

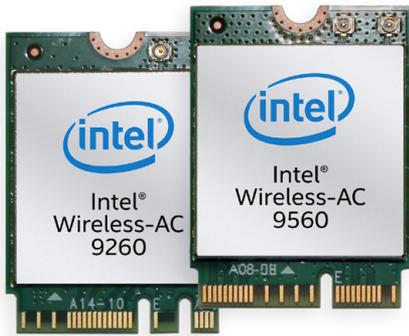
# PRODUCT BRIEF

Intel® IoT Technology  
Intel® Wireless-AC for IoT



# Create New, Captivating Retail Experiences with Intel® Wireless-AC

## Powerful and efficient wireless performance, optimized for IoT



### Intel® Wireless-AC is ideal for:

- High-speed media download and customer data upload
- Integration with Bluetooth\* devices and sensors
- Remote wireless management

Intel® Wireless-AC adapters running on powerful Intel® architecture-based platforms and Intel® vPro™ technology can help retailers deliver the experiences customers want in a flexible and cost-effective solution.

In today's ultracompetitive and quickly evolving retail environment, companies are looking for ways to deliver faster, personalized customer experiences, including:

- Immersive, high-quality, and digital media-driven environments that enhance and improve the shopping experience, such as self-checkout and automated customer service kiosks.
- Targeted promotional content on digital signage and kiosks that is tailored to customer preferences.

The most advanced wireless connectivity is needed to provide in-store optimizations.

## Seamless and reliable gigabit-speed connectivity

In delivering data and content faster, Intel Wireless-AC enables the retail environment of the future. With up to **12x faster speeds**<sup>1</sup> (up to 1.73 Gbps) than 802.11n Wi-Fi adapters, providing up to **2x faster**<sup>2</sup> downloads, Intel Wireless-AC using 160 MHz channels provides high-definition video streaming and fewer dropped connections for smooth, trouble-free customer experiences at self-checkout, wayfinding kiosks, and more. And with faster speeds, retailers can update digital signage and kiosks with 4K UHD video more frequently.

## Enhance store flexibility and reduce infrastructure costs and time

Retailers can reduce infrastructure expenses by integrating point of sale (POS) equipment and mobile POS devices with Intel Wireless-AC, thereby reducing the cost of running Ethernet cables to devices.

## Unlock the latest Bluetooth\* capabilities

Intel Wireless-AC also connects devices like smart speakers, beacons, and other peripherals over a longer distance or at higher data rates with the latest low-energy Bluetooth standard (Bluetooth 5).

In addition, Bluetooth 5 adds new enhanced data broadcasting for seamless capabilities, such as location-based services and simpler pairing of Bluetooth devices that enrich the retail experience.

## Easy integration and remote management

Intel Wireless-AC adapters are built on Intel® Core™ platforms with Intel vPro technology<sup>3</sup> and wireless Intel® Active Management Technology (Intel® AMT) that both allow IT and administrative staff to turn on, upgrade, and fix digital displays from a centralized location. The cost savings for retailers can be significant—remotely managed tasks cost an average USD 12,<sup>4</sup> a fraction of the average estimated cost of USD 187<sup>4</sup> for an in-person visit.

## Manufacturers: Innovate faster with ready-to-go, cost-efficient designs

Intel Wireless-AC achieves worldwide regulatory compliance on a single SKU to reduce time to market and development costs.

- M.2 2230 and M.2 1216 form factor modules are precertified in 120+ countries for compliance with local and industry standards and regulations. Intel Wireless-AC adapters detect the location and automatically optimize Wi-Fi settings to local regulatory requirements.
- The modules use a standard connector or pin layout (requires a motherboard with either an M.2 key E connector for wireless or pin layout).

### Other ODM/OEM benefits:

- Intel Wireless-AC products are among the few offerings in the market with Microsoft Windows® 10 IoT Enterprise, Linux\* OS, and Intel vPro Technology support.
- Intel Wireless-AC products are prevalidated on Intel® platforms, and the corresponding design-in collaterals are readily available from Intel.
- Long-life support and long-life availability (seven years) from Intel safeguard investments in IoT-connected devices.

## Intel® Wireless-AC 9260 and 9560

Intel Wireless-AC 9260 and 9560 offer the same world-class Wi-Fi and Bluetooth performance, with some differences. Intel Wireless-AC 9260 is a discrete Wi-Fi module, while Intel Wireless-AC 9560 is part of an integrated, wireless IP available for specific Intel® platforms. It saves PCIe\* and USB lanes on the platform implementation, making it ideal for cost-optimized

FEATURES AT A GLANCE			
<b>Wi-Fi features</b>	<ul style="list-style-type: none"> <li>• 802.11 a/b/g/n/ac 2x2 MIMO</li> <li>• 160 MHz bandwidth</li> <li>• MU-MIMO</li> <li>• Two SS STA and mobile AP</li> </ul>	<b>Wi-Fi compatibility</b>	<ul style="list-style-type: none"> <li>• PassPoint*</li> <li>• Voice-Personal</li> <li>• LTE Coexistence (available on certain SKUs)</li> </ul>
<b>Security</b>	<ul style="list-style-type: none"> <li>• WPA2 personal and enterprise</li> <li>• WPS2</li> <li>• 802.11w (protected management frames)</li> </ul>	<b>PC client use conditions</b>	<ul style="list-style-type: none"> <li>• 30 percent platform activity factor for five years</li> </ul>
<b>Quality of service</b>	<ul style="list-style-type: none"> <li>• WMM</li> <li>• WMM-PS</li> </ul>	<b>Commerical temperature</b>	<ul style="list-style-type: none"> <li>• 0°C to 70°C</li> </ul>
<b>Wireless display</b>	<ul style="list-style-type: none"> <li>• Wi-Fi Direct* (Microsoft Windows* only)</li> <li>• Miracast*</li> </ul>	<b>Availability and support</b>	<ul style="list-style-type: none"> <li>• Seven-year availability</li> <li>• Seven-year IOTG support</li> </ul>

To learn more about Intel Wireless-AC adapters, visit [intel.com/wireless](http://intel.com/wireless).



1. Nearly 12x faster Intel® Wireless-AC claims are based on the comparison of maximum theoretical data rates for dual (1.73 Gbps) spatial stream 802.11ac vs. single spatial stream (150 Mbps) 802.11n Wi-Fi solutions as documented in IEEE 802.11 wireless standard specifications and require the use of similarly configured 802.11ac wireless network routers or better.
2. Estimates for Wi-Fi download are calculations based upon real-world, single-client, best-case throughput speed assumptions of approximately 70 percent of IEEE 802.11 specification theoretical maximum data rates to account for networking overhead. Actual performance may vary based on system design, network configuration, and wireless environment. HD download movie calculation based on 802.11 b/g/n, 40 MHz, 150 Mbps theoretical maximum data rate and expected maximum throughput of 105 Mbps, resulting in an 8 GB movie download time of 10:54 seconds and 802.11ac, 160 MHz, 1733 Mbps theoretical maximum data rate and expected maximum throughput of 1213 Mbps, resulting in a movie download time of 57 seconds.
3. Intel® vPro™ technology is only available on specific combinations of platforms, modules, and operating systems.
4. Intel Internal estimates, Gartner 2014, and CompuCom internal estimates.

Performance results are based on testing as of September 2018 and may not reflect all publicly available security updates. See configuration disclosure for details. No product can be absolutely secure.

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. For more information about benchmarks and performance test results, go to [intel.com/benchmarks](http://intel.com/benchmarks).

Intel® technologies' features and benefits depend on system configuration and may require enabled hardware, software, or service activation. Performance varies depending on system configuration. No computer system can be absolutely secure. Check with your system manufacturer or retailer or learn more at [intel.com](http://intel.com).

Cost-reduction scenarios described are intended as examples of how a given Intel®-based product, in the specified circumstances and configurations, may affect future costs and provide cost savings. Circumstances will vary. Intel does not guarantee any costs or cost reduction.

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