

Federal Communications Commission

Authorization and Evaluation Division Re: FCC ID: SD8FFP466M12P1

March 15th, 2013

The purpose of this letter is to request limited modular approval of the Firefly RFID Expansion Card – model # VER551-11 printed circuit board assembly, which operates as a frequency-hopping spread-spectrum transceiver for passive RFID tag reading in the 900-928 MHz band under the provisions of FCC Part 15.247 The VER551-11 is designed to be used with handheld or low power / battery operated devices such as the Psion 7527C-G2 Workabout Pro.

To address the specific numbered items of Public Notice DA 00-1407:

- The VER551-11 board incorporates a single shield over the wireless transceiver IC and RF Front End module. The shield frame is soldered to the printed-circuit board and a snap-on shield lid is applied. The bottom of the shield is enclosed by a copper plane that is part of the printed-circuit board.
- The VER551-11 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.
- The VER551-11 has power supply regulation, with Processor monitored. It receives unregulated power
 from an external source typically a 3-5 volt lithium battery. The regulator levels are fixed in hardware
 on the circuit board and therefore the maximum VER551-11 transmitter power cannot be varied once it
 is set and measured at the time of manufacture.
- Antennas: The VER551-11 has an integrated printed circuit board antenna that is inaccessible from outside the module housing due to the potting compound encapsulate with which it is filled.
- The VER551-11 module is intended to be installed in Handheld Terminals supplied by Firefly RFID Solutions Inc. The module has been tested in representative configurations.
- The VER551-11 has a label to identify the module's FCC ID. This label is silkscreen printed on the (VER551-11 printed circuit board assembly and is thus permanent. Additionally, the FCC ID appears in the battery compartment of the Psion Workabout Pro series devices that contain the VER551-11 module.
- The VER551-11 complies and is certified for compliance with all of the applicable provisions of FCC Part 15.247 for frequency-hopping spread-spectrum devices.
- 7. The VER551-11 is a low-power 10 mW device and operates with a 5% duty cycle.
- 8. The VER551-11 has been demonstrated and certified to comply with the MPE RF exposure requirements for mobile devices. Installation and operating instructions specify the required minimum distangle from humans for reading passive RFID tags.

Respectfully

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