

# UC-7402

**RISC-based Ready-to-Run Embedded Network Computer with Dual Ethernet, PCMCIA, CompactFlash**



## Features

- Intel XScale IXP-422 266 MHz Processor
- 128 MB RAM on-board, 32 MB Flash Disk
- Dual 10/100 Mbps Ethernet
- PCMCIA, CompactFlash, Wireless LAN Expansion (supports 802.11b/802.11g)
- Ready-to-Run Linux Communication Platform
- DIN-Rail or Wall-mount Installation
- Robust, Fanless Design



## Overview

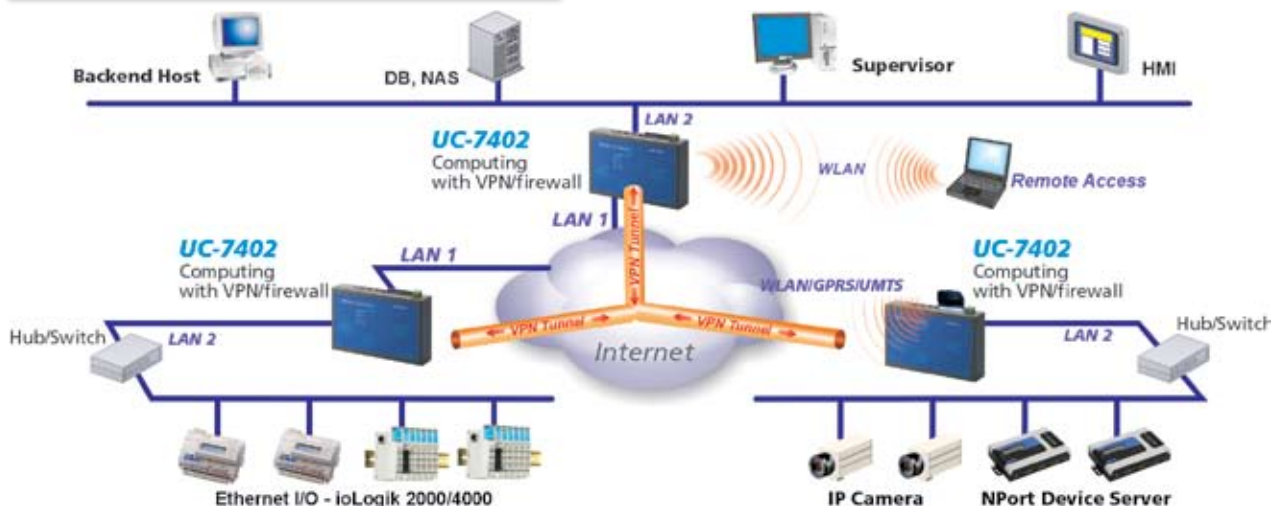
MOXA UC-7402 is a web server embedded network computer that features dual 10/100 Mbps Ethernet ports, a PCMCIA interface for wireless LAN communication, and CompactFlash for mass storage disk expansion. UC-7402 is an excellent choice for embedded network applications and diverse M2M solutions.

UC-7402 is a rugged, compact embedded computer that is designed for industrial applications. Two key design features are the low power consumption and fanless operation, which together ensure greater reliability and longer system life. The communication oriented functionality includes both hardware and software. In fact, the software design is especially ideal for network communication based applications, such as

connecting to machines and other devices over a network. UC-7402 provides real-time data access, a secure network gateway, and a VPN router. The built-in web server allows UC-7402 to be used as a web-enabled gateway to let users access monitoring and control functions from anywhere on the network.

Since UC-7402 provides WLAN 802.11b/g connectivity, both wired and wireless networks can be integrated into a system communication medium. Users can capture real-time data from the network and aggregate it into the UC-7402 embedded web server, and convert data into various standard data formats. Data can be buffered and then distributed to the proper web browser.

## Typical Application



## Hardware Specifications

### System

**CPU:** IXP-422 266 MHz

**DRAM:** 128 MB onboard

**Flash:** 32 MB onboard

**PCMCIA:** Cardbus card and 16-bit PCMCIA 2.1/ JEIDA 4.2 card

**Storage Expansion:** CompactFlash x 1 with full function

**Console Port:** RS-232 x 1, RJ45, PPP supported

**Other:** RTC, buzzer, Watchdog Timer

**OS:** Built-in embedded Linux

### Network Communication

**LAN:** 10/100 Mbps x 2, RJ45

**Protection:** Built-in 1.5 KV magnetic isolation protection

### LEDs

**System:** Ready x 1, Console x 1

**LAN:** 10M/100M x 2

### Power Requirements

**Power Input:** 12 to 48V

**Power Consumption:** 360 mA @ 12 VDC, 7W

### Mechanical

**Dimensions (WxDxH):** 197 x 125 x 44 mm (7.8 x 4.9 x 1.7 in)

**Weight:** 830 g

**Construction Material:** SECC sheet metal, 1 mm

**Mounting:** Wall-mounting, DIN-Rail

### Environmental

**Operating Temperature:** -10 to 60°C (14 to 140°F),  
5 to 95% RH

**Storage Temperature:** -20 to 80°C (-4 to 176°F), 5 to 95% RH

**Anti-Vibration:** 1G @ IEC-68-2-6, sine wave, 5-500 Hz,  
1 Oct./min, 1 hr/axis.

**Anti-Shock:** 5G @ IEC-68-2-27, half sine wave, 30 ms

### Regulatory Approvals

**EMC:** FCC Part 15, CISPR 22 Class A

CE Class A: EN55022 Class A, EN61000-3-2 Class A,  
EN61000-3-3, EN55024

**Safety:** TÜV: IEC/EN60950

UL/cUL: UL60950, CAN/CSA-C22.2 No. 60950-00

**Warranty:** 5 years

## Software Specifications

### Linux

**Kernel Version:** 2.4.18

**Boot Loader:** Redboot

**Protocol Stacks:** TCP, UDP, IPv4, SNMP V1/V3, 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

### Application Development Environment

MOXA Linux API Library

Linux Tool Chain: Gcc, Glibc, GDB

Windows Tool Chain: Gcc, Glibc, Insight (Windows-  
based source level debug utility)

UC Finder: UC's LAN IP broadcast search utility for  
Windows and Linux

### Supporting Services and Daemons:

telnetd: Telnet Server daemon

ftpd: FTP server daemon

sshd: Secure shell server

Apache: Web server daemon, supports PHP and XML

MySQL: Database Server and Client

OpenVPN: Virtual private network service manager

iptables: Firewall service manager

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

snmpd: snmpd agent daemon

instd: TCP server manager program

### Device Drivers:

PCMCIA CardBus (supports 802.11b/g wireless LAN  
Card), CF Card, Watchdog Timer (WDT), RTC, Buzzer  
MOXA 2G NPort Real TTY Driver

## Ordering Information

### UC-7402-LX

RISC-based Ready-to-Run Embedded Network Computer with  
Dual Ethernet, PCMCIA, CompactFlash, Linux OS

### All items include

- 1 UC-7402
- Quick Installation Guide
- Wall-mounting Kit
- DIN-Rail Mounting Kit
- Document & Software CD
- Ethernet Cable: RJ45 to RJ45 cross-over cable, 100 cm
- Console port cable: CBL-RJ45F9-150 8-pin RJ45 to  
female DB9 cable, 150 cm
- Universal Power Adaptor  
(includes terminal block to power jack converter)
- Product Warranty Booklet

## UC-7402 Appearance

