



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

July 31, 2002

RE: Tadiran Telematics Ltd.

FCC ID: NTAXMETER4

After a review of the submitted information, I have a few comments on the above referenced Application.

- 1) Please provide information on how the antenna attaches to the board (type of mating connector).
- 2) Please provide the information required by 2.1033(b)(10)/15.247(a)(1). "...The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.
- 3) The Average Time of Occupancy plots show transmissions approximately every 6 seconds, while the theory of operation states that "A Tx frame duration is less than 10ms and the minimum Txoff period is 10 seconds. Please explain why the plots show 6 seconds, when the theory state > 10 seconds.
- 4) Please explain if the data presented for the average time of occupancy and duty cycle was transmitting a standard frame or extended frame.
- 5) Please explain if the transmitter always hops at the same rate regardless of a standard transmit frame or extended transmit frames. In other words, is the period between transmissions affected by the types of frames sent?
- 6) Certain tests were performed directly connected to the spectrum analyzer. Therefore, please explain why the output power was not performed using an antenna conducted method.
- 7) Peak output power was performed using a dipole substitution. This gives the ERP power, assuming it is radiating into a dipole antenna. For spread spectrum devices, we wish to know the actual antenna conducted power and the gain of the antenna (give as 2.5 dBi on page 8 of the test report) as separate variables. Please follow the procedure given in the alternative test procedures for DSSS systems (see attached documents) and correct the table for this method. A few quick calculations seem to show that the high channel conducted power is around 15.2 dBm using the information already presented in the report. $15.2 \text{ dBm} + 2.5 \text{ dBi} = 17.7 \text{ EIRP}$. This matches the information in the operational description.
- 8) Please adjust the power of the 731 to match the maximum conducted power transmitted. See #7 above.
- 9) Please provide a separate RF exposure exhibit using section 4.5 of the report. Please adjust this section to match the corrected power as given in #7/#8 above. Also, please be sure to state whether the device is considered as a portable or mobile device according to the FCC's definition of these.
- 10) Section 3.1.2 of the operational description seems to imply that the same data is sent 26 times, once per channel. Please explain if this device repeats the same transmission for all channels or how the data is sent.
- 11) Please provide information explaining compliance with 16.247 (g) & 15.247(h).
- 12) Page 14 of the test report states that "No spurious emissions except 2nd harmonic were found" yet the report shows data at 2.748 GHz (3rd Harmonics). Please explain.
- 13) Spurious emissions (section 4.7 of the test report) should be shown for low, middle, and high transmit channels. It appears that only one channel has been provided. Please provide additional data for 30 MHz - 10 GHz for all 3 channels. The table also states that the hopping function was enabled. Please note that for this test, the hopping should be disabled and the transmitter functioning as close to continuous as it can.
- 14) According to the test equipment list provided, the horn antenna appears out of calibration. Please comment.
- 15) The users manual should also include RF exposure information such as:
"NOTE: The antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter."

-Continued on Next Page -

16) Just out of curiosity, whatever happened to NTAXMETER3?

A handwritten signature in black ink, appearing to read "Timothy A. Johnson".

[mailto: tjohnson@AmericanTCB.com](mailto:tjohnson@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.