Edge AI Computing Solutions

www.axiomtek.com

AI Everywhere

Unleashing the Potential of Edge AI Computing

Artificial Intelligence is transforming industries by enabling faster insights, smarter automation, and more efficient operations. Axiomtek delivers innovative Edge AI embedded systems that accelerate application deployment from the edge to the edge-cloud. Designed for scalability and cost efficiency, our solutions empower AI adoption across security, infrastructure, retail, smart factories, and smart cities.

Edge AI Computing Use Cases

- Smart Manufacturing
- Smart City
- Autonomous Machine
- Robotics & Physical AI

- Smart Energy
- Public Sector
- Smart Agriculture
- Smart Transportation

Add-on Value

Axiomtek goes beyond hardware with intelligent add-on features that improve reliability and lifecycle management, enabling remote power control, ignition-synchronized operation, and smart auto-recovery to minimize downtime and simplify edge AI maintenance.
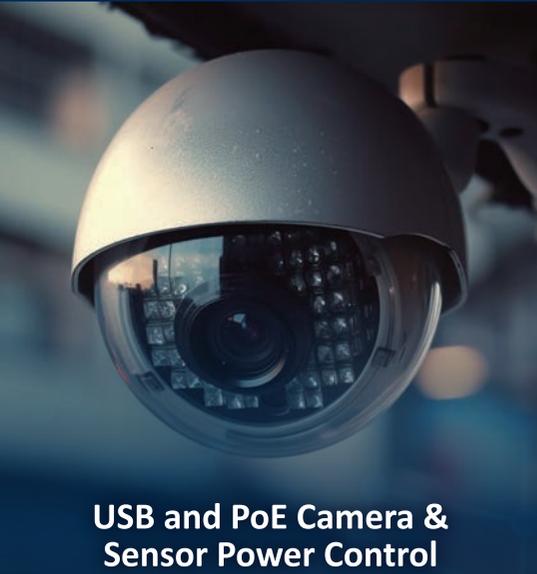
USB and PoE Camera & Sensor Power Control

Easily reboot the connected vision device by remote command.

Smart Ignition Power Control for In-vehicle

Ensure safe startup and shutdown of edge devices with ignition sync.

Smart Wireless Auto-Recovery

Automatically recover lost wireless connections with smart reboot.

Leveraging Our Ecosystem: Sensor, Camera, AI Software

Axiomtek works closely with a broad ecosystem of leading sensor, camera, and AI software partners to deliver flexible, end-to-end Edge AI solutions. By integrating proven technologies across vision, sensing, and perception, Axiomtek helps customers accelerate development and deployment across diverse AI applications.

APPRO.PHO   BASLER   e-con Systems Think Camera. Think e-con.   (intel) REALSENSE TECHNOLOGY

LIPS Sense The World   oToBrite driving easier and safer   SENSING 森云智能   STEREOLABS

TechNexion INNOVATORS OF TECHNOLOGY   MICROIP   ORBBEC

Axiomtek's Partnership with NVIDIA

Axiomtek edge AI systems combine powerful GPU computing with AIoT versatility, delivering ready-to-deploy solutions for robotics, vision AI, autonomous machines, and edge applications. Built on NVIDIA Jetson platforms and accelerated by JetPack SDK, these systems simplify AI development and speed time-to-market. With compact, high-performance, and rugged designs, they ensure reliable operation in the most challenging environments, helping businesses drive innovation and efficiency at the edge.

NVIDIA | Preferred Partner

Axiomtek Software Services Ready for NVIDIA Jetson

Axiomtek delivers end-to-end software services for NVIDIA Jetson platforms, covering BSP porting, driver support, and system image customization. Backed by long-term technical support, Axiomtek helps customers accelerate deployment and streamline Edge AI system integration.

BSP Porting
Nvidia Jetson Linux BSP Porting / Multiflash Mode / JetPack Components Pre-installation

Peripheral Driver Support
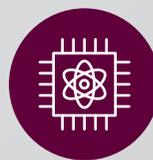Sensor / 2D&3D Camera / GMSL Camera / Wireless Module

Image Customization
Device Tree Modification / Custom Splash Screen / Kernel / OTA

Technical Support & Value UP Service
AMR Builder Package / NVIDIA Isaac Perceptor (ROS2)

Empowering Innovation

Axiomtek's Edge AI Solutions

Axiomtek DigiHub	Ecosystem partner AI package

UTILITY

NVIDIA JetPack | NVIDIA ISAAC | ROS

TOOLKITS/SDKS

NVIDIA CUDA | NVIDIA QUADRO

TOOLKITS/SDKS

AIE100 · AIE110 · AIE015-AT

AIE500 · AIE800 · AIE810

AIE900
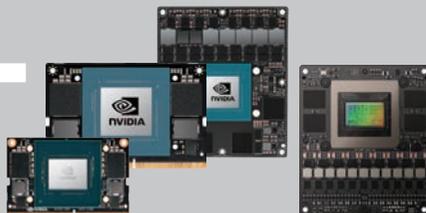
+ NVIDIA Jetson system-on-module

iHPC100 · IPC964A
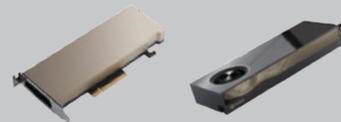
+ GPGPU/FPGA - PCIe

eBOX671B

+ GPGPU/ASIC - MXM

PLATFORMS   **PLATFORMS**

Smart Choices, Intelligent Outcomes: Axiomtek's Edge AI Array

Axiomtek has developed edge AI platforms, leveraging the full spectrum of NVIDIA® Jetson modules, such as the NVIDIA® Jetson Nano™, NVIDIA® Jetson Xavier™ NX, NVIDIA® Jetson AGX Xavier™, NVIDIA® Jetson Orin Nano™, NVIDIA® Jetson Orin™ NX, NVIDIA® Jetson AGX Orin™, and NVIDIA® Jetson Thor™. These platforms cater to a diverse range of AI applications, including robotics, computer vision, autonomous systems, and intelligent video analytics.

AIE015-AT

Up to 2070 TFLOPS

NVIDIA® Jetson Thor™:
NVIDIA® Jetson T5000
NVIDIA® Jetson T4000

- Ideal for NVIDIA Isaac™, Holoscan, and Metropolis
- Easy management: USB and PoE device power control
- One QSFP28 & 8-CH GMSL for camera and sensor fusion
- Seamless speed: 5G, Wi-Fi 6E, and GbE
- Support multiple purpose of AI model for robotics and physical AI

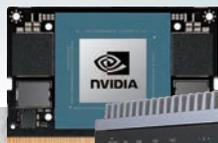| Physical AI & Robotics | 1 x QSFP28 | 8-CH GMSL | LPDDR5X | Smart Ignition |

AIE510

Up to 100 TOPS

NVIDIA® Jetson Orin™ NX
NVIDIA® Jetson Orin Nano™ **Super Mode**

- Seamless speed: 5G, Wi-Fi 6E, and 2.5 GbE
- Easy management: USB & PoE device power control
- 2 PoE, 4-CH GMSL and isolated DIO (4-in/4-out)
- 9 to 36VDC with Smart Ignition
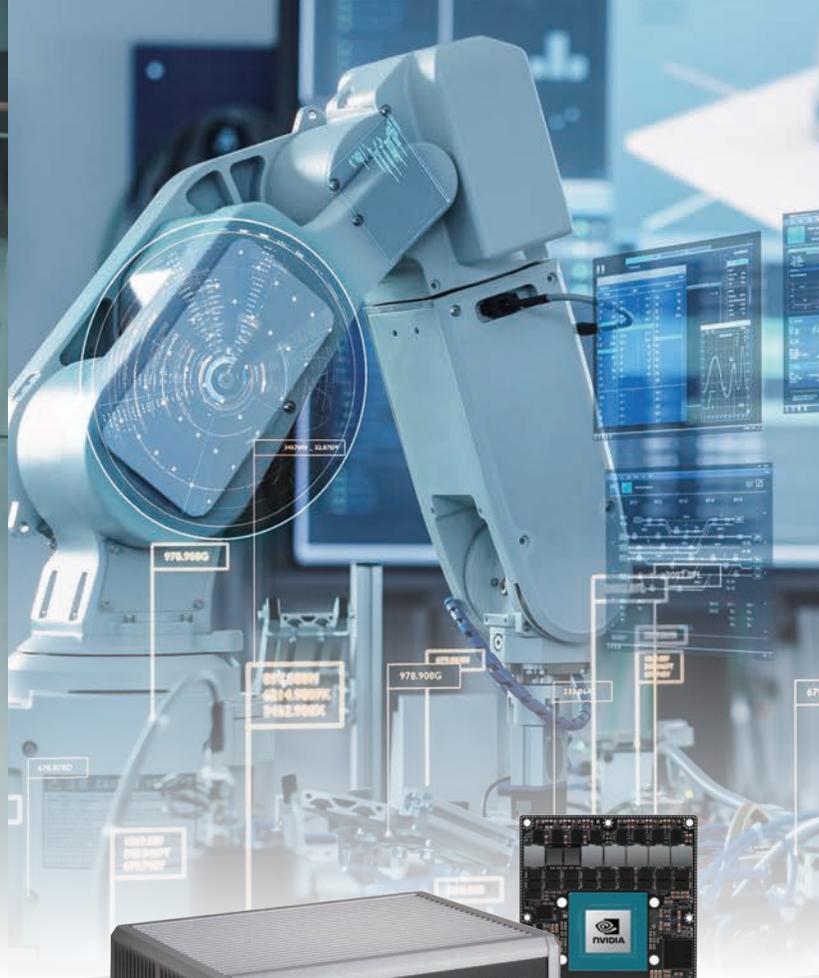- CE, FCC, and E-Mark certified

AMR & In-vehicle	4-CH GMSL	Palm-size	Smart Ignition	E-Mark

AIE900A

Up to 275 TOPS

NVIDIA® Jetson AGX Orin™

- Seamless speed: 5G, Wi-Fi 6E, and 2.5 GbE
- 6 USB, 2 COM/CAN, and 8-CH DIO
- 8 PoE, 8-CH GMSL for camera and sensor
- 9 to 36VDC with Smart Ignition
- Supports NVIDIA Isaac™ and ROS 2

Robotics	5G/Wi-Fi 6E	8-CH GMSL	NVIDIA Isaac™	ROS2

AIE100/AIE110

Up to 100 TOPS

NVIDIA® Jetson Orin™ NX
NVIDIA® Jetson Orin Nano™ **Super Mode**
NVIDIA® Jetson Xavier™ NX

- Palm-sized, budget-friendly, and highly expandable
- 15W GbE PoE for camera
- Seamless speed: LTE, Wi-Fi, and GbE
- 2 USB, GbE, PoE, and 8-CH DIO
- IP42 rating for semi-outdoor applications
- AIE110: -10°C to +60°C/AIE100: up to -25°C to +70°C

| Smart City | PoE for Camera Deployment | Budget Friendly | Palm-size | Remote Management (Allxon) |

AIE810

Up to 275 TOPS

NVIDIA® Jetson Orin™ NX **Super Mode**
NVIDIA® Jetson Orin Nano™ **Super Mode**

- IP67 rating for outdoor applications
- Seamless speed: 5G, Wi-Fi 6E, and 2.5 GbE
- 2 PoE, 2 USB, and 8-CH DIO
- 9 to 36 VDC with Smart Ignition
- -25°C to +60°C

| IP67 | Smart Ignition | PoE for Camera Deployment | 9-36VDC | Wide Temperature |

Beyond Limits: Unleash Innovation with Our Tower GPU Workstation

NVIDIA® RTX/Quadro Support Cutting-Edge GPU Cooling Engineered for Complex AI Workloads

iHPC100

- Unique cooler design for Graphics card
- ATX redundant power 750W for GPU card
- 4 SATA3 with RAID 0/1/5/10

Automation

High-speed PCIe/PCI Slots

NVIDIA® RTX/Quadro

IPC964A/IPC962A/IPC960A

Modular Industrial Edge System

- Supports NVIDIA® L4/RTX 4000 SFF graphics card
- Compact optional fan system
- Additional 200W power for accelerator cards
- Advanced thermal design for reliable GPU computing

Automation

AI Accelerating

5G

Flexible I/O Configurations

eBOX671B

Robust GPU Computing System

- Seamless speed: 5G, Wi-Fi 6, and 2.5 GbE with TSN
- Supports NVIDIA® MXM 3.1 GPU card for up to 5 display outputs
- -40 ˚C to +70 ˚C
- Optional fan kit

AMR & Robotics

Quint-View

5G/Wi-Fi 6E

Ignition

Selection Guide
Edge AI Systems

	Model	AI Accelerator	I/O Connectivity
NEW	**AIE015-AT**	NVIDIA® Jetson Thor™	6 USB, 1 QSFP28, 1 GbE, 2 COM/CAN, 16-CH DIO, 8-CH GMSL
NEW *Super Mode*	**AIE100**	NVIDIA® Jetson Nano™ NVIDIA® Jetson™ TX2 NX NVIDIA® Jetson Xavier™ NX NVIDIA® Jetson Orin™ Nano NVIDIA® Jetson Orin™ NX	2 USB, 1 GbE, 1 PoE
NEW *Super Mode*	**AIE110**	NVIDIA® Jetson Xavier™ NX NVIDIA® Jetson Orin™ Nano NVIDIA® Jetson Orin™ NX	2 USB, 1 GbE, 1 PoE, 8-CH DIO
NEW	**AIE510**	NVIDIA® Jetson Orin™ Nano NVIDIA® Jetson Orin™ NX	2 USB, 2 PoE, isolated DIO (4-in/4-out), COM/CAN, 4-CH GMSL
	AIE800	NVIDIA® Jetson Xavier™ NX	2 USB, 1 PoE, 9 to 36 VDC
NEW *Super Mode*	**AIE810**	NVIDIA® Jetson Orin™ Nano NVIDIA® Jetson Orin™ NX	2 USB, 2 PoE, 8-CH DIO
NEW *Super Mode*	**AIE900B**	NVIDIA® Jetson Orin™ Nano NVIDIA® Jetson Orin™ NX	4 USB, 1 GbE, 4 PoE, 8-CH DIO, 2 COM/CAN, 8-CH GMSL
	AIE900A	NVIDIA® Jetson AGX Orin™	2 USB, dual 2.5GbE, 8 PoE, 8-CH DIO, 2 COM/CAN, 8-CH GMSL
	iHPC100	NVIDIA® RTX/Quadro Graphics card	11 USB, 2 GbE, 1 HDMI
	IPC964A	NVIDIA® Tesla/RTX/Quadro Graphics card	6 USB, 2 GbE, 1 NVMe (PCIe x4), 4 PCI/PCIe slots
	eBOX671B	NVIDIA® RTX™ MXM GPU card	6 USB, 4 GbE, 2 HDMI, 1 DisplayPort, 4 optional PoE

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