

Atheros XSPAN™ Technology

Expanding performance. Expanding possibilities.

Atheros offers the most innovative and complete portfolio of 802.11n wireless LAN chipset solutions. The new AR9001 family of chipsets, the second-generation of Atheros' XSPAN 802.11n technology, builds upon the company's first-generation XSPAN products – with enhanced performance, higher integration, smaller form factors and lower overall cost – to meet the needs of the rapidly growing 802.11n market. Like the first-generation XSPAN products, all AR9001 chipsets are compliant to the latest IEEE 802.11n draft specification.

Atheros' AR9001 chipsets feature:

- **Leading Integration** that delivers end product cost and form factors to drive broad market adoption of 802.11n products;
- **Single- and Dual-Band, and Multiple MIMO Configurations** that enable OEMs to tailor product price/performance for specific application and market segment requirements;
- **Rich Media & Peripheral Interfaces** that anticipate the requirements for advanced media networking applications and allow end-product feature differentiation;
- **Simple Setup via Atheros' JumpStart for Wireless**, the company's simple network configuration software which supports both the PIN and push-button setup methods complying to the Wi-Fi Protected Setup specification;
- **Worldwide 5 GHz Full-Spectrum Support** for state-of-regulatory requirements with Atheros' Dynamic Frequency Selection (DFS).

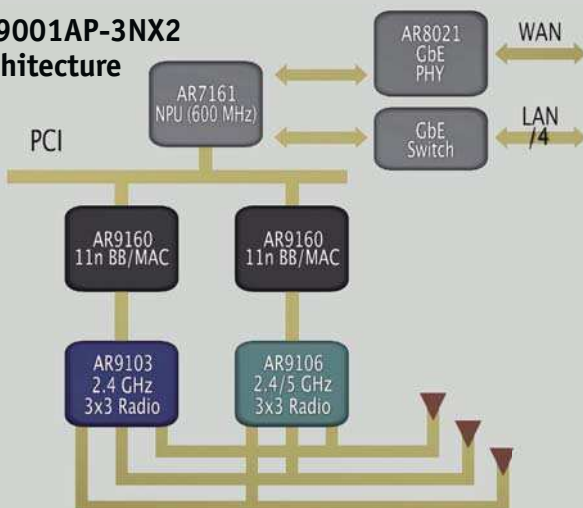
Product Overview

The Atheros AR9001AP-3NX2 chipset incorporates all of the key components needed to deliver high-performance, dual-concurrent AP/routers. The AR9001AP-3NX2 solution features the industry's only custom-designed for WLAN network processor, two simultaneous single-chip, triple-radios, two MAC/basebands and Atheros' Gigabit PHY.

The design leverages the extraordinary processing power of Atheros' 600 MHz AR7161 WNPU to achieve Gigabit Ethernet connectivity to the WAN and LAN, along with abundant remaining processing capacity for sophisticated routing and networking applications.

Designed for Atheros' SMB, Enterprise and Premium Home AP/router and gateway customers, the AR9001AP-3NX2 delivers the ultimate in 802.11n networking with its simultaneous 2.4 and 5 GHz bands and 3x3 MIMO reliability achieved with Signal-Sustain Technology.

AR9001AP-3NX2 Architecture



AR9001AP-3NX2

*The industry's highest performance,
dual-concurrent 802.11n
AP/router solution*



Solution Highlights

- Next-generation, high-performance 802.11n draft compliant wireless access point and router chipset solution including:
 - AR7161: 600 MHz Wireless Network Processing Unit (WNPU)
 - AR9160: Two dual-band 3x3 MIMO MAC/Baseband
 - AR9103: 2.4 GHz 3x3 MIMO Radio
 - AR9106: 2.4/5 GHz 3x3 MIMO Radio
- Full support for Dynamic Frequency Selection (DFS) enabling uncompromised operation in the broad range of 5 GHz channels
- Atheros XSPAN with SST technology – providing the industry's highest TCP/IP throughput at enhanced range
- Support for 3x3 MIMO with spatial multiplexing
- Enables bandwidth of up to 600 Mbps PHY/link rate (dual-band) – twelve times the bandwidth of 802.11g or 802.11a
- Dual-band WLAN radios operate from 2.300 to 2.500 GHz and 4.9 to 5.925 GHz
- Compliant with IEEE 802.11a, 802.11b, 802.11g, 802.11d, 802.11e, 802.11h, 802.11i, 802.11j, draft 802.11n
- Available in commercial and industrial temperature grades
- Lead-free RoHS compliant

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