WiNRADiO®

AVENTAS INC

Embedded Computing, Timing and Telemetry Products

RLX-810 Network Receiver

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Overview

The WiNRADiO RLX-810 Network Receiver consists of a software-defined radio receiver and a web server based on a low-power Linux-based industrial computer platform, mounted in a ruggedized shielded enclosure. The unit can operate from a 12V DC power source or from the supplied universal 100-240 V AC power adapter.

No additional hardware such as a PC, keyboard or monitor are required on the server side. The unit contains a highly reliable low-power Linux-based computer for server-side processing and storage. The actual receivers are well proven WR-G313i (9 kHz to 30 or 180 MHz) or WR-G315i (9 kHz to 1.8 GHz) models. Simply plug the unit to a LAN or Internet network via a standard RJ-45 connector, and it is ready to be used.

The web-based configuration interface makes it possible to fully configure the communication parameters, such as the IP address, ports, users, passwords and user access rights.

Each user can be assigned different access privileges, which may specify the extent of the receiver control and access to the saved information.

Features

- Frequency range from 9 kHz up to 1800 MHz
- Linux-based server for reliable unattended performance
- Java-based client applets for platform independence
- Multi-user and multiple-connection support
- Encrypted communication
- Clustering support
- User authentication
- TCP/IP or UDP protocols for streaming
- Compressed or uncompressed streaming
- Audio and IF recording and playback
- Easy configuration via web interface
- Ruggedized construction

Both audio and IF recording and playback are possible. As monitoring activities take place in the server, this makes it possible to start a monitoring task remotely and then disconnect the client. The task then keeps running autonomously. A typical task may include recording, spectrum sweeping or activity monitoring. The results can be saved on the server and later downloaded for later processing and analysis. Web-based user control makes it possible to create separate user accounts.

Recorded files are saved on the server and can be organized in folders. The client-side Java applet includes a file manager that makes it possible to organize and view recorded files.

Apart from a standard web browser, the RLX-810 Network Receiver does not require any additional application software on the client side; all is provided by the built-in Java applet which runs on most common platforms. The Java applet makes it possible to observe the signal spectrum, measure the signal strength, tune the receiver, set the demodulation mode, control the IF filter bandwidth and other parameters such as volume, notch or audio filter, and listen to or record the demodulated audio.

Technical Specifications

The following specifications refer to the standard RLX-810 model. The exact types of receivers and the computer configuration can all be customized to suit customer-specific requirements.

Computer	Intel Atom N470 1.6 GHz, HDD 2.5" 320 GB, 2GB RAM, Linux OS
Receiver	WiNRADiO G313 or G315 series, frequency range from 9 kHz up to 1.8 GHz
Power	24 W (12 V DC @ 2 A), AC/DC Adapter 100-240 V (supplied)
Operating temperature	-10 to 50 deg C
Dimensions	Length: 11.81" (300 mm) Width 5.71" (145 mm) Height: 2.36" (60 mm)
Weight	3.95 lb (1.8 kg)

Specifications are subject to change without notice due to continuous product development and improvement.

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