

# UC-7410-LX Plus

*RISC-based ready-to-run computer with 8 serial ports, dual LANs, USB*



- > Intel XScale IXP425, 533 MHz processor
- > 128 MB RAM onboard, 32 MB flash
- > 8 RS-232/422/485 serial ports
- > Dual 10/100 Mbps LANs for network redundancy
- > USB 1.1 host
- > LCM display and keypad for HMI
- > Built-in firewall and VPN function
- > Apache web server supporting PHP and XML
- > Ready-to-run Linux platform
- > DIN-Rail or wall mount installation
- > Robust, fanless design



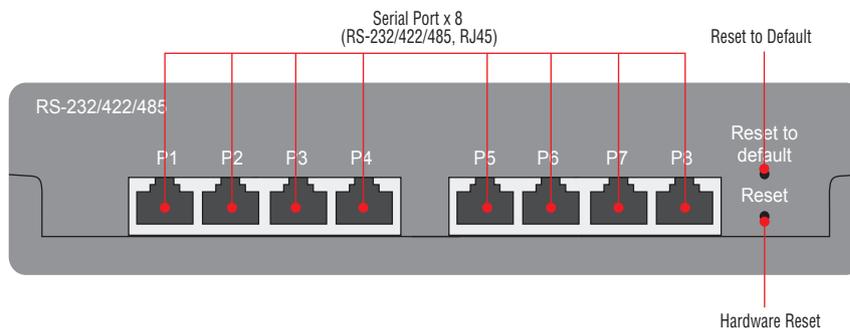
## : Overview

The UC-7410-LX Plus computers are RISC-based ready-to-run computer designed for embedded applications. The computers feature 8 RS-232/422/485 serial ports for device communication, and a USB port for adding external memory.

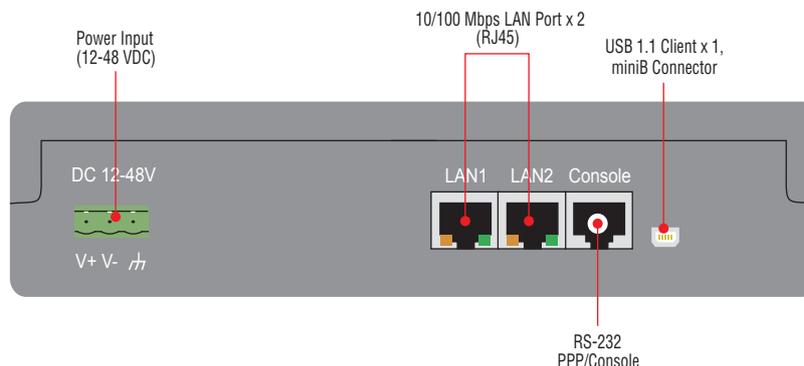
The pre-installed open-standard Linux operating systems make a convenient platform for software development. In fact, software written for a desktop PC can be ported as is to the computer's platform using readily available development tools, and the code can be stored in the UC-7410-LX Plus computer's Flash memory. System integrators use the UC-7410-LX Plus as part of distributed control systems based on embedded technology.

## : Appearance

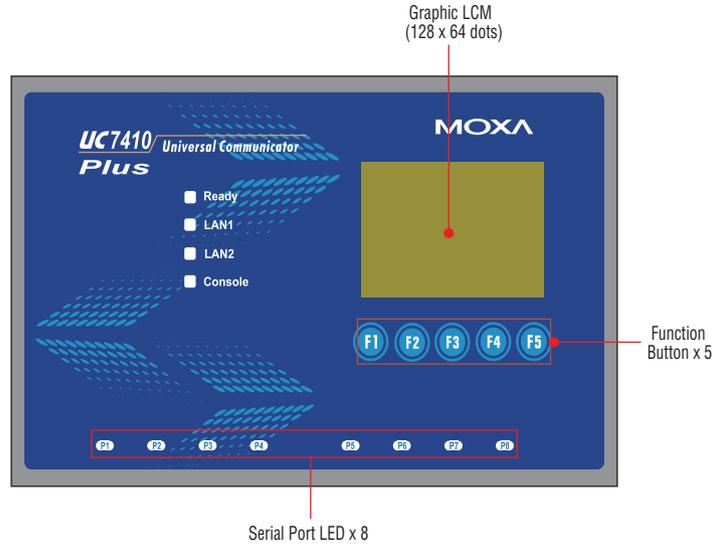
### Front View



### Rear View



Top View



Hardware Specifications

**Computer**

**CPU:** Intel XScale IXP425 533 MHz  
**OS (pre-installed):** Embedded Linux  
**DRAM:** 128 MB onboard  
**Flash:** 32 MB onboard  
**USB:** USB 1.1 client x 1, mini B connector

**Ethernet Interface**

**LAN:** 2 auto-sensing 10/100 Mbps ports (RJ45)  
**Magnetic Isolation Protection:** 1.5 KV built-in

**Serial Interface**

**Serial Standards:** RS-232/422/485 software-selectable (8-pin RJ45), 8 ports  
**ESD Protection:** 15 KV for all signals  
**Console Port:** RS-232 (all signals), RJ45 connector, supports PPP

**Serial Communication Parameters**

**Data Bits:** 5, 6, 7, 8  
**Stop Bits:** 1, 1.5, 2  
**Parity:** None, Even, Odd, Space, Mark  
**Flow Control:** RTS/CTS, XON/XOFF, ADDC® (automatic data direction control) for RS-485  
**Baudrate:** 50 bps to 921.6 Kbps (supports non-standard baudrates; see user's manual for details)

**Serial Signals**

**RS-232:** TxD, RxD, DTR, DSR, RTS, CTS, DCD, GND  
**RS-422:** TxD+, TxD-, RxD+, RxD-, GND  
**RS-485-4w:** TxD+, TxD-, RxD+, RxD-, GND  
**RS-485-2w:** Data+, Data-, GND

**LEDs**

**System:** OS Ready, Console  
**LAN:** 10M/100M x 2  
**Serial:** TxD x 8, RxD x 8

**Physical Characteristics**

**Housing:** SECC sheet metal (1 mm)  
**Weight:** 810 g  
**Dimensions:** 197 x 44 x 125 mm (7.76 x 1.73 x 4.92 in)  
**Mounting:** DIN-Rail, wall

**Environmental Limits**

**Operating Temperature:** -10 to 60°C (14 to 140°F)  
**Storage Temperature:** -20 to 80°C (-4 to 176°F)  
**Ambient Relative Humidity:** 5 to 95% (non-condensing)  
**Anti-vibration:** 1 g @ IEC-68-2-6, sine wave (resonance search), 5-500 Hz, 1 Oct/min, 1 cycle, 13 min 17 sec per axis  
**Anti-Shock:** 5 g @ IEC-68-2-27, half sine wave, 30 ms

**Power Requirements**

**Input Voltage:** 12 to 48 VDC  
**Power Consumption:** 10 W  
 • 200 mA @ 48 VDC  
 • 415 mA @ 24 VDC  
 • 830 mA @ 12 VDC

**Standards and Certifications**

**Safety:** UL 60950-1, CSA C22.2 No. 60950-1-03, EN 60950-1  
**EMC:** EN 55022 Class A, EN 61000-3-2 Class A, EN 61000-3-3, EN 55024, FCC Part 15 Subpart B Class A

**Reliability**

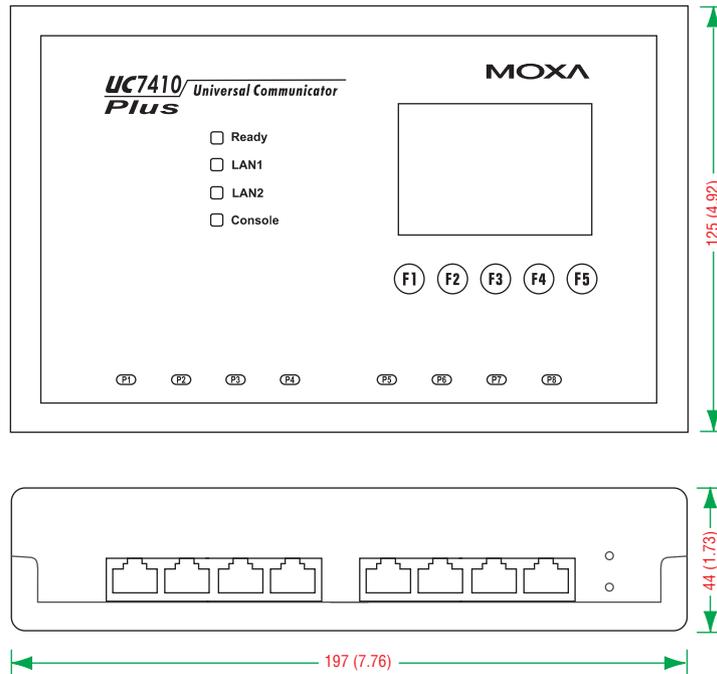
**Alert Tools:** Built-in buzzer and RTC (real-time clock)  
**Automatic Reboot Trigger:** Built-in WDT (watchdog timer)

**Warranty**

**Warranty Period:** 5 years  
**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

## Dimensions

Unit: mm (inch)



## Software Specifications

### Linux

**Kernel Version:** 2.6.10

**Protocol Stack:** TCP, UDP, IPv4, SNMP V1, ICMP, IGMP, ARP, HTTP, CHAP, PAP, SSH 1.0/2.0, SSL, DHCP, NTP, NFS, SMTP, Telnet, FTP, PPP, PPPoE

**File System:** JFFS2 (on-board flash)

**System Utilities:** bash, busybox, tinylogin, telnet, ftp, scp

**telnetd:** Telnet Server daemon

**ftpd:** FTP server daemon

**sshd:** Secure shell server

**Apache:** Web server daemon, supporting PHP and XML

**openvpn:** Virtual private network service manager

**iptables:** Firewall service manager

**pppd:** dial in/out over serial port daemon & PPPoE

**snmpd:** snmpd agent daemon

**inetc:** TCP server manager program

### Application Development Software:

- Moxa Linux API Library for device control
- Linux Tool Chain: Gcc, Glibc, GDB

## Ordering Information

### Available Models

**UC-7410-LX Plus:** RISC-based IXP425 embedded computer with 8 serial ports, dual LANs, Linux 2.6

### Package Checklist

- UC-7410-LX Plus embedded computer
- Wall mounting kit
- DIN-Rail mounting kit
- Ethernet cable: RJ45 to RJ45 cross-over cable, 100 cm
- CBL-4PINDB9F-100: 4-pin pin header to female DB9 console port cable, 100 cm
- CBL-RJ45M9-150: 8-pin RJ45 to male DB9 cable, 150 cm
- Universal power adaptor (including power jack converter)
- Documentation and software CD
- Quick installation guide (printed)