January 4, 2022

# CES 2022: Intel Achieves Major Milestones Across Automotive, PCs and Graphics

**Mobileye expands major automaker relationships; Intel delivers fastest mobile processor, ships Alchemist GPUs.**

**NEWS HIGHLIGHTS**

- Mobileye announces the new EyeQ® Ultra system-on-chip for autonomous vehicles and expanded relationships with major automakers, including Ford, Volkswagen Group and Geely's ZEEKR brand.
- Intel launches the 12th Gen Intel® Core™ i9-12900HK – the world's best gaming laptop platform[1] – and delivers the new P-series product line for ultra-portable, enthusiast-class performance.
- Intel ships high-performance discrete graphics to customers and announces more than 50 Alchemist design wins.

LAS VEGAS--(BUSINESS WIRE)-- Today as part of CES 2022, Intel demonstrated advancements and momentum with Mobileye, progress toward discrete graphics leadership and the launch of the newest members of the 12th Gen Intel® Core™ family. With these milestones, Intel furthers its commitment to enable the industry and its customers and partners to harness the technology superpowers – ubiquitous computing, cloud-to-edge infrastructure, pervasive connectivity and artificial intelligence – at the heart of the digital transformation.

This press release features multimedia. View the full release here: https://www.businesswire.com/news/home/20220104005400/en/

During the Intel news conference, Gregory Bryant, executive vice president and general manager of the Client Computing Group, was joined by Lisa Pearce, vice president of the Visual Compute Group, and Prof. Amnon Shashua, Mobileye CEO, to share Intel's progress across multiple strategic businesses.

"The Intel execution engine is back. From advancing the PC to high-performance graphics to autonomous driving solutions, Intel and Mobileye are proud to create new ecosystems and opportunities across multiple industries," Bryant said. "Together with our partners and customers, we are driving new innovation across products, platforms and services, and delivering on our vision of enabling world-changing technology that improves the lives of every person on the planet."

**More:** Intel at CES 2022 (Press Kit) |One Intel News Conference (Livestream and Replay)

Mobileye introduces the next-generation EyeQ system-on-chip for advanced driver-assistance systems. Unveiled at CES 2022, the EyeQ6L will be the successor to the EyeQ4

SoC in a package that is just 55 percent the size of the EyeQ4. (Credit: Mobileye, an Intel Company)
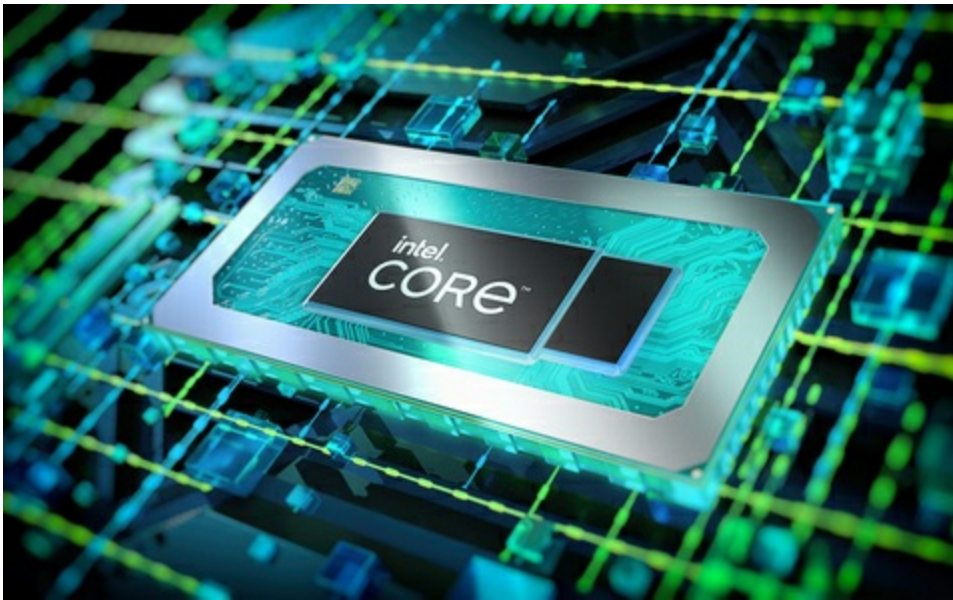
Intel unveils the 12th Gen Intel Core mobile processor family led by the launch of 8 new H-series mobile processors, based on Intel's performance hybrid architecture. The eight new mobile processors were introduced Jan. 4, 2022. (Credit: Intel Corporation)

**Mobileye Shows Progress on Multiple Fronts**

[Mobileye announced a new system-on-chip](#) (SoC) that is purpose-built for autonomous vehicles (AVs). Built on Mobileye's industry-leading EyeQ® technology, EyeQ® Ultra does the work of 10 EyeQ5 SoCs in a single package and was designed to deliver the optimum power performance of a fully self-driving vehicle.

During the news conference, Shashua was joined by the CEOs from two of the world's largest automakers to announce expansions of their longstanding relationships with Mobileye. A recap of Volkswagen Group CEO Herbert Diess' recent car ride with Shashua in Munich was used to announce VW's application of Mobileye's advanced mapping technology in its driver-assistance features for the VW, Škoda and Seat brands.

Shashua also welcomed Ford CEO Jim Farley to discuss the expanded relationship between Mobileye and Ford as they deliver ever-more advanced driver-assistance solutions via the Ford BlueCruise platform.

Mobileye also announced two firsts with Geely's Zeekr brand – a level 4 consumer AV expected to begin production in 2023 and the launch and shipment to customers of the industry's first fully capable level 2+ vehicle equipped with a 360-degree surround view sensing system and driving policy for the industry's most advanced longitudinal and lateral control in the market today.

**More:** [Mobileye at CES 2022](#) (Press Kit) | [New Mobileye EyeQ Ultra will Enable Consumer AVs](#) (News) | [Top Automakers Double-Down on Mobileye](#) (News)

**Performance Hybrid Architecture Advances World's Fastest Mobile Processor**

[Intel announced the 12th Gen Intel Core H-series](#) processors – setting the standard as the highest performance laptop processors on the planet. Built on the Intel 7 process node with Intel's first-ever performance hybrid design, the H-series, led by the flagship Intel Core i9-12900HK, delivers up to 40% higher performance[2] for unparalleled gaming experiences and up to 28% faster game play[3] than the previous mobile gaming leader in the market, the i9-

11980HK.

Intel showcased more than 20 new devices powered by the 12th Gen Intel Core H-series, with more than 100 devices in total expected to launch with partners including Acer, Asus, Dell, HP, Lenovo, MSI and Razer. In addition, Intel unveiled a new ultraportable mobile processor – the P-series product line – to bring enthusiast levels of performance to thin-and-light laptops.

**More:** [12th Gen Intel Core](#) (Press Kit) |[Intel Engineers Fastest Mobile Processor Ever with 12th Gen Intel Core Mobile](#) (News)

**Arc Set to Transform the Discrete Graphics Industry**

Intel marked a new era in the discrete graphics market by announcing shipment of Intel® Arc™ graphics (code-named "Alchemist") to original equipment manufacturer customers. Intel Arc graphics is the brand for Intel's upcoming consumer high-performance graphics product. It delivers new choice to the industry, including many all-Intel discrete graphics platforms. With more than 50 new mobile and desktop customer designs announced with Intel Arc graphics, including with Acer, ASUS, Clevo, Dell, Gigabyte, Haier, HP, Lenovo, Samsung, MSI and NEC, it is an exciting time for gamers and creators around the world.

"Lenovo is committed to making smarter, immersive PC experiences for all. Working with Intel, we're bringing the new Intel Arc line of discrete graphics products to the market, starting with the latest Lenovo Yoga 7i. Intel's Arc discrete graphics work in harmony with their processors and will help Lenovo offer more choice in consumer devices, delivering exciting visuals for gamers, creators, and everyone," said Johnson Jia, senior vice president and general manager of the Consumer Business Segment in Lenovo's Intelligent Devices Group.

Intel Arc graphics will offer industry-leading advanced features such as hardware-accelerated Ray Tracing, $X^e$ Super Sampling ($X^e$SS) AI-driven upscaling technology and Intel® Deep Link technology.

Intel announced ISV partner momentum with its $X^e$SS AI-driven upscaling technology, which is currently being integrated into many game titles across a range of publishers, including exclusive integration into Kojima Production's Death Stranding Director's Cut, which also includes core optimizations for 12th Gen Intel Core processors.

"We're delighted to announce our partnership with Intel for the Death Stranding Director's Cut edition on PC. Death Stranding has been a hugely popular game with PC players and we're excited to see how Intel's new $X^e$SS technology will enhance player experiences for Director's Cut," said Neil Rally, president of 505 Games.

Game studio adoption of $X^e$SS continues to grow. Studios committed to supporting the technology include 505 Games, Codemasters, EXOR Studios, Fishlabs, Hashbane, IOI, Illfonic, Kojima Productions, Massive Work Studio, PUBG Studios, Techland, Ubisoft and Wonder People.

Intel Deep Link technology harnesses the full power of the platform to further accelerate a range of key workloads when matched with a compatible Intel Core processor.

Intel Deep Link technology extends Intel's years of platform leadership by leveraging multiple processing engines, a common software framework and Intel platform expertise to bring new capabilities and better performance to PCs with Intel Arc graphics and compatible Intel Core CPUs. DaVinci Resolve by Blackmagic Design will support Deep Link Hyper Encode, which uses integrated and discrete graphics processors together to accelerate creation by simultaneously encoding the same video stream.

"We are excited to now optimize DaVinci Resolve for the latest Intel Arc graphics and next-generation Quick Sync video technology," said Rohit Gupta, director of DaVinci Software Engineering.

**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.

See CES 2022 Claim Appendix on www.intel.com/PerformanceIndex (events) for additional claim details. Results may vary.

Performance hybrid architecture not available on certain 12th Gen Intel Core processors. Intel Thread Director available on select SKUs only; requires OS enablement.

Performance results are based on testing as of dates shown in configurations and may not reflect all publicly available updates. See www.intel.com/12thgen for configuration details. No product or component can be absolutely secure.

Statements in this document that refer to future plans or expectations are forward-looking statements. These statements are based on current expectations and involve many risks and uncertainties that could cause actual results to differ materially from those expressed or implied in such statements. For more information on the factors that could cause actual results to differ materially, see our most recent earnings release and SEC filings at www.intc.com.

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

Your costs and results may vary.

Intel technologies may require enabled hardware, software or service activation.

[1] The 12th Generation Intel® Core™ i9-12900HK is the world's best mobile gaming platform based on:
Unique features, including

- Board Memory Support
- First to industry to enable DDR2005-4800, DDR4-3200, LPDDR5 5200, LPDDR4x-4267

- Best in class connectivity - Wi-Fi 6E (Gig+) , Thunderbolt 4
- Intel® Killer™ Wi-Fi 6E : Low Latency Gameplay
- Intel® Killer™ Wi-Fi 6E (Gig+): Intel® Double Connect
- Thunderbolt™ 4: 40Gbps
- Thunderbolt™ 4: Mandatory Certification
- Industry-pioneering PCIE Gen 4 (best in class)

Superior in-game benchmark mode performance of 12th Gen Intel Core i9-12900HK with NVIDIA RTX 3080 GPU vs 11th Gen Intel Core i9-11980HK with same GPU and vs AMD R9-5900HX with same GPU.
Performance results are based on testing as of 12/10/2021. Full Configurations available at intel.com/PerformanceIndex.

[2] Based on superior performance of 12th Gen Intel Core i9 12900HK against Intel Core i9 11980HK, estimated based on measurements with Intel Reference Validation Platforms. The metric used is the geometric mean of an n-copy SPECrate run of the C/C++ integer benchmarks in SPEC CPU 2017. See Appendix for more details.

[3] Workloads and configuration details available at intel.com/PerformanceIndex.

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