



American Telecommunications Certification Body Inc.

6731 Whittier Ave, McLean, VA 22101

April 21, 2004

RE: FCC ID: QVVRH-52_ATCB001284

Attention: Atsuo Taguchi

I have a few comments on this Application.

1. Please note that the schematics are blurred and unreadable. Please provide readable schematics.
2. Please note that the report states testing was carried out in accordance with ANSI C63.4. Please note that ANSI C63.4 is not an appropriate test method for Part 24 devices. TIA603 on the other hand is the appropriate testing documentation to refer to. Please explain why ANSI C63.4 was referenced as the test method and please correct the report to refer to the proper document.
3. Please note that the ERP and EIRP power section of the report does not indicate the method used. As you indicate you used ANSI C63.4 test methods this would also indicate that you used the radiated field strength method of $EIRP = (Ed)^2 / 30G$. This is not the correct method as ERP and EIRP must be measured using the antenna substitution method. While the test may have been conducted properly, the test report must also properly report on the actual methods used. Please provide information on how you measured ERP and EIRP using the antenna substitution method and please provide a sample of the formula used including substitution antenna gain values and cable loss values. Please show compliance to TIA 603 ERP and EIRP methods.
4. The report states radiated spurious emissions was done using the substitution method of 603. The data tables however only show final numbers. Please provide a sample of the formula used in the substitution antenna method including information on the gain of the substitution antenna and cable used.
5. Please provide the resolution and video bandwidths used for the plots on pages 37 to 44 of the Bluetooth transmitter report.
6. FYI – no action needed. Please note that 2.925 states “FCC Identifier consisting of the two elements in the exact order specified in §2.926. The FCC Identifier shall be preceded by the term *FCC ID* in capital letters on a single line, and shall be of a type size large enough to be legible without the aid of magnification.” This has sometimes been taken to mean that the identifier is to be on a single line by itself or if on a line with other information, a box may be placed around the FCC Identifier. As the IC number is next to the FCC identifier, there may be questions from the FCC.
7. Please note that the power drift reported in the SAR report states that the highest drift was 0.32dB. This is greater than the 5% power drift recommended. In 1528. 1528 also states, “If this is not possible, even with repeat testing, additional information, e.g., local SAR versus time data, should be used to demonstrate that the output power applied during the test is appropriate for testing the device. Please provide or otherwise explain how the power applied was determined to be appropriate for testing the device (i.e. local SAR vs time data or an explanation that this was considered.)

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.