

Unlock Deterministic Edge Performance

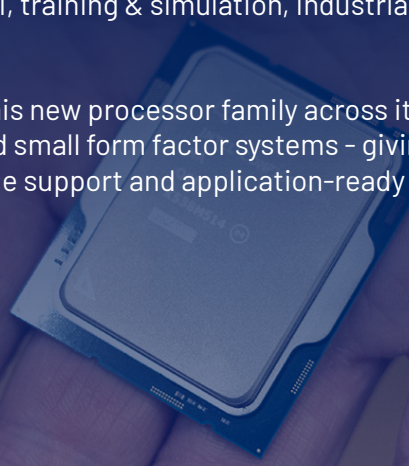
Powered by Intel® Core™ Processors (Series 2) with P-cores. Available Across the Dedicated Computing Edge & Embedded Portfolio.

Designed for edge environments where predictability matters more than peak burst performance.

The next generation of edge computing demands deterministic performance, simplified architecture and long-life reliability.

Intel® Core™ processors (Series 2) with P-cores (previously codenamed Bartlett Lake 12P) are purpose-built to meet these needs. Featuring up to 12 Performance-cores (P-cores), this new architecture delivers predictable, high-throughput compute for defense & aerospace, healthcare, AI, training & simulation, industrial and mission-critical edge applications.

Dedicated Computing is enabling this new processor family across its proven portfolio of edge, embedded, rackmount, and small form factor systems - giving OEMs a seamless upgrade path with extended lifecycle support and application-ready platforms.



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Intel® Core™ Processors (Series 2) with P-cores

Designed specifically for deterministic edge workloads, the Intel® Core™ processors (Series 2) with P-cores introduce a uniform P-core-only architecture.

Why P-Core-Only Matters

The architecture delivers:



Deterministic Performance for Edge Workloads

- Up to 12 P-cores for sustained compute throughput
- Uniform core design simplifies scheduling and real-time control
- Consistent latency for control-oriented workloads
- Potential licensing efficiency advantages in per-core licensed environments (e.g., Windows Server).



Simplified Architecture & Operational Efficiency

- Eliminates hybrid-core scheduling complexity
- Lower engineering and optimization costs
- Streamlined software validation and maintenance



Industrial-Grade Reliability & Longevity

- Support for In-Band Error Correction Code (IB ECC) memory, Intel® Time Coordinated Computing (TCC) and Time-Sensitive Networking (TSN)
- Socket compatibility across 12th-14th Gen Intel® Core™ processors
- Up to 10-year lifecycle availability (SKU-dependent)
- Long-Term Servicing Channel (LTSC) Windows and Linux support

Key Technical Highlights

This flexibility enables deployment across rugged embedded systems, portable trainers, industrial controllers, and multi-GPU edge servers.

- Up to 12 P-cores (12+0 configuration)
- High turbo frequencies for burst and sustained workloads.
- DDR5-5600 support
- PCIe 5.0 connectivity
- ECC support when paired with W680 or R680E chipsets
- Select SKUs support Intel® vPro®
- Integrated graphics with up to 32 execution units
- 45W, 65W and 125W power SKUs

Dedicated Computing Systems Supporting Intel Core Series 2 Processors

Dedicated Computing integrates Intel Core Series 2 processors across its Dagger™, Gladius™, and Katana™ platforms - delivering application-optimized solutions from compact portable systems to rack-scale deployments.

Systems supporting the latest 125 W Intel Core Series 2 Processors with 12 P-cores:



Dagger™ D9100

High-Performance Small Form Factor with Discrete GPU Support. The D9100 supports NVIDIA GeForce 5000 series GPUs and high-core-count CPUs.

Highlights:

- Up to 4x DDR5 (128GB)
- PCIe Gen 5 expansion
- Multi-display output
- 1000W PSU
- 7-year lifecycle

Ideal For:

- Multi-GPU edge AI
- XR scene generation
- Vision analytics
- Defense training systems

Pairing the Intel Core Series 2 processor with discrete GPUs provides optimized CPU-GPU orchestration and PCIe 5.0 bandwidth for edge AI infrastructure.



Gladius™ A9342-01

4U Rackmount Convertible | GPU-Ready Platform. The A9342-01 supports NVIDIA GeForce 5000 series GPUs and high-power compute.

Highlights:

- 4U rackmount convertible
- PCIe Gen 5 x16 slots
- 1200W PSU
- ECC support
- 7-year lifecycle

Ideal For:

- XR classroom trainers
- Multi-screen simulation
- Edge AI inference clusters
- Industrial vision systems

The Intel Core Series 2 processor enhances deterministic performance for synchronized multi-display and GPU-driven workloads.



Katana™ K9222

High-Performance 2U GPU-Optimized Edge Server

Highlights:

- Supports NVIDIA 4090 / 5000 GPUs
- DDR5 ECC up to 192GB
- PCIe 5.0 x16 support
- 1000W PSU
- 3-year lifecycle

Ideal For:

- AI inference at scale
- Edge server clusters
- Defense ISR
- Medical imaging analytics

The combination of the Intel Core Series 2 processor and PCIe 5.0 ensures sustained GPU utilization and minimized CPU bottlenecks.

Target Markets & Use Cases



Industrial Automation

- Motion control
- Robotics coordination
- Machine vision



Edge AI Infrastructure

- Multi-GPU edge servers
- Low-latency inference
- Video analytics



Healthcare & Life Sciences

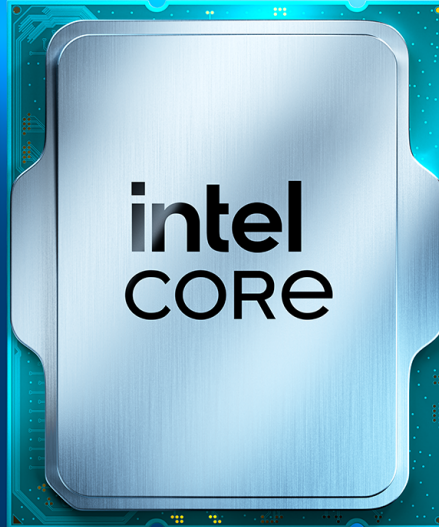
- Imaging workstations
- Ultrasound / X-ray
- AI-assisted diagnostics



Defense & Training

- XR-based training and simulation
- Portable and classroom-based trainers
- ISR & mission rehearsal systems

Why Dedicated Computing + the Intel Core Series 2 Processor?



Deterministic Performance

Uniform P-core architecture eliminates hybrid scheduling complexity.



Faster Time to Market

Socket compatibility across 12th–14th Gen platforms reduces redesign effort.



Long Lifecycle Support

Up to 10-year availability for industrial deployments.



GPU-Ready Scalability

PCIe 5.0 and DDR5-5600 provide the bandwidth required for modern AI workloads.



OEM-Focused Integration

Dedicated Computing delivers:

- Hardware & software integration
- Certification management
- Lifecycle management
- Global support

Accelerate Edge Innovation

Intel® Core™ processors (Series 2) with P-cores unlock deterministic performance for critical edge workloads - and Dedicated Computing provides the production-ready platforms to deploy them.

From portable XR trainers to multi-GPU edge AI servers, our Dagger™, Gladius™, and Katana™ systems are engineered to deliver predictable performance, industrial reliability, and long-term scalability.

To learn more about Intel Core Series 2 processor-enabled platforms, contact Dedicated Computing or visit www.dedicatedcomputing.com.

Toll-Free: **877.333.4848**
E: inquiry@dedicatedcomputing.com

N26 W23880 Commerce Circle
Waukesha, WI 53188

