



# AccessRunner®

## CX82310 Single-Chip ADSL Router

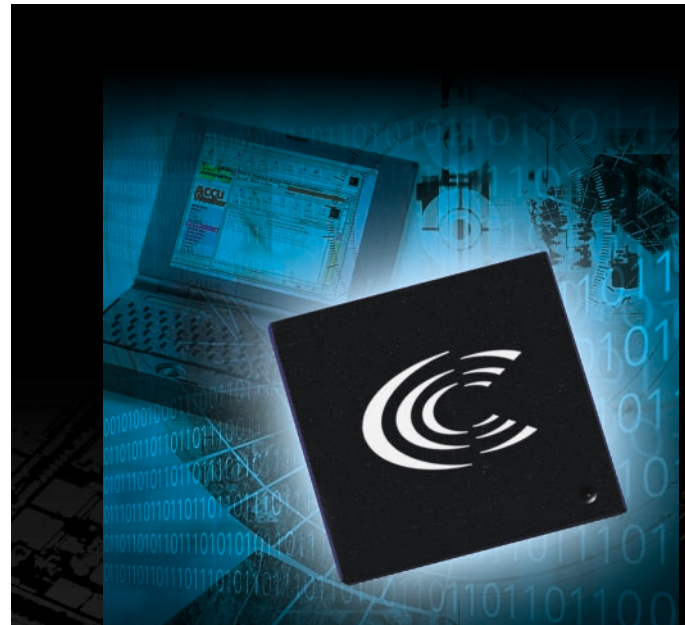
### Broadband Internet Connectivity

The Conexant AccessRunner CX82310 Single-Chip ADSL router is optimized to address the growing demand for high-speed Internet access, and it does so as a single, highly-integrated and cost-effective solution.

Featuring a USB 1.1-compliant interface and an IEEE 802.3-compliant Ethernet MAC interface to provide connectivity options, the CX82310 does not rely on host PC drivers, and thus is not limited by them. The result is extreme ease-of-use with active auto selection of the interface and simultaneous operation of both USB and Ethernet. All setup and provisioning is accomplished via a simple intuitive Web interface which further enhances the user experience.

The CX82310 is built upon a scalable architecture and is fully compliant with full-rate ADSL (T1.413 Issue 2 and G.dmt standards) and the 'splitterless' G.lite (G.992.2) standards, including Annex A (ADSL over POTS) and Annex B (ADSL over ISDN). This broad level of compliance ensures that products based on the AccessRunner can address the existing installed base and continued deployment of ADSL lines. Telephone companies, for example, can deploy full-rate, splitterless full-rate, as well as G.lite to the consumer.

A single-chip router, the CX82310 allows an "always on" high-speed broadband connection to the Internet. It uses existing twisted-pair telephone lines to deliver data rates at more than 100 times the speed of conventional dial-up modems, and without the interruptions that can plague telephone service. Data transfer rates of up to 8 Mbps downstream and 1 Mbps upstream make it the ideal solution for high-bandwidth applications for corporate networks, Internet and video delivery.



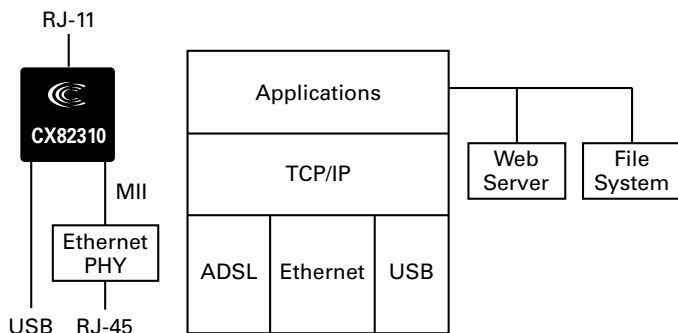
### Distinguishing Features

- Complete ADSL router on a chip
- Full-rate ADSL and G.lite operation
- Annex A and Annex B support
- Integrated 10/100 Ethernet MAC
- Simultaneous USB and Ethernet operation
- 168 MHz ARM940T Processor
- Integrated ADSL transceiver, AFE, and Line Driver
- USB 1.1 Interface
- Complete network stack including bridge and router operation
- Web-based management
- 256-pin fine pitch ball grid array (FPBGA)

Networking support includes both bridge and router modes. The router mode includes advanced features such as Network Address Translation (NAT), Dynamic Host Protocol (DHCP) and Routing Information Protocol (RIPv2). The router integrates the hardware functions of the network processor, ADSL DMT engine, Analog Front End (AFE) and Line Driver.

Through the use of a flash file system, firmware upgrades are easily managed. This allows for simple, reliable product updates or feature enhancements.

A high-performance, 16-bit parallel expansion bus is available for additional functionality. This expansion bus provides a glueless interface to a PCMCIA 802.11b wireless system. Additionally, the expansion bus can be used to interface to a V.92/V.90 backup system.



**Single Chip ADSL Router solution and embedded firmware**

**Product Features**

- **ADSL Compliance**
  - Compliant with ADSL standards
    - Full-rate ANSI T1.413 Issue 2 and ITU G.dmt (G.992.1) standards
    - Splitterless ITU G.lite (G.992.2) specification
    - Annex A (ADSL over POTS) and Annex B (ADSL over ISDN)
  - DMT modulation and demodulation
  - Full-rate adaptive modem
    - Maximum downstream rate of 8 Mbps
    - Maximum upstream rate of 1 Mbps
  - Tone detection for low power mode
  - Supports splitterless ADSL implementation
  - Supports Dying Gasp
  - Interoperable with all major DSLAM equipment
- **ATM Protocols**
  - WAN mode support: PPP over ATM (RFC 2364) and PPP over Ethernet (RFC 2516)
  - LAN mode support: bridged/routed Ethernet over ATM (RFC 1483) and classical IP over ATM (RFC 1577)
  - ATM Forum UNI 3.1/4.0 PVC
  - Up to 8 VCs (virtual circuits)
  - ATM SAR (segmentation and reassembly)
  - ATM AAL5 (adaption layer type 5)
  - OAM F4/F5
- **Bridge Mode**
  - Ethernet to ADSL self learning Transparent Bridging (IEEE 802.1D)
  - Supports up to 128 MAC learning addresses
- **Router Mode**
  - IP routing-RIPv2
  - Static routing
  - DNS Proxy
- Port Forwarding
- DHCP (dynamic host configuration protocol) server and client
- NAT (network address translation)
- NAPT (network address and port translation)
- ICMP (Internet control message protocol)
- Simultaneous USB and Ethernet operation
- **Security**
  - User authentication for PPP
  - PAP (password authentication protocol)
  - CHAP (challenge authentication protocol)
  - Password protected system management
- **Ethernet Interface**
  - IEEE 802.3 compliant
  - 10/100 Mbps
  - Media Independent Interface (MII)
- **USB Interface**
  - Compliant with USB Specification, Revision 1.1
  - USB full speed (12 Mbps)
  - Vendor-specific descriptors
- **HTTP Web-Based Management**
  - Firmware upgrade via FTP
  - Customizable Web pages
  - WAN and LAN side connection statistics
  - Configuration of static routes and routing table
  - Configuration of NAT/NAPT
  - Password protected access
  - Selection of bridge or router mode
  - PPP user ID and password
  - Configuration of VCs (virtual circuits)

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