



15 March 2006

Barry C. Quinlan,  
Certification Manager,  
Curtis-Straus LLC,  
527 Great Road,  
Littleton, MA

Dear Barry,

RE: FCC Submission OOX-915A

WaveRider is requesting that Curtis-Straus review and certify our 915A radio as a Digital Transmission System under FCC Part 15. We are applying for a Limited Modular Approval for this radio, since we expect to use this radio in several final products. These final products will all be manufactured by WaveRider only.

In accordance with directive DA 00-1407 (June 26, 2000) "Part 15 Unlicensed Modular Transmitter Approval", I have addressed each of the numbered requirements below:

1. "The modular transmitter must have its own RF shielding". There are two shields on the radio, one covering the receiver and transmitter circuitry and one covering the local oscillator. Proof that these shields prevent coupling of the RF circuitry and any wiring is provided in the test report showing the results of testing the bare circuit card assembly without any housing.
2. "The modular transmitter must have buffered modulation/data inputs". The radio accepts data from an Ethernet port only. The radio processors buffer this data and generate modulated signals internally to the radio. The user cannot over modulate or exceed the data rates set by the RF design.
3. "The modular transmitter must have its own power supply regulation". The 915A uses an external AC to 4.2 VDC power supply to regulate all power coming from the AC lines before it gets to the Circuit Card Assembly. This power supply is included in all testing of this radio. It provides isolation between the radio and the AC lines. Beyond that, there are voltage regulators and power filters on-board the radio to reduce any conducted emissions to the 4.2 VDC line.
4. "The modular transmitter must comply with the antenna requirements of Section 15.203 and 15.204(c)". This specific version of the 915A radio complies with this requirement, since it has a WaveRider proprietary unique RF connector. This is the same connector that is used on other WaveRider products (e.g. OOX-EUM3005). Other versions of the 915A radio and its final products may use other RF connectors requiring Professional Installations only. It is for this reason alone that we are applying for a Limited Modular Approval instead of a full modular approval.
5. "The modular transmitter must be tested in a stand-alone configuration". The 915A is tested as a bare circuit card assembly (CCA). AC power is passed to the AC to 4.2 VDC power supply and hence to the CCA. The power supply is specified as a necessary accessory for this radio. All testing includes the power supply.
6. "The modular transmitter must be labeled with its own FCC ID number, and, if the FCC ID is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module". See "FCC - 915A Product Label.pdf", submitted as part of the documentation package, to see the format and location of both the label on the radio itself as well as label on the packaged radio.



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". See "FCC/IC – 915A Module Operating Requirements.pdf", submitted as part of the documentation package, for specific requirements, such as antenna types acceptable, installation requirements, etc.
8. "The modular transmitter must comply with any applicable RF exposure requirements". See "FCC/IC – 915A Module Operating Requirements.pdf", submitted as part of the documentation package, for specific requirements, such as antenna types acceptable, required cable losses and separation requirements.

WaveRider is applying for a Limited Module Approval for the 915A since future versions of this product will be completely under WaveRider's control by being the manufacturer and integrator ourselves.

Your Truly,

*Lawrence Gordon,*

Senior Technical Design Lead,

WaveRider Communications (Canada) Inc.

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