



American Telecommunications Certification Body Inc.

6731 Whittier Ave, McLean, VA 22101

September 5, 2002

RE: FCC ID: O7J-GL5054MP-AA

Attention: Vivi Wang

I have a few comments on this Application.

- 1 Unwanted emissions above 1GHz must meet the requirements of 15.407b1-7. Unwanted signals above 1GHz are EIRP values as calculated using the formula $E = (\sqrt{(30 \times P_G)})/d$. Solving for $P = ((E \times d)^2)/30G$. Please remember that the minimum resolution bandwidth above 1GHz is 1MHz with the video Bandwidth greater than the Res BW so as not to average the signal. Please note these are NOT ANTENNA SUBSTITUTION METHODS but calculation using the above-mentioned formula. Please provide EIRP data in accordance with the formula method above, not antenna substitution methods. **xxxxsubstitution OK**
- 2 Peak Power measurements in your report were not done to acceptable methods. The accepted procedure for this type measurement is found in the FCCs guide to UNII measurements. For Peak Transmit Power Measurement using a Power Meter the method states,
 - 1 Arrange the equipment as shown in Figure 2, operate EUT in transmit mode, record maximum level obtained.
 - 2 Arrange the equipment as shown in Figure 1. Set RES BW =VID BW= 1 MHz. Using analyzer MAX HOLD and MARKER functions, record emission maximum level.
 - 3 Repeat (2), but with VID BW = RES BW/30
 - 4 Subtract reading in (3) from reading in (2).
 - 5 Subtract the value determined in (4) from level recorded in (1).The plots show that during these measurements you used a RBW significantly lower than that which is specified (300 kHz and not 1MHz). Please retest the Peak Transmit Power Measurement to comply with the approved FCC procedure. Please also verify that the test equipment was calibrated in terms of rms-equivalent voltage. **xxPlot not intended as power measurement.**
- 3 Please note that any U-NII device operating in the 5.15-5.25 GHz band must use a transmitting antenna that is an integral part of the device. This means that external antennae are not allowed. Those antennae shown in the test report that use antenna connectors are not considered integral and thus are not useable for this frequency range. For this device to operate in the 5.15 to 5.25GHz range, you must provide only integral antenna(s). Please correct the application to show only integral antenna usage, or explain how the manufacturer prevents the 5.15 to 5.25GHz range from being used when external antennae are used. **xxxantenna not accessible**
- 4 Please note, within the 5.15-5.25 GHz band, U-NII devices are restricted to indoor operations only. This is to reduce any potential for harmful interference to co-channel MSS operations. Neither the report nor the manual nor the limited technical description addresses this issue. How does the manufacturer intend to limit this device to indoor use? **xxxwill be on grant**
- 5 Please provide a better technical description of how this device operates. If this is to be confidential, please update the confidentiality request to include the technical description. xxx
- 6 Applicants shall include in their application for equipment authorization a description of how the device automatically discontinues transmission in case of either absence of information to transmit or operational failure. Please provide a technical description that includes a description of how the manufacturer accomplishes this requirement. **xxx**
- 7 When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency block edges as the design of the equipment permits. Neither the manual nor the report states that the listed frequencies tested are the closest frequencies to the band edge. Please provide objective evidence to this requirement. **xxx**

A handwritten signature in cursive script that reads "Dennis Ward".

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 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.