

AIMH1000

**M.2 M key AI Acceleration module
Hailo-8™ AI Processor x1**

Introduction

The AIMH1000 AI acceleration module, compatible with M.2 Key M form factor, is a 26 TOPS acceleration module, supports Edge AI applications in computer vision.

The module is based on PCIe gen3 x4 lanes interface which enables high throughput of input and output data, and it has adjustable form-factors of 2242, 2260 and 2280.

As high performance PCIe device, it can be used to perform real-time and low latency neural network inference. It uses PCIe interface for streaming input data and also for streaming inference results.

Features

Compliant with PCI Express 3.0 x4

Supports M.2 Key M Form-Factor with 2242, 2260 and 2280 adjustable

Powered by Hailo-8™ AI inference processors

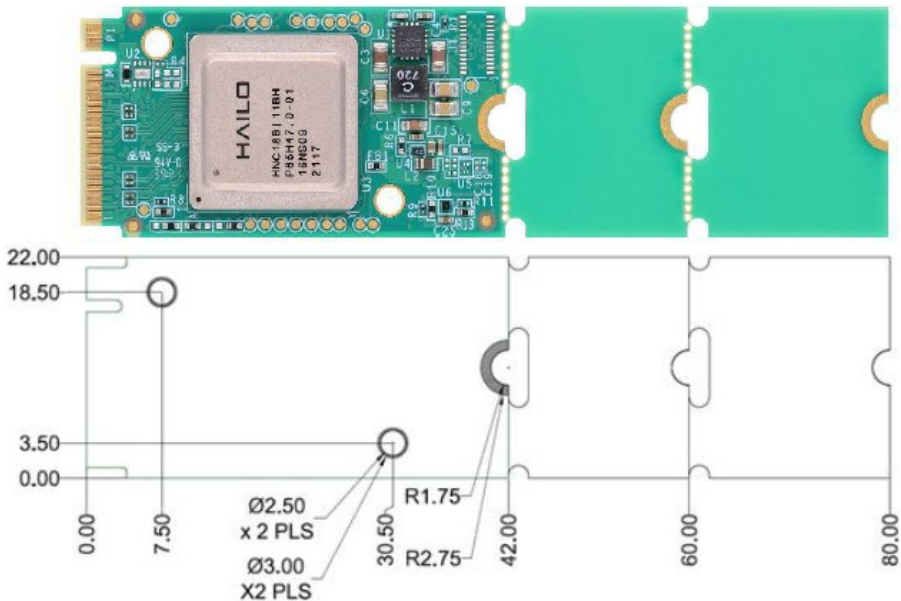
Supports 26 TOPS AI performance

Low power consumption

Supports Software Development Kit

Real-time, Low latency and High-performance AI inference acceleration to Edge AI

Specifications

Model	AIMH1000
Description	M.2 M key AI Acceleration module
AI Processors	Hailo-8™ AI Processor
Peak Performance	26 TOPs (Tera-Operations Per Second)
Thermal design power	8W (depend on heatsink design)
Interface	PCI Express Gen3 x4
AI Frameworks	TensorFlow, TensorFlow Lite, ONNX, Keras, Pytorch
Hailo Software Suites	<ul style="list-style-type: none"> ■ Dataflow Compiler (Model conversion) ■ HailoRT (Runtime environment and driver) ■ Model Zoo (Pre-trained models) ■ TAPPAS (Model examples)
OS Support	Linux (Ubuntu, Yocto) / Windows 10/11 64bit
Environment	Operation temp. -45 to 85°C (-49 to 185°F) industrial Operation humidity: 5 to 90% RH Storage temp. -45 to 85°C (-49 to 185°F)
Certification	CE/FCC Class A
Form Factor	M.2 Key M
Dimension	22x42 / 22x60 / 22x80 mm
Mechanical	 <p>The mechanical drawing shows the top and side views of the AIMH1000 module. The top view is a green PCB with a central Hailo-8 chip. The side view shows the module's profile with dimensions in millimeters. Key dimensions include: overall length of 42.00 mm, width of 22.00 mm, and a mounting hole diameter of Ø2.50 mm. The drawing also indicates the positions of two mounting holes (Ø2.50 x 2 PLS) and two larger holes (Ø3.00 x 2 PLS).</p>

Note:

Proper heat dissipation must be employed to ensure that the Hailo-8 chip does not overheat. The module requests a heatsink based on platform thermal case.