From: Rod Thorne, Savi Technology, Inc.

To: Joe Dichoso, FCC Equipment Authorization Branch

Re:FCC ID: KL7-65XSP-V2

Subject:
Correspondence Reference Number: 20996
731 Confirmation Number: TC138909
Date of Original Email: 06/16/2005

Dear Mr. Dichoso,

Here are our answers to the questions you provided on 16 June 2005.

1) What is the sequence of transmissions?
Is it wake up, hello, data, then sleep?
Response:
(1.) In the case of the Batch Collection Operation the sequence is:
    a. Wakeup 2.4 secs duration on Antenna 1
    b. Wakeup 2.4 secs duration on Antenna 2
    c. Hello 10 msec duration after 90 msec silence on
       Antenna 2.
Total transmission time less than 5.0 seconds then ceases.

(2.) The Sleep Operation is a separate activity initiated by a Tag requesting service by sending its ID and being logged in a Service Queue. Once the responses from the Tags have been logged in a Service Queue, the Sign Post Reader is then automatically triggered by the arrival of these Tag IDs to transmit a Sleep packet to each Tag as it appears in the queue. Each transmission to a tag lasts 10 msec.

(3.) In the case of a Tag Data Write Operation to the Tag from a Reader the sequence assumes the tag is awake. The Reader sends a Write Data packet to the Tag which acknowledges receipt if present and awake. If not present and awake, the Reader wakes up the desired tag and performs the Write Data operation. In this case, the Tag automatically goes back to sleep 30 seconds after the last activity without any further operation by the Reader.

Are the wake up and hello transmissions manually activated
individually or are they all activated together?
Response: They are activated together.

Is the data signal activated by the end user separately
activated from the wake up and hello activation or are all
three activated? In other words, is the end user pressing a
button three times or one time for all three transmissions?
Response: As described above in item (3), the Operator
makes a single entry of the Tag Data Write command through
the keyboard and the Server Software and Reader Firmware
perform the required operations automatically.

What is the time between each different type of
transmission in the sequence?
For instance, what is the time between, the wake up signal
and the hello signal?
Response: 90msec between the end of the Wakeup and the
beginning of the 10 msec long Hello signal is used in the
Batch Collection Operation.
What is the time between the hello signal and the data
signal?
Ans: the Hello signal is not used for Point-to-Point data
transactions.

After the control sequence, a data sequence under Section
15.231(e) limits begins to transmit data packets from
Reader to Tag for either 330msec followed by 10 seconds of
silence or 1,000msec followed by 30 seconds of silence.
What is the time between the data signal and the sleep
signal?
Ans: Ans: A sleep signal is not sent from the Sign Post
Reader to the Tag for Point-to-Point transmissions such as
data transmission to the tag or a command that the tag send
data (other than its ID) to the reader.   The tag
automatically goes to sleep after 30 seconds. Refer to the
summary in item (3) above.

There are several types of transactions between Readers and
Tags, three of which are summarized above. It is difficult
to cover all operational cases by e-mail. More detail and
clarity can be provided if desired.
Additionally, we enclose a 1992 theory of operation along
with a letter from the Technical Standards Branch, stating
that the 1992 concept of operations appears to comply with
15.231. This product was tested and a grant issued.

Hopefully, this information assists a better understanding of how Savi products operate.

Please let us know what additional information you need.

Yours truly,

Rod Thorne
Vice President, Hardware Engineering
Savi Technology, Inc.