



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

December 14, 2005

RE: FCC ID: KE3-PROTX1PLUS\_ATCB003011  
Attention: Lou Feudi

I have a few comments on this Application. Please note that further comments may arise in response to answers provided to the questions below.

1. Please note that the report states that modifications have been done to the device during compliance testing. However, it is not clear if this was done prior to the transmitter testing and thus would be required for 15C certification, or if it only applies to FCC class B limits for unintentional radiators. Please explain and please provide a confirmation letter from the manufacturer stating that the associated modifications will be implemented in all subsequently manufactured devices.
2. Please note that the column heading (uV/m) on page 15 of the report is in error. Please note that it appears that the 20.1 uV/m was calculated using an incorrect factor. Please note that below 30MHz the roll off allowed is 40dB/decade (roughly  $40\log(d/d)$ ). Thus the correction from 300m to 10 m should be  $40*\log(300/10)$  or 59dB (see 15.31(f)(2)). It appears the you used  $60\log(d/d)$  which is not allowed in the current rules. Please note that for measurements below 30MHz 15.31 clearly states "when performing measurements at a closer distance than specified, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade)." Please note that using the data in the table and the estimated 60dB correction factor for distance the device appears to fail. Consequently, you have two choices. You can take measurements at 2 or more distances and apply a best fit straight line approximation of the value at 300meters which would probably closer approximate the 60dB/decade, or you must measure the fundamental again using the correct 40dB/decade allowed.
3. Please note that for frequencies below 30MHz the allowed roll off is 40dB/decade. Please note that your radiated spurious emissions data table on page 17 of the report shows the use of 60dB/decade. Please note that this is not allowed in the current rules. Please see item 2 above for the rule part reference. Please correct your data to show use of either the correct 40dB/decade allowed or by showing the actual distance roll off by making at least two different distance measurements.
4. Please note that there is nothing in the report that states measurements below 30MHz were performed using the required magnetic loop antenna. Since the table of equipment listed on page 13 of the report (i.e. Table 2) has no such antenna listed, it is assumed that measurements were not performed using the required magnetic loop antenna. Please re-measure all frequencies below 30MHz using the required magnetic loop antenna and using the correct distance correction factor.
5. Please provide a manual which contains the required non-modification statement per 15.21.

Dennis Ward  
<mailto:dward@AmericanTCB.com>

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](http://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.