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

October 11, 2004

RE: FCC ID: H25T2300_ATCB001780
Attention: James Carrington

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 this item applies to a number of the subsequent items below. Please note that the documentation is not consistent on the operating voltage of the device. The manual states that the device operates on 4AAA batteries, and that it operates between 3.5 to 8 Volts DC. The operational description of the device states that the device operates between 4 to 9 Volts DC, and while 4 AAA batteries are normal, the device can be operated from an external power source. Please be consistent on the operating voltage and alternate power sources for this device. Please test the device with the highest available power source as needed.
2. Please provide information in the manual on the external power accessory mentioned in the operational description.
3. Please note that as this device is body worn and is used within 2.5cm of the person and is a device that is therefore classified as a portable rf exposure device. This means that MPE is not an appropriate rf exposure approach. Thus, the rf exposure consideration for this device must be determined by the TCB exclusions list for SAR. Please note that in the 170MHz range must have SAR performed when the averaged power (either conducted or EIRP) exceeds 344mW. Please also note that TCB's cannot evaluate SAR for devices in this frequency range. The power measurements as shown in the report do not clearly indicate if it is peak power, or averaged power that has been recorded. If the power listed in the report is average power, then the device, when tested at 9VDC exceeds the power listed in the exclusions list and the device must be submitted to the FCC for evaluation. If the power listed in the report is peak, please provide evidence that the average power measured at 9VDC meets the TCB exclusions list for portable devices.
4. Please note that the MPE report states that the power out of the device is a maximum of 250mW; however, the test results at 9Vdc show that the maximum power out of the device is 480mW. Please correct your documentation to show the actual maximum power out of the device when used with the maximum input voltage and input current (i.e. 9Vdc and 154ma). Please also clearly identify if the power meter measured peak power or average power.
5. Please note that the theory of operation states that the device operates over a voltage range of 4 to 9Vdc. As there is significant power variation between the rated input voltages (3dB), please explain why occupied bandwidth testing was not performed at the higher input voltage. Please provide evidence that the bandwidth characteristics of the device does not significantly change due to the power variance over the voltage range.
6. Please note that the theory of operation states that the device operates over a voltage range of 4 to 9Vdc. As there is significant power variation between the rated input voltages (3dB), please explain why antenna terminal spurious emissions testing was not performed at the higher input voltage. Please provide evidence that the spurious emissions of the device does not significantly change due to the power variance over the voltage range, and that the spurious emissions with the device operating at the maximum input voltage is compliant.
7. Please show that you have fully addressed 90.209(b)(6) requirements.

Dennis Ward

Dennis Ward
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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.