



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-tomarket.

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/j/k/w/r
- · 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.

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

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