

RF Exposure Evaluation in co-locating with other transmitters

1. Configuration

The host PC device (DL-Note) consists of the following wireless communication features, and the applying modular transmitter device (FCC ID: **PD9LEN3945ABG**) was previously certified by the Commission on October/18/2006 with the same configuration in this application.

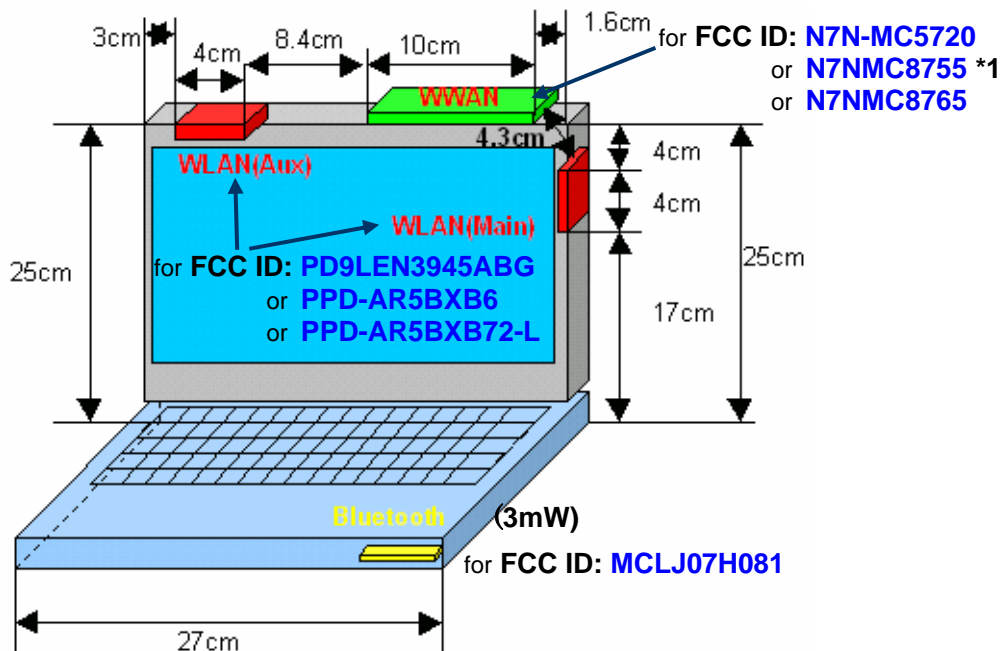
The difference from the previous grant condition is:

to enable the simultaneous transmission with the WWAN modular transmitters listed below.

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

Figure-1: Wireless communication features in Lenovo DL-note

*1: The combination of FCC ID: **PD9LEN3945ABG** and **N7N8755** is not marketed in USA.



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: 06LR019SAR-F) was measured for the applying modular transmitter (FCC ID: **PD9LEN3945ABG**) with the co-located Bluetooth (FCC ID: MCLJ07H081) and each WWAN modular transmitter (FCC ID: N7N-MC5720 or FCC ID: N7NMC8765) in active and transmitting simultaneously. Also the co-located WWAN modules were examined the SAR values 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 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.

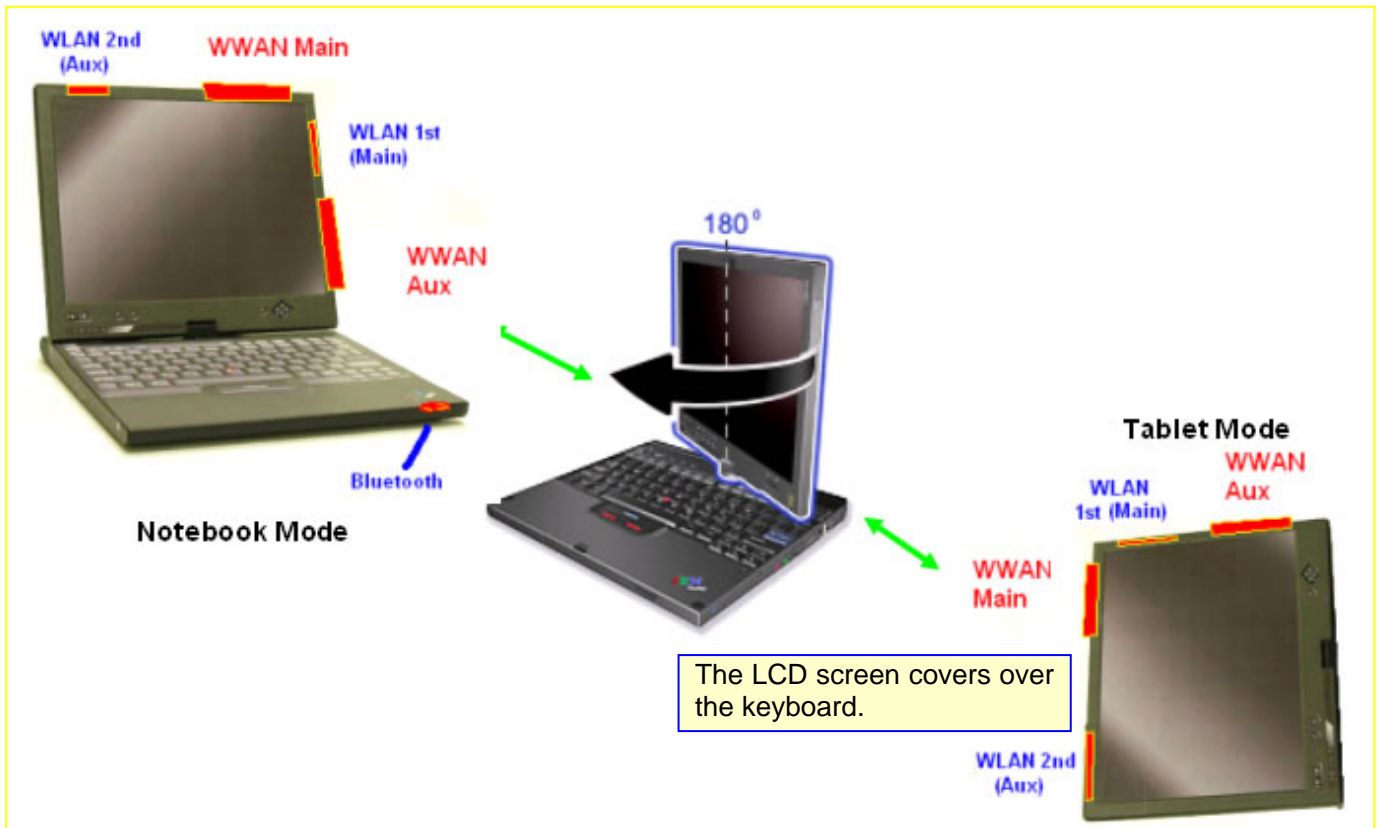
3. Conclusion

The maximum grid-summed SAR results for the WLAN and WWAN modules are as follows, then the applying device (FCC ID: PD9LEN3945ABG) 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	1.052 mW/g
WLAN 5.2GHz U-NII band with Bluetooth and WWAN	1.436 mW/g
WLAN 5.8GHz DTS band with Bluetooth and WWAN	1.516 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.



Laptop mode

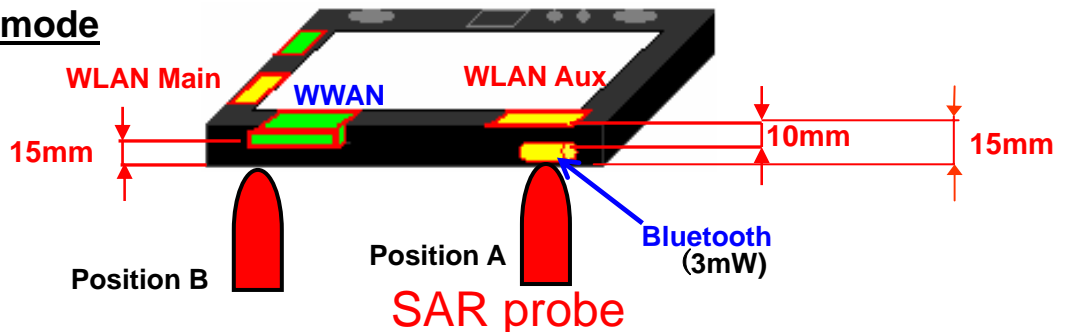


Table-1 Grid-summed SAR result of Laptop mode

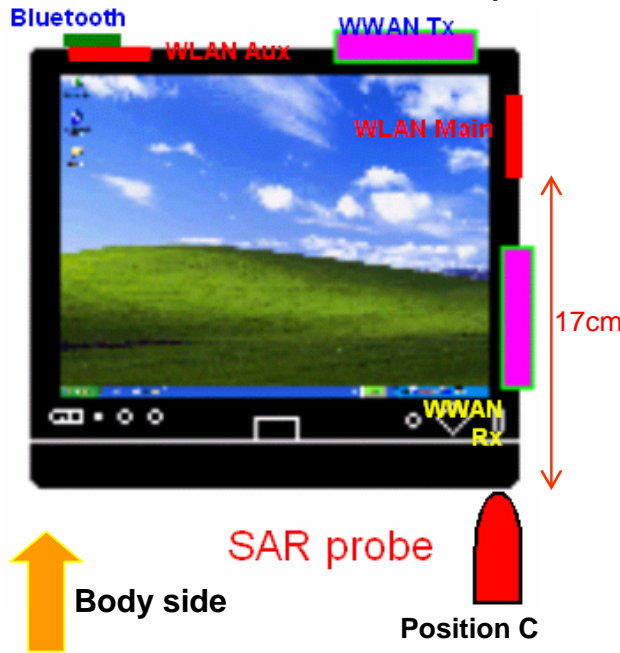
[Unit of results: mW/g]

SAR at position A		PD9LEN3945ABG + each WWAN + MCLJ07H081	SAR at position B		N7N-MC5720	N7NMC8765	Sum of WLAN + WWAN *1
SAR Test Report No.		06LR019SAR-F			06U10632-4B	06U10631-3B	
Laptop (Lap-Held)	2.4G (DTS)	0.616	EVDO-22H	0.081	N/A		1.052
			EVDO-24E	0.436			
	5.2G (U-NII)	1.000	GRPS-22H	N/A		0.122	1.436
			EGRPS-22H			0.035	
			GRPS-24E			0.277	
	5.8G (DTS)	1.080	WCDMA-22H	N/A		0.055	1.516
WCDMA-24E			0.358				

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



Tablet PL (Primary Landscape)



Tablet PP (Primary Portrait)

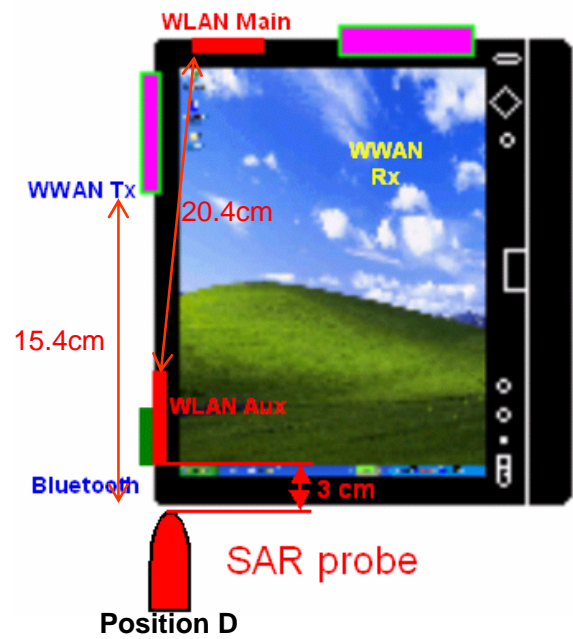


Table-2 Grid-summed SAR result of Tablet Primary mode

[Unit of results: mW/g]

SAR at position B or D		PD9LEN3945ABG + N7N-MC5720 + MCLJ07H081	PD9LEN3945ABG + N7NMC8765 + MCLJ07H081
SAR Test Report No.		06LR019SAR-F	
Primary Landscape	2.4G (DTS)	0.151	0.242
	5.2G (U-NII)	0.525	0.199
	5.8G (DTS)	0.598	0.178
Primary Portrait	2.4G (DTS)	0.155	0.271
	5.2G (U-NII)	0.292	0.955
	5.8G (DTS)	0.182	1.083

Tablet SL (Secondary Landscape)

Tablet SP (Secondary Portrait)

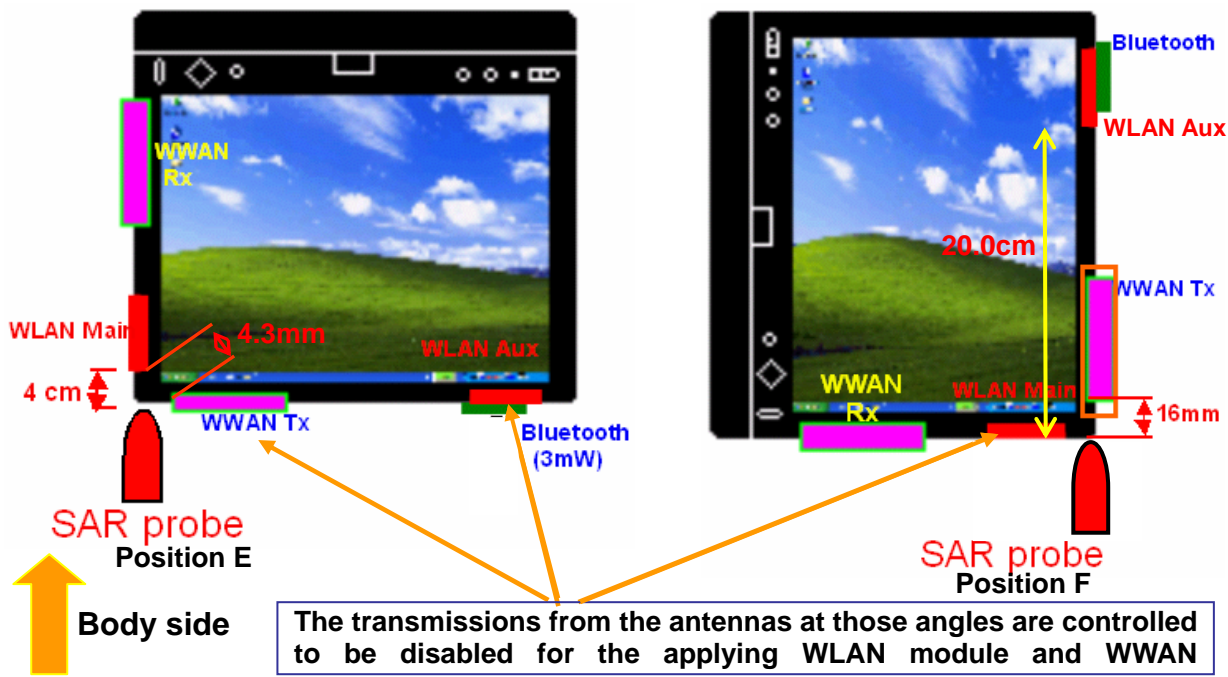


Table-3 Grid-summed SAR result of Tablet Secondary mode

[Unit of results: mW/g]

SAR at position E or F		PD9LEN3945ABG + N7N-MC5720 + MCLJ07H081	PD9LEN3945ABG + N7NMC8765 + MCLJ07H081
SAR Test Report No.		06LR019SAR-F	
Secondary Landscape	2.4G (DTS)	0.306	0.065
	5.2G (U-NII)	0.108	0.053
	5.8G (DTS)	0.134	0.128
Secondary Portrait	2.4G (DTS)	0.625	0.850
	5.2G (U-NII)	0.833	0.847
	5.8G (DTS)	1.286	1.006

[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.

