



# PremierWave™ EN

## Wireless Device Server



## THE MOST FEATURE RICH, DEPLOYMENT-READY WIFI NETWORKING AND WEB SERVER MODULE

PremierWave™ EN delivers a new dimension of WiFi networking with the highest levels of security to virtually any device or electronic product. It provides affordable connectivity in a compact form factor, enabling OEMs to add WiFi or wired Ethernet networking to their products on a single PCB design.

With a choice of flexible, media-independent modules ranging from Ethernet, WiFi and ultra-secure WiFi, the PremierWave EN takes the complexity out of RF design and networking. OEMs can focus on their core competencies while minimizing engineering risk, shortening development time and reducing development cost.

## WiFi Network Processor Module

PremierWave EN has a dedicated 32-bit processor module that manages wireless connectivity and web services. With its high performance, ample memory and Linux OS, PremierWave EN can be designed as the primary host processor, for demanding applications.

## Bulletproof Security

With an unmatched portfolio of security technologies, PremierWave EN goes far beyond compliance with the popular 802.11i, WPA and WPA2 wireless security specifications. It ensures data integrity and privacy for highly sensitive requirements, such as medical or financial applications.



- + **802.11 abgn solution with Dual Band Radio (2.4GHZ and 5GHz)**
  - + **Linux Operating System with IPV6**
  - + **Adds WiFi to devices with the highest enterprise-grade security and authentication protocols**
  - + **Lantronix SmartRoam™ technology provides seamless mobile connectivity and improved reliability**
  - + **Includes full TCP/IP stack, web server**
  - + **Robust set of interfaces which include Ethernet, Serial, USB, I2C, and SPI**
  - + **Low power consumption modes**
  - + **Powerful applications customization platform with 32 Bit ARM9 Processor**
  - + **Virtual IP (VIP) Access™ for gaining remote connectivity even behind firewalls**

- + IEEE 802.11i-compliant radio with AES-CCMP and TKIP encryption
- + PSK and complete suite of 802.1x Extensible Authentication Protocols (EAP) including EAP-TLS, EAP-TTLS, PEAP, EAP-Fast and EAP-PEAP
- + End-to-end SSL/TLS and SSH tunneling

### High Reliability WiFi for Better Mobility

With exclusive SmartRoam technology, PremierWave EN continuously tracks the signal strength of access points (AP) within range. If necessary, pre-authentication and caching enables smooth and automatic transition to an access point with a stronger signal. This enhances mobility within a building, warehouse or across a campus network with less time spent re-authenticating due to a lost connection or re-associating to a stronger signal.

### Scan, Gather and Report Radio Parameters

With an unmatched portfolio of security technologies, PremierWave EN scans current AP and Received Signal Strength radio parameters, as well as authentication and negotiated encryption types for the current association, and displays them on a web page. This enables remote technicians to diagnose problems as they occur and troubleshoot over any IP network without a service call, reducing support costs and unnecessary visits.

### Linux and Web Server Technologies

Featuring Linux, PremierWave's integrated CGI-capable web server transforms a standalone device into a networked product that can be managed remotely via a standard web browser. CGI capability enables users to remotely monitor and collect information from the device in real-time and send the information to dynamic web pages.

### Flexible & Intelligent Design

Designed with an on-board antenna and option for external antennas and diversity, it provides the flexibility to locate the antenna and connector based on design requirements. It also includes a user-controlled, intelligent power management option to shut down the radio during periods of inactivity, minimizing current consumption.

### FCC Certified for Immediate Deployment

PremierWave EN will be module-certified by the U.S. Federal Communications Commission (FCC) enabling OEMs to leverage

the Lantronix FCC license grant and bypass 802.11 regulatory testing. PremierWave EN will also be pre-tested for European telecommunications regulations.

### PremierWave EN Key Features

- + Network Interface: Wireless 802.11a, 802.11b, 802.11g, and 802.11n, Ethernet
- + Dual Radio Frequency 2.4GHz and 5 GHz
- + Management, Configuration and Encryption suite
- + Serial Interface: Serial (UART, RS232, RS485), USB, SPI, I<sub>2</sub>C
- + Architecture: Lantronix 32-bit processor (ARM Core) with Linux
- + Virtual IP Access

### Ordering Information

Please contact your Lantronix Representative for more details.

- + To speak with a Lantronix sales representative in North America, call +1 (800) 422-7055.
- + For a full listing of Lantronix worldwide offices or to locate a partner, please visit [www.lantronix.com/about/contact.html](http://www.lantronix.com/about/contact.html)

#### + Part Number

**PEN100100A-01**

#### + Description

PremierWave EN 802.11 abgn Device Server with internal Antenna, BULK  
- Minimum order quantity 10 units  
- Available April 2011

**PEN10010SA-01**

PremierWave EN 802.11 abgn Device Server with internal Antenna, SAMPLE  
- Order quantities of up to 10  
- Available Now

**PEN10010NA-01**

PremierWave EN 802.11 abgn Device Server without internal antenna, BULK  
- Minimum order quantity 10 units  
- Available April 2011

**PEN10010NASA-01**

PremierWave EN 802.11 abgn Device Server without internal antenna, SAMPLE  
- Order quantities of up to 10  
- Available Now

**PWDK1000-01**

PremierWave no module Development Kit, sample must be purchased  
- Evaluation Board, Power Supply, RS-232 Cable, Cat 5e Cable, USB Cable (A-B)  
- Available Now

**PWEV1000-01**

PremierWave no module Evaluation Board, sample must be purchased. Includes power supply module.  
- Available Now



**LANTRONIX®**

**CORPORATE HEADQUARTERS**