

October 21, 2003

RE: Dell Computer Corporation

FCC ID: E2K24CLNS

Answers to the ATCB comments on the above referenced Application.

1. What is the purpose of this PC2? Please provide a letter stating the purpose of the PC2 (i.e. to add antennae etc).

Please refer to "Letter – Cover (Rev. A, 10/07/03). The purpose of the PC2 is to add an additional chassis (PP10L) with two sets of antennas (Yageo and Wistron) to the original grant.

2. Please note that there is conflicting documentation concerning the installation of this device. Please also note that the grant is not a modular but a Limited Modular approval for use in a specific host. The original and subsequent PC2 grants state that the WLAN AND ANTENNA(S) MUST BE INSTALLED BY THE OEM / INTEGRATOR. The Intel OEM installation states that only OEM integrators can install the mini-PCI card. The manual now indicates on page 23 that the user can install the mini-PCI card. This violates the grant condition. The manual needs to be changed to agree with the grant (i.e. the WLAN can only be installed by the OEM or OEM/integrator).

Per Dell this 802.11b 2.4GHz card should be allowed to be installed by the end user due to there is no permanently attached antenna requirements or anything in the rules stating that an end user can not install said card. Dell would rather the Grant notes be changed than changing their manual. The Intel regulatory guidelines submitted are "Guidelines Only" given to the OEM if the OEM is within the limits and guidelines of the FCC or other agency there should not be an issue. Please advise on how the grant notes can be changed to reflect that the end user can install the mini-PCI card.

3. Please note that the original report stated that the PC in which the WLAN was installed was the PP05L. This report states the PC is the PP10L. The host tested does not appear to be the same host model that this LMA applies to. Please explain (i.e. what are the differences between the granted PP05L and this PP10L host?).

This submittal was to add this chassis and antennas to the original Limited Modular Approval portable listed filing as we have done in the previous Class II Permissive changes.

4. Please verify that the appropriate labels for the Bluetooth device are still on the host.

Please refer to "Label – Bluetooth". It is the same Bluetooth label, which was on the original grant and is located more than 20cm away from the WLAN antennas.

5. Please note that the readings of the band edges on pages 24 and 31 only show the corrected readings. Please explain and/or show the measured reading and correction factors in the table.

The reason only the corrected reading is shown is because the readings are calculated using the band edge plots and subtracting the delta from the fundamental measurement per the Delta-Marker Method.

6. FYI - no action needed. Please note that the SAR reports contain 'Direct contact' (sometimes referred to as hands wrist feet etc) SAR. Please note that this information cannot be reviewed by a TCB and is in fact superfluous and unneeded information for the purpose of this grant. The FCC does not require this information and is best not provided when a TCB is certifying a device. Consequently all such information will be ignored by ATCB during this review. Neither will this information be provided on the grant.

This information was supplied due to previous FCC requests.

7. Please note that TCBs must use 1528 and OET 65C. The SAR report states that 1528 section 7 was used "where applicable". Please explain, if any, the parts of section 7 of IEEE1528 that were not 'applicable'.

Please refer to "April Response E2K24CLNS" question 1.

8. Please note that the conducted power measurements listed in the EMC report show a max of 16.75dBm. The conducted power listed in the SAR report show a max of 16.5dBm power. Please note that, when different, the SAR power must be the higher of the two (i.e. SAR is measured at the highest output power of the device). Please also note that the FCC, in accordance with the OET SAR review checklist, requires conducted power to be within 5% between the EMC and SAR report). This is different than the 5% power drift requirement during SAR measurements. Please explain why the SAR was not measured at the required higher power. Please provide data whereby SAR is the higher power measured for conducted power (the variance between existing SAR and EMC reports is 6% and while not exceeding by much, it is over the allowed percentage. Please make sure that the EMC and SAR report power is within 5% for conducted power (5%=approx .23dB). Alternately, please provide a reasonable justification for the use of the lower power during SAR testing.

[Please refer to "Aprel Response E2K24CLNS" question 2.](#)

9. Please note that the SAR report states that the same power level existed at all three frequencies tested (2412, 2437 and 2462MHz). The power measured at these frequencies in the EMC report varied by up to .8dBm. It would be expected that power would also vary by similar values for SAR power measurement. It would also be expected that the power would drift some between the before and after power measurements over the 12 to 16 hours of testing done. The data table in section 6.1 of the SAR report states that there was no power drift between the before and after in this 12 to 16 hour time frame and that the same power was measured at all three frequencies (16.5dBm). Please explain.

[Please refer to "Aprel Response E2K24CLNS" question 3.](#)

10. Please note that in the document "Test Report - SAR with Yageo-Phicomp Antennas Part 2 of 5.pdf", a number of values have been replaced with the Question mark (?). While it may be assumed what these values and terms are, the report should properly indicate these values. Please correct the aforementioned document (see pages 2, 5, 6, 7 and 8). Also see "Test Report -SAR with Yageo-Phicomp Antennas Part 3 of 5.pdf" for similar errors.

[Please refer to "Aprel Response E2K24CLNS" question 4.](#)