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January 31, 2003

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

RE: Comments of January 27, 2003
APPLICATION: HDCTRC4205 Adtran, 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: 7368

January 27, 2003
RE: Adtran, Inc.
FCC ID: HDCTRC4205

1) Please note that the 731 states DSS (Frequency Hopping) as the type device. This is a DTS (Digital transmission System). Please correct the 731 to give the proper EUT type.

R. The 731 Form has been revised. Please see exhibit "4205 Form 731 1.30.03.pdf."

2) Please note that for information to be provided with a Part 15 device 2.1033(a)(5) states, “A block diagram showing the frequency of all oscillators in the device. The signal path and frequency shall be indicated at each block. The tuning range(s) and intermediate frequency(ies) shall be indicated at each block. A schematic diagram is also required for intentional radiators.” Please provide a Block diagram that fits the requirements of 2.1033.

R. Please see exhibit “4205 Block Diagram.pdf.”

3) In section 3.1 of the report you state that a diode detector and oscilloscope was used to measure conducted power because the analyzer used for testing did not have the correct bandwidth. You then state that a power meter was used to measure the output of the signal generator. Why wasn’t the power meter with peak head used to directly measure the output of the device itself?

R. We do not have a peak power meter for performing this measurement directly. The power meter was only used to measure the CW signal provided by the signal generator. This substitution method has been used previously.

4) You incorrectly list 110.94MHz, 156.84MHz and 257.46MHz in an average table (Table 7). Frequencies below 1000MHz and above 30MHz are QP. Please retest these frequencies to QP and not Average. Alternately, if it is the case, re-label these frequencies as QP.

R. Measurements made below 1GHz were done as QP. The “Notes” column on the right side of the data sheet should indicate this method of measurement. The QP designation in the “Notes” column was inadvertently left out of Table 7. The test report has been revised. Please see exhibit “4205 Test Report Rev 1.pdf.”

5) Please note that when measuring between 30MHz to 1000MHz for radiated spurious emissions the video BW of an analyzer is to be equal to or greater than the RBW. This is because when the video bandwidth is less than the resolution bandwidth the analyzer begins to average. Typically averaging does not really begin until the VBW is 1/10 the RBW, but none the less when the VBW is less than the RBW the analyzer is not set properly. Section 3.5 of your report states a Video BW of > 30kHz. Please verify that the Video BW was equal to or greater than the RBW.

R. The Video Bandwidth setting for the QP measurements was set to 1MHz while the QP Adapter sets the measurement bandwidth to 120kHz. The test report has been revised.