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

February 18, 2003

RE: FCC ID: PANWL12001M
Attention: Ellis wu
I have a few comments on this Application.

1. Please note that you have asked for a Limited Modular Approval (LMA) on this device. An LMA is a limited approval for use in a specific device. Your letter mentions several devices. This would not be an LMA but rather a Modular approval. Also, since the device is only 4mw it could be used in mobile or portable devices with no mention of a 20cm separation. However, the other documentation states the device is only a cable connected USB Dongle. Please correct LMA and other exhibits to correctly specify what the device is.
2. On the first page of the internal photos you show a copper shielded area. Is this copper shield a modification to achieve compliance done at the lab, or is this installed at the factory? If it is a modification please so indicate and please show how the manufacturer will implement this fix. If it was part of the device as received for testing, please so indicate.
3. Please note that this device appears to have a standard USB port connector, and is listed as a USB Dongle Module. Also please note that even tested as a stand alone, it was tested connected to a laptop USB port. This then appears to be one of the potential markets for the device. The cable used indicates that this is not a 'directly connected' USB Dongle, but requires a USB cable. Please clarify or show a photo of the USB connector on the device.
4. The manual states that this is an OEM installed device only. Please explain how it is possible to be connected to a typical laptop USB port via USB cable and still be OEM installed only. Please also note that when this module is made into a USB Dongle (i.e. a case is added), it would most likely have to be recertified as such.
5. Please note that you state this device could be used in a "Notebook with antenna mounted around LCD panel". What does this mean? Are the antenna(s) installed inside the laptop so as to be not assessable by the user under normal use? Or does this mean that external antenna(s) are somehow fastened to the outside of the laptop? If the antenna(s) are installed inside the laptop, this would indicate an OEM installation inside the Laptop as mentioned. If however, the antenna(s) are installed outside the laptop (i.e. fastened to the outside of the LCD in some manner), this may not be under the control of the OEM because the user could reattach the antenna(s) at other locations on the laptop. The manual and technical documents say nothing of how this is done (i.e. OEM installation instructions). Please clarify the use of the device in this situation.
6. The device has a standard USB connector which is not typical of an OEM installation inside a laptop. Please explain what type of connector would be used in this case and please show photos of this connector type. If the standard USB connector is simply not provided in this situation, please so indicate. Please clarify.
7. Please note that the manual clearly refers to this as a USB Dongle only and states that "To use the WLAN USB Dongle with a computing device, the device must be equipped

with an available USB port." The manual also states in the technical section that the use of this device is for the USB port. This statement in the manual precludes the use of this device as internal to a "Notebook with antenna mounted around LCD panel." Also, the report calls the device a USB Module. What is this device? Please clarify the use of this device and make all documentation consistent.

8. Please note that the testing of the device using a USB cable shows that this cable has a ferrite on the cable. Ferrite loaded USB cables are not typical. As such, please note that a ferrite of similar characteristics as was tested must be provided with this device. Also, please note that instructions on how to install this ferrite on the USB cable must be provided in the manual. Alternately, please show compliance of the device using a non-ferrite loaded USB cable.
9. Please note that in reference to items 3 through 8 it appears that you are trying to get a modular approval on what is a simple external USB cable connected peripheral device with a WLAN transmitter without a case. Would it not be simpler to put the device in a plastic case and certify the device as such? If the device is a module, please clearly and unambiguously define and clarify where it is to be used and how it is to be used/connected/installed. Please correct all documentation to be consistent as to the purpose of this device.
10. Please note that the manual is very inconsistent as to what this device is. For example, in the installation instructions for most operating systems you say to plug the cable into the USB port. However, in the Windows XP section you state that the device is a PC Card in one paragraph and you state it is a WLAN USB Dongle in another (see section 4.4 "Install Wireless LAN USB Dongle under Windows XP"). Please make all documentation consistent and please clearly an unambiguously explain what this device is.
11. Please note that the external photos show a ferrite on the dipole antenna. It is my assumption that testing was done with this ferrite. Please note that this means the ferrite is necessary for compliance and a ferrite of the type must be provided with this device for use with the dipole antenna. Also please note that instructions on how to install this ferrite on the dipole antenna cable must be included in the manual. Alternately, please test the radiated spurious emissions using the dipole without the ferrite.

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.