HAILO

Hailo-8 M.2 Starter Kit

Delivering data center class performance
to edge devices

Key Features & Benefits

Powered by 26 Tera-Operations Per Second (TOPS) Hailo-8 AI Processor	Highest cost-efficiency (TOPS/$) compared with existing solutions	Supporting extended temperature range of -40°C to 85°C
Best-in-class power efficiency	Scalable, enabling simultaneous processing of multi-streams & multi-models	Fast time to market using a standard form factor module, with key M, key B+M & key A+E
Enabling real-time, low latency, and high-efficiency AI inferencing on edge devices	Robust software suite supports state-of-the-art deep learning models & applications out-of-the-box	→ Optional extensions for Key M & Key B+M

Technical Specifications

Form factor options M.2 key M, key B+M, key A+E	Interface PCIe Gen-3.0, 2-lanes (4-lanes in key M)	Supported OS Linux, Windows
Dimensions → Key M, B+M: 22×80 mm with breakable extensions to 22×42 mm & 22×60 mm → Key A+E, 22×30 mm	Supported host architectures X86 or ARM based	Supported AI frameworks TensorFlow, TensorFlow Lite, Keras, PyTorch & ONNX

Featuring the Hailo-8 AI Processor

The Hailo-8 AI processor, delivering up to 26 tera-operations per second (TOPS), significantly outperforms all other edge AI processors. Its area and power efficiency are far superior to other leading solutions by an order of magnitude.

Hailo-8 unique, powerful and scalable structure-driven dataflow architecture takes advantage of the core properties of neural networks. It enables edge devices to run deep learning applications at full scale more efficiently, effectively, and substantially than traditional solutions, while significantly lowering costs.

What's in the Box?

Compatible with M.2 form factor, the Hailo-8 based modules can be plugged into an existing edge device with an M.2 socket.
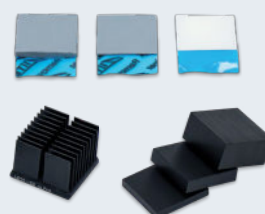
1 Single M.2 module:

OR

OR

M.2
Key A+E
(2230)

M.2
Key M
(2280)

M.2
Key B+M
(2280)

2 Thermal management kit includes metal cubes, thermal pads, and thermal adhesive tape
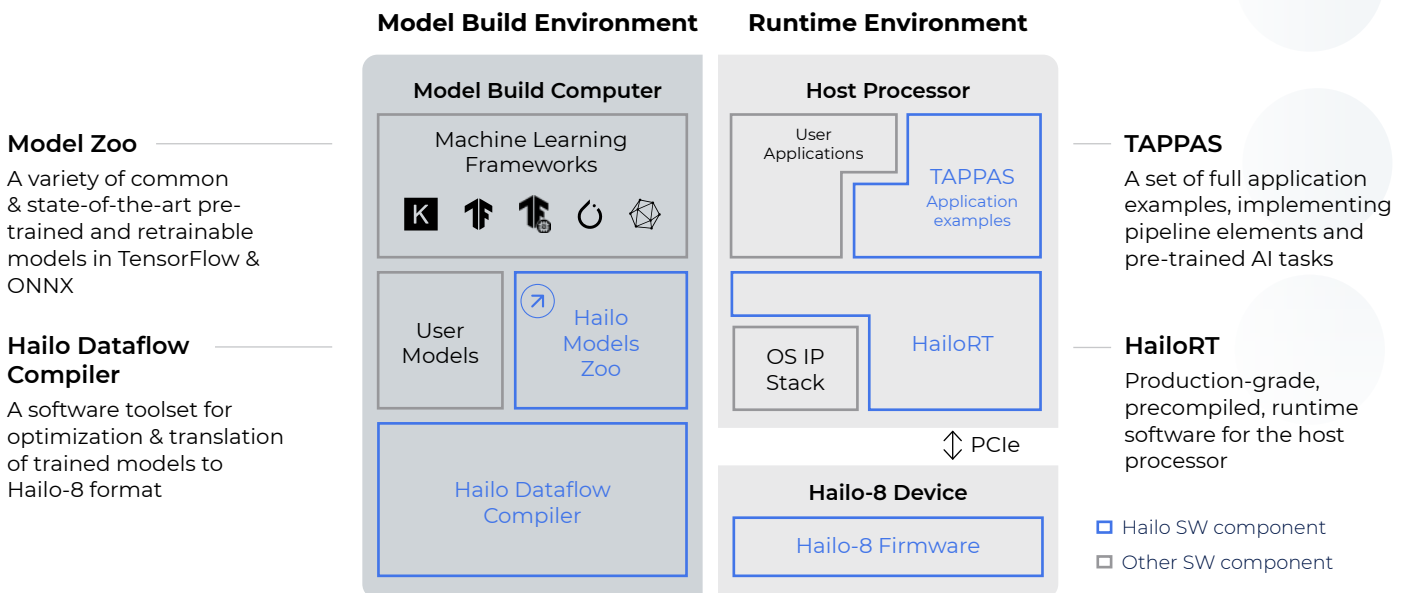

3 Screw & screwdriver

Comprehensive Software Suite

AI software suite which seamlessly integrates with existing deep learning development frameworks to allow smooth and easy integration in existing development ecosystems. The Hailo AI software suite includes:

Model Build Environment

Runtime Environment

Model Build Computer

Machine Learning Frameworks

User Models

Hailo Models Zoo

Hailo Dataflow Compiler

Host Processor

User Applications

TAPPAS Application examples

OS IP Stack

HailoRT

PCIe

Hailo-8 Device

Hailo-8 Firmware

Model Zoo

A variety of common & state-of-the-art pre-trained and retrainable models in TensorFlow & ONNX

Hailo Dataflow Compiler

A software toolset for optimization & translation of trained models to Hailo-8 format

TAPPAS

A set of full application examples, implementing pipeline elements and pre-trained AI tasks

HailoRT

Production-grade, precompiled, runtime software for the host processor

☐ Hailo SW component
☐ Other SW component

Hailo Ecosystem

Hailo collaborates with partners globally to offer products for edge solutions — from small and fanless devices, to ruggedized industrial appliances, high capacity video analytics platforms, embedded computing platforms and more.

To select your Hailo-based AI platform click here

System Usage

M.2 module connected to the various types of host processors via PCIe.

Host processor — PCIe — Hailo-8 M.2

Click here for more information & product inquiry