RF Exposure Evaluation
in co-locating with other transmitters

1. Configuration

The host PC device (DL-Note) has the following two types of configurations for the wireless communication features. The Figure-1 is designed for US and Canada, and the Figure-2 is for US only.

The applying modular transmitter device (FCC ID: PPD-AR5BXB6) was previously certified by the Commission on November/07/2006 with the same configuration in this application.

The difference from the previous grant condition is:
to enable the simultaneous transmission with the WWAN modular transmitters listed below.

The co-location with the Bluetooth module remains the same.

Figure-1: Dual transmitters model of DL-Note (**Canada and US**)

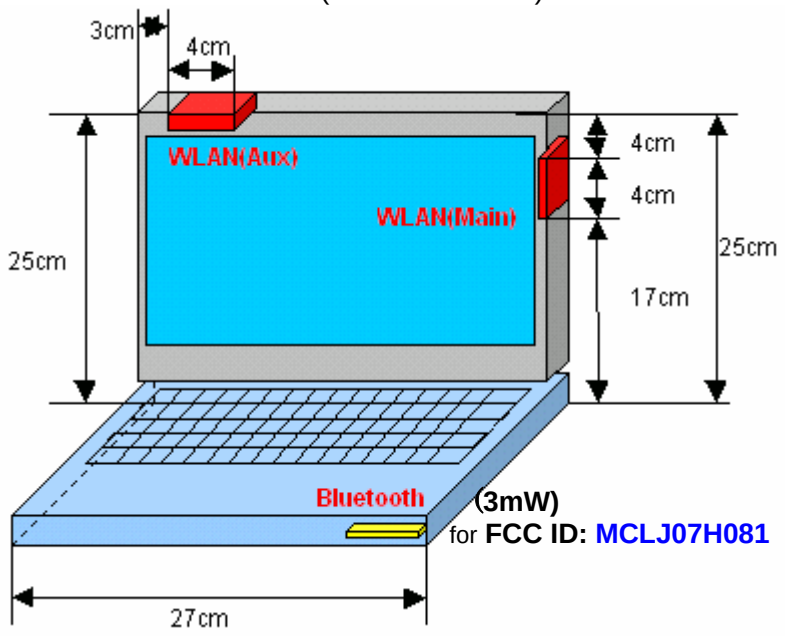
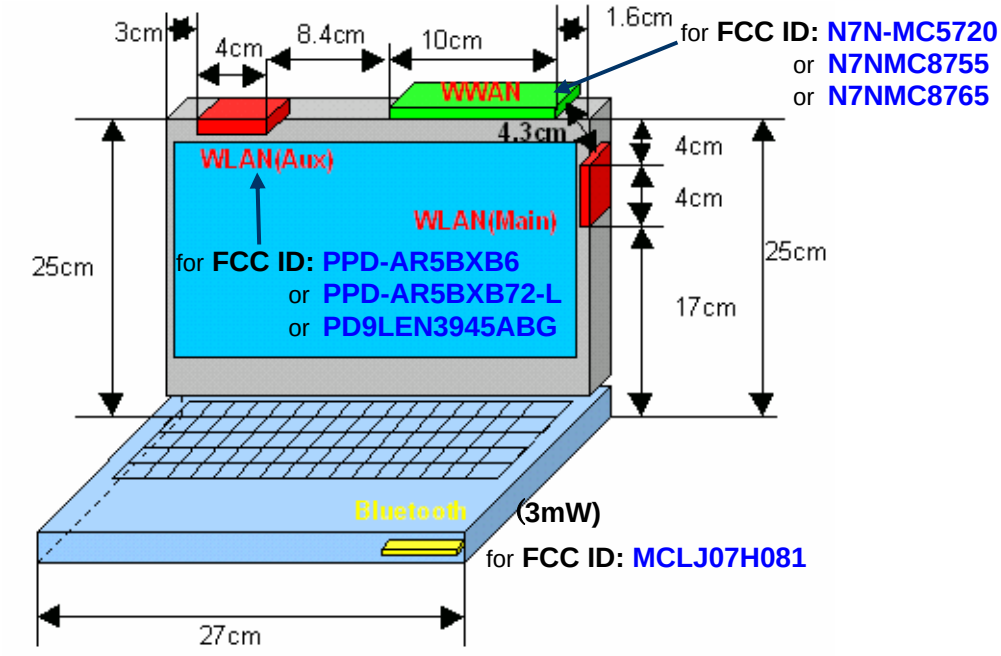


Figure-2: Triple transmitters model of DL-Note (**US only**)



2. Justification for SAR testing

The subjected host device is a tablet type PC and the transmission antennas are very close to the human body. Therefore the applying LMA transmitter and the antenna system is categorized as a Potable device pursuant to FCC CFR 47 Section 2.1093.

The separate SAR test report (document number: 06LR020SAR-F) was measured for the applying modular transmitter (FCC ID: PPD-AR5BXB6) with the co-located Bluetooth (FCC ID: MCLJ07H081) and each WWAN modular transmitter in active and transmitting simultaneously. Also the co-located WWAN modules were examined the SAR independently and granted by the Commotion for the subjected Tablet PC on October/31/2006. The document numbers of SAR test reports for these WWAN transmitters referred in this exhibit are 06U10630-3B, 06U10631-3B and 06U10632-4B.

Hereafter, the calculation of grid-summed SAR result for WLAN and each WWAN SAR testing is used for the RF exposure evaluation.

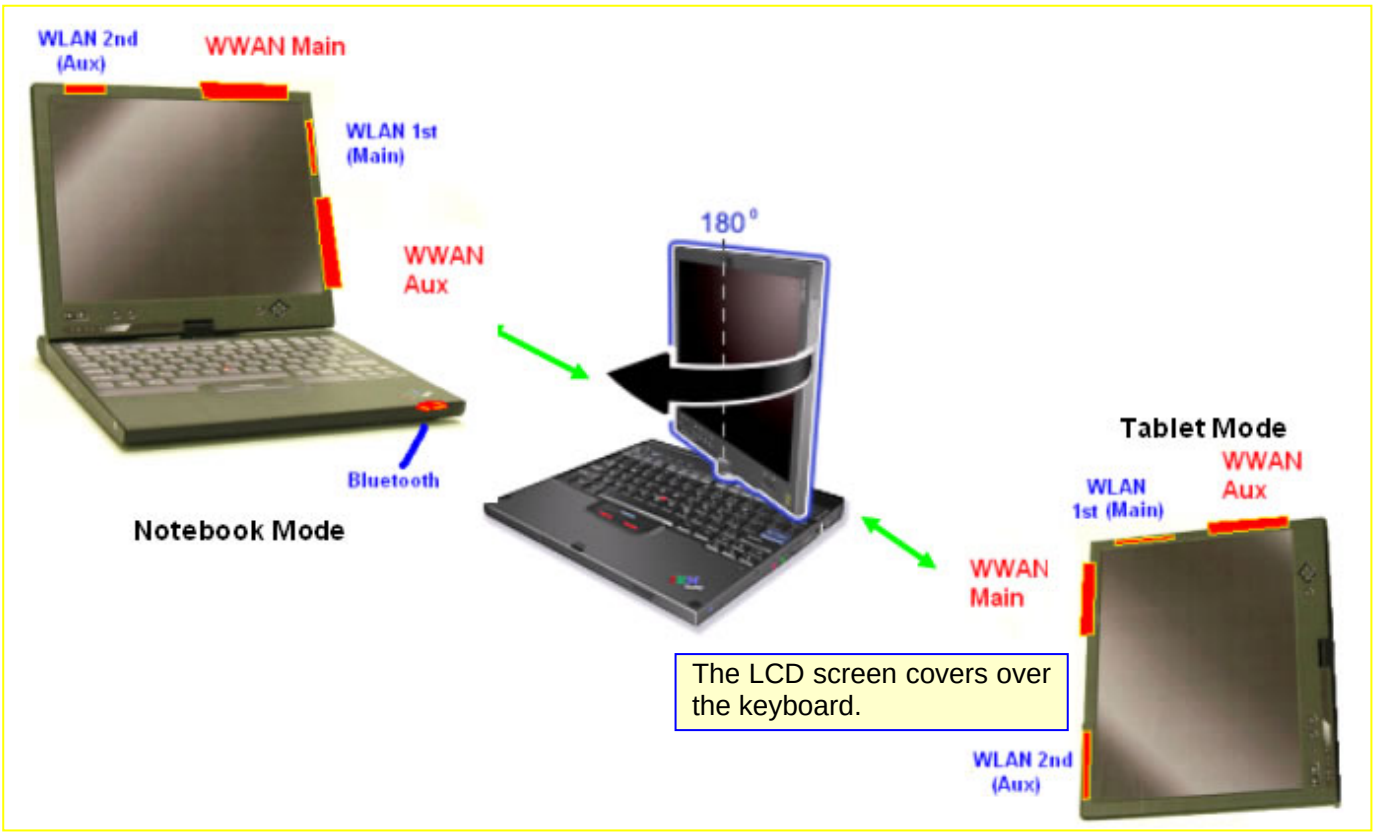
3. Conclusion

The maximum grid-summed SAR results for the WLAN and WWAN modules are as follows, then the applying device (FCC ID: PPD-AR5BXB6) has found to comply with the limits for the SAR compliance according to FCC CFR 47 section 2.1093, Portable devices.

WLAN 2.4GHz DTS band with Bluetooth and WWAN	0.990 mW/g
WLAN 5.2GHz U-NII band with Bluetooth and WWAN	1.107 mW/g
WLAN 5.8GHz DTS band with Bluetooth and WWAN	0.796 mW/g

4. Summary of grid-summed SAR result

The SAR test was performed with the following configuration, and the same terms of each configuration are referred in the SAR test report.



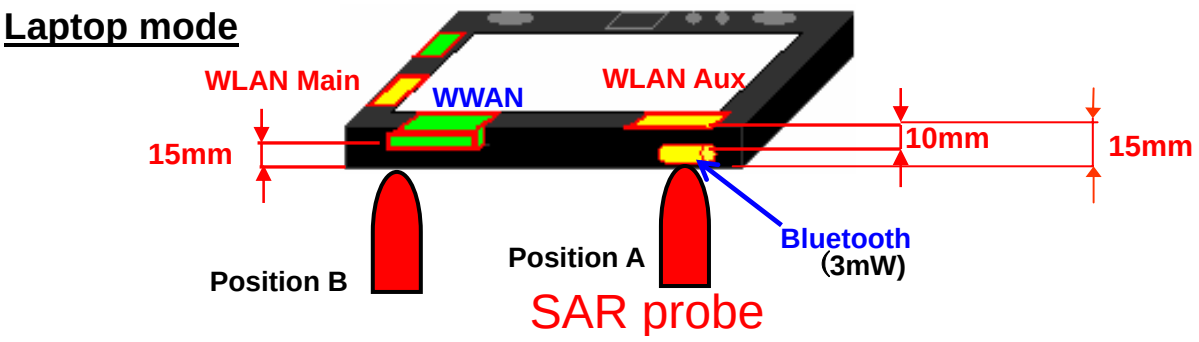


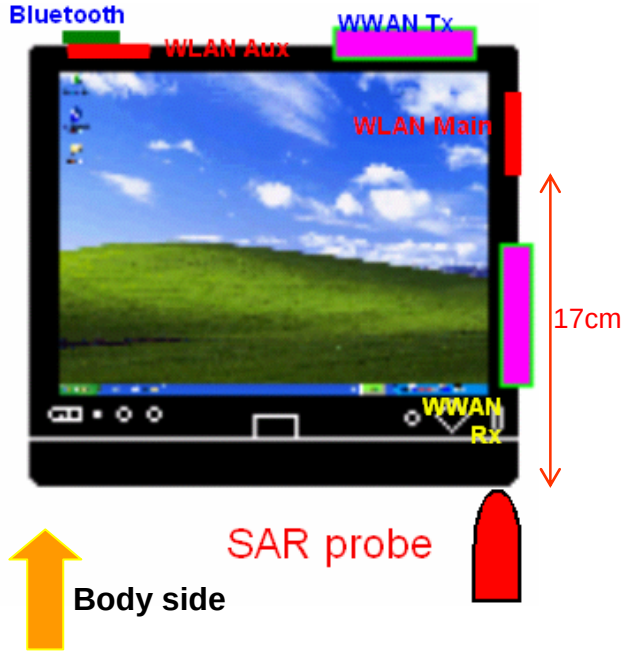
Table-1 Grid-summed SAR result of Laptop mode

[Unit of results: mW/g]

SAR at position A		PPD-AR5BXB6 + each WWAN + MCLJ07H081	SAR at position B	N7N-MC5720	N7NMC8755	N7NMC8765	Sum of WLAN + WWAN *1
SAR Test Report No.		06LR020SAR-F		06U10632-4B	06U10630-3B	06U10631-3B	
Laptop (Lap-Held)	2.4G (DTS)	0.554	EVDO-22H	0.081	N/A	N/A	**0.990**
			EVDO-24E	**0.436**			
	5.2G (U-NII)	0.671	GRPS-22H	N/A	0.142	0.122	**1.107**
			EGRPS-22H		0.041	0.035	
			GRPS-24E		0.194	0.277	
			EGRPS-24E		0.068	0.137	
	5.8G (DTS)	0.360	WCDMA-22H	N/A	N/A	0.055	**0.796**
			WCDMA-24E			0.358	

*1: SAR result of WLAN + the highest SAR result of WWAN

Tablet PL (Primary Landscape)



Tablet PP (Primary Portrait)

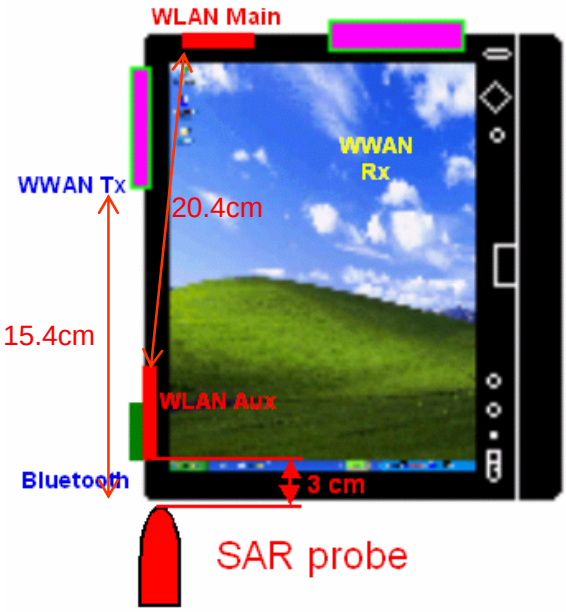


Table-2 Grid-summed SAR result of Tablet Primary mode

[Unit of results: mW/g]

		PPD-AR5BXB6 + each WWAN + MCLJ07H081
SAR Test Report No.		06LR020SAR-F
Primary Landscape	2.4G (DTS)	0.130
	5.2G (U-NII)	0.220
	5.8G (DTS)	0.200

		PPD-AR5BXB6 + each WWAN + MCLJ07H081
SAR Test Report No.		06LR020SAR-F
Primary Portrait	2.4G (DTS)	0.434
	5.2G (U-NII)	0.455
	5.8G (DTS)	0.456

Tablet SL (Secondary Landscape)

Tablet SP (Secondary Portrait)

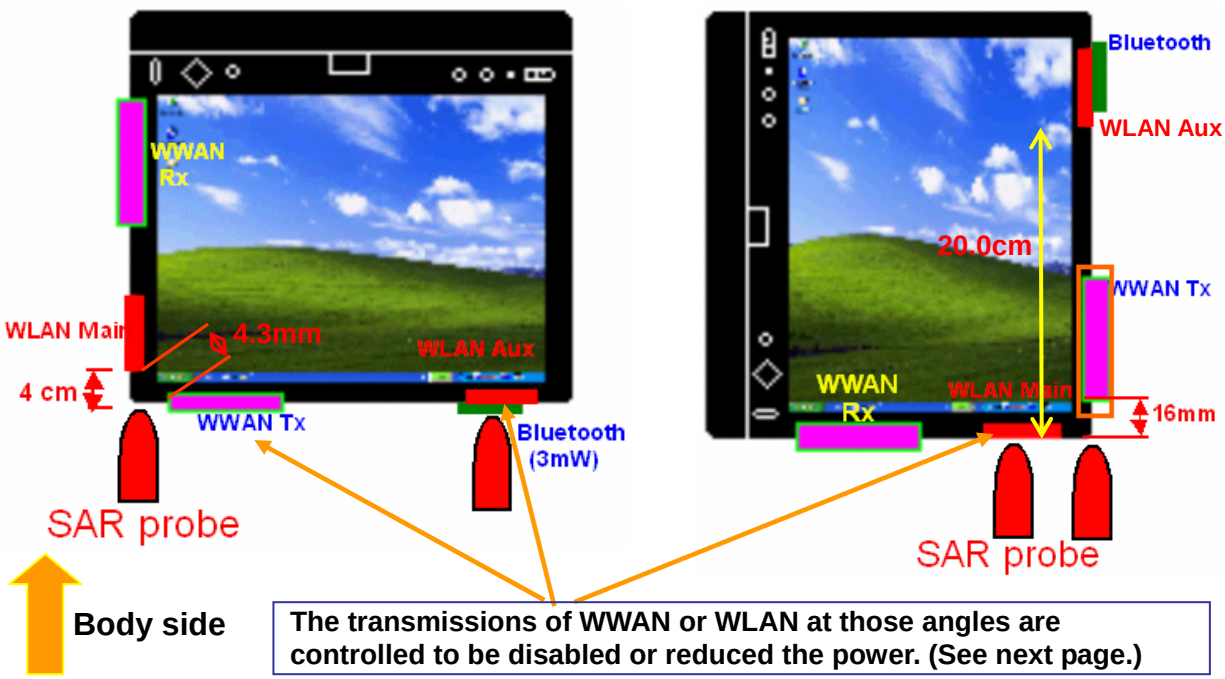


Table-3 Grid-summed SAR result of Tablet Secondary mode

[Unit of results: mW/g]

		PPD-AR5BXB6 + each **WWAN** + **MCLJ07H081**
SAR Test Report No.		06LR020SAR-F
Secondary Landscape	2.4G (DTS)	0.430
	5.2G (U-NII)	0.529
	5.8G (DTS)	0.548

		PPD-AR5BXB6 + each **WWAN** + **MCLJ07H081**
SAR Test Report No.		06LR020SAR-F
Secondary Portrait	2.4G (DTS)	0.485
	5.2G (U-NII)	0.527
	5.8G (DTS)	0.534

[Transmission control in “Tablet” operation mode]

- The system recognizes mechanically that it is transformed from **“Notebook mode”** to **“Tablet mode”.**

- The screen angle of **Tablet mode** is determined by operators with the screen rotation switch shown below, then the system recognizes which screen mode in **PL, PP, SL** or **SP** is selected.

- When the **SL** screen mode was selected, the system controls the transmission power of the Aux antenna for WLAN module (FCC ID: PPD-AR5 BXB72-L) to restrain to **1mW**, or the transmission of WLAN module (FCC ID: **PPD-AR5 BXB6** or PD9LEN3945ABG) is forced to switch to the main antenna.
  If WWAN module was active, the system does not function with **SL** mode for any WWAN module, and the screen returns to **PL** mode automatically so that operator won’t use the **SL** mode.

- When the **SP** screen mode was selected, the system controls the transmission power of the Main antenna for WLAN module (FCC ID: PPD-AR5 BXB72-L**)** to restrain to **1mW**, or the transmission of WLAN module (FCC ID: **PPD-AR5 BXB6** or PD9LEN3945ABG) is forced to switch to the Aux antenna.