

FALCON H8

**Best Efficient PCIe AI Accelerator Card
powered by Hailo-8™ AI Processors**



■ Features

- Best-in-class Performance And Cost-efficiency
- Scalable, Supports 4, 5 or 6 Hailo-8™ AI Processors
- High Power Efficiency, Low Power Consumption
- Commercial and Industrial Grade Support
- Enablement Software Package with Advanced Deep Learning Models and AI Reference Applications
- Hailo-8™ Software Development Tools Significantly Reduce the Time to Market of AI Applications

■ Product Overview

Lanner's Falcon H8 modular, PCIe form factor provides an easily deployable solution for engineers looking to offload CPU loading for low-latency deep learning inference. With high-density AI processors, the Falcon H8 accommodates 4, 5, or 6 Hailo-8™ AI Processors, offering a modular, cost-effective Edge AI solution with high processing capabilities and power efficiency. Through a standard PCIe interface, the Falcon H8 AI Accelerator Card enables legacy devices such as NVRs, Edge AI boxes, Industrial PCs and robots to run video-intensive, mission-critical Edge AI applications such as video analytics, traffic management, access control, and beyond.

■ Specifications

AI Performance

Up To 156 TOPs 8000 FPS Of ResNet-50, 1300 FPS Of YOLOv5m

AI Processors

4-6 Hailo-8™ AI Processors with Hailo Patented Structure Defined Dataflow Architecture

AI Frameworks Support

Hailo AI Dataflow Compiler With Profiler And Emulator Supports TensorFlow, ONNX And PyTorch Frameworks

PCIexpress Interface

PCI Express x16 Compliant With PCI Express Specification v3.0

System Compatibility

Intel x86 or ARM Devices, Linux OS e.g., Ubuntu, Yocto Lanner Network and Edge AI Appliances

Power Consumption

Typical: 45W

Temperature

Operating: 0~70°C (Commercial Grade)

-40~85°C (Industrial Grade)

Storage: -40~85°C

Humidity

5% - 90% RH, Non-condensing

Dimension

Standard PCIe Single Slot Form-factor
167.65mm x 111.15mm Without Bracket

Certifications

CE Class A, FCC Class A

■ Ordering Information

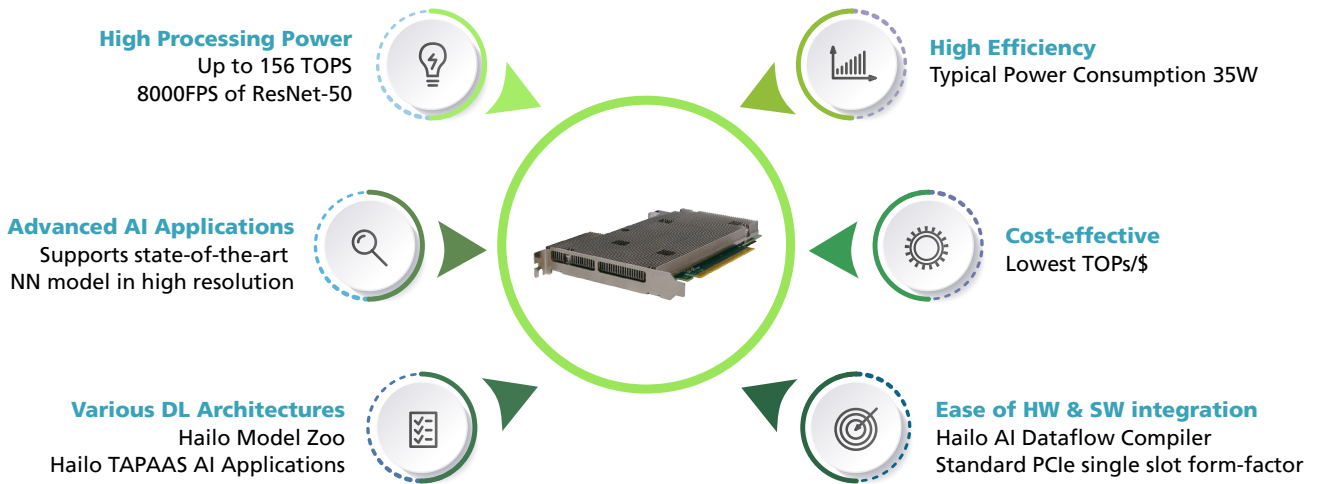
FALCON-H8A	IEE-AI0001A, Commercial Grade, Onboard 6x Hailo-8™ AI Processor
FALCON-H8B	IEE-AI0001B, Commercial Grade, Onboard 5x Hailo-8™ AI Processor
FALCON-H8C	IEE-AI0001C, Commercial Grade, Onboard 4x Hailo-8™ AI Processor
FALCON-H8D	IEE-AI0001D, Industrial Grade, Onboard 6x Hailo-8™ AI Processor
FALCON-H8E	IEE-AI0001E, Industrial Grade, Onboard 5x Hailo-8™ AI Processor
FALCON-H8F	IEE-AI0001F, Industrial Grade, Onboard 4x Hailo-8™ AI Processor

■ Supported Devices

- NVRs & Edge AI Boxes
- Industrial Gateways & PCs
- Industrial Robots



Feature Highlights



Supported Intelligent Applications

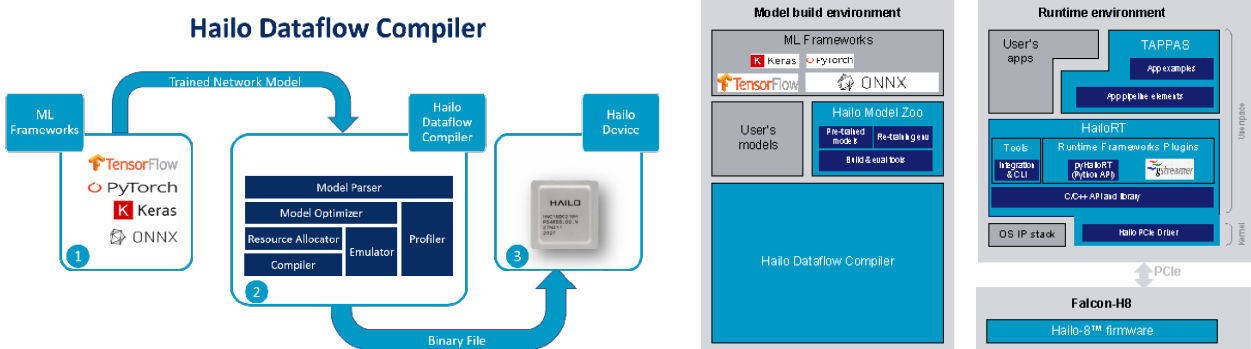
FALCON H8 enables scalable, powerful, cost-effective and low power consumption intelligent video analytics (IVA) applications for intelligent transportation, smart cities, smart retail and Industry 4.0 devices



- Traffic law enforcement
- Traffic flow analytics
- Automatic number-plate recognition
- Flow & Queue analysis
- Smart advertising
- Customer identification
- Store inspection
- Hazard and crime detection
- Parking laws enforcement
- Public health Monitoring
- Quality control automation
- Line inspection
- Predictive maintenance
- Vision-based inventory trackin

Hailo Toolchain and Developer Tools

The Hailo Dataflow Compiler API seamlessly integrates with existing deep learning development frameworks to allow smooth and easy integration in existing development ecosystems. Hailo Dataflow Compiler is used for compiling users' models to Hailo binaries. The input of the Dataflow Compiler is a trained Deep Learning model. The output is a binary file which is loaded to the Hailo device. The HailoRT API is used for deploying the built model on the target device. This library is used by the runtime applications.



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