

# Advantech Industrial IoT Systems and Devices Star Product Guide

- ✓ Edge Computing
- ✓ Edge Server & Networking
- ✓ Edge AI
- ✓ Video Solutions
- ✓ Industrial Connectivity
- ✓ Automation Control
- ✓ Edge Devices
- ✓ Edge Software
- ✓ Vertical Market Solutions



**IoTSuite**



**EdgeSync**



**DAQNavi**



**HMINavi**



**WebAccess/SCADA**



**ADVANTECH**

*Enabling an Intelligent Planet*

# Edge Computing .

At Advantech, we turn the edge into your ultimate advantage. We understand your needs, simplify complexity, and empower you to lead and redefine possibilities.

## Industry Leadership From IPC To Edge Computing And Edge AI

Advantech drives the shift from IPC to edge computing and AI, delivering solutions that help businesses thrive.

## Expertise in Orchestrating Complex Systems

With unmatched expertise in hardware, software, and ecosystems, we enable real-time intelligence and sustainable growth.

## Tailored Innovation With Industry Domain Know-how

Advantech develops industry-specific solutions, unlocking possibilities and driving innovation—at the edge.



Edge Computing

Server E

## Compute Edge

Edge AI Systems

Edge Computers



## Gateway Edge

Ethernet Switches

Cellular Routers

IoT Gateways



## Device Edge

Wireless I/O & Sensors

Remote I/O



## Things



OPC UA EtherCAT

Modbus

ODVA

CODESYS



# Edge Everything

Edge



Automation HMI    Automation Control



Network Appliance



IP Video Streaming



Data Acquisition



Vision & Camera



IT-OT Integration with Edge Orchestration  
IoT Security at the Edge (IEC 62443)

**EdgeHub**  
IoT Connectivity  
Centralized Service

**DeviceOn**  
Device  
Management Service

**EdgeLink**  
Protocol Conversion Software

Semicon & Industrial Equipment



Intelligent Transportation

Network Security & Broadcasting



Edge Cloud & AI Solutions

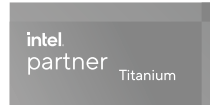


Energy & Utilities

# Intelligent Systems and GPU Cards

## Infrastructure for the IoT: Edge Computing for Intelligent Systems

Advantech offers a comprehensive range of edge computers in a variety of form factors with high performance CPU and GPU computing, multiple I/O and communication interfaces, compact and fanless design, security, energy-saving, and expansibility features. Our intelligent systems and GPU cards can be deployed in verticals such as factory automation, power & energy, intelligent transportation, machine vision, and edge AI applications.



### Modular IPC

NEW



#### MIC-780

##### Compact Fanless System with Intel® Core™ Ultra 5/7/9 Processors (Series 2)

- Intel® Core™ Ultra 9/7/5 Processors (Series 2)
- CPU Type: Arrow Lake S Generation (LGA1851)
- Chipset: Intel® W880/H810
- Up to 96 GB DDR5 SO-DIMM RAM
- 2 x HDMI, 1 x DP, 1 x mPCIe, 1 M.2 B-key
- Model Variants:
  - MIC-780W: 4 x GbE LAN, 4 x USB 3.2 (Gen2), 2 x COM, 1 x NVMe M.2
  - MIC-780H: 2 x GbE LAN, 2 x USB 3.2 (Gen2), 2 x USB 3.2 (Gen1)



#### MIC-770 V3

##### Compact Fanless System with Intel® Core™ Processors (14th/13th/12th Gen)

- Intel® Core™ processors (14th/13th/12th Gen)
- CPU type: Socket (LGA1700)
- Chipset: Intel® Q670E/H610E
- Up to 64GB DDR5 ECC/Non-ECC SO-DIMM
- 1 x VGA, 1 x HDMI, 1 x NVMe M.2
- 2 x GbE LAN, 2 x USB 3.2 (Gen2) and 6 x USB 3.2 (Gen1)
- Operating temperature: -20~60°C/ -4~140°F

### i-Modules for MIC-780

NEW



#### MIC-78M30G

- 1 x PCIe x16 (Gen4), 1 x PCIe x2 (Gen3), 1 x PCIe x4 (Gen3)
- Supports GPU card, up to 250W

NEW



#### MIC-78M40

- 2 x PCIe x8 (Gen4), 1 x PCIe x2 (Gen3), 1 x PCIe x4 (Gen3)
- Supports GPU card, up to 75W

### i-Modules for MIC-770 V3



#### MIC-75GF10

- 1 x PCIe x16 (Gen4), 1 x PCIe x2 (Gen3), 1 x PCIe x4 (Gen3)
- Supports GPU card, up to 250W



#### MIC-75G30

- 2 x PCIe x16, 1 x PCIe x4
- 2 x 2.5" swappable HDD/SSD storage bay
- Supports GPU card, up to dual 350W

### Box IPC

NEW



#### IPC-320

##### Compact Size Tower IPC with Intel® Core™ Ultra 5/7/9 Processors (Series 2)

- Intel® Core™ Ultra 9/7/5 Processors (Series2) with H810 chipset
- Two DIMM sockets up to 96GB DDR5 6400
- 2 x GbE, 8 x USB, 1 x NVMe M.2, 2 x SATAIII, 2 x RS-232/422/485 serial ports
- 2 x expansion slots (PCIe x16 & PCIe x4)
- Built-in AC 100~240V 250W 12V and 5Vsb power supply, enabling simple wiring in system
- Double-side I/O suitable for desktop usage
- Compatible motherboard: AIMB-309

NEW



#### IPC-220/240/242

##### Compact Industrial Computer System with Intel® Core™ Ultra 5/7/9 Processors (Series 2)

- Intel® Core™ Ultra 9/7/5 Processors (Series2) with Q870/H810 chipset
- Two DIMM sockets up to 96GB DDR5 6400
- 2 x GbE, 8 x USB, 1 x NVMe M.2, 2 x SATAIII, 2 x RS-232/422/485 serial ports
- Up to 4 x expansion slots (PCIe/PCI)
- Supports Advantech iDoor expansion
- Single-side I/O suitable for equipment integration
- Compatible motherboard: PCE-2134/ 2034

NEW



#### IPC-730

##### Industrial Edge AI IPC Supports High Performance CPU and GPU

- Supports ATX/uATX motherboards with Intel® Core™ Ultra 9/7/5 Processors (Series2)
- Built-in industrial-grade ATX3.1 850W/1200W power supply
- Dual rear system fans and dual optional auxiliary front system fans for extreme thermal dissipation efficiency
- Supports powerful 450W/600W GPU cards
- Supports 2 x 3.5" and 2 x 2.5" HDD/SSD by default, with an option for 2 front swappable 2.5" HDD/SSD for easy maintenance
- Front I/O ensures easy cabling



## Slot Single Board Computers (SBCs)

NEW

**PCE-5133****PICMG 1.3 Full-size Single Board Computer with Intel® Core™ Processors (14th/13th/12th Gen)**

- Intel® Core™ processors (14th/13th/12th Gen)
- CPU type: Socket (LGA1700)
- Chipset: Intel® R680E
- Up to 64GB of dual-channel ECC/non-ECC DDR5 5600MHz
- M.2 NVMe, USB 3.2, SATA 3.0 (RAID 0, 1, 5, 10)
- Triple displays: 1 x VGA, 2 x DVI/DP/HDMI
- Dual 2.5Gbps LAN

## Value Added Peripherals

**IPC-RB-A3BA1****Easy Configured RAID Box Supports RAID 0/1 and Remote Management**

- Easy RAID 0/1 configuration
- Lockable hot-swap HDD bays
- Automatic failure detection
- SNMP remote fleet management

**IPC-610LM-40BEA1****Battery Backup IPC Supports up to 6 minutes Backup Time**

- 6-minute data backup buffer
- Space-saving internal battery
- UL-certified backup unit
- Customizable shutdown procedures
- 400W ATX power supply

## Industrial Motherboards &amp; Computers

NEW

**AIMB-723****ATX Motherboard with AMD® Ryzen™ Embedded 7000 Processors**

- AMD® Ryzen™ Embedded 7000 Processors with B650 chipset
- 4 x DIMM sockets up to 128 GB DDR5 5200
- M.2, USB 3.2 Gen 2, and SATA (RAID 0, 1, 10)
- Optimized PCIe placement for GPU and frame grabber card installation
- Triple displays: 1 x DP, 1 x HDMI, 1 x VGA
- Dual GbE LAN

NEW

**AIMB-789****ATX Motherboard with Intel® Core™ Ultra 9/7/5 Processors (Series2)**

- Intel® Core™ Ultra 9/7/5 Processors (Series2) with Q870 chipset
- Four DIMM sockets up to 192GB DDR5 5600
- Triple display DP/HDMI/VGA and dual GbE LAN
- M.2, SATA RAID 0, 1, 5, 10, USB 3.2 Gen 2
- Advantech iBMC remote out-of-band power management solution on DeviceOn

NEW

**AIMB-709****ATX Motherboard with Intel® Core™ Ultra 9/7/5 Processors (Series2)**

- Intel® Core™ Ultra 9/7/5 Processors (Series2) with H810 chipset
- Two DIMM sockets up to 96GB DDR5 6400
- Dual display HDMI/VGA and dual GbE LAN
- SATA 3.0, USB 3.2 Gen1
- 5 RS-232 and 1 RS-232/422/485 serial ports
- 1 PCIe x16 (Gen 4) 3 PCIe x4 (x2 Gen 4 link), and 3 PCI expansion slots

## Industrial MXM GPU Cards

NEW

**SKY-MXM-5000A****MXM 3.1 Type B+ NVIDIA RTX Embedded 5000 Ada Lovelace**

- MXM 3.1 Type B+ form factor
- 9,728 CUDA, 76 RT, 304 Tensor
- 41.15 TFLOPS
- 16 GB GDDR6 memory with ECC
- 576 GB/s maximum memory bandwidth
- 5-year longevity supply

NEW

**SKY-MXM-3500A****MXM 3.1 Type B+ NVIDIA RTX Embedded 3500 8GB Ada Lovelace**

- MXM 3.1 Type B+ form factor
- 5,120 CUDA, 40 RT, 160 Tensor
- 23.04 TFLOPS
- 12 GB GDDR6 memory with ECC
- 432 GB/s maximum memory bandwidth
- 5-year longevity supply

NEW

**SKY-MXM-2000A****MXM 3.1 Type A NVIDIA RTX Embedded 2000 Ada Lovelace**

- MXM 3.1 Type A form factor
- 3,072 CUDA, 24 RT, 96 Tensor
- 12.99 TFLOPS
- 8 GB GDDR6 memory with ECC
- 256 GB/s maximum memory bandwidth
- 5-year longevity supply

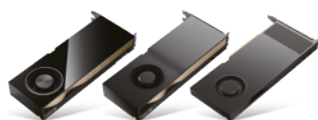
**SKY-MXM-A2000****MXM 3.1 Type A NVIDIA RTX Embedded A2000 Ampere**

- MXM 3.1 Type A form factor
- 2,560 CUDA, 20 RT, 80 Tensor
- 8.25 TFLOPS
- 8 GB GDDR 6 memory with ECC
- 224 GB/s maximum memory bandwidth
- 5-year longevity supply

## Industrial PCIe GPU Cards (Bundled Sale)

**High-End NVIDIA RTX GPU Cards Based on Ada Lovelace Architecture**

NEW

**SKY-QUAD-6000A-48**

- NVIDIA RTX 6000 Ada
- 18,176 CUDA, 142 RT, 568 Tensor
- 48 GB GDDR6 memory with ECC
- Double slot, full height

**SKY-QUAD-4500A-24**

- NVIDIA RTX 4500 Ada
- 7,680 CUDA, 60 RT, 240 Tensor
- 24 GB GDDR6 with ECC
- Double slot, full height

**Entry to Mid-range NVIDIA RTX GPU Cards Based on Ada Lovelace and Ampere Architecture**

NEW

**SKY-QUAD-4000SA-20**

- NVIDIA RTX 4000 SFF Ada
- 6,144 CUDA, 48 RT, 192 Tensor
- 20 GB GDDR6 with ECC
- Double slot, low profile

**SKY-QUAD-A1000-8**

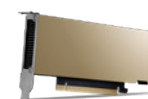
- NVIDIA RTX A1000
- 2,304 Cuda, 18 RT, 72 Tensor
- 8 GB GDDR6
- Single slot, low profile

**SKY-QUAD-2000A-16**

- NVIDIA RTX 2000 Ada
- 2,816 CUDA, 22 RT, 88Tensor
- 16 GB GDDR6 with ECC
- Double slot, low profile

**SKY-QUAD-A400-4**

- NVIDIA RTX A400
- 768 Cuda, 6 RT, 24 Tensor
- 4 GB GDDR6
- Single slot, low profile

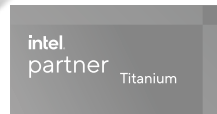
**NVIDIA Data Center GPU Card for Computing + Graphics****SKY-TESTL-L4-24P**

- NVIDIA L4
- 7,424 CUDA cores, 60 RT, 240 Tensor
- 24 GB GDDR6 memory with ECC
- Single slot, low profile

# Embedded Automation Computers

## Seamless Connection and Transmission for Edge IoT Applications

Advantech's UNO series embedded automation box PCs are ideal for edge computing and bridge the gap between IT and OT. The UNO series serve as flexible IoT gateways and industrial controllers in different sizes and various mountings. They also support Advantech iDoor technology that gives them the flexibility to configure various I/O requirements. Moreover, the compatibility with IoT edge software enable UNO series to support various industrial applications.



### Compact Embedded Computers

#### Basic Unit

NEW



#### UNO-2271G V3

##### Pocket-Size Edge IoT Gateway with Intel Atom® Processor

- Intel Atom® x7211RE processor
- With 8GB LPDDR5 onboard memory and 64G eMMC
- 2 x GbE, 2 x USB 3.2, 1 x HDMI, 1 x Type C (1.5A, supports DP & USB, DP ALT mode)
- 1 x M.2 (B-key), TPM 2.0
- Fanless, cable-free and robust design with high stability



#### UNO-2271G V2

##### Pocket-Size Edge IoT Gateway with Intel® Celeron®/Pentium® Processors

- Intel® Celeron® processor N6210/ Pentium® processor N6415
- With 4GB/8GB DDR4 onboard memory and 32G/64G eMMC
- 2 x GbE, 2 x USB 3.2, 1 x HDMI
- 1 x mPCIe, TPM 2.0 onboard
- Robust, fanless and cable-free system with high stability
- Microsoft Azure IoT Edge and Amazon AWS IoT Greengrass certified



#### UNO-2372G V2

##### Small-Size Modular Embedded Box PC with Intel® Celeron® Processor

- Intel® Celeron® processor J6412
- With 8GB DDR4 memory
- 2 x GbE, 3 x USB 3.2 Gen 2, 1 x USB 2.0, 1 x HDMI 1.4, 1 x DP 1.4, 4 x RS-232/ 422/ 485
- Modular design with optional SSD/ NVMe/ Wi-Fi/ 4G/ 5G
- Supports dual wireless communication to satisfy diverse usage requirements for IoT applications



#### UNO-2484G V2

##### Modular Embedded Box PC with Intel® Core™ Processors (11th Gen)

- Intel® Core™ processors (11th Gen)
- With 8GB DDR4 memory
- 4 x GbE, 3 x USB 3.2 Gen2, 1 x USB 2.0, 1 x HDMI 1.4, 1 x DP 1.4a, 4 x RS232/422/485
- Ruggedized with cableless and lockable I/O design
- Scalability with optional SSD/ NVMe/ Wi-Fi/ 4G/ 5G/ AI accelerator

#### Expansion kit



#### UNO-2271G-RS2EB

- 2 x COM, 1 x M.2 (B key), 1 x M.2 (E key)



#### UNO-2271G-RS2EA

- 2 x COM, 1 x M.2 (B key), 1 x M.2 (E key)



#### UNO-2372G-EKCE

- 1 x iDoor



#### UNO-2484G-EKCE

- 2 x iDoor (2 x mPCIe only)

#### UNO-2271G-RP1EB

- 2 x COM, 1 x PoE (PD), 1 x M.2 (B key)

#### UNO-2271G-RPIEA

- 2 x COM, 1 x PoE (PD), 1 x M.2 (B key)



## Machine-to-Intelligent Computers

**UNO-127****Pocket-Size DIN-Rail Edge IPC with Intel Atom® Processor**

- Intel Atom® x6413E processor
- With 4/8GB DDR4 onboard memory
- Onboard 64G eMMC 5.1
- 2 x LAN, 2 x USB, 1 x HDMI, 1 x mPCIe, 2 x LED Indicators (Power/Run)
- Modular design for optional 4 x iso, COM, 1 x LAN, 1 x M.2 B Key expansion
- Onboard TPM 2.0, IBECC supported

**UNO-137 V2****Small-Size Integrated DIN-Rail IPC with Intel Atom® Processors**

- Intel Atom® x6413E/x6425RE processor
- With 8GB DDR4 memory
- Operating temperature: -40~70°C/ -40~158 °F
- Wide power input range (10 ~ 36 V<sub>DC</sub>)
- Port isolation for 8 x DI, 8 x DO, 2 x COM
- Storage & Expansions: 1 x M.2 M-Key 2242/ 1 x mPCIe, 1 x M.2 E Key 2230 wi-fi module
- Onboard TPM 2.0
- Modular design for optional iDoor extension
- Compliant with IEC 61010-1 safety requirements

NEW

**UNO-148 V2****Fanless DIN-Rail IPC with Intel® Core™ Processors (13th Gen)**

- Intel® Core™ processors (13th Gen)
- With 8GB DDR5 memory
- Port isolation for 8 x DI, 8 x DO, 4 x COM
- 2 x M.2 M key 2280 NVMe SSD
- 1 x M.2 E Key 2230 wi-fi module and 1 x miniPCIe with Nano SIM card slot for LTE
- Dual 2500BASE-T Ethernet supports Time-Sensitive Network(TSN) technology
- Modular design for optional iDoor extension

**UNO-348****Expandable Embedded Box IPC with Intel® Core™ Processors (10th Gen)**

- Intel® Core™ processors (10th Gen)
- With 8/16GB DDR4 memory(optional)
- 3 x GbE, 1 x RS-232, 2 x RS-232/ 422/ 485, 4 x USB 3.2, 2 x USB 2.0, 1 x DP++, 1 x HDMI, Mic-in, Line-out
- Flexible expansion up to 3 x PCIe/PCI slots, 1 x M.2 B key, 1 x mPCIe and 2 x 2.5" SSD
- Rugged and fanless design for harsh embedded environment
- Onboard TPM 2.0, Out of Band (OOB) manageability with iBMC

## Application-Oriented Computers

**UNO-238 V2****Compact IoT Edge Fanless Computer with Intel® Core™ Processors**

- Intel® Core™ processors (12th Gen)
- 2 x LAN, 4 x USB, 2 x COM, 2x CAN, 1 x HDMI, 1 x DP, 1 x GPIO, 2 x Type-C (supports DP Alt mode)
- 24V<sub>DC</sub> terminal block DC-in
- Integrated with CANBus for reliable communication
- Dual M.2 E/B Key expansion for wireless solutions

**UNO-247 V2****Compact IoT Edge Fanless Computer with Intel® Processor N97**

- Intel® N97 processor
- Flexible iDoor expansion design with sufficient IO port
- 4 x GbE, 2 x USB3.2, 2 x USB2.0, 2 x RS232/422/485, 4 x RS485, 1 x HDMI, 1 x VGA
- Optional 4G/GPS/GPRS/Wi-Fi communication
- Terminal block for wiring capability
- Supports Win11 IoT and Ubuntu 22.04

**UNO-3283G/ UNO-3285G****Automation Computer with Intel® Core™ Processors**

- Intel® Core™ processors (6th Gen) with 8GB DDR4 memory
- 2 x GbE, 6 x USB 3.0, 2 x RS-232/422/485, 2 x RS-232 (pin header), 1 x DVI-I, 1 x HDMI
- UNO-3283G: 1 x PCIe x16, 1x PCI, 2 x mPCIe (2 x full), 1 x CFast slot, 1 x mSATA slot (optional)
- UNO-3285G: 2 x PCIe x8, 2 x PCI, 2 x mPCIe (2 x full), 1 x CFast slot, 1 x mSATA slot (optional)

## iDoor Modules

**Industrial Fieldbus****PCM-26 Series****Industrial Fieldbus iDoor Modules Support Common Automation Protocols**

- CANOpen
- EtherNet/IP
- PROFINET
- EtherCAT

**Wireless Communication****PCM-24S Series****Wireless Communication iDoor Modules Enhance Connectivity for Industrial IoT**

- Wi-Fi/ Bluetooth
- LTE/ GPS

**Industrial I/O and Peripherals****PCM-23/24/27 Series (mPCIe)****PCM-34/37 Series (M.2)****Industrial I/O and Peripheral Modules Enable Flexible I/O Expansion**

- RS232/ 422/ 485
- Digital I/O
- Giga LAN & PoE
- MRAM
- CFast slot
- USB 3.0



# Intelligent HMI and Industrial Monitors

## Leading HMI Innovations for Smart Factories

Advantech offers a diverse range of general, as well as domain-focused HMI products equipped with iDoor technology, including high performance control panels, thin clients, web browser terminals, and industrial monitors. Advantech has developed a new generation of modular solutions for a diverse range of configurations to meet specific usagerequirements, offering customers a quick time to market and high level of expandability.

intel  
partner  
Titanium

NXP Qualcomm

### All-in-One Slim Bezel Panel PCs

#### Better Narrow Bezel



## Why Choose Thin Bezel Series? Slimmer Simpler Smarter



#### Better User Visual Experience

More screen real estate and fewer distractions mean you can focus better on your work



#### Perfect Integration into Any Environment

Seamlessly integrates into various scenarios, striking a balance between robust functionality and aesthetics

NEW



#### PPC-300SW-ADL\_N Series

Intel® Processor N97

16:9\_ 15.6"/18.5"/21.5"

- All metal enclosure with compact fanless design
- COM x 2, USB x 4, Line-out x 1, LAN x 2
- iDoor slot x 1, PCI/PCIe expansion (optional)
- Operating temperature: -20~60°C/ -4~140°F

#### Expansion



#### Uninterruptible Power Supply

PPC-IPS-150



#### PCI or PCIe Expansion

Include PCI / PCIe riser card



#### Ports Module

2 x USB 2.0 and 1 x GPIO



#### RFID Expansion Kit

RFID Read only 13.56MHz&125k

NEW



#### PPC-300S/SW RPL Series

Intel®Core™ Processors

4:3\_10"/12"/15"/17"/19"

16:9\_12"/15.6"/18.5"/21.5"

- All metal enclosure with compact fanless design
- COM x 2, USB x 4, Line-out x 1, LAN x 2
- iDoor slot x 1, PCI/PCIe expansion (optional)



## Modular Panel PCs

### Panel Modules



#### FPM-S Series

15.6"/18.5"/21.5" slim bezel display

#### FPM-HE Series

12"/15"/15.6"/21.5" high-brightness display

#### FPM-CE Series

12"/15"/15.6"/17"/18.5"/19"/21.5"/23.5" display

### Computer Modules

NEW



#### TPC-B520

- Intel® Core™ processors (13th Gen), i5/i7
- 1 x DDR5 DIMM (up to 32GB)
- 1 x M.2 M key, 2 x M.2 B key, 1 x M.2 E key
- M.2 NVMe SSD & (Optional) 2.5" SATA
- 5G supported
- Triple display support (including FPM display modules)

NEW



#### TPC-B520L

- Intel® Core™ processors, i3-N305
- 1 x DDR5 DIMM (up to 16GB)
- 1 x M.2 M key, 2 x M.2 B key, 1 x M.2 E key
- M.2 SATA SSD & (Optional) 2.5" SATA
- 5G supported
- Triple display support (including FPM display modules)

NEW



#### TPC-B300

- Intel Atom® x6425E processor/ Celeron® processor J6412
- 1 x DDR4 SO-DIMM (up to 32GB)
- 1 x mPCIe, 1 x M.2 AE key, 1 x M.2 M
- M.2 SATA SSD & 2.5" SATA
- 4G & 5G supported



#### TPC-B610

- Intel® Core™ processors (10th Gen), 35W/65W, i3/i5/i7
- Dual Channel DDR4 RAM (up to 64GB)
- Graphic cards supported (PCIe x 16)
- M.2 NVMe SSD & M.2 SATA & 2.5" SATA
- 5G supported

## Power-Energy Control HMI

NEW



#### TPC-100WX Series

7"/ 10.1" with Arm®-Based Processor

- NXP® ARM® Cortex™ A53 i.MX8M 1.6 GHz quad-core processor
- 4G DDR4 RAM and 32G eMMC onboard
- 7" 1000 nits/ 10.1" 1200 nits high brightness LCD
- IK08 supported and chassis ground isolated
- Operating temperature: -30~70°C/ -22~158°F
- Supports Linux Yocto 4.2, Android 13

## Explosion-Proof HMI

NEW



#### SPC-618WE RPL

18.5" ATEX/IECEx Certified HMI with Intel® Processor

- Intel® Core™ processors (13th Gen)
- Single DDR5 4800 RAM with 32GB capacity
- sTLC SSD of 256GB
- Type-C with USB 3.2, DP 1.4a, 15W power delivery
- Supports TPM2.0

## Web-Browser Terminals



#### TPC-100W Series

7"/ 10.1"/ 15.6"/ 21.5" with Arm®-Based Processor

- NXP® ARM® Cortex™ A53 i.MX8M 1.6 GHz quad-core processor
- 4G DDR4 RAM and 16G eMMC onboard
- True-flat and IP66-rated front multi-touch panel
- Operating temperature: -20~60°C/ -4~140°F
- Embedded chromium and QT browser
- Supports Linux Yocto 4.2, Android 13



#### PPC-100W Series

11.6"/15.6" with Rockchip Processor

- Rockchip RK3399 processor with support for 4K decoding
- True-flat and IP65-rated front multi-touch panel
- Pre-installed Android 10 and supports Linux/Debian
- Built-in WISE-IOTSuite/AppHub remote management service for Android devices

## Configurable Panel PCs



### PPC-600 Series

#### 12"/15"/17"/19"/15.6"/18.5"/21.5" HMI with selectable Motherboard

- Supports Intel® Core™ processors, up to 65W TDP
- Selectable mini-ITX motherboard for diverse requirements
- 2 x expansion slots of PCI or PCIe
- Dual SATA storage (RAID 0, 1)
- Compatible with PPC-MB series



### PPC-MB-620

#### Mini-ITX Motherboard with Intel® Core™ Processors, Q670E/H610E Chipset

- Two 262-pin SO-DIMM up to 64GB DDR5 4800 MHz SDRAM
- Supports triple display of DP/HDMI/LVDS
- PCIe x16 (Gen 5), 1 x M.2 M key & 1 M.2 E key, 6 x USB 3.2
- 2 x SATA 3.0 (Raid 0, 1) (only for Intel® Q670E chipset)
- 4 x RS-232, 1 x RS-232/422/485

## All-Around Panel PCs

NEW



### SPC-800 V2 Series

#### 15.6"/ 21.5" Arm-mounted HMI and Industrial Monitors

- 13th gen Intel® core™ processors (Raptor Lake-U) panel PC
- HD-BaseT long distance monitor
- All-around IP65 protection
- Customizable push button panel with RFID and USB options



### SPC-500 Series

#### 15" Stainless Steel HMI with Intel® Core™ Processors

- 6th gen Intel® core™ processors (i5)
- All-around 304L stainless steel housing with IP69k
- VESA mount supported
- EN 1672-2 compliance

## Industrial Monitors



### FPM-200 Series

#### 12"/ 15"/ 15.6"/ 17"/ 19"/ 21.5" Semi Industrial Monitor

- 12 V<sub>DC</sub> supported
- Die-casting aluminum chassis and IP66-rated front bezel
- Supports panel, wall, desktop, rack and VESA mounting



### FPM-700 Series

#### 15"/ 15.6"/ 17"/ 19"/ 21"/ 24" Advanced Industrial Monitor

- 24 V<sub>DC</sub> supported
- Die-casting aluminum chassis and IP66-rated front panel
- Supports panel, wall, desktop, rack, VESA mounting
- Operating temperature: -20~60°C/ -4~140°F
- On screen display (OSD) added and optimized lockable I/O connectors

NEW



### FPM-710SW

#### 10.1" Type-C Single Cable Industrial Touch Monitor

- One cable supports USB Type-C, HDMI and DP input
- Built-in panel mounting clamp
- IP66 front protection
- 1920 x 1080 Full HD resolution



### FPM-3000 Series

#### 12"/ 15"/ 17"/ 19" Extreme Rugged Industrial Monitor

- Robust design with IP65/66-rated front bezel and stainless steel rear cover
- Supports panel, wall, desktop, rack, VESA mounting
- Operating temperature: -20~60°C/ -4~140°F



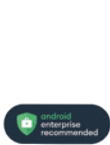


# Mobile HMI Tablets

Enable On-site Management, Manufacturing, and Patrol Inspection

AIM and PWS industrial-grade tablets, available in 8" and 10" sizes, are designed for a variety of industrial applications. Mobile computing devices provide real-time data access, enabling field workers to make informed decisions on the spot. This streamlines workflows and improves efficiency to ultimately optimize quality and increase productivity. The AIM series tablets are also equipped with extension ports for integrating additional modules that expand system functionalities to support a wide range of applications.

## Industrial-Grade Tablet & Peripherals



### AIM-75S

**8" Industrial-Grade Tablet with Qualcomm Snapdragon 660 Processor, Android 12, and Google AER Certified**

- 1920 x 1200 resolution, 400nits brightness, Corning® Gorilla® and multitouch PCAP TS
- LTE, WLAN, Bluetooth, NFC
- IP65 and 4-ft drop tolerance
- Optional vertical solution extension modules and docking station

### AIM-65

**8" Industrial-Grade Tablet with Intel Atom® processors, Windows 10 IoT**

### AIM-78S

**10.1" Industrial-Grade Tablet with Qualcomm® Snapdragon™ 660 Processor, Android 13**

- 1920 x 1200 resolution, 380/800nits brightness, Corning® Gorilla® and multitouch PCAP control
- WLAN, Bluetooth, NFC
- IP65 and 4-ft drop tolerance
- Integrated barcode scanner supports data collection as option
- Optional vertical solution extension modules and docking station

### AIM-68S

**10.1" Industrial-Grade Tablet with Intel® Processor N200/N50, Windows 10 IoT/ Windows 11 GAC**

### AIM-77S

**10" Light-Duty Industrial Tablet with Rockchip RK3568, Android 12**

- 1280 x 800, 350nits brightness, Corning Gorilla and multi-touch PCAP
- WiFi6E with BT5.3
- IP54 and 2.4-ft drop tolerance
- Optional Barcode Reader, MSR, NFC



Multi-Battery Charging Station



Multi-Tablet Charging Station



Vehicle Docking Station



VESA Docking Station



Office Docking Station



Extension Modules



Rugged Case



Holster



Hand Strap



### PWS-872FL

**10" Industrial-Grade Tablet with Intel® Core™ Processors, Windows 10 IoT**

- 1920x1200 with 1000nits / 1280x800 with 300nits display brightness, Corning Gorilla and multi-touch PCAP, supports gloved operation
- WiFi 6E, 4G LTE, Bluetooth 5.2, and GPS modules with BeiDou/GLONASS support
- Hot-swappable battery, MIL-STD-810G, IP65, 4 ft drop
- Integrated barcode scanner supports data collection as option
- RFID and Finger printer support ID identification
- Optional vertical solution extension modules and docking station



Universal cover: Hand Strap, Shoulder Belt, Carry Bag



Extension Modules: I/O Extension, MSR & Smart Card Reader



Desk Docking Station



Vehicle Docking Station



Multi-Battery Charging Station



# Energy & Utilities Solutions

## Pathways to Future Trends & Opportunities in Green Energy

Advantech leads in substation digitalization and renewable energy with advanced solutions for power automation, control, and data connectivity.

**IEC 61850-3 Certified Substation Server:** Advantech offers a comprehensive range of substation platforms, including virtualization servers, SCADA/VPR servers, and workstation IPCs.

**HSR/PRP Communication Solution:** Advantech offers a fully redundant network, this solution minimizes the risk of data loss or downtime.

**Ethernet Switches and Communication Gateways:** Ethernet Switches ensure reliable data communication with time synchronization and cybersecurity. Gateways support cloud connectivity and protocol conversion, including IEC 104, IEC 61850, DNP3, Modbus, OPC UA, and MQTT.

### IEC 61850-3 Common Substation Platforms



#### ECU-579

##### Software-Defined Virtualization Server

- 2nd Gen Intel® Xeon® Scalable processors
- 12 x DIMM sockets support up to 768GB DDR4 RAM
- 4 x 2.5" hot-swappable HDD/SSD, 1 x M.2 2280 NVMe/SATA
- 2 x hot-swappable PSU (100-240 V<sub>AC</sub>/V<sub>AC</sub>)
- 2 x PCIe x16, 1 x PCIe x8, 1 x PCIe x4, and 1 x ECU-P slots
- IPMI 2.0-compliant management



#### ECU-479

##### SCADA/VPR Server

- Intel® Core™ processors (13th Gen) support up to 16 cores
- 2 x DDR4 SODIMM RAM with ECC, supports up to 64GB
- 4 x 2.5" swappable SSD, 1 x M.2 2280 NVMe/SATA
- 2 x hot-swappable PSU (100-240V<sub>AC</sub>/V<sub>AC</sub>)
- 3 x PCIe x4 Gen. 3, 1 x PCIe x16 Gen. 4, and 1 x ECU-P slots
- Supports TPM 2.0 by optional module



#### ECU-4784 Series

##### Workstation IPC

- Intel® Xeon® E-2276ML processor, up to 64G DDR4 ECC RAM
- Intel® Xeon® E3-1505L v5 processor, up to 32G DDR4 ECC RAM
- Intel® Core™ processors (6th Gen), Intel® Celeron® processors, up to 16G DDR3L RAM
- 8 x Giga LAN, 2 x RS-232, 8 x RS-232/422/485 serial ports
- 3 x Display output/ 3 x SATA/ 2 x I/O expansion slots

### HSR/ PRP Peripherals



#### EKI-MI01-PRP-A

##### HSR/PRP module for EKI-8528/ EKI-7528

- 2 x SFP interface (100/1000 Mbps HSR/PRP)
- 1 x RJ45 (100/1000 Mbps Interlink)
- IEEE 1588 PTP v2 supported
- Operating temperature: -20~70 °C/ -4~158 °F



#### ECU-P1522LPE

##### 2-Port SFP PCIe Card with HSR/ PRP Support

- PCIe Low Profile Card
- 2 x SFP interface (100/1000 Mbps HSR/PRP)
- 1 x RJ45 (100/1000 Mbps Interlink)
- IEEE 1588 PTP v2 supported
- Operating temperature: -25~70 °C/ -13~158 °F



#### ECU-P1524PE

##### HSR/PRP module for ECU-series

- 2 x SFP interface (100/1000 Mbps HSR/PRP)
- 2 x SFP interface (100/1000 Mbps Ethernet)
- 1 x RJ45 (100/1000 Mbps Interlink)
- IEEE 1588 PTP v2 supported
- Operating temperature: -25~70 °C/ -13~158 °F

### Ethernet Switches & Communication Gateways



#### EKI-8528

##### IEC 61850-3 Layer 3 Ethernet Switch

- L3 Modular Switch
- Supports up to 24 Gigabit SFP ports through hot-swappable modules + 4 x 10G SFP+ ports
- Supports VRRP, RIP v1/v2, OSPFv3, PIM
- IEEE 1588 PTP v2 supported
- Operating temperature: -40~75 °C/ -40~167 °F



#### EKI-7528/ EKI-9226

##### IEC 61850-3 Layer 2 Ethernet Switches

- IEC 61850-3 and IEEE 1613 certified for Power Energy
- 20 x Gigabit SFP ports + 6 x Gigabit x RJ-45 ports
- SFP socket for easy and flexible fiber expansion
- Management: SNMP v1/v2c/v3, WEB, Telnet, standard MIB
- Supports HSR/PRP optional by module



#### EdgeLink



#### ECU-1000 Series

##### Industrial Communication Gateways

- Diverse options for CPU, memory, and storage
- Includes bundled EdgeLink IoT software for data acquisition and cloud communication
- Remote monitoring through web service
- Multi-protocol conversion, including IEC 104, IEC 61850, DNP3, OCPP, Modbus, OPC UA, MQTT, and more
- Operating temperature: -40~70 °C/ -40~158 °F





# Intelligent Transportation Systems

## Smart Solutions for Modern Infrastructures

Advantech is committed to rugged systems that align with our vision of empowering intelligent cities globally. With a proven track record spanning over a decade, we possess extensive expertise in designing and developing cutting-edge solutions for the urban transportation sector. Our comprehensive product portfolio caters to rail and roadway applications, encompassing railway automatic fare collection, wayside control, rolling stock management, urban traffic management, highway management, transportation hub management, and autonomous vehicle technologies.

### Intelligent Edge Platforms

EN 50121-4



#### ITA-360

##### Compact Fanless Edge Computer

- Intel® Core™ processors (13th/12th Gen)
- Supports 2 x SO-DIMM slots, up to 64GB memory
- Supports 4 x GbE(TSN), 4 x USB3.0, 2 x HDMI, 6 x COM ports
- Supports 2 x 2.5" SSD, 1 x full-size mPCIe or mSATA, 1 x M.2 B key (SATA/ USB 3.0 signal) for 2280 SATA SSD or 3052 5G module
- Operating temperature -25~60°C and 9-36 V<sub>DC</sub> power input



#### ITA-260

##### DIN-Rail Compact Fanless System

- Intel® Core™ processors (11th Gen)
- Supports up to 64GB SO-DIMM memory
- Compliant with EN 50121-4 EMC standard for signaling applications
- Supports 6 x GbE, 4 x USB, 2 x COM ports
- Operating temperature: -40~60°C
- Dual power input: 9-48 V<sub>DC</sub>



#### ITA-168/ ITA-178

##### Rich I/O Compact Fanless Systems

- Intel® Celeron® processor J6412
- 8 GB DDR4 onboard memory and 1 x SO-DIMM slot up to 32 GB
- Supports 8 x USB ports; 6 x COM ports in ITA-168 and 14 x COM ports in ITA-178
- Supports 4 x LAN, up to 2.5G Ethernet
- Supports HDMI 4K display or independent triple display
- Operating temperature -25 ~60 °C and 9-36 V<sub>DC</sub> power input

### EN 50155 Compliant Rolling Stock Computing Solutions



#### ITA-580/ ITA-580G

##### Multi-Application and AI Oriented Systems

- Intel® Core™ processors (11th Gen) with RM590E
- Virtualization capability for handling multiple tasks
- Supports advanced wireless connectivity
- SuperCap Power kit for power backup in interruptions
- With an MXM GPU module that conforms to EN 50155 standards (ITA-580G)
- Wide voltage input range: 24-110 V<sub>DC</sub>

NEW



#### ITA-510/ ITA-560

##### Fanless AI Inference Systems

- Embedded NVIDIA® Jetson AGX Orin™/ Orin™ NX/ Orin™ Nano platform
- Compliant with EN 50155 and EN 50121-3-2 standards
- Rugged M12 connectors suitable for harsh, industrial environments
- 1 x Mini PCIe, 1 x M.2 (M-key) for easy expansion
- Bundled with Linux Ubuntu 20.04 operating system



#### ITA-8100/ 8100B/ 8120

##### Driver Machine Interface

- 10.4" & 12.1" touch panel and auto dimming (1300 nits as optional for 10.4")
- Compliant UIC 612-01 keypad layout
- Expandable CANBus/ CANOpen/ MVB/ Wi-Fi/ LTE/ GPS
- Wide voltage input range: 24-48/72-110 V<sub>DC</sub>
- OT4 operating temperature: -40~70°C
- Compliant with EN 45545-2 fire safety

### 3U / 4U CPCI Platforms



#### 3U CPCI Serial 19" System

##### Rugged Edge AI/Video Solution on Railway

- STD chassis (W x H x D): 482.6 x 250 x 132.55mm
- Intel® Core™ processors (11th/9th Gen) NVIDIA® Jetson Orin™ platforms option
- Single or multi system in one chassis by internal Ethernet connection on backplane
- Flexible and rich I/O resources to backplane, up to PCIe x8, PCIe x4, PCIe x1, SATA, Ethernet, USB interface
- Compliance: EN 50155 OT2/OT3/OT4, PICMG CPCI-S.0 R2.0



#### 4U CPCI Serial Compact Size System

##### AI/Video Solution on IEM/ Surgical Robot/ Defense

- STD chassis (W x H x D): 279.4 x 177 x 265 mm or custom size
- Intel® Core™ processors (11th/9th Gen) with MXM GPU module or video capture card
- Diverse and rich I/O card extension options like USB, GbE/ 10GbE Ethernet, NVMe, Serial and Wifi card, etc
- Operating temperature: -40~70°C
- Compliance: PICMG CPCI-S.0 R2.0



#### ITA-460/ ITA-460G/ ITA-460E

##### In-Vehicle AI Platforms

- Intel® Core™ processors (9th/8th Gen)
- 8GB memory onboard, 1 x SO-DIMM, 1 x mSATA, 2 x 2.5" SSD
- Supports 2 x GbE, 2 x USB3.1, 2 x COM, 3 x mini PCIe
- All-around IP65 rating and rugged design
- Operating temperature: -25~70°C
- Optional expansion for PoE kit, 1 x MXM GPU module
- SuperCap Power kit for power backup in interruptions

# Industrial Server & Network Appliances

## Accelerating AI Cloud to Edge Transformation

Advantech offers integrated server and network appliance solutions optimized for AI, 5G, smart manufacturing, and smart city applications. These include flexible building blocks and customizable options, as well as pre-validated SD-WAN, SASE, and uCPE appliances, supported by leading technology partners and global supply chains. From high-density GPU servers to power-efficient edge devices, Advantech's scalable range empowers edge-to-cloud network transformation, building an elastic infrastructure for the hyperconnected AIoT era.

### SKY Servers



#### SKY-8136S

##### Short Depth 1U Edge Server

- Intel® Xeon® 6 Processors
- 8 x DDR5 6400 MT/s ECC RDIMM
- 2 x PCIe 5.0 x16 slots (FH/FL), 1 x PCIe 5.0 x16 (FH/HL) + 1 x PCIe 5.0 x8 slots (LP)
- Up to 4 x hot-swap SFF NVMe (PCIe 5.0 x4) SSDs
- 2 x 10GbE (Management ports)



#### SKY-722V4

##### 2U HCI Server

- Intel® Xeon® 6 Processors
- 3 x FH | 3/4L PCIe 5.0 x16 (DW) + 2 x Low Profile PCIe 5.0 x8
- 16 x hot swap 2.5" NVMe SSD



#### SKY-9234S3

##### 2U4N Multi-node Server

- Up to 4 x Hot-Swappable CPU Node boards support 5th/4th Gen Intel® Xeon® Scalable processors
- 1 x OCP3.0 + 1 x HHHHL PCIe 5.0 slot + 1 x U.2 SSD per node
- Up to 8 x DIMM sockets DDR5 4800MHz RDIMM per Node
- 12 x 3.5" SATA HDD (4 per node)



#### HPC-6120+ASMB-610V3

##### Short Depth 1U Edge Accelerator Server

- Intel® Core™ processors (14th/13th/12th Gen)
- DDR5 up to 128GB
- Flexible I/O module design & chassis depth <19"
- 1 x PCIe 5.0 x16 or 2 x PCIe 5.0 x8 cards
- 2 x PCIe 4.0 x4 low-profile cards
- 2 x hot-swappable 2.5" SATA/SAS/SSD drive (2 x NVMe in option)

### Industrial Servers



#### HPC-6240+ASMB-622V3

##### Short Depth 2U Edge Accelerator Server

- 5th/4th Gen Intel® Xeon® Scalable processors
- 16 x DDR5 RDIMM up to 4TB
- Flexible I/O design and chassis depth <21"
- 2 x PCIe 5.0 x16 and 4 x PCIe 5.0 x8
- 4 x hot-swappable 2.5" SATA/SAS/SSD drive (2 x NVMe in option)
- 1 x ultra slim ODD bay in option



#### HPC-7484+ASMB-807

##### 4U High Performance Industrial Server

- Intel® Xeon® W processors
- Single socket up to 60c (385W TDP)
- 3 x PCIe 5.0 x16, 1 x PCIe 5.0 x8
- 1 port USB 3.2 Gen2x2 (20G) Type-E
- Intel Dual 10GbE ports
- 8 x hot-swappable 2.5" / 3.5" SATA/SAS/SSD drive

### Network Appliances



#### FWA-T014

##### Fanless Desktop Network Appliance for SD-WAN, SASE & uCPE application

- Intel Atom® x7000 series processors, up to 8 cores
- 1 x DDR4 4800MT/s SODIMM, up to 32GB
- Palm-size with fan-less design
- 4 x 2.5GbE RJ45 with optional 4G LTE/ 5G and Wi-Fi connectivity
- Optional for TPM2.0



#### FWA-1214

##### Robust Industrial Network Appliance for OT Network Security

- Intel Atom® x7000 series processors, up to 8 cores
- 1 x DDR5 4800MT/s SODIMM, up to 16 GB
- 4 x 1GbE RJ45 ports with 1 pair bypass
- Up to 2 x 1GbE SFP ports
- Redundant 9~48V DC power input
- Optional RF carrier for 2 x LTE/5G modules
- Wide temperature -40~60°C, IP40

### Network Appliances



#### FWA-3034

##### 1U Network Appliance for Network Security and Management

- 12th/13th/14th Gen Intel® Core™ Processors, up to 24 Cores
- 2 x DDR5 UDIMM, up to 64GB
- 2 x 1GbE SFP, 8 x 2.5GbE RJ-45, 2 x 10GbE SFP+ with two pairs of LAN bypass
- 2 x Internal 2.5" SATA SSDs/HDDs
- IPMI v2.0 compliant
- 1 x Advantech NMC slot



#### FWA-5082

##### 1U Network Appliance for NFV and SD-WAN

- AMD EPYC™ Embedded 8004 series processors, up to 64 cores
- 12 x DDR5 4800MHz RDIMM, up to 768GB
- 4 x Advantech NMC slots with PCIe Gen5
- 1 x PCIe Gen4 x16 slot (internal)
- Hot-swappable system fans & 550W, hot-swap redundant power supply
- IPMI v2.0 compliant



#### FWA-6083/6183

##### 2U Network Appliance for Heavy Workloads

- 1 or 2 x AMD EPYC™ Embedded 9004/9005 series processors, up to 256 cores
- 12 or 16 x DDR5 6000MT/s RDIMM
- 8 x Advantech NMC slots with PCIe Gen5
- 1 x FH 10.5" PCIe 5.0 x16 or 2 x FH/HL PCIe 5.0 x16 slots
- 2 x Hot-swap 2.5" SSD/HDD trays, hot-swappable system fans & hot-swap redundant power supply



#### FWA-6173

##### 2U Network Appliance for High-end Gateway and NGFW

- 2 x Intel® Xeon® 6 processors, up to 172 cores
- 16 x DDR5 6400MT/s RDIMM or 8000MT/s MCRDIMM
- 2 x Hot-swap 2.5" SSD/HDD trays, hot-swappable system fans & 1600W, hot-swap redundant power supply
- 2 x FH/HL Gen5 PCIe x16 slots
- 8 x Advantech NMC slots with PCIe Gen5

# Edge AI Systems

## Leading Edge AI Deployment from Edge-to-Cloud

Advantech's edge AI systems, powered by NVIDIA, accelerate AI adoption across industries such as manufacturing, healthcare, transportation, and retail. These systems enable real-time data processing and analytics from edge to cloud, optimizing operations, enhancing efficiency, and driving innovation. Complementing its hardware, Advantech offers the "Innovation Solution Pilot," providing partners with software expertise for AI model optimization, system integration with tailored customization, and deployment acceleration through plug-and-play applications and low-code/no-code tools for streamlined AI adoption.



### AI Camera



#### ICAM-540

**Industrial AI Camera Equipped with NVIDIA Jetson AI system on module**

- Embedded with NVIDIA Jetson Orin
- 8MP 45 fps SONY industrial grade sensor
- HW ISP no GPU/CPU workload
- C-mount lens compatible

### AMR System



#### MIC-732-AO/MIC-732D-AO

**AMR System Based on NVIDIA Nova Orin**

- Fanless system embedded with NVIDIA® Jetson AGX Orin™ up to 275 TOPS
- Supports NVIDIA Isaac Robot Operating System (ROS2)
- Supports Total 8-ch GMSL3.0/2.0 with FAKRA connectors

### AI Inference Systems



#### MIC-712-OX/MIC-712-ON

**Mobility AI Systems Based on NVIDIA® Jetson Orin™ NX/Orin Nano™**

- Ultra-slim design for mobile equipment in safety & security applications
- Embedded with NVIDIA® Jetson Orin™ NX/Orin Nano™
- Multiple expansions for GMSL, PoE, USB



#### MIC-711/MIC-713

**AI Inference System Based on NVIDIA® Jetson Orin™ NX & Orin Nano™**

- Fanless and ultra-compact design
- Embedded with NVIDIA® Jetson Orin™ NX/Orin Nano™
- Multiple expansions for GMSL, PoE, USB
- Supports Allxon 24/7 remote monitoring

### High-end AI System



#### MIC-733-AO/MIC-733-TS

**AI Inference System Based on NVIDIA® Jetson AGX Orin™**

- Fanless Compact System
- Embedded with NVIDIA Jetson AGX Orin™
- Multiple expansions for GMSL, PoE, USB
- Supports NEMA TS2
- 500ms power interruption backup
- Supports Allxon 24/7 remote monitoring

### AI Rugged System



#### MIC-715-OX

**Ruggedized In-Vehicle AI Fanless System Based on NVIDIA® Jetson Orin™ NX**

- Ruggedized IP67 waterproof fanless design
- Embedded with NVIDIA® Jetson Orin™ NX up to 100 TOPS
- Lockable I/O and ignition design
- Supports Allxon 24/7 remote monitoring
- Compliant with e-Mark

### AI NVR



#### MIC-717-OX

**AI NVR Systems Based on NVIDIA® Jetson Orin™ NX**

- NVR fan base design
- Embedded with NVIDIA® Jetson Orin™ NX up to 100 TOPS
- Supports 8 x PoE
- Supports 1 x mPCIe, 2 x SATAIII
- Supports Allxon 24/7 remote monitoring

### IGX System



#### MIC-735 Series

**AI Edge Server based on NVIDIA® IGX Orin™**

- Medical-grade & industrial-grade systems in tower & 4U rackmount form factors.
- Embedded with NVIDIA® IGX Orin™ up to 248 TOPS
- Supports 1 x NVIDIA RTX A6000 for powerful visual computing
- Supports NVIDIA Clara™ Holoscan or Metropolis SDK

### Edge Accelerator Servers



#### HPC-7420+ASMB-9775

**Short Depth 4U Edge Accelerator Server**

- 5th/4th Gen Intel® Xeon® Scalable processors
- 16 x DDR5 ECC RDIMM up to 4TB
- Front access I/O and chassis depth < 18"
- 5 x PCIe 5.0 x16 + 5 x PCIe 5.0 x8
- 2 x hot-swappable 2.5" SATA/SAS/SSD drive
- 1 x slim/ultra slim ODD bay

### SKY Server



#### SKY-821E3

**Compact 2U High Performance Edge Server**

- Dual AMD® EPYC™ Embedded 9004/9005 Series Server Processors up to 400W TDP
- 24 x DDR5 6000Mhz RDIMM/3DS RDIMM
- Up to 4 x FHFL, 2 x FHHL and 2 x low profile PCIe 5.0, 1 x OCP 3.0 support

### GPU Servers



#### SKY-622G4

**2U MGX Server**

- Dual Intel® Xeon® 6 Processors
- 32 x DDR5 ECC/RDIMM
- 4 x PCIe 5.0 x16 Dual Slot GPU
- 3+1 6000W Redundant PSU
- NVIDIA MGX Certified



#### SKY-602E3

**Mid-Tower GPU Server**

- Single AMD EPYC™ 8004 Series Processor
- 6 x DDR5 ECC/RDIMM
- 4 x PCIe 5.0 x16 DW GPU
- 2 x PCIe 5.0 x8 slots
- 2 x 2.5" SATA SSD internal
- 800W Redundant PSU





# Video Solutions

## Next Generation IP Video Solutions

Advantech video solution includes various video transmission protocols and can be connected to video streaming and editing platforms. Our impressive quality, density, and cost benefits can bring a competitive advantage to a wide range of media processing applications for the broadcasting, mobile, gaming, and medical markets. Customers can leverage our video expertise and leading-edge computing and networking design skills to accelerate the deployment of their next-generation media solutions.

### SDVoE Video Solution



#### VEGA-1000 Series

##### 4K SDVoE HDMI over IP Signal Extender

- Supports HDR and up to 4K@60 4:4:4
- Supports HDMI 2.0 & HDCP 2.2
- Lite compression with less than 100us latency for 4K2K@60 4:4:4
- Extends the transmission over multi-mode optic cable up to 400m (1320ft)



#### VEGA-1200

##### 4K SDVoE Hybrid Encoder/ Recorder

- Zero Latency 4K HDR SDVoE Video encoder
- Loop-through HDMI output for real-time view
- Provides high-quality live HEVC encoding up to 4Kp60 10bit for streaming or local recording
- NDI/SRT protocol supported
- Web GUI configuration and security link provides easy control with high safety



#### VEGA-3003

##### UHD SDVoE Video Capture Card

- UHD SDVoE zero latency video capture and loop-out by HDMI 2.0
- FPGA-based color space covert and de-interlace support
- Customized resolution video capture and processing support
- Linux and Windows SDK including simple-to-use API and example code
- FHHL PCI Express Gen3 x8, compatible with standard PCIe slots



#### VEGA-6321

##### SDVoE Thumbnail Management Server

- The latest UHD encoder/ recorder supported by HDMI2.1 & 12G-SDI
- Advanced video processing & low power consumption with DDR5 5200MT/s
- High bandwidth PCIe Gen4 support, a professional Gen4 x8 video accelerator card FH/HL
- True color preview supported by a 5" touch monitor
- First ProAV thumbnail feature with VEGA-3003

### Video Platform & Accessories Cards



#### VEGA-6000

##### 8K UHD Live Video Player/Recorder

- The latest 8K display supported by HDMI2.1
- Advanced video processing & low power consumption with DDR5 5200MT/s
- High bandwidth PCIe Gen4 support, a professional Gen4 x8 video accelerator card LP/HL



#### VEGA-7030

##### 1U High Density Video Server for Accelerated Video Processing

- Short depth 1U x 19" video streamer platform
- Powerful CPU with on-board GPU for extra video processing
- Up to 4 PCI Express accelerators or I/O cards per chassis
- Front panel LCD display, keypad, and confidence monitor
- Redundant power supplies



#### VEGA-3312

##### Medical Video Card

- Flexible IO for HDMI/DP/SDI
- Realtime scaling & blending
- PCIe Gen3 x8
- Windows Linux Driver & API support
- PCIe FHHL board size, up to 15W



#### VEGA-3321

##### 4K Broadcast IP Video Gateway & Acquisition Accelerator PCIe Card

- 4-ch UHD ST2110 over 2x 25G SFP or 4x12G-SDI
- Broadcasting grade video acquisition up to 4:2:2 10bit
- NMOS IP video management w/ IS-04 & IS-05
- 1-ch 4Kp60 or 4-ch 1080p60 real-time HEVC/AVC encode
- Supports FFmpeg and property advantech SDK



# Cellular Routers & Gateways

## Industrial IoT & Enhanced Networking

Effortlessly connect, configure, and operate Advantech's scalable 3G, 4G, and 5G industrial routers and gateways. With global cellular connectivity, these solutions enable instant device and process monitoring and control. Robust security ensures safe deployment in sensitive environments, protecting critical assets and data. Whether connecting vending machines, eye surgery robots, high-voltage reclosers, or EV charging stations, our routers offer versatile connectivity options, including serial, Ethernet, Wi-Fi, digital I/Os, and Bluetooth. Supported by the ICR-OS operating system, WebAccess/DMP platform, and additional software, Advantech routers deliver advanced connectivity solutions.



### Intelligent Connectivity Software for Cellular Routers

#### WebAccess/DMP



#### WebAccess/DMP

##### Powerful, Flexible, and Secure Industrial Network Management

- Configuration Profile Management, Digital Twin Model
- Monitoring and geographical mapping of routers
- Ping Tools, Zero Touch Deployment
- Integration of VPN



#### RouterApps

##### Extended Functionality for Cellular Routers

- Industrial and IoT protocols support (Modbus, IEC101/104, MQTT)
- Networking and tunneling protocols
- Development tools (Python, Node-Red)
- Docker application containerization

### 5G & LTE Advanced High Speed Routers - Platform v4i, v4



#### ICR-4100/4200 Series

##### Industrial 5G Router & IoT Gateway

- 5G, Sub-6GHz, NSA & SA modes, 2x SIM
- Quad-core CPU with 1 GB RAM
- 2x Gigabit Ethernet
- 2x RS232, RS485
- GNSS receiver, Micro SD card, TPM 2.0
- Optional Tri-Band Wi-Fi 6



#### ICR-4400 Series

##### Ultra-High-Speed 5G NR Router & Edge Computing Gateway

- 5G, Sub-6GHz, NSA & SA modes, 2x SIM
- Quad-core CPU with 1 GB RAM
- 5x Gigabit Ethernet (optional 4x PoE+ PSE)
- SFP, GNSS, Micro SD card, USB, TPM 2.0
- RS232, RS485, CAN BUS

### 4G Powerful Routers - Platform v3



#### ICR-3200 Series

##### Industrial 4G Router & IoT Gateway

- LTE Cat.4, 2x SIM
- Powerful CPU, 1.3 GB
- 2x Ethernet 10/100, RS232, RS485
- Wide temperature range
- Sleep mode & power ignition
- Optional Wi-Fi, Bluetooth, GNSS



#### Smart Flex Series

##### Flexible, Modular 4G LTE Router & Gateway

- LTE Cat.4, 2x SIM
- Up to 5x Ethernet 10/100
- GNSS receiver
- Optional PoE, RS232/RS422/RS485, Wi-Fi

### 4G Entry Level Industrial Routers - Platform v2i



#### ICR-2000 Series

##### Entry-Level 4G Router

- LTE Cat.4, Cat.M, Cat-NB 450 MHz
- 2x SIM
- Up to 4x Ethernet 10/100 Mbps
- Optional RS232, RS485, Wi-Fi



#### ICR-2700/2800 Series

##### Industrial 4G Router & IoT Gateway

- LTE Cat.4, 2x SIM
- 1.3 GB eMMC storage
- 2x Ethernet 10/100, GNSS receiver
- Optional 2x RS232, RS485, Wi-Fi
- Optional USB, last gap capacitor

### 5G & 4G Connectivity Gateways - Platform v1



#### ICR-1600 Series

##### 4G LTE Industrial Connectivity Gateway

- LTE Cat.4, 2x SIM
- Up to 5x Ethernet 10/100/1000 Mbps
- Optional RS232, RS485
- Optional Wi-Fi 5, GNSS



#### ICR-1700 Series

##### 5G Industrial Connectivity Gateway

- 5G, LTE Cat.12 fallback, 2x SIM
- 2x Ethernet 10/100/1000M/2.5 Gbps
- Optional RS232, RS485, Wi-Fi 5

# Industrial Ethernet Switches and Communications

## Reliable Industrial Communication and Networking Solutions

Empower your network with Advantech's industrial Ethernet solutions. Our diverse range includes L2/L3 managed and unmanaged switches, featuring PoE, 10G, and X-Ring Pro redundancy. Specifically designed for industrial settings, our Ethernet switches hold domain-focused certifications – EN50155 for railways, ITxPT and E-Mark for in-vehicle communication systems, and IEC-61850-3 for smart substations. All of which contribute to the secure transmission of data, monitoring, and control of networked devices.

### Unmanaged Switch PLUS

**NEW**



#### EKI-2718 Series

- One-touch VLAN support simplifies network segmentation
- High port density with up to 18 ports
- Adjustable pull-down DIN-rail kit enables flexible installation angles
- EMC Level 4 protection ensures reliable operation in harsh environments

### PROFINET Unmanaged Switches



#### EKI-2525NI/2528NI/2728NI/5726NI

- Supports PROFINET Conformance-Class A
- Complies with IEC 61131-2 specifications
- Enhanced traffic prioritization for automation protocols
- Supports EMC Level 4

### L2 Managed Switches



#### EKI-5700/7700 Series

- High variety of port combinations
- Supports Advantech Security Pack for cyber security
- IXM function enables fast deployment
- Supports X-Ring Pro and CLI/Web GUI
- EN 50121-4 and NEMA TS-2 certified

### L3 Managed Switches



#### EKI-9700/9600 Series & EKI-8528

- L3 Modular Switch
- Static routing/ NAT (EKI-9612G, EKI-9628G)
- Static routing, RIP v1/ v2, OSPF v3, PIM-SM, PIM-DM, VRRP(EKI-9728G)
- Supports up to 4 x 10G SFP+ ports (EKI-9728G)

### Unmanaged Ethernet Switches



#### EKI-2000 Series

- Comprehensive range from Fast Ethernet to 2.5G.
- Flexible port options with copper and fiber optic connectors.
- Slim design with IP30-rated metal housing for robust durability.
- Supports pull-down DIN-rail for versatile angle installations.

### iBus/In-Vehicle Switches

**NEW**



#### EKI-9508/EKI-9510 Series

- Complies with ITxPT, E-Mark
- Complies with UN ECE R118 & UN ECE R10
- Supports PoE IEEE802.3af/at (PoE model)
- Wide nominal power input range: 12/24VDC
- Operating power input range: 9-36VDC

### EN 50155 Switches

**NEW**



#### EKI-9500 Series

- EN 50155, EN 50121-3-2, IEC 61373 compliant
- PoE/ PoE+ models are available
- Various port combination with Fast Ethernet/ Giga/10G Ethernet options: 8 / 10 / 12 / 16 / 20 / 28 ports
- IP54/ IP67 and rugged housing
- Supports TTDP (IEC61375-2-5) & TRDP (IEC61375-2-3)

### IEC 61850-3 Switches

**NEW**



#### EKI-7528 / EKI-8528 / EKI-9226

- IEC 61850-3 and IEEE 1613 certified for Power Energy
- L3 features: VRRP, RIP v1/v2, OSPFv3, PIM
- IEEE 1588v2 PTP supported
- GOOSE MMS supported
- HSR/PRP module supported

### TSN Ethernet Switches



#### EKI-8500 Series

- IEEE 802.1AS time synchronization
- IEEE 802.1Qbu frame preemption
- IEEE 802.1Qbv time aware shaper
- IEEE 802.1CB seamless redundancy

### Industrial PoE Switches



#### EKI-2700 & EKI-7000 Series

- Full range from Fast Ethernet to 10G.
- Compatible with IEEE 802.3af/at/bt standards for PoE functionality.
- EMC Level 4 protection for enhanced reliability in harsh environments.
- 6KV LAN surge protection to safeguard against electrical spikes.
- High power budget of up to 685W for demanding applications.

### PoE Injectors, Splitters, and Extenders



#### EKI-2701 & IMC-150 Series

- Versatile peripherals for PoE applications, supporting various wattages and up to 500-meter output.
- Compliant with IEEE 802.3af/at/bt standards, ensuring seamless integration.
- Supports a wide range of speeds, from Fast Ethernet to 5G.
- Reliable performance in extreme environments with an operating temperature range of -40°C to 75°C.

### Industrial Media Converters and Chassis



#### IMC-300 & IMC-3181 Series

- Wide range of choices from 10/100Mbps to 10G
- Flexible power input DC/AC/USB/PoE
- Flexible Installation: Din-rail, wall-mount, chassis
- Easy plug-in for central management with Chassis IMC-3181





# Industrial Wireless Devices and Sensors

## Optimizing Facility Management and Performance with Smart Sensing Solutions

Advancements in wireless and cloud technologies have driven the adoption of cloud services in remote applications for wide-area management. To bridge the gap between field data and the cloud, Advantech offers smart edge nodes with wireless I/O and sensor modules. These devices seamlessly collect and transmit data to the cloud using advanced wireless technologies and IoT protocols, enabling efficient monitoring and streamlined facility management.

### Industrial Wi-Fi Access Points and Clients



#### BB-WLNN Series

##### Wi-Fi Dual Band Embedded Module

- Quick time to market and reduced integration costs
- 802.11a/b/g/n Wi-Fi radio (2.4 GHz, 5 GHz)
- WEP, WPA-PSK, WPA2-PSK and WPA2-enterprise security
- Small form factor module



#### ABDNA-ER-DP551(U) / ABDNA-ER-IN5010

##### Wi-Fi Dual Band Enterprise Ethernet Bridge/Router

- 10/100 Ethernet to Dual Band Wi-Fi
- Compact form factor
- Industrial metal case



#### EKI-6333BE / EKI-1652WT

##### Wi-Fi 7 AP/Bridge/Client/EN 50155 Router

- Support 802.11be MU-MIMO 2x2x2; backward compatible with 802.11b/g/n/ac/ax
- Smooth streaming & roaming speeds: 5.8 Gbps (6 GHz), 2.9 Gbps (5 GHz), 700 Mbps (2.4 GHz)
- Secure access: WEP, 802.1x, WPA/WPA2/WPA3 (Personal/Enterprise)
- 4 x 2.5GBASE-T RJ45 Ethernet ports, IEEE 802.3bz compliant
- Wide temperature range: -20 ~ 70 °C

### Wireless I/O Modules



#### WISE-4471 / WISE-4671

##### Industrial NB-IoT/LTE-M IoT Wireless I/O Module

- Dual mode support with global coverage in NB-IoT and LTE-M
- Faster and easier deployment with existing infrastructures
- Supports direct public cloud service for IoT integration



#### WISE-221X

##### Industrial Proprietary LPWAN(Sub-G) Energy Harvesting I/O Module

- Power over AI channel design, no extra power wired installation needed.
- High efficiency power charger design via CT (Current transformer, AC 0~100mA) or 4~20mA sensors
- Max. 3 AI channels
- Compact design, suitable for plug and play applications



#### WISE-2200-M / WISE-4610 / BB-WSW

##### Advanced Industrial LoRaWAN IoT Wireless I/O Module

- Longer communication range with low power consumption
- Better penetration through concrete and steel with less interface
- One stop station with single and multiple I/O solution



#### WISE-4250

##### Industrial Dual Band 2.4/5GHz Wi-Fi IoT Wireless I/O Module

- Dual band 1T1R 2.4/5 GHz IEEE 802.11a/b/g/n/ac
- Fast roaming and smart band management technology
- Build-in higher security subsystem

### Wireless Sensor Modules



#### WISE-2410 Series

##### LoRaWAN Smart Condition Monitoring Sensor

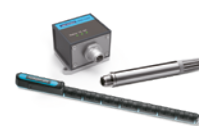
- Compliant with ISO 10816 (guidelines for machine vibration evaluation)
- No power and communication wiring with LoRaWAN technology
- Computing onboard, directly transmits vibration characteristic values to application



#### EVA-2000 Series

##### LoRaWAN Smart Sensors

- EVA-221X: 3-Phase Current Meter with 3 Clamp-on CT (75A or 250A or 630A)
- EVA-2310: Temperature and Humidity Sensor
- EVA-2311: Temperature PT1000 Round Head Probe Sensor
- EVA-2312: K-Type Thermocouple Round Head Probe Sensor
- EVA-2510: Water Leakage Sensor



#### WISE-2460 / WISE-S100 / 96PD-THS16B

##### Smart Sensors

- Stack light OEE monitoring sensor
- High accuracy temperature and humidity sensor
- High frequency vibration sensor
- RS-485 Modbus data directly output
- Can be paired with any RS-485 supported wire/wireless I/O solutions



# Serial and USB Communication Solutions

## Connect Your Legacy Serial Assets with the IoT World

Advantech serial communication products include industrial-grade Serial/USB to Serial Converters and USB Hubs/Isolators - ULI series, serial device servers - EKI-1500 series, and serial communication cards - PCI/PCIE 1600 series. The ULI converters and USB hubs feature surge/ESD/isolation/wide temperature functions with options for C1D2 and IEC 61850-3 certification. EKI-1500 serial device servers connect RS-232/422/485 devices, such as PLCs, meters and sensors to the internet for centralized communication. Additionally, the PCI/PCIE-1600 serial communication cards with RS-232/422/485 ports meet diverse industrial automation needs.

### Serial to Fiber Isolated Converters



#### ULI-210 Series

- Up to 2kV 3-way isolation and 10~48V<sub>DC</sub> power input
- Up to 115.2 kbps data rate and -40 ~ 80 °C operating temperature.
- Supports Modbus ASCII/RTU protocols
- ULI-211CI (BB-FOSTCDRI): rugged serial/MM ST converter with C1D2
- ULI-211E (BB-FOSTCDRI-PH-MT): IEC 61850-3 serial/MM ST converter
- ULI-212CI (BB-FOSTCDRI-ST): serial/SM ST converter
- ULI-213CI (BB-FOSTCDRI-SC): serial/SM SC converter

### RS-232 to RS-422/485/TTL Converters



#### ULI-220 Series

- Converts RS-232 to RS-422, RS-422/485, RS-485, TTL signals
- Various connector options: DB-9, terminal block, RJ-11
- Up to 2kV 3-way isolation and 10~48V<sub>DC</sub> power input
- 115.2 kbps ~ 460Kbps data rate and 0 ~ 70 °C / -40 ~ 80 °C operating temperature.
- Supports Modbus ASCII/RTU protocols
- ULI-223D (BB-422PP9R): RS-232 to RS-422 (DB-9) converter
- ULI-224TC (BB-485LDRC9): RS-232 to RS-422/485 (TB) isolated converter
- ULI-226D (BB-485SD9R): RS-232 to RS-485 (DB-9) converter

### RS-232/422/485/CANbus Repeater/Isolators



#### ULI-230 Series

- Extend additional distance: RS-232 15m; RS-422/485 1,200m
- Up to 2kV 3-way isolation and 10~48V<sub>DC</sub> power input
- Up to 115.2 Kbps data rate and -40 ~ 85 °C operating temperature
- ULI-232DS (BB-9SPOP2): RS-232 isolator with DB-9
- ULI-234TCI (BB-485OPDRI): RS-422/485 (TB) isolated repeater
- ULI-234TE (BB-485OPDRI-PH): IEC 61850-3 RS-422/485 (TB) isolated repeater

### USB to Serial Converters

USB 2.0



#### ULI-300 Series

- Adds a COM port to your PC via USB
- Up to 3kV isolation, powered by USB port
- Up to 921.6kbps data rate & -40 ~ 80 °C operating temperature
- ULI-321DC (BB-USO9ML2-A): USB 2.0 to RS-232 (DB-9) isolated converter
- ULI-341TC (BB-USOPTL4): USB 2.0 to RS-422/485 (TB) isolated converter
- ULI-361D (BB-485USB9F-2W): USB 2.0 to 2-wire RS-485 (DB-9) converter

### Industrial-Grade USB Hubs

USB 3.2 / 2.0



#### ULI-410 Series

- USB 3.2 Gen 1 SuperSpeed 5Gbps
- ESD protection up to 15kV (Level 4)
- Isolation protection up to 4kV
- Operating temperature: -40~80°C / -4~176°F
- ULI-414H (BB-USH204-B): 4-port USB 3.2 SuperSpeed hub
- ULI-417H (BB-USH207-B): 7-port USB 3.2 SuperSpeed hub
- ULI-414CI (BB-UHR304): 4-port USB 2.0 isolated hub, UL C1D2
- ULI-414HCL (USB-4630-BE): 4-port USB 3.2 isolated hub
- ULI-417HC: 7-port USB 3.2 isolated hub

### USB Isolators

USB 2.0



#### ULI-420 Series

- Up to 4kV isolation and 15kV / 8kV ESD protection for PCs, Laptops, Equipment
- Full (12Mbps) USB speed with high retention USB connectors
- Powered by USB port or 10-30V<sub>DC</sub> power input, -40 ~ 80 °C operating temp.
- ULI-421CL (BB-UH401): 1-port USB 2.0 isolator
- ULI-421C (BB-UHR401): 1-port USB 2.0 isolator
- ULI-422C (BB-UHR402): 2-port USB 2.0 isolator

### Serial Device Servers



#### EKI-1500 Series

##### 1/2/4/8/16-Port Serial Device Server

- Connect 1~16-port RS-232/ 422/ 485 devices directly to TCP/IP networks
- VCOM, TCP server, TCP client, UDP, and RFC2217 modes

### Console Server



#### EKI-1526NL-CS

##### 16-port Console Server

- RS-232 serial communication
- Cisco compatible pinout
- User authentication
- Secured out-of-band management

### Serial Communication Cards



#### PCI/PCIE-1600 Series

##### 2/4/8 -Port Serial Communication Cards

- 15 kV (air) / 8kV (contact) ESD protection
- PCI/PCIE-1600: 2/4/8-port RS-232/422/485, up to 921.6 kbps data rate
- PCI/PCIE-1680U, 2-Port CAN card, 1M data rate with Isolation
- PCIE-1682F, 2-Port CAN FD card, 8M data rate with Isolation



# Industrial Gateways

## Connect Legacy Devices to the IoT World

Advantech offers a wide selection of industrial gateways and cutting-edge data monitoring software tailored to your data management needs in different settings. Our gateways, equipped with advanced protocol conversion capabilities, act as bridges connecting various networks. They effortlessly link legacy devices to the cloud, making them an ideal solution for a myriad of industrial applications.



### IoT Communication

#### EdgeLink



#### ECU-1050 / ECU-1250 / ECU-1260 Series

##### IoT Gateway

- EdgeLink IoT software enables Edge-to-Cloud connectivity
- Supports cloud integration with AWS, Azure, Google Cloud, and third-party systems
- Supports protocols like MQTT, OPC UA, Modbus, DNP3, BACnet, IEC 104, IEC 61850, and 200+ PLC drivers
- Integrated VPN client for simplified secure network connection
- Efficiently supports 2,000 to 20,000 data tags
- Supports expansion with wireless communication capabilities



#### EKI-1242IEIMS

##### Fieldbus Gateway

- Modbus to Industrial fieldbus conversion, supporting Modbus RTU/TCP Client, EtherNet/IP Adapter, PROFINET IO-Device, OPC UA Server protocols
- Dual power inputs redundancy
- Built-in real-time diagnostics
- Wide operating temperature ranges



#### EKI-1200 Series

##### Modbus Gateway

- Supports 1~4 ports conversion of Modbus TCP and Modbus RTU/ ASCII network
- Redundancy-enhanced Modbus ID
- Wide operating temperature ranges

### Edge Computing



#### ECU-1370

- NXP i.MX8M Quad Core Cortex A53 1.3GHz
- 4GB RAM, 32GB eMMC
- 1 x RS-232/485, 1 x CAN, 3 x GbE, 2 x USB
- 24 x DI and 6 x Relay output
- Operating temperature: -40~80 °C/ -40~176 °F
- Ubuntu Linux

#### EdgeLink



#### ECU-1170

- Rockchip RK3568J Quad Core Cortex A55 1.4GHz
- 4GB RAM, 32GB eMMC
- 2 x USB, 1 x HDMI
- 8 x RS-232/485, 2 x CAN, 4 x GbE
- 2 x AI, 20 x DI, 6 x DO, 8 x Relay output
- Optional 5 sec power backup for safe shut down
- Yocto Linux with EdgeLink IoT Software/ Ubuntu Linux

#### EdgeLink



#### ECU-150

- NXP i.MX8M Quad Core Cortex A53 1.3GHz
- 2/4GB RAM, 16/32GB eMMC
- 2 x RS-232/485, 2 x GbE, 1 x USB
- Modular design with optional second stack for increasing functionality
- TPM2.0
- Yocto Linux with EdgeLink IoT Software/ Ubuntu Linux

#### EdgeLink



#### ECU-1270

- TI AM6734 Quad Core Cortex A53 1.4GHz
- 2/4GB RAM, 32GB eMMC
- 2 x RS-232/485, 2 x GbE, 1 x USB
- Yocto/Ubuntu Linux
- Flexible expansion modules of RS-485, DIO, CAN and POE PD functionality
- Yocto Linux with EdgeLink IoT Software/ Ubuntu Linux

### Intelligent Remote Terminal Units

#### EdgeLink



#### ADAM-3600

- TI Cortex-A8 (600MHz) with 256MB DDR3L
- Real-time Linux
- 4 x expansion slots
- SD slot for local data storage
- 2 x LAN ports with two MAC addresses
- 2 x wireless communication interface (mini-PCIe)
- 8 x DI, 8 x AI, 4 x isolated DO channels



#### ADAM-3651/ ADAM-3656

##### Digital I/O Expansion Module

- ADAM-3651: 8-ch DI module
- ADAM-3656: 8-ch DO module

#### ADAM-3617/ ADAM-3624

##### Analog I/O Expansion Module

- ADAM-3617: 4-ch AI module
- ADAM-3624: 4-ch AO module



#### ADAM-3668

##### 4-ch Relay Output Module

- 2-ch form A and 2-ch form C
- Contact rating: 0.3A@125VAC, 1A@30Vdc



#### ADAM-6700 Series

- RISC/Linux-based, Node-RED
- Multiple digital and analog I/O and wireless connectivity
- Operating temperature: -40~70 °C/ -40~158 °F



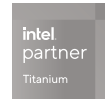


# IoT Control Platform

## PC-Based PLC Automation with Next-Gen Edge Computing and Real-Time Performance

Advantech AMAX series is designed for all IoT control requirements. Our entire product range is built on cutting-edge computing technology, providing the essential value for IoT connectivity. With an optimized real-time control system (1ms latency with low jitter) for CODESYS integration and data retention design during power outages, AMAX delivers a diverse array of control systems in various form factors tailored to meet the demands of different application scenarios.

EtherCAT®



### Panel Controllers

NEW



#### AMAX-PT800

##### Intel® Core™ Panel Controller

- Computing box module design (12.1"~23.8" display support)
- Intel® 13th Core™ i7/i5 processor
- RAM select: 1 x DDR5-4800 SO-DIMM (Up to 32GB)
- Storage select: 1 x M.2 M Key for NVMe
- iDoor select: 1 x M.2 B Key
- 1 x M.2 E key
- 2 x 2.5 GbE LAN, 1 x Type C, 4 x USB, 2 x RS-232/422/485
- 3 x display support (FPM/DP/Type C)

NEW



#### AMAX-PT700

##### Intel Atom® Panel Controller

- Computing box module design (12.1"~23.8" display support)
- Intel Atom® x6425E processor
- 2MB non-volatile memory built-in
- RAM Select: 1 x DDR4 3200 SO-DIMM (Up to 32GB)
- Storage select: 1 x M.2 M key 2280 (SATA), 1 x 2.5" SSD/HDD
- iDoor select: 1 x mini PCIe
- 1 x M.2 E key
- 2 x 2.5 GbE LAN, 4 x USB, 2 x RS-232/422/485
- 1 x DisplayPort

NEW



CAN



#### AMAX-PT400 Series

##### Arm-based Panel Controller

- Panel & computing all-in-one design
- NXP i.MX 8M Mini, Arm Cortex-A53 processor
- 4GB RAM & 16GB eMMC storage built-in
- 2 x GbE, 2 x USB, 2 x COM (1 x CAN selectable mode)
- 1 x M.2 E key
- P-CAP multi-touch panel & 7" & 10.1" are available

### IPC Controllers

NEW



#### AMAX-7580

##### Intel® Core™ IPC Controller

- Intel® 13th Core™ i5-1335UE processor
- 2MB non-volatile memory built-in
- RAM DDR5-4800 8GB built-in & 1 x DDR5-4800 SO-DIMM slot
- Storage select: 2 x M.2 M Key for NVMe
- iDoor select: 1 x full size mPCIe (USB/PCIe)
- 1 x M.2 E key for WIFI/BT
- 3 x GbE, 4 x USB, 4 x isolated COM, 8 x isolated DI / 8 x isolated DO
- Second stack extension kit support
- 2 x DisplayPort
- TPM 2.0 built-in

NEW



#### AMAX-7570

##### Intel Atom® IPC Controller

- Intel Atom® X6425RE processor
- 2MB non-volatile memory built-in
- RAM DDR4-3200 8GB built-in (up to 32GB)
- Storage select: 1 x M.2 M Key, 1 x M.2 E Key
- iDoor select: 1 x mPCIe (USB/PCIe/SATA), 1 x M key (PCIe only) shared with storage
- 2 x GbE, 4 x USB, 2 x isolated COM, 8 x isolated DI / 8 x isolated DO
- Second stack extension kit support
- 2 x DisplayPort
- TPM 2.0 built-in

NEW



#### AMAX-4570

##### Intel® N97 Multi-I/O IPC Controller

- Intel® ADL-N97 processor
- RAM select: 1 x DDR5-4800 SO-DIMM (Up to 16GB)
- Storage select: 1 x mSATA (default) or 1 x 2.5" SSD
- iDoor select: 1 x 3042/3052 B key (USB/PCIe/SATA), (iDoor cannot be applied if a 2.5" SSD is installed)
- 4 x GbE, 4 x USB, 2 x RS-232/422/485, 4 x RS-485
- GPIO1 and GPIO2 (SW integrated pend.)
- 1 x HDMI, 1 x VGA

NEW



#### AMAX-4540

##### Arm-based Multi-I/O IPC Controller

- Rockchip RK3568J, ARM Cortex-A55 processor
- LPDDR4 4GB & 32GB eMMC built-in
- 4 x GbE, 2 x USB, 8 x isolated RS-232/485, 2 x isolated CAN
- 2 x AI, 20 x DI, 6 x DO, 8 x Relay (SW integrated pend.)
- 1 x Mini-PCIe, 1 x M.2 B key (optional)
- 1 x HDMI
- TPM 2.0 (optional)

## Embedded Controllers



### AMAX-5580

#### Intel® Core™ Embedded Controller

- Intel® 6th Core™ Celeron & i5 & i7 processors
- 2MB non-volatile memory built-in
- RAM 4GB/8GB build-in
- Storage 1 x M.2 M key (SATA)
- 2 x GbE, 4 x USB, 2 x COM RS232/422/485
- AMAX-5000 Slice I/O expansion (E-bus)
- iDAQ-964 & AMAX-5400 modules expansion (PCIe-bus)
- 1 x HDMI & 1 x VGA



### AMAX-5570

#### Intel Atom® Embedded Controller

- Intel Atom® x6413E/x6414RE processors
- 2MB non-volatile memory built-in
- RAM 4GB/8GB & storage 64GB built-in
- 2 x GbE, 2 x USB, 2 x isolated COM, 2 x isolated CAN
- 1 x M.2 B key, AMAX-5000 Slice I/O expansion (E-bus), local bus supply 1A
- 1 x HDMI
- TPM 2.0 built-in

NEW



### AMAX-5570E

#### Intel Atom® Embedded Controller with PCIe Extension

- Intel Atom® x6413E/x6414RE processors
- 2MB non-volatile memory built-in
- RAM 4GB/8GB & storage 128GB built-in
- 4 x GbE, 2 x USB, 2 x isolated RS-485
- AMAX-5000 Slice I/O expansion (E-bus)
- iDAQ-964 & AMAX-5400 modules expansion (PCIe-bus)
- 1 x HDMI
- TPM 2.0 built-in

## CODESYS-Ready iDoor Modules



### PCM-34D2R4

- 2 ports Isolated RS-422/485, B key (2242,USB), DB9



### PCM-34D4R4

- 4 ports non-isolated RS-232/485, B key (2242,USB), DB9



### PCM-37D24DI

- 24 channels isolated digital, I/O with counter, B+M key (3042, PCIe1), DB37



### PCM-34R2GL

- 2 ports Gigabit Ethernet, Intel® I350, B+M Key (2242, PCIe1), RJ-45



### PCM-26D2CA

- 2 ports isolated CANBus mPCIe, DB9

## Slice I/O Modules



### Digital I/O

**AMAX-5051**  
8-ch Digital Input Module

**AMAX-5052**  
16-ch Digital Input Module

**AMAX-5056**  
8-ch Sink-type Digital Output Module

**AMAX-5057**  
16-ch Sink-type Digital Output Module

**AMAX-5056SO**  
8-ch Source-type Digital Output Module

**AMAX-5057SO**  
16-ch Source-type Digital Output Module

**AMAX-5060**  
4-ch Relay with 2-ch Digital Input Module

### Analog I/O

**AMAX-5017C**  
6-ch Current Analog Input Module

**AMAX-5017V**  
6-ch Voltage Analog Input Module

**AMAX-5017H**  
4-ch High Speed Analog Input Module

**AMAX-5024**  
4-ch Analog Output Module

### Temperature I/O

**AMAX-5015**  
4-ch RTD Input Module

**AMAX-5018**  
6-ch Thermocouple Input Module

### Timestamped Digital I/O

**AMAX-5051T**  
8-ch Digital Input (2-ch Timestamp & 6-ch without Timestamp) Module

**AMAX-5056T**  
2-ch Sink-type Digital Output Timestamp Module

### Counter, Encoder I/O

**AMAX-5080**  
2-ch 24V HTL Incremental Encoder/Counter Module

**AMAX-5081**  
1-ch TTL/RS-422 Incremental Encoder/Counter Module

**AMAX-5082**  
1-ch SSI Absolute Encoder Module

### Serial Communication I/O

**AMAX-5090**  
1-port Isolated RS-232/422/485 Communication Module

## Infrastructure Modules

**AMAX-5001**  
2-ch Power Input with 4-ch Digital Input EtherCAT Slice I/O Module

**AMAX-5079**  
EtherCAT Extension Slice I/O Module

**AMAX-5070**  
Modbus TCP Bus Coupler with ID Switch Slice I/O Module

**AMAX-5072**  
EtherNet/IP Bus Coupler with ID Switch Slice I/O Module

**AMAX-5074**  
EtherCAT Bus Coupler with ID Switch Slice I/O Module



## IoT HMI

### Intuitive Machine Visualization Enhanced by Smart HMI Solutions

Advantech's IoT HMI solutions offer key advantages in machine and system control with the capability to connect to over 500 types of PLCs. This feature significantly enhances operational efficiency in various industrial environments. The interfaces, known for their intuitive touch controls and customizable features, are optimized for smart technology integration, enabling superior process management and efficient data exchange.

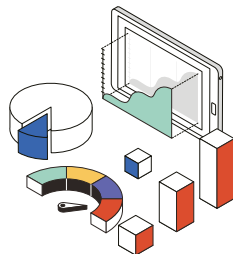
## HMINavi

HMINavi is powerful Open HMI software that encompasses an HMI Runtime Engine for HMI operations. Its HMI Engineering tool is designed with a user-friendly interface and offers solution-oriented screen objects for HMI project development.



### Object-Oriented

- Switch Button Object Unit
- Unlimited Internal Tags
- Schedule Table Control
- Macros Script Control
- Data Exchange
- Uplink Communication



### Data Visualization

- Lamps & Animated Display
- Historic Curve & Path Trend Graphic
- Bar Chart & Graphic Display
- Meter & Circular Display
- Pipeline & Path Display
- Rotation Indicator & Radar Chart



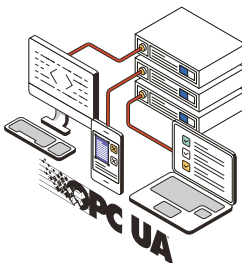
### Data Management

- Alarm Management
- Historical Data Logger
- Operation Data Logger
- Recipe Management
- Documentation CSV Format
- Documentation PDF Format



### Security Protection

- Project File Protection
- Screen Protection
- Due Date Protection
- Runtime Load Protection
- User Level Protection
- User Group Protection



### Data Exchange

- Breakpoint Resume
- OPC UA Server/Client
- VB Script User Coding
- JScript User Coding
- Browser/Media Container
- Database Connection

### Simplified 3-Step PLC Controller Integration

#### 1 Create A Project & Link

- Initiate a new project and create a new link
- Select the connection type (Serial/Ethernet)

#### 2 Select Your PLC Model

- Choose the PLC brand
- Select the PLC type/model

#### 3 Parameter Setup

- Configure baud rate transmission
- Set up the IP address/port/sub-link

## Operator Panels



### WOP-200K Series

#### General Operator Panel Installed with HMINavi

- 4.3"/ 7"/ 8"/ 10.1"/ 12"/ 15"
- Operating temperature: -15~65°C/ 5~149°F
- Safety certification UL 61010
- IP66-rated waterproof front panel
- Conformal coating boosts motherboard lifespan by 80%
- Isolation power input design & 20W low power consumption



### WOP-200T Series

#### Advanced Operator Panel Installed with HMINavi

- 7"/ 10.1"
- Operating temperature: -15~65°C/ 5~149°F
- Safety certification UL 61010 & C1D2
- Dual LAN ports design
- Conformal coating boosts motherboard lifespan by 80%
- Isolation power input design & 20W low power consumption

## Licensed Software



### HMINavi Runtime

#### Runtime Engine Software

- Supports any x86 Windows platforms
- Supports 500+ PLC industrial communication protocols
- Supports cloud access via the MQTT protocol
- Compliant Food & Drug Administration Title 21 CFR Part 11
- Password protection for designs, macros, and upload/download operations





# Machine Vision Solutions

## Stay on Top of Machine Vision Analytics

Time management, ease of maintenance, and accuracy remain major demands for machine vision solutions at the edge. Edge computing solutions facilitate data processing at the source of data generation and serve as a decentralized extension of the cloud, data center, and campus networks. This eases the integration of machine vision and motion control in local field sites while lowering delay. Advantech provides comprehensive machine vision edge solutions covering intelligent platforms, HMI, and controllers.

### Image Sensing

## ICAM 540 Series

### Industrial AI Camera



- 8MP 30 fps SONY industrial-grade sensor
- C-mount lens compatible
- 4.4mm, 12mm variable focus lens
- NVIDIA Jetson AI system on module
- HW ISP no GPU/CPU workload

### Why ICAM series?



#### Cutting Edge AI Computing

NVIDIA Jetson AI SOM



#### Comprehensive Optics and Illumination

Programmable Focal Distance and LED lighting



#### Versatile I/O interface

Trigger, DI/O, Strobe, Ethernet



#### Rich Software Support Package

V4L2, DeepStream, RTSP, RESTful API



### Image Acquisition

## Frame Grabbers

### Compatible with Mainstream Industrial Camera Interface

#### GigE Vision



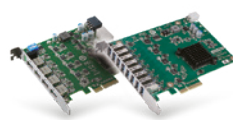
#### Camera Link



#### CXP



#### USB Vision



#### PCIE-1121-AE

##### 1-Port CameraLink Frame Grabber

- Camera Link Base/Medium/Full/80-Bit
- Supports PoCL and non-PoCL cameras with SafePower
- Reformats all tap configurations on the fly
- Camera Link clock up to 85 MHz
- Independent I/O (trigger, encoder, strobe, etc) for each camera
- Supports quadrature encoders
- On board timing sequencers
- Supports Windows and Linux

#### PCIE-1164-AE

##### 4-Port CXP12 Frame Grabber

- Half-Size x8 PCI Gen 3.0 Express Board
- Supports 1 to 4 CXP-12 cameras
- Supports power for all cameras with SafePower (up to 13 Watts per link)
- CXP speeds range from 3.25 to 12.50 Gb/s
- Supports NVIDIA GPUDirect
- Full GenICam support for control and capture
- Supports quadrature encoders
- Supports Windows and Linux

DAQNavi

# Data Acquisition Solutions

## Diverse Form Factors to Satisfy Various DAQ Requirements

Advantech's DAQ solutions offer a wide range of add-on cards, portable modules, and signal conditioning tools supporting diverse industrial applications, including measurement, laboratory operations, machine automation, and production testing. To meet growing demands for embedded systems and Edge AI, the USB series provides plug-and-play functionality, high-speed acquisition, and versatile I/O, whereas the modular iDAQ series enhances automation with high-throughput processing for applications requiring extensive and mixed measurement types in demanding IoT environments.

### Modular DAQ Chassis and Modules

NEW



#### iDAQ-974

##### 4-Slot Ethernet iDAQ Chassis

- 2 x Gigabit Ethernet interface with flexible topology
- Modularized design for flexible IO configuration
- 2 x PFP for multi-purpose software-configurable trigger/clock settings



#### iDAQ-934/ 938

##### 4/ 8-Slot USB 3.0 iDAQ Chassis

- USB 3.0 with SuperSpeed USB (5Gbps)
- 1 x upstream & 1 x downstream USB port
- LED indicators for status indication
- 2 x PFP for multi-purpose software-configurable trigger/clock settings

NEW



#### DAQ Modules

##### Digital Input/Output Modules

- iDAQ-731: 16-ch isolated DI and 16-ch universal isolated DO
- iDAQ-751: 48-ch TTL DI/O
- iDAQ-763D: 16-ch solid-state relay (SSR) DO

##### Analog Input/Output Modules

- DAQ-817: 8-ch, 16-bit, 200 kS/s AI
- iDAQ-841: 8-ch, 16-bit, 1 MS/s/ch AI
- iDAQ-821: 4-ch, 16-bit, 10 kS/s/ch AO

##### Sensor Input Modules

- iDAQ-801: 4-ch, 24-bit, 256 kS/s/ch IEPE sensor input
- iDAQ-815: 8-ch, 24-bit, 400 S/s RTD input
- iDAQ-868: 16-ch, 24-bit T/C input
- iDAQ-871: 4-ch, 24-bit, 25.6 kS/s/ch 3-in-1 bridge input
- iDAQ-873: 8-ch, 24-bit, 25.6 kS/s/ch quarter-bridge input
- iDAQ-784: 4-ch counter & encoder

### USB DAQ Modules



#### USB-5801

##### 4-ch, 24-bit USB 3.0 Sound & Vibration Input Module

- USB 3.0 with SuperSpeed USB (5Gbps)
- 1 x upstream and 1 x downstream USB port
- 4 x 24-bit simultaneous sampling analog inputs up to 192kS/s
- IEPE excitation for every channel
- 1 x tachometer for revolution speed measurement
- Built-in USB hub



#### USB-5817

##### 8-ch, 16-bit USB 3.0 Analog Input Module

- USB 3.0 with SuperSpeed USB (5Gbps)
- 1 x upstream and 1 x downstream USB port
- 16-bit resolution with 200kS/s sampling rate
- $\pm 275$  V high common-mode voltage range
- Measuring and output error  $< \pm 0.1\%$
- Built-in USB hub



#### USB-5830/ 5856

##### 32/ 64-ch USB 3.0 Isolated Digital I/O Module

- USB 3.0 with SuperSpeed USB (5Gbps)
- 1 x upstream & 1 x downstream USB port
- Built-in USB hub
- 2,500 V<sub>oc</sub> isolation protection
- Level 3 ESD and surge protection

### USB DAQ 2.0 Modules



#### USB-4711A/ 4716

##### 200 kS/s, 16-bit, 16-ch Multifunction USB Module

- Supports USB 3.0 SuperSpeed
- Bus-powered
- 16 analog input channels
- 12/16-bit resolution AI



#### USB-4750/ 4761

##### 32-ch Isolated Digital I/O USB Module

- Compatible with USB 1.1/2.0
- Bus-powered
- 16 isolated DI and 16 isolated DO channels
- High voltage isolation on all channels (2500 V<sub>oc</sub>)
- 8 Relay output (USB-4761)

### DAQ Software Development Kit

DAQNavi



#### DAQNavi/SDK

##### DAQ Software Development Kit

- Supports multiple OS: Windows (32-bit and 64-bit), Linux
- Open development environment: C++, .NET, C#, Java, Python, LabVIEW
- Pre-defined scenario application examples with source code
- Express VI and Polymorphic VIs support in LabVIEW environment

## PCI Express Digital I/O Cards



### PCI Express Digital I/O Cards

#### 32/ 64/ 128-ch Isolated DI/DO PCIe Card

- 32/ 64/ 128-ch isolated DI/DO channels w/ 24 V compatibility
- Interrupt handling capability for all DI channels
- Software-selectable digital filter time for all DI channels
- 32-ch TTL DI/DO w/ 5 V compatibility (PCIe-1730H only)
- High-voltage isolation on all isolated DI/DO channels (2,500 V<sub>DC</sub>)



### PCI Express Digital I/O Cards

#### 8/ 16-ch Relay and 8/ 16-ch Isolated DI PCIe Card

- 8/16-ch opto-isolated digital input channels
- 8/16-ch relay actuator output channels
- Interrupt handling capability for all DI channels
- Software-selectable digital filter time for all DI channels



### PCI Express Digital I/O Cards

#### 16-ch Solid-State Relay (SSR) Output and 16-ch Isolated DI PCIe Card

- 16-ch isolated digital input with dry/wet contact options
- Interrupt and noise filter for all DI channels
- Suitable for both AC (> 80 V<sub>AC</sub>) and DC low voltage load (< 60 V) applications with frequent ON/ OFF switching
- Software-selectable digital filter time for all DI channels

## PCI Express DAQ Cards



### PCI Express DAQ Cards

#### 16-ch, 12/ 16-bit Multi-Function PCIe Card

- Sample rate: 500 kS/s, 1 MS/s
- Resolution: 12 /16-bit
- Analog and digital triggers
- Waveform generator for AO channels



### PCI Express DAQ Cards

#### 32-ch, 16-bit Analog Input PCIe Card

- Sample rate: 1 MS/s
- Resolution: 16-bit
- $\pm 10$  V to  $\pm 1$  V voltage measurement
- 0 ~ 20 mA or 4 ~ 20 mA current measurement
- Analog and digital triggers



### PCI Express DAQ Cards

#### 16/ 8/ 8-ch, PCIe-1841/L: 18-bit, PCIe-1812: 16-bit Simultaneous AI Multi-Function PCIe Card

- Sample rate: PCIe-1841/L: 1 MS/s/ch, PCIe-1812: 250 kS/s/ch
- Resolution: PCIe-1841/L: 18-bit, PCIe-1812: 16-bit
- Analog and digital triggers
- Waveform generator for AO channels (PCIe-1812 only)



### PCI Express DAQ Cards

#### 8/ 4/ 8-ch, 24-bit Sound and Vibration Input PCIe Card

- Sample rate: PCIe-1802/L: 216 kS/s/ch, PCIe-1803: 128 kS/s/ch
- Resolution: 24-bit
- Dynamic range: PCIe-1802/L: 115 dB, PCIe-1803: 102 dB
- Wide input voltage range ( $\pm 0.2$ ~10 V)
- Built-in anti-aliasing filter

## PCI Express Digitizer

NEW



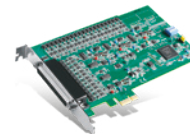
### PCI Express Digitizer

#### 4/4/8/4/8/4-ch, PCIe-1840/L:16-bit, PCIe-1842/L/1843/L:14-bit

#### High Speed PCIe Card

- Sample Rate: PCIe-1840/L:125 MS/s/ch, 80MS/s/ch, PCIe-1842/L:10 MS/s/ch, PCIe-1843/L:20 MS/s/ch
- Resolution: PCIe-1840/L:16-bit, PCIe-1842/L/1843/L:14-bit
- Ultrasound & Partial Discharge: PCIe-1840/L
- Transient Waveform Capture & Optical-fiber Sensing: PCIe-1842/1843
- Analog and digital triggers

## PCI Express AO Cards



### PCI Express AO Cards

#### 32-ch, 16-bit Analog Output PCIe Card

- Resolution: 16-bit
- Update rate: static
- Output range:  $\pm 10$  V, 0 ~ 20 mA and 4 ~ 20 mA
- Synchronized output function
- High ESD protection (2,000 V<sub>DC</sub>)



# Secure Cloud I/O Solutions

## Maximizing Distributed Asset Management Efficiency in IoT

Advantech's ADAM series provides advanced IoT Ethernet I/O solutions for distributed asset management in industrial settings. The ADAM-6000/6200/6300 series ensures secure cloud I/O connectivity with MQTT support for seamless cross-site device management. It supports IoT protocols like Modbus, SNMP, RESTful API, and OPC UA. The ADAM-5000 series offers modular designs for high I/O density, while the ADAM-200PN series features IP67-rated machine-mount I/O, ideal for harsh industrial environments with PROFINET RT and Modbus.

### Secure Cloud I/Os

### Why Secure Cloud I/O Series ?

Achieve cross-site device management with key benefits including

- Effortless Cross-Site Management: Unified utility for cross-site device management with MQTT-based cloud integration.
- Secure Communication: Features include X.509 certificates, TLS, cipher suites, IP/MAC allow listing, protocol control, and connection diagnostics.
- Efficient OTA Deployment: Group-based firmware, configuration, and certificate updates.
- Convenient I/O Control: Periodic I/O updates, alarm notifications, WDT, and safety value settings.

Manage I/O from User's Cloud or Advantech EdgeHub Cloud



### Combined with Intelligent I/O

- Supports GCL, P2P, RESTful API, SNMP
- Supports Modbus, ASCII, MQTT
- Directly links SCADA and accelerate cloud IT/OT convergence with OPC UA (ADAM-6300)
- Compliance with IEC 62443-4-2 (ADAM-6300)
- Data stream function to push data
- Supports HTML5-enabled Web server, JavaScript, XML
- Supports Daisy Chain and auto-bypass protection (ADAM-6200/ADAM-6300)
- Comprehensive I/O portfolio



### ADAM-6000 Series

- ADAM-6015: 7RTD
- ADAM-6017: 8AI/ 2DO
- ADAM-6018+: 8TC
- ADAM-6024: 6AI/ 2AO/ 2DI/ 2DO
- ADAM-6050: 12DI/ 6DO
- ADAM-6051: 12DI/ 2DO/ 2 Counter
- ADAM-6052: 8DI/ 8DO (source)
- ADAM-6060: 6DI/ 6Relay
- ADAM-6066: 6DI/ 6Power Relay



### ADAM-6200 Series

- ADAM-6217: 8AI
- ADAM-6224: 4AO/ 4DI
- ADAM-6250: 8DI/ 7DO
- ADAM-6251: 16DI
- ADAM-6256: 16DO
- ADAM-6260: 6Relay
- ADAM-6266: 4Relay/ 4DI



### ADAM-6300 Series

- ADAM-6315: 8 RTD/ 6DI/ 8DO
- ADAM-6317: 8AI/ 11DI/ 10DO
- ADAM-6350: 18DI/ 18DO
- ADAM-6360D: 8SSR/ 14DI/ 6DO
- ADAM-6366: 6Relay/ 18DI/ 6DO

### Ethernet / RS-485 Modular I/Os



### ADAM-5000 Series

- 4/8-slot intelligent modular I/O system
- Supports Modbus/GCL/Soft Logic
- Built-in watchdog timer for system auto-reset

### Module Selection

#### Main Unit

- ADAM-5000/485 & 5000E: RS-485
- ADAM-5000L/TCP & 5000/TCP: Ethernet
- ADAM-5630 & 5630E: Soft Logic

#### Modules

- ADAM-501x: AI/TC/RTD
- ADAM-502x: AO
- ADAM-505x: DI/O
- ADAM-506x: Relay
- ADAM-508x: Counter/Frequency
- ADAM-5091: 4 serial

### RS-485 I/Os



### ADAM-4100 Series

- Supports Modbus protocol and ASCII command
- Micro USB for power and data transmission
- Wide operating temperature range (-40 ~ 85 °C / -40 ~ 185 °F)
- High protection level: 4-kV surge, 4-kV EFT, 8-kV ESD
- High common mode voltage: 200 Vdc
- Power input: 10~48Vdc

### Module Selection

- ADAM-4115: 6RTD
- ADAM-4117: 8AI
- ADAM-4118: 8TC
- ADAM-4150: 7DI/ 8DO
- ADAM-4168: 8Relay



### ADAM-4000 Series

- Supports Modbus protocol and ASCII command
- Watchdog timer
- ±35 Vdc over voltage protection
- 3,000 Vdc voltage isolation

### Module Selection

- ADAM-4015: 6RTD
- ADAM-4017+: 8AI
- ADAM-4018+: 8TC
- ADAM-4024: 4AO/ 4DO
- ADAM-4051: 16DI
- ADAM-4055: 8DI/ 8DO
- ADAM-4068: 8Relay
- ADAM-4080: 2 Counter

### PROFINET IP67 I/Os

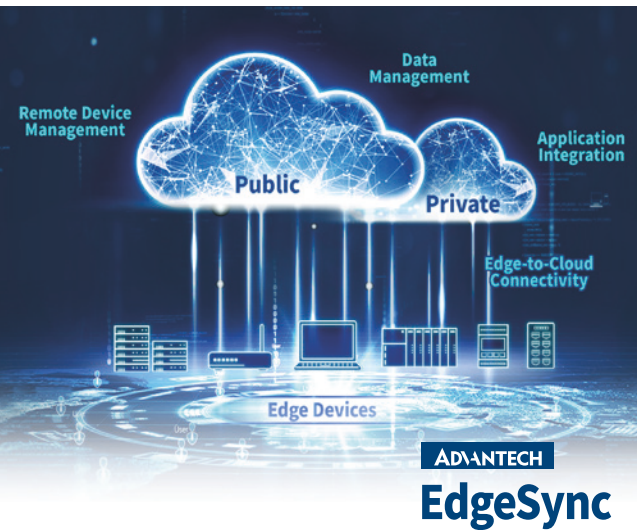


### ADAM-200PN Series

- PROFINET ports support FSU / RT mode / MRP / I&M
- Independent access of device data via IoT port
- IP67-rated zinc housing is very rugged and resistant to vibration, dust, oil, and water
- UL C1D2 certification for harsh industrial environments
- M12 housings with the push-pull fast-locking system reduce installation time and wiring efforts

### Module Selection

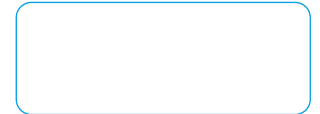
- ADAM-217PN: 6AI+2AIO
- ADAM-219PN: 8AI/TC/RTD
- ADAM-250PN: 16DIO



# EdgeSync for IoT Device and Data Orchestration

Connect, Manage, and Analyze Devices and Data through Edge as a Service

EdgeSync is Advantech's Edge as a Service, featuring a comprehensive suite of software products that connect, manage, and analyze devices and data, augmenting the value in various industrial applications. At its core, EdgeSync is powered by a robust set of software and centralized services, including EdgeLink, DeviceOn, and EdgeHub.



## Centralized Management

### EdgeHub

#### Cloud Service for Device & Data Management

- Instant device onboarding facilitated by a unified edge agent
- Secured architecture supporting multiple tenants on SaaS
- Remote monitoring and control of devices
- OTA updates for firmware, applications
- Data aggregation via customizable web dashboards or APIs



## Edge Management

### DeviceOn

#### AI Orchestration in Private and Public Cloud

- Hosted by user in on-prem environment, AWS, or Azure
- Manages over 10,000 AIoT edge devices
- Out-of-band mgmt. via IPMI/iAMT/iBMC/EdgeBMC
- Supports x86/RISC/NVIDIA Jetson
- Supports Windows/Linux/Android

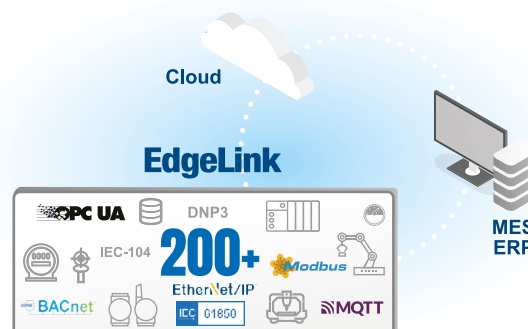


## Edge Connectivity

### EdgeLink

#### IoT Gateway Software for Multi-Protocol Conversion

- Connections with over 200 PLC and I/O modules
- Event management and easy logic programming tools for preprocessing collected data
- Data publishing through multiple protocols
- Optimal choice for IEC 61850, OCPP, DLMS applications





## WISE-IoT

Transform Your Business by Simplifying Connectivity, Streamlining Operations, and Enabling AI-Driven Decisions

WISE-IoT provides scalable IoT solutions with seamless edge-to-cloud integration, advanced analytics, and cross-industry adaptability. It empowers businesses to enhance efficiency, drive innovation, and achieve sustainable growth.

Through our Marketplace, ready-to-use applications and solutions are available for immediate deployment, allowing businesses to seamlessly adopt AI and enhance operational efficiency.

### Unified AI-Ready Development Platform

## IoTsuite - Advancing Industries with Data-Driven Efficiency & Agentic AI

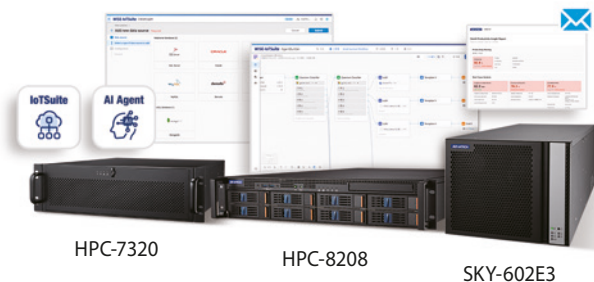
IoTsuite and WISE-AI Agent are easy-to-use platforms that help businesses connect devices, process data, and create actionable insights or enterprise AI solutions. With low-code development, seamless integration, and flexible scalability, they simplify operations, boost productivity, and drive growth across industries like manufacturing, energy, and city services.

#### • IoTsuite

IoTsuite is a powerful Industrial IoT platform that streamlines device connectivity, data management, and operations. Designed for rapid development and scalability, it makes digital transformation efficient and adaptable to diverse industry needs.

#### • WISE-AI Agent

WISE-AI Agent is the innovation engine for generative AI applications. With zero-code usability, it integrates an LLM platform and RAG engine to create AI workflows and agents based on any LLMs, boosting enterprise efficiency and productivity.



### Display and Vision AI Platform

## iVisionSuite - Transforming Video into Actionable Insights and Analysis

iVisionSuite edge AI solution enables rapid deployment and direct integration on-site. Through comprehensive hardware and software integration, we offer the interactive digital signage platform SignageCMS, a diverse range of AI video analysis services with VisionSense, and advanced facial recognition management with FaceMatch. By integrating display and video application software into hardware, it enhances safety, management efficiency, and customer engagement.

#### • SignageCMS

SignageCMS is an intuitive and flexible content manager for interactive signage design, real-time updates, dispatch, and advanced IoT and vision AI integration.

#### • VisionSense

VisionSense features human detection, facial recognition, and object recognition, enabling the deployment of tailored AI models for video analysis.

#### • FaceMatch

FaceMatch is a facial recognition solution enables users with the ability to identify facial profiles. It can apply to access control, attendance taking, and equipment authentication.





## Intelligent Energy Management Solution

### iEMS - Empowering Enterprises for a Greener Future

iEMS offers a comprehensive smart energy solution for corporate carbon asset management (ISO 14064/ISO 14067), energy management (ISO 50001), HVAC and air compressor efficiency, and motor efficiency. It is the ideal partner for global enterprises on their journey to carbon neutrality, providing solutions for carbon and energy management in their pursuit of sustainability.

#### • ECOWatch

Track energy and renewable energy performance KPIs. Conduct multi-dimensional analysis of energy data for cost reduction. Manage energy conservation projects. Ensure ISO 50001 compliance.

#### • CarbonR

Analyze enterprise carbon emissions and product carbon footprint with digital carbon inventory system. Ensure ISO 14064 / 14067 compliance.



## Environment, Health & Safety

### EHS - Optimizing Environmental Impact and Workplace Excellence

EHS (Environment, Health, and Safety) solution ensures compliance with ISO 14001 and ISO 45001 standards for environmental and workplace safety. It offers real-time monitoring, automated reporting, and intelligent insights to manage environmental impact, safety inspections, and incident response. Designed for efficiency and compliance, the platform helps organizations reduce risks, meet regulations, and create safer, more sustainable operations.

#### Enable IoT Monitoring

Real-time monitoring comprehensive data to reduce the level of incidents.

#### Enhance Corporate Resilience

Equipment optimization, replace energy intensive fuel and response to energy crises.

#### Improve Sustainability

Expedite GHG inventory progress, regulatory compliance, and KPI performance review.

#### Facilitate Data-driven Intelligence

Visualized BI tools with Low-code platform for Data-based strategy.



## SCADA Software

### WebAccess/SCADA - Automate Data Acquisition and Visualization

WebAccess/SCADA is a comprehensive data acquisition and visualization solution that streamlines industrial process monitoring, enhances device performance, boosts efficiency, and reduces costs. It supports 450+ controllers and devices, providing unified, low-latency access to historical and alarm data for manufacturing, energy, industrial, and building automation applications.

#### Universal Connectivity

Supports industry standard connectivity interface such as OPC, OPC UA, Modbus, BACnet, web services, databases, and more.

#### Dynamic Scalable Graphics

Builds scalable, graphics and preconfigured widget with dynamic properties, referenced colors and flexible animations.

#### Web-Based Centralized

Configure and manage the entire OT project from a single web-based platform, accelerating development and reducing design costs.

