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

July 12, 2002

RE: FCC ID: E2X-SWL2200C
Attention: Desmond Fraser / Kathy Grzovic

I have a few comments on this Application.

1 The schematic shows a reversed SMT auxiliary antenna connection possible (J2). The internal photos are not clear enough to see if C64 (series capacitor) is populated or not. It appears this capacitor may be in the circuit, thus enabling connection to this auxiliary antenna port. The test report states that an integral antenna was used. Please provide evidence that this auxiliary antenna port is disabled and not useable, or provide test data showing the type of antenna and the results of tests with this antenna.

2 The manual does not appear to contain the warning statement similar to 15.109. Please include this statement or a similar statement in the manual.

3 Please note that radiated emissions testing in accordance with 15.209 and 15.205 is not in relation to the level of the fundamental. These measurements are done at three meters and have nothing to do with any EIRP value of the fundamental emissions. All harmonics and spurious emissions must comply with the specified rule part (15.209). You have incorrectly applied calculated limits in tables 6-1 through 6-3. Again, please note that these limits are not calculated, they are specified in 15.209 and measured at 3 meters. In the restricted band, above 1 GHz, the limit is 74 peak and 54 average. Please correct the chart to reflect the proper limits. Also, please compare average readings with average limits and peak readings with peak limits.

4 Please note that power was measured using antenna-conducted methods and as such EIRP readings are not needed nor appropriate. In SS systems, the antenna substitution is not the method for determining EIRP measurements. EIRP values, when used where no antenna terminal conducted measurements are possible, are calculated in accordance with ALTERNATIVE TEST PROCEDURES of the FCC's DSSS test procedure fcc97114. Also, please note that the only use of an EIRP for SS devices is to determine the peak power and have nothing to do with spurious emissions levels. Other than this, they have no purpose. Please correct all references to EIRP to show the proper method (using the actual gain of the device antenna), or, since antenna conducted measurements were done, please remove all references to EIRP.

5 Please note that in the procedures for determining Peak Power Spectral Density the FCC says that the res BW is to be 3k the video BW is to be greater than the res BW and the sweep time is to be Span/3kHz. The plot used to show compliance to the PPSD is in error. The span is shown at 5MHz. The sweep time then should be 5MHz/3kHz or 1667 seconds. The sweep used in the report was just over half the required time. Please correct this plot to be in compliance with the FCC test procedure for PPSD.

Dennis Ward

Dennis Ward
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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.