

June 15, 1999

Federal Communications Commission  
7435 Oakland Mills Road  
Columbia, MD 21046

ATTN: Applications Examining Division

RE: io Wave, Inc., Certification Application;  
FCCID: NK4-7039795714

Gentlemen:

Please find the enclosed application for Certification of a Part 15 Direct Sequence Spread Spectrum Transmitter.

The **Model 2.4 GHz ioLink4/ioLink1 Wireless System** will interface with a terminal via RS-232 port, and therefore may be considered a Class A Digital Device as well. Class A is justifiable since the system is intended for, and marketed only to commercial operators. The system has high quality with fast T1 data through-put, as well as being priced way over any consumer product. Commercial applications are outlined in the User Manual.

The 56 cm minimum safe distance limit for 1 mW/cm RF exposure, as shown in the User Manual **Appendix C1**, was calculated from **FCC OET 65 Appendix B, Table 1B** guidelines for General Population/Uncontrolled Exposure. This calculation was based on the highest EIRP possible from the system, considering maximum power and antenna gain. The formula used was:

$$S = (Po * G) / (4 * \pi * r^2)$$

The RF unit incorporates a standard N connector to the antenna, therefore requiring professional installation. Appendix C of the User Manual specifies that only trained ioWave certified technicians should install the **ioLink4/1**. There are many technical steps needed to install an operating full-duplex system, as outlined in the manual. These include antenna support structure, site survey, antenna alignment, test and troubleshoot. All systems sold to businesses are installed by io Wave, Inc. Marketing is limited sales by authorized dealers.

Your consideration is much appreciated.

Sincerely,

Steven Dayhoff  
Chief Engineer