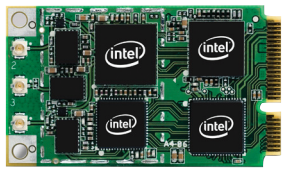
Product Brief

Intel® WiMAX/WiFi Link 5350
Mobile Computing

Intel® WiMAX/WiFi Link 5350

Product Description

The Intel® WiMAX/WiFi Link 5350 is an IEEE 802.16e and 802.11a/b/g/Draft-N[1] wireless network adapter that operates in the 2.5 GHz spectrum for WIMAX and 2.4 GHz and 5.0 GHz spectra for WiFi. This adapter delivers up to 13 Mbps+ downlink and 3 Mbps+ uplink performance over WiMAX and up to 450 Mbps Tx/Rx[2] over WiFi. This integrated module, embedded in new Intel® Centrino® 2 processor technology notebooks, provides flexible and convenient connectivity to both WiFi and WiMAX networks to enhance today's mobile lifestyle.



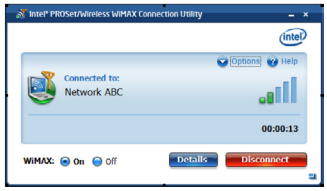
WiMAX

Feature	Benefit
IEEE 802.16e-2005 Wave 2 compliant. Mobile WiMAX Release 1 Wave 2 system profile ready	Broadband connectivity for rich Internet experience while on the go with open-standards-based WiMAX networks
Over-the-air provisioning, management and upgrade support	Activate and stay connected on broadband with minimal effort
Secure broadband connectivity	Peace of mind with secure access to critical information and applications when you need it
USB power optimization	Stay connected longer
Intel® PROSet Wireless WiMAX Connection Utility v1.0	Scan for and securely connect to WiMAX networks

WiFi

Feature	Benefit
Mobile Performance	
450 Mbps ready[2] Support for 3 Transmit and Receive spatial streams	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 by providing up to 450 Mbps of bandwidth[2] compared to 54 Mbps for 802.11a/b/g solutions
Up to 2x greater range[2] MIMO, diversity, and support for up to three 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 improves connectivity throughout the home and enables more consistent coverage in the enterprise
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
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 processor technology-based laptop have passed numerous interoperability tests

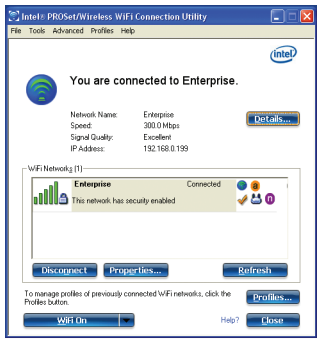
Intel® PROSet/Wireless WiMAX Connection Utility



Intel PROSet/Wireless WiMAX Connection Utility v1.0 allows users to easily and securely connect to service providers' WiMAX network.

- Simplifies activation with over-the-air activation support

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 (WPS)
- Support for high-rate Draft-N[1] WiFi networks
- Support Intel® Active Management Technology[Δ]

Intel® WiMAX/WiFi Link 5350 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)
Weight	PCIe Mini Card: 7.0 g
Diversity	On-board diversity support for systems designed with three antennas
Radio ON/OFF Control[5]	Supported in both hardware and software
Connector Interface	PCIe electrical interface for WiFi, USB 2.0 for WiMAX
LED Output	2 LED indicators, one for WiFi and one for WiMAX (LED behavior 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
Wi-Fi Alliance	Wi-Fi Certified* for 802.11a, 802.11b, 802.11g, WMM*, WPA*, and WPA2* (Wi-Fi Alliance Draft-N[1] and 802.11n certifications expected when available)
WiMAX Forum	WiMAX Certifiable for 802.16e Wave 2
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	**WiFi:** WPA[7] and WPA2[7], 802.1X, LEAP, EAP-TLS, PEAP-TLS, and PEAP-MSCHAPv2*; **WiMAX:** EAP, CMAC, X.509
Protocols Encryption	**WiFi:** CKIP, TKIP, 64-bit and 128-bit WEP (for 802.11a/b/g), AES-CCMP (for 802.11a/b/g/Draft-N[1]); **WiMAX:** AES-CCM, Key Binding, Microsoft Crypto API
Product Safety	UL, C-UL, CB (IEC 60590)

Products Available	Model Code	Version
Intel® WiMAX/WiFi Link 5350	533ANX MMW	Supports 802.16e and 802.11a/b/g/Draft-N[1] in a PCIe Mini Card form factor

* Results based on conductive test data, actual results may vary based on your specific hardware, connection rate, site conditions, network service and software configurations. See http://www.intel.com/performance/mobile/index.htm for more information. WiMAX connectivity requires a WiMAX enabled device and subscription to a WiMAX broadband service. WiMAX connectivity may require you to purchase additional software or hardware at extra cost. Availability of WiMAX is limited, check with your service provider for details on availability and network limitations. Broadband performance and results may vary due to environment factors and other variables. See www.intel.com/go/wimax for more information.

Δ 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 3x3 Draft-N1 implementations with 3 spatial streams. Up to 450 Mbps of Bandwidth based on the theoretical maximum bandwidth enabled by 3x3 Draft-N1 implementations with 3 spatial streams in combination with a 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 and access point manufacturer for details.

3 References to improved battery life as measured by MobileMark* 2005, refer to platform comparisons versus competing Draft-N1 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 and WiMAX Connection Utility software may not be supported by your PC manufacturer. Check with your PC manufacturer for details on availability.

5 WiFi and WiMAX radios do not operate simultaneously. 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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