



Washington Laboratories, Ltd.

7560 LINDBERGH DRIVE
GAITHERSBURG, MD 20879

(301) 417 - 0220 FAX # (301) 417 - 9069

April 19, 2004

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

RE: Comments of April 12, 2004
APPLICATION: RWQ-CPE2 ZCOMAX Technologies, Inc.

Dear Mr. Ward:

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,

Gregory M. Snyder
Chief EMC Engineer, Wireless/Telco Services Manager

Brian J. Dettling
Documentation Specialist

WLL Project: 7973

1) Please note that the EUT is a PCMCIA card with external antenna connection. The manual does not appear to be for this device (please see 'mounting' instructions in manual). Please provide the manual for this PCMCIA card.

R. A revised manual has been uploaded. Please see exhibit "CPE2 User Manual Revision 1.pdf".

2) Please explain how the professional installation approach for this PCMCIA card is controlled by the manufacturer.

R. The device is only sold to OEM system integrators. Please refer to the revised manual.

3) Please note that the module request letter states that the device was tested in stand alone configuration. Please note that this is not how the device was tested as it was tested in the PCMCIA slot of a lap top computer and not on an extender card as stated whereby the card is fully exposed (see setup photos). Please also note that PCMCIA cards are a special form of module approval and generally do not need the modular request letter. Please explain.

R. The PCMCIA card was tested using an extender card. Incorrect photographs were used. Please see exhibit "CPE2 Test Setup Photos Rev1.pdf" containing the correct photographs.

4) Please note that the FCC ID number of the device this PCMCIA card is based upon was granted for use in a specified host (i.e. a limited modular approval). Please explain how this previous device applies to this application.

R. The FCC ID information provided was for reference purposes only and is not to be used for this certification. The ZCOMAX PCMCIA module has been fully tested to support its own certification.

5) Please note that plots 4-19 and 4-20 you show a signal around 2.38GHz that appears to be right at or over the limit of 54dB. Please explain what this signal is and if it is produced by the EUT please show how this is compliant to the restricted band limits.

R. The signal appearing on the plot was evaluated and found to be ambient. Please see exhibit "CPE2 Test Report Revision 1.pdf". This information has been included in Section 4.5.1 of that document.

6) Please note that it does not appear as if you listed the gain of the antenna used during radiated spurious emissions testing. Please specify which antenna goes with which test data.

R. The EUT was tested for radiated emissions using the 18dBi antenna. Please reference the revised test report Section 2.2 for the tested configuration.

7) Please note that there is no apparent indication that the antennae used are point to point or not. Consequently, when the EIRP exceeds 36dBm the power delivered to the antenna terminal must be reduced as specified in 15.247. If these antennae are point to point, please clearly specify this in the data and in the manual. Please explain how the system addresses 15.247b4.

R. The two antennae used for this system are strictly for point-to-point operation. Based on 15.247(b)(4) the output power must be reduced from the value stated in 15.247(b)(3) (i.e. 1 Watt) by 1 dB for every 3dB the antenna gain exceeds 6dBi. The max antenna gain is 18dBi, therefore, the output power limit stated in 15.247(b)(3) for point-to-point operations would be 26dBm.

8) Please note that the MPE report states that the calculation distance is 20cm, however, the actual distance used in the formula is 200cm. Please note that the required separation distance for this device is 34.71cm. Please correct the calculations.

R. The calculations have been revised to show the MPE calculation at 20cm and also to calculate the required separation distance. Please see exhibit "CPE2 RF Exposure Report Rev1.pdf".