



# Xplorer® X1600E EDSFF Inference Server

## PRODUCT BRIEF

### High-Density and Compact Enterprise and Edge Data Center Solution at the Lowest Total Cost of Ownership (TCO)

The Blaize® Inference Server delivers almost 400 TOPS of market-proven real AI performance. It is immediately deployable in a compact 1U standard form factor to enable comprehensive workloads, including next-generation Video Analytics.

A pre-integrated complete software stack and AI toolkit enable fast data preparation and model evaluation, rapid configuration and fine-tuning, and the tailoring

and development of advanced analytics applications. The full end-to-end lifecycle of AI/ML applications is covered in one unique platform via a low-code, intuitive user interface.

Blaize AI Servers are ideal for on-premises and edge datacenter use for high-performance AI/ML inferencing applications, with custom configurations also available.

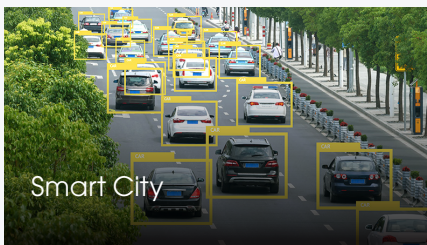


SuperMicro SuperServer® SSG-121E-NES24R



Blaize® X1600 EDSFF Accelerator

### Applications and Use Cases



Smart City

- Traffic monitoring
- Crosswalk safety
- Erratic driving behavior
- Public pathway analysis



Smart Retail

- Shopper behavior
- People counting
- Customer support analysis
- Loss prevention



Manufacturing and Automation

- Predictive maintenance and quality
- Optimized production
- Supply chain and inventory management



Aerospace and Defense

- Risk analysis and live remote operation support
- Mission support
- Predictive maintenance and resource allocation



Healthcare

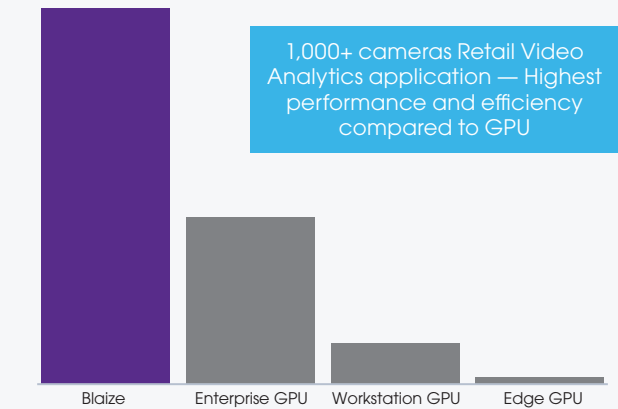
- Quicker and comprehensive clinical and non-clinical decisions
- Faster image-based diagnostics
- Clinical trials



Emerging Applications

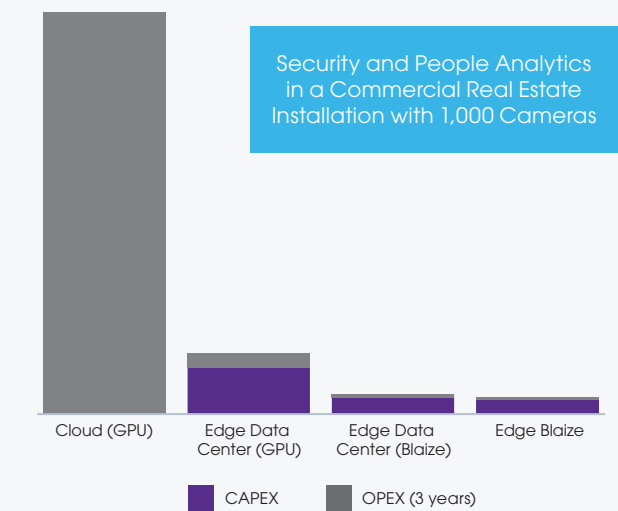
- Analytics
- Sustainable AI
- Future Vision and AI workloads

Performance and Benefits



- 24 EDSFF modules per 1U
- ~400 TOPS performance (over 10k YOLOv7-tiny)
- Over 1,200 parallel video streams
- Multi-tenant capacity
- Ultra-efficient CPU usage (less than 1 core)
- Open-source standard software platform
- Low carbon footprint
- Lowest latency and highest throughput
- Lowest Total Cost of Ownership

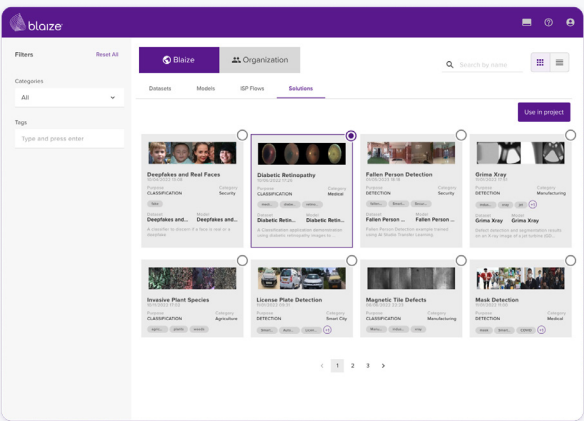
Lowest TCO from Edge to Data Center



Specifications

Features	Description
Server System	SuperMicro SSG-121E-NES24R Dual Intel Xeon Silver 4410Y, 128GB RAM, Networking via AIOM (40GbE default) 24 x Blaize X1600E EDSFF 16 TOPS E1.S Accelerators
Form Factor	1U, standard 28" tool-less slide rail
Inference Performance	384 TOPS
Software	Ubuntu + Blaize® Picasso® SDK + Blaize AI Studio support
Memory	32 DIMM slots Max Memory (2DPC): Up to 8TB 5600MT/s ECC DDR5 RDIMM/LRDIMM, Recommended: 128 GB
Storage	2x PCIe 3.0 (Hybrid NVMe or SATA3) M-Key, 2280 and 22110
Ports	1 RJ45 Dedicated IPMI LAN port, 4 USB 3.0 port(s) (2 front; 2 rear), 1 VGA port(s)
Slots	24x E1.S EDSFF, 2 PCIE 5.0 x 16 FH slots, 2 PCIE 5.0 x16 AIOM
Power	Approx.: 300W idle, 800W peak
Power Supplies	2000W Redundant Titanium Level power supplies
Weight	Net: 48 lbs (21.8 kg), Gross: 68.74 lbs (31.2 kg)
Misc	BMC, IPMI 2.0, easy swap fans

Blaize AI Studio



- Open and code-free AI software development platform and tools
- Complete lifecycle of edge AI applications and simplified device management
- Reduced dependency on costly specialized engineering resources
- Accelerated time from development to deployment
- Designed for edge inference, on-premises edge servers, turn-key systems, cloud



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