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

June 24, 2003

RE: FCC ID: BAB271000-231
Attention: Val Liepa

I have a few comments on this Application.

1. Please note that internal photos are generally not capable of being held confidential. The only exception is in cases where the internal boards are 'potted' and the case is not capable of being opened without destroying the contents. Please revise the request for confidentiality to remove the internal photos as confidential. Alternately, please explain how the device is 'potted' or how the internal boards are made inaccessible to the user. x
2. FYI – no action needed. The conducted emissions section 4.2 is incorrect. As of Dec 2002 the conducted emissions for Part 15 conducted emissions is QP and average from 150kHz to 30MHz.
3. Please note that the equipment specification provided with the MPE calculation sheet states that the maximum EIRP of the system is 40dBm. This means the maximum ERP is approximately 37.85dBm. This would mean the ERP of the device, as listed in the specification, could be greater than 3w ERP (it could be up to 6w ERP). Please note that 2.1091 specifically states that any mm wave device under 15.253 capable of operating with an ERP of 3 watts or more requires exposure evaluation (SAR testing) even for mobile devices. Please also note that the MPE calculations provided state that the device antenna gain is 31.5dBi (29.35dBd) and 5dBm power. The measured power used in the MPE calculation and the power capable as stated in the technical documentation do not match. Please revise your technical documentation to clearly indicate that under no circumstance is the ERP of this device as required by 2.1091 and the FCC mm wave accepted test procedure to be greater than 3 watts. Please provide evidence of how this restriction is to be met. Alternately, this device must be submitted to the FCC along with SAR testing at the rated technical specification EIRP of 40dBm (37.85 ERP). x
4. Please note that the accepted FCC test procedure for calculating the power or power density for mm wave devices requires a correction factor to be used when the resolution bandwidth of the analyzer is less than the emission bandwidth of the device. The emission bandwidth appears greater than 1MHz (see technical specification). Your report does not appear to include this bandwidth correction factor. Please recalculate your ERP/EIRP data providing the EBW/RBW correction factor as required by the accepted FCC mm wave test procedure. Alternately please show a plot of the 26dB bandwidth as being less than 1MHz. x
5. Please note that your report states "Digital Radiated Emissions" as class A and then states "Not applicable". Please note that all intentional radiators are subject to 15.209 which is equivalent to the class B limits. Also please note that while no emissions may have been found, the limits are still applicable. Please verify that no emissions were found and that the table designation of 'not applicable' is to indicate this condition and not that the limits themselves are not applicable. x

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.