

15400 Calhoun Drive ▲ Suite 190 ▲ Rockville, MD 20855

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February 7, 2017

Dear Application Examiner,

Intelligent Automation, Inc., Model: GRIDLOCK, FCC ID: 2AI6Y-GRIDLOCKMOD, would like to have your authorization as a modular approval specific to the GRIDLOCK Border Protection product.

The requirements of Public Notice DA00-1407 have been met and shown on the following statements.

- 1. "The modular transmitter must have its own RF shielding.": The GRIDLOCK module includes two RF shields covering the RF-producing portions of the PCB.
- 2. "The modular transmitter must have buffered modulation/data inputs.": No direct access is provided to the modulator / up converter and as such the GRIDLOCK cannot be stimulated to over- modulate or modify the transmitters data rate. The RF transmissions are controlled exclusively by the firmware running on the PCB, and no external stimulus can cause the firmware to transmit at a different rate or using a different modulation or power level.
- **3.** "The modular transmitter must have its own power supply regulation.": The GRIDLOCK has its own power supply regulation.
- **4.** "The modular transmitter must comply with the antenna requirements of section **15.203** and **15.204(C)**.": The GRIDLOCK includes two fixed PCB trace antennas which cannot be removed or modified.
- **5.** "The modular transmitter must be tested in a stand-alone configuration": The GRIDLOCK has been tested in a stand-along configuration with supporting hardware solely for the purpose of providing a mounting fixture and a battery connection.
- **6. "The modular transmitter must be labeled with its own FCC ID number.":** The GRIDLOCK is labeled with its own FCC ID number. See document <TBD>.
- 7. "The modular transmitter must comply with any specific rule or operating requirements applicable to the transmitter and the manufacturer must provide adequate instructions along with the module to explain any such requirements.": The GRIDLOCK module complies with all specific rules applicable to the transmitter. No option is provided to the integrator to modify the operation of the transmitter in this regard.



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**8.** "The modular transmitter must comply with any applicable RF exposure requirements.": The GRIDLOCK complies with all RF exposure requirements by specification. The GRIDLOCK module is not designed to be used so the radiating structure is within 20 cm of the body of the user. As such the module does not fall under the definition of a portable device per FCC Rules in Section 2.1093. While the GRIDLOCK module qualifies as a mobile device per FCC Rules in Section 2.1091, the module has a maximum radiated output power of 0.01 Watts EIRP. As such, the module is below the 3 W power limit that would necessitate environmental evaluation for RF exposure. The GRIDLOCK radio does not operate in the bands specified by 15.319, 15.407, 15.253 and 15.255.

Please contact me if you have any further questions.

Regards,

David Mayhew Principal Engineer Intelligent Automation, Inc.