



PRODUCT BRIEF  
 Intel® Centrino® Ultimate-N 6300  
 802.11 a/g/n, 3x3, dual-band Wi-Fi



# Intel® Centrino® Ultimate-N 6300



## Ultimate Wireless Performance and Exceptional Intel Features

Intel® Centrino® Ultimate-N 6300 delivers ultimate Wi-Fi performance with exceptional Intel-only features for an ultra mobile experience. This triple-stream (3x3), dual-band, 802.11 a/g/n Wi-Fi product with Wi-Fi Direct\* combines the best speed (up to 450 Mbps<sup>1</sup>), extended range and robust reliability with innovative Intel features, such as Intel® Smart Connect Technology, Intel® Wireless Display, Intel® My WiFi Dashboard and Intel® vPro™ Technology.

### Recommended For

Business or home, data intensive apps, streaming HD video, gaming, and network connectivity in crowded, heavy traffic and large area Wi-Fi environments.

## Next-Gen Wireless Connectivity



**Triple Stream, Dual Band**  
 802.11 a/g/n 3x3 and 2.4/5 GHz

Delivers up to 450 Mbps with triple streams (3x3) for ultimate speed and connections in more places, through more walls, doors and floors. Use the power of 5 GHz to boost speeds and reduce congestion compared to older 2.4 GHz networks and devices.

### Wi-Fi Direct\*

New game-changing technology certified by the Wi-Fi Alliance for direct device-to-device Wi-Fi connectivity

Enables Wi-Fi enabled devices to connect directly without the need for a WLAN or hotspot. With the Intel® My WiFi Dashboard you can chat, transfer files, create a personal hotspot, and sync over Wi-Fi Direct.\*

### Energy Efficient<sup>2</sup>

Optimized power modes during periods of inactivity

Saves battery life for greater mobility and convenience.

### Extended Availability<sup>3</sup>

For embedded and machine-to-machine (M2M) applications

Extended availability products meet the needs of industrial, communications, M2M, digital signage, retail and point-of-sale applications.

## Ultra Mobile Experience



### Intel® Wireless Display<sup>4</sup>

View and listen to videos, movies, or music from the Internet or on your PC wirelessly on an HDTV or stereo

Experience your favorite movies, videos, photos, online shows and more in full HD on your TV with great image clarity and sound. With a PC featuring Intel® Wireless Display and powered by an Intel® Core processor, share content from your hard disk, network or anywhere a browser can take you to a big screen.

### Intel® Smart Connect Technology<sup>5</sup>

Instant Internet and always updated mobility

Automatically updates important content and can identify access points while asleep for quicker Internet access on resume.

### Intel® My WiFi Dashboard<sup>6</sup>

Visually intuitive app for managing Wi-Fi Direct\* connectivity and services

Use the ultimate portability of Wi-Fi Direct with the Intel® My WiFi Dashboard on your Ultrabook™, PC or other devices. Whether you're connected to a Wi-Fi network, public hotspot or no network at all – connect, communicate and collaborate with others in your vicinity. No extra hardware or cloud-based service. No fumbling for USB flash drives or complicated network setup.

## Business-Class Management



### Intel® vPro™ Technology<sup>7</sup>

Supports Intel's hardware-based security and management features built into Intel® Core™ vPro™ processors and chipsets

Manage PCs virtually anywhere, anytime while reducing deployment costs, improving security and ROI.

### Intel® Active Management Technology<sup>8</sup>

Supports Intel asset management, remote system diagnostics, network protection, and network security technologies

Provides IT managers the capability to remotely discover, heal, and protect wireless clients regardless of the functional state of the operating system resulting in reduced on-site support costs.

### Intel® PROSet/Wireless Enterprise Software<sup>9</sup>

Business-class WLAN client software with must-have IT features

Combines simplified user interface design with advanced IT tools that improve security, reduce complexity and save IT time and money. Streamlines client deployments and allows remote management of wireless settings and profiles by IT managers.

## Intel® Centrino® Ultimate-N 6300 Technical Specifications

### General

Dimensions (H x W x D)	26.80 mm x 30.00 mm x 2.4 mm Max (Top Side) / 1.35 mm Max (Bottom Side)
Weight	4.0g
Diversity	On-board diversity support for systems designed with two antennas
Radio ON/OFF Control	Supported in both hardware and software
Connector interface	Half Mini Card form factor, based on PCIe electrical interface
LED Output	On/Off
Operating Temperature (Adapter Shield)	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 7*, Microsoft Windows 8*, Linux*, Microsoft Windows XP*
Wi-Fi Alliance	Wi-Fi CERTIFIED* for 802.11a, 802.11b, 802.11g, 802.11n, WMM*, WPA*, WPA2*, and WPS Wi-Fi Direct for peer to peer device connections
Microsoft WHQL	Yes
IEEE WLAN Standard	IEEE 802.11a/b/g/n, 802.11d, 802.11e, 802.11i, 802.11h
Architecture	Infrastructure and SoftAP; Supports simultaneous Client and SoftAP modes in 2.4 GHz or 5 GHz (Not all versions)
Roaming <sup>10</sup>	Supports seamless roaming between respective access points (802.11b, 802.11g, 802.11a/b/g, and 802.11a/b/g/n)

### Security<sup>11</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, TKIP
Wi-Fi Direct* Encryption and Authentication	WPA2, AES-CCMP
Product Safety	UL, C-UL, CB (IEC 60950-1)

### Compliance

Retail (Credit Card Processing)	PCI, CISP
Government	FIPS <sup>12</sup> , FISMA

Product Name	Model Number	Version
Intel® Centrino® Ultimate-N 6300	6300ANHMW	802.11a/g/n
	6300ANHMWEC	802.11 a/g/n, Extended Availability

For more information on Intel® Centrino® wireless products, visit [intel.com/go/wireless](http://intel.com/go/wireless)

<sup>1</sup> Based on the theoretical maximum bandwidth enabled by 3x3 802.11n 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.

<sup>2</sup> References to power consumption refer to Wi-Fi module power consumption comparisons versus competing 802.11n 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.

<sup>3</sup> The extended availability version (commercial temperature) is the standard commercial Intel® Centrino® Ultimate-N 6300 product with extended product availability.

<sup>4</sup> Requires an Intel® Wireless Display enabled PC, compatible adapter, and TV. 1080p and Blu-Ray\* or other protected content playback only available on 2nd generation Intel® Core™ processor-based PCs with built-in visuals enabled. Consult your PC manufacturer. For more information, see [www.intel.com/go/widi](http://www.intel.com/go/widi).

<sup>5</sup> Intel® Smart Connect Technology requires a select Intel® processor, Intel® software and BIOS update, Intel® Wireless adaptor, and Internet connectivity. Solid state memory or drive equivalent may be required. Depending on system configuration, your results may vary. Contact your system manufacturer for more information.

<sup>6</sup> Intel® My WiFi Technology is an optional feature and requires additional software and an Intel® Centrino® wireless adapter. Wi-Fi devices must be certified by the WiFi Alliance for 802.11a/g/n and Wi-Fi Direct\* in order to connect. See [www.intel.com/network/connectivity/products/wireless/mywifi.htm](http://www.intel.com/network/connectivity/products/wireless/mywifi.htm) for more details.

<sup>7</sup> Intel® vPro™ Technology is sophisticated and requires setup and activation. Availability of features and results will depend upon the setup and configuration of your hardware, software and IT environment. To learn more visit: <http://www.intel.com/technology/vpro>

<sup>8</sup> Requires activation and a system with a corporate network connection, an Intel® AMT-enabled chipset, network hardware and software. For notebooks, Intel AMT may be unavailable or limited over a host OS-based VPN, when connecting wirelessly, on battery power, sleeping, hibernating or powered off. Results dependent upon hardware, setup & configuration. For more information, visit <http://www.intel.com/technology/platform-technology/intel-amt>

<sup>9</sup> Intel® PROSet/Wireless Software may not be supported by your PC manufacturer. Check with your PC manufacturer for details on availability.

<sup>10</sup> Roaming is supported only within each respective band and mode of access points.

<sup>11</sup> 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.

<sup>12</sup> Microsoft Windows 7 only.

Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products.

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