Industrial IoT Solutions

Thanks to the Internet of Things (IoT) and Industry 4.0, billions of devices have become connected and are used for collecting and distributing various kinds of information throughout the world. They can be utilized for environmental monitoring, petrochemical, electricity and renewable energy, transportation, health care systems and other industries.

Axiomtek offers a comprehensive industrial computing solutions that are designed for a variety of IoT applications.

Our computing platforms feature:

- Flexible CPU options
- Low power consumption
- Fanless designs
- Easy to use mechanisms
- Extensive expansion capabilities
- Wide operating temperature ranges
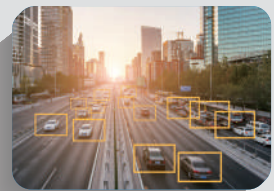- Scalable storage interfaces
- Fast time to market

Smart Factory Automation

Heavy Industry

Target Markets

Robotic Industry

Vision Inspection AI Computing
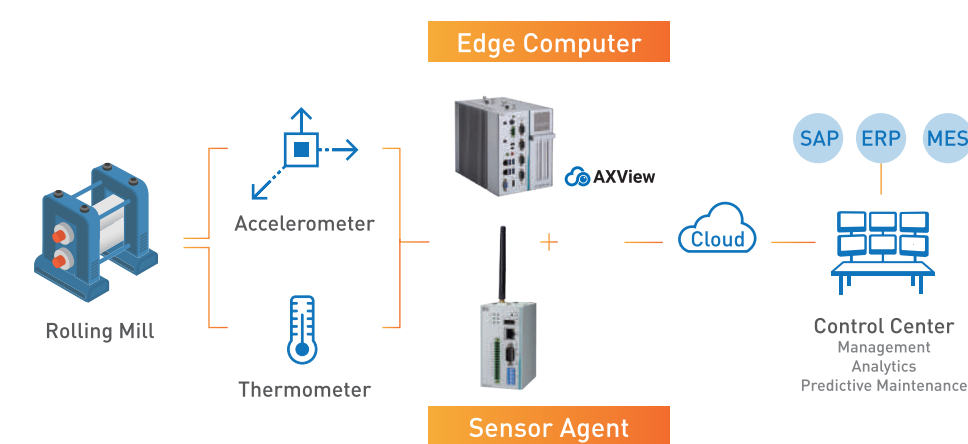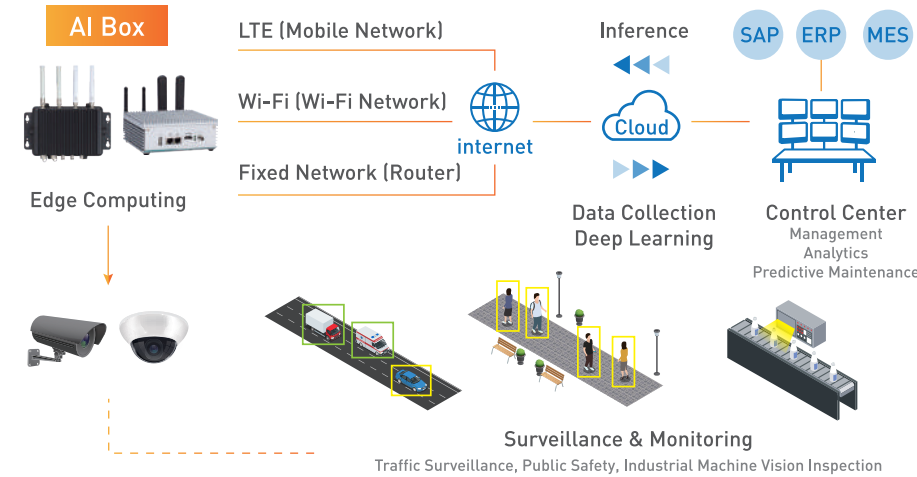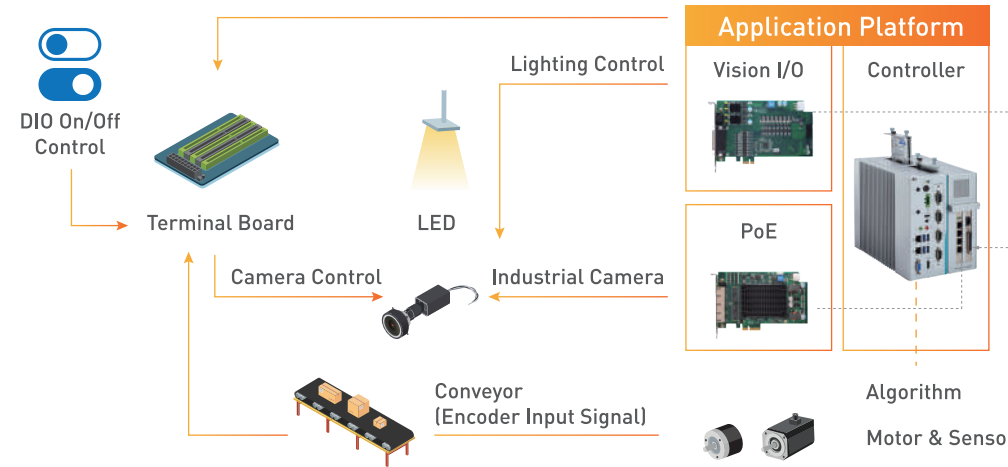

Machine Vision System

- Counting, Inspection and Assembly Verification
- Gauging and Measurement
- Optical Character Recognition and Identification
- Quality Control and Productivity Improvement

DIO On/Off Control

Terminal Board — LED — Lighting Control

Camera Control — Industrial Camera

Conveyor (Encoder Input Signal)

Application Platform
- Vision I/O
- Controller
- PoE
- Algorithm
- Motor & Sensor

AI Deep Learning

- High Performance AI Computing
- Advanced Training and Inference at the Edge
- Image Recognition and Object Detection

AI Box

Edge Computing

LTE (Mobile Network)
Wi-Fi (Wi-Fi Network) — internet
Fixed Network (Router)

Inference
Cloud

SAP ERP MES

Data Collection Deep Learning

Control Center
Management
Analytics
Predictive Maintenance

Surveillance & Monitoring
Traffic Surveillance, Public Safety, Industrial Machine Vision Inspection

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PdM Solution

- Machine Condition Monitoring and Alert
- Predictive Maintenance
- Dynamic Signal Acquisition and Analysis
- IIoT Cloud Connection

Edge Computer

Rolling Mill

Accelerometer

Thermometer

Sensor Agent

AXView

Cloud

SAP ERP MES

Control Center
Management
Analytics
Predictive Maintenance

IPS960-511-PoE
Machine Vision System

- 7th/6th Generation Intel® Core™ or Celeron® processors
- Intel® H110 chipset
- Built-in camera interface
- Supports two swappable 2.5" HDDs
- 24V DC power input
- -10°C to +55°C operating temperature range

Frame Grabber and Vision I/O Card

AX92320
GigE Frame Grabber Card

- Four independent Gigabit PoE ports
- Supports 9.5KB Jumbo Frame and IEEE 1588
- Up to 20/120W PoE power from PCIe /6-pin ATX power connector
- PoE power management software
- Supports LAN port smart on/off
- 0°C to +60°C operating temperature range

AX92350
Real-Time Vision I/O Card

- Integrated vision I/O
  Trigger I/O, LED lighting control, isolated DIO and encoder input
- 0°C to +60°C operating temperature range
- PCI Express compliant

eBOX560-900-FL
Fanless Edge AI System

NVIDIA | nvm

- NVIDIA® JETSON™ TX2
- NVIDIA® Pascal™, 256 CUDA cores GPU
- One M.2 Key M with PCIe 2.0 x4 for NVMe SSD (optional)
- Supports JetPack
- -30°C to +60°C operating temperature range
- High AI computing performance for GPU-accelerated processing
- Compact size and robust construction
- Ideal for intelligent edge applications

eBOX800-900-FL
IP67-rated Fanless Outdoor Edge System

NVIDIA | nvm

- NVIDIA® JETSON™ TX2
- NVIDIA® Pascal™, 256 CUDA cores GPU
- One M.2 Key M with PCIe 2.0 x4 for NVMe SSD (optional)
- One IEEE 802.3at Gigabit PoE (30W)
- 100 to 240V AC wide range power input with 10kV surge protection
- -30°C to +60°C operating temperature range
- High AI computing performance for GPU-accelerated processing
- Highly rugged with flexible I/Os
- Ideal for outdoor edge applications

IPC962-512-FL
2-slot Fanless Industrial Computer

- LGA1151 Socket 7th/6th Generation Intel® Core™ i7/i5/i3 or Celeron® processors
- Intel® Q170 chipset
- One full-size PCI Express Mini Card slot with USB and PCIe interfaces
- Compact and front I/O design
- Two swappable 2.5" HDD and RAID 0, 1
- -10°C to +60°C operating temperature range
- 24V DC power input

IRU152
RISC-Based DIN-Rail Fanless Embedded System

- NXP i.MX 6 UL processor
- 512MB onboard DDR3 SDRAM memory
- 8GB onboard eMMC flash memory
- Two Mini Card slots for Wi-Fi, 3G/4G or LoRa connection
- Four isolated analog input channels
- -40°C to +70°C operating temperature range
- Embedded Linux operating system (Yocto)

ASIA

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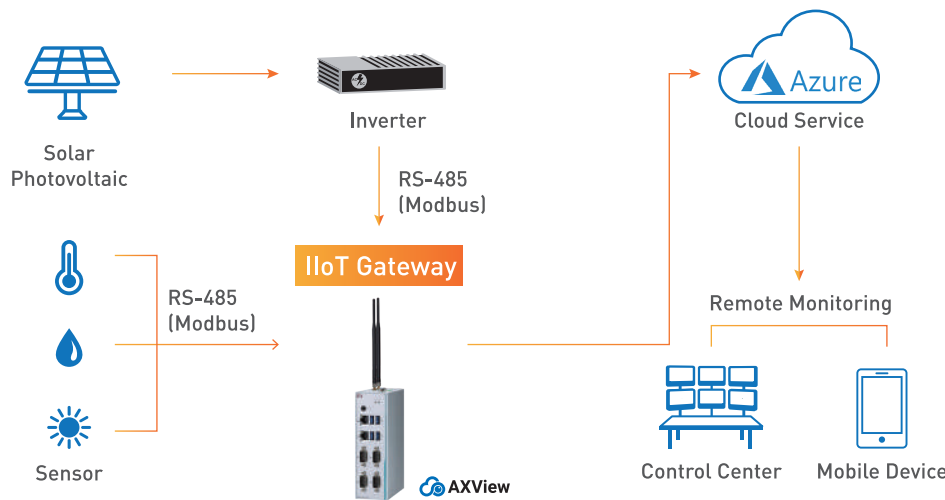Tel +44(0)1612093680
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> **IIoT Gateway**
> Solar Energy Solutions
> Real-Time Device Monitoring and Remote Management
> Easy Integration with Back-End Operating Systems
> Connectivity with Sensors Used in IoT Applications

- Solar Photovoltaic
- Inverter
- RS-485 (Modbus)
- Cloud Service — Azure
- Sensor
- RS-485 (Modbus)
- **IIoT Gateway** — AXView
- Remote Monitoring
- Control Center Mobile Device

ICO320-83C
DIN-Rail Fanless Embedded System
- Intel® Celeron® N3350 processor
- Four RJ-45 Gigabit PoE ports
- 8-bit programmable DIO for IoT gateway applications
- 12V DC to 24V DC wide range power input
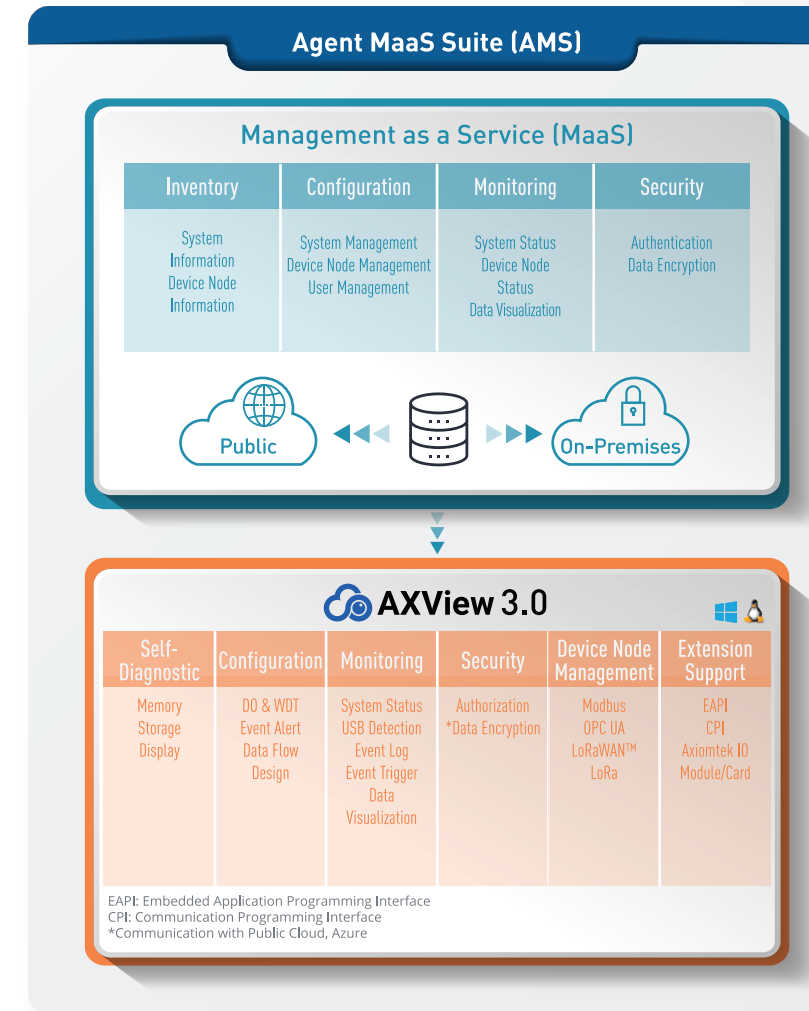- -20°C to +70°C operating temperature range
- Supports AXView 3.0

ICO300-83B
DIN-Rail Fanless Embedded System
- Intel® Celeron® Processor N3350 or Pentium® Processor N4200
- Two or four isolated COM ports, four USB ports and two GbE LAN ports
- 8-bit programmable DIO for IoT gateway applications
- 12V DC to 24V DC wide range power input
- -20°C to +70°C operating temperature range (-40°C to +70°C optional)
- Supports AXView 3.0
- Fanless and cableless design

Agent MaaS Suite (AMS) Architecture

IIoT Remote Management Solution

- A brand new software platform for system management, I/O devices, sensors and data. It includes cloud service for remote access and local agent that supports standard industrial protocols.
- AMS can help systems integrators shorten their project development and deployment time.

Agent MaaS Suite (AMS)

Management as a Service (MaaS)

Inventory	Configuration	Monitoring	Security
System Information Device Node Information	System Management Device Node Management User Management	System Status Device Node Status Data Visualization	Authentication Data Encryption

Public ◀◀◀ ▶▶▶ On-Premises

AXView 3.0

Self-Diagnostic	Configuration	Monitoring	Security	Device Node Management	Extension Support
Memory Storage Display	DO & WDT Event Alert Data Flow Design	System Status USB Detection Event Log Event Trigger Data Visualization	Authorization *Data Encryption	Modbus OPC UA LoRaWAN™ LoRa	EAPI CPI Axiomtek IO Module/Card

EAPI: Embedded Application Programming Interface
CPI: Communication Programming Interface
*Communication with Public Cloud, Azure

Industrial IoT Solutions

www.axiomtek.com