



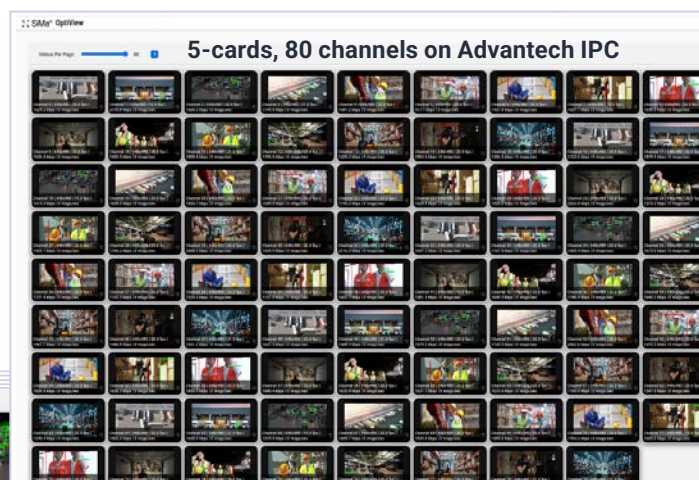
Intelligent Video Systems

80 Channel Video Analytics

SiMa.ai Value Proposition

- Adds AI to Video Management Systems (VMS) to enhance incident identification.
- Reduces IPC loading and TCO, running end-to-end video pipeline all on SiMa PCIe card.
- Enables high card counts to scale AI video analytics from 16 to 80 cameras on single IPC.
- Performs real-time inference in under 10 W per card.
- Deploys fast with SiMa's Palette SDK development software for Physical AI.

Windows and Linux Support



5 x 16 channels = 80 channels of AI video analytics, running on IPC with Modalix PCIe cards

SiMa.ai's Modalix SoCs redefine multi-stream AI video processing

As AI video analytics expand across cities and factories, compute-density becomes the bottleneck. By running the full AI video pipeline on-chip, Modalix reduces host PC workload and power draw—enabling easy scaling from 16 to 80 real-time video streams. Each card delivers highly performant, multi-model AI processing with no cloud dependency.

- Extends AI video analytics from single-node to multi-card systems.
- High channel density cuts system cost, power, and footprint.
- On-device processing keeps data local and private.
- Compatible with standard industrial PCs and Palette SDK for unified management.

Fast, Flexible, and Scalable Deployment of VMS Systems With 80 Channel, Support—Under 10W per Card

Technical Details

Entire video pipeline, with multiple AI inference models on single card.

80-channel, real-time AI video analytics at under 10W per card.

On-chip AI processing offloads host for increased card count.

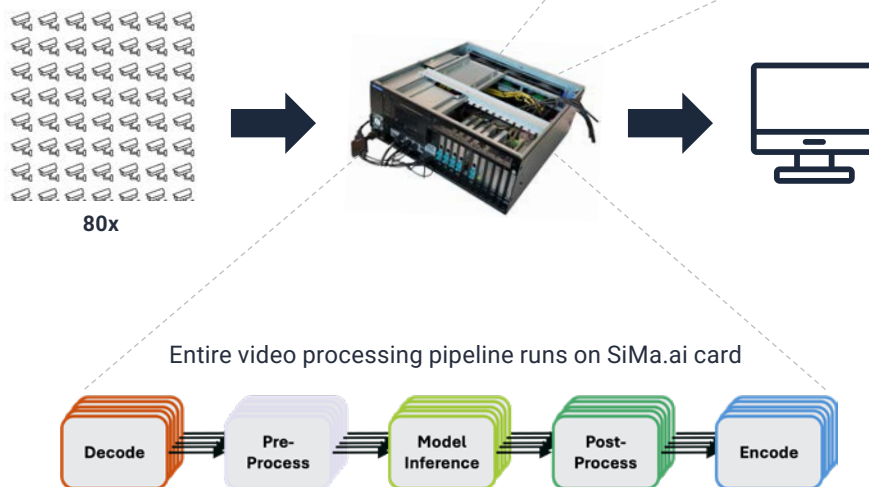
Octa-core Arm CPU enables native browser visualization, VMS stack, plus implementation of all business logic.

>1000 FPS YOLOv8n and 300 FPS YOLOv8m per card.

Adaptive UI with real-time overlays and classifications, orchestrated through Palette SDK.

Scalable System Architecture

- Complete video pipeline on chip
- Plug-and-play on-device inference



SiMa.ai's Palette software stack orchestrates pipelines, stream management, and UI overlays

Hardware

Our Silicon



Modalix

Our Boards



SoM



SoM Dev



PCIe HHHL

Software



Hugging Face huggingface.co/simai

Model Zoo simai.ai/model-browser/



About SiMa.ai

SiMa.ai is a leader in Physical AI, delivering a purpose-built, software-centric platform that brings best-in-class performance, power efficiency, and ease of use to Physical AI applications. Focused on scaling Physical AI across robotics, automotive, industrial automation, aerospace & defense, smart vision, and healthcare, SiMa.ai is led by seasoned technologists and backed by top-tier investors. Headquartered in San Jose, California. Learn more at www.simai.ai.

