

FCC ID: A3LEE-CP905

1. Standalone SAR test exclusion threshold

Per FCC KDB 447498 D01v05, the SAR exclusion threshold for distances < 50 mm 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 = 2 402 MHz

Test. Separation Distances = 5 mm

Maximum Tune-up Tolerances = 2 dBm

Bluetooth Mode Calculation value: $2 \text{ (mW)} / 5 \text{ (mm)} \times \sqrt{2.402} = 0.62$

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.

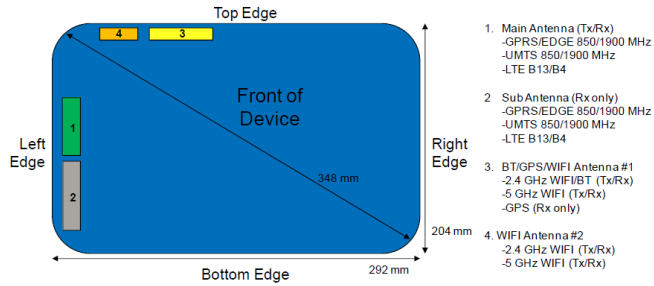
$$\text{Estimated SAR} = \frac{\sqrt{f(\text{GHz})}}{7.5} * \frac{\text{(Max Power of channel, mW)}}{\text{Min. Separation Distance, mm}}$$

Mode	Frequency	Maximum Allowed Power	Separation Distance	Estimated SAR
	[MHz]	[mW]	[mm]	[W/kg]
Bluetooth	2 402	2	5	0.083

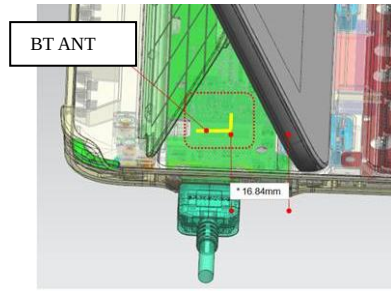
2.2 Information of Attached Tablet PC

Model No	SMP905V
FCC ID	A3LSMP905V
Mode of Operation	GPRS/EDGE 850/1900, UMTS 850 / 1900, LTE Band 13 / 4 (AWS), LTE Band 13, 802.11a,b,g,n, Bluetooth
Tx Frequency Range	824.20 MHz ~ 848.80 MHz (GPRS/EDGE 850), 826.40 MHz ~ 846.60 MHz (UMTS 850), 1 850.20 MHz ~ 1 909 MHz (GPRS/EDGE 1900), 1 852.4 MHz ~ 1 907.6 MHz (UMTS 1900), 782 MHz (LTE Band 13), 1 712.5 MHz ~ 1 752.5 MHz (LTE Band 4), 2 412 MHz ~ 2 462 MHz (WLAN 2.4 GHz), 5 745 MHz ~ 5 825 MHz (WLAN 5.8 GHz), 5 180 MHz ~ 5 240 MHz (WLAN 5.2 GHz), 5 260 MHz ~ 5 320 MHz (WLAN 5.3 GHz), 5 500 MHz ~ 5 700 MHz, (WLAN 5.5 GHz), 2 402.00 MHz ~ 2 480.00 MHz (Bluetooth)

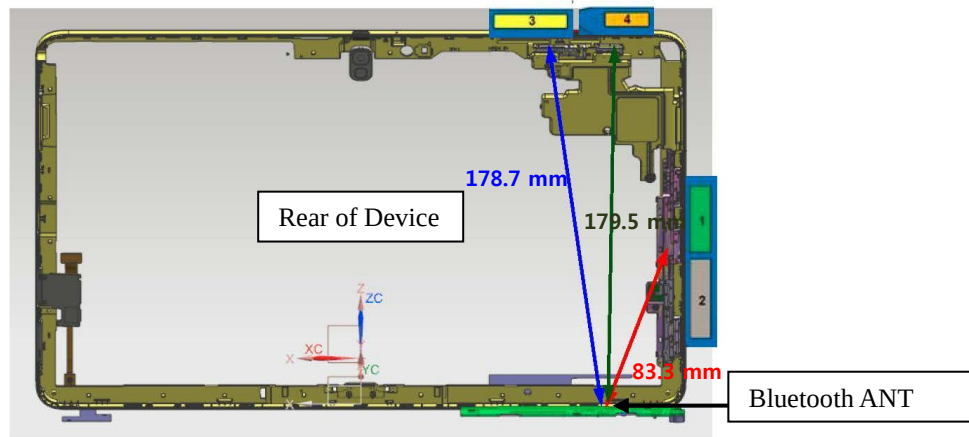
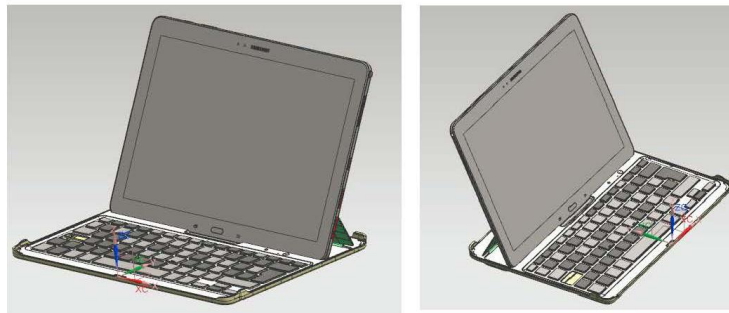
2.3 Simultaneous Transmission Antenna Separation Distances



Attached Tablet PC, FCC ID: A3LSMP905V



Keyboard, FCC ID: A3LEE-CP905



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"	Ant "b"	a	b	a + b	D _{a-b}	(a+b) ^{1.5} / D _{a-b}	
1	GPRS/EDGE850 / 1900	1.6	0.084	1.684	83.3	0.026	≤ 0.04
	UMTS 850 / 1900	1.6		1.684	83.3	0.026	
	LTE Band 13 / 4	1.6		1.684	83.3	0.026	
3	Bluetooth	1.6		1.684	178.7	0.012	
	WIFI ANT#1(2.4, 5 GHz)	1.6		1.684	178.7	0.012	
4	WIFI ANT#2(2.4, 5GHz)	1.6		1.684	179.5	0.012	

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.