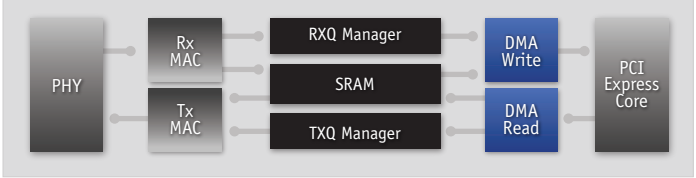
AR8152

Ultra low-power Fast Ethernet controller for PC applications

Solution Highlights

- Fully IEEE 802.3az (Energy Efficient Ethernet) Draft 3.0 compatible
- World lowest power consumption
- Smallest package: QFN40 5 x 5 mm for AR8151/52
- Teaming support for LACP, failover & load balance
- Integrated Linear Regulator
- Integrated OTP memory for Ethernet configuration
- PCIe ASPM L0s/L1 fully support
- Fully support OOB WoL
- Fully support AMD Magic Packet and MSFT Wake up pattern WoL
- Fully support IEEE 802.1Q VLAN
- Fully support IEEE 802.1P QoS

AR8152 Architecture



Technology Overview

Atheros ETHOS® technologies provide customers with industry-leading low power and solution size to enable Fast or Gigabit Ethernet connectivity in networking equipment, consumer electronics and computing platforms. Our PHY, controller and switch solutions support the IEEE 802.3az standard for Energy Efficient Ethernet, to extend battery-charges on computing platforms and deliver power-efficiencies in networking equipment. Atheros also enables incremental power-saving techniques to offer our customers the very lowest power Ethernet in the industry today. The unmatched efficiency and advanced carrier-class features of Atheros ETHOS solutions give customers a competitive edge when designing products for energy-conscious consumers and businesses.

AR8152 Product Overview

The AR8152 is an ultra low-power PCIe Fast Ethernet controller for PC applications. It fully supports PCIe power saving features as well as extensive low power Ethernet features. It comes in a tiny 5 x 5 mm package providing a state of the art compact complete Ethernet solution that is pin and code compatible with the AR8151 Gigabit Ethernet LOM.

With full IEEE 802.3az and ASP support, including L0s, as well as many Atheros ETHOS-Designed Green Ethernet (EDGE™) power-saving features, it provides the lowest power consumption on the market in all operating and idle modes!

There is Here.™

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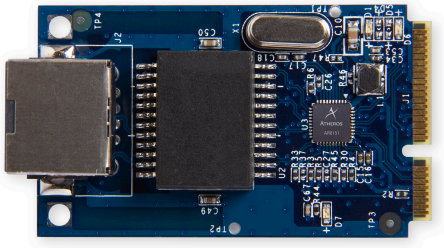

AR8152 Specifications

Supported PHY Speed	10/100 Mbps
Communication Interface	PCIe v1.1
Peripheral Interface	SMBus, LEDs
Operating Voltage	Single Power Trail @ 3.3V +/- 10%
PCIe ASPM	L0s/L1 support
CLKREQ#	Support
MSFT Checksum offload	Support
MSFT Segment offload	V1 64 kb/V2 256 kb support
Auto MDI/MDI-X	Support
Cable Diagnostic Test	Support
WoL Pattern Type	AMD Magic Packet and MSFT Wake up Pattern
Out-of-Box WoL	Support (Magic Packet)
Integrated Regulator	Linear Regulator
Integrated Memory	256 kb OTP memory
IEEE802.3x Flow Control	Support
IEEE802.1q VLAN	Support
IEEE802.1p QoS	Support
IEEE802.1ad LACP	Support
IEEE802.3az EEE	Support
Package Dimensions	5 mm x 5 mm/4 mm x 4 mm
Package	40-pin QFN/32-pin QFN

Atheros Communications is a global leader in innovative technologies for wireless and wired communications. Atheros combines its wireless and networking systems expertise with high-performance radio frequency (RF), mixed signal and digital semiconductor design skills to provide highly integrated chipsets that are manufactured on low-cost, standard complementary metal-oxide semiconductor (CMOS) processes. Atheros technology is used by a broad base of leading customers, including networking equipment, computing and consumer device manufacturers.

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