

October 18, 2008

RE: ATCB006873 – Original Equipment / Single Certification

FCC ID: LIV-PMBR & IC: 7032A-PMBR for Lionel LLC

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

The bandwidth plot appears to be 12 kHz in width at the -20 dBc point not 17 kHz as reported. Please use the delta function on the spectrum analyzer to more accurately report the emission bandwidth at the -20 dBc point as specified in the FCC Rules.

The bandwidth recorded on our datasheet during measurement was 12.7 kHz and was measured employing the delta markers. This typographical error has been corrected.

2. Radiated emission limits for this device above 30 MHz are CISPR quasi-peak limits not average limits. You have deducted the duty cycle correction factor from the peak readings which yields average readings. Please correct the radiated emissions table to show peak readings above 30 MHz for comparison to the CISPR quasi-peak limits or remeasure these emissions with a CISPR quasi-peak detector.

The duty cycle should not have been included. The peak emissions measured meet the Quasi-peak limit.

3. Item 20 in the radiated emission table is a CISPR quasi-peak level yet you deduct the duty cycle correction factor from this level to yield an average (?) level. This is incorrect. Please correct this reading to show the CISPR quasi-peak level of this emission for comparison to the CISPR quasi-peak limit.

This was a typographical error. It has been corrected.

4. Please check the LISN in the list of test equipment as part of the equipment used to test this device. You cannot make AC line conducted emission measurements without using a LISN.

You would be amazed what we can do. However, we did use our LISN in this case and the report has been updated to reflect that.

For the IC application

1. The IC limits for 27.255 MHz frequency found in Section A1.2.1 of RSS-210 closely resemble the FCC limits found in Part 95. That said, the test results for IC must resemble the test results for a licensed transmitter for the FCC. Accordingly the submitted test report does not show compliance with the appropriate IC limits. Please submit a revised (or separate) test report showing compliance with the following Sections of Annex 1 of RSS-210 Issue 7 for IC:

- (a) Section A1.2.1(b) for peak output power requirements,
 - (b) Section A1.2.1(c) for antenna gain requirements,
 - (c) Section A1.2.1(d) for measured bandwidth (paragraph f seems to indicate that a 300 Hz RBW can be used to measure bandwidth since the reported bandwidth exceeds the authorized bandwidth of 8 kHz),
 - (d) Section A1.2.1(e) for frequency stability requirements, and
 - (e) Section A1.2.1(f) for the emission mask requirements.
- (If you have questions, please call me at 703-635-2881 during the afternoon hours)

Our apologies, but our report had not been updated to reflect the fact that the 27.255 MHz frequency band was moved under RSS-310, Section 3.7 in 2005. The rules in this part match those employed by the FCC, Part 15.227. Our report has been updated to appropriately reflect this.