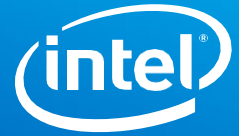


PRODUCT BRIEF

Intel® IoT Technology
Intel® Dual Band Wireless-AC 9260
Extended Temperature Industrial Module



Bring Powerful Gigabit Wi-Fi 5 Connectivity to Industrial Extended Temperature (-40°C to +85°C) Use Cases

High performance, high reliability Extended Temperature wireless solution for Industrial IoT applications such as Industrial PCs, HMIs, and Robotics.



The Intel® Dual Band Wireless-AC 9260 Industrial Extended Temperature module is ideal for:

- Always connected applications
- High-speed media download and customer data upload
- Remote wireless management (with Intel® vPro® technology)
Note: vPro® SKU and platform support are required
- Solutions that integrate with Intel IoT offerings platforms that also meet Extended Temperature Industrial use conditions, such as 9th gen Intel® Core™ processors for IoT
- Integration with Bluetooth® 5 devices and sensors

Businesses across industries are seeking out ways to achieve greater efficiency, make better decisions and create more value for customers and employees. To make this possible, the most advanced wireless connectivity is needed in IoT devices in extended temperature and higher activity usage.

The Intel® Dual Band Wireless-AC 9260 Extended Temperature Industrial Module on Intel® platforms provides powerful, reliable and consistent Wi-Fi 5/Bluetooth® 5 connectivity in challenging industrial environments, where devices must be connected to the network reliably with higher activity usage and extended temperature conditions.

Supported by the Windows* 10 Enterprise Long-Term Servicing Channel (LTSC) and Yocto Linux* operating systems, this new module provides Wi-Fi 5 capabilities in Industrial PCs, Human Machine Interfaces (HMIs), Automatically Guide Vehicles (AGV), robotics, energy industry and numerous other industrial use cases.

This new module also provides the Bluetooth® 5 solution for higher performance, faster speed, and wider coverage.

As part of the new 9th gen Intel® Core™ processor-based platforms, the Intel Wireless-AC 9260 Extended Temperature Industrial Module helps industrial IoT customers take advantage of Artificial Intelligence and inferencing at the edge in industrial and energy settings through fast, flexible connectivity.

Seamless and Reliable Gigabit-Speed Connectivity

The Intel® Dual Band Wireless-AC 9260 Extended Temperature Industrial Module enables smoother 4K/UHD streaming, fewer dropped connections, and faster speed.

- The module supports 160 MHz bandwidth and provides up to 1.73 Gbps or 2x faster¹ download speed for media content than the standard 2x2 Wi-Fi 5 80 MHz (867 Mbps) bandwidth, and up to 12x faster Wi-Fi² (up to 1.73 Gbps) than 802.11n modules.
- Downlink MU-MIMO technology allows multiple devices to receive data streams simultaneously, increasing overall network capacity while improving per-user throughput based on industry standards.³
- Bluetooth® 5 provides 4x⁴ range over Bluetooth® 4.2 with the same power, enabling wider coverage. Bluetooth® 5 also doubles the transmit speed for the same range. Finally, Bluetooth® 5 adds new, enhanced data broadcasting, enabling location-based services and simpler pairing for Bluetooth® devices.

Reduce OpEx and Improve Manageability

The Intel Dual Band Wireless-AC 9260 Extended Temperature Industrial Module, pre-validated on selected Intel® platforms, works with Intel® vPro® technology and wireless Intel® Active Management Technology (Intel® AMT)⁵ for ease of management and reduced operating expenses.

Remote repair and operating capabilities made possible by Intel® vPro® technology and Intel® AMT can cost significantly less than the average estimated cost of an in-person visit.

Innovate Faster with Cost-Efficient Design for Industrial Applications

With interoperable building blocks, purpose-built silicon, software tools, and ecosystem support, Intel accelerates the development of IoT and embedded solutions while empowering OEMs, system integrators, and independent software vendors to add their own unique value. The resulting connected solutions can deliver optimized performance at every point, practical ways to use artificial intelligence, and multilayered security to help protect data and systems.

ODM/OEM benefits:

- M.2 2230 form factor allows for wireless deployment at lower costs over PCIe solutions. Requires a motherboard with an M.2 key E connector for wireless.
- Certification in 120+ countries speeds time-to-market with local regulatory and industry compliance on a single Intel SKU.
- Dynamic Regulator Solution (DRS): The module detects the location and automatically optimizes Wi-Fi settings to local regulatory requirements.
- Intel® Wireless-AC products are among the few offerings in the market with Microsoft Windows* 10 IoT Enterprise operating system, Linux* operating system, and Intel® vPro® technology support.⁵
- Intel® Wireless-AC products are pre-validated on Intel® platforms, with corresponding design-in collaterals readily available.
- Long-life support and long-life availability from Intel safeguard investments in embedded and IoT devices.

FEATURES AT A GLANCE

Wi-Fi features	<ul style="list-style-type: none"> • Wi-Fi 5 2x2 MIMO with Wave 2 features • 160 MHz bandwidth • MU-MIMO • Two SS STA and mobile AP 	Wi-Fi compatibility	<ul style="list-style-type: none"> • Voice-Personal
Security	<ul style="list-style-type: none"> • WPA3 personal and enterprise • Wi-Fi Protected Setup* • 802.11w (protected management frames) 	Extended Temperature	<ul style="list-style-type: none"> • -40°C to 85°C
Quality of service	<ul style="list-style-type: none"> • WMM* • WMM-PS 	Use conditions	<ul style="list-style-type: none"> • For details on Intel industrial use conditions, please contact your account manager
Wireless display	<ul style="list-style-type: none"> • Wi-Fi Direct* (Microsoft Windows* only) • Miracast* as source 	Dimensions	<ul style="list-style-type: none"> • M.2 2230: 22mm x 30mm x 2.4mm
		Availability and support	<ul style="list-style-type: none"> • Long-life availability • Long-life Intel support

To learn more about the Intel® Wireless-AC 9260 Industrial Adapter, visit <https://www.intel.com/content/www/us/en/products/wireless/wireless-products/dual-band-wireless-ac-9260.html>.



1. Estimates for Wi-Fi download are calculations based upon real-world, single-client, best-case throughput speed assumptions of approximately 70% 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. The high-definition movie download calculation is based on 802.11 bgn 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 minutes and Wi-Fi 5 160 Mhz 1733 Mbps Theoretical Maximum data rate and expected Maximum Throughput of 1213 Mbps, resulting in a movie download time of 57 seconds.
2. "Nearly 6x faster" Intel® Wireless-AC claims are based on the comparison of maximum theoretical data rates for dual (867 Mbps) spatial stream Wi-Fi 5 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 Wi-Fi 5 wireless network routers or better.
3. Wi-Fi 5 downlink MU-MIMO technology allows serving multiple devices simultaneously, hence increasing network capacity potentially by over 3x while improving per-user throughput based on industry standards.
4. Bluetooth® SIG, Bluetooth® 5 core specification, [bluetooth.com/specifications/bluetooth-core-specification](https://www.bluetooth.com/specifications/bluetooth-core-specification).
5. Intel vPro® technology and Intel AMT are available on specific combinations of Intel® Wireless Solutions, Intel® platforms, and Microsoft Windows operating systems.

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 product or component can be absolutely secure. Check with your system manufacturer or retailer or learn more at 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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