

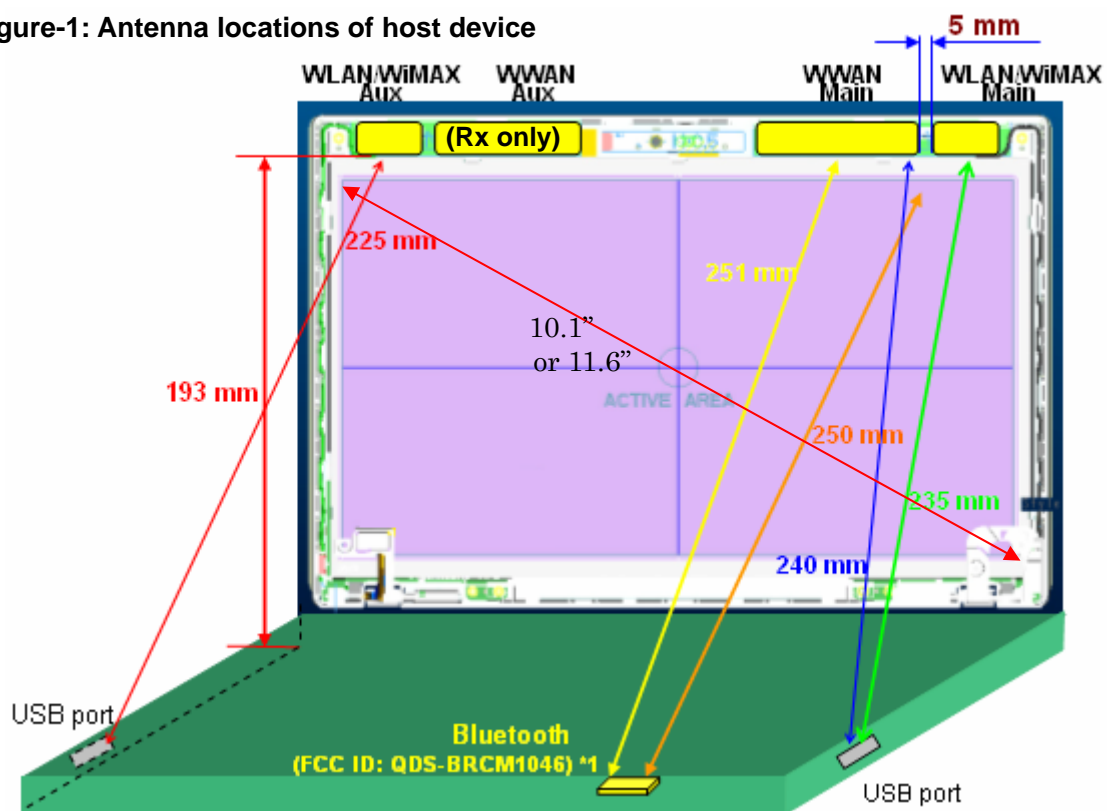
RF Exposure evaluation in co-locating with other transmitters

This document provides the result of co-location evaluation for the notebook computer in this application in accordance with the FCC KDB616217, Supplement to FCC KDB616217 and KDB447498.

As shown by the Figure-1, the applying host PC device (Lenovo ThinkPad X100e, Mini 10 and Mini 11) incorporates the following wireless features.

WLAN/WiMAX:	FCC ID: PD9622ANXHU	(the applying transmitter in this application)
WWAN:	FCC ID: J9CGOBIO2000-L	(granted on Dec/08/2009 for the host device)
Bluetooth:	FCC ID: QDS-BRCM1046	(granted on May/05/2009)

Figure-1: Antenna locations of host device



*1: FCC grant date: May/05/2009 (3.06mW)

1. The USB ports are located with more than 5cm of separation distance from the all WLAN/WiMAX and WWAN Tx antennas. Therefore these are compliant with the section 2) of "Supplement to FCC KDB 616217".
2. The output power of Bluetooth device is 3.06mW ($\leq 60/f(\text{GHz})$) and the antenna-to-antenna distance is ≥ 5 cm, so the Bluetooth device is not required SAR evaluation in accordance with Table-2 of KDB616217.
3. The antenna separation distance from human's body to WLAN/WiMAX and WWAN antennas is 193mm ($< 20\text{cm}$) and the antenna-to-antenna distance is 5mm ($< 5\text{cm}$). Therefore, the "SAR to peak location separation ratio" is applied to the SAR evaluation for the co-location of WLAN/WiMAX and WWAN transmitters pursuant to the section 3) of KDB447498.

The SAR testing for both transmitters have been performed and found to comply with the limit of "SAR to peak location separation ratio". (See Table-1.)

Table-1: SAR to peak location separation ratio

FCC ID: PD9622ANXHU		FCC ID: J9CGOBIO2000-L (granted on Dec/08/2009)		SAR to peak location separation ratio	limit
FCC CFR	Stand alone SAR (W/Kg)	FCC CFR	Max. granted value of stand alone SAR (W/Kg)		
Part 15C (2.4G)	0.026	Part 22H/24E	0.0281	0.108	0.3
Part 15C (5.8G)	0.060			0.176	
Part 15E (5.2G)	0.029			0.114	
Part 15E (5.3G)	0.055			0.166	
Part 15E (5.6G)	0.014			0.084	
Part 27	0.013			0.082	