



# PremierWave® SE1000

Embedded Linux  
System On Module



## A FEATURE AND INTERFACE RICH, DEPLOYMENT-READY, NETWORK-ENABLED SYSTEM ON MODULE

The Lantronix® PremierWave® SE1000 is a high performance, programmable, Ethernet-based System on Module (SOM) that enables OEM customers to easily develop and deploy secure IoT applications.

### Cost Effective & Secure Solution

The PremierWave SE1000 enables OEM design engineers and system architects with a solution that simplifies the task of integration, allowing them to easily incorporate network connectivity with proven security into their end user product designs and consequently enabling the developer to focus on their own core expertise and achieve a quick and cost effective design.

### Rapidly Deploy Your IoT Solution

PremierWave SE1000 family of devices are small form factor SOM which are easy to integrate into your product design via the 80-pin board-to-board connector. With a comprehensive set of peripheral interfaces, Lantronix smart connectivity software and SDK/runtime tools you can build and deploy your custom IoT product both easily and rapidly.

### Robust Specifications

- Powerful applications customization platform with high performance 32-bit ARM 9 Processor
- 64 MB and 256 MB Flash options available
- Small form factor measuring 55mm x 30mm
- Robust set of interfaces that include Ethernet, Serial, USB, I2C, and SPI
- Low power consumption modes
- Linux Operating System with IPv6 Support
- Security and authentication protocols including FIPS 140-2\*
- Includes full TCP/IP stack and web server
- Lantronix robust and hardened advanced applications suite including:
  - Tunneling
  - Secure Tunneling
  - Configuration Manager
  - Web-based Configuration Manager

### PremierWave SE1000 Advantage

- Rapidly build your custom IoT Application
- Easily integrate network services by leveraging
- Lantronix built-in smart connectivity software
- Reduce your hardware design challenges and complexity via a compact modular footprint
- Simplify your product development using available Lantronix software management and system configuration modules
- Lower your overall total cost of ownership across your product life cycle

\*Available in a future software release. Please contact sales representatives for more information.

# LANTRONIX



## The Power of Linux

All PremierWave SE1000 family of System On Modules come preloaded with Full Embedded Linux and U-Boot making it simple and easy to add custom software and applications. Full source code of the Linux BSP is provided, along with a Linux cross-development environment. The PremierWave SE1000 can use GNU C/C++ tool chain for Linux and Windows or similar and supports third-party SDK.

## Bulletproof Security

With an unmatched portfolio of security technologies, PremierWave SE1000 goes far beyond compliance as it ensures data integrity and privacy for highly sensitive applications such as financial and medical applications.

- End-to-end SSL TLS and SSH tunneling
- FIPS 140-2\*

## 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

The PremierWave SE1000 is a high performance 400MHz ARM9 processor with up to 64Mbyte of SDRAM and up to 256Mbyte of NAND Flash to satisfy the most sophisticated of applications. Included is a rich choice of interfaces: two serial interfaces (up to 921 kbps), USB 2.0 Full speed Host/Device Port, SPI and I2C interfaces.

## FCC Certified for Immediate Deployment

PremierWave SE1000 is certified by the U.S. Federal Communications Commission (FCC). PremierWave SE1000 has been pre-tested for European telecommunications regulations.

## PremierWave SE1000 Key Features

- Architecture: 32-bit processor (ARM 9 Core) with Linux
- Ethernet 10/100 interface
- Management, Configuration and Encryption suite
- Serial Interface: Serial (UART, RS -232, RS -485), USB, SPI, I2C
- Available with connector interface for easy population

## Available Options

- PremierWave SE1000 with 64MB Flash
- PremierWave SE1000 with 256MB Flash

## PremierWave SDK

- SDK developed by Timesys®, a leading embedded Linux solutions provider
- Empowers developers with greater control over product development
- Offers unmatched flexibility
- More than 1,000 open source packages available
- Provides successful build and maintenance of the Linux platform, toolsets and applications specific to project requirements

## Part Number

## Description

|              |                                                                                                                                                                                          |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PWSE1000100B | PremierWave SE1000 SOM 64MB Flash Bulk—Minimum order quantities 10 units                                                                                                                 |
| PWSE1000200B | PremierWave SE1000 SOM 256MB Flash Bulk—Minimum order quantities 10 units                                                                                                                |
| PWSE1000200S | PremierWave SE1000 SOM 256 MB Flash—Sample                                                                                                                                               |
| PWDK1000-01  | PremierWave no module Development Kit, sample must be purchased, Development Board, Power Supply, RS-232 cable, Cat 5E cable, USB Cable (A-B)/Licensing for Timesys SDK sold separately. |
| PWEV1000-01  | PremierWave no module Evaluation Board, Sample must be purchased                                                                                                                         |

\*Available in a future software release. Please contact sales representatives for more information.

## Ordering Information

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