xPico® 200 Series

Embedded Wi-Fi IoT Gateway

THE BEST-IN-CLASS EMBEDDED SOLUTION FOR MANAGED INDUSTRIAL WIRELESS CONNECTIVITY

Highly Integrated Wi-Fi in a Compact Design

Dual-band Wi-Fi, antenna diversity, Enterprise Wi-Fi security and robust wireless connectivity management deliver higher performance and scalable deployment within noisy industrial and enterprise settings. The xPico 200 series makes it easy to deploy robust Ethernet, Wi-Fi and Bluetooth connectivity without writing complex drivers. The industry-leading compact SMT footprint of the xPico 200 series allows it to fit it into any design and operate in extreme environments.

Robust Connectivity for Reliable Data Access and Management

Simplify embedded application development and go to market faster with the xPico 200 gateway's built-in network communications engine and flexible system integration modes. Completely offload IoT communications from your embedded microcontroller when operating as a network co-processor or use it as a wireless microcontroller with the provided SDK.

Field-tested TruPort® Serial supports transparent pass-through of hundreds of proprietary serial and standard Fieldbus protocols and TruPort® Socket enables complete control over multiple connections via TCP, UDP or TLS. Configure and control the gateway operation from the host microcontroller side using command mode or the network side with Web Service APIs and XML configuration data.

Comprehensive Device Security Framework

The xPico 200 series includes a comprehensive suite of built-in device security applications that offer robust and secure connections, data-at-rest protection for keys, configuration, secure boot and secure firmware-over-the-air (FOTA) updates, user role-based access control and fine-grained policy-based network service control.

Build End-to-End Applications Quickly with the MACH10™ Platform

Add scalable remote device management and data access from your machines via pre-integrated MACH10™ edge software components. Provision xPico 200 series gateways and connected machines with mobile apps for iOS and Android.

xPico® 200 Key Benefits

- Faster Time to Market
- Enterprise-Grade Security
- Robust Data Handling
- Highest Integration

xPico® 200 Highlights

- Dual-band Wi-Fi (802.11 a/b/g/n) and Ethernet
- Bluetooth (BT and BLE)
- Automatic network connection management
- Concurrent Soft AP + client mode for direct wireless service access without disrupting machine field operations
- Enables operation as network co-processor or wireless MCU
- Pre-integration with MACH10™ IoT platform
- Global Certification (FCC, IC, ETSI, Japan, AU/NZS, China)
- Industrial-grade design for operation in extreme environments (-40 C to +85 C)

LANTRONIX

Features and Specifications

Network

Wireless Specifications

- IEEE 802.11 a/b/g/n up to 54 Mbps; 802.11 n (1x1) up to 150 Mbps
- 20 and 40 MHz channel width with optional SGI
- Dual Band 2.4 GHz and 5 GHz, Channels 1-14, UNII-1, 2, 2e and 3
- Supports IEEE 802.11 d/h/j/i
- Bluetooth/WLAN Coexistence

Ethernet Specifications

- IEEE 802.3 MAC, 10BaseT and 100BaseT (RMII)

Data Communication

- TruPort® Serial Technology— TCP and UDP Server Mode, TCP and UDP Client Mode, Multi-host Connect; TLS Client and Server
- TruPort® Socket— Multi-host Client and Server Modes, HTTP(S), Sockets, TLS
- Authenticated SMTP Support— Send email directly from device

Security and Authentication

- TruPort® Security Software
  - Secure Boot, Secure Firmware-Over-the-Air (FOTA) Updates
  - Secure Key Storage, Encrypted Configuration
  - Secure Connections with SSL/TLS, HTTPS
  - Software Controlled Network Service Ports Enable/Disable
  - Role Based Access Control
- AES/CCMP and TKIP encryption, WPA/WPA2 Personal
- WPA2 Enterprise (EAP-TLS, EAP-TTLS, EAP-PEAP, EAP-FAST)
- SSLv3/TLS 1.2 with PKI and X.509 Certificates (up to 2048-bit Keys)
- NIST Certified AES (FIPS-197) Algorithm, 256-bit, 192-bit, 128-bit

Management Interfaces

- Lantronix MACH10™ Cloud Software Platform, REST API, MQTT, WebSockets
  - MQTT, WebSockets support scheduled for Q1 CY2018
- Serial Port, Internal Web Server (HTTP/HTTPS)
- XML Configuration and XML Status (CLI, API)
- Secure Firmware Upgrade via HTTP, MACH10 Gateway Manager

Protocol Support

- DHCP Client, Server (Soft AP), HTTP Server/Client
- IPv4, TCP/IP, UDP/IP, ARP, ICMP, Auto-IP, DNS

Wireless Features

- Concurrent Soft AP + STA (Client), Client, Soft AP
- Up to 5 simultaneous client connections to Soft AP interface
- Connect to multiple WLAN networks, WLAN QuickConnect
- Ethernet to Wi-Fi Client Bridge (Single Host Mode), Auto-MAC ID

Operating Conditions

- Operating Temp: -40°C to +85°C; Storage Temp: -40°C to +85°C
- Vibration (Operational): 40G; Non-operational Shock: 65G
- Storage Humidity: 5% to 85% relative humidity, non-condensing

Host Interfaces

- Serial: UART Port TTL
  - Data Rates: 300 bps to 4 Mbps (software selectable)
  - Control signals: DTR/DCD; Flow Control: RTS/CTS; XON/XOFF
- USB (Host), 10 Programmable I/O Pins
- System Pins: RESET, DEFAULT, WAKE

Power

- Input Voltage: 3.3VDC
- Max Current Consumption (Boot Peak): 580 mA
- Standby Mode: 30uA

Dimensions & Packaging

- Dimensions: 17mm x 25mm x 2mm (LGA); 22mm x 35.5mm x 2.73 mm (Edge Card)
- For LGA: Tape and Reel (250 units/reel)
- For Edge Connector: Tray (25 units x 4 trays)

Certifications

- Type Approvals: USA (FCC Part 15), Canada (IC RSS), EU (RED), Japan (MIC), China (SRRC), AU/NZS
- Safety: EN 62638, IEC 62638, EN 62311

Warranty

- 5-Year Limited

Related Products

- XPC240300EK - xPico 240 Embedded Gateway, Evaluation Kit, Wi-Fi + Ethernet
- XPC250300EK - xPico 250 Embedded Gateway, Evaluation Kit, Wi-Fi, Bluetooth + Ethernet

xPico 200 Series is Ideal for :

| Industrial Automation | Medical Devices | Responsive Retail | Resource Management |

Product Variants

Part Number	Description
XPC2401	xPico 240 Embedded Gateway, Wi-Fi, Ethernet, Dual u.fl Antenna, LGA
XPC2402	xPico 240 Embedded Gateway, Wi-Fi, Ethernet, On-module Antenna, LGA
XPC2403	xPico 240 Embedded Gateway, Wi-Fi, Ethernet, Dual u.fl Antenna, Edge Connector
XPC2404	xPico 240 Embedded Gateway, Wi-Fi, Ethernet, On-module Antenna, Edge Connector
XPC2501	xPico 250 Embedded Gateway, Wi-Fi, Ethernet, Bluetooth, Dual u.fl Antenna, LGA
XPC2503	xPico 250 Embedded Gateway, Wi-Fi, Ethernet, Bluetooth, Dual u.fl Antenna, Edge Connector

Learn More About xPico 240

For contact information, go to **www.lantronix.com**
For product details, please see the **xPico 200 Documentation**

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