Intel® PRO/WIRELESS 5000 LAN PRODUCT FAMILY SPECIFICATIONS

RANGE AND THROUGHPUT	Data Rates	• 54, 48, 36, 24, 18, 12, 9, 6 Mbps
	Typical Indoor Range	• 40 ft (12 m) @ 54 Mbps • 300 ft (91 m) @ 6 Mbps
	Typical Outdoor Range	• 100 ft (30 m) @ 54 Mbps • 1000 ft (305 m) @ 6 Mbps
FREQUENCY AND MODULATION	Frequency band	5.15 GHz to 5.35 GHz
	Modulation	BPSK, QPSK, 16 QAM, 64 QAM
	Wireless Medium	Orthogonal Frequency Division Multiplexing (OFDM) 5 GHz UNII
	Channels	8 non-overlapping†
POWER	Output Power	40 mW to 90 mW dependent on frequency channel
COMPATIBILITY	OS	Windows® 98SE, Me, 2000, XP
	Web Browser	IE 5.50 or higher
		Netscape Version 4.78 or 5.x
	WECA	Pending ratification of inter operability test and logo program by WECA
SECURITY	Encryption	0-bit, 64-bit and 128-bit WEP, 802.1x
QOS	DCF	CSMA/CA
REGULATORY AND SAFETY††	Safety	UL, C-UL, CE
	United States	FCC
	Canada	Industry Canada
	Japan	VCCI, JATE, Telec
SUPPORT	Support	Web: www.intel.com Phone: (800) 538-3373

Intel® PRO/WIRELESS 5000 LAN PRODUCT SPECIFICATIONS

CARDBUS ADAPTER	Form Factor	CardBus Adapter
	Dimensions	2.12 in x 4.4 in x .2 in-.3 in on extended portion (54mm x 114mm x 5mm-7.8mm on extended portion)
	Weight	1.5 oz (43 g)
	LEDs	Link, Activity
	Operating Temperature	0 to +55 Celsius
	Humidity	10 to 90% non-condensing
	Transmit Power	450 mA Typical 480 mA Max
	Receive Power	420 mA Typical 440 mA Max
	Sleep	30 mA
	Voltage	3.3 V
	WLAN Standard	IEEE 802.11a
	WHQL	Yes
	Architecture	Infrastructure, Ad hoc (peer-to-peer)
	Roaming	802.11a compliant for seamless roaming between access points
	Wired-to-wireless switching	Via Intel® PROSet software
	Warranty	Limited Lifetime

Intel® PRO/WIRELESS 5000 LAN PRODUCT SPECIFICATIONS

ACCESS POINT	Form Factor	Access Point
	Dimensions (142mm x 218mm x 84mm)	5.6 in x 8.6 in x 3.3 in
	Weight	27 oz (765 g)
	Wired Interface	RJ-45
	LEDs	Link, Activity, Power
	Operating Temperature	0 to +45 Celsius
	Humidity	10 to 90% non-condensing
	Users Supported	64 Active Users
	AC Adapter	100-230V AC Adapter
	PoE (Power over Ethernet)	Supports IEEE Standard 802.3af PoE**
	Wired Network Standard	10/100BTx
	WLAN Standard	IEEE 802.11a
	Optional WLAN Standard	802.11b via upgrade kit
	Warranty	3-year Limited
DUAL ACCESS POINT	Form Factor	Access Point
	Dimensions (142mm x 218mm x 84mm)	5.6 in x 8.6 in x 3.3 in
	Weight	28 oz (794 g)
	Wired Interface	RJ-45
	LEDs	Link, Activity, Power
	Data Rates (802.11b)	11, 5.5, 2, 1 Mbps
	Indoor Range (802.11b)	100 ft (30 m) @ 11 Mbps 200 ft (60 m) @ 1 Mbps
	Outdoor Range (802.11b)	350 ft (105 m) @ 11 Mbps 1100 ft (335 m) @ 1 Mbps
	Frequency Band (802.11b)	2.400 to 2.4835 GHz
	Modulation (802.11b)	CCK, DQPSK, DBPSK
	Wireless Medium (802.11b)	Direct Sequence Spread Spectrum (DSSS)
	Channels (802.11b)	3 non-overlapping
	Output Power (802.11b)	35 mW
	Operating Temperature	0 to +45 Celsius
	Humidity	10 to 90% non-condensing
	AC Adapter	100-230V AC
	PoE (Power over Ethernet)	Supports IEEE Standard 802.3af PoE**
	Wired Network Standard	10/100BTx
	WLAN Standard	IEEE 802.11a and 802.11b
	Warranty	3-year Limited
PCI ADAPTER	Form Factor	PCI Adapter
	Dimensions (board with Mini PCI)	6.6 in x 2.75 in (168mm x 70mm)
	Dimensions (with bracket and antenna)	8.4 in x 5.1 in (213mm x 130mm)
	Weight	3.2 oz (91 g)
	Connector Interface	PCI
	LEDs	Link, Activity
	Operating Temperature	0 to +65 Celsius
	Humidity	10 to 90% non-condensing
	Transmit Power	450 mA Typical 480 mA Max
	Receive Power	420 mA Typical 440 mA Max
	Sleep	30 mA
	Voltage	3.3V
	WLAN Standard	IEEE 802.11a
	WHQL	Yes
	Architecture	Infrastructure, Ad hoc (peer-to-peer)
	Roaming	802.11a compliant for seamless roaming between access points
	Wired-to-wireless switching	Via Intel® PROSet software
	Warranty	Limited Lifetime

FOR PRODUCT INFORMATION

† Country dependent
†† Additional certifications pending
* Other names and brands may be claimed as the property of others

PRODUCTS AND MODEL NUMBERS

Intel® PRO/Wireless 5000 Access Point	WSAP5000
Intel® PRO/Wireless 5000 LAN Dual Access Point	WDAP5000
Intel® PRO/Wireless 5000 LAN CardBus Adapter	WCB5000
Intel® PRO/Wireless 5000 LAN PCI Adapter	WPCI5000
Intel® PRO/Wireless 5000 LAN Starter Kit	WLSK5000

(Starter Kit includes one WSAP5000 Access Point and two WCB5000 CardBus Adapters)

For the latest product information, visit us on the World Wide Web at www.intel.com/network/wireless

** Errors and Omissions: Please disregard references to the IEEE 802.3af standard for Power over Ethernet (PoE). These products do not comply with the current 802.3af standard.

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intel®

Intel® PRO
Network Connections

The Intel® PRO/Wireless 5000 LAN Family of Products

The first wireless networking technology fast enough to take care of business

Intel® is leading the computing industry's transition to 802.11a Wireless LAN with a comprehensive line of Intel® PRO/Wireless 5000 LAN products.

Intel PRO/Wireless 5000 LAN products offer speeds up to 54 Mbps, network capacity for more users and the 5 GHz, clean spectrum for optimal wireless performance. Users get the highest throughput available in any wireless network technology—enough to handle data intensive applications, large files and true multimedia streaming video.

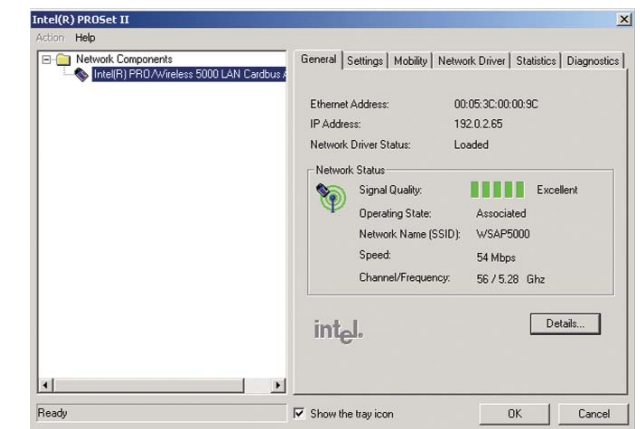| **Features**	**Benefits**
IEEE 802.11a compliant technology	• Broad compatibility with other 802.11a products • Ability to operate in both infrastructure and ad-hoc modes
Data rates up to 54 Mbps	• Wireless access up to five times faster than 802.11b • Operates on all defined data-rates in the 802.11a standard (54, 48, 36, 24, 18, 12, 9 and 6 Mbps)
128, 64, and 0-bit WEP (Wired Equivalent Privacy) encryption with VPN compatibility: 802.1x support provided via future Web download	• Strong security protects data transmissions from unauthorized access • VPN compatibility allows the highest level of security available
Full driver support for leading operating systems	• Easy compatibility with widely used operating systems including Windows® 98SE, Me, 2000, and Windows® XP
Roaming	• While moving through environments with multiple access points, the client stays connected
Software configurable antenna	• Customized cell coverage • Better control of access point ranges and transmissions
Access points with options for dual 802.11a and 802.11b capabilities	• A single access point can support both 2.4 and 5 GHz users simultaneously • Allows support of an existing 802.11b infrastructure while deploying an 802.11a network
Auto-sensing and switching	• Wired-to-wireless switching lets users move directly from a wired to a wireless connection without rebooting computer or restarting applications
Eight non-overlapping channels for greater network capacity	• Network capacity for more users, more data and high-bandwidth applications • Up to thirteen times the network capacity of 802.11b Wireless LAN technology

Intel® PROSet

PROSet software is already used to manage millions of wired Ethernet connections, and now it lets you manage your wireless Ethernet connections. It lets you deliver driver consistency among desktops, notebooks and servers from leading system suppliers, as well as configuration and diagnostics for Intel-based NICs.

PROSet provides:

- Wired-to-wireless switching
- Easy, unlimited profile management
- Advanced power management features
- A full set of hardware diagnostics
- User configurable settings

PROSet eases setup, maintenance and wireless integration into existing infrastructures.

Intel® Network Connections—
The Intelligent Way to Connect

A complete family of 802.11a products

The advantages of an Intel® PRO/Wireless 5000 LAN are clear: by offering a family of high-performance, 5 GHz products including access points, CardBus adapters and PCI adapters, Intel simplifies wireless integration for businesses, making Intel PRO/Wireless 5000 LAN the choice for 802.11a solutions.

Easy installation

To help with installation, Intel provides Site Survey tools and an Installation Wizard that walks administrators through setup. Intel® PRO/Wireless 5000 LAN Access Points can be placed on tables or mounted on walls or ceilings, and they feature software configurable antennas for customizing the cell coverage.
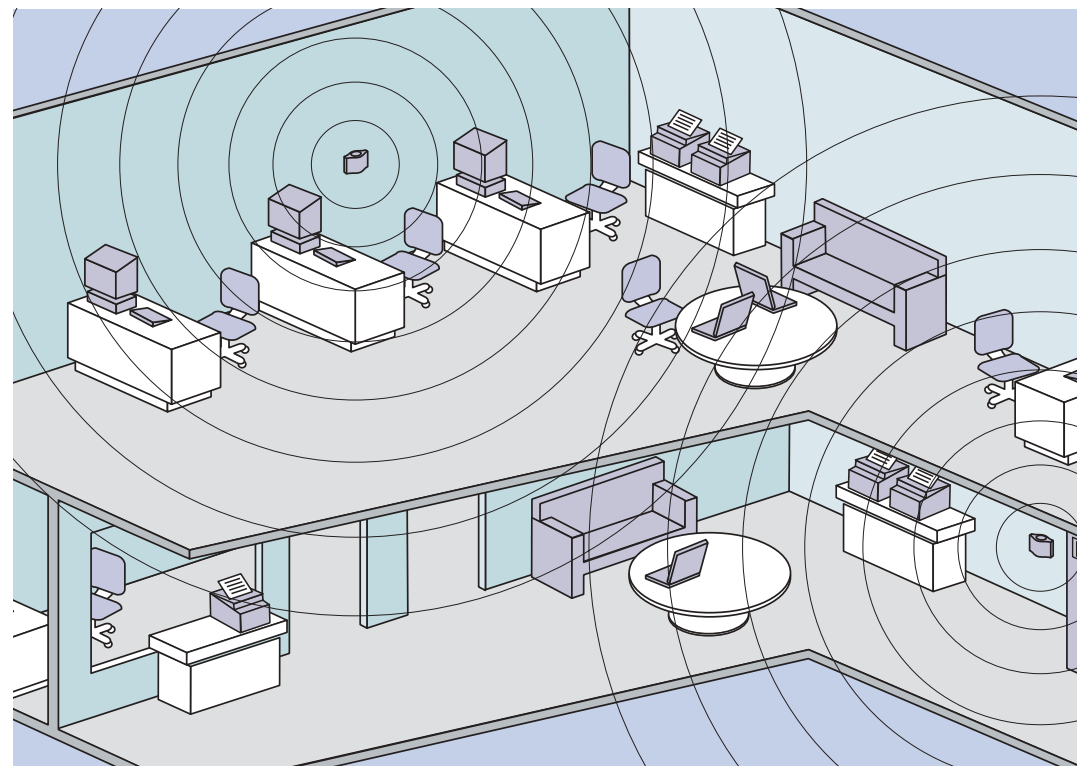
Greater network capacity for more users

Access points feature eight non-overlapping transmission channels, and provide access for up to 64 users per access point. This means an organization can provide greater bandwidth at a lower cost than the previous generation of Wireless LANs.

Multi-function, industry-standard technology

For even broader compatibility, access points can be dual-function, which means they are capable of working in both 802.11a and 802.11b modes. Dual compatibility lets access points support both 5 GHz and 2.4 GHz clients simultaneously. Access points support IEEE 802.3af Power over Ethernet (PoE) so the access point can draw power from a PoE-enabled connection**—no need to supply additional power. NICs feature auto-sensing and switching, and Intel PRO/Wireless 5000 LAN products offer support for leading operating systems including Microsoft® Windows® XP, taking advantage of Windows XP's features for wireless computing.

High-performance security

To help keep transmissions safe, security features include 128-bit WEP encryption. Support for 802.1x allows for user-based authentication and unique, dynamic, per-session keys for improved security. Additional VPN compatibility allows network administrators to implement the highest level of security available.

Access Points & Client Adapters

Intel® PRO/Wireless 5000 LAN Access Point

The 802.11a Intel PRO/Wireless 5000 LAN Access Point operates on the 5 GHz spectrum and features a software configurable antenna. It supports IEEE 802.3af PoE** and a lock to secure the access point. It is designed for placement on a table, or it can be mounted on walls or on the ceiling. Each access point uses eight non-overlapping transmission channels that support up to 64 active users per access point.

Intel® PRO/Wireless 5000 LAN Dual Access Point

The Intel PRO/Wireless 5000 LAN Dual Access Point operates over both 5 GHz and 2.4 GHz frequencies, supporting both 802.11a and 802.11b clients simultaneously. It features a software configurable antenna and supports IEEE 802.3af PoE** and a lock to secure the access point. It is designed for placement on a table, or it can be wall or ceiling-mounted.

Intel® Pro/Wireless 5000 LAN CardBus Adapter

The Intel PRO/Wireless 5000 LAN CardBus Adapter is a Type II, 32-bit adapter that works with a PCMCIA-equipped notebook computer and 802.11a access points. It features wired-to-wireless switching, as well as ad-hoc networking with other 802.11a clients.

Intel® PRO/Wireless 5000 LAN Starter Kit

The Intel PRO/Wireless 5000 LAN Starter Kit includes one 802.11a Intel PRO/Wireless 5000 LAN Access Point and two Intel PRO/Wireless 5000 LAN CardBus Adapters— everything you need to create a high performance Wireless LAN.

Intel® PRO/Wireless 5000 LAN PCI Adapter

The Intel PRO/Wireless 5000 LAN PCI Adapter lets a desktop PC work with an 802.11a access point. It also supports ad-hoc networking with other 802.11a clients.