



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

August 7, 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) Your response stated that " We are not aware of any test performed using 'direct connection'. This set-up is not possible due to the integral antenna configuration (see answer 1)." However the test report discusses direct connection methods on pages 9, 10, & 11. Also, many of the plots associated with these tests stated that an external attenuator was used (which is typically the case for antenna conducted tests). Please explain.
- 2) Regarding the Power Output Test (page 12 of 60), please remove reference to the " The ERP was determined by substitution method." since this no longer applies.
- 3) For spread spectrum devices that are classified for RF Exposure issues as mobile, the FCC has instructed us that the following grant conditions apply:

The antenna(s) 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. End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

because of these conditions, the FCC has instructed that we must review the users manual to ensure that the following are documented in the users manual:

- a) TCB must ensure all necessary information has been included in the appropriate installation and/or users manuals for users and installers to satisfy RF exposure compliance. An "IMPORTANT NOTE" should be included at a conspicuous location in the manual(s) to alert all responsible parties about the specific requirements; example template - "IMPORTANT NOTE: To comply with FCC RF exposure compliance requirements, the following antenna installation and device operating configurations must be satisfied -
....."
- b) The installation and/or operating instructions must clearly indicate that these conditions are for satisfying FCC RF exposure compliance.

To meet these requirements, the following RF exposure information must be included in the manual:

"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."

- 4) Please adjust the RF exposure information to classify the device as mobile. The classification 'fixed' is defined that the device is installed such that 2 meters can be maintained between humans and the device. Mobile is defined as devices that are installed such that 20 cm can be maintained between humans and the device. The term 'mobile' does not mean the device is movable as per the definitions given by the FCC.

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- 5) If the receiver shifts its frequency in accordance with the same frequency hopping table and pattern as the transmitters, please explain why the message is repeated up to 25 times in some cases.
- 6) The FCC has required testing of frequency hopping systems to be hop-stopped for tests such as the spurious emissions unless the manufacturer can not provide this mode of operation. The purpose behind this is to ensure that the emissions can be adequately captured given that the results will depend on the hopping speed, spectrum analyzer sweep times, spectrum analyzer span, and maximizing the azimuth and antenna height. Without a fairly continuous signal level from a single channel, obtaining fully maximized results is incredibly time consuming can still leave questionable results. Please note that the sweep time can significantly affect how the measurements are captured or whether they are missed. You stated that there should be no difference in peak values between CW measurements at each of the channels and the max Hold measurements with the hopping enabled given a sufficient number of sweeps is allowed. The plots provided for > 1 GHz seem to show that the emissions were not fully captured across the band during hopping (denoting that an adequate number of sweeps may not have been performed). Also with the wider spans, dynamic range gets reduced and spectrum analyzer may not accurately capture and or display the emissions. Testing while the device is hopping also questions how the devices was fully maximized for Azimuth and antenna height given the difficult nature of obtaining data at any given point. Please provide
 - a) new plots/results with the hopping function disabled for low, middle, and high channels, or
 - b) If the manufacturer can not provide a hop stopped mode of operation, then please explain why and please provide better supporting detail regarding how the device was fully maximized (azimuth and antenna height) when the results were obtained. Also provide additional maximized radiated plots with smaller spans and long sweep times around the frequencies of interest which adequately show all emissions captured (i.e, a 2 MHz span around 2.748 GHz).



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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.