

FCC ID: A3LEJ-CT800

1. Standalone SAR test exclusion threshold

Per FCC KDB 447498 D01v05, the SAR exclusion threshold for distances < 50mm is defined by the following equation:

$$\frac{\text{Max Power of Channel (mW)}}{\text{Test Separation Distance (mm)}} * \sqrt{\text{Frequency(GHz)}} \leq 3.0$$

Frequency = 2 480 MHz

Test. Separation Distances = 5 mm

Maximum Tune-up Tolerances = 2.5 dBm

Bluetooth Mode Calculation value: 2 (mW) / 5(mm) x √ 2.480 = 0.63

So, Calculation value ≤ 3.0

Bluetooth Mode Conclusion: Standalone SAR is not required

2. Simultaneous transmission SAR test exclusion threshold

2.1 Estimated SAR Evaluation Analysis

When standalone SAR is not required to be measured per FCC KDB 447498 D01v05 4.3.2.2), the following equation must be used to estimate the standalone 1g SAR for simultaneous transmission involving that transmitter.

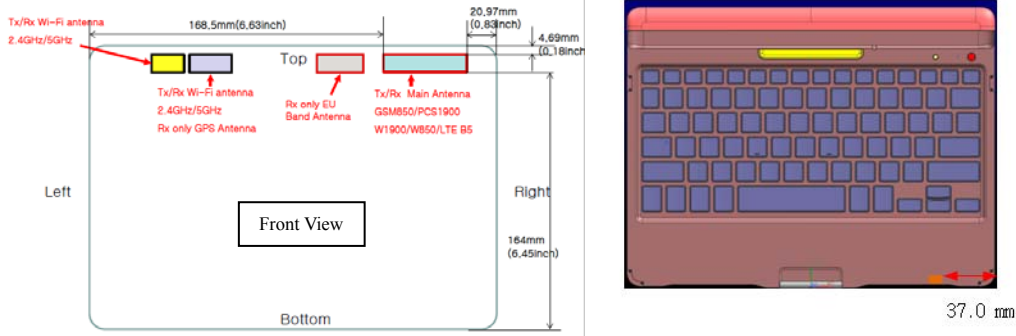
$$\text{Estimated SAR} = \frac{\sqrt{f(\text{GHz})}}{7.5} * \frac{(\text{Max Power of channel, mW})}{\text{Min. Separation Distance, mm}}$$

Mode	Frequency	Maximum Allowed Power	Separation Distance	Estimated SAR
	[MHz]	[mW]	[mm]	[W/kg]
Bluetooth	2480	2	5	0.084

2.2 Information of Attached Tablet PC

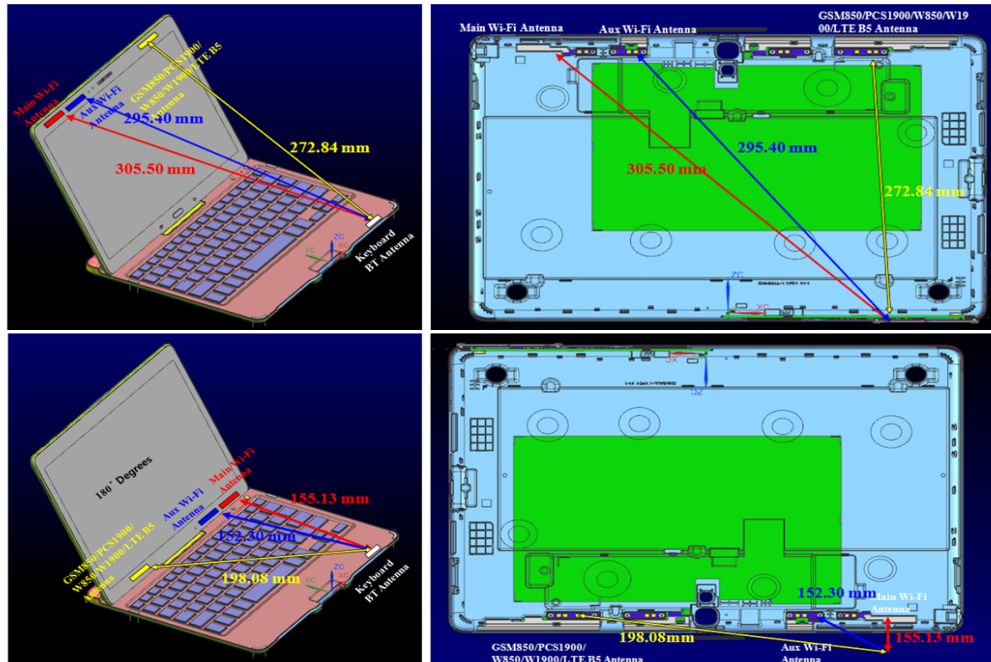
Model No	SM-T805
FCC ID	A3LSMT805
Mode of Operation	GPRS/EDGE 850/1900 UMTS 850 / 1900 LTE Band 5 802.11a,ac,b,g,n Bluetooth
Tx Frequency Range	824.20 MHz ~ 848.80 MHz (GPRS/EDGE 850) 826.40 MHz ~ 846.60 MHz (UMTS 850) 1850.20 MHz ~ 1909 MHz (GPRS/EDGE 1900) 1852.4 MHz ~ 1907.6 MHz (UMTS 1900) 824.7 MHz ~ 848.3 MHz (LTE Band 5) 2412 MHz ~ 2462 MHz (WLAN 2.4 GHz) 5745 MHz ~ 5825 MHz (WLAN 5.8 GHz) 5180 MHz ~ 5240 MHz, (WLAN 5.2 GHz) 5260 MHz ~ 5320 MHz (WLAN 5.3 GHz) 5500 MHz ~ 5700 MHz, (WLAN 5.5 GHz) 2402.00 MHz ~ 2480.00 MHz (Bluetooth)

2.3 Simultaneous Transmission Antenna Separation Distances



Attached Tablet PC, FCC ID: A3LSMT805

Keyboard, FCC ID: A3LEJ-CT800



2.4 SPLSR Evaluation Analysis

Antenna Pair		Worst case 1g SAR (W/kg)	Estimated 1g SAR (W/kg)	1g SAR Sum (W/kg)	Separation Distance (mm)	SPLS Ratio	SPLS Ratio Limit	
	Ant "a"	a	b	a + b	D_{a-b}	$(a+b)^{1.5} / D_{a-b}$	≤ 0.04	
1	GPRS/EDGE850 / 1900	1.6	0.084	1.684	272.84	0.008		
	UMTS 850 / 1900	1.6		1.684	272.84	0.008		
	LTE Band 5	1.6		1.684	272.84	0.008		
2	Wi-Fi Main (2.4, 5 GHz)	1.6		1.684	305.50	0.007		
	Bluetooth	1.6		1.684	305.50	0.007		
	Wi-Fi Aux (2.4, 5 GHz)	1.6		1.684	295.40	0.007		
Ant "c" (Tablet 180 degrees)		c			C+b	D_{c-b}		$(c+b)^{1.5} / D_{c-b}$
1	GPRS/EDGE850 / 1900	1.6		1.684	198.08	0.011		
	UMTS 850 / 1900	1.6		1.684	198.08	0.011		
	LTE Band 5	1.6		1.684	198.08	0.011		
2	Wi-Fi Main (2.4, 5 GHz)	1.6		1.684	155.13	0.014		
	Bluetooth	1.6		1.684	155.13	0.014		
3	Wi-Fi Aux (2.4, 5 GHz)	1.6		1.684	152.30	0.014		

2.5 Simultaneous Transmission conclusion

The above numerical summed SAR results and SPLSR analysis is sufficient to determine that simultaneous transmission cases will not exceed the SAR limit and therefore no measured volumetric simultaneous SAR summation is required per FCC KDB publication 447498 D01 v05.