



# THE MOST FLEXIBLE, MOBILE-READY, Wi-Fi® SOLUTION FOR M2M AND IOT APPLICATIONS

Lantronix® combines its industry-proven xPico® Wi-Fi® embedded device server with industry leading Freescale microcontrollers onto a ready-to-go tower module. Now prototyping designs can be done quickly and easily resulting in a shorter time to market and reduced development costs.

## Quickly Prototype Your Design

Compatible with a wide range of Freescale embedded microprocessors and controllers, the Lantronix xPico Wi-Fi tower module for the Freescale Tower System offers a powerful, versatile, and modular development platform enabling countless options for prototyping.

The tower module seamlessly integrates the Lantronix xPico Wi-Fi embedded device server with a Freescale microcontroller by plugging into the tower form factor. Its industrial ready quality and ease of use allows you to rapidly prototype your design. More precisely by using the MQX examples provided to add Wi-Fi capability to a Freescale Kinetis Cortex-M4 microcontroller, all while offloading the TCP/IP stack and networking applications like a webserver to the xPico Wi-Fi. Additionally, the Freescale microcontroller can maintain mission-critical functions without having to service network interrupts.

## xPico Wi-Fi : Secure, Robust Networking Solution

Reduce your development costs, shorten your time to market, and leverage mobile solutions with xPico® Wi-Fi®, one of the world's smallest and most flexible Wi-Fi device servers. Lantronix's industry-proven device server application and protocol stacks enables seamless remote access to device data, simplifying design integration, all while providing robust connectivity – including the ability to access data with any mobile device, such as smartphones and tablets. Furthermore, xPico Wi-Fi provides low power operation, Soft AP and simultaneous client mode, full IP and WLAN stacks. The xPico Wi-Fi is a complete device server suitable for mobile M2M applications and includes industry best 5-year warranty.



## xPico Wi-Fi Tower Module Highlights:

- Compatible with the Freescale Tower System
- Simple and easy to use
- Shorten product development time

## xPico Wi-Fi Highlights:

- Low power (6µA Standby)
- IEEE 802.11 b/g/n (2.4 GHz)
- Complete device server application with full IP Stack and web server
- Mobile ready with SoftAP and simultaneous client
- Multiple interface choices; including, serial data rate (921 kbps), SPI with clock rate of 20MHz\*, full rate USB (device)\*
- Extended temperature : -40° to +85° C
- 5-Year limited warranty

## Features and Specifications

### > Wireless LAN Interface

- IEEE 802.11 b/g and IEEE 802.11n (single stream) WLAN interface (2.4 GHz only)
- WPS 2.0 support
- u.FL connector for external antenna

### > Serial Interface

- Two Serial CMOS Ports (3.3V, 5V tolerant), connected to Tower elevator for connection to MCU
- 300 to 921.6 Kbps
- Flow control XON/XOFF, RTS/CTS (SPort 1 only)
- Lantronix tunneling application

### > SPI Interface\*

- 20 MHz clock
- Connected to Tower elevator for connection to MCU

### > Network Protocols

- TCP/IP, UDP/IP, DHCP, ARP, ICMP, DHCP, Auto-IP, DNS, SNMPv1

### > Networking Capabilities

- Soft Access Point with DHCP Server
- Simultaneous Soft AP and Client modes
- Lantronix SmartRoam™ Technology continually tracks Wi-Fi signal strength within range, along with pre-authentication and caching resulting in smooth and automatic transition to access points without delay
- QuickConnect: Dynamic Profiles facilitate easy and rapid connections to access points

### > 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 20µA standby

### > Physical Interface

- Standard Freescale Tower

### > Environmental

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

### > Certifications

- FCC Class B, UL and EN EMC

### > Packaging

- TBD

### > Warranty

- 1-Year Limited - Tower Board
- 5-Year Limited xPico Wi-Fi device

## Lantronix xPico® Wi-Fi® Tower Module with Freescale Tower System



## Ordering Information

### United States

**Call:** 800.422.7055

**Email:** sales@lantronix.com

**Buy Online:** <http://www.lantronix.com>

**NASDAQ:** LTRX

### Europe

**Call:** +31 (0) 76.52.3.6.74 4

**Email:** EMEA@lantronix.com

### Asia/Pacific

**Call:** +852.3428.2338

**Email:** asiapacific\_sales@lantronix.com

### Japan

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**Email:** japan\_sales@lantronix.com

### China

**Call:** +86.021.6237.8868

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### > Part Number

TWR-LTRX-XPWK

XPW1001000-01

XPW100100S-01

XPC100A001

### > Description

xPico Wi-Fi Tower Module for Freescale Tower System w/xPico Wi-Fi Module (Freescale Tower System not included)

xPico Wi-Fi— IEEE 802.11 b/g/n Device Server Module, Extended Temp, Bulk, RoHS

xPico Wi-Fi— IEEE 802.11 b/g/n Device Server Module, Extended Temp, Sample, RoHS

xPico Module Mounting Quick Clip Bulk pack (50 pc)

\* Available through future firmware update