



# AC1002 PRODUCT Brief

## AC1002 SINGLE-CHIP 32-BIT PCI GIGABIT CONTROLLER WITH PHY

### AC1002 DESCRIPTION

The AC1002 is a complete 10/100/1000BASE-T Ethernet LAN controller for high-performance workstation and desktop applications. The device combines a triple-speed IEEE 802.3 compliant media access controller (MAC), a 32-bit PCI v2.2 bus interface, an integrated 10/100/1000 Physical Layer (PHY) and an on-chip 48-KB buffer memory in a single chip. The device is fabricated in 1.8V CMOS process, providing a low-power system solution. A complete low-power network interface card (NIC) for Gigabit Ethernet is achieved using the AC1002 single-chip solution.

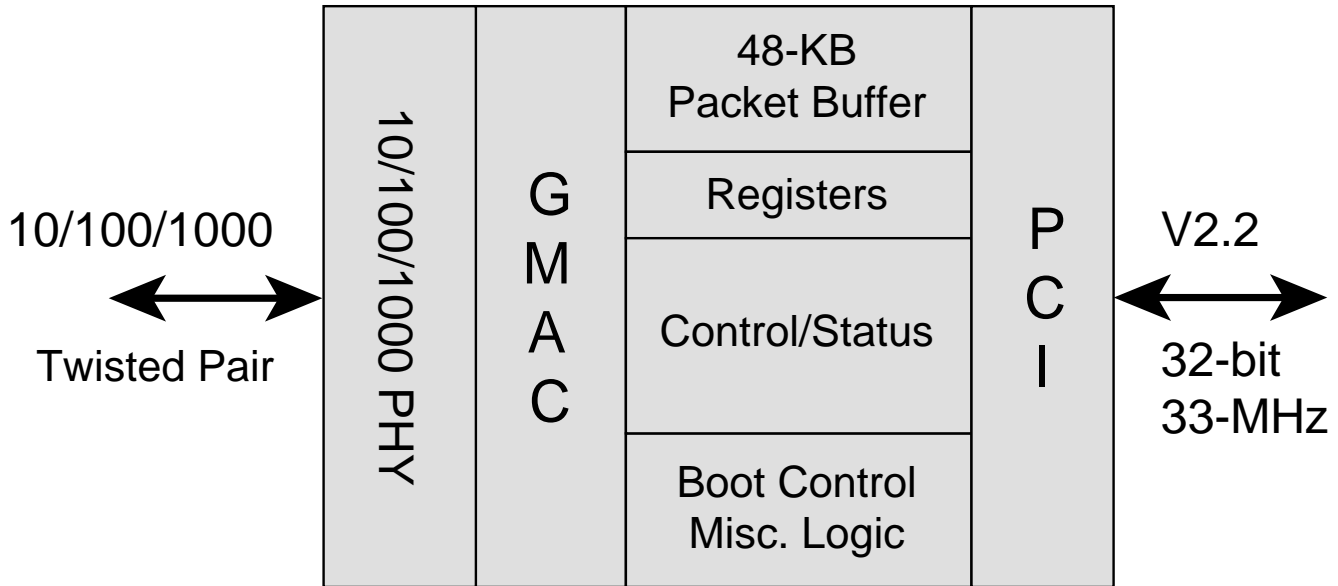
The AC1002 includes a 10/100/1000-Mbps Ethernet MAC with full/half-duplex capability at all speeds. The device provides PCI v2.2 32 bits at 33-MHz operation. The AC1002 provides 48 KB of on-chip buffer memory for maximum system performance. The AC1002 also supports full wake on LAN support.

### SUMMARY OF BENEFITS

- Single-chip 10/100/1000 Ethernet controller with integrated PHY
- Integrated 10/100/1000 Physical Layer
- PCI v2.2 32-bit 33-MHz bus interface
- 10/100/1000BASE-T full/half-duplex MAC
- Wake on LAN support to meet ACPI requirements
- 48 KB of internal packet buffer memory
- Boot ROM support (PXE capable)
- Serial EEPROM support
- Four LED control signals for link and speed indication
- JTAG support
- 3.3V/2.5V/1.8V CMOS with 5V tolerant PCI I/Os
- <3W Power

### BAC91002 Reference Board





The Altima **AC1002** 10/100/1000 Gigabit Ethernet Controller is a highly integrated low-power CMOS silicon solution. It provides a complete triple-speed solution for 32-bit PCI v2.2. The on-chip, 48-KB packet buffer provides optimum performance for workstation/desktop applications.

The Altima **AC1002** 10/100/1000 32-bit PCI Gigabit Ethernet Controller supports Wake on LAN requirements and is fabricated in a standard CMOS process, which enables an ultra low-power solution.

**Part ordering information:**  
**AC1002KPB**

**Software support for the following operating systems:**

- Microsoft Windows NT4.0
- Microsoft Windows 2000
- Microsoft Windows 98
- Microsoft Windows 95
- Microsoft Windows Me
- Microsoft Windows XP

