

AI

innodisk



## Innodisk AI for Electric Vehicle Charging

Innodisk, a leading AIoT solutions provider, has developed a powerful AIoT platform that integrates artificial intelligence and robust hardware to revolutionize the electric vehicle (EV) charging industry. With the increasing adoption of electric vehicles worldwide, there is a growing need for efficient and intelligent EV charging solutions. Innodisk's AI electric vehicle charging network management system provides a comprehensive solution to manage charging piles optimally, incorporating features such as suburban area support, efficient maintenance, and number plate recognition.

## Challenges in EV Charging Applications



### Parking violation detection

Innodisk AI's machine vision solution kit can detect EV parking violations, such as non-electric cars occupying charging spots.



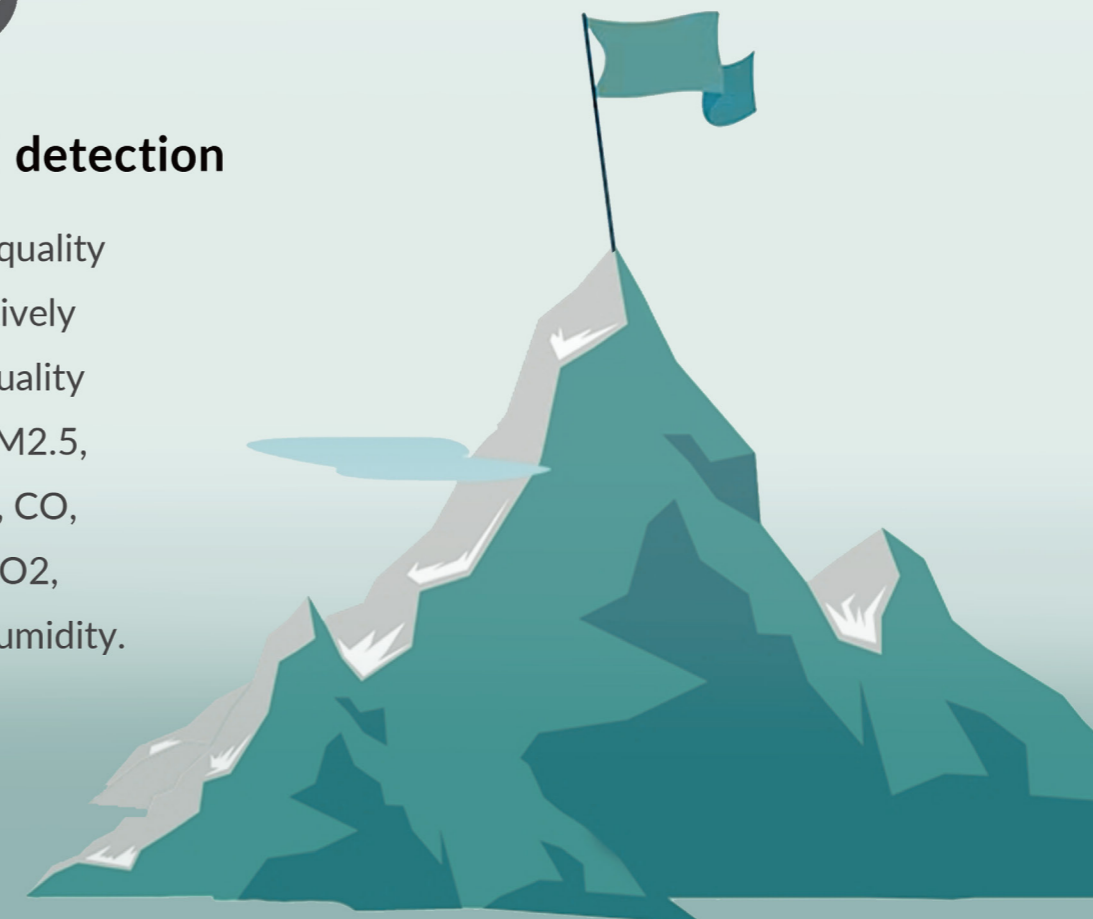
### Instant remote management

Innodisk's InnoAgent is an industrial module that allows out-of-band remote systems management, even if they have crashed or are entirely offline.




### Environmental detection

Sysinno's iAeris air quality monitors can effectively detect various air quality factors, including PM2.5, PM10, TVOC, CO2, CO, HCHO, O3, NO2, SO2, temperature, and humidity.



# Discover the Power of Innodisk AI Solution

 **5G/LTE** support for non-networking area

**Instant status** 



**aetino**  
**HAILO**

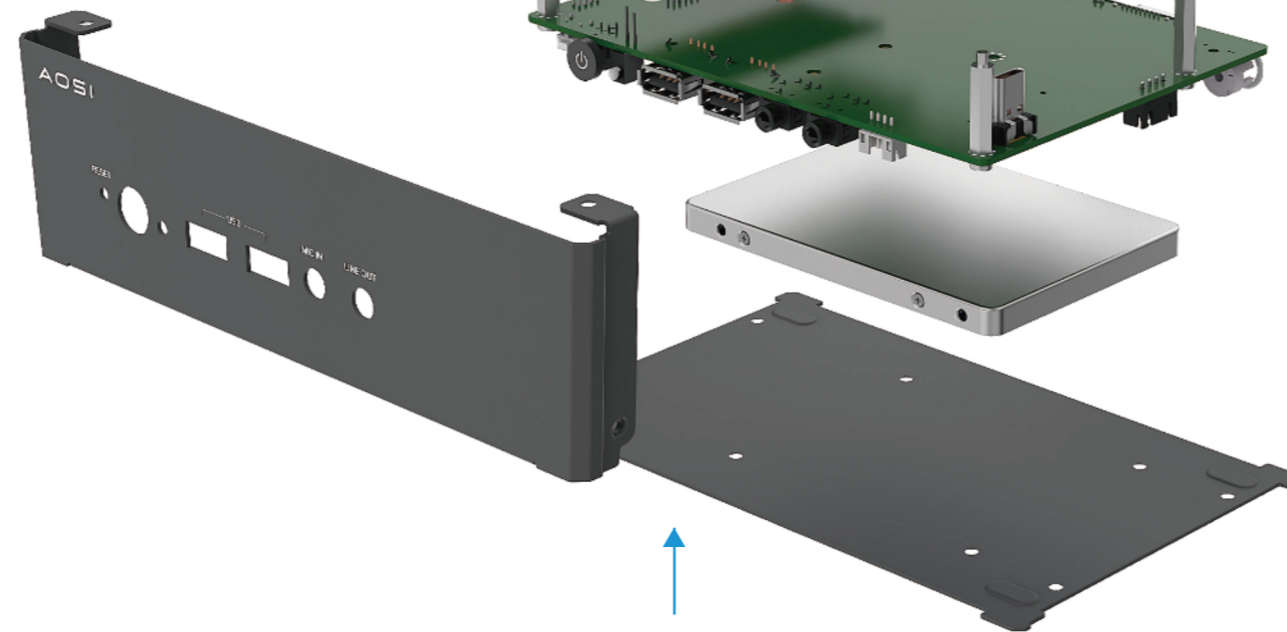
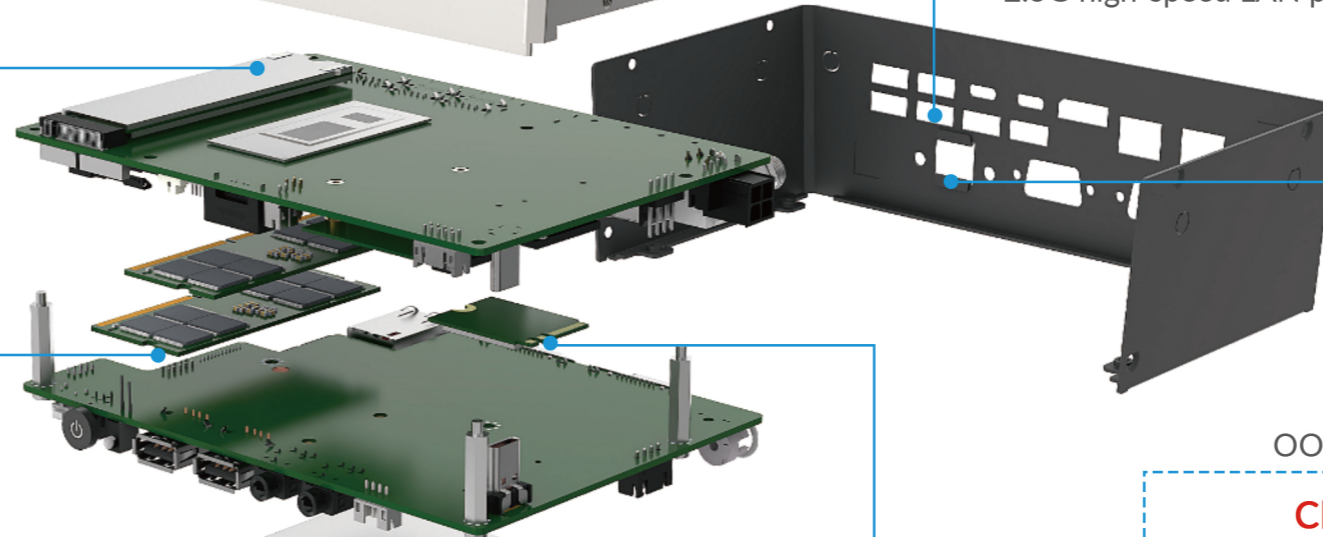
Hailo-8 AI module delivers unprecedented AI performance with 26 TOPS and high power efficiency



Innodisk provides high quality DDR5 with 100% original grade IC and anti-sulfuration for AI outdoor applications



Support 4~8 IP CAMs through 2.5G high-speed LAN ports



OOB In-Band

**Cloud management**



Innodisk's out-of-band power signaling remote management technology allows system operators to manage and maintain edge devices



5G/LTE/GPS module support for non-networking area



InnoOSR SSD provides Remote OS Recovery function for Edge AI application

**Straightforward Back-up**

**One click Recovery**

# Use Cases for AI in EV Charging



## Efficient management of EV charging networks

Innodisk's AIoT platform and edge computing capabilities can monitor and manage EV charging networks in real-time, optimizing charging piles' operation and improving network efficiency.

## Number plate recognition and charger status update

Innodisk's solution can recognize number plates and provide instant status updates of the charger to the EV owner, ensuring smooth and reliable charging experiences.



## Smart maintenance and repair of EV charging infrastructure

Innodisk's technology can detect the life cycle of SSD/DRAM, prepare new components in advance for repair, and provide remote OS recovery function for Edge AI applications, reducing downtime and saving maintenance costs.



# Innodisk Edge AI Solution

Cloud Management	iCAP			
	Public Cloud / Private Cloud			
AI Training / Inference	iVIT			
	GPU Model ZOO	FPGA Model ZOO	ASIC Model ZOO	3rd Party AI Model
Edge Utility (SW / FW)	iSMART / iTracker / iOPAL / iRAID	OOB Management		Virtual I/O Technology
	BSP/Driver/SDK porting & optimization			
OS Integrations	Microsoft Windows / Linux			
Edge Device	AIoT Platform (FPGA / GPU / ASIC / CPU)	AIoT Peripheral (Embedded Card & Camera / Virtual I/O)	Flash/DRAM Module	Wi-Fi6/ Media Server Air Sensor CAN

# Innodisk Group Solution

SSD	DRAM	Camera	Embedded Peripherals
<p>Innodisk SSDs are high-performance storage devices designed for industrial and embedded applications. They offer robustness, reliability, and endurance, with features such as power-loss protection, error correction, and advanced data security.</p>	<p>Innodisk DRAM is a high-speed, high-capacity memory module designed for use in a wide range of industrial applications. It features reliable performance, durability, and advanced data protection, making it ideal for harsh environments.</p>	<p>Innodisk camera modules optimize image quality for different AI applications depending on the needs of customers, in order to meet the demand for high-speed and high-resolution applications in different embedded systems.</p>	<p>Embedded peripherals like LAN, PoE, CAN bus, DIO, serial port, storage, RAID, and display add functionality to systems. Innodisk aims to create expandable and space-efficient expansion modules to increase flexibility and lower TCO.</p>
<p>Edge AI solutions tailored for AI training, AI inference, and AI computing powered by highly reputable GPU and AI accelerators from NVIDIA.</p>	<p>Communication and system integration for in-vehicle applications enable seamless fleet management and data collection.</p>	<p>Highly reliable wireless software defined network and virtualized connectivity products for Metaverse, Neural Network, and AI computing applications.</p>	<p>Ensuring safe indoor and outdoor air quality through sophisticated and robust sensors.</p>

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