

Product Brief

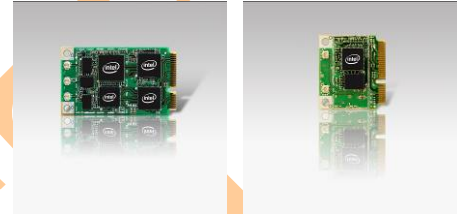
Intel® WiMAX/WiFi Link 5050 Series



Intel® WiMAX/WiFi Link 5050 Series

Product Description

The Intel® WiMAX/WiFi Link 5050 Series is a family of IEEE 802.16e and 802.11a/b/g/Draft-N¹ wireless network adapters that operate in the 2.4 GHz and 5.0 GHz spectra for WiFi and 2.5 GHz for WiMAX. These adapters (available in PCIe* Mini Card or Half Mini Card form factor) deliver up to 450 Mbps Tx/Rx over WiFi and up to 4 Mbps UL/10 Mbps DL over WiMAX; in addition to providing a host of features that enhance today's on-the-go lifestyle.



WiFi & WiMAX Features

- 1x2 WiMAX Configuration
- 3x3 WiFi Configuration (533ANX MMW)
- 1x2 WiFi Configuration (512ANX MMW & 512ANX HMW)
- IEEE 802.11a/b/g and Draft-N¹ compliant
- WiFi Personal Area Network capabilities
- Wireless support for Intel® Active Management Technology
- IEEE 802.16e-2005 Wave 2 compliant
- Easy to use Intel® PROSet/Wireless WiMAX v1.0 Software⁴
- Mobile WiMAX Release 1 Wave 2 system profile features
- Advanced security via 802.11i
- Easy to use Intel® PROSet/Wireless WiFi v12.0 Software⁴
- Support for Cisco Compatible Extensions* v4
- Intel® "Connect with Centrino™" program

Intel® PROSet for Windows Software⁴

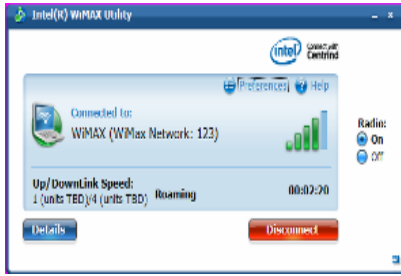


Intel® PROSet/Wireless WiFi Software⁴ v12.0

Intel® PROSet/Wireless Software v12.0 is available for users of Intel® Wireless 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-N¹ WiFi networks
- Support Intel® Active Management Technology

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



Intel® PROSet/Wireless WiMAX Software v1.0

Intel® WiMAX Connection Utility is available for users of Intel® Wireless 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:

- Certificate based service activation
- Over the air (OTA) activation, provisioning (APDO) and upgrades
- USIM PIN management, access control
- Support for EAP-TTLS security
- **VPN Integration**
- **Integrated diagnostics**
- **Connected Standby**
- **Dashboard for custom Service Publisher services**
- Single UI, Initial & dynamic UI customization

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

Intel® WiMAX/WiFi Link 5050 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 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	Two LED outputs: One for WiFi and one for WiMAX (as per Mini Card specification)
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 XP* 32/64-bit, Microsoft Windows Vista* 32/64-bit
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 802.11 n certifications expected when available)
WiMAX Forum	WiMAX Certifiable for 802.16e Wave 2 ⁸
Microsoft WHQL	YES
IEEE WLAN Standard	IEEE 802.11 a/b/g/Draft-N ¹ , 802.11 d, 802.11 e, 802.11 i, 802.11 h
IEEE WiMAX Standard	IEEE 802.16e
WLAN Architecture	Infrastructure or ad hoc (peer-to-peer)
Roaming ⁶	Supports seamless roaming between respective access points (802.11 b, 802.11 g, 802.11 a/b/g, and 802.11 a/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 802.11 a/b/g), AES-CCMP (for 802.11 a/b/g/n) WiMAX: AES-CCM, Key Binding, MSFT Crypto API
Product Safety	UL, C-UL, CB (IEC 60590)

Products Available

Model Code Version

Intel® WiMAX/WiFi Link 5050 Series	
Intel WiMAX/WiFi Link 5350	533ANX MMW (supports 802.16e and 802.11 a/b/g/Draft-N ¹ in a PCIe Mini Card form factor)
Intel WiMAX/WiFi Link 5150	512ANX MMW (supports 802.16e and 802.11 a/b/g/Draft-N ¹ in a PCIe Mini Card form factor)
Intel WiMAX/WiFi Link 5150	512ANX HMW (supports 802.16e and 802.11 a/b/g/Draft-N ¹ in a PCIe Half Mini Card form factor)

SKU	Model #	Regulatory Region	Form Factor
EP 1X2	512ANX MMW	MOW	Minicard
EP 1X2	512ANX HMW	MOW	Half Minicard
EP 3X3	533ANX MMW	MOW	Minicard

(1) "Draft-N" refers to: IEEE P802.11n*/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 3x3 Draft-N implementations with 3 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 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 are not permitted to operate at the 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.

(8) WiMAX Forum certification is dependent on availability of this testing and may not be supported by your PC Manufacturer. Check with your PC manufacturer for details on availability.

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<http://www.intel.com/network/connectivity/products/wireless/index.htm>

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