



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

April 2, 2004

RE: FCC ID: HFSHA2SANI_ATCB001244

Attention: Ellis Wu

I have a few comments on this Application.

1. Please note that in the first radiated data table you state that the fundamental frequency is channel 27 (924.390244MHz) however, you have not shown the fundamental emissions of this channel. Please provide the fundamental readings associated with the channel in the associated data table.
2. Please note that 15.249 limits below 1GHz are QP limits, not average limits. Consequently, several fundamental emissions fail because QP measurements have not been performed and the peak readings are over the 94dBuV/m QP limit. Items 2 and 3 give specific reference to failing fundamental frequencies that must be QP'd in order for compliance to be claimed. Please correct your report to show passing QP measurements in relation to the 94dBuV/m QP limit.
3. Please note that all of the fundamental emissions for 915.16MHz on page 24 shows failing peak readings. Please note that as the limit for this frequency is 94dBuV/m QP and not average you cannot use averaged readings to show compliance. Consequently, the device fails and is not certifiable as presented. Please retest and report the proper QP readings for all frequencies below 1GHz.
4. Please note that the same condition exists for the 924MHz fundamental on page 25 of the report. Consequently, this fundamental frequency is also failing as presented. Please retest and report the proper QP readings below 1GHz.
5. Please note that 47CFR part 2.1033 states that for part 15 devices the block diagram is to contain the crystal and data rate (if appropriate) information. The block diagram provided does not appear to contain the crystal or clock frequency information. Please provide a block diagram in conformance to 2.1033 requirements. Also please note that the schematics are not clear on the frequency of the transmitter either. (a clock is shown in the schematics, but there is no indication as to what the frequency of this clock is.) Please provide information on the clocks used in the transmitter.
6. Please provide an operational description of the device. Please include information as mentioned in item 1 (i.e. clock information etc).
7. How is the FCC ID label permanently affixed to the device?
8. Please provide the three character equipment code in item 4a of the 731 form.
9. Please note that the manual does not appear to have the non-modification statement required by 15.21. Please provide a corrected manual with this required statement or please clearly indicate where in the manual this statement is located.
10. The report states that a dipole antenna is used. Please note that the report also states that the gain of the dipole is -2dBi. Please note that the typical gain of a dipole antenna is approximately 2.14dBi. Please explain and confirm if the gain of the antenna mentioned in the report is actually -2dB.
11. Please note that the antenna connector on the transmitter appear to be a standard type connector. Please explain how the antenna meets the requirements of 15.203.

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.