



RE: FCC ID: E2K24CLNS
Attention: Dennis Ward
Date: February 21st 2002

In response to your comments raised on February 5th, 2002 regarding this Application, please find my answers below:

1. Please note that you have not provided photos or drawings of where the antenna(s) are located in this device. The documentation states that you believe the Bluetooth and WLAN are not collocated because of separation distances yet you do not provide evidence of this separation. Please provide photos or drawings that clearly show the location of all antenna(s) in the laptops.

A document - "Addendum to RF Exposure (Antenna Separations).pdf" – containing photographs showing the separation between the antennas has been uploaded.

2. Please note the manual provided does not contain the non modification statement as required in Part 15.21. Please note that the statement disclaiming Dell responsibility for unauthorized modifications, does not warn the user that such modifications may void his/her right to use the equipment. Please provide, or show where the statement is provided that warns the user that unauthorized modifications may void his/her right to use the device.

The User's Regulatory Guide has been updated (Users Guide (regulatory) Revised.pdf). Refer to page 4 of this guide for the statement.

3. Please note that the Laptop is more than sufficiently large to contain the 2- condition statement required by 15.19. Please remember that 15.19 clearly states that the statement is to be on the device except "when the device is so small or for such use that it is not practicable to place the statement specified under paragraph (a) of this section on it." Please provide or show where this statement is placed on the device itself. Alternately, please provide adequate justification why the statement is not on the laptop.

Although the base of the laptop is large, it is split into smaller sections by removable covers for batteries and expansion slots and fan openings. Labels cannot be placed over the openings and, as per the FCC's rules, may not be placed on removable covers. The existing label for the laptop contains all regulatory marks required for the various countries it is marketed with no room available for the two-part statement. For this reason Dell believes they are justified in placing the statement in the User's Guide.

The statement is contained on page 3 of the User's Regulatory Guide (Users Guide (regulatory) Revised.pdf).

4. Page 15 states that conducted power was 17.6dBm, page 3 says 17.8dBm. Please make documentation consistent.

The response to this question can be found in the letter from April labs, uploaded as "SAR Response Letter.pdf".

5. Please note on page 4 the statement, “The Intel(R) PRO/Wireless 2100 LAN 3A Mini PCI adapter wireless network device must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product.” Please note that the SAR report indicates that the transmitter is installed only by the OEM/manufacture and is not installable by the user. This would also mean that in reference the manual statement on page 4, the transmitter installation instructions cannot be provided to the user. Please explain what instructions are given to the user (provide them) and please correct any such instructions to only include the necessary antenna use and placement.

OEM installation requirements have been removed from the various documents. The user-installation guide has been uploaded (dell WLAN install guide 021203.pdf)

6. Please note that the SAR report contains hand SAR testing. Since there is no approved FCC approach to this sort of SAR, this data needs to be removed from the report. Please report Body SAR only.

The response to this question can be found in the letter from April labs, uploaded as “SAR Response Letter.pdf”.

7. On page 4 of the SAR report you state that the max SAR with only the WLAN transmitting, the SAR was 1.16w/kg. Then you state that with both the WLAN and Bluetooth transmitting simultaneously the SAR was 0.94w/kg. The explanation only states that you performed additional testing. If both devices were transmitting at maximum power and since the manufacturer has stated that the antennae for both devices are separated by more than 20cm (thus no collocation) I would expect that the SAR would be about the same, but certainly not decrease. This decrease can be for a number of reasons. One primary cause may be power. Please verify that the power of each device during this test was at maximum and that the power of each device was not adversely reduced due to simultaneous operation. If power was reduced, please provide how this is part of the normal operation, or alternately, provide an explanation of the decreased power. (See also Neweb antenna SAR report)

The response to this question can be found in the letter from April labs, uploaded as “SAR Response Letter.pdf”.

8. Please note that SAR measurements are to have power drift included in the data for each plot. I cannot find power drift information on the plot or plot data sheets. Please provide the required power drift information on the plotted data.

The response to this question can be found in the letter from April labs, uploaded as “SAR Response Letter.pdf”.

9. Page 26 and 36 of the Hitachi SAR report (Product Data) says the transmit power was 1 Watt. Is this the EUT power? Please explain what this 1 Watt is referring to.

The response to this question can be found in the letter from April labs, uploaded as “SAR Response Letter.pdf”.

10. On pages 27, 30 graphs you state 10gSAR, yet the table at the bottom shows 1g SAR. Please be consistent in reporting values. Please explain and/or correct to show the appropriate units.

The response to this question can be found in the letter from Aprel labs, uploaded as “SAR Response Letter.pdf”.

11. The validation scan information is ambiguous. Please provide a general description of the “formal validation” procedure and the dipole used. Please include manufacturer / calibration reference dipole data and the actual dates the validation was performed (this needs to be on the validation graph page also).

The response to this question can be found in the letter from Aprel labs, uploaded as “SAR Response Letter.pdf”.

12. The second SAR report has the same concerns. Please respond for that one as well.

The response to this question can be found in the letter from Aprel labs, uploaded as “SAR Response Letter.pdf”.

13. The conducted power measured between the SAR reports and the EMC report too great. The power from the SAR reports says 17.6 (17.8dBm depending on what page you look at) and the EMC says 16.4dBm. This means the SAR reports are 57.5mw (60.2 mw depending on what page) and the EMC is 43.6mw. This is a 27% variation. Please note these are conducted power levels and they must be within 5% of each other. Please retest either SAR or EMC or both and provide power measurements within the required 5% conducted power.

SAR testing was performed in parallel with EMC testing. To ensure compliance with FCC’s rules for spurious emissions, most notably at the band edges, the output power is reduced from the absolute maximum that can be obtained from the device (17.8dBm) to a usable level (16.4dBm), while the SAR testing was performed at the device’s maximum output power. This practice has been accepted in previous applications for product approval.

As the higher output power used in the SAR tests would produce higher SAR values, it is requested that the FCC accept the SAR data without having to re-evaluate at a lower output power setting.

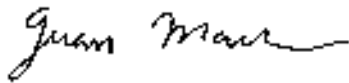
14. The conducted emissions setup photos show that the cables are not less than 40cm to the ground plane as required in ANSI C63.4. Please retest to be in compliance with ANSI C63.4 setup procedures.

The photograph, because of the angle it was taken at, does not clearly show the position of the cables with respect to the ground plane. An additional photograph has been provided showing the rear of the system during the radiated emissions tests to demonstrate that the cables were 40cm above the ground plane during the test.

The following documents, to support the above answers, have been uploaded to the ATCB website:

Users Guide (regulatory) Revised.pdf
Hitachi SAR (Revised).pdf
Neweb SAR (Revised).pdf
SAR Response Letter.pdf
Addendum to RF Exposure (Antenna Separations).pdf
dell WLAN install guide 021203.pdf

Regards,

A handwritten signature in black ink, appearing to read "Juan Martinez", with a stylized, flowing script.

Juan Martinez