September 5, 2008

RE: ATCB006683 – Original Equipment / Family Certification
FCC ID: NW5XC3 & IC: 3937A-XC3 for Ensure Technology, Inc.

The following is in response to the comments made on the above reference application.

1. The note at the end of Section 15.35(a) of the FCC Rules states "For pulse modulated devices with a pulse-repetition frequency of 20 Hz or less and for which CISPR quasi-peak measurements are specified, compliance with the regulations shall be demonstrated using measuring equipment employing a peak detector function, properly adjusted for such factors as pulse desensitization, using the same measurement bandwidths that are indicated for CISPR quasi-peak measurements." This device uses a pulse-repetition frequency (PRF) of less than 1 (actually 1/1.07 seconds at its best PRF). You cannot use a quasi-peak detector to measure radiated emissions from this transmitter without modifying its operation. Please either measure emissions from this device using a peak detector or have the operational mode (PRF) modified to allow a quasi-peak detector to be used in accordance with the note cited above. If the device is modified, please provide a description of its operational mode and PRF.

For testing the manufacturer supplied modified modules consisting of normal operating devices, cw devices, and a device with continuously repeating transmissions. In order to ensure the limitations on quasi-peak measurement are met a set of 20.6 Hz PRF devices (at the same power setting as the normal operating and CW devices) has now been tested. This data is included in the updated test report.

2. How were radiated emissions maximized from this transmitter which transmits once every second? Most turntables and antenna masts will pass through an emission peak when a transmitter emits a signal once every second. How did you maximize emissions from this transmitter with such a low transmission repetition rate?

A set of CW devices was also supplied for testing, allowing easy optimization of transmitter orientation. Once optimized, the cw device was replaced with the appropriate pulsed device and measurements were taken.

3. How is the operating frequency for this transmitter chosen? Section 15.15 and RSS-Gen, Section 5.3, Issue 1 prohibit the end user from changing the operating frequency outside the applicable range permitted by the FCC or IC and no information is provided on how the operating frequency is set or chosen.

Frequency and power are software flashed in the device IC via pads on the PCB. The tool used to perform this function is used only by the manufacturer. An updated user's manual exhibit makes this more clear.

4. I note that the manufacturer sets the output power level of this transmitter. How does the manufacturer prevent the end user from changing the output power level?

Frequency and power are software encoded in the device via pads on the PCB. The tool used to perform this function is used only by the manufacturer. An updated user's manual exhibit makes this more clear.

5. In the IC agent letter, please fill out the area designated by (Applicant name & address) in the body of this letter. The applicant's name and address must be listed in this space.

Updated letters have been provided.

6. In the FCC letter of agency, please fill out the area designated by (Company name) in the body of this letter. The applicant's name must be listed in this space.

Updated letters have been provided.

7. In the FCC power of attorney letter, please fill out the two areas designated by (Company name) in the body of this letter. The applicant's name must be listed in these two spaces.

Updated letters have been provided.

8. The company address listed on the IC application form does not match the company address on the IC database (See separate attachment to the original email). No matter what address I list on the IC Certificate, the address on the IC database takes precedence. Therefore, I will use the address on the IC database on the TAC issued by ATCB. If this address is not correct, please have it corrected on the IC database.

A request has been made to update the address information on the IC database.

9. For Your Information – This grant will issued with the following or similarly worded condition: The manufacturer or his authorized installer is responsible for setting the output power and operating frequency in accordance with the requirements in Section 15.249 of the FCC Rules.

10. For Your Information – Detailed operational descriptions and user manuals are necessary to answer some of the questions listed above. To prevent questions such as 3 and 4 above, please provide a more detailed operational description and user manual in the next application. Both the FCC and IC are reviewing this type of information in all recent filings. ATCB will learn if there are any changes to the FCC and IC requirements for these documents during the October 2008 TCB training session in Baltimore. Please check our ATCB Website for any new postings after October 10, 2008.