

## American Telecommunications Certification Body Inc.

6731 Whittier Ave, McLean, VA 22101

March 4, 2005

RE: Nivis, LLC

FCC ID: SQBNIVISP9050103

I have a few comments on this Application. Depending on your responses, kindly understand there may be additional comments.

- Please note the Confidentiality Request letter asks for the Manual to be held Confidential. This is not
  permitted under the FCC rules and interpretations, except in very specific circumstances. Kindly either
  remove the references to Manual from the Confidentiality Request letter or provide substantial justification
  for its inclusion.
- 2.) The photographs lump both Internal Photos and External Photos into one Exhibit. This is not permitted. The FCC database requires separated Internal and External photos without exception. FYI: May I suggest that all Module photos show all antennas and the device with RF shields intact as External photos, while all views with shields removed should be considered Internal Photos. This is generally the best practice.
- 3.) The Manual indicates the end user has access to RF channel selection, RF power control, modulation on/off, etc. This is a violation of 15.15(b) which reads in part: "Except as follows, an intentional or unintentional radiator must be constructed such that the adjustments of any control that is readily accessible by or intended to be accessible to the user will not cause operation of the device in violation of the regulations." Since it appears that the end user can alter the characteristics of this device so that it will no longer operate as a spread spectrum frequency hopping transmitter, I do not see how this meets the requirements. See the definition of a Frequency Hopper as defined under 2.1(c) and review the Manual carefully.
- 4.) I do not understand the method expressed in section 2.11 of the Test Report. Is the manufacturer dictating the measurement bandwidths (RBW and VBW) to be used during this measurement?
- 5.) I am not convinced the 8dB duty cycle correction specified in your Test Report is valid. Consider the fact that a 1MHz RBW is specified for measurement above 1GHz. If I analyze the hop sequence provided, there are many instances when the carrier hop does not exceed 1MHz. Therefore I cannot be sure that the carrier will not add extra energy to average measurements at, say, the third, fourth or fifth harmonic. This difference may be critical for compliance with the provisions of 15.205. Your comments would be appreciated.
- 6.) The hop sequence is not truly "pseudorandom". Hops appear in groups of three which sequentially increment 910, 911, 912...927 MHz. Please review with your client. If this creates a significant design problem with your client, I will be happy to consult with the Commission for a "second opinion".
- 7.) FYI: Please remember that, by definition, the receiver must hop in synchronization with the transmitter. This is true with all frequency hopping spread spectrum devices.
- 8.) The Theory of Operation in section 5.1.1 indicates this device operates outside of the 902-928MHz band allowed for Unlicensed spread spectrum operations. Moreover, this device appears to operate outside of the requested frequency range requested on Form 731. Please address.

William H. Graff

President and Director of Engineering

mailto: whgraff@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.

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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.