

Intel® Centrino® Advanced-N 6230

Product Description

The Intel® Centrino® Advanced-N 6230 is a dual-band (2.4 GHz and 5.0 GHz), 2x2, IEEE 802.11a/b/g/n Wi-Fi plus Bluetooth* wireless adapter that delivers up to 300 Mbps of bandwidth, up to 2x the range, and more consistent connectivity¹. This PCIe* Half Mini Card provides a low profile design for existing laptops as well as for newer, thinner, smaller laptops, netbooks and tablets. The Intel® Centrino® Advanced-N 6230 also supports a host of Intel-only features, such as Intel® Wireless Display, to enhance today's mobile lifestyle.



Features

- Up to 5x faster and 2x range¹
- Bluetooth* connectivity
- IEEE standards based 802.11a/b/g/n WLAN adapter
- Advanced security via 802.11i
- Industry leading power consumption²
- Intel® Wireless Display³
- Wireless support for Intel® Active Management Technology^Δ
- Easy to use Intel® PROSet/Wireless WLAN Software⁴
- Support for Cisco Compatible Extensions* v4
- Performance-optimized for Connect with Intel® Centrino® certified access points

Features	Benefits
Performance, Flexibility, and Mobility	
Up to 5x bandwidth increase¹ Up to 300 Mbps ¹ bandwidth compared to 54 Mbps 802.11a/b/g solutions	Minimizes the time needed to transfer large files and enables applications such as High Definition (HD) video streaming and multi-player gaming.
Up to 2x greater range¹ MIMO, diversity, and support for up to two antennas enable better wireless reception at the same distance when compared to 802.11a/b/g solutions	Reduces the number of "dead zones", network re-connects, and dropped data packets; dramatically improving connectivity throughout the home and enabling more consistent coverage in the enterprise.
Bluetooth* connectivity Bluetooth 2.1, 2.1+EDR, 3.0, 3.0+HS	Enables wireless connectivity to Bluetooth* enabled devices such as mice, keyboards, and headsets.
Intel® Wireless Display³ With a laptop powered by a Intel® Core™ processor	Wirelessly share your videos, photos, music or the Internet from your laptop to your HDTV.
Intel® My WiFi Technology⁴ Wireless Personal Area Network solution for connectivity to consumer electronic devices	Enables direct wireless connectivity to millions of Wi-Fi enabled devices such as digital cameras, portable media players, game players, and printers without an access point for file sharing, file syncing, or streaming activities. Also supports Intel® Wireless Display.
Industry-leading power consumption² Optimized power modes (sleep states) reduce power consumption during periods of inactivity	Reduced WLAN power consumption results in potentially longer platform battery life ² for greater utility, enjoyment, and convenience.
PCIe* Half Mini Card form factor Low profile, one sided design	Enables the Intel® Centrino® Advanced-N 6230 to be designed into existing laptops as well as for newer, thinner, smaller laptops, netbooks and tablets.
Validation Leverage	
Common software across all Intel® Centrino® Wireless adapters Intel® PROSet/Wireless Software and drivers	Reduces the time spent validating Intel® Centrino® Wireless adapters across customer platforms by establishing a single software package for all Wi-Fi drivers and applications.
Broadly validated Supported across most Intel® processors and chipsets	Enables flexible performance pairing of Intel® Centrino® wireless products with most Intel® processors and chipsets.
Manageability and Security	
Intel® Active Management Technology^Δ Asset management, remote system diagnostics, network protection, and network security technology	Provides IT managers the capability to remotely discover, heal, and protect wireless notebooks regardless of the functional state of the operating system which can result in reduced on-site support costs.

Features	Benefits
Advanced security via 802.11i Wireless security supporting AES encryption	Ensures wireless networks are protected from unauthorized access via stronger authentication and encryption mechanisms.
Intel® PROSet/Wireless Software³ Intel WLAN management software	Simplifies client deployments and allows remote management of wireless settings and profiles by IT managers.
Interoperability	
IEEE standards based 802.11 a/b/g/n WLAN adapter Wi-Fi CERTIFIED* to IEEE 802.11a, 802.11b, 802.11g, and 802.11n standards	Enables maximum interoperability with other IEEE-based Wireless Access Points and Wireless network adapters.
Cisco Compatible Extensions* v4 Cisco Centralized Key Management, Call Admission Control, Unscheduled Automatic Power Save Delivery (U-APSD), and Voice Metrics	Helps prevent delays in VoIP calls when roaming between Access Points; enables improved network diagnostics.
Connect* with Intel Centrino® Intel certification that focuses on interoperability between IEEE 802.11n devices	Supports access points with the Connect with Intel® Centrino® label to ensure that both the AP and the Intel® Centrino® Advanced-N 6230 equipped laptop has passed rigorous interoperability tests for maximum performance.

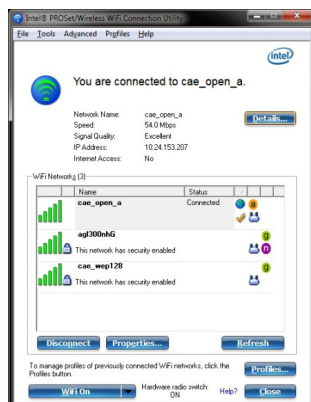
Intel® Wireless Display²



Enjoy all of your laptop, network and online content on a big screen. With the Intel® Centrino® Wireless-N 6230, Intel® Wireless Display and Intel® Core™ processor based laptop, wirelessly share your videos, photos, music or the Internet from your laptop to your HDTV with great image quality and sound. Intel® Wireless Display delivers these features:

- HD supported at full motion frame rate for clarity and smooth-natural motion
- 128kb/s AAC audio to take advantage of A/V receiver for stereo sound
- Intel® My WiFi Technology enables simultaneous Internet access while connected to HDTV
- Intuitive user interface for simple connectivity to your big screen
- Supported on Microsoft Windows 7*
- Supports latest Wi-Fi security features including WPA2

Intel® PROSet/Wireless Enterprise Software³



Intel® PROSet/Wireless Enterprise Software for Microsoft Windows 7 is available for users of Intel® WLAN hardware. The latest version of the software helps enable a superior experience by providing enhancements for end users as well as IT administrators who deploy and manage wireless networks. Features include:

- Simplified, consistent user interface design
- Includes IT Administrator Toolkit for remote client management
 - Create self-extracting administrator packages
 - Central control over driver and application settings
 - Single Sign On for Microsoft Windows networks
- Persistent connection profiles for client maintenance
- Advanced security support including WPA2 and AES-CCMP
- Intelligent troubleshooting and diagnostics tools
- Interoperability across IEEE 802.11 standards

Intel® Centrino® Advanced-N 6230 Technical Specifications

General

Dimensions (H x W x D)	26.80 mm x 30.00 mm x 2.4 mm Max (Top Side) / 1.35 mm Max (Bottom Side)
Weight	4.0 g
Diversity	On-board diversity support for systems designed with two antennas
Radio ON/OFF Control	Supported in both hardware and software
Connector interface	Half Mini Card form factor, based on PCIe electrical interface
LED Output	On/Off
Operating Temperature (Adapter Shield)	0 to +80°C
Humidity Non-Operating	50% to 90% RH non-condensing (at temperatures of 25°C to 35°C)

Operating Systems	Microsoft Windows XP*, Microsoft Windows Vista*, Microsoft Windows 7*, Linux* Wi-Fi CERTIFIED* for 802.11a, 802.11b, 802.11g, 802.11n, WMM*, WPA*, WPA2*, and WPS
Wi-Fi Alliance	YES
Microsoft WHQL	IEEE 802.11a/b/g/n, 802.11d, 802.11e, 802.11i, 802.11h
IEEE WLAN Standard	Infrastructure or ad hoc (peer-to-peer)
Architecture	Supports seamless roaming between respective access points
Roaming ⁵	(802.11b, 802.11g, 802.11a/b/g, and 802.11a/b/g/n)
Bluetooth*	Bluetooth* 2.1, 2.1+EDR, 3.0, 3.0+HS

Security⁶

Authentication	WPA and WPA2, 802.1X (EAP-TLS, TTLS, PEAP, LEAP, EAP-FAST), EAP-SIM, EAP-AKA
Authentication Protocols	PAP, CHAP, TLS, GTC, MS-CHAP*, MS-CHAPv2
Encryption	64-bit and 128-bit WEP, AES-CCMP, TKIP
Product Safety	UL, C-UL, CB (IEC 60950-1)

Compliance

Retail (Credit Card Processing)	PCI, CISP
Government	FIPS ⁸ , FISMA

Products Available	Model Code	Version
Intel® Centrino® Advanced-N 6230	62230ANHMW	62230ANHMW (supports 802.11a/b/g/n)
	62230AGHRU	62230AGHRU (supports 802.11a/b/g)

For more information on Intel® Centrino® wireless products, visit <http://www.intel.com/go/wifi>

^A Intel® Active Management Technology (Intel® AMT) requires the computer system to have an Intel® AMT-enabled chipset, network hardware and software, as well as connection with a power source and a corporate network connection. Setup requires configuration by the purchaser and may require scripting with the management console or further integration into existing security frameworks to enable certain functionality. It may also require modifications of implementation of new business processes. For more information, see www.intel.com/technology/platform-technology/intel-amt/.

¹ Up to 2X greater range enabled by 2x2 802.11n implementations with 2 spatial streams. Up to 5X Bandwidth increase based on the theoretical maximum bandwidth enabled by 2x2 802.11n implementations with 2 spatial streams in combination with a 2 or 3 spatial stream Access Point. Actual wireless throughput and/or range will vary depending on your specific operating system, hardware and software configurations. Check with your PC manufacturer for details.

² References to industry leading power consumption refer to Wi-Fi module power consumption comparisons versus competing 802.11n WLAN solutions. Actual platform battery life savings will vary depending on your specific operating system, hardware and software configurations. Check with your PC manufacturer for details.

³ Intel® Wireless Display requires a compatible Intel®-based laptop PC, a third-party TV adapter featuring Intel® Wireless Display, and a TV with an available HDMI or Composite AV input. Compatible laptop PCs require a select Intel® Core™ processor family CPU. For a complete list of requirements, visit www.intel.com/go/wirelessdisplay. Content requiring output protection, such as Blu-ray* and DVD movie playback, is not supported. Check with your PC manufacturer for specific details.

⁴ Intel® My WiFi Technology and/or PROSet for Wireless software may not be supported by your PC manufacturer. Check with your PC manufacturer for details on availability. Intel® My WiFi Technology is designed to work with Microsoft Windows 7* operating system. Wi-Fi Personal Area Network refers only to Wi-Fi enabled devices connecting to the PC via Intel® My WiFi Technology. Wi-Fi devices must be certified by the Wi-Fi Alliance for 802.11b/g/n. Check with your PC manufacturer for more details.

⁵ Roaming is supported only between each respective band and mode of access points.

⁶ Some security solutions may not be supported by your PC's operating system and/or by your PC manufacturer. Check with your PC manufacturer for details on availability.

⁷ Microsoft Windows Vista and Microsoft Windows 7 only.

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