ARBOR

Industrial Automation

Automation Controllers

Transportation Computers

Digital Signage Players

Industrial HMI

Slim Panel PCs

Edge AI Systems

Exploring AI Possibilities at the Edge

As the number of machines connected through IIOT is expanding, edge computing is becoming more and more ubiquitous to industries to process and analyze their data at the edge. ARBOR's Edge AI computers integrate computational capacity, storage and GPU acceleration modules to help customers create a more intelligent learning environment to explore more uses of AI in industrial applications.

Edge AI Training & Inference

Real-time Decision Making

AI-Enabled Machine Vision

Product Features

OpenVINO Support

As a member of the Intel® alliance, ARBOR provides a series of Intel x86 based platform supporting OpenVINO toolkit to accelerate deep neural network-based applications.

Edge Storage

Support for NVMe flash as a storage choice to deliver the ever-demanding reading and learning performance required by AI model training.
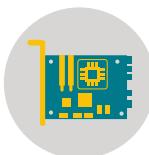
GPU Solutions

To facilitate GPU-accelerated computing, ARBOR offers embedded platforms that supporting PCI Express graphics cards based on the NVIDIA Tesla GPU to fuel AI for advanced video processing.
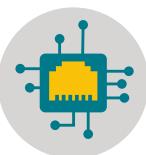
Robust Data Interface

ARBOR offers a series of GbE PoE cards to facilitate frame grabber or network communication. Also, a 10GBase Fiber SFP+ module is available to boost for high-density fiber connections.
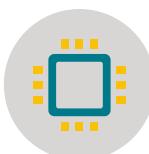
FPGA & Intel VPU Support

ARBOR's Intel® embedded systems allow developers to use the OpenVINO toolkit with FPGA and Intel® VPU support to accelerate computer vision design.

Thermal Design

Optimized airflow to address the heat issue of high-power CPU and GPU to ensure the reliability of embedded AI systems.

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 bandwidth required for streaming HD video.

AI-Enabled Wafer Inspection

In Japan, a wafer manufacturer chose ARBOR to develop a highly customized machine vision computer with AI capabilities for their automated inspections in wafer manufacturing. With an Intel CPU, dual NVIDIA Tesla T4 GPU graphic cards and PoE frame grabber communication cards, the system fulfills the needs of training on thousands of images to detect deviations from the standard appearance to optimize the inspection process.

Autonomous Vehicles

A LiDAR expert startup company in the USA collaborated with ARBOR to develop their highly automated driving and autonomous driving system. To process the numerous sensor-collected data and thus to deliver high-resolution, three-dimensional information about the surrounding environment, they needed a robust system that was well-integrated with the optical sensors. What ARBOR offers is a highly customized vehicle computer to fulfill customers' needs. The edge system offers stringent performance to process an enormous amount of data and exchange the information with the central server.

Featured Products

FPC-9007-P6-G2	FPC-7914-HDBT	ARES-5310	SPF-1702

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' Machine Vision controller has developed highly reliable, low power systems to enable the swift, efficient and precise identification, and removal of faulty goods on a production line. Moreover, it can operate 24 hours a day to enhance quality assurance to its highest level and remains focused on the job, irrespective of external factors.

Speed-up Production

Vision systems offer consistent accuracy at high speeds, and for long periods of operation which decreases order lead times and faster shipping turnarounds.

Higher Quality

Detecting a component's measurement and misplacement produces higher quality products and ensures a higher level of customer satisfaction.

Reduced Costs

Defective parts are immediately removed from the process in the early production stages while scaling down the amount of labor needed to operate equipment.

Product Features
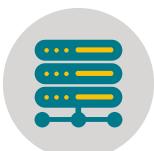
Data Capacity

The storage and bandwidth needed to handle vast amounts of data
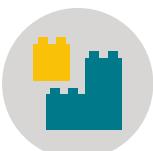
Modular Scaling

Modularized expansion chassis allow for easy installation

Secure Configuration

Support TPM 2.0 security for data protection

Reliable Power

Suitable thermal engineering for high-power draws

Gigabit Ethernet

GigE Vision/ USB 3.0 to support main stream IP cameras
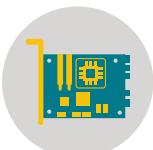
Peripheral Integration

Support combinations of PCI and PCIe for frame-grabber cards

Mobile Phone Inspection (AOI)

In China, a smartphone manufacturer replaced manual inspection for 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.

Bottling Line Automation/ Food and Beverage Processing

A can manufacturing factory selected ARBOR's Embedded Controller with four Power-over-Ethernet 802.3af compatible LAN ports, ARES-1970-E, to connect smart cameras for scanning production lines and detect potential problems on glass bottles, caps, tags and packaging. Also, the ARES-1970 was also chosen for drug, food and beverage processing, tracing and testing equipment in China

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.

Featured Products

FPC-7900 Series	FPC-9002-P6	ARES-1970-E	ARES-1965
High Performance Fanless Embedded Computers	High Performance Embedded Computer	Compact Fanless Embedded Computer	Entry-level Machine Vision Computer

Automation Controllers

Bringing Industrial Strength to IIoT Applications

ARBOR's automation controllers consolidate high performance CPUs, wide operating temperature ranges, wide voltage ranges, rich I/O options, and highly expandable capabilities for use in industrial automation applications. With the advent of smart factories, PC-based IoT controllers play a critical role in enabling IIoT applications. Our offerings targeting areas like machine vision and predictive maintenance can help customers accelerate IIoT deployment for intelligent manufacturing.

Real-time Communication

From the computing platform itself to the GPU and network interfaces, ARBOR's automation computers use selected components to ensure real-time communication between control systems and the factory floor.
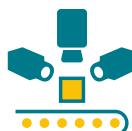
Addressing AOI Demands

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.

Predictive Maintenance

Our SuperCap power systems are equipped with sensors for gathering power-related data from automation controllers. By recording and transmitting information to the cloud for data analysis, warning signs can be spotted for predictive maintenance.

X-Ray Inspection for Food Safety Process

- Location: UK
- Service & Product: FPC-7900

Mobile Phone Inspection

- Location: China
- Service & Product: FPC-9002-P6

Bottling Line Automation

- Location: China
- Service & Product: ARES-1970-E

Featured Products

ARES-1970-4P/4E	FPC-9002-P6	ARES-1970-E	SCP Cube

Transportation Controllers

Internet of Vehicles on the Move

The Internet of Vehicles (IoV) is the inevitable technological convergence of mobile internet and the Internet of Things that enhances networked management of communication, safety within a vehicle fleet, with the advancement of high speed wireless connection, making data streaming faster for better passenger infotainment, digital signage capability and surveillance quality.

Reliable Connections

- Shock & vibration resistance
- M8/M12 connections
- 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 Infotainment Service

- Location: USA
- Service & Product: ARTS-1450

Fleet Management

- Location: Belgium
- Service & Product: Gladius GT78-V

Road Safety with LiDAR Sensor

- Location: USA
- Service & Product: ODM Vehicle PC

Featured Products

FPC-9000-V1	ARTS-1450	ARTS-4770	Gladius GT78-V	AES-5204

Industrial-grade Panel PCs

Next-Generation HMI for Industry 4.0

ARBOR's ASLAN-W900 panels PCs combine Intel® Core i5 2.4GHz processor, multi-touch interface and flexible add-on capability to simplify dynamic control and display operations for efficient system productivity. Built with rugged chassis, either of stainless or SGCC steel, the ASLAN-W900 panel PCs deliver various sizes, durable, multi-tasking and scalable usability to fit perfect for industry 4.0 applications running in Windows and Linux OS systems.

Fanless Touch Panel

Featuring industrial components and fanless design for non-stop operation

Industrial-grade Ruggedness

IP65-rated and 7H anti-scratch panels for waterproof protection and dust resistance

IIoT-ready Connections

Equipped with rich I/O, PCIe, RFID, NFC, front camera and barcode reader connectivity

Smarty Factory / Machine Automation

Intelligent Building / Transportation

Kiosk POS / Rugged Infotainment

Customized Touch Panel PC

For companies with unique requirements, ARBOR offers customized touch/kiosk panel PCs with rich I/O options, open frames for automation system integration, process manufacturing, HMI interfaces, intelligent transportation, machine automation and OEM manufacturing. Contact ARBOR today with your sales inquiries.

Industrial HMI Solutions

ASLAN-W922C-IP	ASLAN-W910C	ASLAN-917R	LYNC-715-4200G4	TOKIN-6153
21.5" 16:9	10.1" 16:10	17" 4:3	15" 4:3	15" 4:3

Ultra Slim Panel PCs

Limitless Versatility via ARM-Based Architecture

IoT-800N is an 8" HMI based on the powerful Quad-core ARM Cortex-A35 processor. The system runs on Android 8.1 and is designed to meet demanding applications where performance matters.

Rugged & Reliable

IoT-800N features a high resolution display, capacitive touchscreen and computer into one easily deployable package. The panel maintains an IP-65 rating and is engineered to operate in high shock, vibration and temperature ranges (up to -10°C ~ 50°C / 14°F ~ 122°F).

Connectivity for Every Application

IoT-800N is a true Internet of Things device, with standard wireless features such as 802.11 a/b/g/n/ac Wi-Fi, Bluetooth 4.0, GPS, 3G/4G connectivity and NFC to keep your systems and processes connected.

Rich I/O

The panel is equipped with 1 x RS-232 port, 1 x RS-232/422/485 port, 2 x High Speed USB ports, 8MP camera, integrated speakers and a built in microphone. IoT-800N is unique in that it comes equipped with CAN BUS 2.0B and ignition detection capability, making it ideal for specific applications like fleet management.

Slim Panel PC Solutions

5"	8"	10.1"	10.1"
IOT-500	IOT-800N	M1016	PC1017

Multi-Display Controller

Stunning 4K / UHD Video Wall Solution

Powered by Intel® Core-i series processors / AMD AMD Ryzen SoC to ensure high performance for multitasking applications, ARBOR's multi-display controllers bring the powerful performance to support 4K UHD video playback, delivering an immersive viewing experience with up to six displays.

Independent 6 Displays from One Small Controller

ELIT-1900 is designed with 6 built-in HDMI outputs that provide a vibrant visual experience with 4K graphics and complex multimedia features within a slim form factor.

Stunning 4K Ultra HD Performance

ELIT-1900 is powered with a custom AMD Radeon™ discrete embedded graphics board for smooth playback with your ultra high definition content.

Long-Lasting Performance

To ensure noise-free operation and long-term, 24/7 reliability for uninterrupted content delivery, ELIT-1270 carries a fanless design with enhanced thermal structure and ventilationin managment.

Rich I/O Design

ELIT-1270 offers rich I/O connectivity with multiple USB 3.0 ports, RS-232/422/485, mPCIe and M.2 sockets for storage and optional Wi-Fi or I/O expansion support.

Digital Signage for Airports

One of the busiest aviation hubs in Asia, Incheon Airport, used ARBOR's digital signage solutions to achieve greater durability and stability for both their flight information and baggage control systems. The flexibility of ARBOR's solutions allows Incheon Airport to provide quick and accurate flight information services for passengers, resulting in better customer satisfaction.

Digital Signage for Vehicles

ARBOR's expertise in transportation computers are used as digital signage in Italy coach buses. In-vehicle infotainment controllers allow passengers to access media and infotainment content or other services from the convenience of a mobile app.

Digital Signage for Retails

ARBOR's digital signage players support multiple display outputs without sacrificing performance. From restaurant menus to window displays, customers around the world have relied on ARBOR's versatile digital signage solutions for retail business needs such as library information boards in Japan and supermarket signage in Europe.

Featured Products

4K ULTRA	4K ULTRA	4K ULTRA	4K ULTRA	FHD
ELIT-1900	ELIT-1270	ELIT-1930	ELIT-1050	IEC-3300
Intel® Skylake	AMD Ryzen	Intel® Coffee Lake	Intel® Braswell	Intel® Celeron
6 Display out	4 Display out	3 Display out	2 Display out	2 Display out

SCP Cube

Industry's First Supercapacitor Power Solution

Safe and uninterrupted power matters to industrial applications. With Industry 4.0, where advanced manufacturing systems are closely linked with information including data and analytics, smart factories need even higher levels of reliable backup power. Designed specifically to protect the industrial computing systems from crashing and losing data during power failures, ARBOR's SCP Cube is the industry's first industrial-specific redundant power system utilizing the newest generation of green energy supercapacitors.

100%
Higher Reliability
A more reliable redundancy power solution to ensure safety in industrial environment.

3X
Longer Lifespan
Cuts down on replacements of UPS and offers high return on investment.

1000x
Higher Cyclability
Virtually unlimited cycling capability, a more sustainable energy choice than conventional power system.

New Generation Energy for Smarter Protection

Safer
Can be fully discharged / No overheating concern / No risk of fire exploding
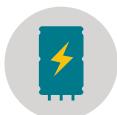
More Efficient
Higher energy density in smaller size / Longer lifetime / No aging problem

Green and Eco-Friendly
No heavy metals for environment / Longer cycle life reducing disposal rate

Effortlessly Deployment for Industrial Applications

Designed for Rigid Industrial Environments
-20°C to 70°C operating temperature / 12V ~ 28V DC power input

Instant & Easy Deployment
USB & COM port plug & play / Din-rail mountable / Front panel for easy wiring
Lightening indication for charging status / Industrial housing

SCP Cube - LoRa

IoT LoRa Solution for Device Health & Energy Management

ARBOR's IoT LoRa Solution for Computer Health & Energy Management is designed for industrial areas where a computers' health condition and continuous power reliability are essential to protect connected machines and equipment from system failure. The solution integrates ARBOR's private LoRa to enable the communication between the nodes and the central gateway for computer health conditions monitoring and power control.

ARBOR LoRa Solutions Architecture

Intranet		Internet

Assembly Line

Edge Computing

24/7 Power Management

CPU Temp.　CPU Usage　Power Output　HDD/SSD Temp.　Power Control

Redundant Power & LoRa Node

LoRa

ARBOR Private LoRa

Central Monitoring & Control

Ethernet

AWS

Data Generation	Data Collection, Data Transmitting	Cloud Storage & Analysis, User Remote Monitoring & Control
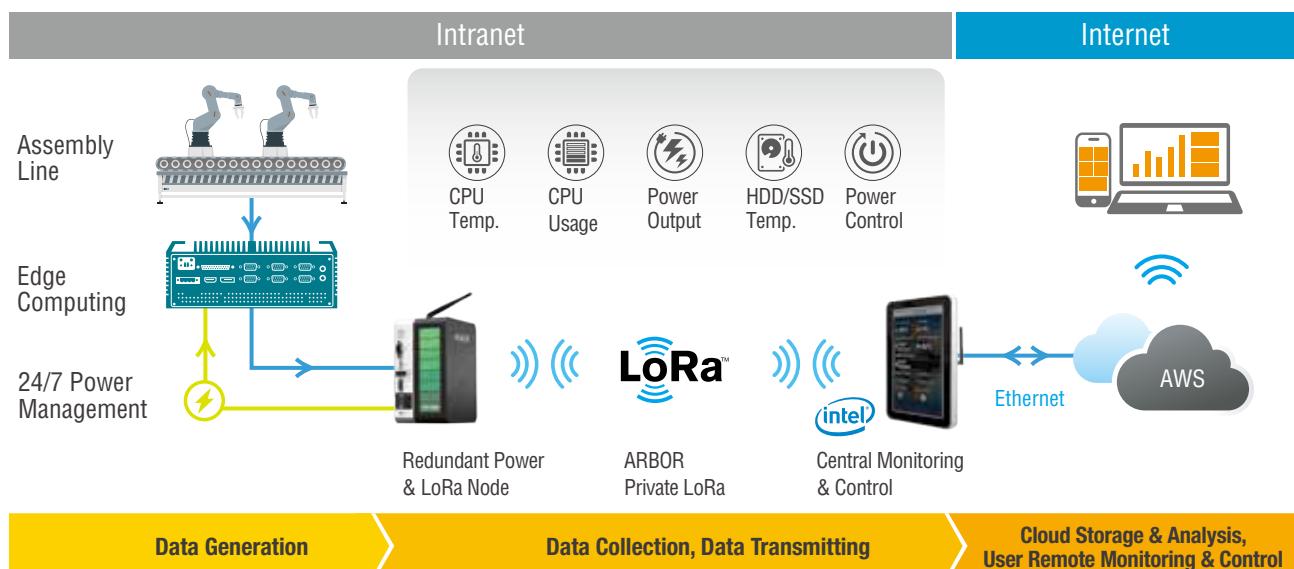
LoRa Gateway

- Soldered onboard Intel® N2930 Quad-Core™ Processor 1.83GHz
- ARBOR private LoRa connectivity
- Long transmission range
- Dual Gbe Ethernet LANs connectivity
- LoRa information bulletin board integrated

SCP Cube

- Supports communication with Intel® Core/ Atom-based platforms
- Designed for industrial box PC & panel PC
- Maintenance free supercapacitors
- Safe and reliable; no danger of fire or explosion
- Fully discharged for safety

Cloud Service & App
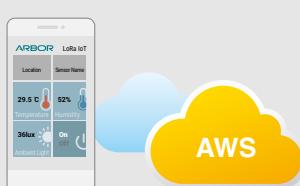
- AWS cloud platform virtual image support
- MQTT server
- App for remote monitoring & control

Selection Guide
Automation Computers

NEW   NEW

Model	FPC-9002-L2U4	FPC-9002-P6	FPC-9000-V1	FPC-9007-P6-G2	FPC-9002-P6-G1
Dimensions (W x H x D)	225 x 120 x 292 mm	225 x 120 x 292 mm	225 x 90 x 292 mm	225 x 140 x 292 mm	225 x 120 x 292 mm
CPU	6th/7th Gen. Intel® Xeon® E3 / Core™ i7/i5/i3 (LGA1151 socket)	6th/7th Gen. Intel® Xeon® E3 / Core™ i7/i5/i3 (LGA1151 socket)	6th/7th Gen. Intel® Xeon® E3 / Core™ i7/i5/i3 (LGA1151 socket)	6th/7th Gen. Intel® Xeon® E3 / Core™ i7/i5/i3 (LGA1151 socket)	6th/7th Gen. Intel® Xeon® E3 / Core™ i7/i5/i3 (LGA1151 socket)
Chipset	C236	C236	C236	C236	C236
Memory	2 x DDR4 SO-DIMM	2 x DDR4 SO-DIMM	2 x DDR4 SO-DIMM	2 x DDR4 SO-DIMM	2 x DDR4 SO-DIMM
Video	1 x DisplayPort 1 x VGA, 1 x DVI-D, 1 x HDMI	1 x DisplayPort 1 x VGA, 1 x DVI-D, 1 x HDMI	1 x VGA, 1 x DVI-D	1 x DisplayPort 1 x VGA, 1 x DVI-D, 1 x HDMI	1 x DisplayPort 1 x VGA, 1 x DVI-D, 1 x HDMI
Audio	Mic-in/Line-out	Mic-in/Line-out	Mic-in/Line-out	Mic-in/Line-out	Mic-in/Line-out
KB/MS	-	-	-	-	-
Ethernet	5 x GbE	3 x GbE 6 x PoE (af)	3 x GbE 4 x M12 PoE (af)	3 x GbE 6 x PoE (af)	3 x GbE 6 x PoE (af)
Mass Storage	1 x CFast, 2 x 2.5" Drive bays (Max.)*	1 x CFast, 2 x 2.5" Drive bays (Max.)*	1 x CFast, 2 x 2.5" Drive bays (Max.)*	1 x CFast, 2 x 2.5" Drive bays (Max.)*	1 x CFast, 2 x 2.5" Drive bays (Max.)*
USB 2.0	-	-	-	-	-
USB 3.0/2.0	10	6	6	6	6
RS-232	2	-	-	-	-
RS-232/422/485	2	2	2	2	2
LPT**	Yes	Yes	-	Yes	Yes
Digital I/O**	8-in/8-out	8-in/8-out	Isolated 4-in/4-out	8-in/8-out	8-in/8-out
Expansion Bus	1 x PCIe x8, 1 x PCIe x16, 2 x mPCIe (half & full), 1 x SIM	1 x PCIe x8, 1 x PCIe x16, 2 x mPCIe (1 half & 1 full), 1 x SIM	3 x mPCIe (1 half & 2 full) 3 x SIM 1 x M.2 B-Key 2242	1 x PCIe x4, 2 x PCIe x16, 2 x mPCIe (1 half & 1 full), 1 x SIM	1 x PCIe x4, 1 x PCIe x16, 2 x mPCIe (1 half & 1 full), 1 x SIM
Power Input	DC 9~36V/Ignition	DC 19~36V/Ignition	DC 9~36V/Ignition	DC 19~36V/Ignition	DC 19~36V/Ignition
Operating Temperature	-20~55°C (w/ 35W TDP CPU, Fanless)	-20~55°C (w/ 35W TDP CPU, Smart Fan)	-40 ~ 75°C **W**	-20~45°C	-20~45°C

* Including one outside accessible drive bay
** For LPT and digital I/O, only either one of them is available.
W Wide temperature range

Model	FPC-7914-HDBT	FPC-7913	FPC-7912	FPC-7911	FPC-7910
Dimensions (W x H x D)	195 x 90 x 268 mm	195 x 110 x 268 mm	195 x 110 x 268 mm	195 x 110 x 268 mm	195 x 75 x 268 mm
CPU	6th/7th Gen. Intel® Core™ i7/i5/i3 (LGA1151 socket)	6th/7th Gen. Intel® Core™ i7/i5/i3 (LGA1151 socket)	6th/7th Gen. Intel® Core™ i7/i5/i3 (LGA1151 socket)	6th/7th Gen. Intel® Core™ i7/i5/i3 (LGA1151 socket)	6th/7th Gen. Intel® Core™ i7/i5/i3 (LGA1151 socket)
Chipset	H110	H110	H110	H110	H110
Memory	2 x DDR4 SO-DIMM	2 x DDR4 SO-DIMM	2 x DDR4 SO-DIMM	2 x DDR4 SO-DIMM	2 x DDR4 SO-DIMM
Video	1 x VGA, 1 x DVI-D	1 x VGA, 1 x DVI-D, 1 x HDMI	1 x VGA, 1 x DVI-D, 1 x HDMI	1 x VGA, 1 x DVI-D, 1 x HDMI	1 x VGA, 1 x DVI-D, 1 x HDMI
Audio	Mic-in/Line-out	Mic-in/Line-out	Mic-in/Line-out	Mic-in/Line-out	Mic-in/Line-out
KB/MS	-	-	-	-	-
Ethernet	3 x GbE 1 x RJ45 w/ HDBaseT Transmitter	3 x GbE	3 x GbE	3 x GbE	3 x GbE
Mass Storage	2 x 2.5" drive bay 1 x CFast	2 x 2.5" drive bay 1 x CFast	2 x 2.5" drive bay 1 x CFast	2 x 2.5" drive bay 1 x CFast	2 x 2.5" drive bay 1 x CFast
USB 2.0	6	6	6	6	6
USB 3.0/2.0	4	4	4	4	4
RS-232	2	2	2	2	2
RS-232/422/485	2	2	2	2	2
LPT*	Yes	Yes	Yes	Yes	Yes
Digital I/O*	8-in/8-out	8-in/8-out	8-in/8-out	8-in/8-out	8-in/8-out
Expansion Bus	1 x mPCIe (full), 1 x SIM	2 x PCI 1 x mPCIe (full), 1 x SIM	1 x PCIe x8, 1 x PCIe x16, 1 x mPCIe (full), 1 x SIM	1 x PCI, 1 x PCIe x16, 1 x mPCIe (full), 1 x SIM	1 x mPCIe (full), 1 x SIM
Power Input	DC 19~36V	DC 9~36V	DC 9~36V	DC 9~36V	DC 9~36V
Operating Temperature	-20~55°C	-20~55°C	-20~55°C	-20~55°C	-20~55°C

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

Model	FPC-7903	FPC-7902	FPC-7901	FPC-7900
Dimensions (W x H x D)	225 x 120 x 292 mm	225 x 120 x 292 mm	225 x 120 x 292 mm	225 x 90 x 292 mm
CPU	6th/7th Gen. Intel® Xeon® E3 / Core™ i7/i5/i3 (LGA1151 socket)	6th/7th Gen. Intel® Xeon® E3 / Core™ i7/i5/i3 (LGA1151 socket)	6th/7th Gen. Intel® Xeon® E3 / Core™ i7/i5/i3 (LGA1151 socket)	6th/7th Gen. Intel® Xeon® E3 / Core™ i7/i5/i3 (LGA1151 socket)
Chipset	C236	C236	C236	C236
Memory	2 x DDR4 SO-DIMM	2 x DDR4 SO-DIMM	2 x DDR4 SO-DIMM	2 x DDR4 SO-DIMM
Video	1 x DisplayPort 1 x VGA, 1 x DVI-D, 1 x HDMI	1 x DisplayPort 1 x VGA, 1 x DVI-D, 1 x HDMI	1 x DisplayPort 1 x VGA, 1 x DVI-D, 1 x HDMI	1 x DisplayPort 1 x VGA, 1 x DVI-D, 1 x HDMI
Audio	Mic-in/Line-out	Mic-in/Line-out	Mic-in/Line-out	Mic-in/Line-out
KB/MS	-	-	-	-
Ethernet	3 x GbE	3 x GbE	3 x GbE	3 x GbE
Mass Storage	1 x CFast, 2 x 2.5" Drive bays (Max.)*	1 x CFast, 2 x 2.5" Drive bays (Max.)*	1 x CFast, 2 x 2.5" Drive bays (Max.)*	1 x CFast, 2 x 2.5" Drive bays (Max.)*
USB 2.0	-	-	-	-
USB 3.0/2.0	6	6	6	6
RS-232	4	4	4	4
RS-232/422/485	2	2	2	2
LPT**	Yes	Yes	Yes	Yes
Digital I/O**	8-in/8-out	8-in/8-out	8-in/8-out	8-in/8-out
Expansion Bus	2 x PCI, 2 x mPCIe (1 half & 1 full), 1 x SIM	1 x PCIe x8, 1 x PCIe x16, 2 x mPCIe (1 half & 1 full), 1 x SIM	1 x PCI, 1 x PCIe x16 2 x mPCIe (1 half & 1 full), 1 x SIM	2 x mPCIe (1 half & 1 full) , 1 x SIM
Power Input	DC 9~36V/Ignition	DC 9~36V/Ignition	DC 9~36V/Ignition	DC 9~36V/Ignition
Operating Temperature	-20~55°C	-20~55°C	-20~55°C	-20~55°C

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

Model	FPC-7803	FPC-7802	FPC-7801	FPC-7800
Dimensions (W x H x D)	225 x 120 x 267 mm	225 x 120 x 267 mm	225 x 120 x 267 mm	225 x 90 x 267 mm
CPU	4th Gen. Intel® Core™ i7/i5/i3 (LGA1150 socket)	4th Gen. Intel® Core™ i7/i5/i3 (LGA1150 socket)	4th Gen. Intel® Core™ i7/i5/i3 (LGA1150 socket)	4th Gen. Intel® Core™ i7/i5/i3 (LGA1150 socket)
Chipset	Q87	Q87	Q87	Q87
Memory	2 x DDR3 SO-DIMM	2 x DDR3 SO-DIMM	2 x DDR3 SO-DIMM	2 x DDR3 SO-DIMM
Video	2 x DisplayPort, DVI	2 x DisplayPort, DVI	2 x DisplayPort, DVI	2 x DisplayPort, DVI
Audio	Mic-in/Line-out	Mic-in/Line-out	Mic-in/Line-out	Mic-in/Line-out
KB/MS	-	-	-	-
Ethernet	3 x GbE	3 x GbE	3 x GbE	3 x GbE
Mass Storage	1 x CFast, 2 x 2.5" Drive bays (Max.)	1 x CFast, 2 x 2.5" Drive bays (Max.)	1 x CFast, 2 x 2.5" Drive bays (Max.)	1 x CFast, 2 x 2.5" Drive bays (Max.)
USB 2.0	-	-	-	-
USB 3.0/2.0	6	6	6	6
RS-232	2	2	2	2
RS-232/422/485	2	2	2	2
LPT**	Yes	Yes	Yes	Yes
Digital I/O**	8-in/8-out	8-in/8-out	8-in/8-out	8-in/8-out
Expansion Bus	2 x PCI, 2 x mPCIe (1 half & 1 full), 1 x SIM	1 x PCIe x 8, 1 x PCIe x16, 2 x mPCIe (1 half & 1 full), 1 x SIM	1 x PCI, 1 x PCIe x16, 2 x mPCIe (1 half & 1 full), 1 x SIM	2 x mPCIe (1 half & 1 full), 1 x SIM
Power Input	DC 9~36V	DC 9~36V	DC 9~36V	DC 9~36V
Operating Temperature	-20~55°C	-20~55°C	-20~55°C	-20~55°C

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

NEW   NEW

Model	ARES-530WT	ARES-5310	ARES-5311	EAGLE-8701
Dimensions (W x H x D)	70 x 160 x 125 mm	70 x 180 x 125 mm	70 x 180 x 125 mm	90 x 285 x 230 mm
CPU	Intel® J1900 / E3845 Quad-Core™ 2GHz /1.91GHz	Intel® Atom™ x7 E3950 / Celeron® N3350	Intel® Atom™ x7 E3950 / Celeron® N3350	4th Gen. Intel® Core™ i7-4770TE 2.3GHz / i5-4590T 2GHz (LGA 1150 socket)
Chipset	SoC	SoC	SoC	Q87
Memory	4GB DDR3L installed for J1900 4GB WT DDR3L installed for E3845	1 x DDR3L SO-DIMM	1 x DDR3L SO-DIMM	2 x DDR3L SO-DIMM
Video	VGA, DVI-D	1 x VGA, 1 x HDMI	1 x VGA, 1 x HDMI	DisplayPort
Audio	Line-out	Mic-in/Line-out	Mic-in/Line-out	-
KB/MS	-	-	-	-
Ethernet	2 x GbE	3 x GbE (-E3950A, -N3350A) 1 x GbE, 2 x PoE (-E3950P, -N3350P)	1 x GbE 2 x PoE	2 x GbE 6 x PoE (af)
Mass Storage	2 x mSATA	64GB eMMC, 1 x 2.5" drive bay (-E3950A, -N3350A) 1 x M.2 M-Key 2242 (-E3950P/S, -N3350P)	64GB eMMC, 1 x M.2 M-Key 2242	2 x 2.5" drive bay
USB 2.0	5	-	-	2
USB 3.0/2.0	1 (USB 3.0 only)	4	4	6
RS-232	-	-	-	-
RS-232/422/485	1 x Isolated RS-232/422 1 x Isolated RS-422/485	4	6 x RS-232/422/485 3 x RS-232/485	1
LPT*	-	-	-	-
Digital I/O*	Isolated 4-in/4-out	4-in/4-out (-E3950A/S, -N3350A) 16-in/16-out (-E3950P, -N3350P)	16-in/16-out	Isolated 8-in/8-out
Expansion Bus	1 x mPCIe (half) w/o USB signal	2 x mPCIe (full) 1 x SIM	2 x mPCIe (full) 2 x SIM	1 x PCIe x16
Power Input	DC 9~36V	DC 9~36V/Ignition	DC 9~36V/Ignition	DC 24V
Operating Temperature	-20 ~ 70°C (J1900) **W** -40 ~ 85°C (E3845) **W**	-20 ~ 70°C **W**	-20 ~ 70°C **W**	-10~55°C

* For LPT and digital I/O, only one of them can be active at a time.

W Wide temperature range

Model	ARES-1230	ARES-1230-E	ARES-1230-POS	ARES-1231
Dimensions (W x H x D)	180 x 25 x 130 mm	180 x 40 x 130 mm	180 x 40 x 130 mm	240 x 60 x 126 mm
CPU	Intel® N2930 Quad-Core™ 2.16GHz	Intel® N2930 Quad-Core™ 2.16GHz	Intel® N2930 Quad-Core™ 2.16GHz	Intel® N2930 Quad-Core™ 2.16GHz
Chipset	SoC	SoC	SoC	SoC
Memory	1 x DDR3L SO-DIMM	1 x DDR3L SO-DIMM	1 x DDR3L SO-DIMM	4GB DDR3L installed
Video	DVI-I, HDMI	DVI-I, HDMI	DVI-I, HDMI	DVI-I, HDMI
Audio	Mic-in/Line-out	Mic-in/Line-out	Mic-in/Line-out	Mic-in/Line-out
KB/MS	-	-	-	PS2
Ethernet	2 x GbE	2 x GbE	2 x GbE	2 x GbE
Mass Storage	1 x mSATA	1 x mSATA	1 x mSATA	1 x mSATA, 1 x 2.5" Drive bay
USB 2.0	1	3	1	5
USB 3.0/2.0	1	1	1	1
RS-232	-	-	-	-
RS-232/422/485	-	2 x RS-232/485	2 x RS-232/422/485 4 x RS-232/485	4 x RS-232/422/485 8 x RS-232/485
LPT	-	-	-	-
Digital I/O	-	4-in/4-out	-	16-in/ 16-out
Expansion Bus	2 x mPCIe (1 half & 1 full)	2 x mPCIe (1 half & 1 full)	2 x mPCIe (1 half & 1 full), 1 x SIM	1 x mPCIe (half)
Power Input	DC 12V	DC 9~36V	DC 12V	DC 12V
Operating Temperature	-20~70°C Ⓦ	-20~70°C Ⓦ	-20~70°C Ⓦ	-20 ~ 60°C

Ⓦ Wide temperature range

Model	ARES-1970	ARES-1970-E	ARES-1970-4P	ARES-1970-4E
Dimensions (W x H x D)	265 x 141 x 62 mm	112 x 272 x 141 mm	192 x 200 x 220 mm	192 x 200 x 220 mm
CPU	6th Gen. Intel® Core™ i7-6600U/ i5-6300U/i3-6100U	6th Gen. Intel® Core™ i7-6600U/ i5-6300U/i3-6100U	6th Gen. Intel® Core™ i7-6600U/ i5-6300U/i3-6100U	6th Gen. Intel® Core™ i7-6600U/ i5-6300U/i3-6100U
Chipset	SoC	SoC	SoC	SoC
Memory	4GB DDR4 Installed	4GB DDR4 Installed	1 x DDR4 SO-DIMM	1 x DDR4 SO-DIMM
Video	HDMI, VGA	HDMI, VGA	HDMI, VGA	HDMI, VGA
Audio	Mic-in/Line-out	Mic-in/Line-out	Mic-in/Line-out	Mic-in/Line-out
KB/MS	-	-	-	-
Ethernet	2 x GbE	2 x GbE, 4 x PoE (af)	2 x GbE	2 x GbE
Mass Storage	1 x mSATA	1 x mSATA, 2 x front accessible 2.5" drive bay	1 x mSATA, 2 x SATA-III	1 x mSATA, 2 x SATA-III
USB 2.0	2	2	2	2
USB 3.0/2.0	4	4	4	4
RS-232	-	-	-	-
RS-232/422/485	4 x RS-232/422/485 4 x RS-232/485	4	2	2
LPT	-	-	-	-
Digital I/O	-	16-in/16-out	-	-
Expansion Bus	2 x mPCIe (1 half & 1 full)	2 x mPCIe (1 half & 1 full)	2 x mPCIe (1 half & 1 full), 4 x PCI	2 x mPCIe (1 half & 1 full), 4 x PCIe
Power Input	DC 12~28V	DC 19~36V	DC 12~28V	DC 12~28V
Operating Temperature	-20 ~ 70°C Ⓦ	-20 ~ 55°C	-20 ~ 55°C	-20 ~ 55°C

Ⓦ Wide temperature range

NEW

Model	ARES-1973H-2WD8F	ARES-1973C-4898	ARES-1973C-48C8	ARES-1965-2WD4
Dimensions (W x H x D)	90 x 230 x 155 mm	254 x 94 x 170 mm	254 x 94 x 170 mm	90 x 195 x 140 mm
CPU	6th / 7th Gen. Intel® Core™ i7/i5/i3 / Celeron® Processor (LGA1151 socket)	6th / 7th Gen. Intel® Core™ i7/i5/i3 / Celeron® Processor (LGA1151 socket)	6th / 7th Gen. Intel® Core™ i7/i5/i3 / Celeron® Processor (LGA1151 socket)	6th / 7th Gen. Intel® Core™ i7/i5/i3 / Celeron® Processor
Chipset	H110	C236	C236	SoC
Memory	2x DDR4 SO-DIMM	2 x DDR4 SO-DIMM	2 x DDR4 SO-DIMM	1 x DDR4 SO-DIMM
Video	1 x DisplayPort, 1 x VGA	1 x DisplayPort, 1 x VGA	1 x DisplayPort, 1 x VGA	1 x VGA
Audio	-	-	-	-
KB/MS	-	-	-	-
Ethernet	1 x GbE 4 x PoE (af)	9 x GbE	1x GbE 2 x 10GbE	1 x GbE 4 x PoE (af)
Mass Storage	1 x 2.5" drive bay, 1 x M.2 M-Key 2242/2280	1 x 2.5" drive bay, 1 x M.2 M-Key 2242/2280	1 x 2.5" drive bay, 1 x M.2 M-Key 2242/2280	1 x mSATA 1 x 2.5" drive bay
USB 2.0	5 (incl.1 x internal)	5 (incl.1 x internal)	5 (incl.1 x internal)	1 x internal
USB 3.0/2.0	4	4	4	4
RS-232	-	2	2	2
RS-232/422/485	2	2	2	-
LPT	-	-	-	-
Digital I/O	Isolated 16-in/16-out	Non-isolated 4-in/4-out	Non-isolated 8-in/8-out	Isolated 16-in/16-out
Expansion Bus	M.2 M-Key 2242/2280	M.2 M-Key 2242/2280	M.2 M-Key 2242/2280	1 x mPCIe (full)
Power Input	DC 12~24V	DC 12~24V	DC 12~24V	DC 9~36V
Operating Temperature	-20 ~ 50 °C	-20 ~ 50 °C	-20 ~ 50 °C	0 ~ 55 °C

Multi-Display Controllers

Model	ELIT-300	ELIT-1050	ELIT-1850	ELIT-1900
Dimensions (W x H x D)	124 x 30 x 105 mm	141 x 34.8 x 107.6 mm	193 x 50 x 170 mm	280 x 47 x 200 mm
CPU	ARM Quad-Core Cortex-A17 2.2GHz	Intel® Celeron® N3060, 1.6GHz	5th Gen. Intel® Core™ i7-5650U 2.2GHz / Core™ i3-5010U 2.1GHz	6th Gen. Intel® Core™ i-series
Chipset	SoC	SoC	SoC	QM170
Memory	2GB DDR3 installed	2GB DDR3L Installed	1 x DDR3L SO-DIMM	1 x DDR4 SO-DIMM
Video	HDMI	2 x HDMI	DVI-D, DisplayPort, HDMI	6 x HDMI
Resolution	3840 x 2160	3840 x 2160	3840 x 2160	3840 x 2160
Audio	-	Line-out	Mic-in/Line-out	Mic-in/Line-out
KB/MS	-	-	-	-
Ethernet	1 x 10/100M	2 x GbE	2 x GbE	2 x GbE
Mass Storage	8GB NAND Flash, 1 x Micro SD	32GB eMMC 1 x mSATA, 1 x Micro SD	1 x 2.5" Drive bay	1 x 2.5" Drive bay
USB 2.0	2	1	2	-
USB 3.0/2.0	-	4	4	4
RS-232	-	1	-	-
RS-232/422/485	-	-	2 x RS-232/485	1 x RS-232/485
Expansion Bus	-	2 x mPCIe (1 half & 1 full), 1 x SIM	1 x M.2 E-Key 2230	1 x mPCIe (full), 1 x SIM
Power Input	DC 5V	DC 19V	DC 12~24V	DC 19V
Operating Temperature	0 ~ 40°C	–10 ~ 55°C	–20 ~ 60°C	– 10 ~ 45°C

Model	ELIT-1930	ELIT-1270-1807F	ELIT-1270-1605	IEC-3900	IEC-3300
Dimensions (W x H x D)	210 x 70 x 190 mm	240 x 204 x 41 mm	240 x 204 x 41 mm	130 x 35 x 124 mm	163 x 39 x 109 mm
CPU	8th Gen. Intel® Core™ i7/i5/i3	AMD Ryzen™ Embedded V180713	AMD Ryzen™ Embedded V160513	7th Gen. Intel® Core™ i7/i5	Intel® N2807 1.58GHz/ J1900 2.0GHz
Chipset	Intel UHD 630	AMD SoC	AMD SoC	--	SoC
Memory	2 x DDR4 SO-DIMM	2 x DDR4 SO-DIMM	2 x DDR4 SO-DIMM	2 x DDR4 SO-DIMM	1 x DDR3L SO-DIMM
Video	1 x HDMI 1 x DisplayPort 1 x DVI-D	4 x DisplayPort	4 x DisplayPort	2 x HDMI	VGA, HDMI
Resolution	3840 x 2160	3840 x 2160	3840 x 2160	3840 x 2160	1920 x 1080
Audio	-	Mic-in/Line-out	Mic-in/Line-out	-	Line-out
KB/MS	1	-	-	-	-
Ethernet	2 x GbE	2 x GbE	2 x GbE	1 x GbE	2 x GbE
Mass Storage	1 x M.2 M-Key 2280	1 x M.2 M-Key 2242/2280	1 x M.2 M-Key 2242/2280	1 x M.2 M-Key 2280	1 x mSATA
USB 2.0	-	2	2	-	-
USB 3.0/2.0	4 (USB 3.1)	2 (USB 3.1)	2 (USB 3.1)	4	4
RS-232	-	-	-	1 (RJ-45)	1
RS-232/422/485	3 x RS-232/485	2	2	-	-
Expansion Bus	1 x M.2 E-Key 2230 1 x M.2 B-Key 2242 1 x Nano SIM	1 x M.2 B-Key 2242/3042 1 x mPCIe	1 x M.2 M-Key 2242/2280 1 x M.2 B-Key 2242/3042 1 x mPCIe	1 x M.2 M-Key 2280	1 x mPCIe
Power Input	DC 12~24V	DC 9~36V	DC 9~36V	DC 24V	DC 12V
Operating Temperature	- 10 ~ 55°C	- 10 ~ 50°C	- 10 ~ 50°C	-40 ~ 70°C Ⓦ	-20~55°C

Ⓦ Wide temperature range

Transportation Computers

Model	ARTS-1450	ARTS-2870	ARTS-3672W	ARTS-4770	AES-5204
Dimensions (W x H x D)	200 x 54 x 180 mm	270.4 x 110 x 240 mm	255 x 90 x 208 mm	270 x 80 x 180 mm	70 x 155 x 125 mm
CPU	Intel® Atom™ E3845 Quad-Core™ 1.91GHz	4th Gen. Intel® Core™ i5-4402E 1.6GHz	2nd Gen. Intel® Core™ i7-2610UE 1.5GHz	3rd Gen. Intel® Core™ i7-3517UE 1.7GHz	-
Chipset	SoC	QM87	QM67	QM77	-
Memory	1 x DDR3L SO-DIMM	1 x DDR3L SO-DIMM	1 x DDR3 SO-DIMM	1 x DDR3 SO-DIMM	-
Video	VGA, DVI-D	VGA, 2 x DVI-D	VGA, DVI-D	VGA, DVI-D	-
Audio	Mic-in/Line-out	Mic-in/Line-out	Mic-in/Line-out	Mic-in/Line-out	-
KB/MS	-	-	-	-	-
Ethernet	1 x GbE	4 x GbE	1 x GbE 2 x M12 GbE	2 x GbE 4 x PoE (af)	1 x GbE, 4 x PoE (af) 1 x SFP
Mass Storage	1 x 2.5" Drive bay, 1 x mSATA	2 x 2.5" Drive bays*, 1 x mSATA	2 x 2.5" Drive bays, 1 x SATA DOM, 1 x CFast	2 x outside accessible 2.5" drive bays, 1 x mSATA	-
USB 2.0	2	4	4	-	-
USB 3.0/2.0	1	2	-	4	-
RS-232	2	-	-	1	--
RS-232/422/485	2 x RS-232/485	8 x NMEA 0183 2 x RS-232/422/485	1 x RS-232/485 3 x RS-485	1	1 x RS-485
LPT	-	-	-		-
Digital I/O	4 in/4 out	4-in/4-out	6-in/4-out	4-in/4-out	-
Expansion Bus	3 x mPCIe (1 half & 2 full) 2 x SIM	1 x mPCIe (half)	2 x mPCIe (1 half & 1 full), 1 x SIM	3 x mPCIe (1 half & 2 full), 2 x SIM	-
Power Input	DC 9~36V	DC 24V	DC 9~36V	DC 9~36V	DC 9~36V
Operating Temperature	-40 ~ 70°C Ⓦ	-25 ~ 55°C	-40 ~ 70°C Ⓦ	-20 ~ 55°C	-40 ~ 75°C Ⓦ

* Including one outside accessible drive bay

Ⓦ Wide temperature range

Wide-Screen HMI

Model	ASLAN-W810C-2930G2	ASLAN-W910C-6300G4	ASLAN-W812C-2930G2	ASLAN-W912C-6300G4
Dimensions (W x H x D)	255 x 175 x 39.5 mm	255 x 175 x 76.5 mm	306 x 206 x 39.5 mm	306 x 206 x 76.5 mm
CPU	Intel® N2930 Quad-Core 1.83GHz	6th Gen. Intel® Core™ i5-6300U 2.4GHz	Intel® N2930 Quad-Core 1.83GHz	6th Gen. Intel® Core™ i5-6300U 2.4GHz
Chipsets	-	-	-	-
Memory	2GB DDR3L installed	4GB DDR4 installed	2GB DDR3L installed	4GB DDR4 installed
LCD Display	10.1" , 1280 x 800	10.1" , 1280 x 800	11.6" , 1920 x 1080	11.6" , 1920 x 1080
Video Output	DVI-I	HDMI/VGA	DVI-I	HDMI/VGA
Audio	Mic-in/Line-out	Optional	Mic-in/Line-out	Optional
KB/MS	-	-	-	-
Ethernet	2 x GbE	2 x GbE	2 x GbE	2 x GbE
Mass Storage	1 x mSATA	1 x mSATA	1 x mSATA	1 x mSATA
RS-232	-	-	-	-
RS-232/422/485	-	2	-	2
Digital I/O	-	-	-	-
USB 2.0	1	-	1	-
USB 3.0/2.0	1	4	1	4
WIFI	mPCIe (optional)	mPCIe (optional)	mPCIe (optional)	mPCIe (optional)
Speaker	-	-	-	-
Expansion Bus	2 x mPCIe (1 Half & 1 Full)	2 x mPCIe (1 Half & 1 Full)	2 x mPCIe (1 Half & 1 Full)	2 x mPCIe (1 Half & 1 Full)
Power Input	DC 12V	DC 12~28V	DC 12V	DC 12~28V
Operating Temperature	-20~55°C	-20~55°C	-20~55°C	-20~55°C

Model	ASLAN-W715C-1900G4	ASLAN-W915C-6300G4	ASLAN-W719C-1900G4	ASLAN-W919C-6300G4
Dimensions (W x H x D)	404 x 255 x 49.2 mm	404 x 255 x 56.3 mm	470 x 295 x 49.2 mm	470 x 295 x 56.2 mm
CPU	Intel® J1900 Quad-Core™ 2.0GHz	6th Gen. Intel® Core™ i5-6300U 2.4GHz	Intel® J1900 Quad-Core™ 2.0GHz	6th Gen. Intel® Core™ i5-6300U 2.4GHz
Chipsets	-	-	-	-
Memory	4GB DDR3L installed	4GB DDR4 installed	4GB DDR3L installed	4GB DDR4 installed
LCD Display	15.6", 1366 x 768	15.6", 1366 x 768	18.5" 1366 x 768	18.5" 1366 x 768
Video Output	DVI-I	HDMI/VGA	DVI-I	HDMI/VGA
Audio	-	Optional	-	Optional
KB/MS	-	-	-	-
Ethernet	3 x GbE	2 x GbE	3 x GbE	2 x GbE
Mass Storage	2 x 2.5" drive bays	1 x mSATA, 2 x 2.5" drive bays	2 x 2.5" drive bays	1 x mSATA, 2 x 2.5" drive bays
RS-232	2	-	2	-
RS-232/422/485	2	4	2	4
Digital I/O	-	4-in / 4-out (optional)	-	4-in / 4-out (optional)
USB 2.0	3	-	3	-
USB 3.0/2.0	1	4	1	4
WIFI	mPCIe (optional)	mPCIe (optional)	mPCIe (optional)	mPCIe (optional)
Speaker	2 x 2W speakers (optional)	2 x 2W speakers (optional)	2 x 2W speakers (optional)	2 x 2W speakers (optional)
Expansion Bus	1 x mPCIe (full)	2 x mPCIe (1 half & 1 full)	1 x mPCIe (full)	2 x mPCIe (1 half & 1 full)
Power Input	DC 9–36V	DC 9–36V	DC 9–36V	DC 9–36V
Operating Temperature	-20~55°C	-20~55°C	-20~55°C	-20~55°C

Model	ASLAN-W722C-1900G4	ASLAN-W922C-6300G4	ASLAN-W922C-IP	ASLAN-917 Series R/C
Dimensions (W x H x D)	536 x 332 x 48.4 mm	536 x 332 x 55.5 mm	620 x 423 x 62 mm	420 x 358 x 62.2 mm
CPU	Intel® J1900 Quad-Core™ 2.0GHz	6th Gen. Intel® Core™ i5-6300U 2.4GHz	6th Gen. Intel® Core™ i5-6300U 2.4GHz	6th Gen. Intel® Core™ i5-6300U 2.4GHz
Chipsets	-	-	-	-
Memory	4GB DDR3L installed	4GB DDR4 installed	4GB DDR4 installed	4GB DDR3L installed
LCD Display	21.5" 1920 x 1080	21.5" 1920 x 1080	21.5" 1920 x 1080	17", 1280 x 1024
Video Output	DVI-I	HDMI/VGA	HDMI/VGA	HDMI/VGA
Audio	-	Optional	Optional	Optional
KB/MS	-	-	-	-
Ethernet	3 x GbE	2 x GbE	2 x GbE	2 x GbE
Mass Storage	2 x 2.5" drive bays	1 x mSATA, 2 x 2.5" drive bays	1 x mSATA, 2 x 2.5" drive bays	1 x mSATA, 2 x 2.5" drive bays
RS-232	2	-	-	-
RS-232/422/485	2	4	2	4
Digital I/O	-	4 in / 4 out (optional)	4 in / 4 out (optional)	-
USB 2.0	3	-	2	-
USB 3.0/2.0	1	4	Optional	4
WIFI	mPCIe (optional)	mPCIe (optional)	mPCIe (optional)	mPCIe (optional)
Speaker	2 x 2W speakers (optional)	2 x 2W speakers (optional)	-	-
Expansion Bus	1 x mPCIe (full)	2 x mPCIe (1 half & 1 full)	2 x mPCIe (1 half & 1 full)	2 x mPCIe (1 half & 1 full)
Power Input	DC 9–36V	DC 9–36V	DC 9–36V	DC 9–36V
Operating Temperature	-20~55°C	-20~55°C	-10~50°C	-20~55°C

Ultra-Slim HMI

Model	LYNC-708-3845G2	LYNC-712-1900G4	LYNC-712-4200G4	LYNC-715-1900G4	LYNC-715-4200G4	LYNC-817
Dimensions (W x H x D)	274.96 x 207.96 x 56.1 mm	325.88 x 258.86 x 44.00 mm	325.88 x 258.86 x 53.50 mm	389.93 x 309.93 x 46.80 mm	389.93 x 309.93 x 56.96 mm	428.0 x 380.0 x 77.0 mm
CPU	Intel® E3845 Quad-Core™ 1.91GHz	Intel® J1900 Quad-Core™ 2.0GHz	Intel® N4200 Quad-Core™ 1.10GHz	Intel® J1900 Quad-Core™ 2.0GHz	Intel® N4200 Quad-Core™ 1.10GHz	Intel® J1900 Quad-Core™ 2.0GHz
Chipsets	-	-	-	-	-	-
Memory	2GB DDR3L Onboard	4GB DDR3 installed	4GB DDR3L Onboard	4GB DDR3 installed	4GB DDR3L Onboard	4GB DDR3L installed
LCD Display	8", 1024 x 768	12.1", 1024 x 768	12.1" 1024 x 768	15", 1024 x 768	15", 1024 x 768	17", 1280 x 1024
Video Output	-	DVI-I	DVI	DVI-I	DVI	DVI-I
Audio	1 x Line-out 2 x 1.5W speakers	2 x 1.5W speakers (optional)	2 x 1.5W speakers (optional)	2 x 1.5W speakers (optional)	2 x 1.5W speaker (optional)	Line-out
KB/MS	-	-	-	-	-	-
Ethernet	1 x GbE (PoE)	2 x GbE	2 GbE	2 x GbE	2 x GbE	2 x GbE
Mass Storage	1 x mSATA	1 x CFast, 1 x 2.5" drive bay	1 x CFast, 1 x 2.5" drive bay	1 x CFast, 1 x 2.5" drive bay	1 x CFast, 1 x 2.5" drive bay	1 x CFast, 1 x 2.5" drive bay
RS-232	2	-	-	-	-	2
RS-232/485	-	4	4	4	4	2
Digital I/O	-	-	-	-	-	-
USB 2.0	2	5	5	5	5	3
USB 3.0/2.0	-	-	-	-	-	1
WIFI	-	mPCIe (optional)	mPCIe (optional)	mPCIe (optional)	mPCIe (optional)	mPCIe (optional)
Expansion Bus	-	1 x mPCIe (full)	1 x mPCIe (full)	1 x mPCIe (full)	1 x mPCIe (full)	1 x mPCIe (full) 1 x PCI 32-bit slot (default) or 1 x PCIe x1 slot (optional)
Power Input	DC 12V	DC 9~36V	DC 9~36V	DC 9~36V	DC 9~36V	DC 9~36V
Operating Temperature	0 ~ 60°C	-20~55°C	-20~55°C	-20~55°C	-20°C ~ 55°C	0°C ~ 55°C

RISC Computing

Model	AAES-RK391	AAES-RK391-LITE	IOT-500	IOT-800N	RP-101K
Processor	Rockchip RK3399 Dual-core Cortex-A72 + Quad-core Cortex-A53	Rockchip RK3399 Dual-core Cortex-A72 +Quad-core Cortex-A53	Dual-core ARM Cortex-A7 1.0GHz	RockChip PX30 Quad-Core ARM Cortex-A35, 1.5GHz	RockChip PX30 Quad-Core ARM Cortex-A35, 1.5GHz
Memory	4GB LPDDR4	2GB LPDDR4	512MB LPDDR2	2GB DDR4	2GB DDR4
Storage	64GB eMMC Flash	16GB eMMC Flash	16GB eMMC Flash	16GB eMMC Flash	16GB eMMC Flash
Camera	-	-	1 x 2MP	1 x 8MP AF (MIPI CSI Type)	1 x 8MP (Optional)
Audio	1x 2V RMS Line out, 3.5mm phone Jack	1x 2V RMS Line out, 3.5mm phone Jack	1 x 0.8W built-in mono speaker 1 x MIC	1 x 1W built-in mono speaker 1 x MIC	1x 1W speaker
GPS	-	-	Yes	Yes	-
WWAN	-	-	2G, 3G (optional)	WCDMA/LTE (optional)	-
SIM Card	-	-	Mini SIM card	Nano SIM card	-
Wi-Fi / BT	802.11 a/b/g/n/ac + BT4.2/BLE	802.11 a/b/g/n/ac + BT4.2/BLE	802.11 a/b/g/n/ac + BT4.0/BLE	802.11 a/b/g/n/ac + BT4.2/BLE	802.11 a/b/g/n/ac + BT4.2/BLE
NFC		-	-	Yes	Optional
microSD Card	1 x Micro SDHC/microSDXC/micro SD (Max. 256GB) card socket	1 x Micro SDHC/microSDXC/micro SD (Max. 256GB) card socket	-	1 x microSDHC/SDXC/SD (Max. 128GB)	1 x microSDHC/SDXC/SD (Max. 128GB)
USB Port	1 x USB TYPE C; 4 x USB 2.0 Type A	1 x USB TYPE C; 4 x USB 2.0 Type A	2 x USB 2.0 Type-A	2 x USB 2.0 Type-A 1 x micro USB 2.0	4 x USB 2.0 Type-A 1 x micro USB 2.0 OTG
Serial Port	2 x RS232, DB-9 Interface	2 x RS232, DB-9 Interface	1 x RS-232/422/485	1 x RS-232/422/485 1 x RS-232	2 x RS-232
LAN	2 x GbE	1 x GbE	1 x 10/100Mbps	1 x 10/100Mbps	1 x 10/100Mbps
CAN	-	-	CAN 2.0b	OBD-II	300cd/m2
DIO	-	-	4 x GPIO	3 x DI, 3 x DO (Dry contact)	10-point Projected Capacitive multi-touch
Video	2 x HDMI 2.0a output, max support 1 x 4K + 1 x 2K	1 x HDMI 2.0a output, up to 4K			
Size/Type/Resolution	-	-	5" TFT LCD, 960 x 540	8" TFT LCD, 1024 x 600	10.1"TFT LCD, 1280 x 800
Brightness	-	-	350 cd/m2	600 cd/m2	300 cd/m2
Touchscreen	-	-	Projected Capacitive Multi-touch	Projected Capacitive Multi-touch	-
Power Input	12V/2A	12V/2A	12V/2A, 12–24V auto-detection	12V/1.5A, 9–36V auto-detection Ignition detection	DC 12V / 2A
Operating Temp.	0°C ~ 50°C	0°C ~ 50°C	–10 ~ 50°C	-20 ~ 70°C	0 ~ 50°C
Dimensions (W x H x D)	170.2 x 41 x 117.8 mm	170.2 x 41 x 117.8 mm	149.3 x 110 x 36.8 mm	218.16 x 162.67 x 46.5 mm	280.68 x 168.5 x 31.78 mm
Regulatory	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC
OS Support	Android 9.0*	Android 9.0*	Android 5.1	Android 8.1*	Android 9.0*

* BTO service for Buildroot/Debian/Ubuntu.

Heavy-Duty HMI

Model	PARDUS-6174	PARDUS-6194	TOKIN-6083	TOKIN-6123	TOKIN-6153
Dimensions (W x H x D)	438.5 x 366.5 x 93.7 mm	469.7 x 396.5 x 93.7 mm	274.9 x 207.9 x 77 mm	325.9 x 258.9 x 77 mm	389.9 x 309.9 x 84.30 mm
CPU	2nd Gen. Intel® Core™ i3-2340UE 1.3GHz / Intel® 847E Dual-Core 1.1 GHz	2nd Gen. Intel® Core™ i3-2340UE 1.3GHz / Intel® 847E Dual-Core 1.1 GHz	Intel® 827E Single-Core 1.4GHz	Intel® 827E Single-Core 1.4GHz	Intel® 827E Single-Core 1.4GHz
Chipsets	Intel® QM67 / HM65	Intel® QM67 / HM65	Intel® HM65	Intel® HM65	Intel® HM65
Memory	2GB DDR3 installed	2GB DDR3 installed	2GB DDR3 installed	2GB DDR3 installed	2GB DDR3 installed
LCD Display	17", 1280 x 1024, LED	19", 1280 x 1024, LED	8", 1024 x 768, LED	12.1", 1024 x 768, LED	15", 1024 x 768, LED
Video Output	DVI-I	DVI-I	DVI-I	DVI-I	DVI-I
Audio	Mic-in/Line-out	Mic-in/Line-out	-	-	-
KB/MS	PS2	PS2	-	-	-
Ethernet	2 x GbE	2 x GbE	2 x GbE	2 x GbE	2 x GbE
Mass Storage	2 x CFast & 1 x 2.5" drive bay (default) or 1 x CFast & 2 x 2.5" drive bays	2 x CFast & 1 x 2.5" drive bay (default) or 1 x CFast, 2 x 2.5" drive bays	1 x primary CFast & 1 x 2.5" drive bay or secondary CFast (outside-accessible)	1 x primary CFast & 1 x 2.5" drive bay or secondary CFast (outside-accessible)	1 x primary CFast & 1 x 2.5" drive bay or secondary CFastat (outside-accessible)
RS-232	2	2	2	2	2
RS-232/485	2	2	2	2	2
Digital I/O	-	-	-	-	-
USB 2.0	5	5	4	4	4
USB 3.0/2.0	-	-	-	-	-
WIFI	mPCIe (optional)	mPCIe (optional)	mPCIe (optional)	mPCIe (optional)	mPCIe (optional)
Speaker	-		-	-	-
Expansion Bus	2 x mPCIe (1 half & 1 full) & 1 x PCI 32-bit (default) or PCIe x1	2 x mPCIe (1 half & 1 full) & 1 x PCI 32-bit (default) or PCIe x1	2 x mPCIe (1 half & 1 full) & 1 x PCI 32-bit (default) or PCIe x1	2 x mPCIe (1 half & 1 full) & 1 x PCI 32-bit (default) or PCIe x1	2 x mPCIe (1 half & 1 full) & 1 x PCI 32-bit (default) or PCIe x1
Power Input	DC9~36V	DC9~36V	DC9~36V	DC9~36V	DC9~36V
Operating Temperature	-20~55°C	-20~55°C	-20~60°C	-20~60°C	-20~60°C

Intelligent Power Backup Solution

Model	SCP-43/41	SiP-41B/42B-LRA	SiPB-1690A/B
Dimensions (W x H x D)	100 x 187.4 x 150 mm	169 x 360 x 36 / 56 mm	160 x 24 / 46 x 88 mm
Type	Supercapacitor 4S3P / 4S1P	Supercapacitor 4S1P/ 4S2P	Supercapacitor 4S1P/ 4S2P
Capacity	400 Farads / Each	100 Farads / Each	100 Farads / Each
Power Input	DC 12~28V	DC 12V / 24V	DC 12V / 24V
Power Output	DC 12V / 24V	DC 12V / 24V	DC 12V / 24V
Operating Temperature	-20°C ~ 70°C **W**	-20°C ~ 70°C **W**	-20°C ~ 70°C **W**

W Wide temperature range

Frame Grabber Commmunication Cards
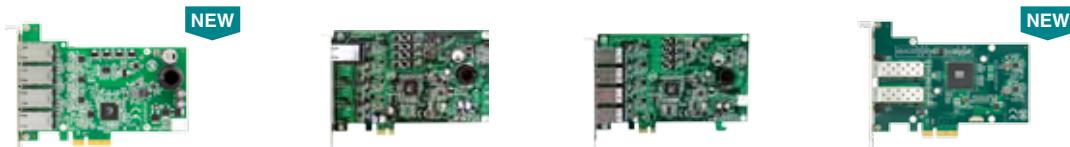
Model	PoE-i314	POE-i211	POE-i214	SFP-7102
Dimensions (W x H)	147.8 x 124.3 mm	168 x 111 mm	168 x 111 mm	145.85 x 105.65 mm
LAN Chipset	4 x Intel i210AT	1 x Intel i210IT	4 x Intel i210IT	1 x Intel X710-BM2
Interface	PCIe x4	PCIe x1	PCIe x1	PCIe x4
Port	4 x RJ-45 GbE	1 x RJ-45 GbE	4 x RJ-45 GbE	2 x 10G BASE SFP+ Fiber Connector
Power Input	5.6A @ 12VDC, from 4-pin AT/ATX power connector	1.6A @ 3.3 VDC from PCIe bus 2.8A @ 12 VDC from 4-pin AT/ATX power connector	2.4A @ 3.3 VDC from PCIe bus 5.6A @ 12 VDC from 4-pin AT/ATX power connector (POE-i214)	3A @ 3.3 VDC / 2.1A @12VDC from PCIe bus
Power Output	15.4W@48VDC power output (per port)	15.4W@48VDC power output (per port)	15.4W@48VDC power output (per port)	Max. 15W for 2 x copper Max. 1W for 2 x fiber
Operating Temperature	-20°C ~ 70°C **W**	-40°C ~ 85°C **W**	-40°C ~ 85°C **W**	-25 ~ 55 °C

W Wide temperature range

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