ALERTLABS

Date: 30 Oct 2018

Federal Communication Commission
Equipment Authorization Division,
Application Processing Branch
7 435 Oakland Mills Road
Columbia MD 21043

Certification and Engineering Bureau
Industry Canada
P.O. BOX 11490, Station H
3701- Carling Avenue (Building 94)
Ottawa, Ontario
K2H 8S2

Subject: Request for Class II permissive Change

Model: Alert Labs RN2903
FCC ID: 2AKXF-ALB010
IC: 22365-ALB010

To whom it may concern:

The undersigned, on behalf of Alert Labs Inc, is requesting a Class II Permissive Change for the above mentioned model with the modifications listed below. This change is to be integrated into the Alert Labs Sumpie Sump Pump Monitor.

- This product contains three radio modules however, the product firmware allows only one radio to transmit at any time. Further, the user does not have access to control of the radio transmission.
- Modify the mode of operation of this module to limit it to DTS only, where the original grant authorizes capability of Hybrid and DTS modes. The mode of operation for the module is controlled by Alert Labs firmware which limits the mode to DTS only, and is not accessible to the user.
- Restrict the operating frequency range to 903 MHz – 927.5 MHz, which is within the original grant conditions. Alert Labs Inc will be using the module in a point to point communications link between our companion products. The choice of operating frequency is controlled by Alert Labs firmware which is not accessible to the user and will be limited to 903 MHz – 927.5 MHz.
- Integrate a different antenna from the original module. The updated antenna is a helical PCB antenna with a maximum gain of +3.37 dBi in the frequency range 903 MHz – 927.5 MHz.
- This product integrates a WiFi radio module that includes its own antenna on printed on the module substrate, Espressif ESP-WROOM-02. This radio module is certified under 2AC7Z-ESPWROOM02, IC: 21098-ESPWROOM02.
- This product integrates a cellular radio module that provides an u.FL connector for its antenna port, Particle.io Electron SARA-U260. This radio module is certified under FCC ID: XPYSARAU260, IC: 8595A-SARAU260. In the product a 100 mm micro coax cable with an SMA connector provides a cellular antenna port on the outside of the product to which a dipole antenna is connected whose gain in the GSM 850 band is 1.46 dBi and in the GSM 1900 band is 0.66 dBi which complies with the EIRP and MPE limits for FCC and Industry Canada.

By: Kevin Wright

(Signature) (Print Name)

Title: Chief Technology Officer
On behalf of: Alert Labs Inc.
Phone: 519-279-6786 x702
Email: kevin@alertlabs.com