

American Telecommunications Certification Body Inc.

6731 Whittier Ave, McLean, VA 22101

December 6, 2002

RE: FCC ID: KBCIX260MPI350

ATCB000029

Attention: Jon Hughes

I have a few comments on this Application.

- The product and the label appear to be more than large enough to contain the 2-condition statement as required by 15.19(a)(3). Please remember that only certain instances allow this statement to be placed in the manual. The product as shown and described does not meet this instance. Please correct the label or alternately provide an additional label with this 2-condition statement on the product.
- Your report states that the 'nominal' conducted power rating is 110mW. The measured conducted power, including cable loss, is 85mW. This is a very significant difference in power. Please note that the rated output power has no meaning and that the conducted power on the grant would be 85mW. Please note that an 110mW device would be non-compliant to the grant and thus illegal. If the nominal power is the target power for the device, please test a unit at this rated power. Otherwise please correct or remove the 110mW nominal power reference in the report from all locations and put the measured conducted power in its place.
- Please note that on page 4 of the report you list 2420, 2442, & 2460 MHz as the tested frequencies, but then in the table you list channel 1, 6 and 11 (2412, 2437 and 2462) as the frequencies tested. Please correct the report to be consistent.
- Please note that this is not a PC2 for the Cisco WLAN card, but is an application for its own FCC ID. As such the test report must provide measurements of all appropriate tests under 15.247. This includes not only the power levels as provided and radiated spurious emissions, but band edge compliance, conducted spurious emissions 20dBc from the carrier, Peak Power Spectral Density and minimum emission bandwidth requirements. Again, please note that this is an application for the laptop with a WLAN (i.e. a limited modular approval) and must stand on its own merit. Please provide all necessary test results.
- Please note, since this is an application for an FCC ID number of the WLAN with the laptop, schematics of the WLAN card must be provided. Please provide the schematics for the WLAN card.
- 6 Please provide a Block Diagram of the transmitter including all clocks.
- Please note that the manual is clearly not for this device. Please note that there is an antenna in the upper LCD screen area of the device in the manual that is rotated up. The rear of the device is also not representative of what was tested. See page 11 of the manual and compare to the internal photos, external photos and setup photos. Please provide a manual that is for this device.
- 8 Please provide a photo or drawing giving the location of the antenna(s) in the display section. The location of the antenna(s) is not clear.
- Since this device can be within 1.5cm of the user and since it is over 25mW the maximum SAR levels measured in the SAR report need to be specified in the manual. When providing the correct manual for this device, please include the maximum SAR values in the RF warning section.
- 10 Please clearly mark the location of the antenna(s) on the external photos.
- Please note that your manual states the use of external SMA connector antenna(s). No such antenna(s) were tested with this device. Please remove any reference to external antenna(s) or alternately provide test data for the specific antenna(s) used with this device. Also, please note that since the device cannot be classified as professionally installed, SMA antenna connectors are not allowed on test device. External antenna(s) must meet the Part 15 antenna requirement and must be tested. Please explain.

Page 2
December 6, 2002

Please note I cannot find the non-modification statement in the manual required by 15.21. Please provide the following or similar statement in the manual: "changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

- FYI, If the lap top can only be used in the typical open position, and if the conducted power of this device is only 85mW, and if the antenna(s) are in the upper LCD area (20cm separation), MPE is sufficient. Please explain why SAR was done. I.e. can the laptop be used in the closed position?
- Please note the EMC report uses the cable loss as part of the conducted power. The SAR report does not mention any such cable loss. Does the conducted power in the SAR report include this cable loss, or is the conducted power in the SAR report compared to the conducted power less the 1.3dB cable?
- Please note that the maximum SAR reported is only 0.04W/kg under the limit. The test procedures listed appear to be 'generic' in nature. With measured values this close to the limit, it is important to take steps to insure an accurate as possible measurement. Please clearly identify the steps you have taken to make sure that the maximum level you measured (1.56W/kg) is the maximum and that the device is, as far as can be determined, within the limits of SAR.

Dennis Ward

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Dennis Ward

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.