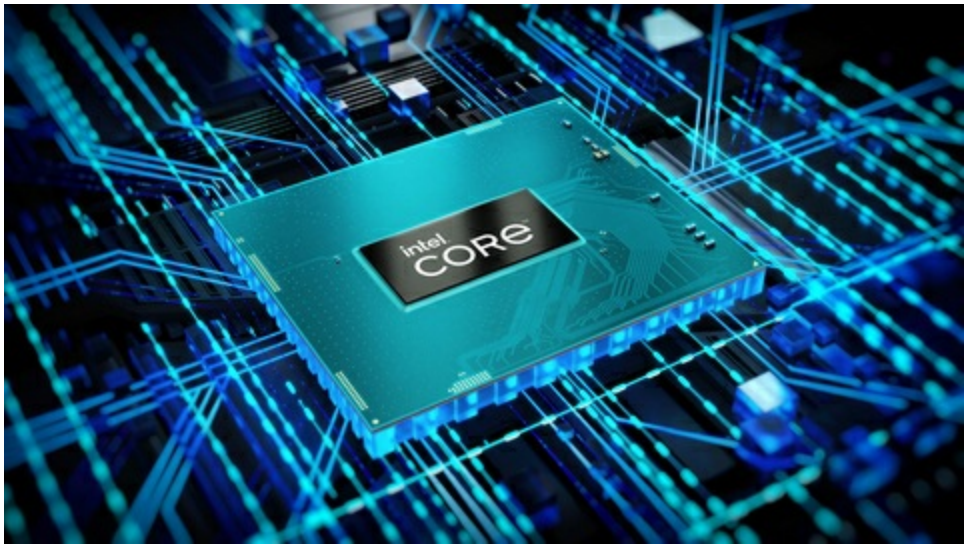
May 10, 2022

12th Gen Intel Core HX Processors Launch as World's Best Mobile Workstation Platform

New HX processors are the most powerful 12th Gen Intel Core mobile processors yet.

GRAPEVINE, Texas--(BUSINESS WIRE)-- **What's New:** Today at Intel Vision 2022, Intel announced seven new mobile processers to the 12th Gen Intel® Core™ mobile family. The 12th Gen Intel® Core™ HX processors utilize desktop-caliber silicon in a mobile package – to deliver high levels of performance for professional workflows like CAD, animation and visual effects. The HX processors are unlocked out of the box and available in Core i5, Core i7 and Core i9 models.

This press release features multimedia. View the full release here: https://www.businesswire.com/news/home/20220510005656/en/



Intel unveils seven new 12th Gen Intel Core HX processors based on Intel's performance hybrid architecture. The seven new mobile processors extend the 12th Gen H-series family and were introduced on May 10, 2022. (Credit: Intel Corporation)

"With the new core architecture and higher power limits of 12th Gen Intel Core HX processors, we're enabling content creators to tackle the most demanding work flows like never before – for example, executing 3D renders in the background while continuing to iterate on other 3D assets in the scene. No more waiting around for processor-intensive workloads to finish, you can stay in the flow. Gamers and content creators will also have access to high bandwidth platform technologies like PCIe Gen 5 with RAID support, and support for ECC memory to ensure high levels of system data integrity and reliability."

–Chris Walker, Intel corporate vice president and general manager of Mobility Client Platforms

Why It Matters: Professionals and creators need more processing power and greater platform bandwidth to iterate content faster. This enables businesses and production agencies to better meet milestones and budgets of fast-paced working environments. The 12th Gen Intel Core HX processors enable the best mobile workstation platforms by providing 65 percent more performance in multi-threaded workloads[1] with more cores, more memory and more I/O while utilizing Intel® Thread Director technology to leverage high-power Performance-cores and Efficient-cores so pros can create, program, render and work with maximum efficiency in the office, at home or on the go. In addition to being a commercial workhorse, 12th Gen Intel Core HX processors provide a gaming powerhouse platform that will give enthusiast gamers higher frame rates for the games they know and love.

About the HX Processors: The 12th Gen Intel Core HX processor family delivers real-world productivity, collaboration, content creation, gaming and entertainment in innovative mobile designs:

- Up to 16 cores (8 Performance-cores and 8 Efficient-cores) and 24 threads running at a processor base power of 55W.
- Access to x16 PCIe Gen 5.0 via the processor and 4x4 PCIe Gen 4.0 from a dedicated platform controller hub (PCH) for increased bandwidth and faster data transfers.
- An industry-first unlocked and overclockable series of mobile processors.
- Memory support for up to 128GBs of DDR5/LPDDR5 (up to 4800MHz/5200MHz) and DDR4 (up to 3200MHz/LPDDR4 4267MHz) with Error Correcting Code (ECC) capability.
- Designs with Intel® Wi-Fi 6/6E (Gig+)[2] for improved connectivity and access to the new 6 GHz Spectrum.

More than 10 workstation and gaming designs powered by 12th Gen Intel Core HX processors are expected to be launched by major OEMs this year, including systems from Dell, HP, Lenovo and others.

More Context: Intel Vision 2022 (Press Kit) | 12th Gen Intel Core HX Processors (Media Presentation) | 12th Gen Intel Core HX: Inventor/Workstation Demo (Video) | 12th Gen Intel Core HX: Gaming Demo (Video) | 12th Gen Intel Core HX: Creation Demo (Video) | Intel Vision 2022 Keynote (Livestream/Replay) | Intel Vision 2022: Day 1 Keynote (Live Blog) | Intel Announces New Cloud-to-Edge Technologies to Solve Challenges of Today and Tomorrow (News) | Intel's Habana Labs Launches Second-Generation AI Processors for Training and Inferencing (News)

About Intel

Intel (Nasdaq: INTC) is an industry leader, creating world-changing technology that enables global progress and enriches lives. Inspired by Moore's Law, we continuously work to advance the design and manufacturing of semiconductors to help address our customers' greatest challenges. By embedding intelligence in the cloud, network, edge and every kind of computing device, we unleash the potential of data to transform business and society for the better. To learn more about Intel's innovations, go to newsroom.intel.com and intel.com.

[1] Based on performance estimated with measurements on 12th Gen Intel Core i9-12900HX

with RTX 3080Ti against Intel Core i9-11980HK with RTX 3080, Intel Core i9-12900HK with RTX 3080Ti, AMD Ryzen 9 6900HX with RTX 3060, AMD Ryzen 9 6900HS with Radeon 6700S, Intel Core i7-12700H with RTX 3050Ti and Apple M1 Max MacBook Pro with 32 core integrated GPU. Best available compilers selected for all processors. Binaries compiled with ICC for Intel/AMD, binaries compiled with Xcode 13.1 for Apple. The metric used is the geometric mean of C/C++ integer benchmarks in SPEC*int_rate_base2017 2021.2 LLVM (1-copy) and SPEC*int_rate_base2017 2021.2 LLVM (n-copy). See www.intel.com/PerformanceIndex for additional workload and configuration details. Results may vary. Other names and brands may be claimed as the property of others.
[2] Subject to 6 GHz band availability, operating system support, and router compatibility. Details at www.intel.com/PerformanceIndex (connectivity)

Performance varies by use, configuration and other factors. Learn more at www.intel.com/PerformanceIndex.

Performance results are based on testing as of dates shown in configurations and may not reflect all publicly available updates. See configuration disclosure for details.

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