

October 1, 2002
RE: Savi Technology
FCC ID: KL7-640T-V1

In response to your comments on the above referenced Application.

1) The cover letter with this application asked about adding additional functionality under 15.209 (at a later time) as a permissive change. The original application filed is for a single TX to 15.231. In order to include the 15.209 functionality, it must be done at the time of the original application since removal of the functionality would be considered a subset. We can not change the application at a later date into a composite application since this would be changing the device in a way that is not allowed by 2.1043. Please let us know if you wish to place this application on hold or to proceed with the filing as is.

Please proceed with the application as it stands and the 15.209 mode will be added under a complete new application. If you could advise as to how long the existing test data can be used to support an application it would be appreciated.

2) Since 2 models were tested, are test configuration photographs available for both models?

The original tests on the ST-644 were performed with the circuit board fully stuffed (to include all optional components) and mounted into the enclosure for an ST-645. There are test configuration photographs available but they are not significantly different to those submitted. After the original tests had been performed, Savi had to design the daughter-card that was used to connect to the sensor on the ST-645, and so the second series of tests were performed to ensure the radiated levels remained unchanged.

3) The test configurations specified on page 4 & 9 of 12 states that the EUT was tested at 10 meters. The TX tests should have been performed at 3 meters, and the digital device/idle mode at 10 meters for class A. However, the individual test tables appear to all be labeled 3 meters. Please clarify.

All transmitter and receiver-related emissions tests were performed at a test distance of 3m. The test data has been revised to clarify this.

4) Please comment on if the receiver is a super-heterodyne design requiring to be tested to the 2nd LO or if this device should have been tested to 2 GHz per 15.33. Please note that the device was only tested from 30- 900 MHz according to the test report.

The receiver is a super-het structure with the receiver LO operating at 433.7 MHz. Testing was performed over the correct frequency range.

5) The test report contains 2 different sets of TX timing. The theory of operation explains a signpost mode that correlates to the first set of timing given (contains 4 pulses of data per period). The theory of operation also explains a beacon mode (single transmission sent be TX period). But the other timing provided contains 10 pulses of data and is not contained in the theory of operation. Please explain.

The timing showing 4 pulses of data in a single transmission with a minimum of 10 seconds between transmissions is for the Signpost and Alarm modes of transmission.

Timing plots for the Beacon mode have been added to the test data and the report has been revised.

The set of 10 data pulses followed by 30 seconds of silence is a data transmission mode detailed in the Theory of Operations, section 4.0 as the "Read/Write Data Command".

6) Please explain the duty cycle of the transmitter during the radiated tests. Was it only transmitting once per 10 seconds, or was it placed into a more continuous TX pattern for test purposes? If the device was only transmitting once per 10 seconds, please explain any special procedures used during test to ensure the worse case results were obtained. The concern is due to the close margin and the difficulty in obtaining worse case results during table rotation and antenna height if the device was not in a more continuous transmit condition.

The Tags were transmitting continuously during testing to enable us to make accurate peak measurements. This information is now detailed in the "Test Configuration" section of the test data.

The updated files detailed in the notes above have been uploaded to the ATCB website. The files are:

R47825 Revised.pdf

If you have any further questions, please contact me via doc@elliottlabs.com.

Regards



Mark Briggs