



AIEH4000

PCIe x16 AI Acceleration Card
Hailo-8™ x4



Introduction

SUNIX PCIe x16 AI Acceleration Card, AIEH4000, enables Hailo-8™ AI Processor into Edge computers, provides an easily deployable solution for AI developers to offload CPU loading on low-latency deep learning inference and cost-effective Edge AI computing with higher processing capabilities and lower power consumption. And this card can deliver up to 104 TOPS, enabling it to handle the most demanding computer vision applications. AIEH4000 also enables legacy computers 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.

Features

- Compliant with PCI Express 3.0 x16
- Supports Single PCIe Slot with low-profile Form-Factor
- Powered by Hailo-8™ AI inference processors
- Supports 104 TOPS AI performance
- Low power consumption
- Supports Software Development Kit
- Real-time, Low latency and High-performance AI inference acceleration to Edge AI

Note: AIEH4000 is incompatible with AMD Platform when using x16 Link Width.

Specifications

Model	AIEH4000
Description	PCIe x16 AI Acceleration Card
AI Processors	Hailo-8™ AI Processor x4
AI Performance	104 TOPs (Tera-Operations Per Second)
Power Consumption	27W (TDP)
PCIe Interface	PCI Express Gen3 x16
AI Frameworks	TensorFlow, TensorFlow Lite, ONNX, Keras, Pytorch
Software Suites	<ul style="list-style-type: none"> ■ Dataflow Compiler (Model conversion and compilation) ■ HailoRT (Runtime environment and driver) ■ Model Zoo (Pre-trained models) ■ TAPPAS (Deployment framework, examples and multi-network pipelines)
OS Support	Linux (e.g. Ubuntu, Yocto) & Windows 10/11 64bit
Environment	<ul style="list-style-type: none"> ■ Operation temp. 0 to 50°C (32 to 122°F) commercial ■ Operation humidity: 5 to 95% RH ■ Storage temp. -20 to 85°C (-4 to 185°F)
Certification	CE/FCC/VCCI/BSMI
Green Environment	RoHS
PCB Dimension	<p>167.0 x 68.5 mm</p> <p>The diagrams show the PCB dimensions in millimeters. The top view shows a rectangular board with a width of 68.50 mm and a length of 167.00 mm. The side view shows a thickness of 1.61 mm. The bottom view shows the location of the PCIe connector and mounting holes. Key dimensions include: 120.02±0.25 mm for the main body length, 53.90 mm for the distance from the PCIe connector to the first mounting hole, 10.20 mm for the hole diameter, 18.42 mm for the hole spacing, 4.64 mm for the mounting hole diameter, 12.75 mm for the distance from the PCIe connector to the first component, 4.00 mm for the component spacing, 72.15 mm for the distance from the PCIe connector to the last component, 12.15 mm for the distance from the last component to the edge, 9.34 mm for the distance from the PCIe connector to the edge, 167.00 mm for the total length, 68.50 mm for the total width, 1.61 mm for the thickness, 120.02±0.25 mm for the main body length, 53.90 mm for the distance from the PCIe connector to the first mounting hole, 10.20 mm for the hole diameter, 18.42 mm for the hole spacing, 4.64 mm for the mounting hole diameter, 12.75 mm for the distance from the PCIe connector to the first component, 4.00 mm for the component spacing, 72.15 mm for the distance from the PCIe connector to the last component, 12.15 mm for the distance from the last component to the edge, 9.34 mm for the distance from the PCIe connector to the edge.</p>
Bracket	Standard 121mm / Low profile 80mm(Optional)

Package

- AIEH4000 / PCIe x16 AI Acceleration Card
- Quick installation guide

Applications



Image Processing

- Accelerate image-recognition
- Image segmentation
- Object detection



Video Meeting

- Face tracking
- Gesture control



Factory Productivity

- Predictive maintenance -
- Enhance productivity -
- Improve agility -



Edge Inference

- Smart city -
- Smart retail -
- Smart buildings -



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