



# xPico® 240



## THE SMALLEST MANAGED NETWORK OFFLOAD ENGINE FOR SECURE CONNECTED PRODUCTS

Independently evolve secure network connectivity within your devices without impacting its functionality with the xPico® 200 series of embedded gateways. Seamlessly enable Ethernet and Wi-Fi connectivity for attached microcontrollers or in stand-alone mode. Bring devices to market quickly via Ignition OS, the network offload software platform for managed IoT connectivity.

### TruPort™ Security



Leverage a comprehensive suite of built-in device security software with minimal integration effort. TruPort Security offers instant access to key features such as robust secure connections, data-at-rest protection for keys, configuration and firmware, FIPS 140-2 and centrally managed identity and access control.

### Robust Data Connectivity

Reliably and securely communicate your device data with one or more applications on the local network or across the internet. Utilize customer proven TruPort™ Serial for transparent pass-through of hundreds of serial protocols or TruPort™ Socket for multiple connections via TCP, UDP, HTTP(S), WebSockets & MQTT.



### Remote Management and Cloud Connectivity



Add scalable remote device management and data access to your applications via Lantronix MACH10™ cloud software platform. Utilize IoT optimized protocols such as MQTT and WebSockets for communications with other cloud based applications.

### Complete Network and Wi-Fi Offload

Simplify device firmware complexity with a completely offloaded secure networking communications engine. Securely connect to enterprise Ethernet or Wi-Fi networks. Get to market quickly by utilizing production ready network stack, robust security, connectivity and management software.



### xPico® 240 Highlights

- 802.11 a/b/g/n Dual Band Wi-Fi
- Simultaneous Soft AP + Client, Client, Soft AP, Wi-Fi Direct mode
- 10/100 Mbps Ethernet (RMII)
- Built-in TruPort™ Security for Data-at-Rest and Data-in-Motion Security
- WPA2 Personal & Enterprise Security
- SSL/TLS 1.2 with PKI and X.509 Certificate Management
- TruPort™ Serial and TruPort™ Socket technology for robust and secure data communication
- Pre-Integration with MACH10™ Software Platform for Remote Management and Application Integration
- FIPS 140-2 Certified; IPv6 Ready
- Industrial Operating Temperature Range (-40°C to + 85°C)
- Highly Integrated LGA 17mm x 25mm



## Features and Specifications

### Network

#### Wireless Specifications

- IEEE 802.11 a/b/g 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/r/w/k
- 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, MQTT, HTTP(S), WebSockets
- Authenticated SMTP Support— Send email directly from device

### Security and Authentication

- TruPort™ Security Software
  - Secure Boot, Secure Firmware Upgrades
  - 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)
- FIPS 140-2 Level 1 Certified Mode
- NIST Certified AES (FIPS-197) Algorithm, 256-bit, 192-bit, 128-bit

### Management Interfaces

- Lantronix MACH10™ Cloud Software Platform—MQTT
- Serial Port, Internal Web Server (HTTP/HTTPS), SNMP
- XML Configuration and XML Status (CLI, API)
- Secure Firmware Upgrade via HTTP, WebSockets, MACH10

### Protocol Support

- DHCP Client, Server (Soft AP), LCAP (77FE), HTTP Server/Client
- IPv4/IPv6, TCP/IP, UDP/IP, ARP, ICMP, Auto-IP, DNS, SNMP v1

### Wireless Features

- Simultaneous Soft AP + STA (Client), Client, Soft AP, Wi-Fi Direct
- 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

### Host Interfaces

- Serial: UART Ports TTL (1 Full UART with RTS/CTS, 1 Tx/Rx Only)
  - Data Rates: 300 bps to 921 kbps (software selectable)
  - Control signals: DTR/DCD; Flow Control: RTS/CTS; XON/XOFF
- SPI: Configurable Master or Slave Mode with SPI Interrupt
- USB (Host or Device), I2C, SDIO, 17 Programmable I/O Pins
- System Pins: RESET, DEFAULT, WAKE

### Power

- Input Voltage: 3.3 VDC; I/O Voltage: 3.3V
- Max Current Consumption: TBD Standby Mode: TBD

### Dimensions & Packaging

- Dimensions: 17mm x 25mm x 2mm ; Weight: TBD
- Tape and Reel: 250 units/reel

### Environmental

- Operating Temp: -40°C to +85°C; Storage Temp: -40°C to +85°C
- Storage Humidity: 10% to 90% relative humidity, non-condensing

### Certifications

- FCC Part 15 Class B, 15.247, 15.407; ICES-003 Issue 4 , RSS-210
- EU RED Directive (2017);
- C-Tick (AS/NZS CISPR2:2006); AS/NZS 4771:2000 + A1:2003
- Japan Radio Cert Article 2-1 (19), (19-2), (19-3), (19-3-2)
- UL 60950/CSA 22.2 No. 60950, EN 60950:2001; IEC 60950
- Wi-Fi Alliance Certified (802.11 a/b/g/n); IPv6 Ready Logo Certified

### Warranty

- 5 Year Limited

## Ordering Information

Part Number	Description
XPC240100B	xPico 240 Emb GW, Wi-Fi, Eth, Dual u.fl, LGA, BULK
XPC240200B	xPico 240 Emb GW, Wi-Fi, Eth, Module Ant, LGA, BULK
XPC240300B	xPico 240 Emb GW, Wi-Fi, Eth, Dual u.fl, Edge, BULK
XPC240300K	xPico 240 Evaluation Kit with Edge Connector Module

## Contact Information

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