Atheros XSPAN™ Technology
Expanding performance. Expanding possibilities.

The Atheros AR5008 chipsets are Atheros’ highest performance wireless LAN solutions to date. AR5008 products are compliant to the draft 802.11n specification, to deliver the ultimate wireless triple play experience for video, voice and data transmission throughout the home or office.

**Video:** With real world throughput levels up to 300 Mbps PHY rate, new wireless routers and gateways featuring Atheros XSPAN technology will readily accommodate multiple high-definition (HD) streams on a single home network.

**Voice:** Single-antenna wireless voice handsets and legacy devices networked to Atheros-based access points achieve range and robustness from Atheros’ triple transmitter architecture.

**Data:** The array of data applications ranging from simple network computing to transmission of large data, music or image files is enhanced through the high bandwidth provided by XSPAN products.

AR5008E-2NX Product Overview
With the introduction of new bandwidth intensive applications and growth of Gigabit Ethernet ports, there is increasing demand for wireless LAN throughput. Featuring the Atheros AR5008E-2NX, our first 2.4/5 GHz IEEE draft 802.11n WLAN solution. The Atheros AR5008E-2NX dramatically increases the overall throughput of the wireless LAN by supporting link rates as high as 300 Mbps—an improvement of nearly six times the throughput of standard 802.11a or 802.11g.

The AR5008E-2NX is interoperable with standard 802.11a, 802.11b and 802.11g devices and fully supports industry standards compliant security and Quality of Service (QoS). Full reference design support is available.

AR5008E-2NX System Architecture

AR5008E-2NX Solution Highlights
• Second generation ultra high-performance MIMO wireless LAN client solution
• IEEE draft 802.11n wireless LAN client technology
• Enhanced performance with Atheros XSPAN technology optimized for higher throughput at long range
• Support for up to 2x2 MIMO with spatial multiplexing
• Enables PHY rate of up to 300 Mbps
• WLAN MAC and baseband processing engine
• Two 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 and draft 802.11n
• Available in commercial and industrial temperature grades
• Lead-free RoHS compliant

AR5008E-2NX
Highest performance 2.4/5 GHz client solution with PCI-Express™ support
AR5008E-2NX Specifications

**Frequency Band**
- 2.300 to 2.500 GHz and 4.9 to 5.925 GHz

**Network Standard**
- 802.11a, 802.11b, 802.11g, draft 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 802.11a 6 - 54 Mbps
- IEEE 802.11b 1 - 11 Mbps
- IEEE 802.11g 6 - 54 Mbps
- XSPAN 6.5 - 300 Mbps

Contact your local Atheros representative and ask about the AR5008 series of technologies 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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