American Telecommunications Certification Body Inc.
6731 Whittier Ave, McLean, VA 22101

February 5, 2003

RE: FCC ID: E2K24CLNS
Attention: Mark Briggs

I have a few comments on this Application.

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

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

Dennis Ward
mailto:dward@AmericanTCB.com

The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information may result in application termination. Correspondence should be considered part of the permanent submission and may be viewed from the Internet after a Grant of Equipment Authorization is issued.

Please do not respond to this correspondence using the email reply button. In order for your response to be processed expeditiously, you must submit your documents through the AmericanTCB.com website. Also, please note that partial responses increase processing time and should not be submitted.

Any questions about the content of this correspondence should be directed to the sender.