

FALCON LITE

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



■ Features

- Best-in-class Performance And Cost-efficiency
- Scalable, Supports 1, 2 Or 4 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 Time To Market For AI Applications

■ Product Overview

Lanner's Falcon Lite 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 H8L accommodates 1, 2, or 4 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 Lite 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 106 TOPs

AI Processors

1, 2 or 4 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

PCIe Interface

PCI Express x16/x8/x4 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: 35W

Temperature

Operating: 0~70°C (Commercial Grade)
-40~85°C (Industrial Grade)

Storage: -40~85°C

Humidity

5% - 90% RH, Non-condensing

Dimension

167.64mm x 64.4mm (PCIe x16/x8)
119.9mm x 64.4mm (PCIe x4)

Certifications

CE Class A, FCC Class A

■ Ordering Information

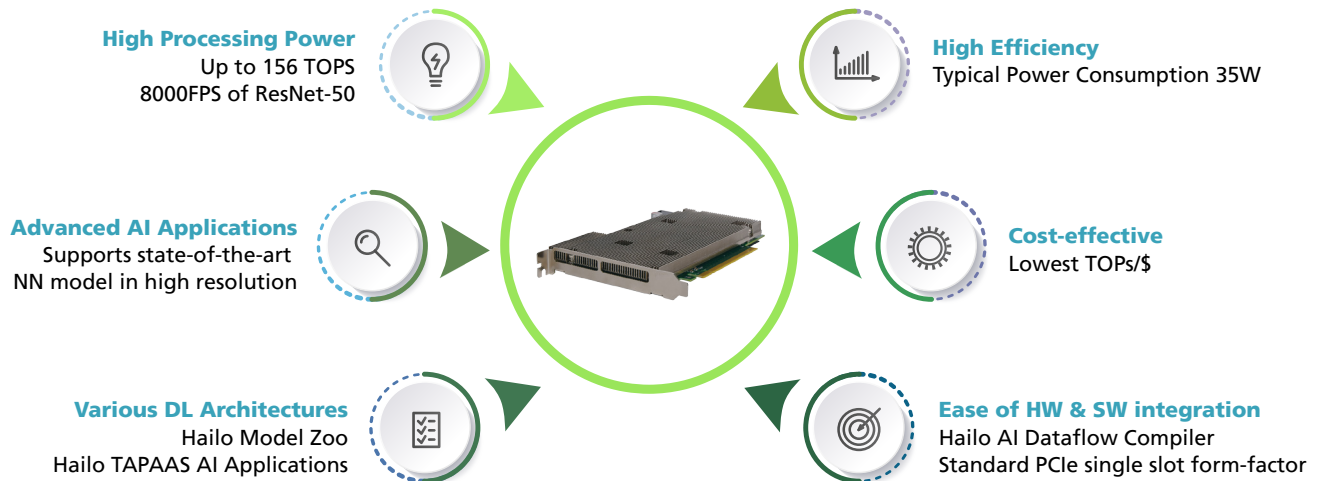
Model No.	PCIe Slot Type	PLM Model Info	AI VPU	PCIe LAN Config	Remark
Falcon Lite16A	X16	IEE-AI0002A	2x Hailo 8 NPU	2*X8	Commercial-grade
Falcon Lite16B	X16	IEE-AI0002B	3x Hailo 8 NPU	1*X8 + 2*X4	Commercial-grade
Falcon Lite16C	X16	IEE-AI0002C	3x Hailo 8 NPU	2*X4 + 1*X8	Commercial-grade
Falcon Lite16D	X16	IEE-AI0002D	4x Hailo 8 NPU	4*X4	Commercial-grade
Falcon Lite16E	X16	IEE-AI0002E	2x Hailo 8 NPU	2*X8	Industrial-grade
Falcon Lite16F	X16	IEE-AI0002F	3x Hailo 8 NPU	1*X8 + 2*X4	Industrial-grade
Falcon Lite16G	X16	IEE-AI0002G	3x Hailo 8 NPU	2*X4 + 1*X8	Industrial-grade
Falcon Lite16H	X16	IEE-AI0002H	4x Hailo 8 NPU	4*X4	Industrial-grade
Falcon Lite8A	X8	IEE-AI0003A	2x Hailo 8 NPU	2*X4	Commercial-grade
Falcon Lite8D	X8	IEE-AI0003D	4x Hailo 8 NPU	4*X2	Commercial-grade
Falcon Lite8E	X8	IEE-AI0003E	2x Hailo 8 NPU	2*X4	Industrial-grade
Falcon Lite8H	X8	IEE-AI0003H	4x Hailo 8 NPU	4*X2	Industrial-grade
Falcon Lite4A	X4	IEE-AI0004A	1x Hailo 8 NPU	1*X4	Commercial-grade
Falcon Lite4B	X4	IEE-AI0004B	2x Hailo 8 NPU	2*X2	Commercial-grade
Falcon Lite4E	X4	IEE-AI0004E	1x Hailo 8 NPU	1*X4	Industrial-grade
Falcon Lite4F	X4	IEE-AI0004F	2x Hailo 8 NPU	2*X2	Industrial-grade

Supported Devices

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



Feature Highlights



Supported Intelligent Applications

FALCON LITE 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



- TRANSPORTATION**
- Traffic law enforcement
 - Traffic flow analytics
 - Automatic number-plate recognition

- RETAIL**
- Flow & Queue analysis
 - Smart advertising
 - Customer identification
 - Store inspection

- SMART CITY**
- Hazard and crime detection
 - Parking laws enforcement
 - Public health Monitoring

- MANUFACTURING**
- 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.

