

RE: Savi Technology, Inc.
FCC ID: KL7-662T-V1

Dear Tim,

Here are your questions concerning the above application with the responses embedded:

1) The label appears to be placed on the device with a cover over it. The label should be easily accessible to the user, on a permanent part of the enclosure, and visible upon purchase. Please explain or provide further information to support this. Currently the diagram provided suggests the label is hidden.

The label is visible through the clear enclosure cover, which is not removable.

2) Page 7 of the operational description appears to show > 5 sec transmit for the reader for wakeup and hello command ($480 + 90 + 10$). Please explain as it appears the reader is in excess of 15.231 timing requirements.

The timing for the reader's transmission is $4.8 \text{ seconds} + 90\text{ms} + 10\text{ms} = 4.9 \text{ seconds}$ ($4800 + 90 + 10 = 4900$). This meets the 15.231 limit for transmissions under 15.231(a).

3) Section 6.3.4.2 of the operational description mentions the pattern repeating up to 6 times ($6 * 330\text{msec}$), but this would be in excess of the 1 second maximum transmit period. Please explain.

The timing of the pulses described is a transmission time of 330ms followed by a silent period of 10 seconds repeated up to 6 times (i.e. the pattern of 3 pulses is not repeated 6 times, the pattern of three pulses followed by a 10 second silent period is repeated up to 6 times).

4) Users manual does not include various required FCC statements (i.e. 15.21, 15.105, etc.) and IC statements. Please update.

The installation guide has been amended to include the pertinent statements.

Note that the same issue applies to the ST 662 tag.

5) Information regarding 15.240 (a), (e), and (f) do not appear to be provided to the user. Please review.

The operation under 15.240 is dictated by the reader and not by the tag. In a previous application it was, therefore, considered that these statements only belong with the readers capable of controlling the tags to operate under 15.240 and not the tags themselves, since use is transparent to the end user. Please advise if you still consider it necessary to include the statements in the manual for the tag.

6) Please explain how the device knows when it is communicating with a 15.240 device vs. a 15.231 device.

The tag is controlled by a 15.240 certified Reader located at a Registered Site where the reader is specially configured to enable 15.240 Tag Read commands to be sent to the tag. The commands issued by the 15.240 reader are what cause the tag to operate under 15.240.

At other sites not Registered for 15.240 operation, Readers are only configured to enable 15.231 Tag Read commands.

7) Is the applicant fully aware of their responsibility under 15.240(f). Please have Savi comment.

Savi understand the requirements and their responsibilities for the manufacture of devices that operate under 15.240. This is shown in the operational description, provided by Savi, on page 8, *Read/Write Operations Under Section 15.240*. As the readers that control the tags are responsible for initiating the tags responses under 15.240 it is suggested that the applicant has to address these issues in full in applications for readers operating under FCC 15.240.

8) Please provide further detail/justification of point to point signals being considered under 15.231(a) vs. 15.231(e).

The point-to-point signals contain a combination of control and data information as permitted under 15.231(a) and as explained to the FCC in previous communications between Savi and the FCC.

15.231(a) permits transmissions to be initiated by human operation or other non-periodic external events. Point-to-point operations are initiated in two ways: (1.) by operators requesting control and data interaction with the tags, or (2.) through non-periodic events generated through the system control logic which in turn generate a command to the tag.

15.231(a) permits data to be combined with control functions in a single transmission. Point-to-point commands always include several ID fields which control the system response, and also include control bits indicating the state of the devices including battery status, alarm conditions triggered by sensors, and the results of data searches inside the device. These control fields may generate requests for service or maintenance, or in control decisions for the routing of the asset to its final destination.

9) Was the device investigated from 30 – 200 MHz. Test equipment does not necessarily support this.

Preliminary scans in an anechoic chamber were performed from 30 MHz to 4GHz. No signals were observed below 300 MHz, therefore all OATS measurements were made between 400 MHz and 4.3 GHz.

10) On page 29 of 42 1301 MHz is a restricted band, but incorrect limits were applied. Additionally, a 20 dB correction appears to be used when only a 12 dB correction for averaging should have been used. Please review/correct.

The data has been corrected, apologies for not spotting this.

11) Page 33 of 42 also appears to utilize the incorrect duty factor. Please review.

The data has been corrected, apologies for not spotting this.

12) Please comment on if the 99% bandwidth was measured using IC techniques as specified in the attachment? Additionally, it does not appear that the measurements meet with the requirements of using $RBW > 1\%$, $VBW > 3*RBW$ and NO Video Averaging? RSS-GEN, section 4.4.1, issue 1. Please correct the IC form as necessary.

The 99% bandwidth has been re-measured using the correct settings and the IC form has been corrected.

