APPENDIX H: IEEE 802.11AX RU SAR EXCLUSION

H.1 IEEE 802.11ax RU SAR Exclusion

To make the most efficient use of the additional available subcarriers (data tones), IEEE 802.11ax 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.

Per FCC Guidance, 802.11ax 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 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 1M2303170032-12.A3L and 1M2303170032-10.A3L for IEEE 802.11ax RU powers.

Only operations relevant to this permissive change were evaluated for compliance. No other target changes have been made. Targets for all other bands/exposure conditions can be found in the original filing.

H.2 IEEE 802.11ax RU Target Powers

H.2.1 Reduced 802.11ax RU WLAN Output Power – 2.4 GHz WLAN

The table below is applicable in the following conditions:

- During simultaneous conditions with 5G NR and/or 5/6 GHz WLAN

Mode		IEEE 802.11ax RU (in dBm)							
		SISO Ant 2 (in dBm)				Antenna 1 & Antenna 2 in MIMO			
		26T	**52T**	**106T**	**242T**	**26T**	**52T**	**106T**	**242T**
2.4 GHz WIFI	Maximum	13 ch. 12: 6.0 ch. 13: -6.0	13 ch. 12: 6.0 ch. 13: -3.0	13 ch. 12: 6.0 ch. 13: 0.0	13 ch. 12: 6.0 ch. 13: 0.0	14 ch. 12: 6.0 ch. 13: -6.0	15 ch. 12: 6.0 ch. 13: -3.0	16 ch. 12: 6.0 ch. 13: 0.0	17 ch. 12: 6.0 ch. 13: 0.0
	Nominal	12 ch. 12: 5.0 ch. 13: -7.0	12 ch. 12: 5.0 ch. 13: -4.0	12 ch. 12: 5.0 ch. 13: -1.0	12 ch. 12: 5.0 ch. 13: -1.0	13 ch. 12: 5.0 ch. 13: -7.0	14 ch. 12: 5.0 ch. 13: -4.0	15 ch. 12: 5.0 ch. 13: -1.0	16 ch. 12: 5.0 ch. 13: -1.0

The table below is applicable in the following conditions:

- RCV Active
- RCV Active during simultaneous conditions with 5G NR and/or 5/6 GHz WLAN

Mode		IEEE 802.11ax RU (in dBm)							
		SISO Ant 2 (in dBm)				Antenna 1 & Antenna 2 in MIMO			
		26T	**52T**	**106T**	**242T**	**26T**	**52T**	**106T**	**242T**
2.4 GHz WIFI	Maximum	9 ch. 12: 6.0 ch. 13: -6.0	9 ch. 12: 6.0 ch. 13: -3.0	9 ch. 12: 6.0 ch. 13: 0.0	9 ch. 12: 6.0 ch. 13: 0.0	9 ch. 12: 6.0 ch. 13: -6.0	9 ch. 12: 6.0 ch. 13: -3.0	9 ch. 12: 6.0 ch. 13: 0.0	9 ch. 12: 6.0 ch. 13: 0.0
	Nominal	8 ch. 12: 5.0 ch. 13: -7.0	8 ch. 12: 5.0 ch. 13: -4.0	8 ch. 12: 5.0 ch. 13: -1.0	8 ch. 12: 5.0 ch. 13: -1.0	8 ch. 12: 5.0 ch. 13: -7.0	8 ch. 12: 5.0 ch. 13: -4.0	8 ch. 12: 5.0 ch. 13: -1.0	8 ch. 12: 5.0 ch. 13: -1.0

H.2.2 Reduced 802.11ax RU WLAN Output Power – 5 GHz WLAN

The table below is applicable in the following conditions:

- RCV Active
- RCV Active during simultaneous conditions with 5G NR and/or 2.4 GHz WLAN/BT
- During simultaneous conditions with 5G NR and/or 2.4 GHz WLAN/BT

Mode		IEEE 802.11ax RU (in dBm)						
		Antenna 1 & Antenna 2 in MIMO						
		26T	52T	106T	242T	484T	996T	996T*2
5 GHz WIFI (20MHz BW)	Maximum	10.5	12.0	12.0	12.0			
	Nominal	9.5	11.0	11.0	11.0			
5 GHz WIFI (40MHz BW)	Maximum	10.5	12.0	12.0	12.0	12.0		
	Nominal	9.5	11.0	11.0	11.0	11.0		
5 GHz WIFI (80MHz BW)	Maximum	10.5	12.0	12.0	12.0	12.0	12.0	
	Nominal	9.5	11.0	11.0	11.0	11.0	11.0	
5 GHz WIFI (160MHz BW)	Maximum	10.5	12.0	12.0	12.0	12.0	12.0	12.0
	Nominal	9.5	11.0	11.0	11.0	11.0	11.0	11.0