



MITAC COMPUTING TECHNOLOGY CORP.

AI Inference Card

# MiAi-H8

Influencing the World  
with AI Inference Card



## Up to 8x Industrial Grade Hailo-8™ AI Processor

Unleash AI computing power by multiplication effect

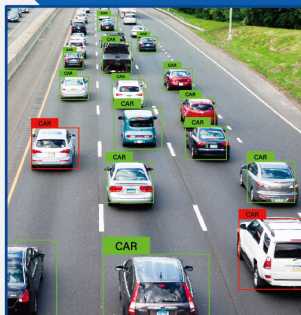
## Up to 208 TOPs

Triple performance per dollar by comparing to other advanced AI card

## High Power Efficiency

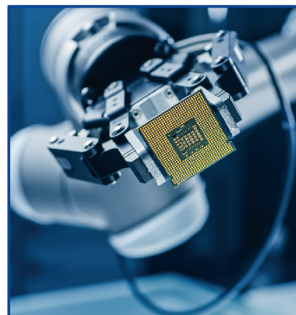
Same performance with one third power consumption

## Edge AI Application Scenarios



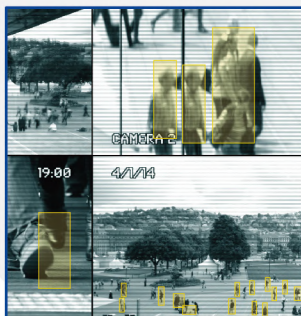
### Intelligent Transportation System

- Autonomous Driving
- Mobile NVR
- Intelligent Passenger Information System



### Smart Manufacturing

- Robotic Vision
- AI Inspection
- Workspace / Worker Safety



### Smart City

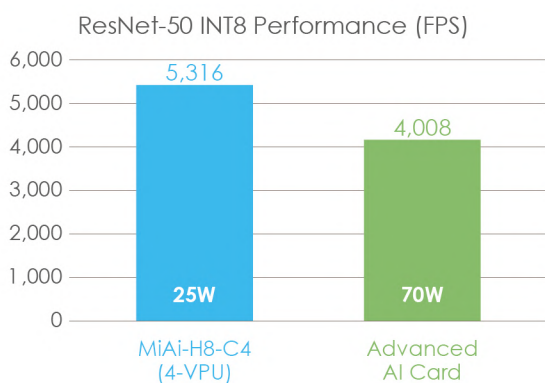
- Traffic Monitoring & Control
- Public Safety
- Infrastructure & Services Management



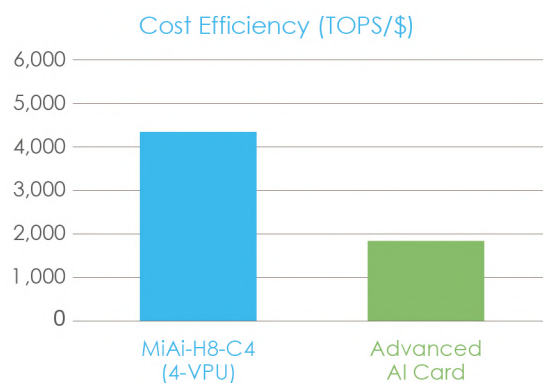
### Smart Retail

- Smart Analytics
- Self-Checkout
- Automated Store

## Get more performance at 1/3 of the power



## Get X3 more performance for every \$ spent



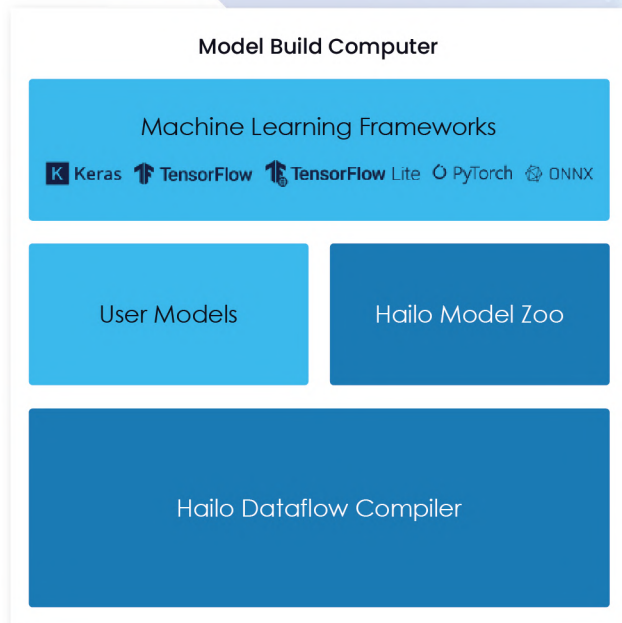


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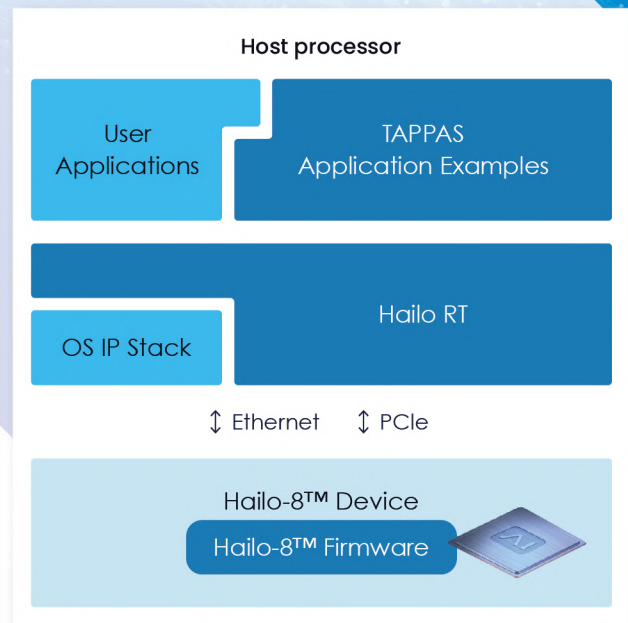
## I Hailo's Comprehensive AI Software Suite

Seamlessly Integrates with Existing ML Development Frameworks

### Model Build Environment

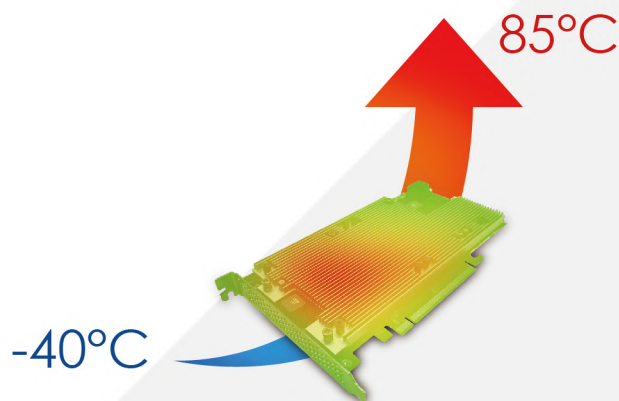


### Runtime Environment



## I -40~85°C Wide Temperature

MiAi-H8 is designed with all industrial grade components in extreme temperature condition from **-40°C to 85°C**.



## I Industrial-grade Design

### 6X longer lifespan

Different from Electrolytic Capacitors, with a service life of longevity, stability, and reliability, our embedded motherboards are built with Solid Capacitors.

### Operation Lifetime



Longer Life Time

Increased Stability

Increased Reliability

No Exploding Capacitors

Better Overclocking Performance



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# MiAi-H8

Real-time & AI Inference Acceleration  
Xpansion PCIe Card

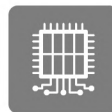


## Features

- Support up to 8 x Hailo-8™ AI Processor
- Support up to 208 TOPs
- Support Hailo-8™ Software Development Kit
- Passive and active cooling alternatives
- Industrial grade design with all solid capacitors and wide temperature support



AI  
Performance  
(208 TOPs)



8 x Hailo-8™  
AI Processor



Energy  
Saving

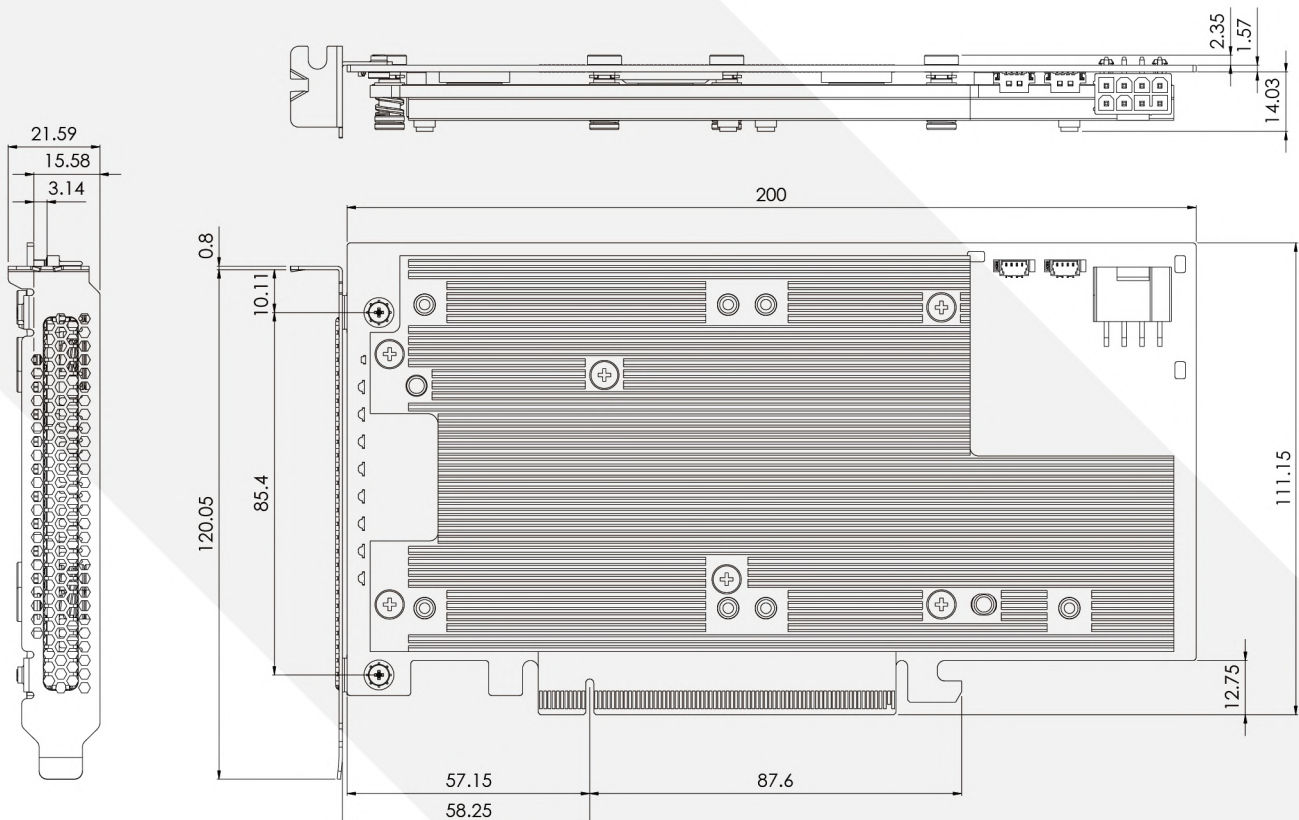


All Solid  
Capacitor

## Dimension

Passive Cooling: 111mm (Width) x 200mm (Length) x 14mm (Height)

Active Cooling: 111mm (Width) x 200mm (Length) x 30.5mm (Height)



## I AI Acceleration card Specification

# MiAi-H8

| General           |                                                                              |
|-------------------|------------------------------------------------------------------------------|
| Form Factor       | Real-time AI Inference Acceleration                                          |
| Bus Type          | PCI Express Gen3 x16                                                         |
| Certification     | CE, FCC                                                                      |
| Dimension         | 111 x 200 x 14 mm (Passive Cooling);<br>111 x 200 x 30.5 mm (Active Cooling) |
| AI Processor      |                                                                              |
| AI Processor      | 4~8 x Hailo-8™ AI Processor                                                  |
| AI Performance    |                                                                              |
| 4 x Hailo-8™      | 104 TOPs, 5,300 FPS of ResNet, and 900 FPS of YOLO v5m                       |
| 8 x Hailo-8™      | 208 TOPs, 10,600 FPS of ResNet, and 1,800 FPS of YOLO v5m                    |
| Power Requirement |                                                                              |
| Power Consumption | 4 x Hailo-8™: Max. 42W; Typ. 20W<br>8 x Hailo-8™: Max. 74W; Typ. 30W         |
| Accessory         |                                                                              |
| Accessory         | Pre-installed Full height PCIe bracket with venting holes                    |

## I Software

| ML Frameworks Support         |                                                                                                                     |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------|
| ML Frameworks Support         | ONNX; TensorFlow; pyTorch                                                                                           |
| Runtime Support               |                                                                                                                     |
| Runtime Support               | GStreamer; ONNX Runtime; Native C/C++                                                                               |
| Hailo Software Suites Support |                                                                                                                     |
| Hailo Software Suites Support | 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                    |                                                                                                                     |
| OS Support                    | Linux Ubuntu 22.04                                                                                                  |
|                               | Microsoft® Windows® 10 Pro/IoT 2021 LTSC,<br>Windows® 11 Pro (only support PCIe driver and HailoRT tool in Windows) |

## I Environmental

| Operating Temperature |                                  |
|-----------------------|----------------------------------|
| 4 x Hailo-8™          | -40 ~ 60°C (Passive cooling SKU) |
| 8 x Hailo-8™          | -40 ~ 50°C (Passive cooling SKU) |
| 4 x Hailo-8™          | -40 ~ 85°C (Active cooling SKU)  |
| 8 x Hailo-8™          | -40 ~ 75°C (Active cooling SKU)  |
| Storage Temperature   |                                  |
| Storage Temperature   | -40 ~ 85°C                       |
| Operating Humidity    |                                  |
| Operating Humidity    | 10% ~ 95% R/H (Non-condensing)   |



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