



## THE MOST FLEXIBLE, MOBILE-READY, WI-FI® SOLUTION FOR M2M AND IoT APPLICATIONS

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. xPico Wi-Fi is a pin and form factor compatible state-of-the-art member of the xPico family, providing low power, Soft AP and simultaneous client mode, full IP and WLAN stacks. The xPico Wi-Fi is a complete device server suitable for mobile M2M/IoT applications and includes industry best 5-year warranty.

### Tablet & Smartphone Enable Your Devices

Access your data and devices from anywhere – wired or wireless. Lantronix® 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 from any mobile device, including smartphones and tablets.

### Robust Networking Solution

Lantronix's xPico Wi-Fi is an extremely compact, low power networking solution that enables wireless LAN connectivity on virtually any solution with a SPI, USB (device) or serial interface.

### Simultaneous Access Point & Client Mode

The xPico Wi-Fi is a state-of-the-art solution that offers all the functions one can expect including a unique simultaneous Soft AP and client mode. This allows for easy points of access while maintaining a secure network connection.

### Flexibility

All members of the xPico product family use the same pin compatible interface, providing unmatched flexibility whether it is Wi-Fi or Ethernet when it comes to choosing the right network device for your application.

### Cost Savings & Faster Time-To-Market

As one of the smallest embedded device servers in the world, xPico Wi-Fi can be utilized in designs typically intended for chip solutions, befitting in advantages to cost and time-to-market. Its "zero host load" eliminates any need for drivers on the connected microcontroller making implementation easy and fast with virtually no need to write a single line of code. This translates to considerably lower development costs and faster time-to-market.

As xPico Wi-Fi meets FCC Class B, UL and EN EMC and safety compliance, your development time is shortened. xPico Wi-Fi can reduce the overall cost of ownership compared to the competition.

### xPico Wi-Fi Highlights

- Chip-sized footprint: 24mm x 16.5mm
- Low power (6µA Standby)
- Can be operated off batteries
- IEEE 802.11 b/g/n (2.4 GHz)
- Simultaneous Soft AP and client mode
- Complete device server application with full IP Stack and web server
- Dual serial port with data rate of up to 921 kbps
- SPI with clock rate of 30MHz
- USB 2.0 full rate device mode\*
- 256-bit AES Encryption\*
- Industrial temperature range : -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)
- IEEE 802.11 d/h/i
- u.FL connector for external antenna

### Serial Interface

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

### Host Interface

- Dual Serial Port, SPI, USB 2.0\* (device)
- 8 GPIO

### Network Protocols

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

### Networking Capabilities

- Soft Access Point with DHCP Server
- Lantronix SmartRoam™ Technology\* continually tracks Wi-Fi signal strength within range, along with preauthentication 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\*

### Architecture

- ARM Cortex M3 class processor with on-chip Flash and SRAM
- 1MB Flash and 128 KB SRAM
- 1MB SPI Flash storage

### Power

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

### Physical Interface

- 40-pin Board-to-Board SMT Connector

### Environmental

- Operating Temperature: -40° to +85° C
- For operation over +70° C a thermal pad is required
- Storage Temperature : -40° to +85° C
- Relative Humidity: 0% to 90% non-condensing

### Certifications

- FCC Class B, UL and EN EMC, Japan

\*Software support for these features available in a future software release.

Please contact sales representatives for more information.

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MPB-00016 Rev D

### Packaging

- Dimensions: 24mm (L) x 16.5mm (W) x 5.64mm (H)
- Weight: 2.5g

### Warranty

- 5-Year Limited

### Tablet & Smartphone enable devices

xPico WiFi provides simultaneous Soft AP and Client mode, allowing for easy points of access while maintaining a secure network without the need for special clients.

### Other members of the xPico product family:

#### xPico

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

#### xPico IAP

A chip-sized networking solution that enables Ethernet connectivity on devices for industrial and automation applications that require MODBUS support.

| Part Number     | Description  |
|-----------------|--|
| XPW100100B-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                        |
| TWR-LTRX-XPWK   | xPico Wi-Fi Tower Module for Freescale Tower System w/xPico Wi-Fi Module (Freescale Tower System not included) |
| XPC100A001-01-B | xPico Module Mounting Quick Clip Bulk pack (50 pc)   |
| XPC100A002-01-B | xPico Module Thermal Pad Bulk Pack (50 pc)   |

## Ordering Information

### Americas

800.422.7055  
sales@lantronix.com  
http://www.lantronix.com  
NASDAQ: LTRX

### Asia/Pacific/Japan

+852 3428.2338  
asiapacific\_sales@lantronix.com  
  
China: +86.21.6237.8868  
Shanghai@lantronix.com

### Europe

+31 (0) 76.52.3.6.74 4  
EMEA@lantronix.com

India: +91 994-551-2488  
Sales\_India@lantronix.com

Japan: +81.3.3273.8850  
Sales\_Japan@lantronix.com