



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

May 13, 2003

RE: Alien Technology

FCC ID: P65B2450R01-A

After a review of the submitted information, I have a few comments on the above referenced Application.

General/EMC

- 1) Please provide a clearer or higher resolution photographs of the RF boards.
- 2) A sample list of hopping frequencies was provided. Please explain if this is the only hopping list used or if the device may use one of several different sequences. If multiple sequences may be used, please provide information regarding how the tables are generated.
- 3) Please provide information regarding compliance with 15.247(g) & (h).
- 4) Please provide a justification for Class A environment.
- 5) Although conducted measurements were provided, it is recommended that the conducted emissions meet the future limits (CISPR) that will be required in the next few years. This is because the grant will be issued with one of the following grant notes depending on which set of limits it is shown to have met:

Current Limits

NOTE: The manufacture and importation of this device must cease on July 10, 2005 pursuant to 15.37(j) or 18.123 transition provisions adopted under FCC 02-157 (ET Docket 98-80).

Future Limits (CISPR)

NOTE: This device has shown compliance with the conducted emissions limits in 15.107, 15.207, or 18.307 adopted under FCC 02-157 (ET Docket 98-80) and may be marketed after July 11, 2005 and is not affected by the 15.37(j) or 18.123 transition provisions.

- 6) The users manual is missing the following information "This device must not be co-located or operating in conjunction with any other antenna or transmitter." Please provide an updated users manual
- 7) One of the plots for the middle channel antenna conducted results appears to be missing. Please provide
- 8) There appears to be an error in note 2 on page 21 & 25 of 25 regarding the dBc levels. Please correct.
- 9) The operational description discusses passive and semi-passive tags. It is mentioned that the semi-passive tags have longer distances. Generally passive tags do not require certification due to the fact that they are passive in nature and just considered part of the transmit path. However it seems like the semi-passive tags require their own certification. However it does not appear that any tags have been certified under Alien Technology. Please explain.
- 10) The operational description mentions that backscattered information appears in the form of AM modulated sidebands centered at a 2 MHz offset. Please explain compliance of the receiver bandwidth matching the transmitter bandwidth as specified in 15.247(a)(1) given the 2 MHz offset.

--- Continued on Next Page ---

- 11) Please explain what is meant by the receiver being 2 channels as given in the users manual.
- 12) FYI, Passive tags generally do not require their own certification, due to the fact that they are passive in nature. However, the semi-passive tags may or may not require their certification depending on their design.



Timothy R. Johnson
Examining Engineer

Direct Phone: 404-414-8071
[mailto: tjohnson@AmericanTCB.com](mailto:tjohnson@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 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.