report.

This device does not support 5G NR FR2 so the above equations can be reduced to only step 1, prove the TER of sub6 + WLAN/BT < 1 .

This device supports two antenna groups, AG0 and AG1 with WLAN and Bluetooth operations supported outside of the MediaTek TAS (TA-SAR/TA-PD) feature. The simultaneous transmission analysis is performed per antenna groups. Below analysis demonstrates the mutually exclusive operation of AG0 and AG1, and the

FCC ID: A3LSMX736B	SAR EVALUATION REPORT	Approved by: Technical Manager
DUT Type: Portable Computing Device		APPENDIX E: Page 1 of 8

compliance between each antenna group and non-TAS radios. Since WLAN/BT does not employ time-averaging algorithm, 1g SAR measurements for WLAN/BT need to be conducted at their corresponding rated power following current FCC test procedures to determine reported SAR values.

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.

Based on Mediatek's guidance and documentation, the TA-SAR Gen2 algorithm ensures compliance with time-averaged RF exposure limits and operates independently of the SAR source, including LTE and NR FR1 combinations. Scenario 4.9 in Part 2 testing confirms the algorithm's control during transitions between radio 1 only, radio 1 + radio 2, and radio 2 only.

Antennas are grouped by SAR-to-Peak Location Separation Ratio (SPLSR), and SAR values within the same group are summed to assess Total Exposure Ratio (TER) compliance. The algorithm applies SPLSR grouping to maintain consistent exposure control across all active radios.

These evaluations, along with this documentation, sufficiently address worst-case simultaneous transmission cases, including AG0 + AG1 + WLAN/BT, therefore, no additional evaluation is required.

E.3 Exposure Ratios

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

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

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

Compliance with the SAR based RF exposure limits is achieved if $TER_{SAR} \leq 1$. When $TER_{SAR} > 1$, 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: A3LSMX736B	SAR EVALUATION REPORT	Approved by: Technical Manager
DUT Type: Portable Computing Device		APPENDIX E: Page 2 of 8

E.4 Tablet Simultaneous Analysis

Table E-1
WWAN Highest ER

AG0 Ratio to Limit						AG1 Ratio to Limit									
Body	Configuration	M1 ECI = 0	M4 ECI = 0	M1 ECI = 2/3	M4 ECI = 3	Max	Body	Configuration	S1	S2 All ECI	S3 All ECI	S4	S1	S4	Max
	Back	0.324	0.012	0.397	0.086	0.397		Back	0.029	0.454	0.403	0.081	0.021	0.429	0.454
	Top	0.558	0.004	0.557	0.049	0.558		Top	0.000	0.000	0.001	0.050	-	-	0.050
	Bottom	0.074	0.001	-	-	0.074		Bottom	0.034	0.624	0.291	0.042	0.126	0.126	0.624
	Right	0.168	0.049	0.251	0.401	0.401		Right	0.000	0.105	0.013	0.437	-	0.561	0.561
	Left	0.422	0.000	-	-	0.422		Left	0.006	0.001	0.141	0.015	0.218	-	0.218

Table E-2
Simultaneous Transmission Scenarios for WLAN/BT

Configuration	2.4 GHz WLAN Ant WiFi 0 Ratio to Limit	2.4 GHz WLAN Ant WiFi 1 at 11.5 dBm Ratio to Limit	2.4 GHz WLAN Ant WiFi 0 Worst Case Ratio to Limit	2.4 GHz WLAN Ant WiFi 1 at 11.5 dBm Ratio to Limit	2.4 GHz WLAN Ant WiFi 1 at 8 dBm Ratio to Limit	2.4 GHz WLAN Ant WiFi 1 Worst Case SAR (W/kg)	2.4 GHz WLAN MIMO at 14.5 dBm Ratio to Limit	2.4 GHz WLAN MIMO at 11 dBm Ratio to Limit	2.4 GHz WLAN Worst Case SAR (W/kg)	5 GHz WLAN Ant WiFi 0 Ratio to Limit	5 GHz WLAN Ant WiFi 0 at 7 dBm Ratio to Limit	5 GHz WLAN Ant WiFi 1 at 4 dBm Ratio to Limit	5 GHz WLAN Ant WiFi 1 Worst Case SAR (W/kg)	5 GHz WLAN MIMO at 10 dBm Ratio to Limit	5 GHz WLAN MIMO at 7 dBm Ratio to Limit	5 GHz WLAN Worst Case SAR (W/kg)	6 GHz WLAN Ant WiFi 0 Ratio to Limit	6 GHz WLAN Ant WiFi 0 at 6 dBm Ratio to Limit	6 GHz WLAN Ant WiFi 1 at 6 dBm Ratio to Limit	6 GHz WLAN Ant WiFi 1 Worst Case SAR (W/kg)	6 GHz WLAN MIMO at 9 dBm Ratio to Limit	6 GHz WLAN MIMO Worst Case Ratio to Limit	2.4 GHz Bluetooth Ant WiFi 0 Ratio to Limit	2.4 GHz Bluetooth Ant WiFi 0 at 9.5 dBm Ratio to Limit	2.4 GHz Bluetooth Ant WiFi 1 Worst Case SAR (W/kg)	2.4 GHz Bluetooth Ant WiFi 1 Worst Case SAR (W/kg)										
	1a	1b	1c	2a	2b	2c	3a	3b	3c	4a	4b	4c	5a	5b	5c	6a	6b	6c	7a	7b	7c	8a	8b	8c	9a	9b	9c									
Back	0.004	0.511	0.511	0.048	0.319	0.157	0.319	0.001	0.526	0.176	0.526	0.009	0.539	0.062	0.353	0.303	0.303	0.083	0.494	0.188	0.494	0.019	0.133	0.133	0.033	0.156	0.156	0.003	0.148	0.148	0.000	0.096	0.096	0.000	0.073	0.073
Top	0.000	0.183	0.183	0.000	0.183	0.187	0.183	0.000	0.211	0.111	0.211	0.054	0.049	0.000	0.118	0.118	0.000	0.117	0.117	0.117	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
Bottom	0.000	0.000*	0.000	0.048	0.048	0.048*	0.048	0.001*	0.001*	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
Right	0.000	0.000*	0.000	0.183	0.067	0.078	0.067	0.177	0.638	0.298	0.638	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
Left	0.197	0.558	0.558	0.000	0.000*	0.000*	0.000	0.198	0.566	0.349	0.566	0.194	0.559	0.071	0.071*	0.071*	0.071	0.287	0.469	0.384	0.469	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
Configuration	2.4 GHz Bluetooth Ant WiFi 0 Worst Case Ratio to Limit	2.4 GHz Bluetooth Ant WiFi 1 Worst Case + 5 GHz WLAN MIMO Worst Case Ratio to Limit	2.4 GHz Bluetooth Ant WiFi 1 Worst Case + 6 GHz WLAN MIMO Worst Case Ratio to Limit	2.4 GHz Bluetooth Ant WiFi 1 Worst Case Ratio to Limit	2.4 GHz Bluetooth Ant WiFi 1 Worst Case Ratio to Limit	2.4 GHz Bluetooth Ant WiFi 1 Worst Case Ratio to Limit	2.4 GHz Bluetooth Ant WiFi 1 Worst Case Ratio to Limit	2.4 GHz Bluetooth Ant WiFi 1 Worst Case Ratio to Limit	2.4 GHz WLAN MIMO at 11 dBm + 5 GHz WLAN MIMO at 7 dBm Ratio to Limit	2.4 GHz WLAN MIMO at 11 dBm + 6 GHz WLAN MIMO at 9 dBm Ratio to Limit	2.4 GHz WLAN MIMO Worst Case Ratio to Limit	5 GHz WLAN MIMO Worst Case Ratio to Limit	5 GHz WLAN MIMO Worst Case Ratio to Limit	2.4 GHz Bluetooth Ant WiFi 0 Worst Case Ratio to Limit	2.4 GHz Bluetooth Ant WiFi 1 Worst Case + 2.4 GHz WLAN Ant WiFi 1 at 8 dBm + 5 GHz WLAN MIMO at 7 dBm Ratio to Limit	2.4 GHz Bluetooth Ant WiFi 1 Worst Case + 2.4 GHz WLAN Ant WiFi 1 at 8 dBm + 6 GHz WLAN MIMO at 9 dBm Ratio to Limit	2.4 GHz WLAN Ant WiFi 1 Worst Case Ratio to Limit	2.4 GHz WLAN Ant WiFi 1 Worst Case Ratio to Limit	5 GHz WLAN Ant WiFi 1 Worst Case Ratio to Limit	5 GHz WLAN Ant WiFi 1 Worst Case Ratio to Limit	6 GHz WLAN Ant WiFi 1 Worst Case Ratio to Limit	6 GHz WLAN Ant WiFi 1 Worst Case Ratio to Limit	WLAN/BT Worst-case Combination Ratio to Limit													
	11c	11c+6d	11c+9c	10c	10c+6d	10c+9c	3c+6c	3c+9b	3d	6d	9c	10c	10c+2c+6c	10c+2c+9b	1c	2d	4c	5d	7c	8c																
Back	0.073	0.567	0.221	0.096	0.590	0.244	0.344	0.324	0.526	0.494	0.148	0.096	0.421	0.401	0.511	0.319	0.539	0.353	0.133	0.156	0.090	0.096	0.000													
Top	0.032	0.149	0.073	0.086	0.203	0.127	0.228	0.125	0.211	0.117	0.041	0.086	0.386	0.283	0.183	0.183	0.054	0.118	0.029	0.036	0.386															
Bottom	0.000	0.000	0.072	0.039	0.000	0.072	0.039	0.123	0.090	0.072	0.009	0.000	0.320	0.087	0.030	0.048	0.039	0.071	0.007	0.029	0.123															
Right	0.168	0.622	0.344	0.000	0.454	0.176	0.556	0.424	0.638	0.454	0.176	0.000	0.534	0.452	0.000	0.567	0.003	0.625	0.000	0.000	0.638															
Left	0.000	0.409	0.167	0.198	0.607	0.365	0.433	0.416	0.565	0.409	0.167	0.198	0.384	0.367	0.559	0.002	0.529	0.071	0.071	0.245	0.020	0.020														

Values with * were tested at a higher, more conservative power level
Configurations labeled as “Worst Case” represent the maximum values between grip sensor inactive and active

Table E-3
WWAN Simultaneous Sums

Body	Configuration	AG0 Ratio to Limit	AG1 Ratio to Limit	WLAN/BT Worst-case Combination Ratio to Limit	AG0 + AG1 + WLAN/BT Ratio to Limit	
		Back	0.397	0.454	0.590	See Table Below
		Top	0.558	0.050	0.386	0.994
		Bottom	0.074	0.624	0.123	0.821
		Right	0.401	0.561	0.638	See Table Below
		Left	0.422	0.218	0.607	See Table Below

Back									
Bottom Set			Top Set					Bottom Set + Top Set Ratio to Limit	SPLSR
AG1			AG0			WLAN/BT Worst Case			
Antenna	Ratio to Limit	Position	Antenna	Ratio to Limit	Position	Ratio to Limit	Position		
S1	0.029	-120.5	M1	0.397	123.7	0.590	108.7	See Note 2	0.00
S1	0.029	N/A	M4	0.086	N/A	0.590	N/A	0.705	N/A
S2	0.454	-132.3	M1	0.392	123.7	0.590	108.7	See Note 2	0.01
S2	0.454	-132.3	M4	0.086	151.1	0.590	108.7	See Note 2	0.00
S3	0.403	-123.7	M1	0.392	123.7	0.590	108.7	See Note 2	0.01
S3	0.403	-123.7	M4	0.086	151.1	0.590	108.7	See Note 2	0.00
S4	0.429	-138.8	M1	0.392	123.7	0.590	108.7	See Note 2	0.01
S4	0.429	-138.8	M4	0.086	151.1	0.590	108.7	See Note 2	0.00

FCC ID: A3LSMX736B	SAR EVALUATION REPORT	Approved by: Technical Manager
DUT Type: Portable Computing Device		APPENDIX E: Page 3 of 8

Right Edge									
Bottom Set			Top Set					Bottom Set + Top Set Ratio to Limit	SPLSR
AG1			AG0			WLAN/BT Worst Case			
Antenna	Ratio to Limit	Position	Antenna	Ratio to Limit	Position	Ratio to Limit	Position		
S1	0.000	N/A	M1	0.251	N/A	0.556	N/A	0.807	N/A
S1	0.000	N/A	M4	0.401	N/A	0.556	N/A	0.957	N/A
S2	0.105	N/A	M1	0.251	N/A	0.556	N/A	0.912	N/A
S2	0.105	22.4	M4	0.401	-110.7	0.556	-111.8	See Note 2	0.01
S3	0.013	N/A	M1	0.251	N/A	0.556	N/A	0.82	N/A
S3	0.013	N/A	M4	0.401	N/A	0.556	N/A	0.97	N/A
S4	0.561	114.0	M1	0.251	-117.3	0.556	-111.8	See Note 2	0.01
S4	0.561	114.0	M4	0.401	-110.7	0.556	-111.8	See Note 2	0.01
Left Edge									
Bottom Set			Top Set					Bottom Set + Top Set Ratio to Limit	SPLSR
AG1			AG0			WLAN/BT Worst Case			
Antenna	Ratio to Limit	Position	Antenna	Ratio to Limit	Position	Ratio to Limit	Position		
S1	0.218	-115.1	M1	0.422	110.6	0.607	112	See Note 2	0.01
S1	0.218	N/A	M4	0.000	N/A	0.607	N/A	0.825	N/A
S2	0.001	-128	M1	0.422	110.6	0.607	112	See Note 2	0.00
S2	0.001	N/A	M4	0.000	N/A	0.607	N/A	0.608	N/A
S3	0.141	-108.5	M1	0.422	110.6	0.607	112	See Note 2	0.01
S3	0.141	N/A	M4	0.000	N/A	0.607	N/A	0.748	N/A
S4	0.015	-128	M1	0.422	110.6	0.607	112	See Note 2	0.00
S4	0.015	N/A	M4	0.000	N/A	0.607	N/A	0.622	N/A

Notes:

1. For all combinations where the TER sum of AG0+AG1 + WLAN/BT is not greater than 1, there's no further analysis required for compliance demonstration.
2. No evaluation was performed to determine the TER for these configurations as the SPLSR 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: A3LSMX736B	SAR EVALUATION REPORT	Approved by: Technical Manager
DUT Type: Portable Computing Device		APPENDIX E: Page 4 of 8

E.5 Laptop SAR Analysis

Table E-4
Licensed Band Highest ER

AG0 Ratio to Limit					AG1 Ratio to Limit						
Body	Configuration	M1	M4	Max	Body	Configuration	S1	S2	S3	S4	Max
	Bottom	0.106	0.000	0.106		Bottom	0.012	0.000	0.141	0.002	0.141

Table E-5
Simultaneous Transmission Scenarios for WLAN/BT

Configuration	2.4 GHz WLAN Ant WiFi 0 Ratio to Limit	2.4 GHz WLAN Ant WiFi 0 at 11.5 dBm Ratio to Limit	2.4 GHz WLAN Ant WiFi 0 Worst Case Ratio to Limit	2.4 GHz WLAN Ant WiFi 1 Ratio to Limit	2.4 GHz WLAN MIMO Ratio to Limit	2.4 GHz WLAN MIMO at 14.5 dBm Ratio to Limit	2.4 GHz WLAN MIMO Worst Case Ratio to Limit	5 GHz WLAN Ant WiFi 0 Ratio to Limit	5 GHz WLAN Ant WiFi 0 at 7 dBm Ratio to Limit	5 GHz WLAN Ant WiFi 0 Worst Case Ratio to Limit	5 GHz WLAN Ant WiFi 1 Ratio to Limit	5 GHz WLAN MIMO Ratio to Limit	5 GHz WLAN MIMO at 10 dBm Ratio to Limit	5 GHz WLAN MIMO Worst Case Ratio to Limit	6 GHz WLAN Ant WiFi 0 Ratio to Limit	6 GHz WLAN Ant WiFi 0 at 6 dBm Ratio to Limit	6 GHz WLAN Ant WiFi 0 Worst Case Ratio to Limit	6 GHz WLAN Ant WiFi 1 Ratio to Limit	6 GHz WLAN MIMO Ratio to Limit	6 GHz WLAN MIMO at 9 dBm Ratio to Limit	6 GHz WLAN MIMO Worst Case Ratio to Limit	2.4 GHz Bluetooth Ant WiFi 0 Ratio to Limit	2.4 GHz Bluetooth Ant WiFi 0 at 9.5 dBm Ratio to Limit	2.4 GHz Bluetooth Ant WiFi 0 Worst Case Ratio to Limit	2.4 GHz Bluetooth Ant WiFi 1 Ratio to Limit
	1a	1b	1c	2a	3a	3b	3d	4a	4b	4c	5a	6a	6b	6d	7a	7b	7c	8a	9a	9b	9c	10a	10b	10c	11a
	Bottom	0.135	0.207	0.207	0.003	0.157	0.216	0.216	0.125	0.138	0.138	0.016	0.148	0.153	0.153	0.031	0.035	0.035	0.004	0.038	0.039	0.039	0.054	0.081	0.081
Configuration	2.4 GHz Bluetooth Ant WiFi 1 Ratio to Limit	2.4 GHz Bluetooth Ant WiFi 1 + 6 GHz WLAN MIMO Worst Case Ratio to Limit	2.4 GHz Bluetooth Ant WiFi 1 + 5 GHz WLAN MIMO Worst Case Ratio to Limit	2.4 GHz Bluetooth Ant WiFi 0 Worst Case Ratio to Limit	2.4 GHz Bluetooth Ant WiFi 0 Worst Case + 6 GHz WLAN MIMO Worst Case Ratio to Limit	2.4 GHz Bluetooth Ant WiFi 0 Worst Case + 5 GHz WLAN MIMO Worst Case Ratio to Limit	2.4 GHz WLAN MIMO Worst Case + 6 GHz WLAN MIMO Worst Case Ratio to Limit	2.4 GHz WLAN MIMO Worst Case + 5 GHz WLAN MIMO Worst Case Ratio to Limit	2.4 GHz WLAN MIMO Worst Case Ratio to Limit	2.4 GHz WLAN MIMO Worst Case Ratio to Limit	6 GHz WLAN MIMO Worst Case Ratio to Limit	5 GHz WLAN MIMO Worst Case Ratio to Limit	2.4 GHz Bluetooth Ant WiFi 0 Worst Case + 2.4 GHz WLAN Ant WiFi 1 + 6 GHz WLAN Ant WiFi 0 Worst Case Ratio to Limit	2.4 GHz Bluetooth Ant WiFi 0 Worst Case + 2.4 GHz WLAN Ant WiFi 1 + 5 GHz WLAN MIMO Worst Case Ratio to Limit	2.4 GHz Bluetooth Ant WiFi 0 Worst Case + 2.4 GHz WLAN Ant WiFi 0 Worst Case Ratio to Limit	2.4 GHz WLAN Ant WiFi 0 Worst Case Ratio to Limit	2.4 GHz WLAN Ant WiFi 1 Ratio to Limit	5 GHz WLAN Ant WiFi 0 Worst Case Ratio to Limit	5 GHz WLAN Ant WiFi 1 Ratio to Limit	6 GHz WLAN Ant WiFi 0 Worst Case Ratio to Limit	6 GHz WLAN Ant WiFi 1 Worst Case Ratio to Limit	6 GHz WLAN Ant WiFi 1 Ratio to Limit	WLAN/BT Worst-case Combination Ratio to Limit		
	11a	11a+6c	11a+6d	10c	10c+9c	10c+6d	3d+9c	3d+6d	3d	9c	6d	10c+2a+7c	10c+2a+7c	10c+2a+7c	10c+2a+7c	10c+2a+7c	10c+2a+7c	10c+2a+7c	10c+2a+7c	10c+2a+7c	10c+2a+7c	10c+2a+7c	10c+2a+7c	10c+2a+7c	
	Bottom	0.000	0.039	0.153	0.081	0.120	0.234	0.255	0.369	0.216	0.039	0.153	0.119	0.237	0.084	0.207	0.003	0.138	0.016	0.016	0.016	0.004	0.369		

Configurations labeled as “Worst Case” represent the maximum values of grip sensor active and inactive.

Table E-6
Simultaneous Sums

Body	Configuration	AG0 Ratio to Limit	AG1 Ratio to Limit	WLAN/BT Worst-case Combination Ratio to Limit	AG0 + AG1 + WLAN/BT Ratio to Limit
	Bottom	0.106	0.141	0.369	0.616

Notes:

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

FCC ID: A3LSMX736B	SAR EVALUATION REPORT	Approved by: Technical Manager
DUT Type: Portable Computing Device		APPENDIX E: Page 5 of 8

E.6 Highest Exposure Ratio and Hotspot Locations

Table E-7
Tablet Back Side Peak Coordinates and Exposure Ratio

Mode/Band	y (mm)	SAR/SAR Limit (ER)
GSM 850 Ant M1	137.80	0.242
GSM 1900 Ant M1	126.90	0.204
UMTS 850 Ant M1	132.3	0.312
UMTS 1750 Ant M1	125.8	0.261
UMTS 1900 Ant M1	124.7	0.162
LTE Band 12 Ant M1	130.2	0.32
LTE Band 13 Ant M1	130.2	0.397
LTE Band 26 Ant M1	130.2	0.303
LTE Band 66 Ant M1	126.9	0.22
LTE Band 66 Ant S3	-129.10	0.403
LTE Band 25 Ant M1	124.7	0.175
LTE Band 41 Ant M1	129.1	0.267
NR Band n5 Ant M1	144.5	0.311
NR Band n66 Ant M1	129.1	0.252
NR Band n25 Ant M1	123.7	0.193
NR Band n41 Ant M1	128	0.392
NR Band n41 Ant S1	-120.5	0.029
NR Band n41 Ant S2	-132.3	0.451
NR Band n41 Ant S3	-126.9	0.236
NR Band n77 Ant M4	151.1	0.086
NR Band n77 Ant S2	-133.4	0.454
NR Band n77 Ant S3	-123.7	0.384
NR Band n77 Ant S4	-138.8	0.429
5 GHz WLAN MIMO	118.30	0.484
2.4 GHz Bluetooth Ant WIFI 0	108.70	0.096

FCC ID: A3LSMX736B	SAR EVALUATION REPORT	Approved by: Technical Manager
DUT Type: Portable Computing Device		APPENDIX E: Page 6 of 8

Table E-8
Tablet Right Edge Peak Coordinates and Exposure Ratio

Mode/Band	y (mm)	SAR/SAR Limit (ER)
GSM 850 Ant M1	-124.8	0.139
GSM 1900 Ant M1	-131.2	0.241
UMTS 850 Ant M1	-125.9	0.165
UMTS 1750 Ant M1	-132.2	0.251
UMTS 1900 Ant M1	-129.1	0.228
LTE Band 12 Ant M1	-122.7	0.161
LTE Band 13 Ant M1	-125.9	0.156
LTE Band 26 Ant M1	-125.9	0.168
LTE Band 66 Ant M1	-136.6	0.196
LTE Band 66 Ant S3	117.3	0.013
LTE Band 25 Ant M1	-129.1	0.179
LTE Band 41 Ant M1	-118.4	0.066
NR Band n5 Ant M1	-117.3	0.143
NR Band n66 Ant M1	-125.9	0.191
NR Band n25 Ant M1	-125.9	0.218
NR Band n41 Ant M1	-140.5	0.034
NR Band n41 Ant S1	128.0	0.000
NR Band n41 Ant S2	22.4	0.000
NR Band n41 Ant S3	120.5	0.006
NR Band n77 Ant M4	-110.7	0.401
NR Band n77 Ant S2	114.0	0.105
NR Band n77 Ant S3	128.0	0.000
NR Band n77 Ant S4	114.0	0.561
2.4 GHz WLAN MIMO	-111.8	0.638

FCC ID: A3LSMX736B	SAR EVALUATION REPORT	Approved by: Technical Manager
DUT Type: Portable Computing Device		APPENDIX E: Page 7 of 8

Table E-9
Tablet Left Edge Peak Coordinates and Exposure Ratio

Mode/Band	y (mm)	SAR/SAR Limit (ER)
GSM 850 Ant M1	124.8	0.332
GSM 1900 Ant M1	110.6	0.151
UMTS 850 Ant M1	124.8	0.389
UMTS 1750 Ant M1	115.1	0.223
UMTS 1900 Ant M1	117.3	0.248
LTE Band 12 Ant M1	117.3	0.149
LTE Band 13 Ant M1	118.4	0.168
LTE Band 26 Ant M1	119.5	0.199
LTE Band 66 Ant M1	119.4	0.161
LTE Band 66 Ant S3	-119.4	0.023
LTE Band 25 Ant M1	117.2	0.229
LTE Band 41 Ant M1	124.8	0.154
NR Band n5 Ant M1	121.6	0.422
NR Band n66 Ant M1	111.8	0.163
NR Band n25 Ant M1	111.8	0.256
NR Band n41 Ant M1	120.5	0.101
NR Band n41 Ant S1	-115.1	0.218
NR Band n41 Ant S2	-128.0	0.000
NR Band n41 Ant S3	-114.1	0.054
NR Band n77 Ant M4	128.0	0.000
NR Band n77 Ant S2	-131.2	0.001
NR Band n77 Ant S3	-108.5	0.141
NR Band n77 Ant S4	-128.0	0.015
5 GHz WLAN MIMO	112.0	0.401
2.4 GHz Bluetooth Ant WIFI 0	112.8	0.198

E.7 Conclusion

The above numerical summed TER results and SPLSR are sufficient to show that simultaneous transmission cases will not exceed the SAR limit and therefore no further analysis is required per FCC KDB Publication 447498 D04v01 and IEEE 1528- 2013 Section 6.3.4.1.

FCC ID: A3LSMX736B	SAR EVALUATION REPORT	Approved by: Technical Manager
DUT Type: Portable Computing Device		APPENDIX E: Page 8 of 8