



HERMON LABORATORIES

January 19, 2004

American TCB
6731 Whittier Ave
Suite C110
McLean, VA 22101
Attn: Mr. T. Johnson, Examining Engineer

RE: your e-mail dated January 14, 2004; Telematics Wireless Ltd.
FCC ID:NTAFP100SA, ATCB001025

Dear Mr. Johnson,
Please find below the answers to your questions.

- 1) A new schematic (SEAL_schematic_15716_higher quality) was uploaded on January 19, 2004.
- 2) The following voltages/current are applied to Q12 during "off" and "on" periods of the ASK modulation:
 - a) when Tx data=0: $V_c=0$ V, $V_b=0.3$ V, $V_e=0$ V, $I_c=0$ mA, Q12 is closed;
 - b) when Tx data=1: $V_c=3$ V, $V_b=1.6$ V, $V_e=0.8$ V, $I_c=44$ mA, Q12 is open.
- 3) Frequency is determined and stabilized by a SAW resonator. A SAW filter at the transmitter output provides suppression of spurious out of band signals. An RC network at the base of Q12 is used as a spectrum shaper. The modulation is ASK with an on to off ratio of at least 20 dB. The voltages applied to Q12 define the 1 dB compression point of the modulator and limit the output power (see answer to question 2). The unit does not have calibration means of output power
- 4) Plots A2 to A10 show the investigated frequency range from 9 kHz to 9.3 GHz. The found spurious radiated emissions were measured as described in TELRAD_FCC.15716 test report, section 4.4.1: turntable was rotated 360°, measuring antenna height was changed from 1 to 4 m, antenna polarization was changed from vertical to horizontal, test results were recorded in Table 4.4.1. All recorded in Table 4.4.1 results are higher than shown in the plots. Measurements by substitution method were performed.
- 5) You may see in the device schematic diagram, that there is no a superheterodyne receiver and no a local oscillator. The frequencies generated or used in the EUT are 32.768 kHz and 8 MHz, as given in page 5 of the TELRAD_FCC.15716 test report. The measurements were performed up to 1 GHz.

Sincerely,

Marina Cherniavsky,
certification engineer
Hermon Laboratories