

RF Exposure Justification in co-locating with other transmitters

As shown in the separate exhibits "WWAN Antenna Info - xxx", the applying host PC devices incorporate the four kinds of transmitters. i.e. WWAN, WLAN, UWB and Bluetooth.

The separation distance between human body and the WWAN Tx/Rx antenna of the host PC device is **71mm**. Therefore the applying WWAN transmitter module (Model: **UNDP-1**) and the antenna systems are subjected to SAR pursuant to FCC CFR 47 Section 2.1093 and "SAR Evaluation" category pursuant to IC RSS-102e clause 2.5.2.

This applying transmitter module has been tested and found to comply with the SAR limits as shown by the separate SAR report.

The WWAN Tx/Rx antenna and the nearest WLAN / WiMAX antenna are co-located with **53mm** of separation distance. However both transmitter modules do not establish network link connections simultaneously, but switch the operation each other within 11 seconds of handover time if one of them is in active. See "Handover logic" exhibit. Therefore, no SAR testing in co-locating with WLAN or WiMAX devices is required for the applying WWAN transmitter device.

The separation distance between WWAN Tx/Rx antenna and Bluetooth antenna is 73mm, and the transmission power of the Bluetooth device (FCC ID: QDS-BRCM1033) is 4.1mW. So, neither SAR testing in co-locating with the Bluetooth device is required pursuant to the FCC document "616217 D01 SAR for Laptop v01", issued on December 7, 2007.

UWB transmitter is not mentioned in FCC CFR 47 Section 2.1091 and 2.1093, so it does not subject to RF exposure evaluation. Therefore, any co-located SAR testing is not required to UWB device.