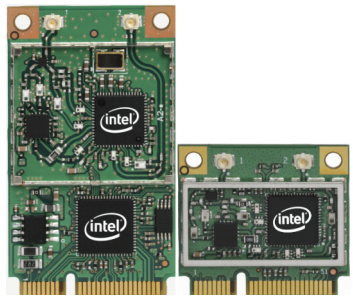
Product Brief

Intel® WiFi Link 5100 Series

Mobile Computing

Intel® WiFi Link 5100 Series



Product Description

The Intel® WiFi Link 5100 Series is a family of IEEE 802.11a/b/g/Draft-N[1] wireless network adapters that operate in both the 2.4 GHz and 5.0 GHz spectra. These adapters, available in both PCIe* Mini Card and Half Mini Card form factor deliver up to 300 Mbps[2] of receive bandwidth; in addition to providing a host of features that enhance today's mobile lifestyle.

Features

- Over 5x bandwidth increase[2] compared to existing 802.11a/b/g solutions
- Up to 2x greater range[2]
- IEEE 802.11a/b/g and Draft-N[1] compliant
- WiFi Personal Area Network capabilities
- Industry-leading power consumption[3]
- Wireless support for Intel® Active Management Technology[Δ]
- Advanced security via 802.11i
- Easy-to-use Intel® PROSet v12.0 WLAN Software[4]
- Support for Cisco Compatible Extensions* v4
- Performance-optimized with Connect with Intel® Centrino® processor technology certified Access Points

Feature	Benefit
Performance, Flexibility, and Mobility	
Over 5X Bandwidth increase[2] Up to 300 Mbps[2] Draft-N[1] receive data rates compared to 54 Mbps for 802.11a/b/g solutions	Minimizes the time needed to transfer large files and enables applications such as High Definition (HD) video streaming, Voice over IP (VoIP), and multi-player gaming
Up to 2X greater range[2] 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
Intel® My WiFi Technology Wireless Personal Area Network solution for connectivity to consumer electronic devices	Enables wireless connectivity to selected WiFi-enabled consumer devices such as digital cameras, MP3 players, or game players for file sharing, file syncing, or file streaming activities
Industry-leading power consumption[3] Optimized power modes (sleep states) reduce power consumption during periods of inactivity	Reduced WLAN power consumption results in longer platform battery life[3] for greater utility, enjoyment, and convenience
PCIe* Mini Card and Half Mini Card form factor	Support for the PCIe Mini Card form factor enables the Intel® WiFi Link 5100 to be designed into existing laptops while support for the PCIe Half Mini Card form factor enables thinner and smaller laptops
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
Advanced Security via 802.11 Wireless security supporting AES encryption	Ensures enterprise wireless networks are protected from unauthorized access via stronger authentication and encryption mechanisms
Intel® PROSet v12.0[4] Intel WLAN management software	Simplifies client deployments and allows remote management of wireless settings and profiles by IT managers
Interoperability	
IEEE 802.11a/b/g/Draft-N[1] compliant Compliant to the existing IEEE 802.11a, 802.11b, and 802.11g standards; 802.11n compliance expected when the standard is ratified	Enables interoperability with other IEEE-based Wireless Access Points and Wireless network adapters
Support for 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® processor technology Intel certification that focuses on interoperability between IEEE 802.11 Draft-N[1] devices	Selection of Access Points with the Connect with Intel® Centrino® processor technology label ensures that both the Access Point and the Intel Centrino laptop has passed numerous interoperability tests

Intel® PROSet/Wireless Software[4] v12.0



Intel® PROSet/Wireless Software v12.0 is available for users of Intel® WLAN hardware[4]. 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:

- Enhanced simple User Interface
- IT Administration Tool capabilities
  - Install Package Creator
  - Central Control over driver and application settings
  - Single Sign On for Microsoft and Novell networks
- Additional Profile management capabilities
- Support for WiFi Protected Setup
- Support for high rate Draft-N[1] WiFi networks
- Support Intel Active Management Technology

Intel® WiFi Link 5100 Series Technical Specifications

General

Dimensions (H x W x D)	PCIe Mini Card: 2.00 in x 1.18 in x 0.13 in (50.95 mm x 30.00 mm x 3.30 mm) PCIe Half Mini Card: 1.06 in x 1.18 in x 0.13 in (26.80 mm x 30.00 mm x 3.30 mm)
Weight	PCIe Mini Card: 7.0 g PCIe Half Mini Card: 4.0 g
Diversity	On-board diversity support for systems designed with two antennas
Radio ON/OFF Control[5]	Supported in both hardware and software
Connector interface	Mini Card form factor, based on PCIe electrical interface
LED Output	Single WLAN-LED (as per Mini Card specification)
Operating Temperature	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* 32/64-bit, Microsoft Windows Vista* 32/64-bit, Linux
Wi-Fi Alliance	Wi-Fi Certified* for 802.11 a, 802.11 b, 802.11 g, WMM*, WPA*, and WPA2* (Wi-Fi Alliance Draft-N[1] and 802.11n certifications expected when available)
Microsoft WHQL	YES
IEEE WLAN Standard	IEEE 802.11a/b/g/Draft-N[1], 802.11d, 802.11e, 802.11i, 802.11h
Architecture	Infrastructure or ad hoc (peer-to-peer)
Roaming[6]	Supports seamless roaming between respective access points (802.11b, 802.11g, 802.11a/b/g, and 802.11a/b/g/Draft-N[1])

Security

Authentication	WPA[7] and WPA2[7], 802.1X, LEAP, EAP-TLS, PEAP-TLS, and PEAP-MSCHAPv2*
Protocols Encryption	CKIP, TKIP, 64-bit and 128-bit WEP (for 802.11a/b/g), AES-CCMP (for 802.11a/b/g/Draft-N)
Product Safety	UL, C-UL, CB (IEC 60950)

Products Available	Model Code	Version
Intel® Wireless WiFi Link 5100	512AN_MMW	512AN_MMW (supports 802.11a/b/g/Draft-N[1] in a PCIe Mini Card form factor)
	512AG_MMW	512AG_MMW (supports 802.11a/b/g in a PCIe Mini Card form factor)
	512AN_HMW	512AN_HMW (supports 802.11a/b/g/Draft-N[1] in in a PCIe Half Mini Card form factor)
	512AG_HMW	512AG_HMW (supports 802.11a/b/g in in a PCIe Half Mini Card form factor)

[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] "Draft-N" refers to: IEEE P802.11 n*/D2.0 Draft Amendment to STANDARD [FOR] Information Technology-Telecommunications and information exchange between systems-Local and Metropolitan networks-specific requirements-Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) specifications: Enhancements for Higher Throughput.

[2] Up to 2X greater range enabled by 1x2 Draft-N implementations with 1 transmit spatial stream and 2 receive spatial streams. Up to 5X Bandwidth increase based on the theoretical maximum receive bandwidth enabled by 1x2 Draft-N implementations with 1 transmit spatial stream and 2 receive spatial streams. 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.

[3] References to improved battery life as measured by MobileMark* 2005, refer to platform comparisons versus competing Draft-N 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.

[4] Intel® PROSet for Wireless software may not be supported by your PC manufacturer. Check with your PC manufacturer for details on availability.

[5] Wireless connectivity and some features may require the purchase of additional software, services, or external hardware. Availability of public wireless LAN access points is limited, wireless functionality may vary by country. See http://www.intel.com/products/centrino/more_info for more information.

[6] Roaming is supported only between each respective band and mode of access points.

[7] 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.

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