



Elevate Performance with AMD Series Processors

Meet the Advantech AMD product family



AMD
EPYC
Embedded

ADVANTECH AMD SOLUTIONS eBOOK

Your Guide to Advantech Cloud, Server, and Networking Solutions with the Latest and Most Powerful AMD Platforms

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Value-Added and AI-Driven Solutions

Product Selection Guide
Advantech Global Presence

WHY ADVANTECH?

Advantech is a leading provider of innovative products, services, and solutions. We offer comprehensive system integration, hardware, software, customer-centric design services, embedded systems, and global logistics support. We work closely with our partners to provide complete solutions for a wide range of applications in different vertical segments.

A large, three-dimensional, light blue logo of the word "ADVANTECH" is positioned in the foreground. Behind it is a modern, multi-story building with a glass facade and a prominent overhang. A tree is visible on the right side of the frame. The entire scene is overlaid with a semi-transparent blue filter.

ADVANTECH

Enabling an Intelligent Planet

Est. **1983**

Headquarters: Taipei, Taiwan

INDUSTRIES SERVED

Industry 4.0, Industrial IoT,
Embedded Computing,
Medical, Retail, Logistics



\$10.61B

MARKET
CAP (USD)
(Feb. 2024)



Honors & Awards

- No.5 in Best Taiwan Global Brands
- No.17 in Top 50 Global Automation Vendors
- No.9 in Top 100 Industrial IoT Companies
- Red Dot Product Design Award
- iF Product Design Award

Interbrand

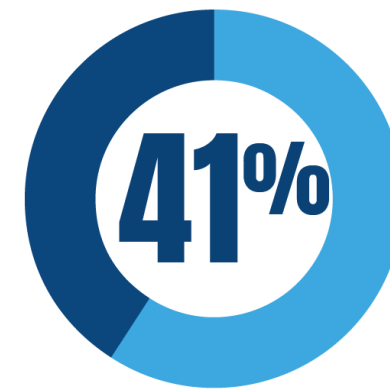
CONTROL



WORLD'S LARGEST IPC COMPANY

Advantech IPC WW Market Share

- Advantech
- Other IPC Companies



Source: OMDIA – Market Share Estimates for
Industrial PCs: World, 2022 Edition

\$2.07B

2021
REVENUE
(USD)

GLOBAL PARTNERS (Edge Server Group)

6WIND aconnic Adtran AIIXON

AS CENTER BBT.live e-con Systems Ekinops

HPE aruba networking JUNIPER NETWORKS NotaAI OVERVIEW

SPINGENCE TELCO SYSTEMS VERSA NETWORKS

CERTIFICATION

- NEBS
- NEMA TS2
- EN 60601
- NIST

NEBS
LEVEL 3
CERTIFIED

NEMA TS2

NIST
SP.800-193
Platform Firmware
Resiliency

18MILLION+ sq. ft.

MANUFACTURING PLANTS

Linkou, Taiwan



- 9 SMT lines, 16 system lines
- Engineering sample services
- Complex product lines
- Flexible & quick production

Kunshan, China



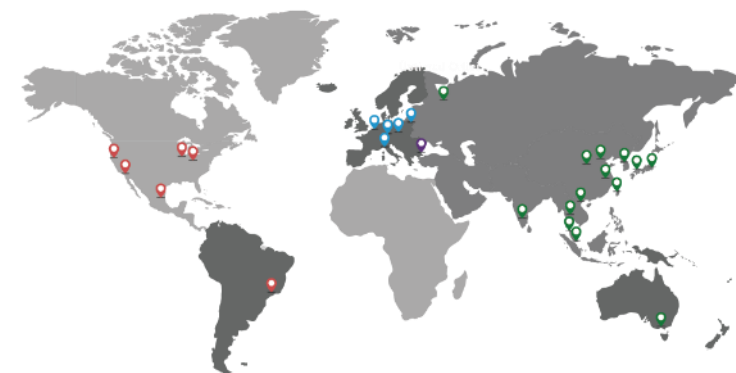
- 12 SMT lines, 13 system lines, 6 chassis lines
- Chassis design & production
- Mature product lines
- Cost-effective production



Nogata, Japan

- 4 SMT lines, 1 system line
- Japan design center, CTOS service, logistics center, repair center

WORLDWIDE OFFICES



Manufacturing 3
On-site service 4
Design centers 11
CTOS centers 16
Repair centers 17
Logistics centers 20
More than 90 offices globally!

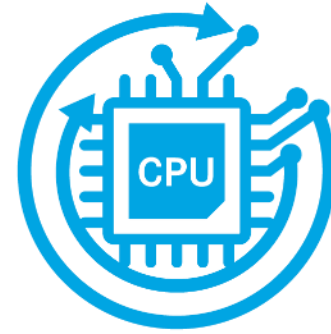
8800+
EMPLOYEES



Advantech & AMD: Enhancing Industrial Solution Development

AMD EPYC™ Embedded Processor Series

Leading Computing Capabilities



- AMD Zen 3 & 4 architecture
- Advanced 3/4nm process
- Up to 192 cores
- PCIe Gen 5 and USB 3.2 Gen 2
- Best performance per watt
- Instinct™ MI210 GPU Card Certified

AMD Ryzen™ Embedded Processor Series

Unlocking Scalability and Integration



- Up to 16 CPU cores and 32 threads
- Integrated AMD Radeon™ Graphics
- 3 x display pipes up to 4K resolution
- HVEC and H.264 (10-bit) codec, VP9 decoding

Software Utilities & OS



- DeviceOn / iManager
- Redhat RHEL 8.3
- CentOS 8.3
- Supports Windows Server 2019 & Windows 10 Enterprise LTSC
- Ubuntu 20.04

Embedded Features & Services



- 5- and 10-year longevity
- BIOS customization services
- Advanced thermal solutions
- Intelligent management (IPMI 2.0)
- Design-in & Manufacturing Services

Advantech & AMD: Focusing on Domain Sectors

Cloud

Industrial Automation

AI-Enabled Solutions

Telecom

Network Security

Professional Hardware Design

- Extensive I/O capabilities
- Enhanced expansion capabilities
- Industry-standard compliance
- Ruggedized for harsh environments
- Tailored design & integration services

Optimizing Computing Performance

- Superior computing performance
- Ultra-low latency and high throughput
- Lower TDP for energy efficiency

Worldwide Eco-Partner Collaboration

- Collaborate with Tier 1 chip and ISV partners to facilitate the implementation of cutting-edge technology and seamless solution deployment



IT to OT Security

Network Security

- Full range product portfolio
- Targeting NGFW, SD-WAN, SASE, UTM, DPI, IDS/IPS applications
- Scalability, modular design, reliability, and manageability

Edge Servers

5G & Telecom

- Server-grade computing solutions
- Targeting Gen. AI, vRAN, vSAN applications
- High-performance, high-density storage/computing, remote management
- Design-in manufacturing service

Product Roadmap

Available

In Development

Planning

AMD
EPYC
Embedded

High Performance



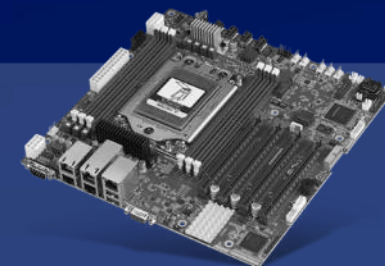
ASMB-830

- EPYC™ 7003 Series
- ATX SERVER MB



ASMB-831

- EPYC™ 9005/9005/9004 Series
- ATX SERVER MB



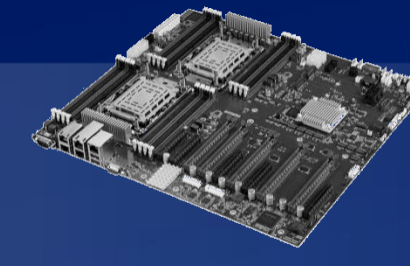
ASMB-531

- EPYC™ Embedded 4004
- uATX SERVER MB



ASMB-561

- EPYC™ 8004 Series
- uATX SERVER MB



ASMB-981

- EPYC™ 9005/9004 Series
- EE-ATX SERVER MB



SKY-8260SV2

- EPYC™ 7003 Series
- Edge-HPC SERVER



SKY-602E3

- EPYC™ 8004 Series
- Tower GPU SERVER



SKY-821E3

- EPYC™ 9005/9004 Series
- Short Depth SERVER



SKY-721E3

- EPYC™ 9005/9004 Series
- HCI SERVER



SKY-641E3

- EPYC™ 9005/9004 Series
- 4GPU DP Genoa/Turin



FWA-5082

- EPYC™ 8004 Series
- High-End 1U1P



FWA-6183

- EPYC™ 9005/9004 Series
- High-End 2U2P



FWA-6083

- EPYC™ 9005/9004 Series
- High-End 2U1P

AMD
RYZEN
Embedded

Mainstream



AIMB-723

- Ryzen™ Embedded 7000
- ATX MB

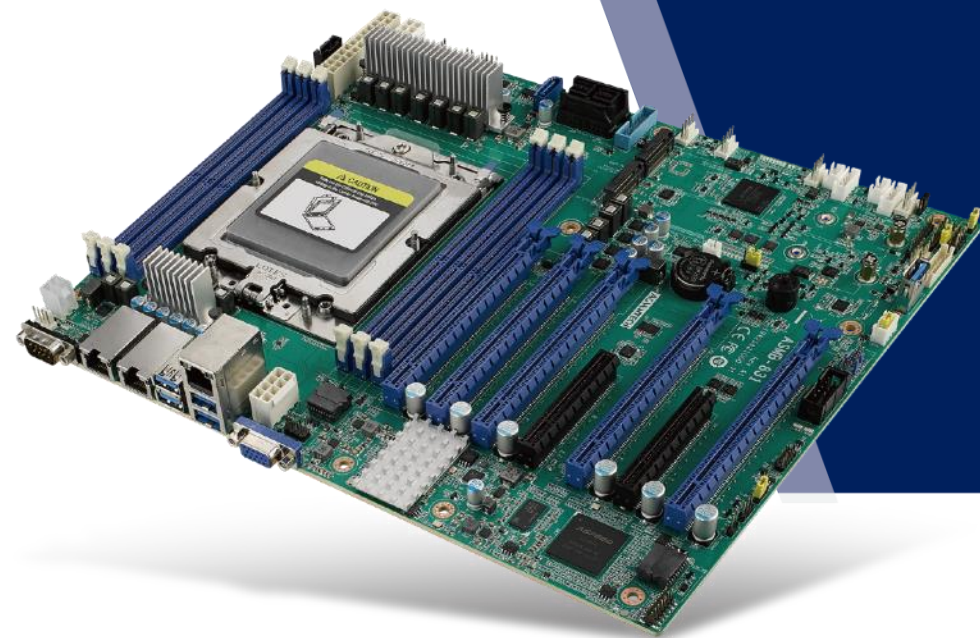
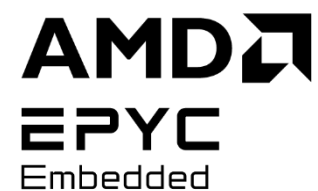


FWA-1081

- Ryzen™ Embedded 3000
- Entry NA

2024

2025



Industrial Server Motherboard

Maximum Efficiency and Expansion in Critical AI and HPC Applications

ATX Server Board

ASMB-831

EPYC™ 9005/9004 Series



Outstanding Performance

- Equipped with AMD EPYC™ 9005/9004 Series processors

Comprehensive Expansion Options

- Supports 5 x PCIe 5.0 x16 and 2 x PCIe 5.0 x8, providing faster data transfer speeds and scalability for high-performance networking, storage, and AI applications
- Supports two 2280/22110 M.2 PCIe 4.0 SSDs

Maximized Memory Capacity

- 6 x DDR5 4800MHz RDIMMs, up to 576GB
- 4th Gen EPYC™ CPU supports CXL 1.1+ focused on Type3/Memory

Robust Edge Computing Solution

- Ensures reliability and low-latency performance, making it a versatile choice for diverse applications

Applications



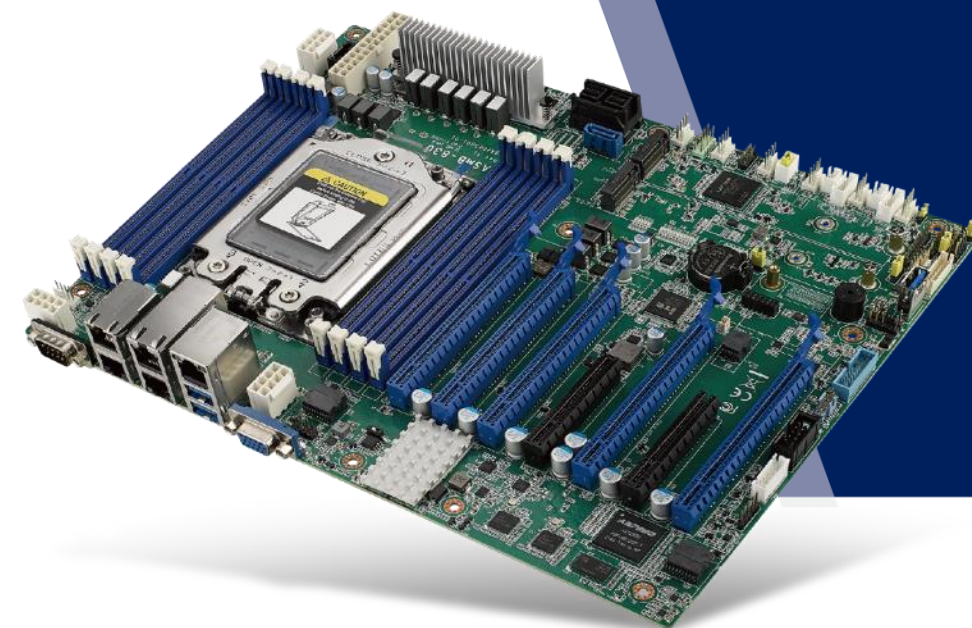
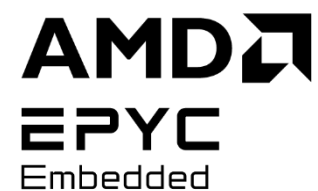
AI AOI



Factory Automation



Edge Computing



Single Socket Motherboard

Best Choice for High-Density GPU-Based AI Accelerators

ATX Server Board

ASMB-830

EPYC™ 7003 Series



Excellent Performance

- AMD EPYC™ 7003 Series—the world's fastest x86 server processors
- 9 x SATA3 (8 via Mini SAS HD + 1 SATA 7P)
- 2 x M.2 connectors (SATA / PCIe 4.0 compatible)
- Field-proven high-reliability features from Advantech

High Availability and Serviceability

- 8 x DDR4 memory RDIMM/LRDIMM for up to 2TB capacity
- 5 x PCIe 4.0 x16 + 2 x PCIe 4.0 x8 expansion slots
- Supports up to 4 double-deck GPU cards

Cost & Energy Efficient Performance

- EPYC™ CPUs help minimize environmental impacts from data center operations while advancing your company's sustainability objectives
- High performance-per-watt reduces energy & operation cost

Advanced Network Solution with Security & Service

- Supports dual 10GbE ports
- Supports IPMI for BMC remote control
- AMD Infinity Guard offers the advanced capabilities required to help defend against internal and external threats and keep your data safe with virtually zero impact to system performance.

Applications



AOI



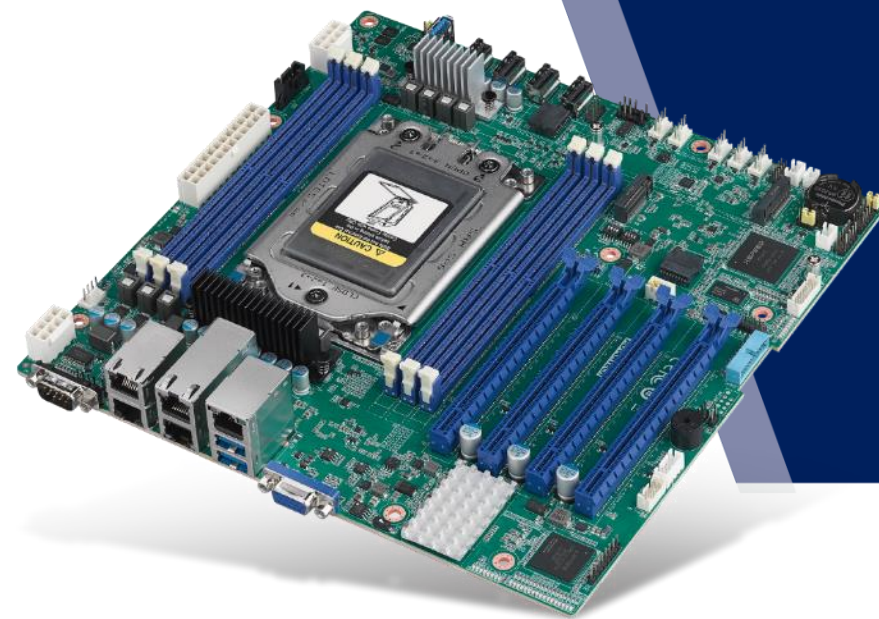
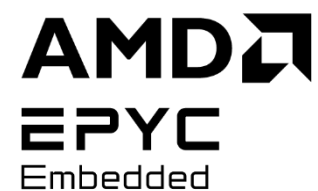
IEM



Data Centers



Edge Computing



Industrial Server Motherboard

Driving Efficiency in Emerging AI Applications

Micro-ATX Server Board

ASMB-561

EPYC™ 8004 Series



Outstanding Performance

- Equipped with AMD EPYC™ Embedded 8004 processors, up to 64C/128T

DDR5 Support

- 6 x DDR5 4800 MHz RDIMMs, up to 576GB

Comprehensive Expansion Options

- 4 x PCIe 5.0 x16
- Supports up to 2 double-deck GPU cards
- Mixed storage (NVMe M.2 + SATA)

Remote Management

- IPMI function supports remote access to multiple users at different locations for networking

Applications



Edge AI



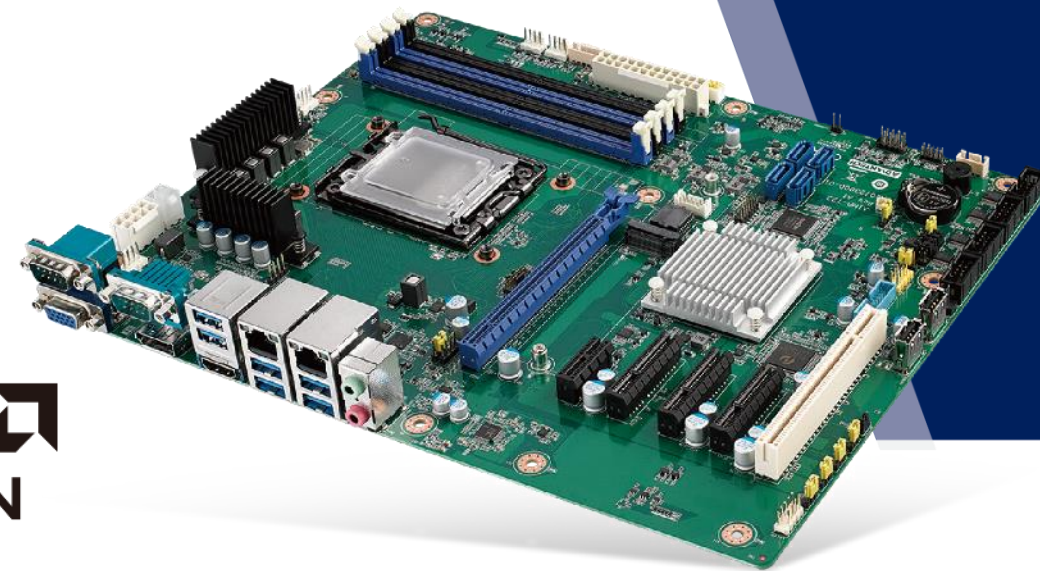
LLM



Smart Cities

Industrial Motherboard

Next-Gen Performance Future-Proofs AOI Deployments



ATX Motherboard

AIMB-723

Ryzen™ 7000 Series



ATX Motherboard Optimized for AOI applications

- DDR5 memory up to 5200MT/s
- PCIe x16 Gen4 with ample space for a GPU card
- Flexible storage solutions with four SATA and an M.2 slot
- Supports legacy devices with four COM ports and a PCI slot

No. 1 IPC Manufacturer in the world

- Ultra durable, tested under 65/-5°C operating environments
- Long-lasting with MBTF up to 668,283 hours
- Longevity product support up to seven years

AMD Socket AM5 + Ryzen™ 7000 Series Processors

- Fast “Zen 4” performance on up to 105W embedded processors
- Abundant I/O with up to 12 USB connectors (8 x USB 3.2)
- Super Speed Plus USB 3.2 Gen2 10Gbps (4 ports)

Maximum PCI/PCIe Expansion for Versatility

- Optimized form factor design through PCIe placement for GPU card installation
- Accommodates up to a three-slot discrete GPU card and three PCIe add-on cards
- High performance for demanding industrial tasks

Applications



AI AOI



Equipment Builders



Edge Computing

Compact 2U Carrier Grade, High-Performance Server

Accelerating the Edge Server Revolution



2U Edge Server

SKY-8260SV2

EPYC™ 7003 Series



Beyond High-performance

- Single AMD EPYC™ 7003/7002 Series Processors
- High-speed networking capacity

Maximize Flexibility & Expandability

- 4 x FH/FL PCIe 4.0 x16 slots + 2 x LP PCIe 4.0 x8 slots
- 2U 20" deep rackmount server

High Reliability

- High ESD immunity
- EMC class A barebone design
- Dust filter support

Advanced Network Solution with Security & Service

- Supports IPMI for BMC remote control
- TPM support for advanced security
- Supports security boot or fast boot by customized BIOS

Applications



High-End Computing



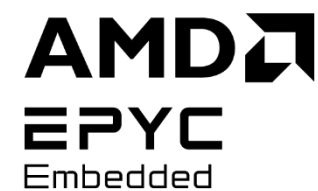
NFVi



Genomics Analytics



AI-Assisted Video Analytics



2U Edge Server

Short Depth Design for Edge Computing

2U Edge Server

SKY-821E3

EPYC™ 9005/9004 Series



Unmatched Computing Power

- Equipped with AMD EPYC™ 9005/9004 Series processors, up to 160 cores, 400W TDP
- 24 x DDR5 4800Mhz RDIMM, up to 3TB capacity

Expansion Flexibility

- Supports up to 10 x PCIe 5.0 slots (2 x for x16 double-wide)
- 1 x OCP 3.0 PCIe 5.0 x16

NVMe Support

- 2 x M.2 2280 (PCIe)
- 2 x internal U.2 NVMe (2.5" SATA SSD optional)

Power Supply

- 1200/2000 watts 1+1 power supply, redundant with 80+ platinum level certification

Applications



Edge Computing



Smart Cities



Broadcasting

2U High Performance Rackmount Server

Delivers Unparalleled Performance

2U High-Performance Server

SKY-721E3

EPYC™ 9005/9004 Series



Unmatched Computing Power

- Equipped with AMD EPYC™ 9005/9004 Series processors, up to 160 cores, 400W TDP
- 24 x DDR5 4800Mhz RDIMM, up to 3TB capacity

Expansion Flexibility

- Supports up to 10 x PCIe 5.0 slots (2 x for x16 double-width)
- 1 x OCP 3.0 PCIe 5.0 x16

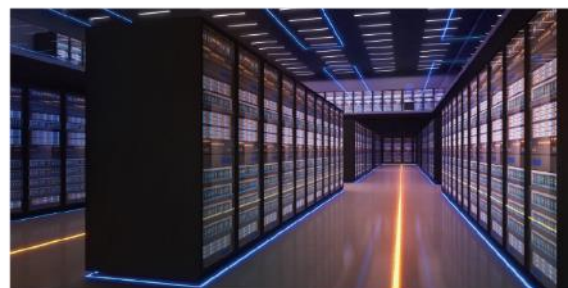
Robust Storage Support

- 12 x hot-swap 3.5" SAS/SATA drives (4 x U.2 NVMe optional)
- 24 x hot-swap 2.5" drives (8 x U.2 NVMe + 16 x SATA)
- 2 x M.2 2280 (PCIe)
- 2 x internal U.2 NVMe (rear, 2.5" SATA SSD optional)

High Availability

- Redundant 1+1 1200/2000 watt PSU
- Redundant BMC and BIOS f/w support

Applications



HCI



Smart Cities



Broadcasting

Compact Size Mid Tower GPU Server

Realize Your AI Dreams in a Small Tower



Mid-Tower GPU Server

SKY-602E3

EPYC™ 8004 Series



Outstanding Performance

- Equipped with AMD EPYC™ 8004 Series processors

High-Density GPU Cards

- Supports 4 x PCIe x16 double-deck FH/10.5" cards or 2 x PCIe x16 double deck FH/10.5" cards + 4 x PCIe x8 single-deck FH/10.5" cards

Installation Flexibility

- Table-mounted for easy access, wall-mounted to save space, or use two units that can fit within a 4U rack space

Remote Management

- The IPMI function supports remote access to multiple users at different locations for networking

Applications



3D Rendering



Video Processing



AI Inference

Outstanding Network Appliance for Heavy Workloads

Elevating Next-Gen Network Security Performance



2U Rackmount Network Appliance

FWA-6183

EPYC™ 9005/9004 Series



Advanced System Performance

- Dual AMD EPYC™ 9005/9004 series processors with up to 192 cores
- 16 x DDR5 DIMM slots
- Highly energy-efficient

High Connectivity and Scalability

- 8 x NMC (network module card) expansion slots with PCIe Gen5 x8
- 1 x FH 10.5" PCIe 5.0 x16 or 2 x FH/HL PCIe 5.0 x16 slots

High Reliability for 24/7/365

- 4 x hot-swappable system fan
- 1 x Redundant 1200W CRPS
- Redundant BIOS & BMC

Remote Management & Security

- IPMI function supports remote access
- Comply with Redfish which provides a secured access

Applications



Data Centers



Cloud



AI-Enabled Applications

Advanced Network Gateway for SD-WAN and NFV

The Most Cost Effective Selection for Enterprise



1U Rackmount Network Appliance

FWA-5082

EPYC™ 8004 Series



Optimized and Efficient Power Utilization

- Single AMD EPYC™ 8004 series processor up to 200W with 64 cores
- Lowest TDP devices in the EPYC™ portfolio

Fail-Safe Design and Fast Recovery

- 5 x hot-swappable system fan
- 1 x Redundant 550W CRPS
- Redundant BIOS & BMC flashes with automated recovery

High Scalability and Bandwidth

- 12 x DDR5 RDIMMs, bandwidth is 1.5x higher than DDR4
- 4 x NMC (network module card) expansion slots with PCIe Gen5
- 1 x PCIe Gen5 x16

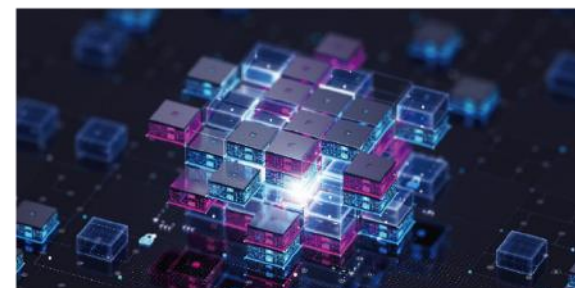
Remote Management & Security

- IPMI function supports remote access
- Compliant with Redfish which provides secured access

Applications



SD-WAN & SASE



Network Functions Virtualization

Ideal Compact Network Security Appliance for SMBs

Cost-Effective Performance for Firewall & UTM

AMD
RYZEN
Embedded



Desktop Network Appliance

FWA-1081

Ryzen™ V3000 Series



Efficient Performance for SMB Network Security

- Single AMD Ryzen™ V3000 series processor up to 8 cores / 16 threads
- Low power consumption up to 45W

Enabling accelerated, seamless processing

- DDR5 4800 MHz delivers a 50% data throughput boost over DDR4 3200 MHz

Enhanced Networking Flexibility

- 12 x GbE RJ-45, 2 x 2.5GbE RJ-45, 4 x 10GbE SFP+, with 2 pairs LAN bypass
- Optional support for Wi-Fi and LTE/5G modules via RF kit

24/7 Continuous Operation

- Supports LAN bypass function
- Two 150W external power adapters for redundancy

Applications



Firewall/UTM



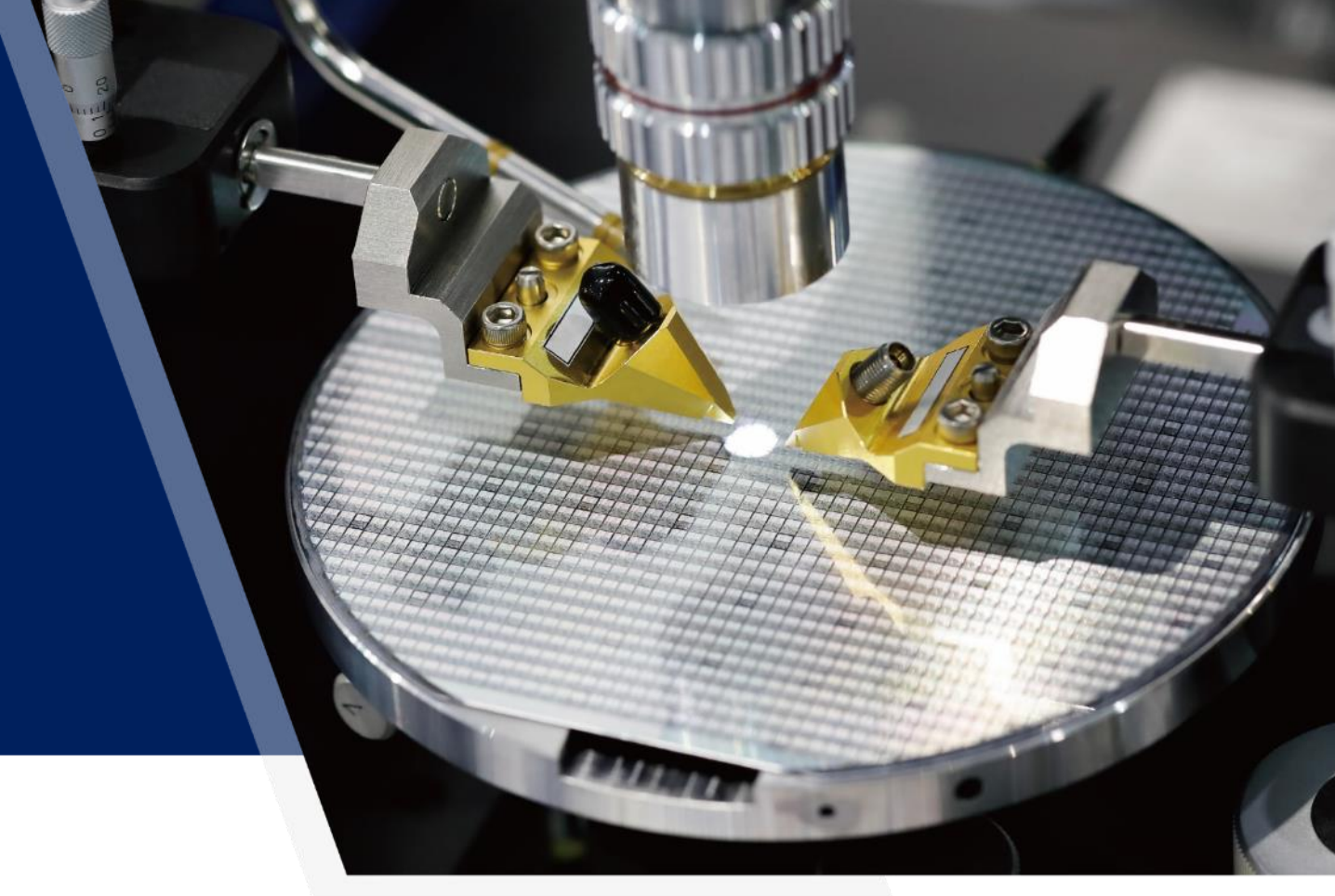
IDS/IPS



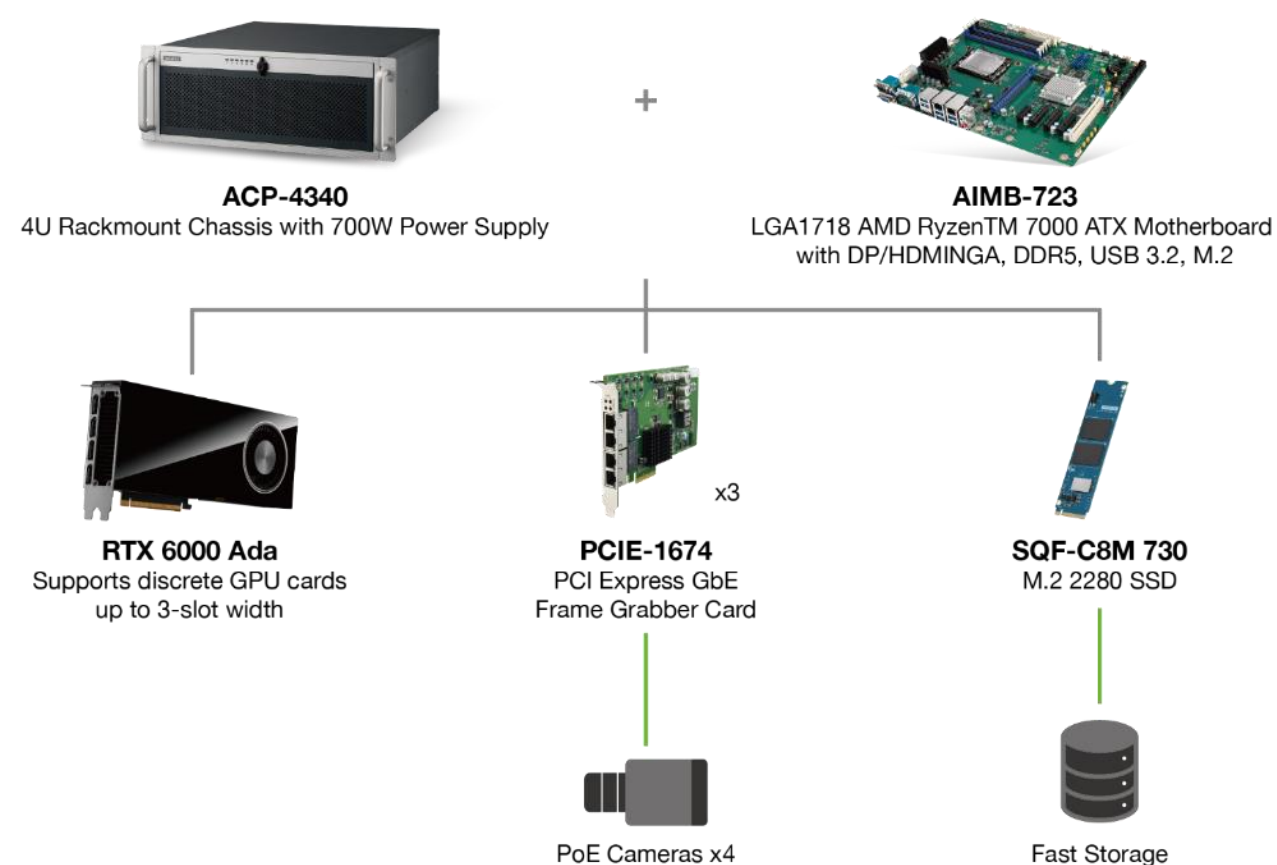
SD-WAN & SASE

A Machine Vision Inspection Solution for an IC Production Line

Cost-Effective Performance for Firewall & UTM



System Diagram



Intro

In IC manufacturing, traditional manual inspection is inefficient and prone to errors. With the rise of production line automation, integrating machine vision technology has become essential to improving inspection accuracy and speed.

Challenges

- Customers require high GPU performance for AI inference optical inspection.
- High-resolution images require faster storage read and write speed.

Solutions and Technologies

- Optimized PCIe placement for a huge GPU card, three PCIe add-on cards, and one PCI add-on card.
- Three PCIe x4 slots for I/O cards for up to twelve cameras.
- NVME M.2 M-key SSD provides fast read and write ability.

Why Advantech?

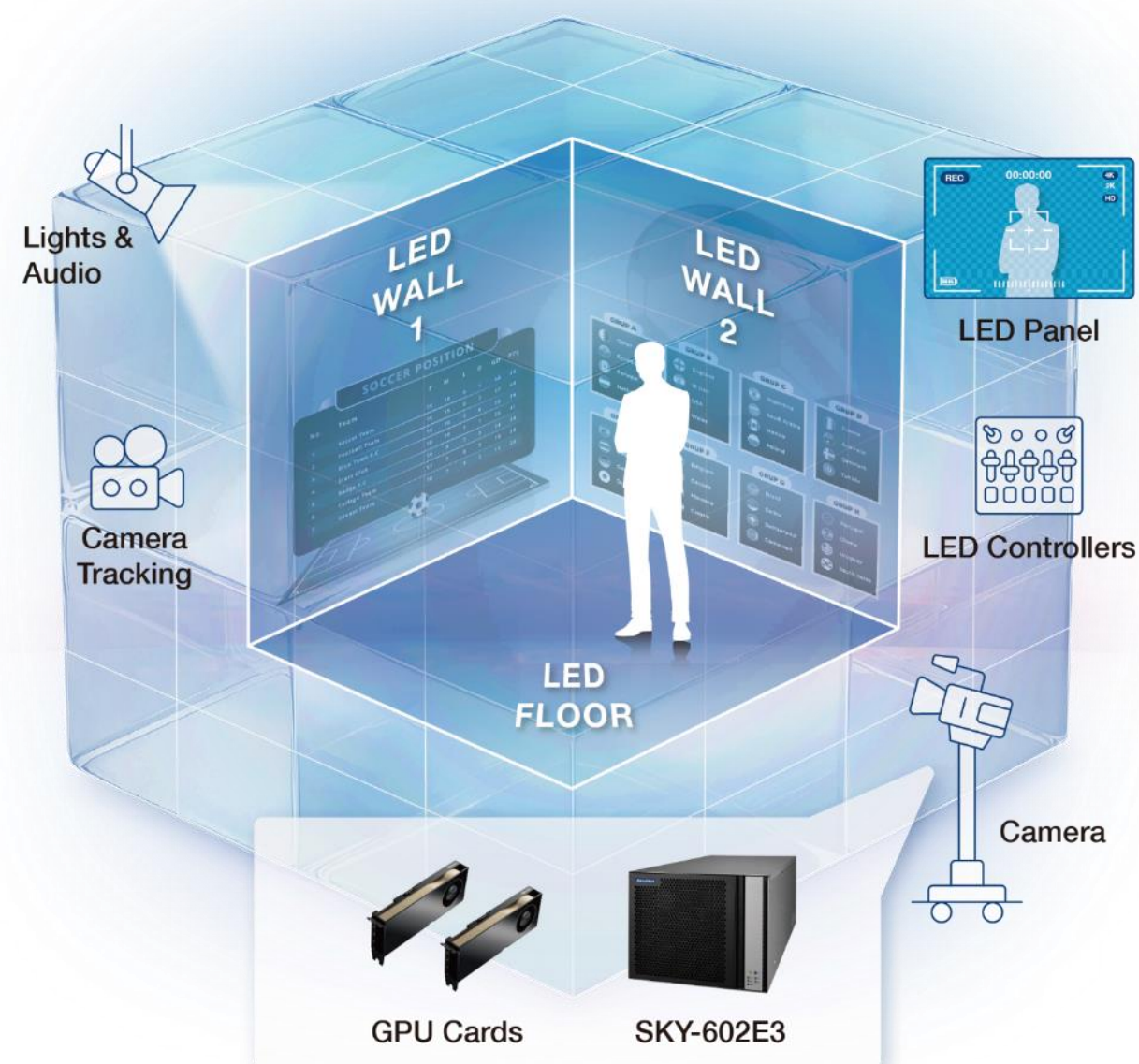
Advantech AIMB-723 provides a fast, accurate, and economical solution for advanced AOI.

London Innovates XR Tech with Advantech's Latest GPU Server

Advanced Video Solution



Application Case



Intro

A London-based client specializing in Extended Reality (XR) application development required a robust solution to handle the growing demands of their XR projects. With performance and scalability in mind, they sought to overhaul their existing system to improve processing power and development efficiency.

Challenges

The client faced several challenges, including handling the immense computational demands of XR development. Their current setup was inadequate for managing large-scale XR simulations, resulting in long processing times and slower project turnaround. They also needed a system that could support multiple GPUs to enhance their development pipeline.

Solutions and Technologies

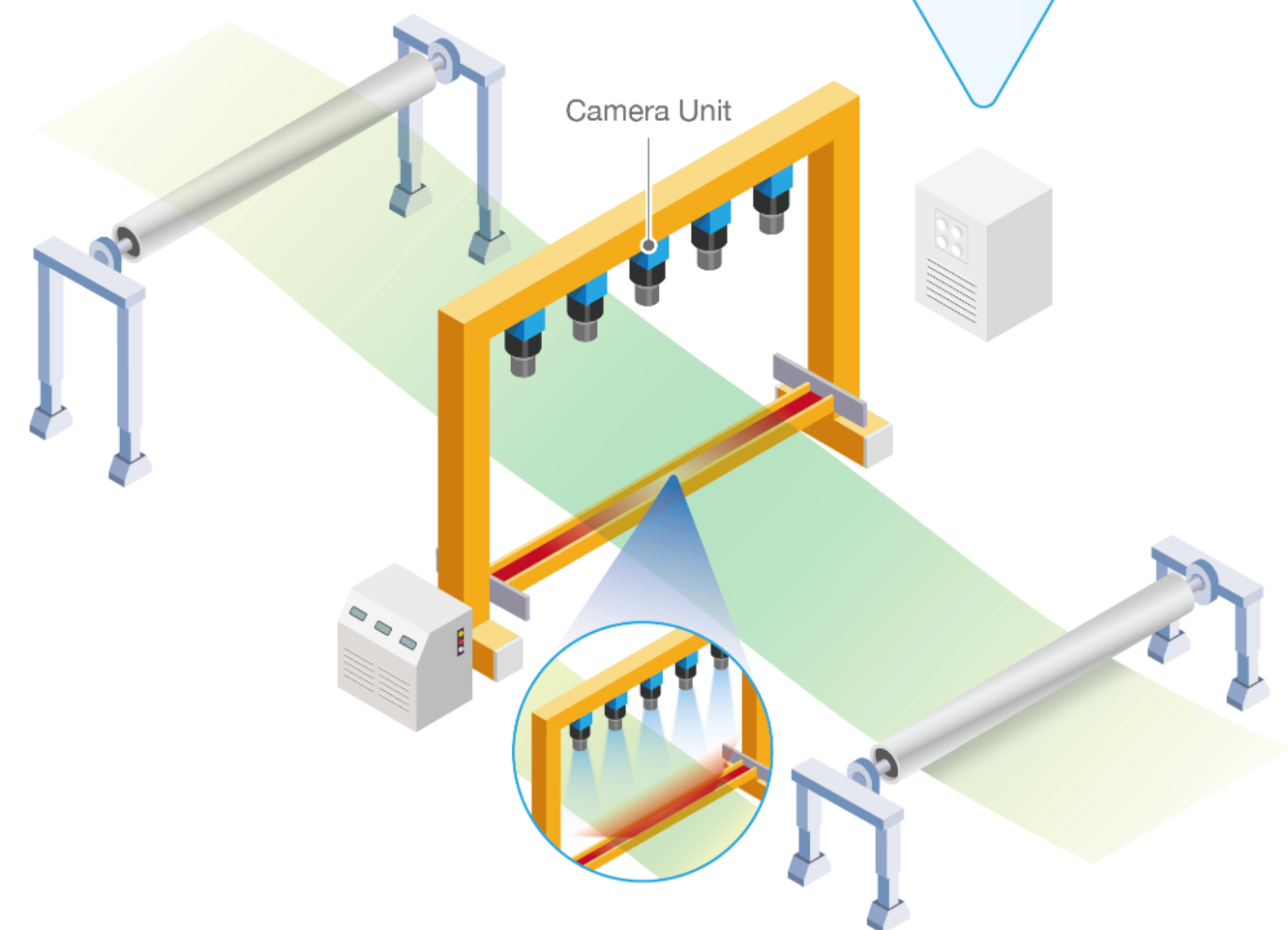
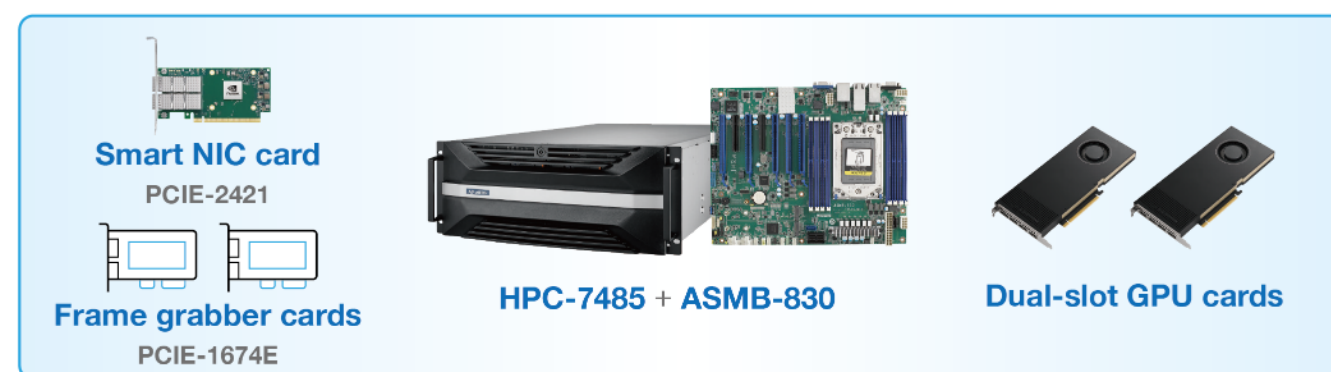
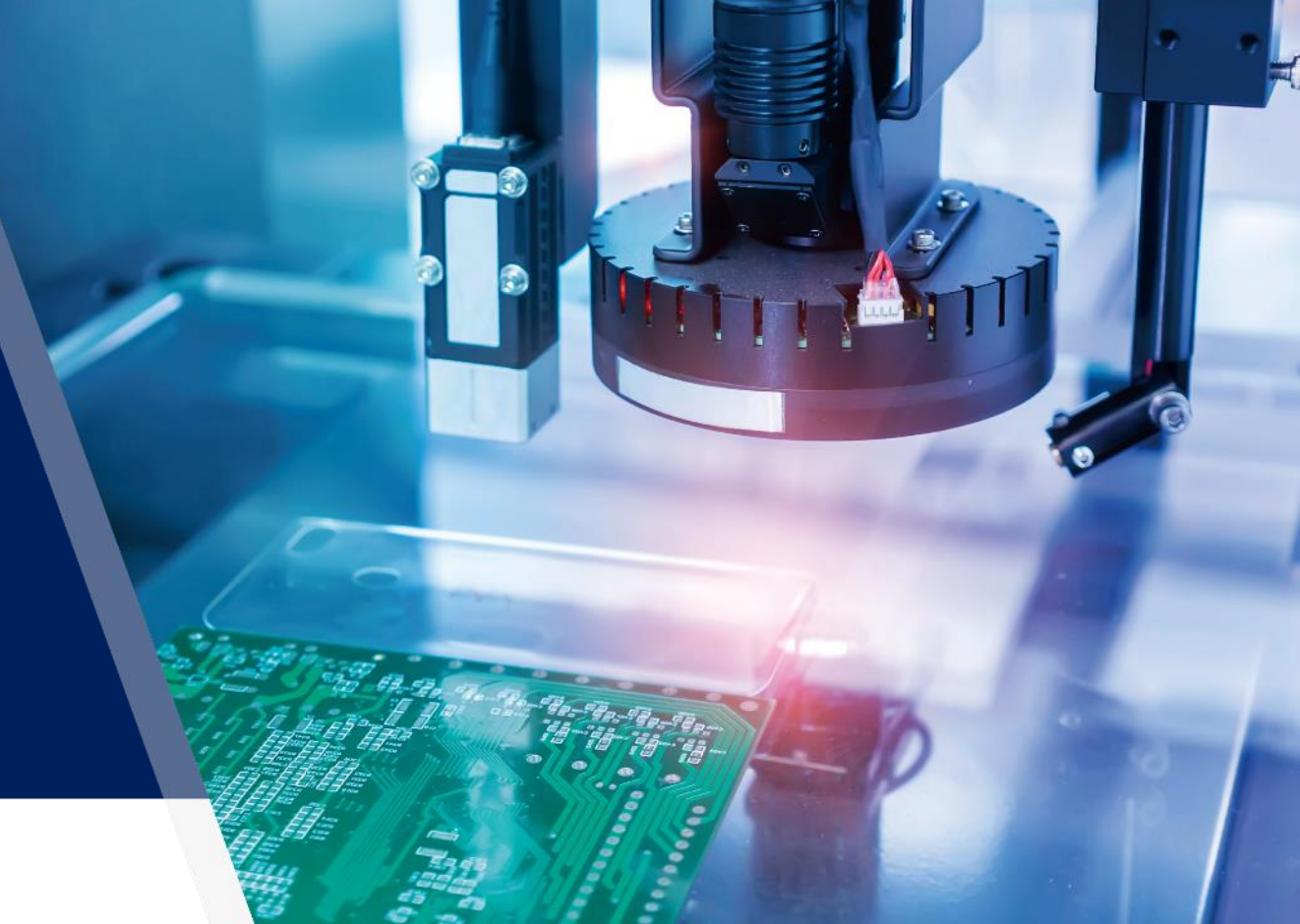
Advantech provided its SKY-602E3 GPU server, a mid-tower system capable of meeting the client's needs. The server, powered by AMD EPYC™ 8004 Series processors, offered superior performance for heavy XR workloads and enabled the integration of multiple GPUs to accelerate XR simulations. This provided a significant boost to rendering speeds and overall development capacity.

Why Advantech?

The SKY-602E3 GPU server, with its exceptional expandability and processing power, proved to be the ideal choice for the client, offering the reliability and performance necessary to support advanced XR development.

Building AOI Technology to Accelerate Yield in Precision Manufacturing

Advanced AOI Computer Vision Solution



Intro

Precision manufacturing demands high accuracy and fast inspection processes to ensure product quality, making AOI technology essential for modern industries.

Challenges

Manual inspections are error-prone and inefficient, while conventional systems struggle to keep up with the speed and precision required in high-demand production environments.

Solutions and Technologies

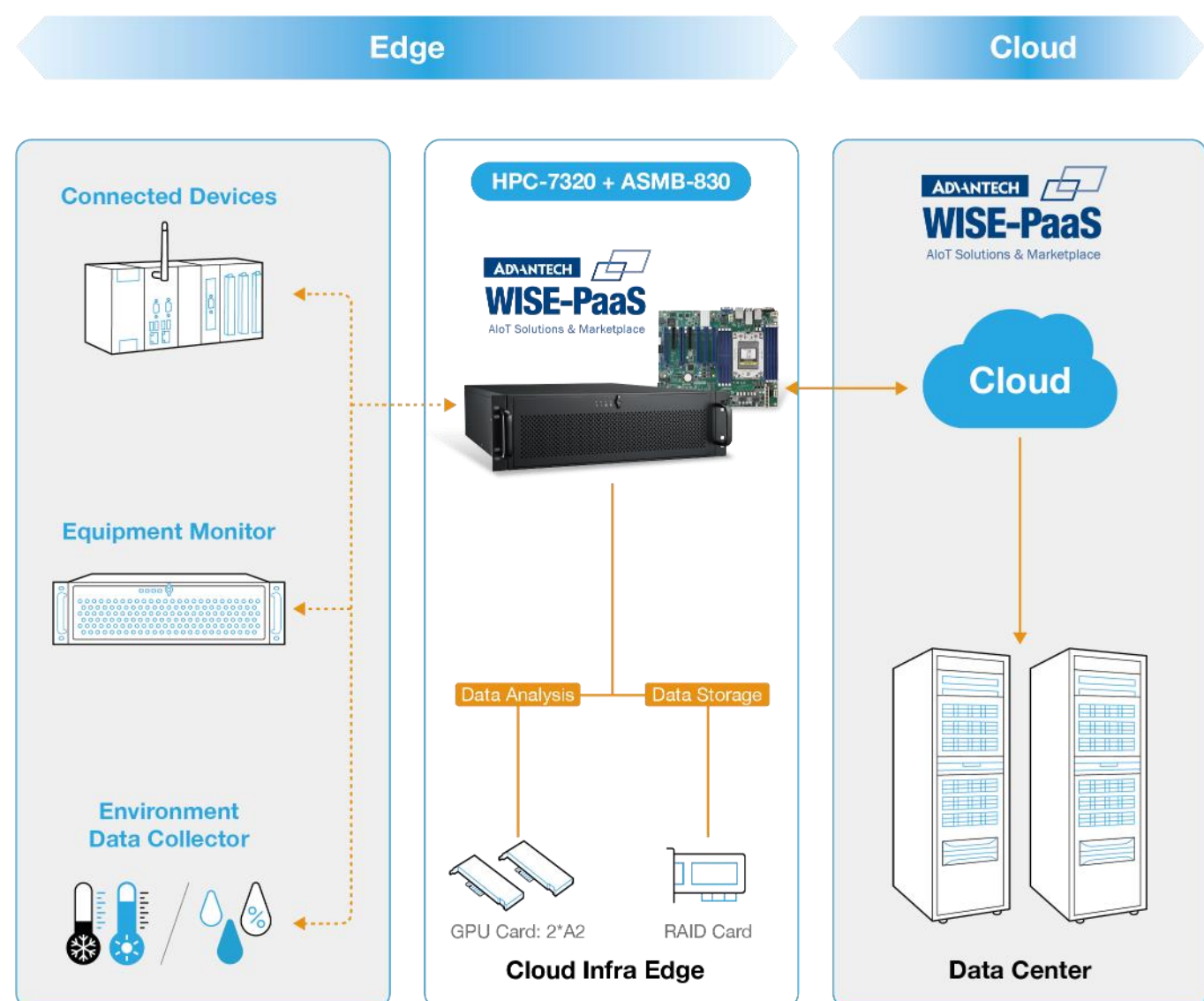
Advantech's ASMB-830+HPC-7485 AOI systems utilize AI, machine learning, and high-speed vision sensors to provide real-time, automated defect detection, enhancing accuracy and production efficiency.

Why Advantech?

With advanced computing platforms and scalable AOI solutions, Advantech offers reliable, customizable systems that improve inspection processes and support efficient manufacturing.

Energy Transformation with an Advantech Server Solution

Advanced Energy Management Solution



Intro

Advantech's server solutions are driving energy transformation by supporting the integration of renewable energy sources and optimizing energy management systems for more efficient operations.

Challenges

Energy providers face difficulties in managing the complexities of renewable energy integration, such as real-time data processing, system scalability, and ensuring system reliability.

Solutions and Technologies

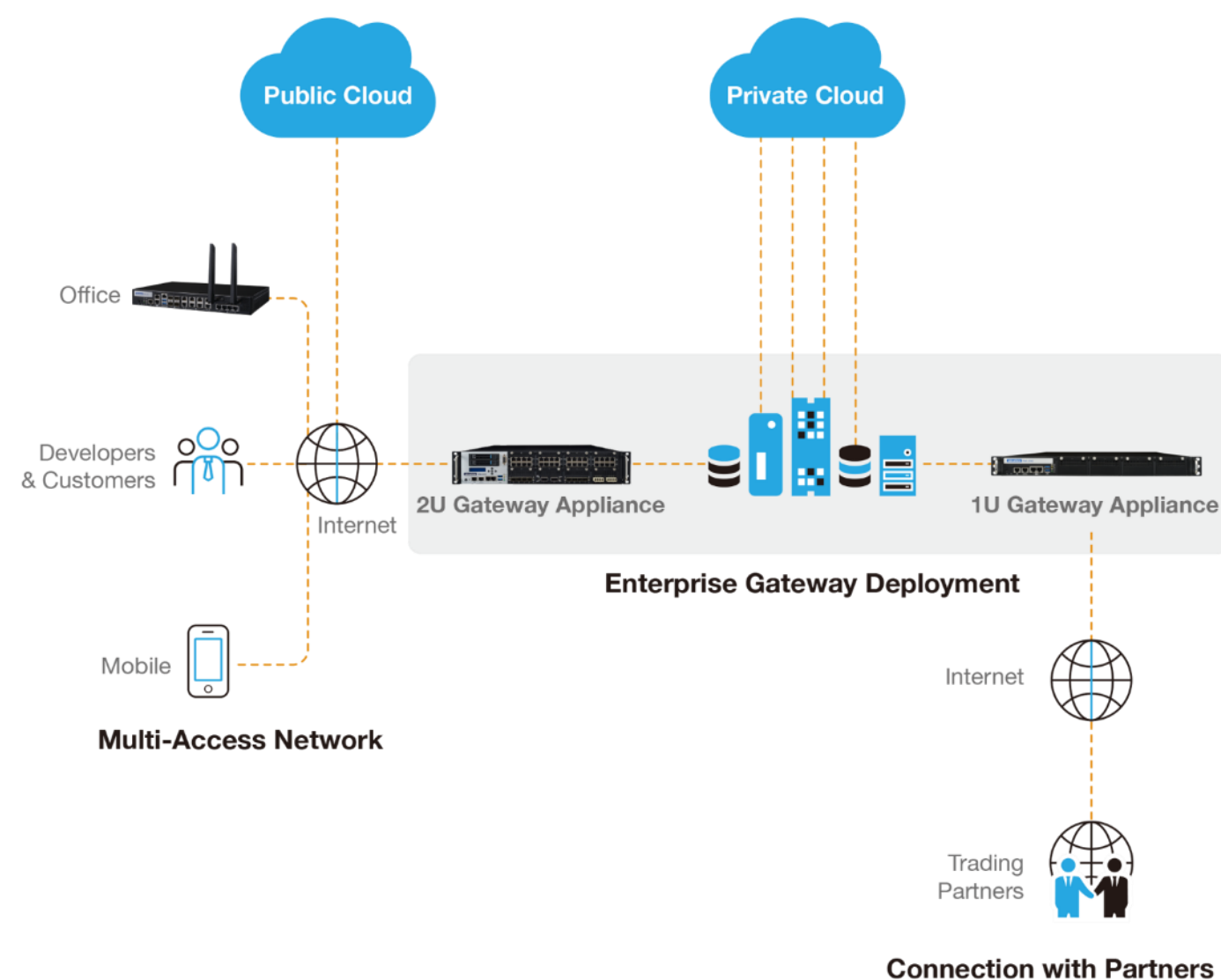
Advantech's ASMB-830+HPC-7485 server solutions offer high-performance computing, real-time data analytics, and scalable architectures that enable effective management of renewable energy sources and energy grids.

Why Advantech?

Advantech provides robust, reliable, and scalable server solutions tailored to the energy sector, helping companies achieve more efficient and sustainable energy management.

Simplified Network Security Deployment with AMD Platforms

Experience Elevated Network Performance



Intro

In a world dominated by connected devices, cloud services, and always-on mobility, many enterprises struggle to maintain secure, responsive network infrastructures, especially with distributed branch offices. Network evolution is critical to ensure the security, scalability, and performance needed to support a connected and dynamic workforce

Challenges

- Complexity: Traditional networks struggle to meet modern demands from cloud applications and hybrid workforces.
- Security Risks: Existing systems often lack the tools to handle new cybersecurity threats while maintaining seamless connectivity.
- Efficiency: Enterprises need scalable, remotely managed solutions that are easy to deploy without relying heavily on on-site IT support.

Solutions and Technologies

The AMD-powered network appliances offer flexibility and high performance for diverse needs.

- SMBs: FWA-1081 features AMD Ryzen™ processors and 4G/5G LTE expansion.
- Enterprises: FWA-5082 serves as SD-WAN, NFV, and supports up to 64 cores.
- Large-scale fields: FWA-6183 provides dual AMD EPYC™ processors and supports up to 256 cores, perfect for cloud computing and AI workloads.

Why Advantech?

- Cost-effective scalability: Solutions that grow with business needs.
- High performance: Powered by AMD processors, delivering superior performance.
- Advanced security: Features like Memory Guard and Secure Boot protect sensitive data.
- Ease of deployment: SD-WAN capabilities simplify integration and reduce the need for on-site IT.

Value-Added and AI-Driven Solutions

Embedded Software Services

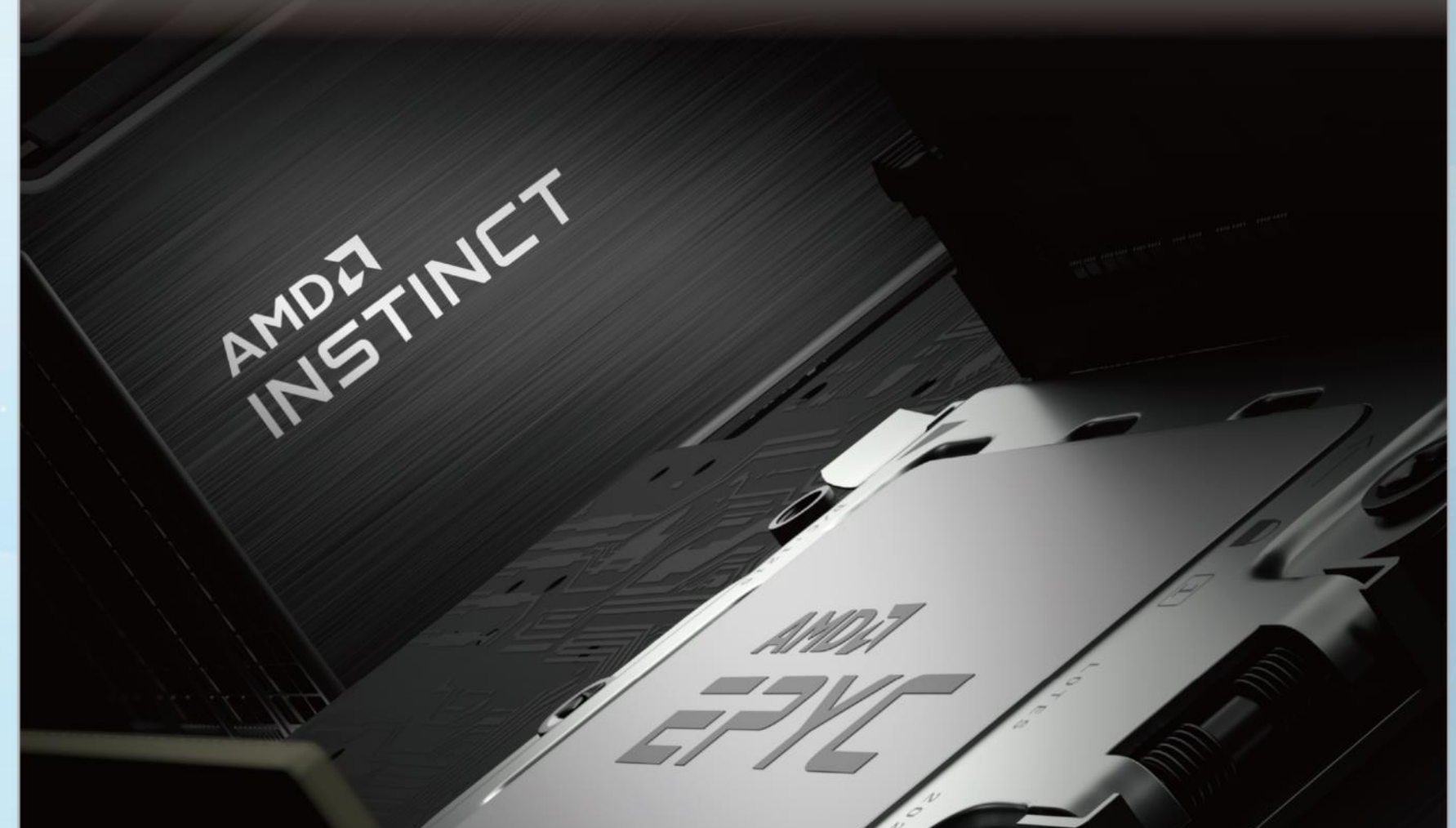
Empowering Solution Performance with Robust, Remote Security Management



- Software **remotely manages servers** across multiple locations through a unified interface, reducing the need for on-site visits.
- **Receive 24/7 real-time proactive alerts** with actionable guidance to ensure uninterrupted operations.
- Enable **seamless, convenient remote firmware updates** during off-peak hours to optimize system maintenance.
- **Centralize server monitoring** with a user-friendly HTTPS-dashboard for fast, informed decision-making.
- **Ensure secure operations** with encrypted communications and stringent access controls.

AMD Instinct™ MI210 Accelerators

Driving Exceptional HPC & AI Performance



- Proven AI Host CPU / GPU Host
- High frequency and performance for massive volumes of data pre-processing
- Energy-efficiency cores to free up power for GPU use
- High memory bandwidth, high-performance I/O
- GPU and AMD ROCm™ 6 software ecosystem testing and certification
- Double precision (FP64) leadership
- Achieve 181 teraflops in peak FP16 and BF16 performance

Product Offerings



Motherboard	ASMB-831	ASMB-830	ASMB-561	AIMB-723
	ATX Server Board	ATX Server Board	Micro-ATX Server Board	ATX Motherboard
AMD Processor	EPYC™ 9005/9004 Series	EPYC™ 7003 Series	EPYC™ 8004 Series	Ryzen™ Embedded 7000
Cores	Up to 96 cores	Up to 64 cores	Up to 64 cores	Up to 12 cores
Memory	6 x DDR5 4800MHz RDIMM, up to 385GB, ECC/LRDIMM support	8 x DDR4 3200MHz RDIMM, up to 128GB, ECC/RDIMM/LRDIMM support	6 x DDR5 4800MHz RDIMM, up to 1.5TB	4 x DDR5 UDIMM up to 5200MHz, up to 128GB, Non-ECC Support
Networking Controller	Intel® X710-AT2 (dual 10GbE ports)	2 x Intel® I210AT / Intel® X550-AT2 (dual 10GbE ports)	2 x Intel® I226 , Intel® X710-AT2 (dual 10GbE ports)	GbE LAN1: Intel I226-V; GbE LAN2: Intel I226-V
Expansion	5 x PCIe 5.0 x16 slots 2 x PCIe 5.0 x8 slots	5 x PCIe Gen4 x16 2 x PCIe Gen4 x8	4 x PCIe 5.0 x16 slots	1 x PCIe x16 slot, 3 x PCIe x4 slot 1 x PCIe *1 slot, 1 x PCI slot
Storage	2 x NVMe M.2 2280/22110 9 x SATA3 (8 via Mini SAS HD + 1 SATA 7P)	2 x M.2 2280/22110 9 x SATA3 (8 via Mini SAS HD + 1 SATA 7P)	4 x MCIO interface, each supporting 4 x SATA3 2 x NVMe M.2 2280	PCIe x2 M-Key 2280 type
I/O Ports	1 x GbE for BMC, 7 x USB 3.2 (Gen1), 1 x RS-232, 1 x VGA	1 x GbE for BMC, 5 x USB 3.2 Gen1, 1 x RS-232, 1 x VGA	1 x GbE for BMC 5 x USB 3.2 (Gen1), 1 x RS-232, 1 x VGA	1 x DP, 2 x Ethernet (2.5 GbE), 4 x USB 3.2 (Gen 2), 4 x USB 3.2 (Gen1), 4 x USB 2.0, 6 X RS-232
Power Input	ATX Input	ATX Input	ATX Input	ATX Input
Operating Temperature	0 ~ 60°C (32 ~ 140°F)	0 ~ 60°C (32 ~ 140°F)	0 ~ 60°C (32 ~ 140°F)	0 ~ 60°C (32 ~ 140°F)
Dimensions	304 x 244 mm	304 x 244 mm	244 x 244 mm	304.8 x 244 mm
Software	Windows Linux (CentOS, Red Hat, Ubuntu)	Windows Linux	Windows Linux	Windows / Linus

*Specification will change depending on selected SKU.



System	SKY-821E3	SKY-8260SV2	SKY-721E3	SKY-602E3
	Edge Server	Edge Server	HCI & Storage Server	Mid Tower GPU Server
AMD Processor	EPYC™ 9005/9004 Series	EPYC™ 7003/7002 Series	EPYC™ 9005/9004 Series	EPYC™ 8004 Series
Cores	Up to 160 cores	Up to 64 cores	Up to 160 cores	Up to 64 cores
Memory	24 x DDR5 4800MHz RDIMM	16 x DDR4 3200MHz RDIMM, up to 1024GB , ECC/RDIMM/LRDIMM support	24 x DDR5 4800MHz RDIMM	6 x DDR5 4800MHz RDIMM, up to 576GB, ECC/LRDIMM support
Networking Controller	2 x Intel i210-AT, 1 x Realtek PHY	GbE LAN 1/2: Intel® i210-AT	2 x Intel i210-AT, 1 x Realtek PHY	Intel® X710-AT2 (dual 10GbE ports)
Expansion	Up to 4 FHFL, 2 FHHL and 2 Low Profile PCIe 5.0	4 x FH/FL PCIe Gen4 x16 + 2 x LP Gen4 x8 2 x FH/FL PCIe Gen4 x16 + 2 x FH/FL PCIe Gen4 x8 + 2 x FH/HL PCIe Gen4 x8 + 2 x LP Gen4x8	Up to 4 FHFL, 2 FHHL and 2 Low Profile PCIe 5.0	4 x PCIe x16 double-deck FH/10.5" cards or 2 x PCIe x16 double deck FH/10.5" cards + 4 x PCIe x8 single deck FH/10.5" cards
Storage	2 x 2.5" NVMe(rear, SATA optional) + 2 x M.2 2280 (PCIe)	2 x 2.5" SATA SSD (Internal) 2 x 2.5" SATA/PCIe SSD (Rear)	12 x 3.5" SAS/SATA or 24 x 2.5" hot-swap SAS/SATA drive support	2 x 2.5" SATA3 drive bays + 2 x M.2 2280 (SATA3/PCIe)
I/O Ports	2 x 1GbE RJ-45 (1 GbE RJ-45 Mgmt Share NIC)+ 2 x 10GbE RJ-45	1 x USB 3.0 & 1 x USB 2.0 VGA port, PWR, Alarm LEDs 2 x Gigabit LAN RJ-45,1 x Management 1 x VGA, 2 x USB 3.0, 1 x Console , 1 x OCP 3.0	2 x 1GbE RJ45 (1 GbE RJ-45 Mgmt Share NIC)+ 2 x 10GbE RJ-45	2 x 10GbE RJ-45 +1 x Management port
Power Input	1200W AC/DC PSU	1200W AC/ 800W DC PSU	1200W AC/DC PSU	1200 Watt 1+0 power supply with 80+ platinum level certification
Operating Temperature	0 ~ 35°C (32 ~ 104°F)	-5 ~ 40°C (23 ~ 104°F)	0 ~ 35°C (32 ~ 104°F)	0 ~ 40°C (32 ~ 104°F)
Dimensions	438 x 88 x 597 mm	438 x 518 x 87 mm	438 x 87 x 770 mm	216 x 170 x 425 mm
Software	Windows Linux (CentOS, Red Hat, Ubuntu)	Windows Linux	Windows Linux (CentOS, Red Hat, Ubuntu)	Windows Linux (CentOS, Red Hat, Ubuntu)

*Specification will change depending on selected SKU.



System	<u>FWA-6183</u>	<u>FWA-5082</u>	<u>FWA-1081</u>
	2U Network Appliance	1U Network Appliance	Desktop Network Appliance
AMD Processor	EPYC™ 9005/9004 Series	EPYC™ 8004 Series	Ryzen™ V3000 Series
Cores	up to 192 cores	up to 64 cores	up to 8 cores
Memory	16 x DDR5 4800MH RDIMM, up to 1024GB, ECC Support	12 x DDR5 4800MHz RDIMM, up to 768GB, ECC Support	2 x DDR5 4800MHz SODIMM, up to 64GB, ECC Support
Networking Controller	2 x Intel® i210 (2 x 1GbE RJ-45)	2 x Intel® i210 (2 x 1GbE RJ-45)	2 x 10GbE SFP+ (via X710)* 2 x 10GbE SFP+ (via SoC) 12 x 1GbE RJ-45 (via i350, with 2 pairs of LAN bypass)* 2 x 2.5GbE RJ-45 for MGMT (via i226)
Expansion	8 x PCIe Gen5 x8 (NMC Card) 1 x PCIe Gen5 x16 HH/HL	4 x PCIe Gen5 x8 (NMC Card) 1 x PCIe Gen5 x16 HH/HL	1 x M.2 2230 E-Key for Wi-Fi module (Optional) 1 x M.2 3042/3052 B-Key for 4G/5G LTE module with 2 x antenna holes (Optional)
Storage	2 x External 2.5" HDD/SSD 2 x M.2 2280 M-Key for SATA SSD or PCIe Gen3 x4 NVMe	2 x Internal 2.5" HDD/SSD 2 x M.2 2280 M-Key for SATA SSD or PCIe Gen4 x4 NVMe	2 x M.2 2280 M-key for SATA 3.0 SSD
I/O Ports	1 x RJ-45 Type Console, 2 x USB 3.0, 1 x VGA port, 1 x dedicated 1GbE LAN for IPMI	1 x RJ-45 Type Console, 2 x USB 3.0, 1 x VGA port, 1 x dedicated 1GbE LAN for IPMI	1 x RJ-45 Type Console, 2 x USB 3.0, 1 x VGA port, 1 x dedicated 1GbE LAN for IPMI
Power Input	Type: AC Redundant CRPS AC: 100-240V~, 12-7A, 50-60Hz (Option: DC -48V)	Type: AC Redundant CRPS AC: 100-240V~, 8-4A, 50-60Hz (Option: DC -48V)	100-240 V ~ 2.5A 50-60 Hz
Operating Temperature	0 ~ 40°C (32 ~ 104°F)	0 ~ 40°C (32 ~ 104°F)	0 ~ 40°C (32 ~ 104°F)
Dimensions	438 x 88 x 600 mm	438 x 43.7 x 600 mm	340 x 241.86 x 43.7 mm
Software	Linux (CentOS, Red Hat, Ubuntu, Fedora)	Linux (CentOS, Red Hat, Ubuntu, Fedora)	Linux (Only UEFI FW and UEFI aware Linux OS)

*Specification will change depending on selected SKU.

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