

# Intel® Dual Band Wireless-AC 3165





#### **Exceptional Wi-Fi. Exceptional Features. Exceptional Connected Experience**

The Intel® Dual Band Wireless-AC 3165 is Intel's 2<sup>nd</sup> generation 802.11ac, dual band, 1x1 Wi-Fi + Bluetooth® adapter. It's engineered to be faster¹, stronger¹, greener¹ than previous gen Intel 802.11ac 1x1 products with shared Wi-Fi and Bluetooth antennas, lower power in idle modes, Intel® Dynamic Regulatory Solution and complete Microsoft Windows 10 support. Combined with Intel® Core™ processors and exceptional Intel wireless innovations, the Intel® Dual Band Wireless-AC 3165 dramatically reshapes your connected experience at home, work or on the go.

#### Experience the Intel Difference







More Speed Better Coverage Larger Capacity

802.11ac, Dual Band, 80MHz, 1x1

Delivers up to 3x faster Wi-Fi speeds (up to 433 Mbps²) than 802.11n, with up to 3x more bandwidth per stream for more users and devices. Advanced optional 802.11ac specification features implemented that improve channel reliability resulting in better coverage and performance. Intel® Wireless-AC enables smoother streaming of higher resolution videos, fewer dropped connections and less congestion, and more speeds further away from the router.



Bluetooth 4.2°

Dual mode Bluetooth 4.2° connects to the newest low energy Bluetooth° products as well as your familiar devices, such as headsets, keyboard, mice and more.



M.2 2230 or M.2 1216 Form Factors Multiple form-factors, including M.2 2230 and M.2 1216 modules enable system configuration and platform usages flexibility. The M.2 1216 form factor delivers 70% smaller footprint and lower profile optimized for thin-and-light designs.



Microsoft Windows 10\*

Full support for latest Microsoft Windows 10\* OS



Worldwide Regulatory Support Intel® Dynamic Regulatory Solution³ Delivers regulatory busting technology that enables one Intel® Wireless-AC adapter shipped to customers worldwide with the regulatory requirements of most countries in a single database on the Wi-Fi module. The Intel® Dual Band Wireless-AC 3165 detects its location and automatically configures the Wi-Fi to match it. Regulatory updates are easily managed during the product lifecycle so users can travel worldwide without compliance issues.



### Intel® Dual Band Wireless-AC 3165 Technical Specifications

#### General

Dimensions (W x H x D) M.2 2230: 22 mm x 30 mm x 2.4 mm [1.5mm Max (Top Side)/ 0.1mm Max (Bottom Side)]

M.2 1216: 12 mm x 16 mm x 1.7 mm

Weight M.2 2230: 2.4g M.2 1216: 0.6g

Radio ON/OFF Control Supported in both hardware and software

Connector interface M.2: PCIe, USB **LED Output** On/Off Operating Temperature (Adapter Shield) 0º 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 8.1\*, Microsoft Windows 10\*, Linux\* (most features not

available on Linux)

Wi-Fi Alliance Wi-Fi CERTIFIED\* a/b/g/n/ac, WMM\*, WWM-PS\*, WPA\*, WPA2\*, WPS2\*, Protected Management Frames,

Wi-Fi Direct\* for peer to peer device connections, Wi-Fi Miracast\* as Source. IEEE 802.11abgn, 802.11ac, 802.11d, 802.11e, 802.11i, 802.11h, 802.11w Infrastructure and SoftAP; Supports simultaneous Client and SoftAP modes

Architecture Roaming<sup>4</sup> Supports seamless roaming between respective access points (802.11b, 802.11g, 802.11a/b/g, 802.11a/b/g/n, and 802.11ac)

Bluetooth® Dual Mode Bluetooth\* 4.2 BLE

Security<sup>5</sup>

IEEE WLAN Standard

WPA and WPA2, 802.1X (EAP-TLS, TTLS, PEAP, LEAP, EAP-FAST), EAP-SIM, EAP-AKA Authentication

**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

UL, C-UL, CB (IEC 60950-1) **Product Safety** Management Frame Protection 802.11w (WFA- Protected Management Frames)

Compliance

FIPS<sup>6</sup>,FISMA Government

Product Name	Model Number	Version
Intel® Dual Band Wireless-AC 3165	3165NGW	802.11ac, 1x1, Bluetooth 4.2°, PCIe, USB, M.2 2230
Intel® Dual Band Wireless-AC 3165	3165D2WG	802.11ac, 1x1, Bluetooth 4.2°, PCIe, USB, M.2 1216 (3.3V)
Intel® Dual Band Wireless-AC 3165	3165D2WG	802 11ac 1v1 Bluetooth 4.2® PCIe USB M.2.1216 (1.8V)



## For more information on Intel® Wireless products, visit intel.com/wireless

- <sup>2</sup> Based on the theoretical maximum bandwidth enabled by 1x1 802.11ac implementations. 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>3</sup> Intel Dynamic Regulatory Solution
- <sup>4</sup> Roaming is supported only within each respective band and mode of access points.
- <sup>5</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>6</sup> Microsoft Windows 7\* and Microsoft Windows 8.1\*, and Microsoft Windows 10\*.

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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