

APPENDIX I: IEEE 802.11 RU SAR EXCLUSION

I.1 IEEE 802.11ax/be RU SAR Exclusion

To make the most efficient use of the additional available subcarriers RU (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, 106T, 242T, 484T, 996T and 996Tx2, 996Tx4.

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.

I.2 IEEE 802.11ax/be RU Target Powers

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

The table below is applicable in the following conditions:

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

Mode	Band		IEEE 802.11ax/be RU (in dBm)											
			SISO Antenna H (in dBm)				SISO Antenna J (in dBm)				Antenna H & Antenna J in MIMO			
			26T	52T	106T	242T	26T	52T	106T	242T	26T	52T	106T	242T
2.4 GHz WIFI	2.45 GHz	Maximum	14	15	16	16	14	15	16	16	14	15	16	16
		Nominal	13	14	15	15	13	14	15	15	13	14	15	15

The table below is applicable in the following conditions:

- DSI=1 (Head)

Mode	Band		IEEE 802.11ax/be RU (in dBm)											
			SISO Antenna H (in dBm)				SISO Antenna J (in dBm)				Antenna H & Antenna J in MIMO			
			26T	52T	106T	242T	26T	52T	106T	242T	26T	52T	106T	242T
2.4 GHz WiFi	2.45 GHz	Maximum	14	14	14	14	14	14	14	14	14	14	14	
		Nominal	13	13	13	13	13	13	13	13	13	13	13	

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

The table below is applicable in the following conditions:

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

Mode	Band		IEEE 802.11ax/be RU (in dBm)													
			SISO								Antenna H & Antenna J in MIMO					
			Antenna H								Antenna E					
5 GHz WiFi (DSSS OFDM)	Maximum	UNB-1	26T	52T	106T	242T	484T	996T	996T*2	26T	52T	106T	242T	484T	996T	996T*2
		UNB-2A	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
		UNB-2B	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
		UNB-2C	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
		UNB-2D	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
	Nominal	UNB-1	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
		UNB-2A	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
		UNB-2B	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
		UNB-2C	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
		UNB-2D	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
5 GHz WiFi (OFDM OFDM)	Maximum	UNB-1	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
		UNB-2A	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
		UNB-2B	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
		UNB-2C	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
		UNB-2D	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
	Nominal	UNB-1	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
		UNB-2A	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
		UNB-2B	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
		UNB-2C	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
		UNB-2D	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
5 GHz WiFi (OFDM OFDM)	Maximum	UNB-1	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
		UNB-2A	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
		UNB-2B	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
		UNB-2C	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
		UNB-2D	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
	Nominal	UNB-1	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
		UNB-2A	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
		UNB-2B	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
		UNB-2C	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
		UNB-2D	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
5 GHz WiFi (DSSS OFDM)	Maximum	UNB-1	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
		UNB-2A	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
		UNB-2B	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
		UNB-2C	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
		UNB-2D	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
	Nominal	UNB-1	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
		UNB-2A	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
		UNB-2B	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
		UNB-2C	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
		UNB-2D	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0

FCC ID: A3LSMS936U

RF Exposure Part 1 Test Report

Approved by:

Technical Manager

DUT Type:
Portable Handset

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- DSI=1 (Head)

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

- P_{max}

[illegible]

FCC ID: A3LSMS936U	RF Exposure Part 1 Test Report	Approved by: Technical Manager
DUT Type: Portable Handset		APPENDIX I: Page 2 of 3

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

The table below is applicable in the following conditions:

- [illegible]

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