

Velasea and Intel Advance Purpose-Built Infrastructure for Modern VMS and Intelligent Video Analytics

The IronLink Professional Series from Velasea delivers professional-grade NVR and VMS infrastructure powered by Intel® Core™ Ultra processors and enabled by Metro AI Suite.



Meeting the Demands of Modern Video Security

Across critical facilities and commercial environments, organizations are managing rising infrastructure costs, tighter budgets, growing camera counts, and longer retention requirements. At the same time, they are transitioning their video systems from passive recording to intelligent video analytics that deliver real-time insights. Traditional infrastructure often falls short of these video security workloads, leaving a gap between platform capabilities and real deployment needs. Modern environments require systems purpose-built for video and storage efficiency — designed specifically for today's VMS and intelligent video analytics use cases.

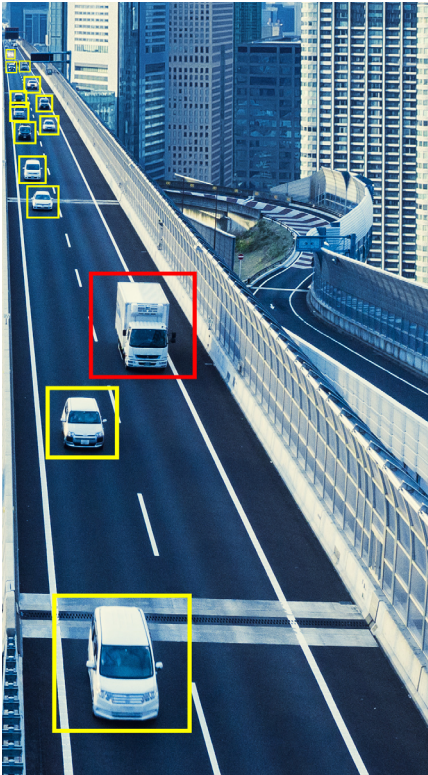
To address these pressures, customers need workload-aligned systems built for the new requirements of modern VMS deployments. These include high-density video ingestion and playback, continuous 24/7 recording reliability, and scalable high-capacity storage. As video environments grow more intelligent, customers also need built-in VMS support and AI-ready performance at the edge. A flexible architecture that scales from compact edge appliances to enterprise rack deployments helps customers right-size infrastructure to site needs, performance requirements, and long-term growth.



Velasea and Intel Deliver Purpose-Built Infrastructure

These evolving needs align with Velasea's role as a full-service OEM system builder and integration partner focused on purpose-built infrastructure for video security, edge computing, and AI-enabled workloads. Working with Intel, Velasea brings engineering, validation, logistics, and deployment expertise to systems built on Intel-powered hardware platforms. This approach gives integrators and end users a flexible path to infrastructure that is better aligned with real-world VMS requirements, including performance, scalability, storage efficiency, and support for modern AI-enabled video security use cases.

The IronLink P Series extends Velasea's purpose-built infrastructure approach into a professional-grade platform designed for video security deployments. The platform combines Intel® Core™ Ultra processor-based configurations with server-class capabilities such as ECC memory options, hardware RAID, BMC/IPMI management, redundant power options, and high-speed networking in selected systems, backed by a class-leading 5-year, on-site, next business day warranty from Velasea. This design approach supports the reliability, storage density, and video throughput requirements common in VMS environments, while giving partners a validated hardware foundation for modern recording, playback, and AI-ready workloads.



The P Series product lineup spans a broad range of form factors to address deployment needs from single-site installations to large enterprise environments. The portfolio includes small form-factor (SFF) and cube desktop systems, short-depth and standard 1U rackmount NVRs, mid-range 2U platforms, and high-density 3U and 4U rackmount systems — with raw storage capacity ranging from 64 TB in compact configurations up to 768 TB in the flagship 4U platform. Across the portfolio, systems are designed to support both high-capacity storage and video analytics processing within the same platform, enabling partners to address video recording and analytics requirements in a single, integrated system. This range of configurations supports a right-sized deployment approach, giving partners and integrators the flexibility to match system design to site profile, camera scale, and workload requirements across many video security environments.

At the foundation of the IronLink P Series is the Intel® Core™ Ultra 200S processor (formerly codenamed Arrow Lake-S), a platform designed to balance compute performance with the power and thermal characteristics needed for modern NVR and VMS workloads. The processor combines new performance and efficient cores with an integrated GPU and a dedicated Neural Processing Unit (NPU) for AI acceleration, providing a flexible compute foundation for video ingest, recording, playback, and analytics tasks within a single platform. Its power-efficient design helps preserve thermal and power headroom in dense system configurations, which is especially valuable in NVR platforms that must combine high-density storage, networking, and optional acceleration within a constrained envelope. For partners, this enables the design of next-generation NVR architectures that can support both today's recording-centric deployments and the growing set of AI-enabled use cases.

Efficient video processing is central to any NVR or VMS deployment, where systems must continuously ingest, record, and play back large numbers of concurrent video streams. The Intel® Core™ Ultra 200S processor includes hardware-accelerated video decode through Intel® Quick Sync Video, which offloads decode workloads from the CPU to the integrated media engine. This allows the P Series to support higher stream densities per system without consuming general-purpose CPU cycles, while also leaving compute resources available for VMS services and analytics tasks running on the same platform. The result is a more efficient ingest, recording, and playback pipeline that can scale with growing camera counts, helping partners and customers improve system utilization without adding excess compute overhead.

Unlocking AI-Ready Value at the Edge

Beyond traditional recording, the IronLink P Series is designed to support the broader industry shift toward AI-enabled NVR platforms, where video systems contribute to real-time situational awareness in addition to storage and playback. With Intel® Core™ Ultra processors at the foundation, the platform provides integrated AI capabilities across the CPU, integrated GPU, and NPU, and is enabled for video analytics and AI pipeline deployment through the Metro AI Suite for use cases such as object detection and tracking, license plate recognition, behavior and anomaly detection, agentic workflows, and intelligent alerting. Selected P Series configurations also support optional discrete GPU acceleration for higher-performance AI workloads, giving partners the flexibility to address a range of more demanding use cases including vision-language models and generative AI. This approach helps partners and customers move from passive recording toward real-time insights and stronger operational decision-making, while continuing to support the recording and playback workloads at the core of any VMS deployment.

The table below summarizes the Velasea IronLink P Series models and key specifications across form factor, processor class, memory, storage capacity, and GPU support.

The SFF-P shows how the P Series can deliver AI-ready video security capabilities at the edge within a compact, space-constrained footprint. Powered by an Intel® Core™ Ultra 200S processor with GPU and NPU, the SFF-P provides integrated AI for video analytics pipelines that are configured to take advantage of available Intel acceleration resources.

Model	Form Factor	Processor	Memory	Storage Capacity	GPU Support	OS Support	Power Supply	RAID Controller Support
SFF-P	Small form factor desktop	Intel® Core™ Ultra 200S, up to 65W	Up to 128 GB	2 bays / up to 64 TB	Intel integrated graphics or optional discrete GPU support	Windows IoT & Server OS, Linux	300W Single	Intel RST
CUBE-P	Cube / mini server desktop	Intel® Core™ Ultra 200S, up to 65W	Up to 128 GB	4 bays / up to 128 TB	Intel integrated graphics or optional discrete GPU support	Windows IoT & Server OS, Linux	265W Single	Intel RST; optional enterprise-grade controller with 4GB cache
R102P	Short-depth 1U rackmount	Intel® Core™ Ultra 200S, up to 125W	Up to 256 GB	2 bays / up to 64 TB	Intel integrated graphics or optional discrete GPU support	Windows IoT & Server OS, Linux	450W Single	Intel RST
R104P	1U rackmount	Intel® Core™ Ultra 200S, up to 125W	Up to 256 GB	4 bays / up to 128 TB	Intel integrated graphics	Windows IoT & Server OS, Linux	750W 1+1 RPSU	Enterprise-grade controller with 4GB cache
R208P	2U rackmount	Intel® Core™ Ultra 200S, up to 125W	Up to 256 GB	8 bays / up to 256TB	Intel integrated graphics or optional discrete GPU support	Windows IoT & Server OS, Linux	800W CRPS	Enterprise-grade controller with 4GB cache
R212P	2U rackmount	Intel® Core™ Ultra 200S, up to 125W	Up to 256 GB	12 bays / up to 384 TB	Intel integrated graphics or optional discrete GPU support	Windows IoT & Server OS, Linux	800W CRPS	Enterprise-grade controller with 8GB cache
R316P	3U rackmount	Intel® Core™ Ultra 200S, up to 125W	Up to 256 GB	16 bays / up to 512 TB	Intel integrated graphics or optional discrete GPU support	Windows IoT & Server OS, Linux	800W CRPS	Enterprise-grade controller with 8GB cache
R424P	4U rackmount	Intel® Core™ Ultra 200S, up to 125W	Up to 256 GB	24 bays / up to 768 TB	Intel integrated graphics or optional discrete GPU support	Windows IoT & Server OS, Linux	1200W CRPS	Enterprise-grade controller with 8GB cache
SWTP (STWP)	Mini tower desktop	Intel® Core™ Ultra 200S, up to 125W	Up to 256 GB	4 bays / up to 160 TB	Intel integrated graphics or optional discrete GPU support	Windows IoT & Server OS, Linux	450W Single	Intel RST; optional enterprise-grade controller with 4GB cache
MWTP (MTWP)	ATX pedestal tower	Intel® Core™ Ultra 200S, up to 125W	Up to 256 GB	8 bays / up to 256 TB	Intel integrated graphics or optional support for up to 2 discrete GPUs	Windows IoT & Server OS, Linux	850W Single	Intel RST; optional enterprise-grade controller with 4GB cache
LWTP (LTWP)	eATXpedestal tower	Intel® Core™ Ultra 200S, up to 125W	Up to 256 GB	8 bays / up to 256 TB	Intel integrated graphics or optional support for up to 2 discrete GPUs	Windows IoT & Server OS, Linux	1300W Single	Intel RST; optional enterprise-grade controller with 4GB cache

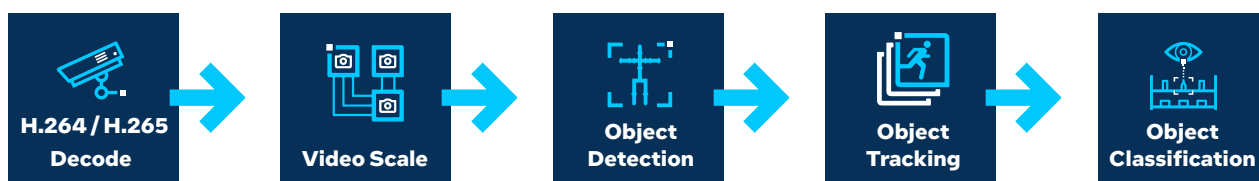


Figure 1 Topology of a Typical Video Analytics Pipeline

Performance Validation for Edge Video Analytics

To illustrate the AI-ready capabilities of the IronLink SFF-P, Intel and Velasea evaluated a representative Metro AI Suite video analytics pipeline commonly used in safety and security deployments. As shown in Figure 1, the pipeline includes video decode, scaling, object detection, tracking, and classification, supporting use cases such as trespassing detection, loitering detection, people tracking, and unattended baggage identification. Figure 2 highlights the theoretical stream-density results on the SFF-P using integrated Intel acceleration resources. When workloads were executed independently, the platform supported 12 streams on the integrated GPU and 13 streams on the NPU. When both acceleration engines were used concurrently, the SFF-P achieved a combined total of 23 streams, demonstrating how Intel® Core™ Ultra processor-based platforms can increase edge analytics throughput while maintaining a compact deployment footprint. Qualified SFF-P configurations and similar Intel-based edge systems can also be referenced through [Intel's Edge AI System Catalog](#), helping partners and customers identify validated platforms aligned with their target VMS and analytics workloads.

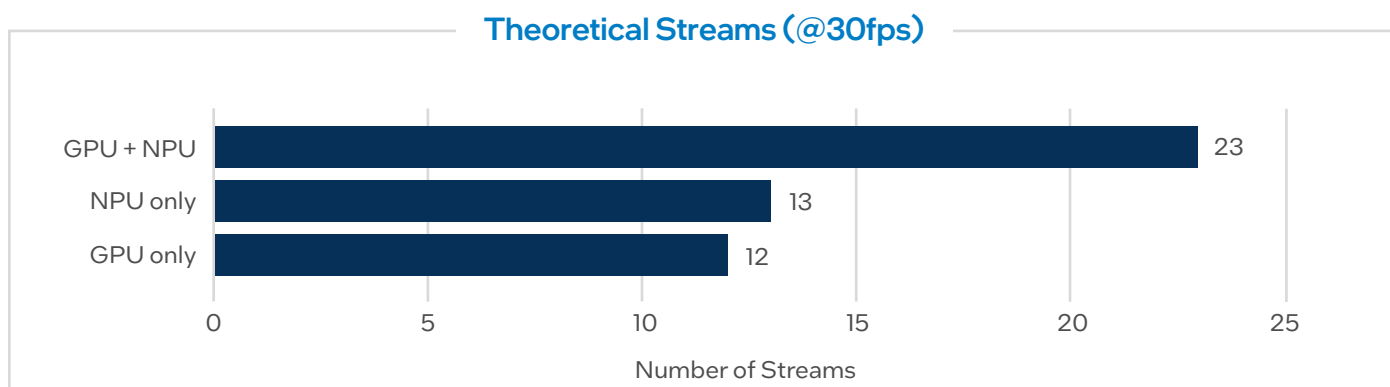


Figure 2 Theoretical Stream Density of a Typical Video Analytics Pipeline

Conclusion

Together, Velasea and Intel expand what partners can deliver in modern video security environments. The IronLink P Series broadens partner portfolios with more deployment options while enabling better price-performance alignment and greater flexibility in system design. Built on Intel® Core™ Ultra processors and enabled by the Metro AI Suite, the platform also supports key growth areas, including AI-enabled video solutions and edge-to-enterprise video security scaling. The result is stronger differentiation in competitive bids and faster solution development — giving partners and customers a purpose-built foundation for today's VMS workloads and tomorrow's intelligent video analytics use cases.

Learn More

Explore related resources for Metro AI Suite-ready workloads, edge AI pipeline examples, and recommended Intel-based hardware platforms:

- [Intel® Core™ Ultra 200S processor details](#)
- [Velasea IronLink P Series product information](#)
- [Metro AI Suite-ready workload collection in the Open Edge Platform edge workloads and benchmarks repository](#)
- [Metro AI Suite documentation for video analytics and AI pipeline deployment](#)

