ARBOR

From Edge to Action

Industrial Automation

Edge AI Platform

Automation Controllers

Transportation Computers

Digital Signage Players

Industrial HMI

High-Density Edge AI HPC

Built for Intensive AI and High-performance Workloads

Unlock powerful AI capabilities—even in the most compact environments. ARBOR's groundbreaking new product, the EdgeX-6000, delivers the highest AI computing power in the smallest form factor, addressing the critical need for high performance in space-constrained settings. Compared to traditional bulky server setups, our solution significantly reduces costs while providing the computational power essential for today's advanced AI workloads.

Edge AI HPC

Features a 64C/128T AMD EPYC™ Embedded 8004 CPU, up to 576GB DDR5 memory and high-speed M.2/EDSFF SSDs for top-tier performance at the edge.

NVIDIA / AMD GPUs

This GPUs system delivers outstanding and scalable AI performance (126-400 FP32 TFLOPS), ensuring validated, optimized designs for high-end AI.

Optimized Design

Optimized for edge environments, compact dimensions simplify deployment, its design allows user-friendly installation for peripherals and devices.

EdgeX-6000
Accelerating AI-Powered HPC Deployment at the Edge

Unleash real-time intelligence at the industrial edge with our groundbreaking, NVIDIA GPUs system, designed to accelerate AI-Powered HPC deployment.

The EdgeX-6000 delivers scalable AI performance by supporting up to four AI/GPU cards, powered by a server-grade AMD EPYC™ Embedded 8004 processor with 64 cores and 128 threads. It's equipped with high-speed storage via four E1.S SSDs, enabling massive data throughput. Dual 10GbE LAN ports ensure high-bandwidth transmission and seamless data flow.

Additionally, its optimized design allows for effortless upgrades—each component can be swapped in just one minute—making it a truly future-proof solution for high-end AI applications at the edge.

AMD EPYC

Embrace the future with IPCs that are PCIe GPU compatible

In today's data-driven world, industrial operations demand more than just basic computing capabilities. They require robust, high-performance solutions capable of handling complex visual tasks, real-time analytics, and advanced AI at the edge. That's why we've developed a new line of IPCs with full PCIe GPU support, empowering industries to meet the evolving demands of intelligent edge computing.

AI Acceleration

From high-resolution machine vision and intricate quality control to advanced graphical interfaces and immersive simulations, enabling real-time decision-making for automation, predictive maintenance, and intelligent robotics

Enhanced Data Flow

Process vast amounts of sensor data and complex algorithms in real-time. This means faster insights, more responsive control systems, and a significant boost to operational efficiency.

Enduring Scalability

Your computing power can grow as your industrial demands evolve. A PCIe slot provides unparalleled flexibility, allowing you to easily upgrade to higher-performance GPUs over time, ensuring your investment remains worthwhile.

FPC-9000/8000 Series
Taking Advanced Processing to the Next Level

The FPC-9000/8000 series represents our cutting-edge line of robust Edge AI computing platforms, meticulously engineered to power a wide range of demanding applications. Designed to support the most advanced AI workloads, this series is fully compatible with the latest NVIDIA® GeForce RTX™ series GPUs.

Pushing performance to the next level, the FPC-9309W-G5 supports NVIDIA® GeForce RTX™ 5090 GPU. It is purpose-built for extreme computing requirements and features a wide-range DC power input along with a robust PCIe expansion slot capable of handling 600W GPUs, delivering an astonishing 3,352 TOPS of computing power.

These platforms are not only powerful today but also future-proof, ready to meet the evolving demands of AI and graphics-intensive tasks for years to come.

Ruggedly Built, Modular Design MXM for Industrial Edge AI

Our advanced MXM-compatible industrial PC series specifically for space-constrained, high-performance industrial environments. These rugged platforms are engineered for harsh conditions, featuring a modular design and powerful GPUs based on the MXM architecture, delivering exceptional graphics and AI processing in a compact form factor.

Compact, Modular

We have designed Edge AI computing platforms with a compact and modular design, which makes them ideal for integrating high-performance graphics capabilities into space-constrained systems. Ensures that you can achieve robust visual processing even within the tightest industrial footprints.

Industrial-Grade

Industrial-grade MXM GPUs undergo rigorous testing and stringent quality control processes. This meticulous validation ensures they deliver not only significantly higher graphics performance than integrated display chipsets, but also unmatched reliability and stability in harsh environments.

Longevity

There is usually a long-term supply guarantee for MXM GPUs. It reduces the need for frequent revalidation, decreases downtime due to product obsolescence, and protects the investment through continuous supply throughout the project's life cycle.

FPC-5200 Series
High-Performance Graphics in Industrial Footprint

The ARBOR FPC-5200 series is a testament to cutting-edge Edge AI computing, meticulously engineered to excel in the most demanding environments. At its core, the FPC-5211 features a compact, fanless design and a modular MXM GPU architecture, enabling seamless integration of high-performance graphics such as NVIDIA® RTX A2000 GPUs.

Built for unwavering reliability, the FPC-5211 series undergoes rigorous testing and stringent quality control, guaranteeing superior performance and durability in harsh conditions, including wide operating temperatures and resistance to vibration. Adding to its versatility, its E-mark certification makes it an ideal choice for vehicular applications, ensuring compliance with strict automotive standards.

The Unmatched Brain for Your AGV/AMRs

Precise and Reliable Computing Core for Mobile Automation Tasks

With selected processors, rich I/O, and high expandability, ARBOR's industrial computers are the computing core designed to power your AGV/AMR projects.

Computing Performance

We provide powerful Intel® Core™ or NVIDIA® GPU models for AI inference and complex algorithms, alongside low-power Intel® Atom™ processors that ensure stable and responsive performance.

I/O Expandability

Our designs feature multiple I/O ports for seamless integration of essential sensors With flexible expansion slots, you can easily add modules for 5G communication and AI acceleration, ensuring future-proof functionality.

Durability

Built with a fanless, wide-temp., and rugged design, our products are engineered to withstand vibration, dust. Allowing your AGV / AMR to maintain high efficiency no matter the environment.

AGV / AMR Solutions

In modern warehouses and smart factories, Automated Guided Vehicles (AGVs) and Autonomous Mobile Robots (AMRs) play an indispensable role. However, the computing power behind them is crucial for ensuring stable and efficient operation. ARBOR offers a series of rugged industrial computers designed for both AGV and AMR applications. We understand that AGVs require extreme stability and durability to handle harsh industrial environments. For this, we provide fanless, wide-temperature industrial computers like the ARES-5320 and SB-244-1N97, ensuring reliable performance during extended operation.

For AMRs that need to process vast amounts of sensor data, perform real-time path planning, and execute AI inference, we offer high-performance edge computing platforms with powerful CPUs and GPUs. Our products, such as the AEC-6100, FPC-5211, ARTS-7670, and SB-244-RPLU series, give AMRs precise environmental awareness and decision-making capabilities. This allows them to autonomously avoid obstacles and optimize delivery routes, significantly boosting overall operational efficiency.

Automation Controllers

Smart IoT Solutions

Smart factory is the future. To realize its potential in driving productivity, efficiency, cost savings, and competitive advantage, we need smart factories, smart machines, and smart products to communicate with each other.
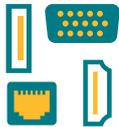
Rich I/O

Multiple I/O interfaces and connectivity can simultaneously provide DI/O for real-time inspection, monitoring, and surveillance. Power ignition function can secure important data in case of power outages.
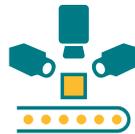
Addressing AOI

Featuring USB 3.0 and GbE PoE interfaces and robust expandable design, ARBOR's automation controllers meet the ever increasing demands of Automated Optical Inspection (AOI) applications.

Real-time Communication

From the computing platform itself to the GPU and network interfaces, ARBOR's automation computers offer the option to ensure real-time communication via EtherCAT.

3D Scanning for Metrology

Streaming PC for Security Cameras

X-Ray Inspection for Food Safety Process

Featured Products

| FPC-9202-P6 | FPC-821X Series | FPC-8208-2E2P | FPC-810X Series |

Fanless Design and Wide Temperature Support

The fanless design of our box PC makes dust accumulation avoidable. Also, it comes with a wide operating temperature range from -20°C to 70°C and storage temperature range from -40°C to 85°C, it suitable for operations in harsh environments.

Designed for Connectivity

ARES-5311 has two Mini-PCIe slots to support additional SIM card modules. The new embedded controller's two SIM card slots allow all vehicles or machines to stay networked when they travel across different countries over two types of communication bands.

Extensive I/O Interfaces

With 8 COM ports (RS-232/422/485), one GbE LAN, two PoE ports, four USB 3.0, and 32 DI/O for real-time inspection, monitoring and surveillance at the same time. ARES-5311 also comes with both HDMI and VGA outputs to connect multiple monitors.

Inspirational Success Stories Around the Globe

Automatic Number-Plate Recognition

An electronic tolling company chose ARBOR's ARES-5310 as the engine for their ANPR cameras in every toll station of a national highway. The computer performs the video analytic algorithms for video streaming from a camera. With millions of transactions a day, the edge computer reduces the computing load at the central server, as well as the network latency of streaming HD video.

Featured Products

ARES-5320	ARES-5311	ARES-5310

Machine Vision Controllers

Kick-start Zero Defects on the Production Line

Machine Vision technology can avoid mistakes occurring on production lines when the human brain gets distracted and tired. ARBOR has developed a highly reliable and low-power consumption machine vision controller that enables swift, precise identification and reduction of faulty goods on production lines. Moreover, it can operate 24/7 to ensure top-quality assurance at the highest level and remain focused on the job, regardless of external factors.

High Performance

ARBOR relies on rich experience and R&D design capabilities to optimize hardware design and heat dissipation management to effectively maintain efficient system operation.

Reliability and Validity

Tailoring designs for specific projects enables the system to operate smoothly, minimizing production disruptions and delivering the reliability crucial for automated manufacturing processes.

Scalability and Flexibility

ARBOR offers highly customized services that are scalable and flexible while maintaining optimum economic efficiency.

Visualize Precision: ARES-1983H Series

ARBOR's robust industrial computers - ARES-1983H series designed for machine vision applications, equipped with the latest Intel 14th generation processors. By leveraging the latest CPU technology, these computers are capable of faster data processing, improved image recognition, and more efficient algorithm execution. The stackable design enables it to meet the stringent requirements of a variety of compact environments within industrial settings.

Featured Products

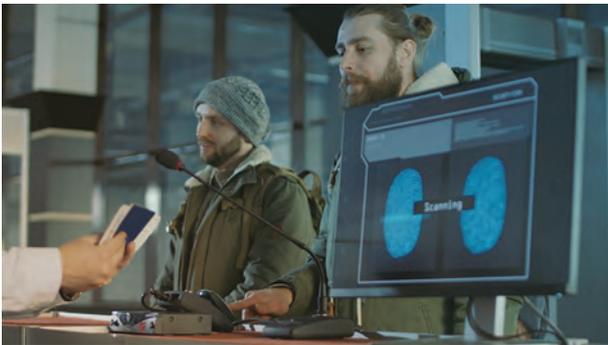| ARES-1983H	ARES-1983H-MV	ARES-1983H-FL

Mobile Phone Inspection (AOI)

In China, a smartphone manufacturer replaced manual inspection with ARBOR's Machine Vision Controllers. The automated identification and removal of defective products helped to prevent bottlenecks. It also contributed to significant increases in speed, accuracy which resulted in notable cost savings.

The Efficient Check of Vehicles

Outside of the factory, ARBOR's Machine Vision Solutions are used by Eurotunnel for the efficient check of vehicles wishing to cross the channel. Incorporating number plate recognition, the machines are able to automatically display on-screen information that is directly relevant to individual passengers. This helps to keep waiting times down, as well as preventing those without a booking from entering.

Fingerprint Matching System for Airports

In Japan, an airport security system integrated ARBOR's ARES-1983H-MV to enhance passenger verification through a fingerprint matching system. The system connects to cameras via PoE for real-time monitoring and links USB-connected QR code and passport readers to authenticate travelers efficiently. With its compact size and comprehensive I/O options, the ARES-1983H-MV was selected for its superior integration flexibility and Wi-Fi capability, giving it an edge over competitors. The solution ensures fast, secure, and accurate identity verification, streamlining passenger flow while maintaining high-security standards at the airport.

Featured Products

ARES-1980	FPC-9108 Series	SB-244-11135G7	SB-244-1J64

Transportation Controllers

Internet of Vehicles on the Move

Currently, the Internet of Vehicles (IoV) trend emphasizes seamless integration to enable features such as autonomous driving, in-car entertainment, and vehicle health monitoring. ARBOR Technology provides hardware technology to further innovate the IoV in areas such as predictive maintenance, personalized services and enhanced safety functions.

Reliable Connections

- Shock & vibration resistance
- M8/M12 connections or cable lock kits
- Isolated RS-232/422/485 & DIO
- CAN BUS support
- Isolated NMEA 0183
- Fanless and wide temperature design

Uninterrupted Communication

- Wi-Fi & Bluetooth support
- WWAN SIM card socket (3G, HSUPA and LTE/4G)
- GPS support (Glonass, Galileo, BeiDou and QZSS)
- External SIM card socket

Reliable Power Safety

- Power ignition ON/OFF delay.
- Wide DC power input range
- Low voltage protection switch
- Reverse power input protection
- Overvoltage protection
- Supercapacitor power backup

Passenger Service System

Passenger Infotainment Service

Road Safety with LiDAR Sensor

Featured Products

ARES-5320	ARES-1990	ARES-1983H

Fearless in Harsh Challenges, Empowering Diverse Vehicles

Extremely Rugged and Durable Solutions

Our industrial computers are purpose-built for extreme environments. With exceptional designs for shock resistance, water/dust proofing, wide-temperature operation, and stable power supply, we ensure your equipment operates reliably under any challenge, consistently creating value. ARBOR Technology is the most dependable smart computing backbone for diverse transportation vehicles.

Rugged

Whether facing heavy vibration during operation or navigating bumpy roads, our products are certified with MIL-STD-810H for operation on the road.

Wide-Temperature

Regardless of extremely low or high-temperature and high-humidity environments, our wide-temperature validated specifications guarantee sustained performance and hardware integrity.

Water & Dust Resistance

For challenges involving heavy dust, moisture, mud, or slush, a fanless design and high IP-rated protection are essential for the core hardware to overcome these conditions.

Tunnel Boring Machine

Serivce: A rugged solution built to operate reliably in high heat, humidity, and heavy shock environments.

Airport Baggage Conveyors

Serivce: Built for transportation applications, featuring exceptional durability and stable performance.

Winter Service Vehicle

Service : Ensured a client's equipment remains operational in harsh climates.

Featured Products

ARTS-7670	ARTS-7550	ARTS-1550
IP69K	IP69K	

Ultra Slim HMI For Buses and Vessels

Limitless Versatility via ARM-Based Architecture

IOT-800N-G350 is an 10" HMI based on the powerful MediaTek Genio 350 Quad-Core SoC processor. The system runs on Android 13 and is designed to meet demanding applications in vehicles and vessels with E-Mark Certification.

Rugged & Reliable

IOT-800N-G350 features a high resolution display, capacitive touchscreen and computer into one easily deployable package. The panel maintains an IP-54 rating and is engineered to operate in high shock, vibration and temperature ranges (up to 0°C ~ 50°C / 32°F ~ 100°F).

Water Proof

Dust Proof

Shock Resistant

Temperature Resistant

Connectivity for Every Application

IOT-800N-G350 is a true Internet of Things device, with standard wireless features such as 802.11 ac/a/b/g/n, Bluetooth 5, RFID and NFC to keep your systems and processes connected.

Rich I/O

1 DC Terminal 2 CAN Bus
3 SD Card 4 SIM Slot 5 GPS

The panel is equipped with 1 x RS-232 port, 1 x RS-232/422/485 port, 2 x High Speed USB ports, 13MP camera, integrated speakers and a built in microphone. IOT-800N-G350 is unique in that it comes equipped with CAN BUS and ignition detection capability, making it ideal for specific applications like fleet management.

Slim Panel PC Solutions

8"	8"
IOT-800N-G350	IOT-800N

Industrial-Grade Panel PCs

Next-Generation HMI for Industry 4.0

ARBOR's Industial panels PCs combine multi-touch interface and flexible add-on capability to simplify dynamic control and display operations for efficient system productivity. Our panel PCs deliver various sizes, durable, multi-tasking and scalable usability to fit perfect for industry 4.0 applications. We have built computers and industrial-grade PC for some of the companies in oil platforms, agriculture, and food factories worldwide.

Smart Factory / Machine Automation

Fanless Touch Panel

Featuring industrial components and fanless design for non-stop operation

Intelligent Building / Transportation

Industrial-grade Ruggedness

IP66-rated and 7H anti-scratch panels for waterproof protection and dust resistance

Kiosk POS / Rugged Infotainment

IIoT-ready Connections

Equipped with rich I/O, PCIe front camera and barcode reader connectivity
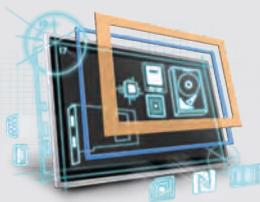
Solution for Harsh Environment

ARBOR offers customized touch/kiosk panel PCs with rich I/O options, machine automation and OEM manufacturing for companies with unique requirements. For harsh environments as the oil platform, we can offer panel PCs with extensive I/O, compact size, wide temperature, high pressure, resistive touch screen, and ability to communicate with external peripherals.

Industrial HMI

23.8" 16:9	17" 4:3	15" 4:3	10.1" 16:10
SP Alder Lake Series	SP Elkhart Lake Series	LYNC-715-7433G8	iTC-1101C

Smart Industrial Power Backup Solution

Protect Your Factory Assets with Super-Capacitor Power Backup Solution

Safe, secure, uninterrupted power is crucial to today's factory productivity, sudden power failure can damage equipment, corrupt data, disrupt production, an UPS usually have batteries inside, ARBOR's power backup solution doesn't, we use supercapacitors instead, guard against power glitches and short-term power loss or to allow for a graceful shutdown.

Smart Power Management Software

Smart Industrial Power Backup Solutions ships with backup power monitoring and management Software, providing user the ability to monitor SuperCapacitor Power Status, power output voltage status, as well as timer to shutdown and more.

Application Scenario: Flexible Implementations

With mounting bracket, Smart Power Backup System can be attached to panel systems to protect HMIs from power interruptions.

Smart Power BackupBoards can be integrated into computing systems or other devices to protect the system from power interruptions.

Featured Products

SCP CUBE MK2	SiP-41B	SiP-42B	SiPB-1690

Compact Signage Player

Stunning 4K / UHD Video Wall Solution

Powered by Intel® Core-i series processors / AMD Ryzen SoC to ensure high performance for multitasking applications. The control room systems aim at providing communication, security, surveillance, and technology that allow safe, convenient, and comfortable, efficient and environmentally friendly travel for all commuters.

Independent Multi-displays from One Small Controller

ARBOR's multimedia controllers are designed with multiple built-in signal outputs that provide a vibrant visual experience with 4K graphics and complex multimedia features within a slim form factor.

Easy To Deploy and Maintain

With compact design and standard Wall/VESA Mount on our multi-display controller, clients can easily deploy and maintain display controllers suitable for in-door or out-door signage application.

Featured Products

IEC-3714	ARES-2000	IEC-3904	IEC-G510
Intel® Raptor Lake	Intel® Raptor Lake	Intel® 11th Gen. Core	MediaTek Genio G510
4 Display out	3 Display out	2 Display out	2 Display out

Remote I/O Modules

Reliable Connectivity for Smart Automation

Industrial automation relies heavily on remote I/O modules. They help enterprises achieve efficient operation and intelligent management by providing flexible and reliable data collection and control. These modules feature a variety of communication protocol options, high reliability and anti-interference, long-distance data transmission capabilities, and support for multi-node communication.

ARBOR Technology Remote I/O modules improve production efficiency, reduce downtime through real-time monitoring and control of industrial equipment, and enable enterprises to expand their systems according to their needs. With its reliable data transmission and collection capabilities, it ensures the accuracy and immediacy of key production data, reduces the need for manual intervention, improves automation levels, and reduces operating costs.

Suitable for various industrial scenarios, including manufacturing, power monitoring, environmental monitoring, etc., Remote I/O modules are not only the cornerstone of modern industrial automation systems, but also play a vital role in promoting intelligent manufacturing and digital transformation.

Renewable Energy Plant Solutions

In large and complex systems like renewable energy power plants, the solution provided by ARBOR offers immense flexibility, enabling modular deployment and expansion based on the plant's scale and specific needs. Beyond reducing wiring costs and complexity, facilitating predictive maintenance, and optimizing power generation strategies, it further enables real-time decision-making.

For instance, edge-side AI IPCs can continuously monitor the operational status and power generation efficiency of solar panels via Remote I/O, and Gateway, and in the event of anomalies, trigger local alarms or adjust power generation strategies to prevent losses.

Featured Products

RS-485 Analog Series	RS-485 Digital Series	Ethernet Series	RS-485 Converter

Edge AI GPU Computing
PCI-e GPU Card

NEW

NEW

Model	EdgeX-6000	FPC-9309W-G5	FPC-9108-P6-G3	FPC-9108-L2U4-G3
Dimensions (W x H x D)	216 x 170 x 495 mm	220 x 330 x 380 mm	181 x 250 x 380 mm	
CPU	AMD EPYC™ Embedded 8004 Siena series and Sorano (SP6 socket)	Intel® Core™ Ultra Processors (Series 2) in LGA1851 socket (35W / 65W CPU)	Intel® 10th Gen. Xeon® Core™ i9/i7/i5/i3 processor in LGA1200	
Chipset	-	Intel® W880E	Intel® W480E	
Memory	6 x DDR5 RDIMM with ECC up to 4800 MHz (1DPC), up to 576GB (96GB per DIMM)	4 x DDR5 U-DIMM sockets, supporting 5600MHz SDRAM up to 192GB	2 x 260-pin DDR4 SO-DIMM sockets, supporting 2933 (i9/ i7) / 2666(i5/ i3) / 2400 MHz (Pentium/ Celeron CPU) SDRAM up to 64GB (ECC / Non-ECC)	
GPU	Supports NVIDIA® RTX Pro 6000 up to 600W and AMD Instinct MI210 up to 300W	Supports NVIDIA® RTX-50 series up to 580W GPU	Supports NVIDIA® RTX-30/40 series up to 350W GPU	
Video	2 x DP	2 x HDMI, 2 x DP	1 x HDMI, 1 x VGA	
Audio	-	Mic-in/Line-out	Mic-in/Line-out	
Ethernet	2 x 2.5 GbE RJ-45 ports 2 x 10 GbE RJ-45 ports	4 x 2.5GbE	2 x RJ-45 ports for GbE 6 x RJ-45 Ports for PoE (support 60W)	4 x RJ-45 ports for GbE/2.5GbE
Mass Storage	1 x M.2 M-key (2280) NVMe (PCIe x4) 2 x 2.5" SSD or 4 x E1.S SSD	2 x hot swap 2.5" / 3.5" SATA SSD 2 x M.2 M key Hot swap NVMe SSD (2242/3052/2280) with PCIe x 4	2 x 2.5" drive bays 1 x M.2 B key (2242/3052/2280)	
USB 2.0	-	1 (Internal)	2 (Internal)	
USB 3.0/2.0	6 x USB 3.0	8	2	6
RS-232	-	2	-	2
RS-232/422/485	3	2	2	
LPT**	-	-	Yes	
Digital I/O**	-	8-in / 8-out	8-in / 8-out	
Expansion Bus	4 x PCIEx16 slots (x16 link, FHFL, for dual-slot GPU) or auto-switch 8 x PCIEx16 slots (x8 link, FHFL)	2 x PCIe x16 slots for 600W GPU card or Dual 300W GPU 3 x PCIe x 8 slots 1 x mini-PCI Express w/ SIM 1 x M.2 E key (2230) 2 x M.2 B key (2242 / 3052) w/ SIM OOB as an Optional	1 x PCIe x16 slot for 350W GPU card, 3 x PCI slots 1 x mini-PCI Express, 1 x M.2 E key (2230), 1 x M.2 B key (2242 / 3052 / 2280)	
Power Input	800W/2400W/3200W Single CRPS	DC 24 ~ 48V / Ignition	DC 12 ~ 36V (input for system) DC 12 ~ 36V (input for graphic cards)	
Operating Temperature	0 ~ 40° C (32 ~ 104° F) (GPU card dependent)	65W TDP CPU : 🌡 -20 ~ 55° C (-4 ~ 131° F) 35W TDP CPU : -20 ~ 70° C (-4 ~ 158° F) w/ NVIDIA® RTX-5090: -20 ~ 45° C (-4 ~112° F)	80W TDP CPU : -20 ~ 50° C (-4 ~ 122° F) 65W TDP CPU : -20 ~ 55° C (-4 ~ 131° F) 35W TDP CPU : -20 ~ 70° C (-4 ~ 158° F) w/ NVIDIA RTX-3090 : -20 ~ 45° C (-4 ~112° F) 🌡	

* Including one outside accessible drive bay
** For LPT and digital I/O, only either one of them is available.
🌡 Wide Temperature Range

Edge AI GPU Computing
PCI-e GPU Card

Model	FPC-9207S-P6-G1	FPC-9107-P6-G2	FPC-9107-L2U4-G2
Dimensions (W x H x D)	225 x 120 x 292 mm	181 x 250 x 320 mm	
CPU	Intel® 14th generation Core™ i9/i7/i5/ i3 processor in LGA1700 socket	Intel® 10th Gen. Xeon®Core™ i9/i7/i5/i3 processor in LGA1200 socket	
Chipset	Intel® Q670E	Intel® W480E	
Memory	2 x 262-pin DDR5 SO-DIMM ockets, supporting 5600 MHz SDRAM up to 96GB	2 x 260-pin DDR4 SO-DIMM sockets, supporting 2933 (i9/ i7) / 2666(i5/ i3) / 2400 MHz (Pentium/ Celeron CPU) SDRAM up to 64GB (ECC / Non-ECC)	
GPU	Supports NVIDIA® A2000 GPU	Supports NVIDIA® RTX-30/40 series up to 250W GPU	
Video	1 x HDMI 2.1, 1 x VGA, 2 x DP	1 x HDMI, 1 x VGA	
Audio	Mic-in/Line-out	Mic-in/Line-out	
Ethernet	4 x RJ-45 ports for GbE	2 x RJ-45 Ports for GbE 6 x RJ-45 Ports for PoE (support 60W)	4 x RJ-45 ports for GbE/2.5GbE
Mass Storage	2 x 2.5" drive bays 1 x M.2 M key (PCIe Gen4*4 + SATA)	2 x 2.5" drive bays, 1 x M.2 B key (2242/3052/2280)	
USB 2.0	-	1 (Internal)	
USB 3.0/2.0	8 x USB 3.2 Gen2, 2 x USB 3.2 Gen1	2	6
RS-232	-	-	2
RS-232/422/485	2	2	
LPT**	1	-	-
Digital I/O**	1 x DB25 connector	1.5KV isolation 16-in /16-out	1.5KV isolation 16-in / 16-out
Expansion Bus	1 x PCIe +USB2.0 1 x M.2 B key (2242/3042/3052) 1 x M.2 E key (2230), 1 x PCIe x16 1 x PCIe x8 (via x 4 lane)	1 x PCIe x 4, 2 x PCIe x16, 1 x mPCIe (full), 1 x SIM 1 x M.2 B key (2242/3052/2280), 1 x M.2-E key (2230)	
Power Input	DC 19~36V input	DC 12 ~ 36V for system, DC 12 ~ 36V for GPU card	
Operating Temperature	-20 ~ 50° C (-4 ~ 122° F), mbient w/ air flow (w/ 35W TDP CPU, fanless)	80W TDP CPU : -20 ~ 50° C (-4 ~ 122° F) 35W TDP CPU : -20 ~ 70° C (-4 ~ 158° F) 🌡 w/ NVIDIA® Tesla T4 : -20 ~ 50° C (-4 ~ 122° F) w/ NVIDIA® RTX-3070 : -20 ~ 45° C (-4 ~112° F)	

* Including one outside accessible drive bay
** For LPT and digital I/O, only either one of them is available.
🌡 Wide Temperature Range

Edge AI GPU Computing
PCI-e GPU Card

Model	FPC-8208-G1	FPC-8108W-G1	FPC-8109-G1
Dimensions (W x H x D)	225 x 292 x 190 mm	225 x 190 x 292 mm	
CPU	Intel® 14th Gen.Xeon®Core™ i9/i7/i5/i3 processor in LGA1700 socket	Intel® 10th Gen Xeon® Core™ i9/i7/i5/i3 processor in LGA1200 socket	
Chipset	Intel® Q670E	Intel® W480E	Intel® H420E (W480E Optional)
Memory	2 x DDR5 SO-DIMM	2 x DDR4 SO-DIMM	
GPU	Supports NVIDIA® GTX-16 series up to 150W GPU	Supports NVIDIA® GTX-16 series up to 150W GPU	
Video	1 x HDMI, 1 x VGA, 2 x DP	1 x HDMI,1 x VGA, 1 x DVI-D	
Audio	Mic-in/Line-out	Mic-in/Line-out	
Ethernet	4 x GbE/2.5GbE	2 x RJ-45 ports for GbE, 1 x RJ-45 ports for 2.5GbE	
Mass Storage	2 x 2.5" drive bays 1 x M.2 M key (PCIe Gen4 x 4 + SATA)	1 x CFast socket, 2 x 2.5" drive bays	
USB 2.0	-	2	
USB 3.0/2.0	8 x USB 3.2 Gen2, 2 x USB 3.2 Gen1	6	
RS-232	2	4	
RS-232/422/485	2	2	
LPT**	Yes	Yes	
Digital I/O**	1 x DB25 connector	8-in / 8-out	
Expansion Bus	1 x PCIe +USB2.0 3 x PCIe x 4, 1 x PCIe x16 1 x M.2 B key (2242/3052/2280) 1 x M.2-E key 2230	3 x PCIe x4,1 x PCIe x16 1 x mPCIe (full), 1 x SIM, 1 x M.2-E key (2230) 1 x M.2 B key (2242/3052/2280) 1 x full-size Mini-card	4 x PCI,1 x PCIe x16 1 x SIM, 1 x M.2-E key 2230 1 x full-size Mini-card
Power Input	DC 9~36V input Max. 16A/300W / Ignition	DC 9~36V / Ignition	
Operating Temperature	-20 ~ 70° C (-4 ~ 158° F), ambient w/ air flow,(w/ 35W TDP CPU, fanless) -20 ~ 55° C (-4 ~ 131° F), ambient w/ air flow (w/ 65W TDP CPU, fanless) -20 ~ 45° C (-4 ~ 112° F), w/ GTX-1660 GPU) 🌡	-20 ~ 70° C (-4 ~ 158° F) (w/35W TDP CPU, fanless), -20 ~ 55° C (-4 ~ 131° F) (w/65W TDP CPU, fanless), -20~45° C (-4 ~ 112° F) (w/ GTX-1660 GPU) 🌡	

* Including one outside accessible drive bay
** For LPT and digital I/O, only either one of them is available.
🌡 Wide Temperature Range

Edge AI GPU Computing
NVIDIA Jetson Series

Model	AEC-6100	AEC-6200
Dimensions (W x D x H)	260 x 182 x 69 mm	
Module	Jetson AGX Orin	
CPU	8-core Arm® Cortex®-A78AE v8.2 64-bit CPU	
Memory	32GB LPDDR5 DRAM	
GPU	1792-core NVIDIA Ampere™ architecture GPU with 56 Tensor Cores	
GMSL	8	-
Video	1 x HDMI	
Ethernet	2 x GbE port	6 x GbE port with 4 x PoE
Storage	2 x M.2 Key M Socket (2280, PCIe x4) 1 x eMMC 5.1, 64GB, 1 x Micro SD (External)	
USB 3.0/2.0	1 x USB 3.2, 4 x USB 3.1	
RS-232/ 422/485	2	
Digital I/O**	16 Isolated DIO (8-in / 8-out)	
Expansion Bus	1 x PCIe Gen4 x8 Slot, 1 x M.2 Key B Socket, M.2 Key E Socket	
Power Input	DC 9V ~ 48V / Ignition	
Operating Temperature	-25 ~ 70° C (-13 ~ 158° F) (TDP: 30W), -25 ~ 55° C (-13 ~ 131° F) (TDP: 40/50W)	

* Including one outside accessible drive bay
** For LPT and digital I/O, only either one of them is available.
🌡 Wide Temperature Range

Edge AI GPU Computing
MXM GPU / Smart Fan

Model	FPC-5210-P6	FPC-5210-M4	FPC-5210-2M4	FPC-5210-2P4
Dimensions (W x H x D)	285 x 110 x 230 mm			
CPU	Intel® 14th/13th Gen. Core™ i9/i7/i5/i3 processor in LGA1700 socket (Max 65W CPU)			
GPU	Intel® HD Graphics 770 or GPU Graphics (support MXM A4500)			
Chipset	Intel® R680E			
Memory	2 x 262-pin DDR5 SO-DIMM up to 64GB (ECC/ non ECC)			
Video	2 x DP 1.4a, 1 x HDMI 2.0b, 1 x DVI-I			
Audio	Mic-in/Line-out			
Ethernet	4 x GbE 6 x 802.3af PoE	4 x GbE 4 x 802.3af M12 PoE	2 x 2.5GbE, 2 x 10GbE 4 x 802.3af/at M12 PoE	2 x 2.5GbE, 2 x 10GbE 4 x 802.3af/at PoE
Mass Storage	2 x 2.5" drive bays, 1 x M.2 B key (2242/2280), 1 x M.2 M key (2242/2280)			
USB 3.0/2.0	8 x USB 3.2 Gen 2 (10G)			
RS-232	-	2		
RS-232/422/485	2			
CAN Bus	-		2 x CAN bus 2.0B	
Digital I/O	8-in / 8-out (Isolation)			
Expansion Bus	1x MXM3.1 TYPE A/B GPU Slot, 2 x mini-PCI Express Slots, 3 x SIM sockets, 1 x M.2 B key (2242/3052/2280), 1 x M.2 E key (2230)			
Power Input	9~36V / Ignition			
Operating Temperature	-20 ~ 55° C ambient w/ air flow (w/65W TDP CPU,115W GPU)			

Edge AI GPU Computing
MXM GPU / Fanless

Model	FPC-5211-P6	FPC-5211-M4	FPC-5211-2M4
Dimensions (W x H x D)	285 x 90 x 230mm		
CPU	Intel® 14th/13th Gen. Core™ i9/i7/i5/i3 processor in LGA1700 socket (Max 35W CPU)		
GPU	Intel® HD Graphics 770 or GPU Graphics (support MXM A2000/2000A)		
Chipset	Intel® R680E		
Memory	2 x 262-pin DDR5 SO-DIMM up to 64GB (ECC/ non ECC)		
Video	2 x DP 1.4a, 1 x HDMI 2.0b, 1 x DVI-I		
Audio	Mic-in/Line-out		
Ethernet	4 x GbE 6 x PoE 802.3af POE	4 x GbE 4 x 802.3af M12 POE	4xGbE 2x 2.5G M12 POE support 802.3af + 2x10G M12 POE+ support 802.3at
Mass Storage	2 x 2.5" drive bays, 1 x M.2 B key (2242/2280), 1 x M.2 M key (2242/2280)		
USB 3.0/2.0	8 x USB 3.2 Gen 2 (10G)		
RS-232	-	2	
RS-232/422/485	2		
CAN BUS	-		2 x CAN Bus 2.0B
Digital I/O	8-in / 8-out (Isolation)		
Expansion Bus	1 x MXM3.1 TYPE A/B GPU Slot, 2 x mPCIe Slots, 1 x M.2 B key (2242/3052/2280), 1 x M.2 E key (2230)		
Power Input	9~36V / Ignition		
Operating Temperature	-20 ~ 50° C (ambient w/ air flow), -20 ~ 65° C (w /External SMART FAN kit)		

Model	FPC-5211-2P4	FPC-5211-E1	FPC-5211-U9
Dimensions (W x H x D)	285 x 90 x 230mm		
CPU	Intel® 14th/13th Gen. Core™ i9/i7/i5/i3 processor in LGA1700 socket (Max 35W CPU)		
GPU	Intel® HD Graphics 770 or GPU Graphics (support MXM A2000/2000A)		
Chipset	Intel® R680E		
Memory	2 x 262-pin DDR5 SO-DIMM up to 64GB (ECC/ non ECC)		
Video	2 x DP 1.4a, 1 x HDMI 2.0b, 1 x DVI-I		
Audio	Mic-in/Line-out		
Ethernet	2 x 2.5GbE, 2 x 10GbE 4 x 802.3af/at M12 POE	4 x GbE	
Mass Storage	2 x 2.5" drive bays, 1 x M.2 B key (2242/2280), 1 x M.2 M key (2242/2280)		
USB 3.0/2.0	8 x USB 3.2 Gen 2 (10G)		8 x USB 3.2 Gen 2 (10G) 8 x USB 3.2 (5G), 5V/2A for each ports 1 x USB-C (10G), w/ 15W PD
RS-232	2		
RS-232/422/485	2	-	2
CAN BUS	2 x CAN Bus 2.0B	-	2 x CAN FD
Digital I/O	8-in / 8-out (Isolation)		
Expansion Bus	1 x MXM3.1 TYPE A/B GPU Slot 2 x mPCIe Slots 1 x M.2 B key (2242/3052/2280) 1 x M.2 E key (2230)	1 x MXM3.1 TYPE A/B GPU Slot 2 x mPCIe Slots 1 x M.2 B key (2242/3052/2280) 1 x M.2 E key (2230) 1 x PCIe x 8 slot expansion (via x4 lanes)	1 x MXM3.1 TYPE A/B GPU Slot 2 x mPCIe Slots 1 x M.2 B key (2242/3052/2280) 1 x M.2 E key (2230)
Power Input	9~36V / Ignition		
Operating Temperature	-20 ~ 50° C(ambient w/ air flow), -20 ~ 60° C (w /External SMART FAN kit)		

Edge AI GPU Computing

NPU

APU

Model	IEC-3714	IEC-3906
Dimension (W x H x D)	115.4 x 37 x 107.6 mm	130 x 35 x 124 mm
CPU	Intel® Core™ Ultra 5 125H processor	Intel® Core™ Ultra 5 Series 2 225H processor
Memory	2 x DDR5 SO-DIMM Sockets	2 x DDR5 SO-DIMM Sockets
Video	2 x HDMI 2.1 TMDS 1 x DP 2.1/ 1 x DP1.4a (from Type-C)	2 x HDMI
Audio	1 x Audio Line out and MIC 2 in 1 jack	N/A
Ethernet	1 x 2.5 GbE RJ45	1 x 2.5 GbE RJ45
Mass Storage	1 x M.2 M-Key (PCIe 4.0 x4) 2242/2280 1 x M.2 M-Key (PCIe 4.0 x4) 2242	eMMC 5.1 64GB
USB 2.0	-	-
USB 3.0/2.0	4 x USB3.2 type A 2 x USB Type-C	4 x USB 3.0
RS-232	N/A	4 x UART internal PH
Expansion & Serial Bus	1 x M.2 E-Key (PCIe x1) 2230	N/A
Power Input	DC 12-24V	DC 24V
Operating Temperature	0 ~ 50° C (32 ~ 122° F)	-20 ~ 70° C (-4 ~ 158° F)

Model	IEC-G510
Dimension (W x H x D)	195 x 20 x 100 mm
CPU	MedeaTek G510
Memory	LPDDR4X 4GB
Video	1 x HDMI 2.0 1 x HDMI 1.4
Audio	1 x Audio Line out and MIC 2 in 1 jack
Ethernet	1 x GbE RJ45
Mass Storage	eMMC 5.1 64GB
USB 2.0	1
USB 3.0/2.0	1 x USB 3.1
RS-232	4 x UART internal PH
Expansion & Serial Bus	1 x M.2 B-key 3042/3052
Power Input	DC 12V
Operating Temperature	-10 ~ 55° C (14 ~ 131° F)

Edge AI GPU Computing

Dedicated AI Accelerators
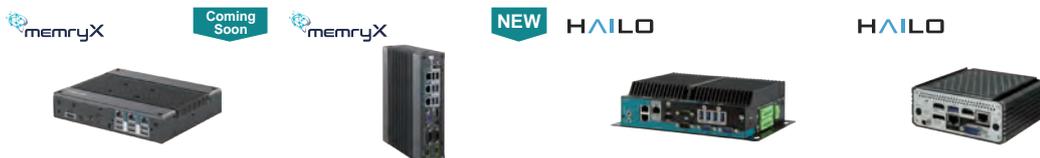
Model	ARES-1990-AI	ARES-1983H-AI	ARES-1980-AI	ELIT-1060-AI
Dimensions (W x H x D)	234 x 44 x 140 mm	85 x 210 x 164 mm	210 x 70 x 180 mm	118 x 48 X 108 mm
CPU	Intel® 14th/13th Gen. Raptor Lake-U series processor	Intel® 14th/13th/12th Gen Core™ i9/i7/i5/i3 (LGA1700 socket)	Soldered 11th Intel® Core™ i7/ i5/ i3 Processor	Intel® Celeron® N6210, 1.20 GHz
Chipset	SoC	Intel® H610E	SoC	SoC
Memory	1 x DDR5 SO-DIMM	1 x DDR5 SO-DIMM	2 x DDR4 SO-DIMM	1 x DDR4 SO-DIMM
Video	1 x HDMI, 1 x DisplayPort, 1 x DisplayPort over USB-C	1 x VGA 1 x DisplayPort	1 x HDMI, 1 x DisplayPort, 1 x DVI-D	2 x HDMI 1 x DisplayPort
Audio	-	-	-	Mic-in / Line-out (Combo)
Ethernet	3 x 2.5GbE, 1 x GbE	1 x 2.5GbE 2 x GbE	2 x PoE(af) 1 x 2.5 GbE	2 x 2.5 GbE
Mass Storage	1 x M.2 M-Key 2242	1 x 2.5" drive bay	1 x 2.5" drive bay, 1 x M.2 M-Key 2242/2280	128GB eMMC 1 x M.2 M-Key 2260/2280 (Compatible w/ Hailo-8 module)
USB 2.0	4	4(incl. 2 x Internal)	1 (Internal)	1
USB 3.0/2.0	5	4	4	4 (2 x Type-A, 2 x Type-C)
RS-232	2	1	2	-
RS-232/ 422/485	2	1	2	1
Digital I/O**	8 x DI/O	-	1.5kV Isolated 8-in / 8-out	-
Expansion Bus	1 x M.2 B-key 2242/3042 1 x M.2 E-Key 2230	1 x M.2 E-Key 2230 1 x mPCIe w/ SIM	1 x mPCIe (full), 1 x M.2 B-Key 2242/3042/3052 w/ 2 x nano SIM (compatible w/ Hailo-8 module) 1 x M.2 E-Key 2230	1 x M.2 E-key 2230
Power Input	DC 9~60V / Ignittion	DC 12~24V	DC 9 ~ 36V / Ignition	DC 12V
Operating Temperature	-20 ~ 60° C	-20 ~ 50° C	-20 ~ 60° C	-20 ~ 60° C

* Including one outside accessible drive bay

Automation Computers
CPU Scalable & PCI / PCIe Expansion

NEW

Model	FPC-8213	FPC-8212	FPC-8211	FPC-8210	FPC-8208-2E2P
Dimensions (W x H x D)		195 x 125 x 268 mm			195 x 90 x 268 mm	225 x 292 x 190 mm
CPU		Intel® 14th/13th/12th Gen Core™ i9/i7/i5/i3 (LGA1700 socket)			Intel® 14th/13th/12th Gen Core™ i9/i7/i5/i3 (LGA1700 socket)	Intel® 14th Gen.Xeon®Core™ i9/i7/i5/i3 (LGA1700 socket)
Chipset		Intel® H610E			Intel® H610E	Intel® Q670E
Memory		2 x DDR5 SO-DIMM			2 x DDR5 SO-DIMM	2 x DDR5 SO-DIMM
Video		1 x VGA, 1 x DVI-D, 1 x DisplayPort			1 x VGA, 1 x DVI-D, 1 x DisplayPort	1 x HDMI, 1 x VGA, 2 x DP
Audio		Mic-in/Line-out			Mic-in/Line-out	Mic-in/Line-out
Ethernet		3 x 2.5GbE			3 x 2.5GbE	4 x GbE/2.5GbE
Mass Storage		1 x CFast, 2 x 2.5" Drive bays			1 x CFast, 2 x 2.5" Drive bays	2 x 2.5" drive bays 1 x M.2 M key (PCIe Gen4 x 4 + SATA)
USB 3.0/2.0		2 x USB 3.2 Gen2 (10Gbps) 4 x USB 3.2 Gen1 (5Gbps)			2 x USB 3.2 Gen2 (10Gbps) 4 x USB 3.2 Gen1 (5Gbps)	8 x USB 3.2 Gen2 (10Gbps) 2 x USB 3.2 Gen1 (5Gbps)
RS-232		2			2	2
RS-232/422/485		2			2	2
LPT*		Yes			Yes	Yes
Digital I/O*		8-in / 8-out			8-in / 8-out	1 x DB25 connector
Expansion Bus	1 x Mini-card, 1 x M.2 E Key (2230), 1 x M.2 B key (2242/3052/2280) 2 x PCI	1 x Mini-card, 1 x M.2 E Key (2230), 1 x M.2 B key (2242/3052/2280) 1 x PCIe x16 slot +1 x PCIe x8 slot	1 x Mini-card, 1 x M.2 E Key (2230), 1 x M.2 B key (2242/3052/2280) 1 x PCIe x16 slot +1 x PCI slot	1 x Mini-card, 1 x M.2 E Key (2230), 1 x M.2 B key (2242/3052/2280)	1 x full-size Mini-card, 1 x SIM, 3 x PCIe x 4, 1 x PCIe x16 1 x M.2-E key 2230 1 x M.2 B key (2242/3052/2280)
Power Input		DC 9~36V			DC 9~36V	DC 9~36V input Max. 16A/300W
Operating Temperature		-20 ~ 70° C ambient w/ air flow (35W TDP CPU, fanless) -20 ~ 55° C ambient w/ air flow (65W TDP CPU, fanless) 🌡			-20 ~ 70° C ambient w/ air flow (35W TDP CPU, fanless) -20 ~ 55° C ambient w/ air flow (65W TDP CPU, fanless)	-20 ~ 70° C ambient w/ air flow (35W TDP CPU, fanless) -20 ~ 55° C ambient w/ air flow (65W TDP CPU, fanless) 🌡

* For LPT and digital I/O, only either one of them is available.
🌡 Wide Temperature Range

Automation Computers
CPU Scalable & PCI / PCIe Expansion
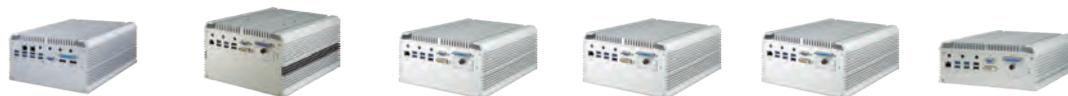
Model	FPC-9202-P6	FPC-8107	FPC-8103	FPC-8102	FPC-8101	FPC-8100
Dimensions (W x H x D)	225 x 120 x 292 mm	225 x 140 x 292 mm	225 x 120 x 292 mm			225 x 90 x 292 mm
CPU	Intel® 14th Gen.Core™ i9/i7/i5/i3 (LGA1700 socket)	Intel® 10th Gen Xeon® Core™ i9/i7/i5/i3 (LGA1200 socket)				Intel® 10th Gen.Core™ i9/i7/i5/i3 (LGA1200 socket)
Chipset	Intel® Q670E	Intel® H420E (W480E Optional)				
Memory	2 x DDR5 SO-DIMM	2 x DDR4 SO-DIMM				
Video	1 x HDMI, 1 x VGA, 1 x DP	1 x HDMI, 1 x VGA, 1 x DVI-D				
Audio	1 x Mic-in / 1 x Line-out					
Ethernet	4 x GbE, 6 x PoE	3 x GbE				
Mass Storage	1 x M.2 M key 2 x 2.5" drive bays	1 x CFast socket 2 x 2.5" drive bays				
USB 2.0	-	2				
USB 3.0/2.0	8 x USB 3.2 Gen2 (10Gbps) 2 x USB 3.2 Gen1 (5Gbps)	6				
RS-232	-	4				
RS-232/422/485	2					
LPT*	Yes					
Digital I/O*	8-in / 8-out					
Expansion Bus	1 x full-size Mini-card, 1 x SIM, 1 x M.2-E key (2230) 1 x M.2 B key (2242/3042/3052) 1 x PCIe x16 slot + 1 x PCIe x8 slot	1 x PCIe x16 2 x PCI slot (FPC-8107-1E2P) 3 x PCI slot (FPC-8107-3P) 1 x M.2 E key (2230) 1 x full-size Mini-card	2 x PCI, 1 x full-size Mini-card, 1 x SIM, 1 x M.2-E key 2230 1 x M.2 B key (2242/3052/2280)	1 x full-size Mini-card, 1 x SIM, 1 x M.2-E key 2230 1 x M.2 B key (2242/3052/2280) 1 x PCIe x16 slot + 1 x PCIe x8 slot	1 x full-size Mini-card, 1 x SIM, 1 x M.2-E key 2230 1 x M.2 B key (2242/3052/2280) 1 x PCIe x16 slot +1 x PCI slot	1 x full-size Mini-card, 1 x SIM, 1 x M.2-E key 2230 1 x M.2 B key (2242/3052/2280)
Power Input	DC 19~36V / Ignition	DC 9~36V / Ignition				
Operating Temperature	-20 ~ 50° C (-4 ~ 158° F), (w/ 35W TDP PU, fanless)	-20 ~ 70° C (-4 ~ 158° F), (w/ 35W TDP CPU, fanless) 🌡 -20 ~ 55° C (-4 ~ 131° F), (w/ 65W TDP CPU, fanless)				

* Including one outside accessible drive bay
** For LPT and digital I/O, only either one of them is available.
🌡 Wide Temperature Range

Automation Computers
Compact / Din Rail

Model	ARES-1990	ARES-2000	ARES-1983H	ARES-1983H-FL
Dimensions (W x H x D)	234 x 44 x 140 mm	188 x 44.2 x 120 mm	55 x 210 x 164 mm	
CPU	Intel® 14th/13th Gen. Raptor Lake-U series processor	Intel® 14th/13th Gen. Raptor Lake-U series processor	Intel® 14th/13th/12th Gen Core™ i9/i7/i5/i3 (LGA1700 socket)	
Chipset	SoC	SoC	Intel® H610E	
Memory	1 x DDR5 SO-DIMM	1 x DDR5 SO-DIMM	1 x DDR5 SO-DIMM	
Video	1 x HDMI, 1 x DisplayPort, 1 x DisplayPort over USB-C	2 x HDMI 2.0 1 x DisplayPort over USB-C	1 x VGA 1 x DisplayPort	
Audio	-	1 x Mic-in /1 x Line-out	-	
Ethernet	3 x 2.5GbE for ARES-1990-CAN 4 x 2.5GbE for ARES-1990-LAN	2 x 2.5GbE for ARES-2000-CAN 3 x 2.5GbE for ARES-2000-L3	1 x 2.5GbE 2 x GbE	
Mass Storage	1 x M.2 M-Key 2242	1 x M.2 M-Key 2242	1 x M.2 M-Key 2242/2280	
USB 2.0	4	2	4(incl. 2 x Internal)	
USB 3.0/2.0	5	3	4	
RS-232	2	-	1	
RS-232/422/485	2	1	1	
Digital I/O	8 x DI/O	-	-	
Expansion Bus	1 x M.2 B-key 2242/3042 1 x M.2 E-Key 2230	-	1 x M.2 E-key 2230, 1 x mPCIe (full) w/ 1 x nano SIM	
Power Input	DC 9~60V / Ignittion	DC 9-36V, DC in + Remote Switch	DC 12~24V	
Operating Temperature	-20 ~ 60° C	-20 ~ 60° C	-20 ~ 50° C (w/ 65W TDP CPU) -20 ~ 60° C (w/ 35W TDP CPU)	

Automation Computers
Compact / Din Rail

Model	ARES-1983H-MV	ARES-5320	ARES-5311	ARES-5310
Dimensions (W x H x D)	90 x 210 x 164 mm	70 x 190 x 125 mm	70 x 180 x 125 mm	
CPU	Intel® 14th/13th/12th Gen Core™ i9/i7/i5/i3 (LGA1700 socket)	Intel® Atom™ x6425RE	Intel® Atom™ x7 E3950 / Celeron® N3350	
Chipset	Intel® H610E	SoC	SoC	
Memory	1 x DDR5 SO-DIMM	1 x DDR4 SO-DIMM	1 x DDR3L SO-DIMM	
Video	1 x VGA 1 x DisplayPort	1 x VGA 1 x DisplayPort	1 x VGA, 1 x HDMI	
Audio	-	1 x Mic-in /1 x Line-out	1 x Mic-in /1 x Line-out	
Ethernet	1 x 2.5GbE 2 x GbE 4 x GbE PoE	3 x 2.5GbE (A & A-ISO ver.) 1 x 2.5GbE + 2 x 2.5GbE PoE (P & P-ISO ver.)	1 x GbE 2 x GbE PoE	3 x GbE (-A ver.) 1 x GbE + 2 x GbE PoE (-P ver.)
Mass Storage	1 x 2.5" drive bay, 1 x M.2 M-Key 2242/2280	64GB eMMC, 1 x mSATA 1 x 2.5" drive bay(A & P ver.)	64GB eMMC, 1 x M.2 M-Key 2242	64GB eMMC, 1 x 2.5" drive bay (-A ver.) 1 x M.2 M-Key 2242 (-P ver.)
USB 2.0	4(incl. 2 x Internal)	1	-	
USB 3.0/2.0	4	3	4	
RS-232	1	2	-	
RS-232/422/485	1	2 x RS232/422/485 4 x 2kV Isolated RS232/422/485 (-ISO ver.)	6 x RS-232/422/485 3 x RS-232/485	4
Digital I/O	1.5kV ISO 16-in /16-out	8 x DI/O (A & P ver.) 2kV ISO 8-in / 8-out (-ISO ver.)	2kV ISO 16-in / 16-out	8 x DI/O (-A ver.) 2kV ISO 16-in / 16-out (-P ver.)
Expansion Bus	1 x M.2 E-key 2230 1 x mPCIe (full) w/ 1 x nano SIM	1 x Full-size mPCIe (USB2.0, colay w/mSATA) w/ 1 x nano SIM 1 x Full-size mPCIe (PCIe x 1 + USB2.0)	2 x mPCIe (full)	2 x mPCIe (full) w/ 1 x nano SIM
Power Input	DC 12~24V	DC 9 ~ 36V / Ignition	DC 9 ~ 36V / Ignition	
Operating Temperature	-20 ~ 50° C (w/ 65W TDP CPU) -20 ~ 60° C (w/ 35W TDP CPU)	🌡 -20 ~ 70° C	🌡 -20 ~ 70° C	🌡 -40 ~ 70° C

🌡 Wide Temperature Range

Automation Computers
Palm-Sized

Model	SB-122-2J64	SB-142-1J64	SB-142-2J64
Dimensions (W x H x D)	165 x 50 x 120 mm		165 x 45 x 125 mm
CPU	Intel® Celeron® J6412 CPU Elkhart Lake		
Graphics	Intel® UHD Graphics for 10th Gen. Intel® Processors		
Memory	1 x DDR4 SO-DIMM slot		
Video	1 x HDMI, 1 x DP		
Audio	-		1x Mic-in / 1x Line out
LAN Chipset	1 x Intel I210AT, 1 x Intel I226-V	1 x Intel I210AT, 3 x Intel I226-V	
Ethernet	1 x GbE 1 x 2.5GbE	1 x GbE 3 x 2.5GbE	
Mass Storage	1 x M.2 2242 (SATA)		
USB 2.0	2 x Internal, 2 x External		2 x USB2.0
USB 3.1/3.2	2 x USB 3.1		
RS-232/422/485	2 x RS-232/422/485		
GPIO	-	1 x 8bit programmable GPIO	
OS Support	Windows 10/11, Ubuntu 22.04		
Expansion Bus	1 x Mini-PCIe, 1 x E-Key M.2 2230	-	1 x Mini-PCIe, 1 x E-Key M.2 2230
Power Input	DC 12-24V		
Certification	CE, FCC		
Operating Temperature	-20 ~ 60° C (WT RAM & SSD)		

Automation Computers
Slim-Type

Model	SB-244-2J64	SB-244-1J64	SB-226-1J64	SB-244-11135G7	SB-244-11115G4
Dimensions (W x H x D)	180 x 47 x 128 mm	200 x 52.8 x 153 mm	200 x 41 x 130 mm	224 x 49.2 x 140 mm	
CPU	Intel® Celeron® J6412 CPU Elkhart Lake	Intel® Celeron® J6412 CPU Elkhart Lake	Intel® Celeron® J6412 CPU Elkhart Lake	Intel® 11th Gen. Core i5-1135G7	Intel® 11th Gen. Core i3-1115G4
Graphics	Intel® UHD Graphics for 10th Gen. Intel® Processors	Intel® UHD Graphics for 10th Gen. Intel® Processors	Intel® UHD Graphics for 10th Gen. Intel® Processors	Intel® UHD Graphics for 11th Gen Intel® Processors	
Memory	1 x DDR4 SO-DIMM slot	1 x DDR4 SO-DIMM slot	1 x DDR4 SO-DIMM slot	1 x DDR4 SO-DIMM slot	
Video	1 x HDMI, 1 x VGA	1 x HDMI, 1 x DP	1 x HDMI	2 x HDMI, 1 x DP	
Audio	1x Mic-in / 1x Line out	1x Mic-in / 1x Line out	1x Mic-in / 1x Line out	1x Mic-in / 1x Line out	
LAN Chipset	4 x Intel i210AT	1 x Intel I210AT, 3 x Intel I226-V	2 x Intel I210AT	1 x Intel i219LM, 3 x Intel i210AT	
Ethernet	4 x GbE	1 x GbE 3 x 2.5GbE	2x GbE	1 x GbE (PHY), 3 x GbE	
Mass Storage	1 x mSATA, 1 x M.2 2242 (SATA)	1 x SATA3.1(2.5" Bay) 1 x M.2 2242 (SATA)	1 x mSATA, 1 x M.2 2242 (SATA)	1 x SATA3.1(2.5" Bay), 1 x M.2 2242 (SATA)	
USB 2.0	4 x USB2.0	4 x External	2 x Internal	3 x External, 2 x Internal	
USB 3.1/3.2	2 x USB3.1	2 x USB 3.1	4 x USB 3.1	3 x USB3.2	
RS-232/422/485	1 x RS485 3 x RS232	2 x RS232/RS422/RS485, 2 x RS485, 2 x RS232	1 x RS232/RS422/RS485, 4 x RS485, 1 x RS232	4 x RS232/422/485, 2 x Internal (RS232)	
GPIO	-	-	1 x 4bit programmable GPIO	1 x 8bit programmable GPIO	
OS Support	Windows 10/11, Ubuntu 22.04	Windows 10/11, Ubuntu 22.04	Windows 10/11, Ubuntu 22.04	Windows 10/11, Ubuntu 22.04	
Expansion Bus	1 x mini-PCIe w/ SIM	1x Mini-PCIe w/ SIM 1x M.2 E-key 2230	1 x Mini-PCIe w/ SIM	1x Mini-PCIe w/ SIM, 1x M.2 E-key 2230	
Power Input	DC 12-36V	DC 12-36V	DC 12-36V	DC 10-36V	
Certification	CE, FCC	CE, FCC	CE, FCC	CE, FCC	
Operating Temperature	-20 ~ 60° C (WT RAM & SSD)	-20 ~ 60° C (WT RAM & SSD)	-20 ~ 60° C (WT RAM & SSD)	-20 ~ 60° C (WT RAM & SSD)	

In Vehicle & AMR Controllers

Model	ARTS-1550	ARTS-7550	ARTS-7670	ARTS-1450
Dimensions (W x H x D)	210 x 58 x 190 mm	106 x 79 x 159.7 mm	264 x 92 x 225 mm	200 x 54 x 180 mm
CPU	Intel® Atom® x7433RE (Quad-Core, TDP 9W)	Intel® Amston Lake x7433RE (Quad-Core, TDP 9W)	Intel® 12th/13th/14th-Gen. Core™ CPU (LGA1700 socket, 65W/ 35W TDP)	Intel® Atom™ E3845 Quad-Core™ 1.91GHz
Chipset	SoC	SoC	Q670E	SoC
Memory	1 x DDR5 SO-DIMM sockets, support 4800 MHz up to 16GB	1x DDR5 SO-DIMM 4800 MHz up to 16 GB	2 x DDR5 SO-DIMM sockets, support 4800 MHz up to 96GB	1 x DDR3L SO-DIMM
Video	2 x HDMI 2.0	1 x HDMI waterproof connector	1 x DP in Type-C 1 x VGA (M12 A-coded)	1 x VGA, 1 x DVI-D
Audio	2 x 3.5mm Audio Jack for Mic-in and Line-out w/lock	-	-	1 x Mic-in / 1 x Line out
Ethernet	4 x PoE+ 2.5GbE ports via RJ45/M12 x-coded(optional) with LED (support 60W)	2 x 2.5GbE LAN ports via two M12 X-coded connectors	4 x PoE + 2.5GbE port via M12 X-coded (support 100W)	1 x GbE
Mass Storage	1x outside accessible drive tray for 2.5" SATA SSD 1x outside accessible SD card socket 1x M.2 B-Key 2242/2280 (SATA+USB 2.0) for storage or GNSS module	1x M.2 M-key 2280 (SATA3 + PCIe Gen3x2)	1 x M.2 M key 2242/2280 (PCIe Gen4 x 4)	1 x 2.5" Drive bay, 1 x mSATA 1 x outside accessible SD socket with cover
USB 2.0	4	2 x USB 2.0 ports via one M12 A-coded connector	6 (via 3 x M12 A-coded，8-pin connector)	2
USB 3.2/3.0/2.0	2	-	1 x USB 3.2 Gen1 (5 Gbps) port in type-C waterproof connector	1
RS-232/422/485	1 x RS-232/422/485 1 x RS-485	-	1 x isolated RS-232 port (COM1) and 1 x isolated RS-422/485 ports (COM2) (via 1 x M12 A-coded, 8-pin connector)	2 x RS-232/485 2 x RS-232
CAN bus	2 x Isolated CAN2.0(A/B) in 1 x DB-9 connector	2 x isolated CANFD, 1 x isolated RS-232, and 1 x isolated RS-422/485 via one combo M12-A code connector	2 x Isolated CANFD port (via 1 x M12 A-coded, 8-pin connector)	-
Digital I/O	4 x DI & 4 x DO w/ 2kV isolation	-	-	Isolated 4 in/4 out
Expansion Bus	1x M.2 B-Key 2242/3052 (USB 3.0+USB 2.0) w/ SIM slot for 4G/5G/LTE module 1x full-size mini-PCIe (PCIe x1+USB 2.0) w/ SIM slot for WIFI/BT/LTE module 2 x outside accessible SIM card slot	1 x M.2 B-key 2242/3042/3052 (PCIe Gen3x2 + USB 3.0 + USB 2.0), w/ 1 x nano SIM card slot for 4G/5G/GPS module *Outside accessible SIM slot	2 x full-size mini–PCIe (PCIe Gen3x1 + USB 3.0 + USB 2.0) w/ 1 x SIM card slot for Wi-Fi/BT/LTE module 1 x M.2 B-key 3042/3052 (PCIe Gen3x1 + USB 3.0 +USB 2.0) w/ 2 x SIM card slot for 4G/5G module	3 x mPCIe (1 half & 2 full) 2 x SIM
Power Input	DC 9~36V/ Ignition	DC 8~35V/ Ignition	DC 9~60V/ Ignition	DC 9 ~ 36V/ Ignition
Operating Temperature	🌡 -40 ~ 70℃	🌡 -25 ~ 70℃	🌡 with 35W CPU: -25° C ~ 70° C with 65W CPU: -25° C ~ 70° C (configured as 35W TDP mode) with 65W CPU: -25° C ~ 50° C (configured as 65W TDP mode)	🌡 -40 ~ 70° C

* Including one outside accessible drive bay
🌡 Wide Temperature Range

In Vehicle & AMR Controllers

Model	FPC-9100-V1	SB-244-1N97	SB-244-1N305	SB-244-11315U	SB-244-11335U
Dimensions (W x H x D)	225 x 90 x 292 mm	224 x 46.2 x 140 mm		200 x 55.7 x 140 mm	
CPU	Intel® Xeon®/ 10th Gen Core™ i9/i7/i5/i3 (LGA1200 socket)	Intel® Processor N97	Intel® Core i3-N305	Intel® 13th Gen. Core i5-1335U	Intel® 13th Gen. Core i3-1315U
Graphics	Intel® W480E	Intel® UHD Graphics		Intel® UHD Graphics for 13th Gen. Intel® Processors	
Memory	2 x DDR4 SO-DIMM	1 x DDR4 SO-DIMM slot		1 x DDR5 SO-DIMM slot	
Video	1 x VGA, 1 x DVI-D	1 x HDMI, 1 x DP		2 x HDMI	
Audio	1 x M12-male 4P connector, D-code	1x Mic-in / 1x Line out		1x Mic-in / 1x Line out	
LAN Chipset		1 x Intel I210AT, 3 x Intel I226-V		1 x Intel i219-LM x1, 3 x Intel i226-V	
Ethernet	1 x GbE, front side 4 x M12-male 8P connector	1 x GbE, 3 x 2.5GbE		1 x GbE (PHY), 3 x 2.5 GbE	
Mass Storage	1 x CFast socket 2 x 2.5" Drive bays (Max.)* 1 x M.2 B-Key(2242/2280)	1 x mSATA, 1 x M.2 2242 (SATA)		1 x M.2 B-key (Either 2242 (SATA) or (3042/3052 4G/5G wireless module) 1 x M.2 M-key 2280 (NVMe) 1 x SATA 3.0 (2.5' HDD/SSD)	
USB 2.0	2	4		3 x External, 2 x Internal	
USB 3.1/3.2	4	2 x USB 3.2		3 x USB3.2	
RS-232/422/485	2	4 x RS-232/422/485		4 x RS232/422/485, 2 x Interal (RS232)	
GPIO	-	1 x 8bit programmable GPIO		1 x 8bit programmable GPIO	
OS Support	Windows 10 IoT, Linux	Windows 10/11, Ubuntu 22.04		Windows 10/11, Ubuntu 22.04	
Expansion Bus	2 x mini-PCI Express, 3 x SIM card sockets 1x M.2-B key 2242 1 x M.2 B key (2242/2252/2280)	1 x Mini-PCIe w/ SIM 1 x M.2 B-key 3052 w/SIM		1x mini-PCIe, 1 x M.2 E-key 2230 1x M.2 M-key 2280 (NVMe), 1 xM.2 B-key 3042/3052 w/ SIM	
Power Input	DC 9~36V/ Ignition	DC 10-36V		DC 10-36V	
Certification	CE/FCC Class A, E13 Mark	CE, FCC		CE, FCC	
Operating Temperature	-40 ~ 70° C, ambient w/ air flow, w/ 35W TDP Core™i CPU 🌡	-20 ~ 60° C (WT RAM & SSD)		-20 ~ 60° C (WT RAM & SSD)	

🌡 Wide Temperature Range

Selection Guide
Multi-Display Terminals

Model	ELIT-1930	ELIT-1270-1807F	ELIT-1270-1605
Dimensions (W x H x D)	210 x 70 x 190 mm	240 x 41 x 204 mm	240 x 50 x 204 mm
CPU	Intel® 9th/8th Gen Core™ i7/i5/i3 (LGA1151 socket)	AMD Ryzen™ Embedded V1807B	AMD Ryzen™ Embedded V1605B
Chipset	Intel Q370	AMD SoC	
Memory	2 x DDR4 SO-DIMM	2 x DDR4 SO-DIMM	
Video	1 x HDMI, 1 x DisplayPort, 1 x DVI-D	4 x DisplayPort	
Resolution	3840 x 2160	3840 x 2160	
Audio	1 x Mic-in / 1 x Line out	1 x Mic-in / 1 x Line out	
KB/MS	1	-	
Ethernet	2 x GbE	2 x GbE	
Mass Storage	1 x M.2 M-Key 2280	1 x M.2 M-Key 2242/2280	
USB 2.0	-	2	
USB 3.0/2.0	4	2	
RS-232/422/485	3 x RS-232/485	2	
Expansion Bus	1 x M.2 E-Key 2230, 1 x M.2 M-Key 2280, 1 x M.2 B-Key 2242 w/ 1 x Nano SIM	1 x mPCIe (Full) w/ 1 x Nano SIM	
Power Input	DC 12 ~ 24V	DC 9 ~ 36V	
Operating Temperature	-15 ~ 60° C	-10 ~ 50° C	

Selection Guide
Multi-Display Terminals

Model	IEC-3904	IEC-3902	IEC-3702-1335U	IEC-3390
Dimensions (W x H x D)	130 x 35 x 124 mm		115.4 x 37 x 107.6 mm	163 x 109 x 35 mm
CPU	11th Gen. Intel® Core™ i7/i5/i3 processor, Celeron 6305E 1.8GHz	8th Gen. Intel® Core™ i5-8365UE 1.6GHz/ Celeron 4305UE 2.0GHz	11th Gen. Intel® Core™ i5-1135G7 processor	ARMv8, Dual Cortex-A72 + Quad Cortex-A53, 64-bit
Memory	2 x DDR4 SO-DIMM		2 x DDR4 SO-DIMM	4GB LPDDR4
Video	2 x HDMI		2 x HDMI, 1 x DP	2 x HDMI 2.0a output, max support 1 x 4K + 1 x FHD
Resolution	3840 x 2160		4096 x 2160	3840 x 2160 / 1920x1080
Audio	-		1 x Mic-in / 1 x Line out	1 x 2V RMS Line out, 3.5mm phone Jack
Ethernet	1 x GbE		1 x 2.5GbE, 1 x GbE	2 x GbE
Mass Storage	1 x M.2 M-Key 2280		1 x M.2 2280 M-Key slot for SATA / PCIex4 NVMe	64GB eMMC Flash
USB 2.0	-		-	4 x Type A, 1 x Type C
USB 3.0/2.0	4		5	-
RS-232	1 (RJ-45)		1 (DB-9)	2 (DB-9)
Expansion Bus	1 x M.2 M-Key 2280		-	1 x micro SDHC/ micro SDXC/micro SD (Max. 256GB) card socket
Power Input	DC 24V		DC 12-24V	DC 12V/2A
Operating Temperature	-20 ~ 70° C		0 ~ 50° C	0 ~ 50° C
Certification	CE, FCC		CE, FCC	CE, FCC
OS Support	Windows 10 IoT / Linux		Windows 10 / Linux / Ubuntu	Android 9.0

Industrial HMI
Projected Capacitive Touch

| | 23.8" 16:9 | 21.5" 16:9 | 18.5" 16:9 | 15.6" 16:9 |

Model	SP-241C-1N305	SP-211C-1N305	SP-181C-1N305	SP-151C-1N305
Dimensions (W x H x D)	594.3 x 366.6 x 70 mm	528.2 X 321.9 X 66 mm	470.5 x 295.6 x 67mm	395 x 245.5 x 66mm
CPU	Intel® Core™ i3-N305 Processor			
Graphics	Integrated Intel® UHD Graphics			
Memory	1 x DDR5 SO-DIMM slot			
LCD Display	23.8", 1920 x 1080	21.5", 1920 x 1080	18.5", 1920 x 1080	15.6" 1920 x 1080
Touch Screen	P-CAP			
Luminance	250 cd/m²		350 cd/m²	
Video	1 x HDMI (up to 4096x2160@60hz)			
Audio	1 x (Mic-in / Line out)			
Speakers	2 x 4Ω3W speaker			
LAN Chipset	2 x Intel® I226-V			
Ethernet	2 x 2.5GbE			
Mass Storage	1 x SATA 3.0 (2.5"), 1 x M.2 2242/2280 SATA 1 x M.2 2242/2280 NVMe (OEM request*)			
RS-232/ 422/485	1 x RS232/422/485 1 x RS232/485,1 x RS232		2 x RS232/RS422/RS485 2 x RS232/RS485, 2 x RS232	1 x RS232/RS422/RS485 1 x RS232/RS485, 1 x RS232
USB 3.2/3.1/2.0	2 x USB 2.0, 2 x USB 3.2			
Expansion Bus	1 x M.2 E-key 2230, 2 x RS232, 1 x 8bit GPIO			
Power Input	DC 10~36V			
Operating Temperature	-10 ~ 60° C (WT RAM & SSD)			

* M.2 2242/2280 PCIe x4 NVMe (OEM Request): When OEM Request is executed, M.2 SATA & 2.5" SATA are disabled.

Model	SP-211C-1135G7	SP-211C-1115G4	SP-151C-1135G7	SP-151C-1115G4
Dimensions (W x H x D)	528.2 x 321.9 x 59 mm		395 x 245.5 x 59 mm	
CPU	Intel® 11th i5-1135G7 2.4G	Intel® 11th i3-1115G4 3.0G	Intel® 11th i5-1135G7 2.4G	Intel® 11th i3-1115G4 3.0G
Graphics	Intel® UHD Graphics for 11th Gen. Intel® Processors			
Memory	1 x DDR4 SO-DIMM slot			
LCD Display	21.5", 1920 x 1080		15.6", 1920 x 1080	
Touch Screen	P-CAP			
Luminance	250 cd/m²		350 cd/m²	
Video	1 x HDMI (up to 4096x2160@60hz)			
Audio	1 x (Mic-in / Line out)			
Speakers	2 x 4Ω3W speaker			
LAN Chipset	1 x Intel I226-V 2.5GbE, 2 x Intel I210-AT GbE			
Ethernet	1 x 2.5GbE, 2 x GbE			
Mass Storage	1 x SATA3.0 (2.5"), 1 x M.2 2242 (SATA)			
RS-232/ 422/485	2 x RS232/422/485, 2 x RS232/485, 2x RS232 (Phoenix connector)			
USB 3.2/3.1/2.0	4 x USB3.1			
Expansion Bus	1 x Mini-PCIe, 1 x M.2 E-key 2230, 1 x SIM, 1 x 8-bit GPIO			
Power Input	DC 10~36V			
Operating Temperature	-10 ~ 50° C (WT RAM & SSD)			

Industrial HMI

Projected Capacitive Touch

Model	SP-211C-1J64	SP-181C-1J64	SP-181C-2J64	SP-151C-1J64
Dimensions (W x H x D)	528.2 x 321.9 x 66 mm	470.8 x 317.4 x 73 mm	470.5x 67 x 295.6 mm	395 x 66 x 245.5 mm
CPU	Intel® Celeron® J6412 CPU Elkhart Lake			
Graphics	Intel® UHD Graphics for 10th Gen. Intel® Processors			
Memory				
LCD Display	21.5", 1920 x 1080	18.5" 1366 x 768	18.5", 1920 x 1080	15.6", 1920 x 1080
Touch Screen				
Luminance	250 cd/m²	500 cd/m²	350 cd/m²	
Video	1 x HDMI (up to 4096x2160@60hz)			
Audio	1x Mic-in / 1x Line out			
Speakers	2 x 4Ω 3W speakers			
LAN Chipset	2 x Intel I226-V			
Ethernet	2 x 2.5GbE			
Mass Storage	1 x SATA3.0 (2.5"), 1 x M.2 2242 (SATA)			
RS-232/ 422/485	1 x RS232/422/485, 1 x RS232/485, 1 x RS232			
USB 3.1/2.0	2 x USB 2.0 2 x USB 3.1	2 x USB 2.0 1 x USB 2.0(Front) 2 x USB 3.1	2 x USB 2.0 2 x USB 3.1	
Expansion Bus	1 x Mini-PCIe, 1 x M.2 2230, 1 x M.2 2242, 1 x SIM, 1 x 8bit GPIO 1 x RS232, 2 x RS232 (RX/TX), 2 x USB2.0 - for touch, 1 x SATA 3.0 for HDD			
Power Input	DC 12~36V			
Operating Temperature	-10 ~ 60° C (WT RAM & SSD)			

Industrial HMI

Advanced Fanless

	17″ 5:4	15″ 4:3	17″ 4:3	15″ 4:3	12.1″ 4:3	10.1″ 16:10
Model	**iTC-1170R-EXP**	**iTC-1150R-EXP**	**iTC-1170R**	**iTC-1150R**	**iTC-1121R**	**iTC-1101C**
Dimensions (W x H x D)	415 x 347 x 100 mm	367 x 299 x 99 mm	415 x 347 x 70 mm	367 x 299 x 68.8 mm	315 x 260 x 68.8 mm	255 x 175 x 62.8 mm
CPU	Intel® Celeron® J6413 Quad-Core™ 1.80GHz					
Memory	1 x DDR4 SO-DIMM (4GB pre-installed)					
LCD Display	17", 1280 x 1024	15", 1024 x 768	17", 1280 x 1024	15", 1024 x 768	12.1", 1024 x 768	10.1", 1280 x 800
Touch Screen	Resistive					P-CAP
Video Output	1 x DVI-D, 1 x DisplayPort					
Audio	1x Mic-in / 1x Line out					
Ethernet	1 x GbE, 1 x 2.5GbE					
Mass Storage	1 x M.2 M-key 2242/2280, 1 x 2.5" drive bay					1 x M.2 M-key 2242/2280
RS-232	4		2			2(Optional)
RS-232/ 422/485	2		2			
Digital I/O	8 bit Digital I/O					
USB 3.0/2.0	4					
Wi-Fi	mPCIe (optional)					
Speakers	2 x 1.5W speakers (optional)					
Expansion Bus	1 x mPCIE (full) w/1 x SIM 1 x PCI 32 bit or 1 x PCIex1 slot		1 x mPCIE (full) w/1 x SIM			
Power Input	DC 9~36V					
Operating Temperature	-10 ~ 55° C					

Industrial HMI
Advanced Fanless

	21.5" 16:9	18.5" 16:9	15.6" 16:9

Model	ASLAN-W1022C	ASLAN-W1019C	ASLAN-W1015C
Dimensions (W x H x D)	536 x 332 x 65 mm	470 x 295 x 65.7 mm	404 x 255 x 65.8 mm
CPU	11th Gen. Intel® Core™ i5-1145G7E 1.50 GHz		
Memory	2 x DDR4 SO-DIMM (4GB pre-installed)		
LCD Display	21.5, 1920 x 1080, FHD	18.5", 1366 x 768, WXGA	15.6", 1366 x 768, WXGA
Touch Screen	P-CAP		
Video Output	1 x HDMI, 1 x DisplayPort		
Audio	1 x Mic-in / 1 x Line-out		
Ethernet	1 x 2.5 GbE, 2 x GbE		
Mass Storage	1 x 2.5" drive bay 1 x M.2 M-Key 2242/2280 slot		
RS-232	2		
RS-232/422/485	1		
Digital I/O	8 in / 8 out w/ 1.5KV isolation		
USB 3.0/2.0	4		
WiFi	mPCIe(Optional)		
Speaker	2 x 1.5W speakers (optional)		
Expansion Bus	1 x mPCIE (full) w/1 x nano SIM 1 x M.2 B-Key 2242/3042/3052 w/2 x nano SIM 1 x M.2 E-Key 2230 (CNVi + USB 2.0)		
Power Input	DC 9~36 V		
Operating Temperature	0℃ ~ 55℃	-20℃ ~ 55℃	
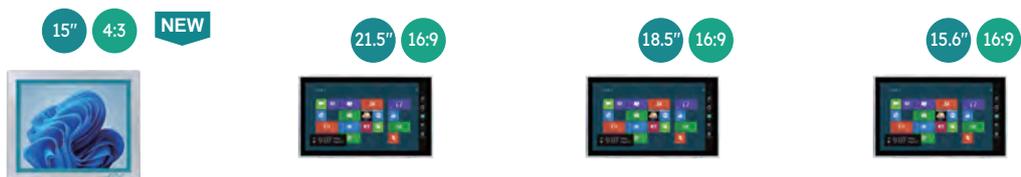
Model	LYNC-715-7433G8	ASLAN-W922C-6300G4	ASLAN-W919C-6300G4	ASLAN-W915C-6300G4
Dimensions (W x H x D)	390 x 310 x 56.1 mm	536 x 332 x 55.5 mm	470 x 295 x 56.2 mm	404 x 255 x 56.3 mm
CPU	Intel® Atom™ Amston Lake x7433RE (quad core) Processor	6th Gen. Intel® Core™ i5-6300U 2.4GHz		
Memory	1 x DDR5 SO-DIMM slot supporting 4800 MHz up to 16GB (8GB pre-installed)	4GB DDR4 pre-installed		
LCD Display	15", 1024 x 768	21.5", 1920 x 1080	18.5", 1366 x 768	15.6", 1366 x 768
Touch Screen	Resistive	P-CAP		
Video Output	1 x DisplayPort 1.4, up to 3840 x 2160@60Hz	HDMI / VGA		
Audio	-	1 x Mic-in / 1 x Line out (Optional)		
Ethernet	2 x 2.5 GbE	2 x GbE		
Mass Storage	1 x 2.5" SSD drive bay (SATAIII), 1 x M.2 M-key 2242 (SATAIII only)	1 x mSATA, 2 x 2.5" drive bays		
RS-232	-	-		
RS-232/485	4 x RS-232/485	4 x RS232/422/485		
Digital I/O	-	4-in/4-out(optional)		
USB 2.0	3	-		
USB 3.2/3.0/2.0	2 x USB 3.2 Gen.2	4		
Wi-Fi	M.2 E-key 2230 (PCIe x1 + USB2.0) (optional)	mPCIe(optional)		
Speaker	2 x 1.5W speakers (optional)	2 x 1.5W speakers (optional)		
Expansion Bus	1 x M.2 E-key 2230(PCIe x1+USB2.0) for WiFi/BT 1 x M.2 B-key 2242/2260/3042/3052 (PCIe Gen3 x1+USB3.0+USB2.0) w/ 1x nano SIM card slot for 4G/5G module	2 x mPCIe (1 half & 1 full)		
Power Input	DC 9~36V	DC 9 ~ 36V		
Operating Temperature	-20 ~ 55° C	-20 ~ 55° C		

Industrial HMI
Advanced Fanless

Model	ASLAN-W910C-6300G4	ASLAN-W810C-2930G2	ASLAN-917R
Dimensions (W x H x D)	255 x 175 x 76.5 mm	255 x 175 x 39.5 mm	420 x 358 x 62.2 mm
CPU	6th Gen. Intel® Core™ i5-6300U 2.4GHz	Intel® N2930 Quad-Core™ 1.83GHz	6th Gen. Intel® Core™ i5-6300U 2.4GHz
Memory	4GB DDR4 pre-installed	2GB DDR3L pre-installed	4GB DDR4 pre-installed
LCD Display	10.1", 1280 x 800		17" , 1280 x 1024
Touch Screen	P-CAP		Resistive
Video Output	HDMI / VGA	DVI-I	HDMI / VGA
Audio	1 x Mic-in / 1 x Line out (Optional)	1 x Mic-in / 1 x Line out	1 x Mic-in / 1 x Line out (Optional)
Ethernet	2 x GbE		2 x GbE
Mass Storage	1 x mSATA		1 x mSATA, 2 x 2.5" drive bays
RS-232	-		
RS-232/422/485	2	-	4
Digital I/O	-		
USB 2.0	-	1	-
USB 3.0/2.0	4	1	4
Wi-Fi	mPCIe(optional)		
Speaker	-		
Expansion Bus	2 x mPCIe (1 half & 1 full)		
Power Input	DC 12 ~ 28V	DC 12V	DC 9 ~ 36V
Operating Temperature	-20 ~ 55° C	-10 ~ 60° C	-20 ~ 55° C

Industrial HMI
Resistive Touch

Model	SP-170R-1J64	SP-150R-1J64	SP-120R-1J64
Dimensions (W x H x D)	392.4 x 327.7 x 66 mm	351.6 x 275.6 x 68.4 mm	307 x 241.6 x 60 mm
CPU	Intel® Celeron® J6412 CPU Elkhart Lake		
Graphics	Intel® UHD Graphics for 10th Gen. Intel® Processors		
Memory	1 x DDR4 SO-DIMM		
LCD Display	17", 1280 x 1024	15", 1024 x 768	12.1", 1024 x 768
Touch Screen	Resistive		
Luminance	250 cd/m²	300 cd/m²	450 cd/m²
Video	1 x HDMI (up to 4096x2160@60hz)		
Audio	1 x (Mic-in / Line out)		
Speakers	2 x 4Ω3W speaker		
LAN Chipset	2 x Intel I226-V		
Ethernet	2 x 2.5GbE		
Mass Storage	1 x M.2 2242 (SATA), 1 x SATA3.0 (2.5")		
RS-232/ 422/485	1 x RS232/RS422/RS485, 1 x RS232/RS485, 1 x RS232		1 x RS232/RS422/RS485, 1 x RS232/RS485,
USB 3.1/2.0	2 x USB 2.0 2 x USB 3.1		
Expansion Bus	1 x Mini-PCIe 1 x M.2 2230 1 x M.2 2242 1 x SIM 1 x 8bit GPIO 1 x RS232 2 x RS232 (RX/TX) 2 x USB2.0 - for touch 1 x SATA 3.0 for HDD	1 x Mini-PCIe 1 x M.2 2230 1 x M.2 2242 1 x SIM 1 x 8bit GPIO 1 x RS232 2 x RS232 (RX/TX) 2 x USB2.0 - for touch 1 x SATA 3.0 for HDD	1 x Mini-PCIe 1 x M.2 2230 1 x M.2 2242 1 x SIM 2 x USB2.0 - for touch
Power Input	DC 12~36V		
Operating Temperature	-10 ~ 50° C (WT RAM & SSD)	-10 ~ 60° C (WT RAM & SSD)	

Ultra Slim HMI

Model	IOT-800N-G350	IOT-800N
Processor	MediaTek Genio 350 Quad-Core SoC	RockChip PX30 Quad-Core ARM Cortex-A35, 1.5GHz
Memory	4GB LPDDR4X SDRAM	2GB DDR4
Storage	64GB EMMC5.1	16GB eMMC Flash
Camera	1x 13MP MIPI-CSI camera	1 x 8MP AF (MIPI CSI Type)
Audio	1 x 8Ω/1W built-in speaker	1 x 1W built-in mono speaker, 1 x MIC
GPS	Optional	Yes
WWAN	LTE(optional)	WCDMA/LTE(optional)
SIM Card	Nano SIM card	
Wi-Fi / BT	802.11 ac/a/b/g/n BT 5.0	802.11 ac/a/b/g/n BT 4.2/BLE
NFC	Yes	
SD Card	1 x micro SDHC/SDXC/ MicroSD (Max. 256GB)	1 x micro SDHC/SDXC/ MicroSD (Max. 128GB)
USB Port	2 x USB 2.0 Type-A, 1 x micro USB 2.0	
Serial Port	1 x RS-232/422/485, 1 x RS-232	
LAN	1 x 10/100Mbps	
CAN	OBD-II	
DIO	3 x DI, 3 x DO (Dry contact)	
Size/Type/ Resolution	8" TFT LCD, 1024 x 600	
Brightness	450 cd/m²	500 cd/m²
Touchscreen	Projected Capacitive Multi-touch	
Power Input	9~36V	12V/1.5A, 9~36V Ignition detection
Operating Temp.	0° C~50° C	-5° C ~ 60° C
Dimensions (W x H x D)	218.16 x 162.67 x 46.5 mm	
Regulatory	CE, FCC, NCC	CE, FCC, E-Mark
OS Support	Android 13	Android 8.1, Ubuntu 16.04

Intelligent Power Backup Solution

Model	SCP-41-MK2	SCP-43-MK2	SiP-41B	SiP-42B	SiPB-1690A	SiPB-1690B
Dimensions (W x H x D)	100 X 187.4 X 150 mm		40 x 176 x 112 mm	59 x 176 x 112 mm	160 x 88 x 22.2 mm	160 x 88 x 44.7mm
Type	Supercapacitor 4S1P	Supercapacitor 4S3P	Supercapacitor 4S1P	Supercapacitor 4S2P	Supercapacitor 4S1P	Supercapacitor 4S2P
Capacity	400 Farads / Each		100 Farads / Each			
Power Input	DC 12~35V		DC 12V / 24V			
Power Output	DC 12V / 24V Max 120W		DC 12V / 24V Max 60W			
Operating Temperature	-20 ~ 70° C 🌡					

🌡 Wide Temperature Range

PCIe Ethernet / PoE Expansion Card

Model	PoE-i314	POE-i354
Dimensions (W x D)	147.8 x 124.3 mm	110.15 x 147.75mm
LAN Chipset	4 x Intel i210AT	Intel® i350-AM4
Interface	PCIe x4	PCIe x4
Port	4 x RJ-45 GbE	4 x RJ-45 GbE
Power Input	12-24V, from 4-pin AT/ATX power connector	12VDC (Max. 5.6A @ 12VDC)
Power Output	15.4W@48VDC power output(per port)	15.4W@48VDC power output(per port)
Operating Temperature	-20 ~ 70° C 🌡	-20 ~ 65° C 🌡

🌡 Wide Temperature Range

Remote I/O
RS-485 Analog I/O Modules

Model	W-M1B201	W-M1B113	W-M1B112/ W-M1B111	W-M1B110/ W-M1B109	W-M1B108/ W-M1B107	W-M1B104/ W-M1B103	W-M2B101
Dimensions (W x H x D)	472 x 121 x 120 mm						20 x 100 x 95 mm
Channel	8	6	8 / 16				2
Input Type	-	RTD	Voltage	Current	Thermocouple	Current / Voltage / Thermocouple	Voltage / Current / Thermocouple / RTD
Input Range	-	10~60 VDC					10~36 VDC
Output Type	Voltage / Current	-					-
Power Consumption	0.5W @ 24 VDC (No-Load) 3.6W @ 24 VDC (Max-Load)	2.8W @ 24 VDC	1.6W @ 24 VDC / 2.8W @ 24 VDC				1.2 W @ 24 VDC
Voltage Range	±5V, ±10V, 0~5V, 0~10V	-	±1V, ±5V, ±10V, 0~1V, 0~5V, 0~10V	-	-	± 100mV, ± 500mV, ±1V, ± 5V, ±10V, 0~100mV, 0~500mV, 0~1V, 0~5V, 0~10V	High Voltage Input: ±5V, ±10V, 0~5V, 0~10V. Low Voltage Input: 100mV, ±500mV, ±1V, 0~100mV, 0~500mV, 0~1V
Current Range	4~20 mA, 0~20 mA	-	-	± 20mA, 4~20mA, 0~20mA	-	± 20mA, 4~ 20mA, 0~20mA	±20mA, 4~20mA, 0~20mA
Burn-out Detection	-	-	-	Yes. 4~20 mA	Yes	4~20 mA & all T/C	4~20 mA, all T/C , all RTD
Sampling Rate	-	12 samples/second (Total)	2.5 samples / second per channel			12 samples / second (Total)	2 samples / second
Resolution	12 Bit	16 Bit					16 Bit
Accuracy	± 0.1% FSR						± 0.1% FSR
Input Impedance	-	-	Voltage: 2MΩ	Current: 120 Ω	Voltage: 2MΩ	Voltage: 2MΩ Current: 120 Ω	Voltage: 100 KΩ Current: 120 Ω
Input Voltage Protection	-	±55V	±36V	-	±36V	±240V for Voltage Mode (Exclude ±100mV, 0~100mV)	±36V for Input Terminal: U+ ±12V for Input Terminal: M+, M-, S-
Common Mode Voltage	-	-	36V		-	240V	-
ICC.*	Yes						Yes
Span Drift	-	± 25 ppm /° C					± 25 ppm /° C
Zero Drift	-	± 6μV/° C					± 6μV/° C
Voltage Output Capacity	10V @ 10mA	-					-
Current Output Capacity	500 Ω	-					-
Programmable Output Slope	Voltage: 0.0625 ~ 512 V/Sec Current: 0.125 ~ 1024 mA/Sec	-					-
Disconnection Detection	4 ~ 20 mA	-					-
Output Resp. Time	10 ms	-					-

*Independent Channel Configuration

Remote I/O
RS-485 Digital I/O Modules

Model	W-M2B502	W-M2B501	W-M2B301	W-M2B403	W-M2B401
Dimensions (W x H x D)	20 x 100 x 95 mm				
Channel	4DI / 2RO	4DI / 4DO	4	8	8
Input Range	10~36 VDC				
Power Consumption	1.2W @ 24 VDC				
Dry Contact Input	Logic Level 0: Open; Logic Level 1: Close to GND			-	
Wet Contact Input	Logic Level 0: +3 V Max. Logic Level 1: +10 to +50 V			-	
Input Impedance	10 KΩ			-	
Isolation Protection	2500 Vrms				
Over-Voltage Protection	70 VDC			-	
Frequency Input Range	100Hz (16 bit)			-	
Latch Value Read	Yes			-	
Output Specification	2 Form C	NPN	-	2 Form C	NPN
Output Voltage Range	-	3.5~30VDC	-		3.5~30VDC
Normal Output Current	-	500mA per Channel	-		500mA per Channel
Startup Value Setting	-	Yes	-		Yes
Communication Safety Value Setting	-	Yes	-		Yes
Contact Rating	5A 250VAC / 30VDC	-		5A 250 VAC / 30 VDC	-
Operate Time	8ms typ.	-		10 ms Max.	-
Release Time	8ms typ.	-		5 ms Max.	-
Electrical Endurance	100,000 ops. @ 5A resistive load	-		100,000 ops. @ 5A resistive load	-

Remote I/O

Ethernet I/O Modules

Model	PoE-DI8	PoE-DO8	PoE-DI4DO4	PoE-AI4
Dimensions (W x H x D)	20 x 100 x 95 mm			
Interface	Digital			Analog
Channel	8			4
Input Range	10~60 VDC			10~60 VDC
Power Consumption	2W @ 24 VDC			2W @ 24 VDC
Dry Contact Input	Logic Level 0: Open; Logic Level 1: Close to GND			-
Wet Contact Input	Logic Level 0: +3 V Max. Logic Level 1: +10 to +50 V			-
Input Impedance	10 KΩ			Voltage: 100MΩ Current: 470 Ω
Isolation Protection	2500 Vrms			
Over-Voltage Protection	70 VDC			-
Frequency Input Range	100Hz (32 bit)			-
Latch Value Read	Yes			-
Normal Output Current	500mA per Channel	-	500mA per Channel	-
Startup Value Setting	Yes	-	Yes	-
Communication Safety Value Setting	Yes	-	Yes	-

RS-485 Converter

Model	G-M1A021
Dimensions (W x H x D)	20 x 100 x 107 mm
USB	USB 2.0
Serial Interface	The RS-232, RS-422 and RS-485 cannot be used simultaneously - TXD, RXD, GND, - TX+, TX-, RX+, RX- - TX+(DATA+), TX-(DATA-)
RS-422/485 Transmission Distance	Max.1200 m at 9.6 kbps; Max. 400m at 115.2 kbps
Connection	RS-232/422/485: Removable 8-Pin Terminal Block; USB: Type B
Speed	From 300 to 115.2 k
Isolation Protection	2500 VDC
Input Voltage Range	+5 V DC from USB
Driver Supported	Windows 98, 98SE, ME, 2000, Server 2003, XP and Server 2008, Windows 7 32,64-bit, Windows XP and XP 64-bit, Windows Vista and Vista 64-bit, Windows XP Embedded, Windows CE 4.2, 5.0 and 6.0 Linux 2.4 and greate
Failure Rate*	117.103580 (FITs)
MTBF*	8,539,449 (Hours)
Flammability	UL-94 Fire-proof level
Installation	DIN-Rail
RS-485	TX+(DATA+) and TX-(DATA-)
RS-422	TX+(DATA+), TX-(DATA-), RX+ and RX
RS-232	TXD, RXD and GND

*MTBF (Conditions: Temperature: 25ºC)