

AR9287

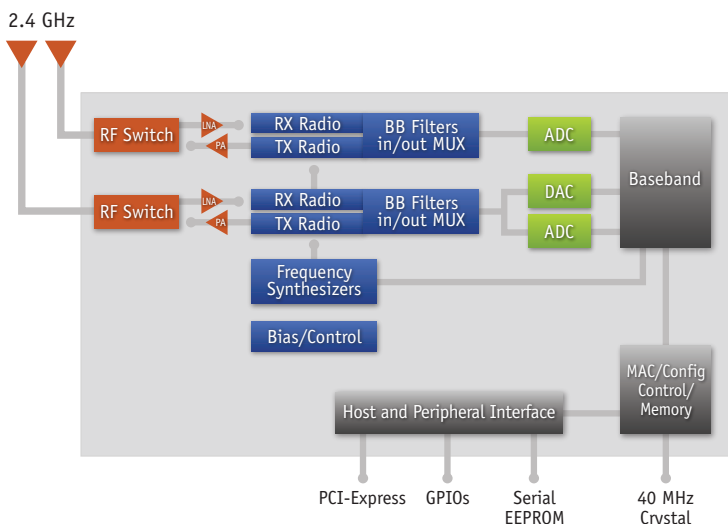
Highly integrated single-chip PCIe
with 2-stream 802.11n support



Solution Highlights

- Single-chip, 802.11n-compliant wireless LAN client solution with integrated MAC, baseband and 2.4 GHz radios
- Based on fourth-generation 802.11n compliant technology
- Support for 2x2 MIMO
- Conserves power with 1x1 downshift using Dynamic MIMO Power Save
- Enables PHY rate of up to 300 Mbps on downlink
- Compliant with IEEE 802.11b, 802.11g, 802.11d, 802.11e, 802.11i, and 802.11n
- Lead-free RoHS compliant

AR9287 Architecture



Atheros XSPAN® Technology

Atheros offers the industry's most innovative and complete portfolio of 802.11n wireless LAN chip solutions. This generation of Atheros' XSPAN 802.11n technology builds upon the company's XSPAN leadership – with enhanced performance, higher integration, smaller form factors and lower overall cost – to meet the needs of the rapidly growing 802.11n market. Like all Atheros' 11n solutions, the new fourth-generation solutions are compliant to the IEEE 802.11n specification.



Atheros fourth-generation XSPAN chips 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 balance product price/performance for specific applications and market segment requirements;
- **Rich Media & Peripheral Interfaces** that anticipate the requirements for advanced media networking applications and allow end-product feature differentiation;
- **Easy Network Setup** with the industry's simple network configuration software that supports both the PIN and push-button setup methods.

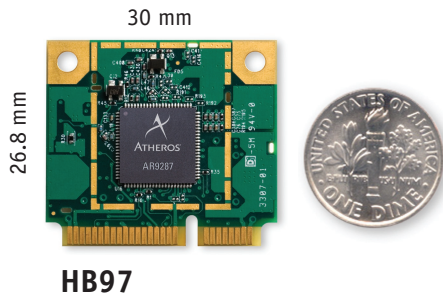
Product Overview

The Atheros AR9287 is the single-chip, single-band 2.4 GHz solution for PCIe in XSPAN's fourth generation of products. The AR9287 Half-Mini Card is the most integrated and compact 802.11n solution for 2-stream with nearly 20% fewer components than the previous generation single-band PCIe on the market, enabling mainstream computing market applications. It offers the optimal balance of performance, power and price with its single-band, 2x2 MIMO configuration, which features downshift to 1x1 MIMO with Dynamic MIMO Power Save. The AR9287 follows in Atheros' drive towards integration – and is the eleventh single-chip client solution to be introduced.

There is Here.™

AR9287

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AR9287 Reference Design Highlights

- Compact Half-Mini Card form factor
- Compliant with PCI-Express Mini Card 1.1 standard
- Line rate WLAN to LAN performance
- Interoperability with 802.11b, 802.11g and 802.11n products
- Driver support for Win 7, Windows XP, Vista and Linux operating systems
- Worldwide regulatory compliance

Atheros Communications is a leading developer of semiconductor system solutions for wireless and other network communications products. 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.

AR9287 Specifications

| | |
|-------------------------|---|
| Frequency Band | 2.4 GHz |
| Network Standard | 802.11b, 802.11g, 802.11n |
| Modulation Technology | OFDM with BPSK, QPSK, 16 QAM, 64 QAM; DBPSK, DQPSK, CCK |
| FEC Coding Rate | 1/2, 2/3, 3/4, 5/6 |
| Hardware Encryption | AES, TKIP, WEP |
| Quality of Service | 802.11e |
| Communication Interface | PCI-Express |
| Peripheral Interface | GPIOs, LEDs |
| Memory Interface | EEPROM |
| Supported Data Rates | |
| IEEE 802.11b | 1 - 11 Mbps |
| IEEE 802.11g | 6 - 54 Mbps |
| IEEE 802.11n | 6.5 to 300 Mbps |

For more information on the AR9287 or other solutions from Atheros contact your local representative:

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