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Sent: Wednesday, June 08, 2005 1:47 PM
To: Dward ATCB; Doc@elliottlabs.com
Cc: marianneb@atcb.com
Subject: Re: FW: FCC Equipment Authorization System KL7-654T-V2

Response from applicant

1) You had indicated that the device can transmit 3 different types of transmissions. With regard to compliance with 15.231(e), the silent period must be maintained regardless of the type of transmission. Please indicate the time between transmissions, regardless of the transmission type. For instance, after the tag sends its ID, what is the time between the ID signal and the data or signpost signal. Since the ID signal is 10 ms, the 10 second silent period time must be maintained between the ID signal and any other transmission. Please explain/correct as soon as possible because the filing may have to be dismissed or denied if the device does not comply with the requirement.

There are three different transmissions, perhaps they can be better described below. The three transmissions are independent and not chained together and are in response to different controlling signals from one of the Savi Reader devices communicating to the tags. The Tag's firmware prevents it from transmitting any two signals with less than a 10 second interval between transmissions (30 seconds in the case of data signals).

- The **id transmission code** is a single pulse of duration less than 10ms. The device is programmed such that this transmission will occur only once in any 10 second period to meet 15.231e. The transmission occurs as a single transmission in response to a "Hello" command from a reader or as a series of independent transmissions at intervals of between 10 seconds and 9 hours in response to a command from a signpost device.
- The **signpost signal** is in response to a low frequency signal transmitted by a signpost device that activates the tag. The Tag's transmission in this mode consists of a single burst that has a total duration of 330ms. The transmissions has a ~10% duty cycle (three 10ms pulses with a period of 100ms between each pulse) to allow it to meet the average field strength limit. The device is programmed such that this transmission will occur only once in any 10 second period to meet 15.231e. It must be emphasized that this is a single transmission that consists of a single burst of three pulses, the series of three pulses are sent as a single transmission and are no different to, say, a header signal followed by two data packets. They should not be considered as three separate transmissions but as single data set comprised of three separate data packets.

- **Data signals** consist of a single burst transmission lasting up to 1 second in duration with a 10% duty cycle (one pulse in every 100ms). There is a quiet period of at least 30 seconds between successive transmissions. Data signals may be transmitted in response to a reader interrogation.