

RE: Savi Technology, Inc.
FCC ID: KL7-65XSP-V1

1) Please confirm placement of the label. The location exhibit does not appear to define the placement for the FCC label.

According to page 6 of the label location pdf, the label is item #34. the drawing of the location is on page 18

2) The operational description mentions that the 433.92 MHz TX is optional. Please note that a system consisting of just the 123/132 kHz TX alone without the 433.92 MHz TX installed would require a separate FCC ID since the device is not considered to be electronically identical, even though it may be considered a sub-set configuration. Information regarding interpretations regarding similar situations have been provided in a separate email. Please note that this application will only cover the composite application of the 2 (i.e Model 652 series only).

Understood, please note the new FCC ID for the combination devices containing a low frequency transmitter and UHF transceiver. The two Form 731 for the composite application have been revised with the new FCC ID. In addition the Industry Canada RSP 100 form has been updated to reflect new test data. It is our understanding that the one Industry Canada Unique Product Number (UPN) will cover all versions of the device.

3) This device appears to contain a dual 433.92 MHz TX's. Please explain if these may TX at the same time as all testing information implies only one 433.92 MHz appears to be active.

The two transmitters cannot operate simultaneously – they operate consecutively. For example, the 5 second wake-up pulse consists of a 2.5 second signal from transmitter #1 followed by a 2.5 second transmission from transmitter #2.

4) The user's manual does not appear to contain the proper information for 15.105 or 15.21. Please revise.

The compliance statement has been uploaded.

5) The duty cycle pulses show a 3.64 ms Hello pulse and 6.56 ms sleep pulse. However, when showing the pulses over 100 ms, the pulses appear to be much larger (about 7 ms for Hello and 10 ms for sleep. Please explain.

Plots have been re-taken and uploaded.

6) Section 3.3 of the operational description mentions 30% duty cycle for data signals, but the report page 9 of 84 mentions 10%. Please review.

See answer to question 7 below.

7) The test report uses 10% for data pulse duty cycle correction (pages 53 and 57), but the duty cycle plots show a duty cycle of 23.2 msec per 100 ms which would be a 12.7 dB correction factor, not 20 dB. Note that this appears to cause the current results to exceed the limits (page 53 and 57 of 84).

The worst-case (highest) duty cycle for pulsed transmissions is 30% and data has been re-taken. The data for both data and control signals has been compared to the 15.231(e)

limit, demonstrating compliance with both 15.231(a) limit for control signals and 15.231(e) limit for data signals. The report has been revised and uploaded.

8) Page 53 also appears to show results of the fundamental in excess of the limits specified already on this page. This may be for adjustment of the power level prior to actual test but is not documented. Please review.

The initial measurements were made at the highest output setting, prior to configuring the transmitters to transmit at the maximum level permitted by 15.231(e). The test data has been revised to remove these adjustment measurements.

9) From the description on the pages, it appears that 10 meters may have been the test distance and not 3 meters on page 60. Please review as the FCC expects this to be 3 meters.

All measurements of the 433 MHz transmitter-related emissions were made at a test distance of 3m. The test report has been amended.

10) Page 10 of 84 only mentions UHF for antenna connection. I believe this section also meant to mention LF as the UHF appear to be SMA connectors. Please review.

The first reference to UHF should be LF. The report has been corrected.

11) It appears from notes in the report that ferrites were necessary on certain cables. Please explain how installation of these will be insured. Is the system professionally installed or do the ferrites come preinstalled on certain cables? Does the installer have instructions to properly implement this?

The ferrites will be internally mounted, within the enclosure. The label location exhibit contains detailed assembly instructions showing the ferrite and its placement.

12) For the first set of AC line conducted tests, it appears one of the line or neutral plots is missing for 120V/60Hz.

The missing graph is for 120V, line. The image was lost when transferring it between EMI receiver and computer. The other plots show there to be no significant differences between the levels of emissions from line and neutral conductors and the tabular data accounts for both lines.

13) Conducted power measurements appear to be provided twice. It is assumed that one may be for Receiver/idle mode and the other for TX. However this does not appear to be clarified with the data. Please review.

The first set of data was taken with the LF transmitter operating at 132 kHz, the second set with the transmitter operating at 123 kHz. The test notes at the start of each run identify the operating frequency.

14) Note 3 on page 64 and remaining Note 3's throughout the report appear incorrect for the 30 meter limit given. Shouldn't this be 36.4 dBuV @ 490 kHz? Additionally, please note the limit various dependent on measurement frequency as well.

The note incorrectly references a measurement distance of 20m. The distance should have been 3m (as used during preliminary testing against the European standard). All note 3's have been corrected.

15) Page 64 title states 123 kHz, while the measurements appear for 132 kHz.

The title has been corrected.

16) Are notes 1 and 2 for the top table still applicable for page 69?

No, they only apply to fundamental emission measurements. The test tables have all been updated to better describe the measurements made.