



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

December 14, 2008

RE: ATCB007097 – Original Equipment & Single Certification

FCC ID: CEXQFPILOT & IC: 3707A-QFPILOT for Quantum Instruments, Inc.

I have a few comments on this Application. Please **do not put confidential information** in your responses to these questions because the response letter will not be held confidential by the FCC. Depending on your answers there may be more questions.

1. This transmitter emits pulses as part of its transmitted signal. You cannot make average detector measurements to show compliance with Section 15.231 average field strength limits. Instead you must submit plots of the transmitted signal, determine the duty cycle of the pulses emitted from this device and subtract the duty cycle correction factor from peak detector field strength emissions to show compliance with the average field strength limits in Section 15.231. No plots were submitted for any of the emissions reported on pages 12 or 13 (pages 6 and 7 of 10) of the test report.
2. Please describe the frequency range searched for radiated emissions from this transmitter.
3. Describe how radiated emission levels for this transmitter were maximized with respect to the equipment under test and with respect to the measurement antenna. What's the antenna height, polarity, was antenna polarity changed/height changed, modulation provided to transmitter, was TX rotated/tested in 3 orthogonal axes, etc?
4. Please provide the detector function, resolution bandwidth and video bandwidth of the measuring instrument used for making radiated emission measurements of the fundamental emission on page 13 of the test report (page 6 of 10).
5. Please provide the detector function, resolution bandwidth and video bandwidth of the measuring instrument used for making radiated emission measurements of the device emissions on page 13 of the test report (page 7 of 10).
6. Please explain the limits on page 13 of the test report (page 7 of 10). They appear to be the Class B digital device limits but the harmonics emissions are only required to be 20 dB below the fundamental emission limits.
7. Identify the test procedure followed to measure emissions from this intentional radiator. The test procedures are not contained in the "FCC Rules and Regulations, Volume II, Part 2 and the following individual parts, 15.231."
8. The submitted schematic diagram is illegible. Please provide a schematic diagram where the component numbers and values are clear and readable.
9. Page 1 of the submitted user manual mentions channel or channel selection of the internal radio. Why? This device is a 434 MHz remote control transmitter. Why are there channels for this simple device? Please clarify.
10. The IC application form is missing handwritten signatures on pages 1 and 2 of the form. IC requires handwritten signatures on the application forms. Please submit a new form that bears the required signatures.

11. Please provide the following on the amended IC application form:
  - (a) the units for the frequency range of this transmitter ( is it kHz, MHz, or GHz),
  - (b) the units for the field strength of this transmitter (is it uV/m, dBuV/m, or dBc), and
  - (c) the correct level and unit for transmitter spurious (worst case). The one provided makes no sense since dBc is a conducted measurement unit and @ 3m is a radiated measurement unit, yet they are mixed together.
12. Please provide an IC acknowledgement letter (commonly called a REL letter) for this application. None was provided. See the ATCB IC package contained on our Website for a sample REL letter.
13. Please provide a letter requesting confidentiality of the exhibits that you do not wish IC to release to any party. No letter was provided asking IC to hold any documents confidential. A sample letter may be found in the ATCB IC package.
14. Please provide a signed and completed copy of Annex B of RSS-102 as required by Section 5.1 (e) of RSP-100 Issue 9 dated June 2007. Only Annex B is required per the second sentence of Section 2.5 of RSS-102 Issue 9 dated November 2005.
15. IC is now checking with the Canadian Contact to determine if the contact information is valid and the Canadian Contact is willing to assume the responsibility of being the contact for the IC applicant. A sample Canadian Contact letter is in the ATCB IC package on our Website. Please acknowledge whether you will provide a Canadian Contact letter or not. Failure to provide such a letter will delay the listing of this device on the REL in Canada until IC has contacted the Canadian Contact.
16. Since the submitted test report does not contain any IC rules or sections to which this transmitter was tested, you submitted a cross reference between FCC and IC rules. However the rules cross referenced are from 15.247 of the FCC Rules but this device is a 15.231 transmitter. Please provide a new cross reference between the appropriate FCC and IC Rules or an amended test report that lists the IC rules to which this device was tested.



Richard Fabina

Examining Engineer

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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.