PRODUCT BRIEF
Intel® Dual Band Wireless-AC 3160
802.11ac, Dual Band, 1x1, Wi-Fi + Bluetooth 4.0*

Intel® Dual Band Wireless-AC 3160

Exceptional Wi-Fi. Exceptional Features. Exceptional Connected Experience

The Intel® Dual Band Wireless-AC 3160 802.11ac, dual band, 1x1, Wi-Fi + Bluetooth* adapter lets you move at the speed of life with faster speeds (up to 433 Mbps¹), higher capacity, broader coverage and longer battery life. Combined with Intel® Core™ processors and exceptional Intel wireless innovations, the Intel® Dual Band Wireless-AC 3160 dramatically reshapes your connected experience at work, home or on the go.

Next-Gen 802.11ac Wireless

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<tr>
<th>Speed Coverage Capacity</th>
<th>Description</th>
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<tr>
<td>802.11ac, Dual Band, 80MHz, 1x1</td>
<td>Delivers dramatically faster Wi-Fi speeds (up to 433 Mbps¹) than 802.11n, with more bandwidth per stream, more capacity for more users (extended channel bonding 80MHz), broader coverage and better battery life (more data transmit efficiencies reduce power consumption).</td>
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| Bluetooth 4.0* Smart Ready (Low Energy) | Dual mode Bluetooth 4.0* connects to the newest low energy Bluetooth* products as well as your familiar devices, such as headsets, keyboard, mouse and more. |
| Intel® Power Optimizer² | Optimized power modes during periods of activity and inactivity to improve platform battery life for greater mobility and convenience. Dramatically lower power consumption than previous generation products. |
| HMC and M.2 Form Factors | Single sided HMC and M.2 modules support multiple connectors for flexible system configuration and platform usages. The new M.2 form factor (2230 and 2226 Solder Down) delivers a smaller, lower profile, more flexible form factor for thin-and-light designs. |

Experience the Intel Difference

| Your Ultrabook™, On Your TV Intel® Wireless Display³ | Watch your PC or Ultrabook™ content instantly without wires on the big HD screen with stunning image clarity and sound. Intel® Wireless Display gives you a serious entertainment upgrade. Stream movies, videos, games, photos, connect with friends, and more—experience it all, bigger and better than ever before. |
| Always Ready to Go Intel® Smart Connect Technology⁴ | Stay current with automatic, no-wait updates to your email and social networks, even when your device is asleep. Combine it with Intel® WiFi HotSpot Assistant and automatically connect to millions of free and paid hotspots to refresh your content in more locations worldwide. |
| Instant Internet Worldwide Intel® WiFi Hotspot Assistant⁴ | Delivers instant Internet connectivity at millions of free and paid hotspot worldwide. After accepting a one-time only terms and conditions (T&C) login, your Internet connections are on auto-pilot as you roam the Wi-Fi hotspot universe—even as your Ultrabook™ sleeps. Combine it with Intel® Smart Connect Technology and your favorite cloud content (email, social networks, news, etc.) is automatically refreshed as you roam. |
## Intel® Dual Band Wireless-AC 3160 Technical Specifications

### General

| Dimensions (H x W x D)                  | HMC: 26.80 mm x 30 mm x 2.4 mm (Top Side) / 1.35 mm Max (Bottom Side) Single Sided  
|                                      | M.2: 2230: 22 mm x 30 mm x 2.4 mm [1.5mm Max (Top Side)/ 0.1mm Max (Bottom Side)]  
|                                      | M.2: 2230: 22 mm x 26 mm x 2.4 mm [1.5mm Max (Top Side)/ 0.1mm Max (Bottom Side)]  
| Weight                                 | HMC: 3.0g  
|                                      | M.2: 2230: 2.3g  
|                                      | M.2: 2226: 2.2g  
| Diversity                              | Supported  
| Radio ON/OFF Control                   | Supported in both hardware and software  
| Connector interface                    | HMC: PCIe, USB  
|                                      | M.2: PCIe, USB  
| LED Output                             | On/Off  
| Operating Temperature (Adapter Shield) | 0° to +90°C  
| Humidity Non-Operating                 | 50% to 90% RH non-condensing (at temperatures of 25°C to 35°C)  
| Wi-Fi Alliance                         | Wi-Fi CERTIFIED® for 802.11ac, Wi-Fi CERTIFIED® a/b/g, Wi-Fi CERTIFIED® n, WiMax®, WPA®, WPA2®, and WPS, WPS 2.0,  
|                                      | Protected Management Frames,  
|                                      | Wi-Fi Direct® for peer to peer device connections  
| IEEE WLAN Standard                     | IEEE 802.11abgn, 802.11ac, 802.11d, 802.11e, 802.11i, 802.11h, 802.11w  
| Architecture                           | Infrastructure and SoftAP: Supports simultaneous Client and SoftAP modes  
|                                      | Supports seamless roaming between respective access points  
| Bluetooth*                             | Dual Mode Bluetooth® 2.1, 2.1+EDR, 3.0, 3.0+HS, 4.0 (BLE)  

### Security

| Authentication Protocols               | wPA and WPA2, 802.11x (EAP-TLS, TTLS, PEAP, LEAP, EAP-FAST), EAP-SIM, EAP-AKA  
| Encryption                             | PAP, CHAP, TLS, GTC, MS-CHAP*, MS-CHAPv2  
| Wi-Fi Direct® Encryption and Authentication | 64-bit and 128-bit WEP, AES-CCMP, TKIP  
| Product Safety                         | WPA2, AES-CCMP  
| Management Frame Protection           | UL, C-UL, CB (IEC 60950-1)  
|                                      | 802.11w (WFA- Protected Management Frames)  

### Compliance

| Government                             | FIPS®, FISMA  
| Retail (Credit Card Processing)        | PCI, CSP  

| Product Name, Model Number, Version    | Intel® Dual Band Wireless-AC 3160  
|                                       | 3160HMW: 802.11ac, 1x1, Bluetooth 4.0, PCIe, USB, HMC  
|                                       | 3160NGW: 802.11ac, 1x1, Bluetooth 4.0, PCIe, USB, M.2 2230  
|                                       | 3160SDW: 802.11ac, 1x1, Bluetooth 4.0, PCIe, USB, M.2 2226 Solder Down  

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1. 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.  
2. Always referred to manually for details.  
3. Intel® Wireless Display requires an Intel® Wireless Display enabled PC, tablet, or smartphone, a compatible adapter, and a TV. 1080p and Blu-ray® or other protected content playback only available on select Intel® processors with built-in visuals.  
4. For more information, see [Intel.com](http://www.intel.com).  
5. Intel® Smart Connect Technology requires a select Intel® processor, Intel® Software and BIOS update, Intel® Wireless adaptor, Intel® PROSet/Wireless WiFi Software v15.6 or later, and an Internet connection for initial setup with the Easy WiFi* network.  
6. 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.  
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