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**
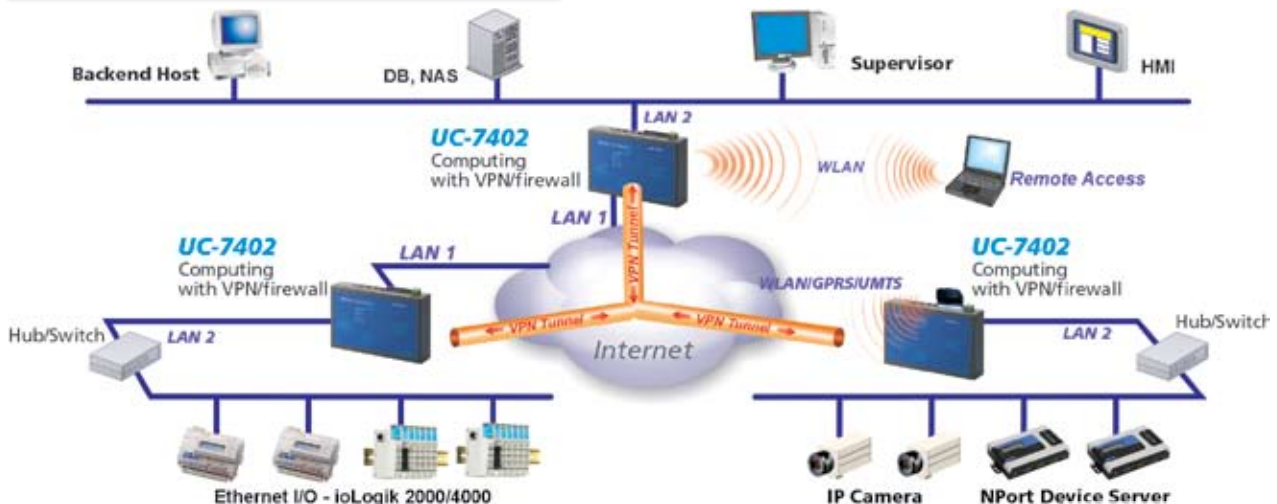> **Robust, Fanless Design**

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
inetd: 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

PCMCIA x 1
10/100 Mbps Ethernet 1
10/100 Mbps Ethernet 2
RS-232 PPP/Console
USB 1.1 Client x 1
mini B connector
CF x 1
12 to 48 VDC Power Input

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