



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

June 9, 2005

RE: FCC ID: IP9801VI_ATCB002493
Attention: Jeff Olson

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 provide the external photos of the device.
2. Please provide internal photos that show the control and placement of the boards in the device.
3. The measured device power is approximately 230mW. The level at which SAR becomes relevant is about 330mW for this device. If the device operates at a 50% duty cycle this means that SAR may become an issue if the ERP is greater than 660mW. If the gain of the antenna is more than 4dB this would put the ERP power over this level and SAR may be required. Please provide antenna gain information on this device so a determination relevant to SAR can be made.
4. Please note that as this is a portable device worn on the body the power listed on the grant needs to be ERP. The report provided conducted antenna terminal power and not ERP. Please note that this must be a measured ERP. Consequently the values for 170MHz shown in the table on page 9 of the report cannot be used for ERP. Please provide the measured ERP of the device using the antenna substitution method described in TIA 603.
5. Please note that the equation $\text{dBfund} - (50 + 10\log P)$ should always come to -20dBm in the same fashion that $\text{dBfund} - (43 + 10\log P)$ would always be -13dBm. This means that the reverse field strength on a radiated emission would have to be less than 87dBuV/m not 82.8dBuV/m. Please also note that a 250mW device would have a conversion to field strength of 121.4dBuV/m and not 125dBuV/m. The actual power level (230mW) would have a field strength of 121dBuV/m. 125dBuV/m would be a conducted power of almost 600mW. The resulting dBc for 250mW would be $23.97 - (50 + 10\log(.25))$ or $23.97 - (50 + -6.03)$. This then equates to -20dBm or 87dBuV/m or 43.97dBc. The device is still compliant but the report should give reference to the proper limits. Please also note that the reason TIA603 requires measured ERP values is to eliminate or reduce the site factors involving cable, antenna factors and other variable site losses.
- 6.

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.