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July 2, 2004

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

RE: Comments of June 23, 2004
APPLICATION: FCC ID: HDCTRC4205L1 Adtran, Inc.

Dear Mr. Graff:

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: 8030

1.) Page 15 of the Manual indicates antennas up to 44.2dBi gain can be used with this system. However, the RF Exposure evaluation shows just a 32dBi antenna. Please address this discrepancy throughout this filing.

R. The MPE has been re-calculated. Please see exhibit "4205L1 RF Exposure Info rev1.pdf".

2.) The chanelization specified on Page 35 of the Manual does not match Form 731 or the Test Report. Please address.

R. The manual has been corrected to the correct frequency. Please see exhibit "4205L1 User Manual Rev1.pdf".

3.) The Manual supplied does not contain any antenna installation instructions – specifically as to how RF exposure to bystanders shall be limited to the Uncontrolled Exposure limits or below. Please correct.

R. Antenna installation instructions referencing RF exposure are included in the User's Manual on page 10.

4.) All Part 15 intentional radiators must conform to the radiated limits of 15.209 and 15.205. Please explain how the Class A statement on page 5 of the Manual is acceptable.

R. The Class A information is for the digital section and not the radio device of the unit.

5.) The emission bandwidth of the transmitted emission is over 20MHz wide but the spectral power bandwidth is shown on only a 300KHz span. Please prove that your 300KHz span is indeed on highest point of the emission.

R. The entire bandwidth of the peak signal was scanned as the resolution bandwidth was reduced until a peak signal was identified. Once the peak was identified, the resolution bandwidth was reduced and the spectrum analyzer settings were adjusted for making an appropriate measurement.

6.) The Pout on Form 731 does not match the measured peak Pout in the test report.

R. The Pout on the Form 731 has been corrected to match the measured Pout. Please see exhibit "4205L1 Form 731 rev1.pdf".

7.) Please provide 15.205 radiated restricted band data using the highest gain antenna used with the system.

R. Please consider that the 44 dBi dish is 12 feet in diameter, which makes it impractical to test. There have been past discussions with ATCB staff regarding the testing that would be necessary for Certification of this type product and it was recommended that we test as was practical. Hence, we tested the 2' dish (28.5 dBi). We request that inclusion of the 44 dBi antenna be considered, based on the testing limitations and the conducted spurious emissions which are more than 30dB below the limit (see Test Report). Additionally, the radiated spurious emissions detected were found to be radiating from the enclosure and not the antenna front, side or rear. This, plus the consideration that the out-of-band gain of the antenna is likely to be much reduced, reduces the interference potential to an acceptably low level.

8.) The gain of the EUT antenna used during radiated emissions testing is not identified.

R. The antenna used for the testing was the 2' diameter, 28.5 dBi dish antenna.

9.) A Block Diagram of the measurement setup used for the diode detector/signal generator substitution method Pout measurement would be helpful.

R. Please see exhibit "4205L1 Test Report Appendix A.pdf" for a block diagram.

10.) Please review your Test Equipment chart (Table 9). What equipment was utilized for measurements above 20GHz?

R. The HP8593A Spectrum Analyzer, HP8449B Pre-amplifier, and NARDA V638 Horn antenna were used for measurements above 20GHz.

11.) Please describe marketing plans so professional installation is assured.

R. The device is marketed to professional network developers. Professional installation is discussed on page 10 of the User's Manual.

12.) The operational description identifies two standards in Section 4.4. One is incorrect and the other is incomplete. Please review. FYI: There are multiple references to the UNII bands throughout this filing that must be removed since this is DTS equipment utilizing 15.247.

R. Pleas see exhibit "4205L1 Operational Description2.pdf" for the correct document.