

UC-7402 Series

RISC-based ready-to-run network computers with built-in web server, dual LANs, PCMCIA, CompactFlash



- > Intel XScale IXP422/425, 266/533 MHz processor
- > On-board 128 MB RAM, 32 MB flash
- > Dual 10/100 Mbps Ethernet for network redundancy
- > CompactFlash socket for storage expansion
- > PCMCIA supporting WLAN, GPRS, UMTS, HSDPA
- > Ready-to-run Linux platform
- > Hardware level data encryption engine supports AES, DES, and 3DES
- > SSL, SSH, TLS security function
- > Built-in firewall and VPN function
- > Apache web server supports PHP and XML
- > DIN-rail or wall-mount installation



Overview

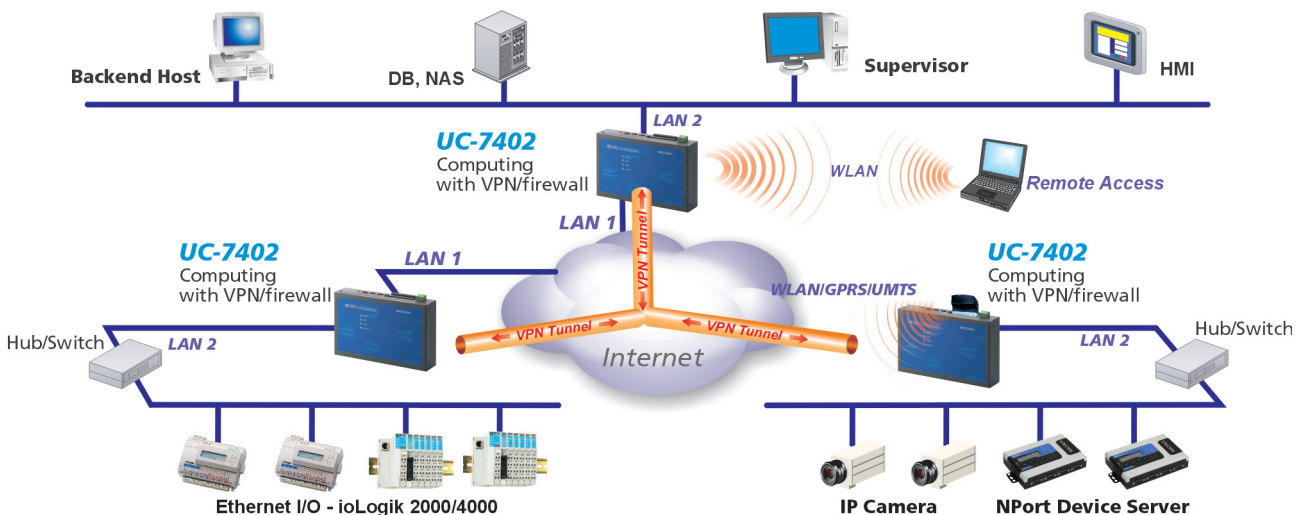
The UC-7402 embedded computers are web server network computers that feature dual 10/100 Mbps Ethernet ports, a PCMCIA interface for wireless LAN communication, and CompactFlash for mass storage disk expansion. The UC-7402 computers are an excellent choice for embedded network applications and a variety of machine-to-machine solutions.

The UC-7402 computers are rugged, compact embedded computers designed for industrial applications. Two key design features are 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 ideal for network communication applications, such as connecting to machines and other devices over a network. The UC-7402 computers provide real-time data access, a secure network gateway, and a VPN router. The built-in web server allows the UC-7402 computers to be used as a web-enabled gateway for accessing monitoring and control functions from anywhere on the network.

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

Typical Application



Hardware Specifications

Computer

CPU:

UC-7402: Intel XScale IXP422 266 MHz

UC-7402 Plus: Intel XScale IXP425 533 MHz

OS (pre-installed): Embedded Linux

DRAM: 128 MB onboard

Flash: 32 MB onboard

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

Storage

Storage Expansion: CompactFlash socket

Ethernet Interface

LAN: 2 auto-sensing 10/100 Mbps ports (RJ45)

Magnetic Isolation Protection: 1.5 KV built-in

Serial Interface

Console Port: RS-232 (all signals), RJ45 connector, supports PPP

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 (TxD/RxD)

LAN: 10M/100M x 2

Physical Characteristics

Housing: SECC sheet metal (1 mm)

Weight: 830 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)

Operating Humidity: 5 to 95% RH

Storage Temperature: -20 to 80°C (-4 to 176°F)

Power Requirements

Input Voltage: 12 to 48 VDC

Power Consumption: 4.3 W

- 180 mA @ 24 VDC

- 360 mA @ 12 VDC

Regulatory Approvals

EMC: CE (EN55022 Class A, EN61000-3-2 Class A, EN61000-3-3, EN55024), FCC (Part 15 Subpart B, CISPR 22 Class A)

Safety: UL/cUL (UL60950-1, CSA C22.2 No. 60950-1-03), TÜV (EN60950-1)

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

Software Specifications

Linux

Kernel Version: 2.4.18 or 2.6.10 (Plus version)

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

inetd: 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-7402-LX: RISC-based IXP422 embedded computer with dual LANs, PCMCIA, CompactFlash, Linux 2.4

UC-7402-LX Plus: RISC-based IXP425 embedded computer with dual LANs, PCMCIA, CompactFlash, Linux 2.6

Package Checklist

- UC-7402 computer
- Wall mounting kit
- DIN-Rail mounting kit
- Ethernet cable: RJ45 to RJ45 cross-over cable, 100 cm
- CBL-RJ45F9-150: 8-pin RJ45 to DB9 female console port cable, 150 cm
- Universal power adaptor (including terminal block to power jack converter)
- Document and Software CD
- Quick Installation Guide (printed)
- Warranty Card