

# Product Brief

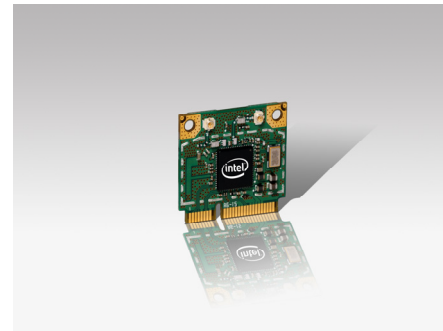
Intel® WiFi Link 1000  
Mobile Computing



## Intel® WiFi Link 1000

### Product Description

The Intel® WiFi Link 1000 is an IEEE 802.11b/g/Draft-N<sup>1</sup> wireless network adapter that operates in the 2.4 GHz spectrum. This adapter, available in both PCIe\* Mini Card and Half Mini Card form factors, delivers up to 300 Mbps of receive throughput. It also delivers a host of features to enhance today's mobile lifestyle. Fanless netbooks and thin value notebooks are the primary target for this low profile, one-sided design. The Intel® WiFi Link 1000 has qualified for the Centrino brand.



### Features

- Over 5X faster<sup>2</sup>
- 2X greater range<sup>2</sup>
- IEEE 802.11b/g and Draft-N<sup>1</sup> compliant
- Advanced security via 802.11i
- Industry-leading power consumption<sup>3</sup>
- Includes Wi-Fi PAN – Intel® My WiFi Technology<sup>4</sup>
- Easy to use Intel® PROSet v1.2.5 WLAN Software<sup>4</sup>
- Advanced IT capabilities with Intel® PROSet Software<sup>4</sup>
- Support for Cisco Compatible Extensions\* v4
- Connect with Intel® Centrino® program eligible

Feature	Benefit
<b>Performance, Flexibility, and Mobility</b>	
<b>Over 5X performance increase<sup>2</sup></b> Up to 300 Mbps <sup>2</sup> Draft-N <sup>1</sup> 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
<b>Up to 2X greater range<sup>2</sup></b> MIMO, diversity, and support for up to two antennas enable better wireless reception at greater distances compared to single antenna 802.11b/g solutions	Reduces the number of "dead zones", network re-connects, and dropped data packets; dramatically improving connection reliability throughout the home or office
<b>Intel® My WiFi Technology - Personal Area Network (PAN)<sup>4</sup></b> Intel® My WiFi Technology offers seamless connection to Wi-Fi consumer electronic devices	Enables wireless connectivity to selected consumer devices such as digital cameras, MP3 players, or game players for file sharing or file streaming activities. Any standard Wi-Fi consumer device with a corresponding PC application is expected to work with Intel® My WiFi <sup>4</sup>
<b>Industry-leading power consumption<sup>3</sup></b> Optimized power modes (sleep states) reduce power consumption during periods of inactivity	Reduced WLAN power consumption results in longer platform battery life <sup>3</sup> for greater utility, enjoyment, and convenience
<b>PCIe Mini Card and Half Mini Card form factor</b>	Support for the PCIe Half Mini Card form factor enables the Intel® WiFi Link 1000 to be designed into next generation laptops while support for the PCIe Mini Card form factor enables current generation laptops

Feature	Benefit
<b>Validation Leverage</b>	
Common adapter software across Intel® WiFi Link adapters	Reduces the time spent validating Intel® WiFi Link adapters across customer platforms by establishing a single software package for all WiFi drivers and applications
<b>Management and Security</b>	
Advanced Security via 802.11i Wireless security supporting AES encryption	Ensures enterprise wireless networks are protected from unauthorized access via stronger authentication and encryption mechanisms
Intel® PROSet v12.5 <sup>4</sup> Intel WLAN management software	Provides a familiar user interface for clients, and excellent management tools for businesses
<b>Interoperability</b>	
IEEE 802.11b/g/Draft-N <sup>1</sup> compliant Compliant to the existing IEEE 802.11b, and .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® Intel certification that focuses on interoperability between IEEE 802.11 Draft-N <sup>1</sup> devices	Selection of Access Points with the Connect with Intel® Centrino® label ensures that both the Access Point and the Intel® Centrino® laptop have passed numerous interoperability tests

## Intel® My WiFi Technology<sup>4</sup>

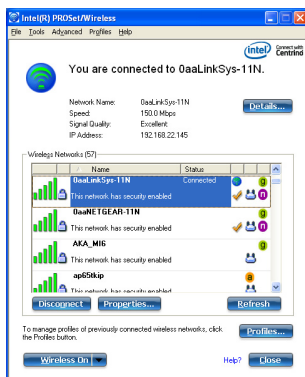


## Intel® My WiFi Technology

Designed for Intel® Ultimate N WiFi Link 5300, Intel® WiFi Link 5100 and Intel® WiFi Link 1000:

- Basic Wi-Fi Personal Area Network with the "My WiFi" GUI
- Wi-Fi PAN operates in 802.11bg
- WLAN can operate in 802.11bgn
- WLAN and Wi-Fi PAN can operate concurrently
- Integrated DHCP/DNS
- Supported in Microsoft Windows Vista\* and Microsoft Windows 7\*
- PAN-connected devices connect to the Internet via Microsoft Windows Vista Internet Connection Sharing (ICS)
  - ICS can be disabled for security purposes
- Wi-Fi Protected Setup\*
  - Both Push-Button Configuration (PBC) and PIN-based configuration
- Security on WPAN
  - Open, WEP 64 & 128, WPA-PSK (TKIP), WPA2-PSK (AES and TKIP)
- User configurable settings included such as SSID, network name, and IP filtering

## Intel® PROSet/Wireless for Windows Software<sup>4</sup>



## Intel® PROSet/Wireless Software<sup>4</sup> v12.5

Intel® PROSet/Wireless Software v12.5 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:

- Enhanced simple User Interface
- IT Administration Tool capabilities
  - Install Package Creator
  - Central Control over driver & application settings
  - Single Sign On for Microsoft and Novell networks
- Additional Profile management capabilities
- Support for Wi-Fi Protected Setup
- Support for high rate Draft-N<sup>1</sup> Wi-Fi networks
- Advanced network troubleshooting and diagnostic tools

\*\*Note: Some features may only be supported on the latest hardware

## Intel® WiFi Link 1000 Series Technical Specifications

Technical Specifications	
Dimensions (H x W x D)	PCIe Mini Card: 2.00 in x 1.18 in x 0.12 in (50.95 mm x 30.00 mm x 3.10 mm) PCIe Half Mini Card: 1.06 in x 1.18 in x 0.12 in (26.80 mm x 30.00 mm x 3.10 mm)
Weight	PCIe Mini Card: 5.25 g PCIe Half Mini Card: 3.4 g
Receive Diversity	On-board diversity support for systems designed with two antennas
Radio ON/OFF Control	Supported in both hardware and software
Connector Interface	Mini Card form factor, based on PCIe electrical interface
LEDs output	Link, Activity
Operating Temperature	0 to +80° Celsius
Humidity Non-Operating	50% to 90% RH non-condensing (at temperatures of 25°C to 35°C)
Operating Systems	Microsoft Windows Vista* 32/64-bit, Microsoft Windows XP* 32/64-bit, Ubuntu Linux*, Microsoft Windows 7* planned
Wi-Fi Alliance	Wi-Fi Certified* for 802.11b, 802.11g, WMM*, WPA*, and WPA2*
Microsoft WHQL	YES
IEEE WLAN Standard	IEEE 802.11b/g/Draft-N <sup>1</sup> , 802.11d, 802.11e, 802.11i
Architecture	Infrastructure or ad hoc (peer-to-peer)
Roaming	Supports seamless roaming between respective access points (802.11b, 802.11g, 802.11b/g, and 802.11b/g/Draft N <sup>1</sup> )
Security <sup>7</sup>	
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, CKIP, TKIP
Product Safety	UL, C-UL, CB (IEC 60950)
Compliance	
Retail (Credit Card Processing)	PCI, DSS, CISP
Healthcare	HIPPA
Government	FIPS, FISMA

Products Available	Model Code	Description
Intel® WiFi Link 1000	112BNHMW	112BNHMW (supports PCIe Half MiniCard form factor)
Intel® WiFi Link 1000	112BNMMW	112BNMMW (supports MiniCard form factor)
Intel® WiFi Link 1000	112BGHMW	112BGHMW (BG only supports PCIe Half MiniCard form factor)
Intel® WiFi Link 1000	112BGMMW	112BGMMW (BG only supports MiniCard form factor)

(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) Based on the theoretical bandwidth maximum enabled by 1x2 Draft-N implementations with 1 transmit 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<sup>1</sup> 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® 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 the Microsoft Windows Vista\* and Microsoft Windows 7\* operating systems. 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/a. Check with your PC manufacturer for more details.

(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/centrino/index.htm?iid=prod\\_pt+c\\_centrino](http://www.intel.com/products/centrino/centrino/index.htm?iid=prod_pt+c_centrino) 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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