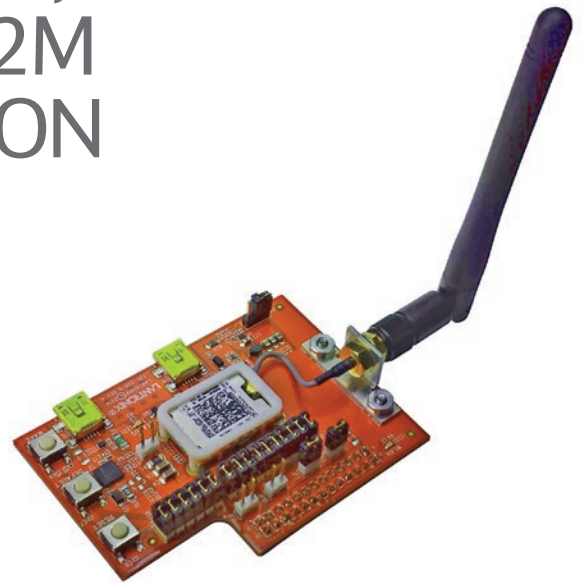# FLEXIBLE, MOBILE-READY, WI-FI® SOLUTION FOR M2M AND IOT APPLICATIONS ON RASPBERRY PI®

Lantronix has now enabled easy integration of its xPico® Wi-Fi® embedded device server with the popular Raspberry Pi® single board computer — all in a simple, easy-to-use pluggable expansion board. Now developers can enjoy a robust and feature-rich Wi-Fi solution that enables mobile ready capabilities in a quick and easy manner.

Advanced Wi-Fi Features for Raspberry Pi

Lantronix xPico Wi-Fi Pi Plate for Raspberry Pi completely offloads Wi-Fi connectivity, with support for mobile ready advanced features such as simultaneous Soft Access Point (Soft AP) and Client mode, Wi-Fi connection management and QuickConnect.

Managing these features via a simple configuration interface enables developers to focus on their main applications for Raspberry Pi without worrying about wireless stacks and wireless connectivity management.

Combine xPico Wi-Fi & Raspberry Pi – Easily Wi-Fi Enable Your Design

The Lantronix xPico Wi-Fi Pi Plate augments and simplifies use and flexibility of the platform while providing the Raspberry Pi with a robust true 802.11 b/g/n solution that easily enables Wi-Fi access either as a client or as a Soft Access Point. With many other features the product's industrial-ready quality and ease-of-use allows engineers, students and hobbyists to rapidly mobile enable their platform while offloading the TCP/IP stack and networking applications like a web server to the xPico Wi-Fi.

With the integration of the Lantronix xPico Wi-Fi embedded device server with Raspberry Pi, enabling Wi-Fi connectivity is easier than ever. Prototyping with the Lantronix xPico Wi-Fi Pi Plate for Raspberry Pi is quick and simple, whether you're a technology hobbyist, design engineer, student, or professor.

xPico Wi-Fi Pi Plate Highlights:

- Compatible with Raspberry Pi® Computer Module

- Simple and easy to use interface

- xPico® Wi-Fi module with integrated software

  - Mobile-ready, with simultaneous client and software access point (AP) mode

  - Integrated connection manager

  - IEEE 802.11 b/g/n (2.4 GHz) compliant

  - Low power (6 µA Standby)

  - Full TCP/IP stack and Web Application Server

  - Multiple interface choices, including Serial Port (921 kbps), SPI with clock rate of 30MHz

- Extended temperature : -40° to +85° C

- 1-Year limited warranty

LANTRONIX®

CONNECT SMART. DO MORE.

Features and Specifications

> Wireless LAN Interface

- IEEE 802.11 b/g and IEEE 802.11n (single stream) WLAN interface (2.4 GHz only)
- u.FL connector for external antenna

> Serial Interface

- A serial CMOS Port (3.3V, 5V tolerant)
- 300 to 921.6 Kbps
- Lantronix tunneling application

> SPI Interface

- 30 MHz clock

> Network Protocols

- TCP/IP, UDP/IP*, DHCP, ARP, ICMP, DHCP, Auto-IP, DNS

> Networking Capabilities

- Soft Access Point with DHCP Server
- Simultaneous Soft AP and Client modes
- QuickConnect: Dynamic Profiles facilitate easy and rapid connections to access points.
- WLAN Profiles: connect to multiple wireless networks

> Software Applications

- Lantronix Tunnel Application: Enables easy serial port data access over the TCP/IP Network
  - Transparent Tunneling mode
  - Modem Emulation mode
- SNTP Support: Presents current date and time to Arduino applications
- HTTP web services API: For remote configuration and control
- Web Enable Arduino application data via the point and click Explorer utility
- File System

> Management and Control

- Web Server - Landing Page
- CLI (Serial Monitor Port)
- XML Import and Export (XCR)
- Field upgradable firmware (OTA)

> Security

- IEEE 802.11i Support – WPA-Personal, WPA2-Personal
- 256-bit AES Encryption*

> Power

- Input Voltage: 3.3VDC
- Low power consumption of approximately 6µA standby

> Environmental

- Operating Temperature: −40° to +85° C
- Relative Humidity: 0% to 90% non-condensing

> Certifications

- FCC Class B, UL and EN EMC

> Warranty

- 1-Year Limited - xPico Pi Plate

*Available through future firmware update

Other members of the xPico product family:

xPico Wi-Fi for Freescale Tower Module System

xPico Wi-Fi Shield:

Full featured Wi-Fi device server module for robust and ease of use for the popular Arduino.

xPico

A chip-sized networking solution that enables Ethernet connectivity on virtually any device.

Ordering Information

> Part Number	> Description
XPCW1001000RP-K	xPico Wi-Fi IEEE 802.11 b/g/n Device Server Pi Plate: w/ xPico Wi-Fi Module, RoHS, Raspberry Pi computer board not included
XPW1001000-01	xPico Wi-Fi— IEEE 802.11 b/g/n Device Server Module, Extended Temp, Bulk, RoHS
XPW100100S-01	xPico Wi-Fi— IEEE 802.11 b/g/n Device Server Module, Extended Temp, Sample, RoHS
XPW100100K-01	xPico Wi-Fi— IEEE 802.11 b/g/n Device Server Evaluation Kit w/ xPico Wi-Fi Module, RoHS
XPC100A001	xPico Module Mounting Quick Clip Bulk pack(50 pc) (Extra clip)