



# Washington Laboratories, Ltd.

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August 3, 2006

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

RE: Comments of July 6, 2006  
APPLICATION: Proxim Corporation HZB-4000LR

Dear Mr. Johnson:

Below are the comments that you have provided regarding the application for certification referenced above. Our responses to those comments are in ***bold italic***. Many responses refer you to additional exhibit(s) which has been uploaded to the application folder at the ATCB website.

Thank you for your attention. Please feel free to contact us for any additional information that you may require.

Regards,

*Michael Violette*  
President

*Brian J. Dettling*  
Documentation Specialist

WLL Project: 9141, 9153, 9176

- 1) The professional installation manual suggests this device may be sold without an antenna and the antenna is supplied by the professional installer or customer. While this may be allowed for a licensed device, unlicensed device must have the proper antenna supplied to the customer. While this may be done using a professional installer, note that Proxim will be responsible to ensure proper antennas are used. Please reference the following discussion provided by Joe Dichoso on a previous application where the manufacturer claimed to not be providing the antenna for an unlicensed approval (note the specific below mentions OEM which was in reference to questions regarding a Modular approval aspect to the device as well):

Note the above suggests some sort of control between grantee and professional installer as well. For instance direct control of the install team or various contracts in place (Proxim → Installer, or Proxim → reseller → installer) in place to ensure proper installations are performed correctly. Here the question is it appears the device can be sold to the end customer without an antenna which is not allowed for the unlicensed world and rely on the customer to hire a professional installer. What precautions are taken to ensure once in the hands of the user/customer that it is a complete system (TX + antenna). Usually simply identifying the antennas and defining it should be professionally installed has generally not been sufficient. Please review.

***R. Please see attached Revision 1 of the attached Professional Installation statement.***

***See: Proxim Prof Installation Rev 1.pdf***

- 2) The maximum gain of the antennas information cited shows a 5.8 GHz 17 dBi Sector antenna and 28 dBi Flat panel. The manual information suggests 18 dBi sector and 36 dBi directional. Please review/correct. Also, please ensure that proper maximum gains have been tested for radiated emissions as required.

***R. Please see attached new Safety Information Brochure shipped with the product. The reference to the 36 dBi antenna is removed.***

***See: AP4000MR-LR Regulatory Flyer\_31.pdf***

- 3) Is the proper power reported in the 802.11b report? This appears identical to the 802.11g report.

***R. Please review the summary of the reported power from each report, repeated here:***

- The 802.11b report shows 23.6 dBm
- The 802.11g report shows 24.0 dBm

- 4) Regarding 5.8 GHz, manual cites 5745 – 5825, while 731 form cites 5740 – 5835 MHz. Testing appears to suggest both 5740 – 5835 and 5760 – 5815. What is the true center frequencies? Is manual correct? Please review.

***R. Please see attached new revision of manual. The operating channels are listed on page 24.***

***See: AP4000MR-LR\_QIG\_v3.3\_CD\_r1.pdf***

- 5) The new block diagram provided suggests the device may be capable of using both radios in the 5.8 band simultaneously. Please explain if this device will be able to operate like this. If so, then various exhibits such as RF exposure do not appear to take this into account. There are also concerns with compliance such as 15.247(b)(4)(iii), etc.

***R. The device will not operate as stated in Comment 5). One radio section operates only on the 2.4 GHz band and the other only on the 5.8 GHz band due to the hardware components installed onto the printed circuit board. Please see the system block diagram on the Product Description sent with the last upload for clarification on the radio operation. It show this visually.***

6) Given the nature of 6 antennas (3 for 2.4 GHz, 3 for 5.8 GHz), are test photos of each configuration available? It appears that only 3 antennas have been shown?

***R Test photos are representative of the test setup. We do not have photos of the other setups.***