



Federal Communications Commission
Authorization and Evaluation Division
Ref: FCC ID: 2AAVI-HS1RN4

23 September 2015

The purpose of this letter is to request limited modular approval of the RFID Module with Passive Tag, model HS1RN4, for use in the 13.11 to 14.01 MHz band under the provisions of FCC Part 15.225. The model HS1RN4 is designed to be used with the JADAK HS1R family of devices.

To address the specific numbered items of Public Notice DA 00-1407 and KDB 996369 D01 - v01r04:

- 1. The model HS1RN4 board incorporates a single shield over the wireless transceiver IC and RF Front End module. The shield is soldered to the printed-circuit board.
- The model HS1RN4 transmitter incorporates digital buffers on the data inputs, which are part of the transceiver IC.
 The peak modulation is set by the firmware that is stored within the transceiver IC. The data rate is set by the same stored firmware. For this reason, over-driving the modulation input, or applying excessive data rates to the data input cannot produce over-modulation.
- 2. The model HS1RN4 has power supply regulation. It receives voltage from an external source, a 5 volt USB connection. The printed circuit board assembly has no internal adjustments in the module housing and therefore the model HS1RN4 transmitter power cannot be varied.
- Antennas: The model HS1RN4 has an integrated printed circuit board loop antenna that is inaccessible from outside.
- 4. The model HS1RN4 module is intended to be installed in the HS1R family of devices supplied by JADAK. The module has been tested in representative configurations.
- 5. The model HS1RN4 has a label to identify the module's FCC ID. This label is printed on the model HS1RN4 in a permanent fashion. Additionally, the FCC ID appears on the front-panel of the JADAK family of devices that contain the model HS1RN4 module.
- 6. The model HS1RN4 complies and is certified for compliance with all of the applicable provisions of FCC Part 15.225 for RFID devices.
- 7. The model HS1RN4 is a low-power (< 0.1 mW) device and operates with a 100% duty cycle.
- 8. The model HS1RN4 has been demonstrated to comply with the SAR RF exposure requirements for mobile devices.

Respectfully,

Steven Bryant

JADAK LLC 7279 William Barry Blvd. North Syracuse, NY 13212