

Atheros AR8216

The AR8216 is Atheros' first Ethernet switch product and is the industry's lowest cost, 6-port 10/100 Fast Ethernet switch. The AR8216 is designed to support a wide array of cost-sensitive wired and wireless networking applications and targets mainstream 802.11n and 802.11g wireless router and gateway platforms. The AR8216 offers design flexibility with its 6-port configuration consisting of five 10/100 Ethernet PHY ports, one MII port for CPU connectivity and six independent Media Access Controllers (MACs).

The AR8216 offers high levels of integration with the industry's smallest footprint achieved through a significantly reduced number of system components in a compact 10mm x 10mm, low-profile quad flat package (LQFP). As a result, it delivers the industry's lowest RBOM, optimized design flexibility and increased cost savings.

To provide non-blocking switching performance in all traffic environments, the AR8216 supports an advanced QoS architecture. This unique Atheros-designed architecture prioritizes switch traffic for different classes of applications, such as voice traffic for IP phones, video traffic for multimedia and data traffic for e-mail.

With the launch of this high-performance, low-cost Ethernet switch solution, Atheros now provides its networking customers with all of the major silicon required for complete wire-to-wireless router solutions.

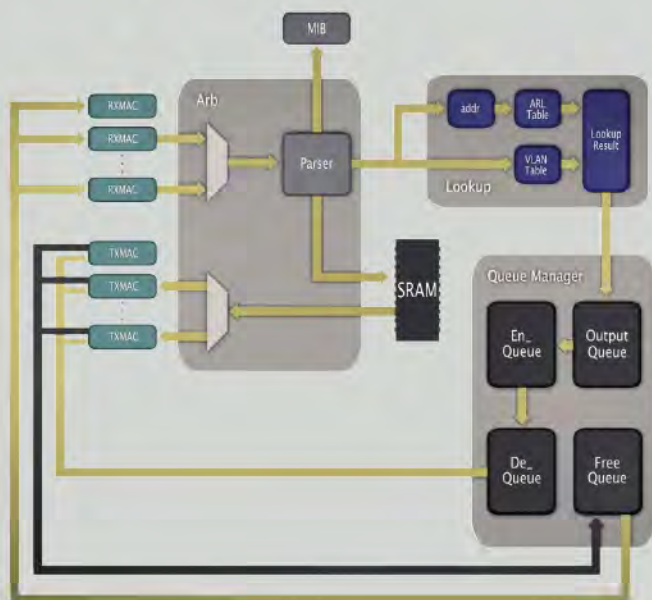


AR8216

Industry's Lowest Cost Fast Ethernet Switch



AR8216 System Architecture

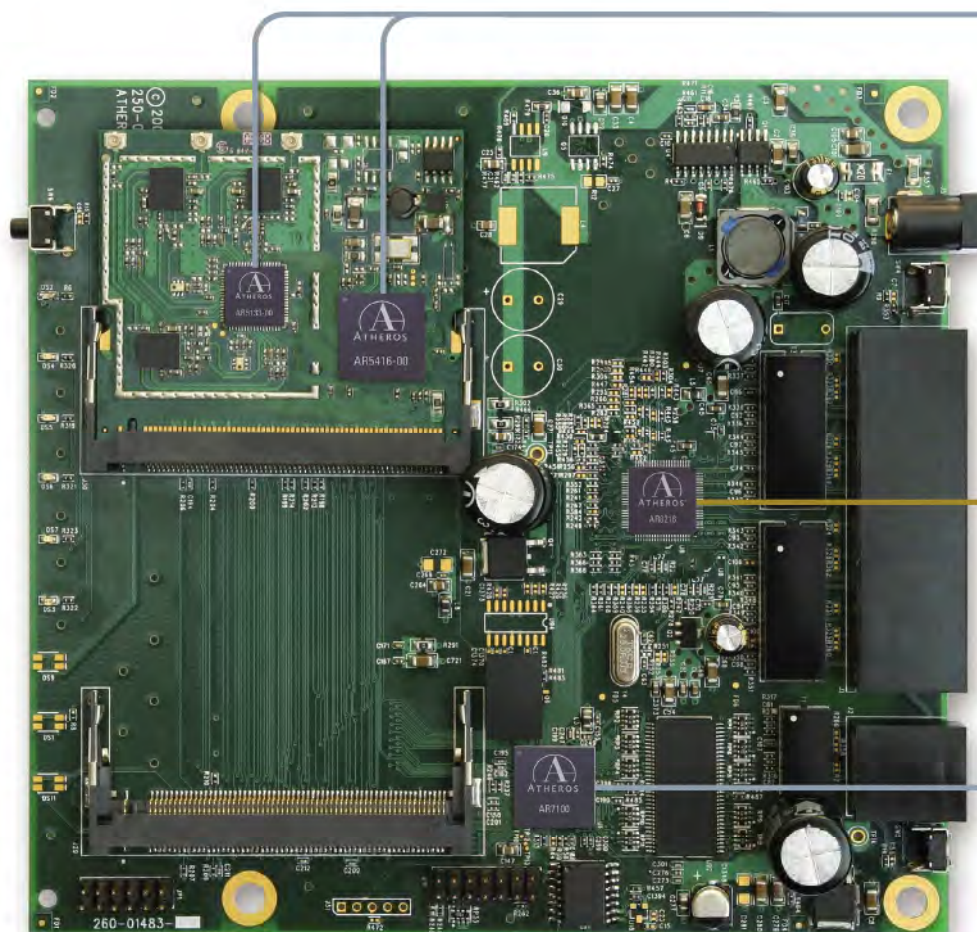


AR8216 Solution Highlights

- Integrated with 6 independent media access controllers fully compliant with IEEE 802.3 and IEEE 802.3u standard
- Flow control fully supported IEEE 802.3x flow control for full duplex and back pressure for half duplex
- Fully compliant with IEEE 802.3/802.3u auto-negotiation function
- Shared memory switch fabric with non-blocking performance
- High performance lookup engine for up to 1024 MAC address entries with automatic learning and aging
- Up to 16 VLAN entries with flexible support for IEEE 802.1Q and port-based VLAN
- Support VLAN tag remove function
- Port states and BPDU handling for Spanning Tree
- QoS support with four traffic classes based on arrival port, IEEE802.1p, IPv4 TOS, IPv6 TC and Destination MAC Address
- Strict priority, weighted and mix-weighted round robin
- IGMP Snooping and MLD Snooping
- Support ingress & egress rate limit
- Broadcast storm suppression
- Support port mirroring
- Support 40 MIB counters per port
- Flexible LED indicators for link, activity, speed, full/half duplex, and collision
- 0.13 μ m, CMOS technology
- 80-pin LQFP package
- Low power consumption

WIRELESS FUTURE. UNLEASHED NOW.™

Atheros provides all of the major silicon for complete wire-to-wireless router system solutions



Atheros 802.11n
or 802.11g chipset
solutions

Atheros AR8216
Fast Ethernet Switch

Atheros AR7100
Wireless Network
Processor

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Contact your local Atheros representative and ask about the AR8216 or other solutions from Atheros:

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For more information on Atheros and Atheros WLAN Technology please visit www.atheros.com

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