



Intel® Centrino® Wireless-N 135



Good Wireless Performance with Innovative Intel Features

Intel® Centrino® Wireless-N 135 delivers good Wi-Fi performance with innovative Intel-only features for a richer mobile experience. This single-stream (1x1), single-band, 802.11b/g/n Wi-Fi plus Bluetooth 4.0* product with Wi-Fi Direct* combines good speed (up to 150 Mbps¹), range and reliability with the Intel * My WiFi Dashboard.

Recommended For

Home email and Web browsing in low to moderate traffic and low interference Wi-Fi environments.

Next-Gen Wireless Connectivity



Single Stream, Single Band 802.11b/g/n 1x1 and 2.4 GHz Delivers up to 150 Mbps in the 2.4 GHz band.

Bluetooth 4.0* (Low Energy)

Dual mode Bluetooth

Connects to Bluetooth enabled devices such as a headset, keyboard, mouse and more, including Bluetooth low energy 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 Efficient²

Optimized power modes during periods of inactivity

Saves battery life for greater mobility and convenience.

Ultra Mobile Experience



Intel® My WiFi Dashboard3

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.

Intel® Centrino® Wireless-N 135 Technical Specifications

General

26.80 mm x 30.00 mm x 2.4 mm Max (Top Side) / 1.35 mm Max (Bottom Side) Dimensions (H x W x D)

Weight

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 On/Off

LED Output

Microsoft WHOL IEEE WLAN Standard

Architecture

Operating Temperature (Adapter Shield)

 0° to $+80^{\circ}$ C **Humidity Non-Operating** 50% to 90% RH non-condensing (at temperatures of 25°C to 35°C)

Operating Systems Microsoft Windows 7*, Linux* Microsoft Windows 8*

Wi-Fi Alliance Wi-Fi CERTIFIED* for 802.11b, 802.11q, 802.11n, WMM*, WPA*, WPA2*, and WPS

Wi-Fi Direct for peer to peer device connections

IEEE 802.11b/g/n, 802.11d, 802.11e, 802.11i, 802.11h

Infrastructure and SoftAP

Supports seamless roaming between respective access points Roaming⁴

(802.11b, 802.11g, 802.11b/g, and 802.11b/g/n)

Dual Mode Bluetooth* 2.1, 2.1+EDR, 3.0, 3.0+HS, 4.0 (BLE) Bluetooth*

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Security⁵

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

WPA2, AES-CCMP

64-bit and 128-bit WEP, AES-CCMP, TKIP Encryption

Wi-Fi Direct* Encryption and Authentication UL, C-UL, CB (IEC 60950-1) **Product Safety**

Compliance

Retail (Credit Card Processing) PCI, CISP Government FIPS6, FISMA

Product Name	Model Code	Version
Intel® Centrino® Wireless-N 135	135BNHMW	802.11b/g/n, Bluetooth 4.0

For more information on Intel® Centrino® wireless products, visit intel.com/go/wireless

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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¹ Based on the theoretical maximum bandwidth enabled by 1x1 802.11n implementations with 1 spatial receive stream. 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.

² 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.

3 Intel® My WiFi Dashboard 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 for more details.

Roaming is supported only within each respective band and mode of access points.

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.

Microsoft Windows 7 only.