Empowering a

SMART FUTURE

Avalue IoT Ready

- ▶ Healthcare
- ▶ Retail
- ▶ Transportation
- ▶ Industry 4.0
- ▶ Digital Signage

- ▶ Communication
- ▶ Surveillance
- ▶ Automation
- ▶ In-Vehicle
- ▶ Gaming

Table of Contents

SMART TRANSPORTATION

SMART MANUFACTURING

SMART RETAIL

SMART HEALTHCARE

Panel PC / Monitor / Mobile

Intelligent Healthcare

About Avalue

Founded in 2000 and publicly listed on TPEx, Avalue Technology Inc. is a provider of industrial and embedded computing solutions. Headquartered in Taipei, Taiwan, with branches in the USA, Japan, and China, Avalue delivers innovative, high-quality, and long-life products tailored for the evolving needs of industrial markets.

Specializing in x86 and RISC architectures, our product portfolio spans embedded motherboards, computing systems, panel PCs, computer-on-modules (COM), and IoT/AI-ready solutions. With strong ODM/EMS capabilities and ISO-certified production facilities, Avalue supports complete customization—from board-level design to system integration.

Backed by professional R&D and a global support network, Avalue empowers customers across healthcare, retail, transportation, manufacturing, energy, and gaming industries. Our focus on reliability, flexibility, and long-term support makes us a trusted partner in building future-ready intelligent systems.

Mission

We **Provide**

Provide solutions to different markets
by delivering a complete range of Products
and ODM Services to our customers...

Vision

We **Become**

Become a leading international enterprise
by providing professional design and
production services to the embedded industry.

Project Management
PLM/EOL/ECR Management
Revision Control

Component Engineering
Component Cost Reduction
Shorten Lead Time

Industrial Standard Certification
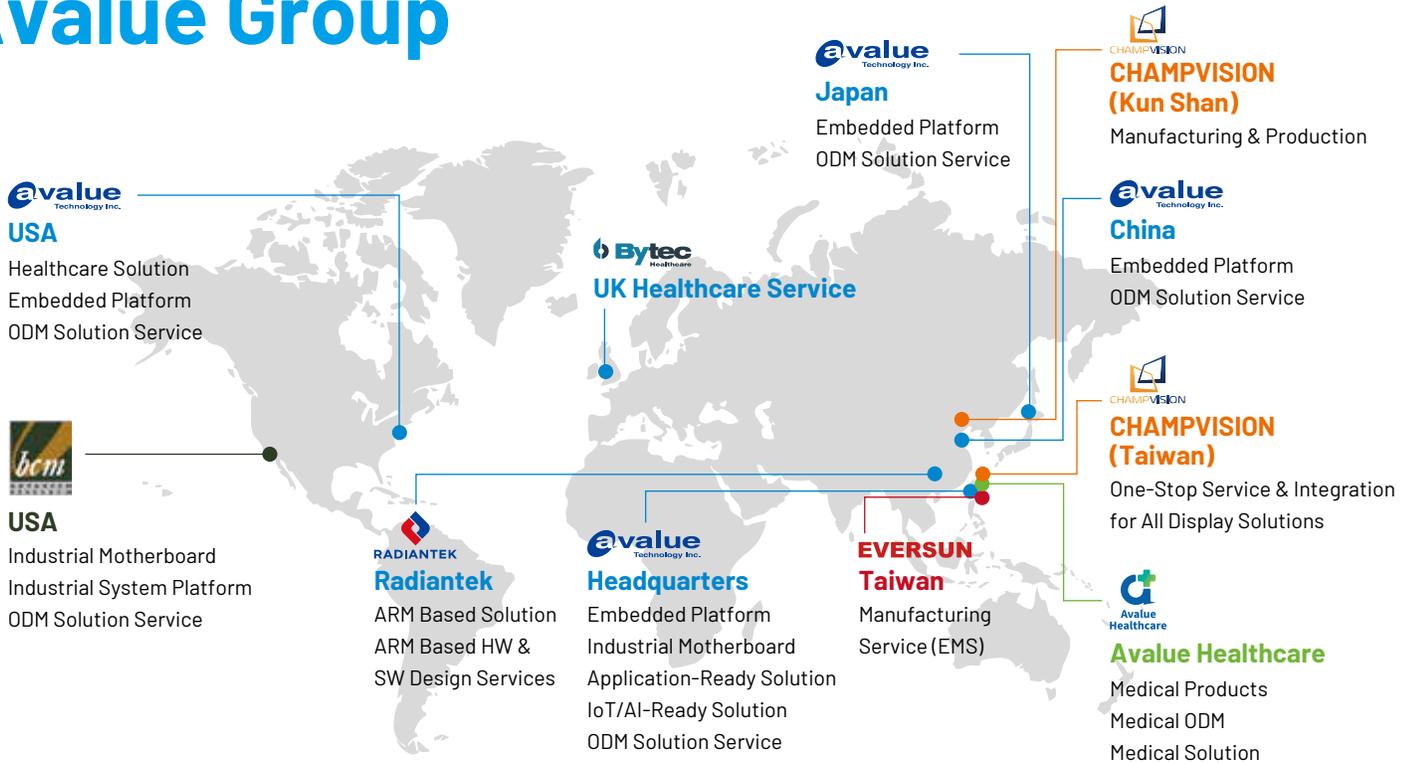ISO-9000/14000/13
UL/TS-16949

Global Logistic Support
Supply Chain
Inventory
Warehousing
Materials Handling

Professional Document Management System (DMS
Consolidation of ODM and EMS
Design Manufacturing Services

Avalue Group

avalue Technology Inc.
Japan
Embedded Platform
ODM Solution Service

CHAMPVISION
(Kun Shan)
Manufacturing & Production

avalue Technology Inc.
USA
Healthcare Solution
Embedded Platform
ODM Solution Service

avalue Technology Inc.
China
Embedded Platform
ODM Solution Service

Bytec Healthcare
UK Healthcare Service

bcm
USA
Industrial Motherboard
Industrial System Platform
ODM Solution Service

CHAMPVISION
(Taiwan)
One-Stop Service & Integration
for All Display Solutions

RADIANTEK
Radiantek
ARM Based Solution
ARM Based HW &
SW Design Services

avalue Technology Inc.
Headquarters
Embedded Platform
Industrial Motherboard
Application-Ready Solution
IoT/AI-Ready Solution
ODM Solution Service

EVERSUN
Taiwan
Manufacturing
Service (EMS)

Avalue Healthcare
Medical Products
Medical ODM
Medical Solution

---

bcm
2006
Merged operations with Avalue Technology, Inc. to combine engineering resources and pool purchasing power, creating an industrial board and system providers while maintaining a two-brand strategy.

EVERSUN
2013
Avalue invests Eversun to unfolds complete Manufacturing Service (EMS)

Bytec
2014
Providing mobile platforms that facilitate equipment, and clinical information access, patient-side.

Avalue Healthcare
2024
Providing Medical/ Healthcare products and solutions

CHAMPVISION
2025
Providing standard & customized display, touch and bonding solutions

RADIANTEK
2025
Providing ARM Based Products, Solution & HW & SW Design Services

---

Healthcare   **Retail**   **Manufacturing**   **Transportation**   **Energy**

UNLOCK THE POWER OF PRIVATE GENERATIVE AI.

The SME Challenge: Navigating the Digital Wave

Facing labor shortages and the pressure of digital transformation?
Public cloud AI offers speed, but at what cost to your data security?

PUBLIC CLOUD AI

Public Data & Networks.

RISK: Exposed Confidential Data & IP Leakage.

AVALUE ON-PREMISE SOLUTION

Confidential Data on Your Server.

BENEFIT: Full Data Control, Low Latency, Customizable Pipeline.

THE STRATEGY: RAG TECHNOLOGY
(Retrieval-Augmented Generation)

The Strategy: Turn Your Data into Accurate AI Insights (RAG)

Don't rely on generic web data. Our solution uses Retrieval-Augmented Generation (RAG) to combine powerful LLMs with your private knowledge base for precise, context-aware responses.

Your Private Data (Docs, Wikis) → **Secure Retrieval** → **On-Premise LLM Base Model** → **Accurate, Secure Response**

SECURE. ON-PREMISE. READY TO DEPLOY.

THE ENGINE: AVALUE AI SERVER SOLUTION

Tower Workstation (GAI-ERSR)

POWERFUL HARDWARE

- Intel® 5th Gen Xeon-SP Processors.
- Supports up to 4x NVIDIA RTX™ Ada Generation GPUs.
- Flexible Scalability: Run LLMs from 13B to 192B parameters.
- Secure chassis with lockable front door.

SEAMLESS SOFTWARE (vLLM)

- Zero Software Investment: Utilizes powerful open-source tools.
- No AI Experts Needed: Easy setup and deployment.
- Intuitive ChatGPT-like Interface

REAL-WORLD IMPACT: PROVEN EFFICIENCY GAINS

HR DEPT.
83% REDUCTION
in routine query time.

PROJECT MANAGEMENT
50% FASTER
communication turnaround.

LEGAL DEPT.
UP TO 600% SAVINGS
in document drafting time.

Industrial Rugged Panel Solution

ARC Series
10.1" ~ 21.5"
Front IP65/ Rear IP41
Rugged Panel PC

13th Generation

Intel Raptor Lake PS LGA Processor up to 10 core, 5.2GHz

Latest Intel® ATOM Platform

Alder Lake-N/ Amston Lake/ Twin Lake Processor

Modular Cableless Expansion

Various of IET module for I/O expansion without cable

Seamless Network Communication

Various of 2.5G LAN and Wi-Fi 6, Bluetooth, 5G integration

ARC Series
Rugged Full Flat IP65 Monitor

Avalue's ARC Series monitors are designed to provide exceptional durability and versatility, offering a range of screen sizes from 10.1" to 21.5". These industrial-grade displays are IP65-certified, ensuring reliable protection against dust and water. Their robust construction makes them ideal for demanding environments.

The monitors are equipped with dual 5W speakers and user-friendly OSD controls, providing enhanced functionality. Flexible mounting options, including VESA and panel mounts, allow for versatile installation. Customizable features include wide voltage input options and specialized screen coatings that offer anti-glare, anti-reflective, and UV/IR protection. The ARC Series is versatile and can be utilized in various applications, such as manufacturing facilities, interactive kiosks, and EV charging stations, ensuring reliable performance in demanding environments.

Extreme Waterproof Panel Solution

M12 Connectors
Waterproof IP67 connectors for all I/O available

IP65/66/69K
Full size 6 faces IP65/66/69K rating for whole systems

Auto Balance Internal Pressure
Preventing ingress of dust and water and achieving pressure equalization

Easy to Clean
Smooth and glossy surface which is Anti-adhesion

SPC Series
Full IP65/66/69K Stainless Steel Panel PC

OFM Series
7"~37" Open Frame Multi Touch Monitor

Avalue's OFM Series Open Frame Display delivers versatile, industrial-grade performance with a slim, modular design ideal for OEM integration. Engineered for 24/7 operation, it supports option high-brightness panels, wide viewing angles, and multiple signal interfaces for seamless system compatibility. Its construction, flexible mounting options enable reliable deployment across kiosks, automation systems, retail equipment, and medical devices. The OFM Series ensures stable, long-life operation in demanding environments while providing exceptional visual clarity and design flexibility for system integrators.

Medical Solution

MAB Series
Medical Grade AI Box PC

12/13/14th & Series 2 Generation
Intel® Core™ i9/i7/i5/i3 Processors, supports LGA1700 CPU Up to 125W Max

AI Ready
Support Nvidia PCIex16 graphics card for AI application

Customizable & Expansion
Front plate customize and 4 full size expansion slot available

Medical Grade Certification
UL60601-1 medical certify for specific model

HID Series
Medical Grade Panel PC

Intel® Core™ Ultra Processors
Intel Arrow Lake U with efficiency optimized AI

Medical Grade Certification
UL60601-1 medical certify with anti-microbial finishing

Slim & Expansion Design
PCIex4 expansion & IET slot keeps stylish slim

Data & Access Security
TPM & NFC/RFID module provide highest security and control

Next-Level ARM Platforms for Smart Edge AI Application

Customizable FormFactors, Domain-Specific SDK, AI-Ready Hardware

Cross-Platform ARM Offerings
Rockchip, NXP, Qualcomm, MediaTek and Nvidia

AI-Ready Hardware Options
Native AI Engine, AI Accelerate Module (Hailo/Kinara), NVIDIA Jetson

Various ARM Formfactors and Customizable Turnkey Integration
SMARC, Open Standard Module, Single Board, Box PC, Panel PC

Industrial Reliability for Harsh Environment
Wide Temperature, Longevity, 24/7 Operation

BOX PC (AIB) Series
Industrial AI Box for Vision/Robotics

Computer on Module (SMA/OSM) Series
Compact modules for Domain-Specific Edge

Panel PC (APC) Series
HMI/Vision/Terminal for Retail/Factory/Medical

AI for IoT: Six Key Domains

Smart Retail Smart Factory Smart Medical Smart City Smart Transport Smart Home

OS Support List (Windows / Linux)

Vendor	Platform	Series	Windows 10	Windows 11	Windows Server 2016	Windows Server 2019	Windows Server 2022	Windows Server 2025	Linux Kernel Version (or newer)	Ubuntu LTS (or newer)
AMD		EPYC 8004 Series		V		V	V	V	Kernel 6.5	22.04.3 LTS
Intel	Mobile/Desktop	Bay Trail	V		V	V	V		Kernel 3.11	14.04 LTS
		Skylake	V		V	V	V		Kernel 4.4	16.04 LTS
		Apollo Lake	V						Kernel 4.8	16.04.3 LTS
		Kaby Lake	V		V	V	V		Kernel 4.10	16.04.3 LTS
		Coffee Lake	V	V	V	V	V		Kernel 4.13	16.04.5 LTS
		Whiskey Lake	V	V	V	V	V		Kernel 4.18	18.04.5 LTS
		Comet Lake	V	V		V	V		Kernel 5.3	20.04 LTS
		Tiger Lake	V	V		V	V		Kernel 5.8	20.04.2 LTS
		Elkhart Lake	V	V					Kernel 5.10	20.04.5 LTS
		Alder Lake	V	V		V	V		Kernel 5.18	22.04.2 LTS
		Alder Lake-N (Amston Lake)	V	V		V	V		Kernel 5.18	22.04.2 LTS
		Raptor Lake	V	V		V	V		Kernel 5.18	22.04.2 LTS
		Meteor Lake	V	V					Kernel 6.2	22.04.3 LTS
		Arrow Lake-S	V	V					Kernel 6.8	24.04 LTS
		Twin Lake	V	V					Kernel 6.13	24.04.3 LTS
	Server	Skylake-SP	V	V		V	V		Kernel 4.10	16.04.3 LTS
		Cascade Lake	V	V		V	V	V	Kernel 4.18	18.04.5 LTS
		Sapphire Rapids		V		V	V	V	Kernel 5.19	22.04.2 LTS
		Emerald Rapids				V	V	V	Kernel 6.2	22.04.3 LTS
		Granite Rapids				V	V	V	Kernel 6.13	24.04.3 LTS

Avalue's Industrial & Embedded Motherboard series offers a wide range of popular form factors. This includes 3.5" single board computers, Pico-ITX, Thin Mini-ITX, Mini-ITX, Micro ATX, ATX, and ARM-based embedded boards, designed to meet diverse industrial and embedded computing needs.
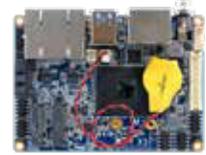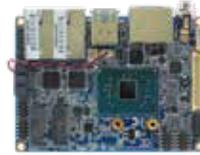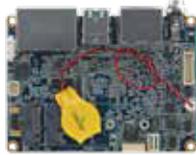
Industrial & Embedded Motherboard

Model Number	EZX-EHLP
Processor	Intel® Pentium®/ Celeron®/ Atom™ Series Processor
System Chipset	N/A
System Memory	Single Channel LPDDR4 4GB Memory Down (8GB for BOM Option)
Expansion	1 x M.2 B-Key (2242/3042) 1 x Micro SIM to SIM Adapter by option
Display	Intel® UHD Graphics for 10th Gen Intel® Processor 1 x Mini DP, 1 x eDP Supports Dual Display
Resolution	Mini DP++: 4096 x 2160 @ 60Hz eDP 1.3: 4096 x 2160 @ 60Hz
Audio	N/A
Ethernet	1 x Intel® I210AT/IT
USB/ SATA/ COM/ LAN	6/ 0/ 1/ 1
Power Requirement	+12V
Power Type	AT/ ATX
Operating Temp.	0°C ~ 60°C (32°F ~ 140°F) -20°C ~ 60°C (-4°F ~ 140°F) for Wide Temperature CPU SKU
Dimension (L x W)	3.31" x 2.55" (84 x 65 mm)
Weight	0.66 lbs (0.3 kg)

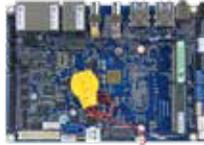| Model Number	EPI-ARLS
Processor	Intel® LGA1851 Socket Supports Intel® Core™ Ultra Processor, Supports TDP Up to 35W
System Chipset	Intel® Q870/H810
System Memory	1 x 262-pin DDR5 5600/6400MHz SO-DIMM Supports Up to 48GB (6400MHz for Ultra 7, Ultra 9 CPU)
Watchdog Timer	H/W Reset, 5 sec. ~ 255 sec / 5 sec. ~ 255 min.
Expansion	1 x M.2 E-Key (2230) 1 x M.2 M-Key (2280) 1 x M.2 M-Key (2242) (For Q870 Only)
Storage	1 x M.2 M-Key (2280) 1 x M.2 M-Key (2242) (For Q870 Only)
I/O	4 x USB 3.2 Gen2 at I/O for Q870 (2 x USB 3.2 Gen2, 2 x USB 3.2 Gen1 at I/O for H810) 2 x RS-232, 2 x RS-232/422/485 1 x 16bit GPIO 1 x SPI, 1 x e-SPI
Display Chipset	Intel® Xe LPG Graphics Architecture CPU Integrated 1 x DP, 1 x HDMI, 1 x LVDS/ eDP Supports Triple Display
Resolution	DP 2.0: Max 7680 x 4320 @ 60Hz HDMI 2.0: 4096 x 2304 @ 60Hz LVDS: 1920 x 1080 Dual Channel 18/24-bits eDP: 1920 x 1080 @ 60Hz 2 Lanes
Audio Chipset	Realtek Audio Codec Mic-in, Line-out
Ethernet Chipset	1 x Intel® I226LM 2 x Intel® I226V (H810 only 1 x Intel® I226V)
Power Requirement	+12V
Power Type	AT/ ATX
Operating Temp.	0°C ~ 60°C (32°F ~ 140°F)
Dimension (L x W)	6.5" x 4.5" (165mm x 115mm)

2.5" SBC Pico-ITX

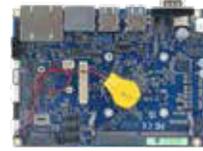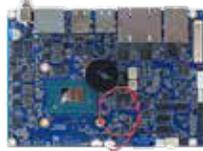| Model Number	EPX-TWLP	EPX-ASLP	EPX-EHLP	EPX-APLP
Processor	Intel® N150 & N250 Processor	Intel® N97 & Atom® Processor x7000RE Series Processor	Intel® Celeron®/ Atom™ Series Processor	Intel® Celeron® N3350 / J3455 Processor
System Chipset	N/A	N/A	N/A	N/A
System Memory	1 x 262-pin DDR5 4800MHz SO-DIMM Supports Up to 16GB	1 x 262-pin DDR5 4800MHz SO-DIMM Supports Up to 16GB	1 x 260-pin DDR4 2666MHz SO-DIMM Supports Up to 32GB	1 x 204-pin DDR3L 1600MHz SO-DIMM Supports Up to 8GB
Expansion	1 x M.2 B-Key (2242/3042) 1 x M.2 E-Key (2230) 1 x Micro SIM to SIM Adapter by option	1 x M.2 B-Key (2242/3042) 1 x M.2 E-Key (2230) 1 x Micro SIM to SIM Adapter by option	1 x M.2 B-Key (2242/2260)	1 x M.2 B-Key (2242/2260/3042) 1 x M.2 E-Key (2230) 1 x Micro SIM to SIM Adapter by option
Display	Intel® Graphics 1 x HDMI, 1 x DP, 1 x LVDS Supports Triple Display	Intel® UHD Graphics 1 x HDMI, 1 x DP, 1 x LVDS Supports Triple Display	Intel® UHD Graphics for 10th Gen Intel® Processor 2 x DP++, 1 x LVDS Supports Triple Display	Intel® Celeron® SoC Integrated Graphics 1 x DP++, 1 x HDMI, 1 x LVDS Supports Triple Display
Resolution	HDMI 2.0b: 4096 x 2160 @ 60Hz DP 1.4a: 4096 x 2160 @ 60Hz LVDS: 366 x 768 Single Channel 18/24-bits	HDMI 2.0b: 4096 x 2160 @ 60Hz DP 1.4a: 4096 x 2160 @ 60Hz LVDS: 366 x 768 Single Channel 18/24-bits	DP++: 4096 x 2160 @ 60Hz LVDS: 1366 x 768 Single Channel 18/24-bits	HDMI 1.4b: 3840 x 2160 @ 30Hz, 2560 x 1600 @ 30Hz DP 1.2a: 4096 x 2160 @ 60Hz LVDS: 1920 x 1800 @ 60Hz Dual Channel 18/24-bits
Audio	N/A	N/A	N/A	Realtek Audio Codec 2W Audio Amplifier
Ethernet	2 x Intel® I226V	2 x Intel® I226V/IT	2 x Intel® I226LM/IT	2 x Intel® I226LM
USB/ SATA/ COM/ LAN	6/ 1/ 2/ 2	6/ 1/ 2/ 2	6/ 0/ 2/ 2	6/ 2/ 1/ 2
Power Requirement	+12V	+12V	+12V	+12V
Power Type	AT/ ATX	AT/ ATX	AT/ ATX	AT/ ATX
Operating Temp.	0°C ~ 60°C (32°F ~ 140°F)	0°C ~ 60°C (32°F ~ 140°F) -40°C ~ 80°C (-40°F ~ 176°F) for Wide Temperature CPU SKU	0°C ~ 60°C (32°F ~ 140°F) -20°C ~ 60°C (-4°F ~ 140°F) for Wide Temperature CPU SKU	0°C ~ 60°C (32°F ~ 140°F)
Dimension (L x W)	3.94" x 2.83" (100 x 72 mm)	3.94" x 2.83" (100 x 72 mm)	3.94" x 2.83" (100 x 72 mm)	3.94" x 2.83" (100 x 72 mm)
Weight	0.66 lbs (0.3 kg)	0.66 lbs (0.3 kg)	0.66 lbs (0.3 kg)	0.66 lbs (0.3 kg)

3.5" SBC

Model Number	ECM-ARL	ECM-MTL	ECM-RPL
Processor	Intel® Core™ Ultra 5 Series Processor, Supports TDP 15/28W	Intel® Core™ Ultra 5 Series Processor, Supports TDP 15/28W	13th Gen Intel® Core™ i7/i5/i3 & Pentium® Series Processor, Supports TDP 15/28W
System Chipset	N/A	N/A	N/A
System Memory	1 x 262-pin DDR5 5600MHz SO-DIMM Supports Up to 48GB	1 x 262-pin DDR5 5600MHz SO-DIMM Supports Up to 48GB	1 x 262-pin DDR5 4800MHz SO-DIMM Supports Up to 32GB (Non ECC Only)
Watchdog Timer	H/W Reset, 1 sec. ~ 65535 sec. and 1 sec./step or 1 min./step	H/W Reset, 1 sec. ~ 65535 sec. and 1 sec./step or 1 min./step	H/W Reset, 1 sec. ~ 65535 sec. and 1 sec./step or 1 min./step
Expansion	1 x M.2 B-Key (2242/3042/3052) 1 x M.2 E-Key (2230) 1 x M.2 M-Key (2280)	1 x M.2 B-Key (2242/3042/3052) 1 x M.2 M-Key (2280) 1 x SATA III	1 x M.2 B-Key (2242/3042/3052) 1 x M.2 E-Key (2230) 1 x M.2 M-Key (2280)
Storage	1 x M.2 B-Key (3042/3052/2242) 1 x M.2 M-Key (2280) 1 x SATA III	1 x M.2 B-Key (3042/3052/2242) 1 x M.2 (2280) M-Key 1 x SATA III	1 x M.2 B-Key (2242/3042/3052) 1 x M.2 M-Key (2280) 1 x SATA III
I/O	4 x USB 2.0, 2 x USB 3.2 Gen 2x1, 1 x USB 3.2 Gen 1x1, 1 x USB Type-C 5V x 3A DP/ USB 3.2 Gen 1, 5V x 3A 2 x RS-232, 2 x RS-232/422/485 1 x SATA III 1 x 8bit GPIO 1 x BIOS SPI, 1 x eSPI, 1 x SIM Card Slot	4 x USB 2.0, 2 x USB 3.2 Gen 2x1, 1 x USB 3.2 Gen 1x1, 1 x USB Type-C 5V x 3A DP/ USB 3.2 Gen 1, 5V x 3A 2 x RS-232, 2 x RS-232/422/485 1 x SATA III 1 x 8bit GPIO 1 x BIOS SPI, 1 x eSPI, 1 x SIM Card Slot	4 x USB 2.0, 3 x USB 3.2 Gen2, 1 x USB Type-C Supports DP/USB 3.2 Gen 1 5V x 3A 2 x RS-232/422/485 1 x 8bit GPIO 1 x e-SPI, 1 x SIM Card Slot
Display Chipset	Intel® Xe LPG Graphics 1 x HDMI, 1 x DP, 1 x LVDS/ eDP 1 x USB Type-C Supports DP Supports Four Display	Intel® Xe LPG Graphics 1 x HDMI, 1 x DP, 1 x LVDS/ eDP 1 x USB Type-C Supports DP Supports Four Display	Intel® Iris® Xe/ UHD Graphics (Dependent on CPU) 1 x HDMI, 1 x DP, 1 x LVDS/ eDP, 1 x USB Type-C Supports DP Supports Four Display
Resolution	HDMI 2.0b: 4096 x 2160 @ 60Hz DP 1.4a: 7680 x 4320 @ 60Hz LVDS: 1920 x 1080 @ 60Hz Dual Channel 18/24-bits eDP: 1920 x 1080 @ 60Hz 2 Lanes USB Type-C Supports DP: 4096 x 2160 @ 60Hz	HDMI 2.0b: 4096 x 2160 @ 60Hz DP 1.4a: 7680 x 4320 @ 60Hz LVDS: 1920 x 1080 @ 60Hz Dual Channel 18/24-bits eDP: 1920 x 1080 @ 60Hz 2 Lanes USB Type-C Supports DP: 4096 x 2160 @ 60Hz	HDMI 2.0b: 4096 x 2160 @ 60Hz DP 2.1: 7680 x 4320 @ 60Hz Max LVDS: 1920 x 1080 @ 60Hz or eDP: 1920 x 1080 @ 60Hz 2 Lanes USB Type-C Supports DP : 4096 x 2304 @ 60Hz
Audio Chipset	Realtek Audio Codec Mic-in, Line-in, Line-out 2W Audio Amplifier	Realtek Audio Codec Mic-in, Line-in, Line-out 2W Audio Amplifier	Realtek Audio Codec Mic-in, Line-in, Line-out 2W Audio Amplifier
Ethernet Chipset	1 x Intel® I226V 1 x Intel® I226LM	1 x Intel® I226V 1 x Intel® I226LM	2 x Intel® I226LM/IT
Power Requirement	+12V ~ +24V	+12V ~ +24V	+9V ~ 36V or USB Type-C Adapter (20V) Note: DCIN & USB Type-C Adapter Can Only Use Either One.
Power Type	AT/ ATX	AT/ ATX	AT/ ATX
Operating Temp.	0°C ~ 60°C (32°F ~ 140°F)	0°C ~ 60°C (32°F ~ 140°F)	0°C ~ 60°C (32°F ~ 140°F) -40°C ~ 70°C (-40°F ~ 158°F) for Wide Temperature CPU SKU
Dimension (L x W)	5.7" x 4" (146 x 101 mm)	5.7" x 4" (146 x 101 mm)	5.7" x 4" (146 x 101 mm)

3.5" SBC

Model Number	ECM-TGU	ECM-ADLS	ECM-CFS
Processor	11th Gen Intel® Core™ i7/i5/i3 & Celeron® Series Processor, Supports TDP15/28W	Intel® LGA1700 Socket Supports 12th/13th Gen Core™ i9/i7/i5/i3 & Pentium® / Celeron® Series Processor, Supports TDP Up to 35W	8/ 9th Gen Intel® Core™ i7/ i5/ i3/ Celeron® rPGA Processor
System Chipset	N/A	Intel® Q670E/ H610E	Intel® Q370/ H310
System Memory	1 x 260-pin DDR4 3200MHz SO-DIMM, Supports Up to 32GB (Non ECC Only)	1 x 262-pin DDR5 4800MHz SO-DIMM Supports Up to 32GB	1 x 260-Pin DDR4 2400MHz SO-DIMM Supports Up to 32GB
Watchdog Timer	H/W Reset, 1 sec. ~ 65535 sec. and 1 sec./step or 1 min./step	H/W Reset, 1 sec. ~ 65535 sec. and 1 sec./step or 1 min./step	H/W Reset, 1 sec. ~ 65535 sec. and 1 sec./step or 1 min./step
Expansion	1 x M.2 B-Key (2242/3042) 1 x M.2 E-Key (2230) 1 x M.2 M-Key (2242/2260)	1 x M.2 E-Key (2230) 1 x M.2 M-Key (2280)	1 x Mini PCIe Supports mSATA) (Note: Q370 Supports PCIe/ SATA/ USB2.0 Device, H310 Supports SATA/ USB 2.0)
Storage	1 x M.2 B-Key (2242) 1 x M.2 M-Key (2260 for 2242) 1 x SATA III	1 x M.2 M-Key (2280)	1 x mSATA Supported from Mini PCIe
I/O	4 x USB 2.0, 4 x USB 3.2 Gen2x1 4 x RS-232, 2 x RS-232/422/485 1 x SATA III 1 x 8bit GPIO 1 x LPC, 1 x SPI, 1 x SIM Card Slot	4 x USB 2.0, 4 x USB 3.2 Gen2 (H610E USB 3.2 Supports 2 x Gen2 & 2 x Gen1 only) 2 x RS-232/422/485 1 x 8bit GPIO 1 x e-SPI	2 x USB 2.0, 4 x USB 3.1 (Q370 Supports Gen2, H310 Supports Gen1) 2 x RS-232 2 x SATA III 1 x 8bit GPIO 1 x LPC, 1 x SPI
Display Chipset	Intel® 12th Gen Processor Integrated 2 x DP++, 1 x LVDS, 1 x eDP Supports Four Display	Intel® 12th/13th Gen Processor Integrated 1 x HDMI, 1 x DP, 1 x LVDS/ eDP Supports Triple Display	Intel® UHD Graphics 630 / Intel® UHD Graphics 610 2 x HDMI, 1 x LVDS H310 Only Supports Dual Display: LVDS + HDMI 1 (Default LVDS Enable) or HDMI 1 + HDMI 2 (LVDS Disabled) Q370 Supports Triple Display
Resolution	DP 1.4: 4096 x 2304 @ 60Hz LVDS: 1920 x 1080 @ 60Hz Dual Channel 18/24-bits eDP 1.3: 4096 x 2160 @ 60Hz	HDMI 2.0: 4096 x 2304 @ 60Hz DP 1.4b: 4096 x 2304 @ 60Hz, Supports DP++ LVDS: 1920 x 1080 @ 60Hz Dual Channel eDP: 1920 x 1080 @ 60Hz 2 Lanes	HDMI 1.4: 4096 x 2304 @ 30Hz LVDS: 1920 x 1080 @ 60Hz Dual Channel 18/24-bits
Audio Chipset	Realtek Audio Codec Mic-in, Line-in, Line-out 2W Audio Amplifier	Realtek Audio Codec Mic-in, Line-in, Line-out	Realtek Audio Codec Mic-in, Line-in, Line-out
Ethernet Chipset	3 x Intel® I226LM/IT	2 x Intel® I226LM	1 x Intel® I210AT 1 x Intel® I219LM
Power Requirement	+12V ~ +24V	+12V	+12V
Power Type	AT/ ATX	AT/ ATX	AT/ ATX
Operating Temp.	0°C ~ 60°C (32°F ~ 140°F) -20°C ~ 60°C (-4°F ~ 140°F) for Wide Temperature CPU SKU	0°C ~ 60°C (32°F ~ 140°F)	0°C ~ 60°C (32°F ~ 140°F)
Dimension (L x W)	5.7" x 4" (146 x 101 mm)	5.7" x 4" (146 x 101 mm)	5.7" x 4" (146 x 101 mm)

3.5" SBC

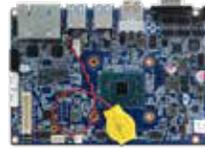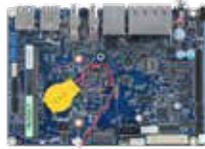|	ECM-TWL3	ECM-ASL3	ECM-TWL	ECM-ASL
	Intel® Processor N150, N250 & Intel® Core™ 3 Processor N355	Intel® Processor N97 & Intel® Core™ i3-N305 & Intel® Atom® x7000RE Series Processor	Intel® Processor N150, N250 & Core™ 3 Processor N355	Intel® Processor N97 & Intel® Core™ i3-N305 & Intel® Atom® x7000RE Series Processor
	N/A	N/A	N/A	N/A
	1 x 262-pin DDR5 4800MHz SO-DIMM Supports Up to 16GB	1 x 262-pin DDR5 4800MHz SO-DIMM Supports Up to 16GB	1 x 262-pin DDR5 4800MHz SO-DIMM Supports Up to 16GB	1 x 262-pin DDR5 4800MHz SO-DIMM Supports Up to 16GB
	H/W Reset, 1 sec. ~ 65535 sec. and 1 sec./step or 1 min./step	H/W Reset, 1 sec. ~ 65535 sec. and 1 sec./step or 1 min./step	H/W Reset, 1 sec. ~ 65535 sec. and 1 sec./step or 1 min./step	H/W Reset, 1 sec. ~ 65535 sec. and 1 sec./step or 1 min./step
	1 x M.2 B-Key (3042/3052) 1 x M.2 E-Key (2230) 1 x M.2 M-Key (2242/2280)	1 x M.2 B-Key (3042/3052) 1 x M.2 E-Key (2230) 1 x M.2 M-Key (2242/2280)	1 x M.2 B-Key (2242/3042/3052) 1 x M.2 E-Key (2230)	1 x M.2 B-Key (2242/3042/3052) 1 x M.2 E-Key (2230)
	1 x M.2 B-Key (2242/3042/3052) 1 x M.2 M-Key (2280) 1 x SATA III	1 x M.2 B-Key (2242/3042/3052) 1 x M.2 M-Key (2280) 1 x SATA III	1 x M.2 B-Key (2242/3042/3052) 1 x SATA III	1 x M.2 B-Key (2242/3042/3052) 1 x SATA III
	3 x USB 2.0, 3 x USB 3.2 Gen2 2 x RS-232, 2 x RS-232/422/485 1 x SATA III 1 x 8bit GPIO 2 x 6pin for eSPI, 1 x SIM Card Slot	3 x USB 2.0, 3 x USB 3.2 Gen2 2 x RS-232, 2 x RS-232/422/485 1 x SATA III 1 x 8bit GPIO 2 x 6pin for eSPI, 1 x SIM Card Slot	3 x USB 2.0, 3 x USB 3.2 Gen2 3 x RS-232, 1 x RS-232/422/485 1 x SATA III 1 x 8bit GPIO 1 x eSPI, 1 x SIM Card Slot	3 x USB 2.0, 3 x USB 3.2 Gen2 3 x RS-232, 1 x RS-232/422/485 1 x SATA III 1 x 8bit GPIO 1 x eSPI, 1 x SIM Card Slot
	Intel® UHD Graphics 1 x HDMI, 1 x DP, 1 x LVDS/ eDP Supports Triple Display	Integrated Intel® UHD Graphics 1 x HDMI, 1 x DP, 1 x LVDS/ eDP Supports Triple Display	Intel® UHD Graphics 1 x HDMI, 1 x DP++, 1 x LVDS/ eDP Supports Triple Display	Integrated Intel® UHD Graphics 1 x HDMI, 1 x DP++, 1 x LVDS/ eDP Supports Triple Display
	HDMI 2.0b: 4096 x 2160 @ 60Hz DP 1.2: 4096 x 2160 @ 60Hz LVDS: 1920 x 1080 Dual Channel 18/24-bits eDP: 1980 x 1808 @ 60Hz 2 Lanes	HDMI 2.0b: 4096 x 2160 @ 60Hz DP 1.2: 4096 x 2160 @ 60Hz LVDS: 1920 x 1080 Dual Channel 18/24-bits eDP: 1980 x 1808 @ 60Hz 2 Lanes	HDMI 2.0b: Max 4096 x 2160 @ 60Hz DP 1.4a: Max 4096 x 2160 @ 60Hz LVDS: 1920 x 1080 Dual Channel 18/24-bits eDP: 1920 x 1080 @ 60Hz 2 Lanes	HDMI 2.0b: Max 4096 x 2160 @60Hz DP 1.4a: Max 4096 x 2160 @ 60Hz LVDS: 1920 x 1080 @ 60Hz Dual Channel 18/24-bits eDP: 1920 x 1080 @ 60Hz 2 Lanes
	Realtek Audio Codec Mic-in, Line-in, Line-out	Realtek Audio Codec Mic-in, Line-in, Line-out	Realtek Audio Codec Mic-in, Line-in, Line-out	Realtek Audio Codec Mic-in, Line-in, Line-out
	2 x Intel® I210AT 1 x Intel® I226V	2 x Intel® I210AT/IT 1 x Intel® I226V/IT	2 x Intel® I226V	2 x Intel® I226V/IT
	+9V ~ +36V	+9V ~ +36V	+9V ~ +36V	+9V ~ +36V
	AT/ ATX	AT/ ATX	AT/ ATX	AT/ ATX
	0°C ~ 60°C (32°F ~ 140°F)	0°C ~ 60°C (32°F ~ 140°F) -40°C ~ 80°C (-40°F ~ 176°F) for Wide Temperature CPU SKU	0°C ~ 60°C (32°F ~ 140°F)	0°C ~ 60°C (32°F ~ 140°F) -40°C ~ 80°C (-40°F ~ 176°F) for Wide Temperature CPU SKU
	5.7" x 4" (146 x 101 mm)	5.7" x 4" (146 x 101 mm)	5.7" x 4" (146 x 101 mm)	5.7" x 4" (146 x 101 mm)

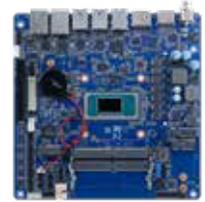| Model Number	ECM-EHL3	ECM-EHL	ECM-APL	ECM-ADNC
Processor	Intel® Atom™ x6000E / Celeron®/ Atom™ Series Processor	Intel® Atom™ x6000E / Celeron®/ Atom™ Series Processor	Intel® Pentium® / Celeron® / Atom™ Series Processor	Intel® Processor N97
System Chipset	N/A	N/A	N/A	N/A
System Memory	1 x 260-pin DDR4 3200MHz SO-DIMM, Supports Up to 32GB (Non ECC Only)	1 x 260-pin DDR4 3200MHz SO-DIMM, Supports Up to 32GB (Non ECC Only)	1 x 204-pin DDR3L 1600 & 1333MHz SO-DIMM, Supports Up to 8GB (Non ECC Only)	1 x 262-pin DDR5 4800MHz SO-DIMM Supports Up to 16GB
Watchdog Timer	H/W Reset, 1 sec. ~ 65535 sec. and 1 sec./step or 1 min./step	H/W Reset, 1 sec. ~ 65535 sec. and 1 sec./step or 1 min./step	H/W Reset, 1 sec. ~ 65535 sec. and 1 sec./step or 1 min./step	H/W Reset, 1 sec. ~ 65535 sec. and 1 sec./step or 1 min./step
Expansion	1 x M.2 B-Key (2242/3042) 1 x M.2 E-Key (2230) 1 x M.2 M-Key (2260)	1 x M.2 B-Key (2242/3042) 1 x M.2 E-Key (2230)	1 x Mini PCIe (for PCIe & USB2.0) 1 x M.2 (2242) B-Key	1 x M.2 B-Key (2242) 1 x M.2 E-Key (2230) 1 x M.2 M-Key (2280)
Storage	1 x M.2 B-Key 1 x M.2 M-Key (2260 for 2242) 1 x SATA III	1 x M.2 B-Key (2242) 1 x SATA III	1 x M.2 B-Key (2242) 1 x Mini PCIe (For PCIe & USB 2.0)	1 x M.2 M-Key (2280) 1 x SATA III
I/O	6 x USB 2.0, 2 x USB 3.1 Gen2 4 x RS-232, 2 x RS-232/422/485 1 x SATA III 1 x 8bit GPIO 1 x eSPI, 1 x SIM Card Slot	4 x USB 2.0, 2 x USB 3.1 Gen2 (10Gbps) 3 x RS-232, 1 x RS-232/422/485 1 x SATA III 1 x 8bit GPIO 1 x eSPI, 1 x SIM Card Slot	1 x USB 2.0, 4 x USB 3.0 5 x RS-232, 1 x RS-232/422/485 1 x SATA III 1 x Micro SIM Card Slot 1 x 8bit GPIO 1 x LPC, 1 x SPI	6 x USB 3.2 Gen1, 4 x USB 2.0 1 x SATA III, 2 x RS-232, 2 x RS-232/422/485 1 x 8bit GPIO, 1 x I2C, 1 x eSPI
Display Chipset	Intel® UHD Graphics for 10th Gen Intel® Processor 2 x DP++, 1 x LVDS/ eDP (Default LVDS) Supports Triple Display	Intel® UHD Graphics for 10th Gen Intel® Processor 1 x HDMI, 1 x DP, 1 x eDP Supports Triple Display	Intel® Apollo Lake SoC Integrated Graphics 2 x HDMI, 1 x LVDS Supports Triple Display	Integrated Intel® UHD Graphics 1 x HDMI, 1 x DP Supports Dual Display
Resolution	DP: Max 4096 x 2304 @ 60Hz LVDS: Max 1920 x 1080 @ 60Hz Dual Channel 18/ 24-bits eDP: Max 4096 x 2160 @ 60Hz 2 Lanes	HDMI 2.0b: 4096 x 2160 @ 60Hz DP 1.2: 4096 x 2160 @ 60Hz eDP 1.3: 4096 x 2160 @ 60Hz	HDMI: 3840 x 2160 @ 30Hz LVDS: 1920 x 1080 @ 60Hz	HDMI 2.0: 2048 x 1080 @ 60Hz DP++: Max 4096 x 2340 @ 60Hz
Audio Chipset	Realtek Audio Codec Mic-in, Line-in, Line-out 2W Audio Amplifier	Realtek Audio Codec Mic-in, Line-in, Line-out	Realtek Audio Codec Mic-in, Line-in, Line-out	Realtek Audio Codec Mic-in, Line-out Audio Amplifier
Ethernet Chipset	1 x Intel® I226LM 2 x Intel® I210AT	2 x Intel® I226LM/IT	2 x Intel® I210AT	2 x Intel® I226V
Power Requirement	+9V ~ +36V	+9V ~ +36V	+12V ~ +24V	+12V ~ +24V
Power Type	AT/ ATX	AT/ ATX	AT/ ATX	AT/ ATX
Operating Temp.	0°C ~ 60°C (32°F ~ 140°F)	0°C ~ 60°C (32°F ~ 140°F) -40°C ~ 85°C (-40°F ~ 185°F) for Wide Temperature CPU SKU	0°C ~ 60°C (32°F ~ 140°F) -40°C ~ 85°C (-40°F ~ 185°F) (For Wide Temperature CPU SKU)	0°C ~ 60°C (32°F ~ 140°F)
Dimension (L x W)	5.7" x 4" (146 x 101 mm)	5.7" x 4" (146 x 101 mm)	5.7" x 4" (146 x 101 mm)	5.7" x 4" (146 x 101 mm)

Mini-ITX

Model Number	EMX-W880P	EMX-R680P	EMX-C246P	EMX-PTLP
Processor	Intel® LGA1851 Socket Supports Core™ Ultra Processor, Supports TDP Up to 125W	Intel® LGA1700 Socket Supports 12/13th Gen Core™ i9/i7/i5/i3 & Pentium® / Celeron® Series Processor, Supports TDP Up to 125W	Intel® LGA1151 Socket Supports 8/ 9th Gen Core™ i7/i5/i3 & Pentium® / Celeron® / Xeon Series Processor	Intel® Core™ Ultra H Series Processor, Supports TDP 25W
System Chipset	Intel® W880	Intel® R680E	Intel® C246	N/A
System Memory	2 x 262-pin DDR5 6400MHz SO-DIMM Supports Up to 96GB	2 x 262-pin DDR5 4800MHz SO-DIMM Supports Up to 64GB	2 x 260-pin DDR4 2400/2666MHz SO-DIMM Supports Up to 64GB (ECC Memory Supported by CPU)	2 x 262-pin DDR5 6400MHz(H404)/ 7200MHz(H484) SO-DIMM Supports Up to 64GB
Expansion	1 x PCIe x16 Gen5 1 x M.2 E-Key (2230) 1 x M.2 M-Key (2242/2280) 1 x M.2 M-Key (2280 with Bracket/22110)	1 x PCIe x16 Gen5 1 x M.2 E-Key (2230) 1 x M.2 M-Key (2242/2280)	1 x PCIe x16 1 x M.2 M-Key (2242/2260/2280) 1 x M.2 E-Key (2230)	1 x M.2 B-Key (2242/3042/3052) 1 x M.2 E-Key (2230) 2 x M.2 M-Key (2280)
Display	Intel® Xe LPG Graphics Architecture CPU Integrated 1 x HDMI, 1 x DP, 1 x USB4 Type C at I/O with DP-Alt mode, 1 x LVDS/ eDP Supports Four Display	Intel® 12/13th Gen CPU Integrated 1 x HDMI, 2 x DP++, 1 x LVDS/ eDP Supports Four Display	Intel® 8/9th Gen CPU Integrated 2 x HDMI, 1 x VGA, 1 x LVDS (By BOM Option) Supports Triple Display	Intel® Xe LPG Graphics 1 x HDMI, 3 x DP (2 via USB Type-C), 1 x LVDS/ eDP Maximum: 4 Independent Displays
Resolution	DP 2.1: 7680 x 4320 @ 60Hz HDMI 2.1: 8K @ 60Hz LVDS: 1920 x 1080 @ 60Hz Dual Channel 18/24-bits eDP 1.4b: 1920 x 1080 @ 60Hz 2 Lanes	HDMI 2.1b: 8K @ 60Hz DP++: 4096 x 2160 @ 60Hz / 5120 x 3200 @ 60Hz LVDS: 1920 x 1080 @ 60Hz Dual Channel 18/24-bits eDP: 1920 x 1080 @ 60Hz 2 Lanes	VGA: 2048 x 1536 @ 50Hz HDMI: 3840 x 2160 @ 30Hz / 2560 x 1600 @ 30Hz LVDS: 4096 x 2160 @ 24Hz Dual Channel 18/24-bits	HDMI 2.1: 7680 x 4320 @ 30Hz DP1.4a: Max: 7680 x 4320 @ 60Hz USB Type-C Supports : 3840 x 2160 @ 60Hz LVDS: 1920 x 1080 Dual Channel 18/24-bits eDP 1.4a: Max 4096 x 2304 @ 60Hz
Audio	Realtek Audio Codec Mic-in, Line-out 3W Audio Amplifier	Realtek Audio Codec Mic-in, Line-out 2W Audio Amplifier	Realtek Audio Codec Mic-in, Line-out, Front Audio Pin-Header 2W Audio Amplifier	Realtek Audio Codec Mic-in, Line-out 6W Audio Amplifier
Ethernet	1 x Intel® I210AT 1 x Intel® I226LM 2 x Intel® I226V	4 x Intel® I226LM	1 x Intel® I219LM 3 x Intel® I210AT	1 x Intel® I210AT 1 x Intel® I226LM
USB/ SATA/ COM/ LAN	12/ 2/ 5/ 4	12/ 2/ 5/ 4	10/ 2/ 6/ 4	11/ 0/ 5/ 2
Power Requirement	+12V/ +5V/ 5VSB/ +3.3V/ -12V	+12V/ +5V/ 5VSB/ +3.3V/ -12V	+12V/ +5V/ 5VSB/ +3.3V/ -12V	+12V ~ 24V
Power Type	AT/ ATX	AT/ ATX	AT/ ATX	AT/ ATX
Operating Temp.	0°C ~ 55°C (32°F ~ 131°F) with HDD/SSD	0°C ~ 55°C (32°F ~ 131°F)	0°C ~ 60°C (32°F ~ 140°F)	0°C ~ 60°C (32°F ~ 140°F)
Dimension (L x W)	6.69" x 6.69" (170 x 170 mm)	6.69" x 6.69" (170 x 170 mm)	6.69" x 6.69" (170 x 170 mm)	6.69" x 6.69" (170 x 170 mm)
Weight	0.88 lbs (0.4 kg)	0.88 lbs (0.4 kg)	0.88 lbs (0.4 kg)	0.88 lbs (0.4 kg)
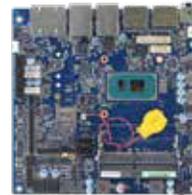
Model Number	EMX-MTLP	EMX-RPLP	EMX-TGLP	EMX-TWLP
Processor	Intel® Core™ Ultra 5 Series Processor, Supports TDP 15/28W	13th Gen Intel® Core™ i7/i5/i3 & Celeron® Series Processor, Supports TDP 15 to 45W	11th Gen Intel® Core™ i7/i5/i3 & Celeron® Processor	Intel® Processor N150, N250 & Intel® Core™ 3 Processor N355
System Chipset	N/A	N/A	N/A	N/A
System Memory	2 x 262-pin DDR5 5600MHz SO-DIMM Supports Up to 64GB	2 x 262-pin DDR5 4800MHz SO-DIMM Supports Up to 64GB (Non ECC Only)	2 x 260-pin DDR4 3200MHz SO-DIMM Supports Up to 64GB	1 x 262-pin DDR5 4800MHz SO-DIMM Supports Up to 16GB
Expansion	1 x M.2 B-Key (2242/3042/3052) 1 x M.2 E-Key (2230) 2 x M.2 M-Key (2280)	1 x M.2 B-Key (2242/3042/3052) 1 x M.2 E-Key (2230) 1 x M.2 M-Key (2280)	1 x M.2 B-Key (2242/2260/2280/3042/3052) 1 x M.2 E-Key (2230)	1 x M.2 B-Key (2242/3042/3052) 1 x M.2 E-Key (2230) 2 x M.2 M-Key (2242/2280)
Display	Intel® Xe LPG Graphics 2 x HDMI, 2 x DP (1 via USB Type-C), 1 x LVDS, 1 x eDP Maximum: 6 for Quadruple Independent Displays	Intel® Iris® Xe/ UHD Graphics for 12th Gen Intel® Processor Integrated (Dependent on CPU) 2 x DP++, 2 x DP, 1 x eDP, 1 x LVDS Maximum: 6 for Quadruple Independent Displays	12th Gen Intel® Core™ Processor Integrated 2 x DP++, 2 x DP, 1 x eDP, 1 x LVDS Maximum: 6 for Quadruple Independent Displays	Intel® Graphics 1 x HDMI, 1 x DP++, 1 x DP, 1 x LVDS/ eDP Supports Triple Display
Resolution	HDMI 2.0: 3840 x 2160 @ 60Hz DP 1.4a: Max 7680 x 4320 @ 60Hz USB Type-C Supports: 3840 x 2160 @ 60Hz LVDS: 1920 x 1080 Dual Channel 18/24-bits eDP 1.4a: Max 4096 x 2304 @ 60Hz	DP++ (DP1+DP2): 1920 x 1080 @ 60Hz DP (DP3+DP4): 4096 x 2304 @ 60 Hz LVDS: 1920 x 1080 Dual Channel 18/24-bits eDP: 4096 x 2304 @ 60Hz	DP: 4096 x 2304 @ 60Hz DP++: 1920 x 1080 @ 60Hz LVDS: 1920 x 1080 Dual Channel 18/24-bits eDP: 4096 x 2304 @ 60Hz	HDMI 2.0b: 4096 x 2160 @ 60Hz DP++: 1920 x 1080 @ 60Hz DP 1.4a: 4096 x 2160 @ 60Hz LVDS: 1920 x 1080 Dual Channel 18/24-bits eDP: 1920 x 1080 @ 60Hz 2 Lanes
Audio	Realtek Audio Codec Mic-in, Line-out 6W Audio Amplifier	Realtek Audio Codec Mic-in, Line-out 6W Audio Amplifier	Realtek Audio Codec Mic-in, Line-out 6W Audio Amplifier	Realtek Audio Codec Mic-in, Line-out 2W Audio Amplifier
Ethernet	1 x Intel® I226LM 1 x Intel® I226V	3 x Intel® I226LM/IT 1 x Intel® I219LM	1 x Intel® I225IT 1 x Intel® I219LM 2 x Intel® I210IT (BOM Optional)	2 x Intel® I226V
USB/ SATA/ COM/ LAN	11/ 2/ 6/ 2	8/ 2/ 6/ 4	8/ 2/ 6/ 4	9/ 1/ 6/ 2
Power Requirement	+12V ~ 24V	+12V ~ 24V	+12V ~ 24V	+12V ~ 24V
Power Type	AT/ ATX	AT/ ATX	AT/ ATX	AT/ ATX
Operating Temp.	15W with Fanless Supports : 0°C ~ 55°C (32°F ~ 131°F) 28W with CPU Cooler Supports : 0°C ~ 50°C (32°F ~ 122°F)	0°C ~ 60°C (32°F ~ 140°F) with HDD/SSD	0°C ~ 60°C (32°F ~ 140°F) -20°C ~ 60°C (-4°F ~ 140°F) for Wide Temperature CPU SKU	0°C ~ 60°C (32°F ~ 140°F)
Dimension (L x W)	6.69" x 6.69" (170 x 170 mm)	6.69" x 6.69" (170 x 170 mm)	6.69" x 6.69" (170 x 170 mm)	6.69" x 6.69" (170 x 170 mm)
Weight	15W (Shipping with Heatsink) : 1.127 lbs. (0.51 kg) 28W (Shipping w/o Cooler) : 0.603 lbs. (0.27 kg)	0.88 lbs. (0.4 kg)	0.88 lbs. (0.4 kg)	0.88 lbs. (0.4 kg)

Mini-ITX
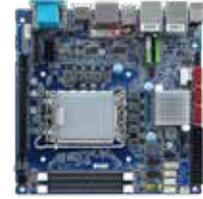
	EMX-ASLP	EMX-EHLP	MX610HD	MX610H
	Intel® Processor N97, Intel® Core™ i3-N305 & Intel® Atom® x7000RE Series Processor	Intel® Atom™ x6000E / Celeron® Series Processor	Intel® LGA1700 Socket Supports 12/13/14th Gen Core™ i9/i7/i5/i3 & Pentium® / Celeron® Series Processor, Supports TDP Up to 65W	Intel® LGA1700 Socket Supports 12/13/14th Gen Core™ i9/i7/i5/i3 & Pentium® / Celeron® Series Processor, Supports TDP Up to 65W
	N/A	N/A	Intel® H610E	Intel® H610E
	1 x 262-pin DDR5 4800MHz SO-DIMM Supports Up to 16GB	1 x 260-pin DDR4 3200MHz SO-DIMM Supports Up to 32GB (Only Atom™ x6000 Series Processor Supports IBECC)	2 x 262-pin DDR5 5600MHz SO-DIMM Supports Up to 64GB (Non ECC Only)	2 x 262-pin DDR5 5600MHz SO-DIMM Supports Up to 64GB (Non ECC Only)
	1 x M.2 B-Key (2242/3042/3052) 1 x M.2 E-Key (2230) 1 x M.2 M-Key (2242/2280)	1 x M.2 B-Key (2242/2260/2280/3042/3052) 1 x M.2 E-Key (2230)	1 x PCIe x16 Gen4 1 x M.2 M-Key (2242/2280) 1 x M.2 E-Key (2230)	1 x PCIe x16 Gen4 1 x M.2 M-Key (2242/2280) 1 x M.2 E-Key (2230)
	Intel® UHD Graphics Integrated 1 x HDMI, 1 x DP, 1 x DP++, 1 x LVDS/ eDP Supports Triple Display	Intel® UHD Graphics for 10th Gen Intel® Processor 1 x DP++, 1 x HDMI, 1 x LVDS (eDP by BOM Option) Supports Triple Display	Intel® Integrated UHD Graphics with Xe Architecture (CPU Dependent) 1 x HDMI, 1 x DP, 1 x LVDS/ eDP Supports Triple Display	Intel® Integrated UHD Graphics with Xe Architecture (CPU Dependent) 1 x HDMI, 2 x DP++, 1 x LVDS/ eDP Supports Triple Display
	HDMI 2.0b: 4096 x 2160 @ 60Hz DP++: 1920 x 1080 @ 60Hz DP 1.4a: 4096 x 2160 @ 60Hz LVDS: 1920 x 1080 Dual Channel 18/24-bits eDP: 1920 x 1080 @ 60Hz 2 Lanes	HDMI 2.0b: 4096 x 2160 @ 60Hz DP++: 4096 x 2160 @ 60Hz LVDS: 1920 x 1080 Dual Channel 18/24-bits eDP: 4096 x 2160 @ 60Hz	HDMI 1.4b: 4K @ 30Hz DP 1.2a: 4K @ 60Hz (Dual Mode) LVDS: 1920 x 1080 @ 60Hz Dual Channel 18/24-bits eDP: 1920 x 1080 @ 60Hz 2 Lanes	HDMI: 3840 x 2160 @ 30Hz DP 1.4a: 4096 x 2304 @ 60Hz LVDS: 1920 x 1200 @ 60Hz Dual Channel 18/24-bits
	Realtek Audio Codec Mic-in, Line-out 2W Audio Amplifier	Realtek Audio Codec Mic-in, Line-out 6W Audio Amplifier	Realtek Audio Codec Mic-in, Line-out 6W Audio Amplifier	Realtek Audio Codec Mic-in, Line-out 3W Audio Amplifier
	2 x Intel® I226V/IT	4 x Intel® I226LM/IT	1 x Intel® I219V 1 x Intel® I225LM	1 x Intel® I219LM 1 x Intel® I225V
	9/ 1/ 6/ 2	8/ 2/ 6/ 4	8/ 2/ 3/ 2	12/ 2/ 4/ 2
	+12V ~ 24V	+12V ~ 24V	+12V ~ 24V	+12V/ +5V/ 5VSB/ +3.3V/ -12V
	AT/ ATX	AT/ ATX	AT/ ATX	AT/ ATX
	0℃ ~ 60℃ (32℉ ~ 140℉) -20℃ ~ 70℃ (-8℉ ~ 158℉) for Wide Temperature CPU SKU	0℃ ~ 60℃ (32℉ ~ 140℉) -20℃ ~ 60℃ (-4℉ ~ 140℉) for Wide Temperature CPU SKU	0℃ ~ 60℃ (32℉ ~ 140℉)	0℃ ~ 60℃ (32℉ ~ 140℉)
	6.69" x 6.69" (170 x 170 mm)	6.69" x 6.69" (170 x 170 mm)	6.69" x 6.69" (170 x 170 mm)	6.69" x 6.69" (170 x 170 mm)
	0.88 lbs (0.4 kg)	0.88 lbs (0.4 kg)	0.88 lbs (0.4 kg)	0.88 lbs (0.4 kg)

Micro-ATX

Model Number	RX880W	RX680R	ERX-W480P
Processor	Intel® LGA1851 Socket Supports Intel® Core™ Ultra Processor, Supports TDP Up to 125W	Intel® LGA1700 Socket Supports 12/13/14th Gen Intel® Core™ i9/i7/i5/i3 & Pentium® / Celeron® Processor, Supports TDP Up to 65W	Intel® LGA1200 Socket Supports 10th Gen Core™ i9/i7/i5/i3 & Xeon® (Workstation) Series Processor, Supports TDP Up to 95W
System Chipset	Intel® W880	Intel® R680E	Intel® W480E
System Memory	4 x 288-pin DDR5 5600 MHz U-DIMM Supports Up to 192GB (ECC Memory Supported by CPU)	4 x 288-pin DDR5 4400 MHz U-DIMM Supports Up to 128GB (ECC Memory Supported by CPU)	4 x 288-pin DDR4 U-DIMM Supports Up to 128GB (ECC Memory Supported by CPU)
Expansion	1 x PCIe x16 Gen5 or x8 Bifurcated 1 x PCIe x8 Gen5 Bifurcated 1 x PCIe x4 Gen4 Open Ended 1 x PCIe x4 Gen4 2 x M.2 M-Key NVMe (2242/2280/22110) 1 x M.2 E-Key (2230) 2 x SlimSAS 4i Connector	1 x PCIe x16 Gen5 2 x PCIe x4 Gen4 1 x PCIe x4 Gen3 Open Ended 1 x M.2 M-Key NVMe (2242/2280/22110) 1 x M.2 E-Key (2230)	2 x PCIe x16 for 1 x PCIe x16 or 2 x PCIe x8 2 x PCIe x4 1 x M.2 M-Key (2260/2280)
Display	Intel® Integrated Xe LPG 2 x DP++, 2 x USB Type-C Supports Four Display	Intel® 12/13/14th Gen CPU Integrated 4 x DP , 1 x LVDS, 1 x eDP (Optional) Supports Four Display	Intel® 10th Gen CPU Integrated 1 x VGA, 1 x HDMI, 1 x DP++, 1 x LVDS Supports Triple Display
Resolution	DP 1.4: Max 4096 x 2304 @ 60Hz	DP 1.4a: Max 4096 x 2304 @ 60Hz	VGA: 2048 x 1536 @ 60Hz HDMI 1.4: Max 4096 x 2160 @ 30Hz DP++: Max 4096 x 2304 @ 60Hz LVDS: 1920 x 1080 Dual Channel 18/24-bits
Audio	Realtek Audio Codec Audio Combo Jack 2 x 3W Amplifier	Realtek Audio Codec Mic-in, Line-out 2 x 3W Amplifier	Realtek Audio Codec Line-in, Mic-in, Line-out 2 x 6W Amplifier
Ethernet	2 x Intel® I226LM	2 x Intel® I225LM/I226LM	1 x Intel® I219LM 1 x Intel® I210AT 2 x Intel® I225LM
USB/ SATA/ COM/ LAN	16/ 2/ 6/ 2	17/ 4/ 6/ 2	14/ 4/ 9/ 4
Power Requirement	+12V/ +5V/ 5VSB/ +3.3V/ -12V	+12V/ +5V/ 5VSB/ +3.3V/ -12V	+12V/ +5V/ 5VSB/ +3.3V/ -12V
Power Type	AT/ ATX	AT/ ATX	AT/ ATX
Operating Temp.	0℃ ~ 60℃ (32℉ ~ 140℉)	0℃ ~ 60℃ (32℉ ~ 140℉)	0℃ ~ 60℃ (32℉ ~ 140℉) with HDD/SSD
Dimension (L x W)	9.6" x 9.6" (243.84 x 243.84 mm)	9.6" x 9.6" (243.84 x 243.84 mm)	9.6" x 9.6" (243.84 x 243.84 mm)
Weight	1.45 lbs (0.66 kg)	1.45 lbs (0.66 kg)	1.45 lbs (0.66 kg)
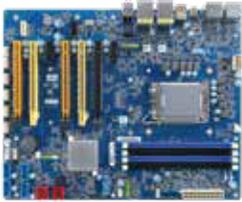
BC680R	EAX-R680BP	EAX-R680FP	EAX-C246P
Intel® LGA1700 Socket Supports 12/13/14th Gen Intel® Core™ i9/i7/i5/i3 Processor, Supports TDP Up to 65W	Intel® LGA1700 Socket Supports 12/13/14th & Series 2 Gen Intel® Core™ i9/i7/i5/i3 Processor, Supports TDP Up to 125W	Intel® LGA1700 Socket Supports 12/13/14th Gen Intel® Core™ i9/i7/i5/i3 Processor, Supports TDP Up to 125W	Intel® LGA1151 Socket Supports 8/9th Gen Intel® Core™ i7/i5/i3 & Xeon® (Workstation) / Pentium® / Celeron® Series Processor
Intel® R680E	Intel® R680E	Intel® R680E	Intel® C246
4 x 288-pin DDR5 4400MHz U-DIMM Supports Up to 128GB (ECC Memory Supported by CPU)	4 x 288-Pin DDR5 4400MHz U-DIMM Socket Supports Up to 128GB (ECC Memory Supports by CPU)	4 x 288-Pin DDR4 3200MHz U-DIMM Socket Supports Up to 128GB (ECC Memory Supports by CPU)	4 x 288-pin DDR4 2400/2666MHz U-DIMM Supports Up to 128GB (ECC Memory Supported by CPU)
1 x PCIe x16 Gen5 2 x PCIe x4 Gen4 1 x PCIe x4 Gen3 1 x PCIe x1 Gen3 2 x PCIe x1 Gen3, Open Ended 1 x M.2 M-Key NVMe (2242/2280/22110) – PCIe x4 + SATA III 1 x M.2 M-Key NVMe (2242/2280/22110) – PCIe x4 Only 1 x M.2 E-Key (2230)	2 x PCIe x16 Gen5 (Default) or 1 x PCIe x8 Gen5 with 1 x PCIe x8 Gen4 (BIOS Selection) 2 x PCIe x4 Gen4 1 x PCIe x4 Gen3 1 x PCIe x4 Slot for PCIe x2 Gen3 2 x M.2 M-Key NVMe (2242/2280/22110) for Storage only, no SATA	2 x PCIe x16 Slots for 1 x PCIe x16 Gen5 (Default) or 2 x PCIe x8 Gen5 2 x PCIe x4 Gen4 1 x PCIe x4 Gen3 1 x PCIe x4 Slot for 1 x PCIe x2 Gen3	2 x PCIe x16 Slot for 1 x PCIe x16 or 2 x PCIe x8 (by BOM Optional) 1 x PCIe x4 3 x PCIe x1 1 x PCI 1 x M.2 M-Key (2242/2260/2280) 1 x M.2 A-Key (2230)
Intel® 12/13/14th Gen CPU Integrated 2 x DP++, 2 x HDMI Supports Four Display	Intel® Graphic Chipset 12/13/14th & Series 2 Gen Core™ CPU Integrated 2 x DP++, 1 x HDMI Supports Triple Display	Intel® 12th/13/14th Gen CPU Integrated 2 x DP++, 1 x HDMI Supports Triple Display	Intel® 8/9th Gen CPU Integrated 1 x VGA, 1 x HDMI, 1 x DP++ Supports Triple Display
DP 1.4a: Max 4K @ 60Hz (Dual Mode) HDMI 2.0b: 4K @ 60Hz	HDMI 2.1b: Max 4K x 2K @ 60Hz (With HDR) DP 1.4a: Max (Combined) 7680 x 4320 @ 60Hz	DP 1.4a: Max (Combined) 7680 x 4320 @ 60Hz (DP++ via Dongle: 1920 x 1080 @ 60 Hz) HDMI 2.0b: Max 4K x 2K @ 60Hz (With HDR)	VGA: 2048 x 1536 @ 60Hz HDMI: 3840 x 2160 @ 30Hz, 2560 x 1600 @ 30Hz DP: 4096 x 2304 @ 60Hz
Realtek Audio Codec Mic-in, Line-out 6W Amplifier	Realtek Audio Codec Mic-in, Line-out 6W Amplifier	Realtek Audio Codec Mic-in, Line-out 6W Amplifier	Realtek Audio Codec Mic-in, Line-in, Line-out 2W Audio Amplifier
2 x Intel® I225LM	2 x Intel® I226LM 2 x Intel® I226V	2 x Intel® I225LM	1 x Intel® I219LM 1 x Intel® I210AT
17/ 4/ 6/ 2	14/ 4/ 6/ 4	14/ 4/ 6/ 2	13/ 6/ 10/ 2
+12V/ +5V/ 5VSB/ +3.3V/ -12V	+12V/ +5V/ 5VSB/ +3.3V/ -12V	+12V/ +5V/ 5VSB/ +3.3V/ -12V	+12V/ +5V/ 5VSB/ +3.3V/ -12V
AT/ ATX	AT/ ATX	AT/ ATX	AT/ ATX
0°C ~ 60°C (32°F ~ 140°F)	0°C ~ 55°C (32°F ~ 131°F)	0°C ~ 55°C (32°F ~ 131°F)	0°C ~ 60°C (32°F ~ 140°F)
12″ x 9.6″ (304.8 x 243.84 mm)	12″ x 9.6″ (304.8 x 243.84 mm)	12″ x 9.6″ (304.8 x 243.84 mm)	12″ x 9.6″ (304.8 x 243.84 mm)
1.85lbs (0.85 kg)	1.54 lbs (0.7 kg)	1.54lbs (0.7 kg)	1.32 lbs (0.6 kg)

ARM-based SBC

Model Number	RSC-3576	RSC-3568J	RSC-3506	REV-OM01
Processor	Rockchip RK3576 Quad-core Cortex-A72 and Quad-core Cortex-A53	Rockchip RK3568J Quad-core Cortex-A55 1.8GHz	Rockchip RK3506 Quad-core ARM Cortex-A55, Up to 2.0GHz	Rockchip RK3568J & NXP-I.MX95
System Memory	4GB (8G/ 16G Optional)	2GB/ 4GB LPDDR4	2GB / 4GB LPDDR4	2GB/4G DDR4
Storage	32GB (16 ~ 128G Optional)	32GB/ 64GB eMMC	eMMC 16GB / 32GB (Expandable via microSD Slot)	32GB/ 64GB eMMC
External I/O Connector	2 x RJ45 (10/100/1000M) 1 x USB3.0 Type A 1 x USB2.0 Type A 1 x USB3.0 Type C (OTG) 1 x HDMI Out 1 x Headphone 3.5mm Jacker 1 x M.2 1 x Speaker 1 x Micro Sim Slot 1 x Micro SD 1 x DC Jack	1 x DC Jack 1 x HDMI 2.0 In 1 x Reset 1 x RS232/422/485 DB9 1 x USB 3.0 Type A 1 x USB 3.0 Type A OTG 2 x 10/100/1000 RJ45 LAN	6 x COM Ports 2 x USB 3.0 2 x LAN Ports 1 x HDMI 2.0 (Up to 4K@60Hz) 1 x mini PCIe slot 1 x M.2 Key B	1 x DC in Phoenix connector 2 x RJ45 (10/100/1000M) 1 x HDMI 2 x USB3.0 Type A 1 x GPIO 1 x Speaker
Internal I/O Connector	2 x RS232 2 x RS485 4 x USB (4 pin) 2 x GPIO 1 x I²C 1 x Debug (4 pin) 1 x CAN 1 x LVDS or Mipi 1 x DSI 1 x LCD Backlight 1 x I²C for TP 1 x 3G/4G LTE Mini PCIE (Optional) 1 x Wi-Fi IEEE 802.11b/g/n/ac BT4.2 (Optional 5.0) 1 x Wi-Fi + BT Antenna 1 x Power Switch, 1x Reset Switch, 1 x Recovery Switch 1 x IR 2 x POE (POE OUT / POE IN) 1 x SPDIF Out (Option) 1 x UART	1 x Backlight 2 x CAN 1 x Debug 1 x eDP 5 x GPIO 1 x I²C 1 x LVDS 1 x M.2 2230 E-Key 1 x M.2 3042 B-Key 1 x Micro SD Slot 1 x MIPI DSI 3 x RS232 1 x RS232/422/485 1 x RTC Battery 1 x SD Card Slot 1 x SIM Card Slot 1 x Speaker 1 x Touch Button 2 x USB 2.0 1 x 4Pin DC PHD 2.0	1 x RGB LCD Interface 2 x CAN 2 x USB 2.0 GPIO Header: 40-pin	1 x Debug 1 x eDP (Option) 1 x LVDS (Option) 1 x M.2 3052 E-Key (for LTE Module) 1 x M.2 2230 E-Key (for Wi-Fi/BT Module) 2 x RS232/485 2 x CAN 1 x RTC Battery 1 x SD Card Slot 1 x SIM Card Slot 1 x Speaker 1 x USB 2.0 (5 pin) 2 x USB 3.0 (20 pin) 1 x Fan 1 x I²C 1 x SPI 2 x PWM
Power Requirement	12V ~ 24V	DC 12V ~ 24V	DC 12V	9 ~ 36V (2 pin Phoenix Connector)
Operating Temperature	-40℃ ~ 85℃	-40℃ ~ 85℃	-20℃ ~ 70℃	-20℃ ~ 75℃
Storage Temperature	—20℃ ~ 70℃	-40℃ ~ 85℃	-40℃ ~ 85℃	-20℃ ~ 70℃
Dimension (L x W)	146 x 101 mm	146 x 101 mm	146 x 101 mm	146 x 101 mm
Weight	0.16 kg	0.16 kg	0.16 kg	0.16 kg
Certification	CE, FCC Class B	CE, FCC Class B	CE, FCC Class B	CE, FCC Class B
Software Support	Debian 12 (Standard) Android 14	Android 13 Debian 11	Android Debian	Debian (for RK3568) Yocto (for IMX95)

ARM-based SBC

Model Number	ACP-IMX6POS	ACP-3588	ACP-Q6490	ACP-3566-PI	ACP-IMX8-PI
Processor	NXP i.MX 6 Dual Lite NXP i.MX 6 Quad Core	RockChip RK3588 Quad-core Cortex-A76 and Quad-core Cortex-A55	QCS6490 Qualcomm® Kryo™ 670, 8 cores, Up to 2.7 GHz, 12 TOPS (INT8)	RockChip RK3566 Quad-core Cortex-A55	NXP i.MX8Mmini Quad Core Cortex-A53
System Memory	1GB/ 2GB DDR3	4GB/ 8GB/ 16GB/ 32GB DDR4	DDR4, 8GB (4GB to 16GB Optional)	4GB	4GB
Storage	4GB eMMC	32 GB eMMC	Support UFS 3.1, Default 128 GB	32GB eMMC	32GB eMMC
External I/O Connector	2 x 10/100/1000 RJ45 Powered LAN 1 x DC Jack 1 x HDMI 2.0 In 1 x Micro SD Slot 1 x Mini USB 1 x RJ11 2 x RS232/422/485 DB9 2 x USB 2.0 Type A	1 x 10/100/1000 RJ45 Powered LAN 1 x HDMI 2.0 In 2 x HDMI 2.0 Out 4 x RS-232/422/485 Debug 3 x USB 2.0 Type A 1 x USB 2.0 Type C OTG 1 x USB 3.0 Type A	1 x M.2 B Key 3052 Reference RM520N-GL Quectel 1 x Nano SIM Slot 1 x RJ45 (10/100/1000M) 2 x USB 3.1 Type A 3 x USB 2.0 TypeA 1 x USB 3 Type C (Download Only) 1 x HDMI 1.4 1 x Line-out/ Mic-in/ Speaker	1 x 10/100/1000 RJ45 Powered LAN 1 x HDMI 2.0 Out 2 x USB Host 2.0 1 x USB OTG 2.0 1 x USB Host 3.0 1 x Micro SD Memory Card Slot (Max 64GB)	1 x RESET KEY 1 x Power Button 1 x HDMI Out 1 x HDMI Out 1 x MIPI DSI 1 x 3.5mm Headphone Jack 4 x USB 2.0
Internal I/O Connector	N/A	1 x EDP 2 x 20P GPIO (GPIO/ UART/ SPI/ I2C) 1 x LVDS 1 x M.2 Key M 1 x MIPI CSI 1 x MIPI DSI 2 x SATA 1 x SPDIF 1 x 30 pin Audio Interface 1 x Speaker Header 2 x Wi-Fi/ BT Antenna 2 x I²C	Wi-Fi 802.11ax Wi-Fi and BT 5.2 1 x RS-232 1 x RS485 1 x GPIO 16-bit DIO 1 x I²C 1 x uSD3.0 Card 2 x MIPI-CSI2 for 4-lanes Camera, Reference to IMX577 1 x UART	1 x Standard 40-pin GPIO Header (GPIO, UART, I²C, SPI) 1 x MIPI CSI 1 x MIPI DSI 1 x Gigabit Ethernet 1 x Wi-fi 802.11b/g/n/ac Wireless LAN, Bluetooth 4.0/5.0 (Option)	1 x Standard 40-pin GPIO Header (Can be Expanded to UART, SPI, I²C, PWM Function) 1 x Wi-fi 802.11 a/b/g/n/ac (on Module) 1 x 4 pin USB-Wifi Connector 1 x MIPI CSI 1 x SD
Power Requirement	DC 12V ~ 24V	DC 12V	DC 12V	DC 5V / 3A via USB-C	DC 5V / 3A via USB-C
Operating Temperature	-20°C ~ 85°C	-5°C ~ 70°C	-20°C ~ 70°C	0°C ~ 60°C (32°F ~ 140°F)	-20°C ~ 70°C
Storage Temperature	-40°C ~ 85°C	-40°C ~ 85°C	-40°C ~ 85°C	-40°C ~ 75°C (-40°F ~ 167°F)	-40°C ~ 75°C (-40°F ~ 167°F)
Dimension (L x W)	175 x 110 mm	150 x 125 mm	100 x 72 mm	85 x 55 mm	85 x 55 mm
Weight	0.16 kg	0.16 kg	0.1 kg	0.16 kg	0.16 kg
Certification	CE, FCC Class B	CE, FCC Class B	CE, FCC Class B	CE, FCC Class B	CE, FCC Class B
Software Support	Android 4.4 Yocto 1.7	Android 11	Ubuntu Yocto Debian Android	Debian 10	Yocto 4.0

CPU List

Intel® Desktop Processors

SKUs (with Intel ARK Link)	TDP (W)	Total Cores	Total Threads	Processor Base Frequency	Performance-core Base Frequency	Efficient-core Base Frequency	Max Turbo Frequency	BC680R
Intel® Core™ Ultra 9 Processor 285K	125W	24	24	-	3.7GHz	3.2GHz	5.7GHz	
Intel® Core™ Ultra 9 Processor 285	65W	24	24	-	2.5GHz	1.9GHz	5.6GHz	
Intel® Core™ Ultra 9 Processor 285T	35W	24	24	-	1.4GHz	1.2GHz	5.4GHz	
Intel® Core™ Ultra 7 Processor 265K	125W	20	20	-	3.9GHz	3.3GHz	5.5GHz	
Intel® Core™ Ultra 7 Processor 265	65W	20	20	-	2.4GHz	1.8GHz	5.3GHz	
Intel® Core™ Ultra 7 Processor 265T	35W	20	20	-	1.5GHz	1.2GHz	5.3GHz	
Intel® Core™ Ultra 5 Processor 245K	125W	14	14	-	4.2GHz	3.6GHz	5.2GHz	
Intel® Core™ Ultra 5 Processor 245	65W	14	14	-	3.5GHz	3.0GHz	5.1GHz	
Intel® Core™ Ultra 5 Processor 245T	35W	10	10	-	2.2GHz	1.7GHz	5.1GHz	
Intel® Core™ Ultra 5 Processor 225	65W	10	10	-	3.3GHz	2.7GHz	4.9GHz	
Intel® Core™ Ultra 5 Processor 225T	35W	10	10	-	2.5GHz	1.9GHz	4.9GHz	
Intel® Core™ 9 Processor 273PQE	125W	12		-	3.4GHz	-	5.9GHz	
Intel® Core™ 9 Processor 273PE	65W	12		-	2.3GHz	-	5.7GHz	
Intel® Core™ 9 Processor 273PTE	45W	12		-	1.4GHz	-	5.5GHz	
Intel® Core™ 7 processor 253PQE	125W	10		-	3.5GHz	-	5.7GHz	
Intel® Core™ 7 processor 253PE	65W	10		-	2.5GHz	-	5.5GHz	
Intel® Core™ 7 processor 253PTE	45W	10		-	1.8GHz	-	5.4GHz	
Intel® Core™ 7 processor 251E	65W	24	32	-	2.1GHz	1.6GHz	5.6GHz	
Intel® Core™ 7 processor 251TE	45W	24	32	-	1.4GHz	1.0GHz	5.4GHz	
Intel® Core™ 5 processor 223PQE	125W	8		-	4.0GHz	-	5.5GHz	
Intel® Core™ 5 processor 223PE	65W	8		-	2.9GHz	-	5.4GHz	
Intel® Core™ 5 processor 223PTE	45W	8		-	2.3GHz	-	5.4GHz	
Intel® Core™ 5 processor 221E	65W	14	20	-	2.7GHz	2.1GHz	5.2GHz	
Intel® Core™ 5 processor 221TE	45W	14	20	-	1.8GHz	1.3GHz	5.0GHz	
Intel® Core™ 5 processor 213PE	65W	8		-	2.7GHz	-	5.2GHz	
Intel® Core™ 5 processor 213PTE	45W	8		-	2.1GHz	-	5.2GHz	
Intel® Core™ 5 processor 211E	65W	10	16	-	2.7GHz	2.0GHz	4.9GHz	
Intel® Core™ 5 processor 211TE	45W	10	16	-	1.7GHz	1.3GHz	4.8GHz	
Intel® Core™ 3 processor 201E	65W	4	8	-	3.6GHz	-	4.8GHz	
Intel® Core™ 3 processor 201TE	45W	4	8	-	2.9GHz	-	4.6GHz	
Intel® Core™ i9 processor 14901KE	125W	8	16	-	3.8GHz	-	5.8GHz	
Intel® Core™ i9 processor 14901E	65W	8	16	-	2.8GHz	-	5.6GHz	
Intel® Core™ i9 processor 14901TE	45W	8	16	-	2.3GHz	-	5.5GHz	
Intel® Core™ i7 processor 14701E	65W	8	16	-	2.6GHz	-	5.4GHz	
Intel® Core™ i7 processor 14701TE	45W	8	16	-	2.1GHz	-	5.2GHz	
Intel® Core™ i5 processor 14501E	65W	6	12	-	3.3GHz	-	5.2GHz	
Intel® Core™ i5 processor 14501TE	45W	6	12	-	2.2GHz	-	5.1GHz	
Intel® Core™ i5 processor 14401E	65W	6	12	-	2.5GHz	-	4.7GHz	
Intel® Core™ i5 processor 14401TE	45W	6	12	-	2.0GHz	-	4.5GHz	
Intel® Core™ i9 processor 14900K	125W	24	32	-	3.2GHz	2.4GHz	6.0GHz	
Intel® Core™ i9 processor 14900	65W	24	32	-	2.0GHz	1.5GHz	5.8GHz	V
Intel® Core™ i9 processor 14900T	35W	24	32	-	1.1GHz	0.8GHz	5.5GHz	V
Intel® Core™ i7 processor 14700	65W	20	28	-	2.1GHz	1.5GHz	5.4GHz	V
Intel® Core™ i7 processor 14700T	35W	20	28	-	1.3GHz	0.9GHz	5.2GHz	V
Intel® Core™ i5 processor 14500	65W	14	20	-	2.6GHz	1.9GHz	5.0GHz	V
Intel® Core™ i5 processor 14500T	35W	14	20	-	1.7GHz	1.2GHz	4.8GHz	V
Intel® Core™ i5 processor 14400	65W	10	16	-	2.5GHz	1.8GHz	4.7GHz	V
Intel® Core™ i5 processor 14400T	35W	10	16	-	1.5GHz	1.1GHz	4.5GHz	V

(1) CPU information is based on Intel ARK, subject to change by Intel without notice.
   Please note the board specifications might not comply with Intel Cores/Threads/Frequency, but depending on Avalue board specifications.
(2) The 2 processors, i9-14901KE & Ultra 9 285T, are not listed on Intel ARK, for support needed, please contact with Avalue FAE/Sales.

EAX-R680BP	EAX-R680FP	EAX-C246P	RX680R	ERX-W480P	MX610HD	MX610H	EMX-W880P	EMX-R680P	EMX-C246P	EPI-ARLS	ECM-ADLS	ECM-CFS	ESM-HRPL
							V						
							V						
							V				V		
							V						
							V						
							V				V		
							V						
							V						
							V				V		
							V						
							V						
V													
V													V
V													V
V													
V													V
V													V
V													V
V													V
V													
V													V
V													V
V													V
V													V
V													V
V													V
V													V
V													V
V													V
V													V
V	V												
V	V				V	V							V
V	V				V	V							V
V	V				V	V							V
V	V				V	V							V
V	V				V	V							V
V	V				V	V							V
V	V				V	V							V
V	V				V	V							V
V	V												
V	V		V		V	V							V
V	V		V		V	V							V
V	V		V		V	V							V
V	V		V		V	V							V
V	V		V		V	V							V
V	V		V		V	V							V
V	V		V		V	V							V
V	V		V		V	V							V

CPU List

Intel® Desktop Processors

SKUs (with Intel ARK Link)	TDP (W)	Total Cores	Total Threads	Processor Base Frequency	Performance-core Base Frequency	Efficient-core Base Frequency	Max Turbo Frequency	BC680R
Intel® Core™ i3 Processor 14100	60W	4	8	-	3.5GHz	-	4.7GHz	V
Intel® Core™ i3 Processor 14100T	35W	4	8	-	2.7GHz	-	4.4GHz	V
Intel® Processor 300	46W	2	4	-	3.9GHz	-	3.9GHz	V
Intel® Processor 300T	35W	2	4	-	3.4GHz	-	3.4GHz	V
Intel® Core™ i9-13900K Processor	125W	24	32	-	3.0GHz	2.2GHz	5.8GHz	
Intel® Core™ i9-13900 Processor	65W	24	32	-	2.0GHz	1.5GHz	5.6GHz	V
Intel® Core™ i9-13900E Processor	65W	24	32	1.8GHz	1.8GHz	1.3GHz	5.2GHz	V
Intel® Core™ i9-13900TE Processor	35W	24	32	1.0GHz	1.0GHz	0.8GHz	5.0GHz	V
Intel® Core™ i7-13700 Processor	65W	16	24	-	2.1GHz	1.5GHz	5.2GHz	V
Intel® Core™ i7-13700E Processor	65W	16	24	1.9GHz	1.9GHz	1.3GHz	5.1GHz	V
Intel® Core™ i7-13700T Processor	35W	16	24	-	1.4GHz	1.0GHz	4.9GHz	V
Intel® Core™ i7-13700TE Processor	35W	16	24	-	1.1GHz	0.8GHz	4.8GHz	V
Intel® Core™ i5-13500 Processor	65W	14	20	-	2.5GHz	1.8GHz	4.8GHz	V
Intel® Core™ i5-13500E Processor	65W	14	20	2.4GHz	2.4GHz	1.5GHz	4.6GHz	V
Intel® Core™ i5-13500T Processor	35W	14	20	-	1.6GHz	1.2GHz	4.6GHz	V
Intel® Core™ i5-13500TE Processor	35W	14	20	1.3GHz	1.3GHz	1.1GHz	4.5GHz	V
Intel® Core™ i5-13400 Processor	65W	10	16	-	2.5GHz	1.8GHz	4.6GHz	V
Intel® Core™ i5-13400E Processor	65W	10	16	2.4GHz	2.4GHz	1.5GHz	4.6GHz	V
Intel® Core™ i3-13100 Processor	60W	4	8	-	3.4GHz	-	4.5GHz	V
Intel® Core™ i3-13100F Processor	58W	4	8	-	3.4GHz	-	4.5GHz	
Intel® Core™ i3-13100T Processor	35W	4	8	-	2.5GHz	-	4.2GHz	V
Intel® Core™ i3-13100TE Processor	35W	4	8	2.4GHz	2.4GHz	-	4.1GHz	V
Intel® Core™ i3-13100E Processor	60W	4	8	3.3GHz	3.3GHz	-	4.4GHz	V
Intel® Core™ i9-12900K Processor	125W	16	24	-	3.2GHz	2.4GHz	5.2GHz	
Intel® Core™ i9-12900 Processor	65W	16	24	-	2.4GHz	1.8GHz	5.1GHz	V
Intel® Core™ i9-12900E Processor	65W	16	24	-	2.3GHz	1.7GHz	5.0GHz	V
Intel® Core™ i9-12900TE Processor	35W	16	24	-	1.1GHz	1.0GHz	4.8GHz	V
Intel® Core™ i7-12700 Processor	65W	12	20	-	2.1GHz	1.6GHz	4.9GHz	V
Intel® Core™ i7-12700E Processor	65W	12	20	-	2.1GHz	1.6GHz	4.8GHz	V
Intel® Core™ i7-12700TE Processor	35W	12	20	-	1.4GHz	1.0GHz	4.6GHz	V
Intel® Core™ i5-12500 Processor	65W	6	12	-	3.0GHz	-	4.6GHz	V
Intel® Core™ i5-12500E Processor	65W	6	12	-	2.9GHz	-	4.5GHz	V
Intel® Core™ i5-12500TE Processor	35W	6	12	-	1.9GHz	-	4.3GHz	V
Intel® Core™ i5-12400 Processor	65W	6	12	-	2.5GHz	-	4.4GHz	V
Intel® Core™ i3-12100 Processor	60W	4	8	-	3.3GHz	-	4.3GHz	V
Intel® Core™ i3-12100E Processor	60W	4	8	-	3.2GHz	-	4.2GHz	V
Intel® Core™ i3-12100TE Processor	35W	4	8	-	2.1GHz	-	4.0GHz	V
Intel® Pentium® Gold G7400E Processor	46W	2	4	-	3.6GHz	-	-	V
Intel® Pentium® Gold G7400TE Processor	35W	2	4	-	3.0GHz	-	-	V
Intel® Pentium® Gold G7400 Processor	46W	2	4	-	3.7GHz	-	-	
Intel® Pentium® Gold G7400T Processor	35W	2	4	-	3.1GHz	-	-	
Intel® Celeron® Processor G6900	46W	2	2	-	3.4GHz	-	-	
Intel® Celeron® Processor G6900T	35W	2	2	-	2.8GHz	-	-	
Intel® Celeron® Processor G6900E	46W	2	2	-	3.0GHz	-	-	V
Intel® Celeron® Processor G6900TE	35W	2	2	-	2.4GHz	-	-	V

(1) CPU information is based on Intel ARK, subject to change by Intel without notice.
   Please note the board specifications might not comply with Intel Cores/Threads/Frequency, but depending on Avalue board specifications.
(2) The 2 processors, i9-14901KE & Ultra 9 285T, are not listed on Intel ARK, for support needed, please contact with Avalue FAE/Sales.

EAX-R680BP	EAX-R680FP	EAX-C246P	RX680R	ERX-W480P	MX610HD	MX610H	EMX-W880P	EMX-R680P	EMX-C246P	EPI-ARLS	ECM-ADLS	ECM-CFS	ESM-HRPL
V	V		V		V	V							V
V	V		V		V	V							V
V	V		V		V	V							V
V	V		V		V	V							V
V	V							V					
V	V		V		V	V		V					V
V	V		V		V	V		V					V
V	V		V		V	V		V					V
V	V		V		V	V		V					V
V	V		V		V	V		V					V
V	V		V		V	V		V					V
V	V		V		V	V		V					V
V	V		V		V	V		V					V
V	V		V		V	V		V					V
V	V		V		V	V		V			V		V
V	V		V		V	V		V			V		V
V	V		V		V	V		V					V
V	V		V		V	V		V					V
V	V		V		V	V		V					V
								V					
V	V		V		V	V		V			V		V
V	V		V		V	V		V			V		V
V	V		V		V	V		V					V
V	V							V					
V	V		V		V	V		V					V
V	V		V		V	V		V					V
V	V		V		V	V		V			V		V
V	V		V		V	V		V					V
V	V		V		V	V		V					V
V	V		V		V	V		V			V		V
V	V		V		V	V		V					V
V	V		V		V	V		V					V
V	V		V		V	V		V			V		V
V	V		V		V	V		V					V
V	V		V		V	V		V					V
V	V		V		V	V		V					V
V	V		V		V	V		V			V		V
V	V		V		V	V		V					V
V	V		V		V	V		V			V		V
V	V				V	V		V					V
V	V				V	V		V			V		V
V	V				V	V		V					V
V	V				V	V		V			V		V
V	V		V		V	V		V					V
V	V		V		V	V		V			V		V

Intel® Desktop Processors

SKUs (with Intel ARK Link)	TDP (W)	Total Cores	Total Threads	Processor Base Frequency	Performance-core Base Frequency	Efficient-core Base Frequency	Max Turbo Frequency	BC680R
Intel® Xeon® W-1290P Processor	125W	10	20	3.7GHz	-	-	5.3GHz	
Intel® Xeon® W-1290 Processor	80W	10	20	3.2GHz	-	-	5.2GHz	
Intel® Xeon® W-1270P Processor	125W	8	16	3.8GHz	-	-	5.1GHz	
Intel® Xeon® W-1270 Processor	80W	8	16	3.4GHz	-	-	5.0GHz	
Intel® Xeon® W-1250P Processor	125W	6	12	4.1GHz	-	-	4.8GHz	
Intel® Xeon® W-1290T Processor	35W	10	20	1.9GHz	-	-	4.7GHz	
Intel® Xeon® W-1290E Processor	95W	10	20	3.5GHz	-	-	4.8GHz	
Intel® Xeon® W-1270E Processor	80W	8	16	3.4GHz	-	-	4.8GHz	
Intel® Xeon® W-1250E Processor	80W	6	12	3.5GHz	-	-	4.7GHz	
Intel® Xeon® W-1250TE Processor	35W	6	12	2.4GHz	-	-	3.8GHz	
Intel® Xeon® W-1270TE Processor	35W	8	16	2.0GHz	-	-	4.4GHz	
Intel® Xeon® W-1290TE Processor	35W	10	20	1.8GHz	-	-	4.5GHz	
Intel® Xeon® W-1250 Processor	80W	6	12	3.3GHz	-	-	4.7GHz	
Intel® Xeon® W-10855M Processor	45W	6	12	2.8GHz	-	-	5.1GHz	
Intel® Xeon® W-10885M Processor	45W	8	16	2.4GHz	-	-	5.3GHz	
Intel® Core™ i9-10850K Processor	125W	10	20	3.6GHz	-	-	5.2GHz	
Intel® Core™ i9-10885H Processor	45W	8	16	2.4GHz	-	-	5.3GHz	
Intel® Core™ i9-10900TE Processor	35W	10	20	1.8GHz	-	-	4.5GHz	
Intel® Core™ i9-10900E Processor	65W	10	20	2.8GHz	-	-	4.7GHz	
Intel® Core™ i9-10900T Processor	35W	10	20	1.9GHz	-	-	4.6GHz	
Intel® Core™ i9-10900 Processor	65W	10	20	2.8GHz	-	-	5.2GHz	
Intel® Core™ i9-10900F Processor	65W	10	20	2.8GHz	-	-	5.2GHz	
Intel® Core™ i9-10900KF Processor	125W	10	20	3.7GHz	-	-	5.3GHz	
Intel® Core™ i9-10900K Processor	125W	10	20	3.7GHz	-	-	5.3GHz	
Intel® Core™ i9-10980HK Processor	45W	8	16	2.4GHz	-	-	5.3GHz	
Intel® Core™ i7-10870H Processor	45W	8	16	2.2GHz	-	-	5.0GHz	
Intel® Core™ i7-10610U Processor	15W	4	8	1.8GHz	-	-	4.9GHz	
Intel® Core™ i7-10810U Processor	15W	6	12	1.1GHz	-	-	4.9GHz	
Intel® Core™ i7-10700TE Processor	35W	8	16	2.0GHz	-	-	4.4GHz	
Intel® Core™ i7-10700E Processor	65W	8	16	2.9GHz	-	-	4.5GHz	
Intel® Core™ i7-10700F Processor	65W	8	16	2.9GHz	-	-	4.8GHz	
Intel® Core™ i7-10700KF Processor	125W	8	16	3.8GHz	-	-	5.1GHz	
Intel® Core™ i7-10700K Processor	125W	8	16	3.8GHz	-	-	5.1GHz	
Intel® Core™ i7-10700T Processor	35W	8	16	2.0GHz	-	-	4.5GHz	
Intel® Core™ i7-10700 Processor	65W	8	16	2.9GHz	-	-	4.8GHz	
Intel® Core™ i7-10850H Processor	45W	8	12	2.7GHz	-	-	5.1GHz	
Intel® Core™ i7-10875H Processor	45W	8	16	2.3GHz	-	-	5.1GHz	
Intel® Core™ i7-10750H Processor	45W	6	12	2.6GHz	-	-	5.0GHz	
Intel® Core™ i7-10710U Processor	15W	6	12	1.1GHz	-	-	4.7GHz	
Intel® Core™ i7-10510U Processor	15W	4	8	1.8GHz	-	-	4.9GHz	
Intel® Core™ i5-10505 Processor	65W	6	12	3.2GHz	-	-	4.6GHz	
Intel® Core™ i5-10500H Processor	45W	6	12	2.5GHz	-	-	4.5GHz	
Intel® Core™ i5-10200H Processor	45W	4	8	2.4GHz	-	-	4.1GHz	
Intel® Core™ i5-10310U Processor	15W	4	8	1.7GHz	-	-	4.4GHz	
Intel® Core™ i5-10500TE Processor	35W	6	12	2.3GHz	-	-	3.7GHz	

(1) CPU information is based on Intel ARK, subject to change by Intel without notice.
    Please note the board specifications might not comply with Intel Cores/Threads/Frequency, but depending on Avalue board specifications.
(2) The 2 processors, i9-14901KE & Ultra 9 285T, are not listed on Intel ARK, for support needed, please contact with Avalue FAE/Sales.

EAX-R680BP	EAX-R680FP	EAX-C246P	RX680R	ERX-W480P	MX610HD	MX610H	EMX-W880P	EMX-R680P	EMX-C246P	EPI-ARLS	ECM-ADLS	ECM-CFS	ESM-HRPL
				V									
				V									
				V									
				V									
				V									
				V									
				V									
				V									
				V									
				V									
				V									

Intel® Desktop Processors

SKUs (with Intel ARK Link)	TDP (W)	Total Cores	Total Threads	Processor Base Frequency	Performance-core Base Frequency	Efficient-core Base Frequency	Max Turbo Frequency	BC680R
Intel® Core™ i5-10500E Processor	65W	6	12	3.1GHz	-	-	4.2GHz	
Intel® Core™ i5-10600K Processor	125W	6	12	4.1GHz	-	-	4.8GHz	
Intel® Core™ i5-10600KF Processor	125W	6	12	4.1GHz	-	-	4.8GHz	
Intel® Core™ i5-10600T Processor	35W	6	12	2.4GHz	-	-	4.0GHz	
Intel® Core™ i5-10500T Processor	35W	6	12	2.3GHz	-	-	3.8GHz	
Intel® Core™ i5-10400T Processor	35W	6	12	2.0GHz	-	-	3.6GHz	
Intel® Core™ i5-10500 Processor	65W	6	12	3.1GHz	-	-	4.5GHz	
Intel® Core™ i5-10400F Processor	65W	6	12	2.9GHz	-	-	4.3GHz	
Intel® Core™ i5-10400 Processor	65W	6	12	2.9GHz	-	-	4.3GHz	
Intel® Core™ i5-10600 Processor	65W	6	12	3.3GHz	-	-	4.8GHz	
Intel® Core™ i5-10400H Processor	45W	4	8	2.6GHz	-	-	4.6GHz	
Intel® Core™ i5-10300H Processor	45W	4	8	2.5GHz	-	-	4.5GHz	
Intel® Core™ i5-10210U Processor	15W	4	8	1.6GHz	-	-	4.2GHz	
Intel® Core™ i3-10105F Processor	65W	4	8	3.7GHz	-	-	4.4GHz	
Intel® Core™ i3-10325 Processor	65W	4	8	3.9GHz	-	-	4.7GHz	
Intel® Core™ i3-10105T Processor	35W	4	8	3.0GHz	-	-	3.9GHz	
Intel® Core™ i3-10305T Processor	35W	4	8	3.0GHz	-	-	4.0GHz	
Intel® Core™ i3-10305 Processor	65W	4	8	3.8GHz	-	-	4.5GHz	
Intel® Core™ i3-10105 Processor	65W	4	8	3.7GHz	-	-	4.4GHz	
Intel® Core™ i3-10100F Processor	65W	4	8	3.6GHz	-	-	4.3GHz	
Intel® Core™ i3-10100E Processor	65W	4	8	3.2GHz	-	-	3.8GHz	
Intel® Core™ i3-10100TE Processor	35W	4	8	2.3GHz	-	-	3.6GHz	
Intel® Core™ i3-10320 Processor	65W	4	8	3.8GHz	-	-	4.6GHz	
Intel® Core™ i3-10300 Processor	65W	4	8	3.7GHz	-	-	4.4GHz	
Intel® Core™ i3-10300T Processor	35W	4	8	3.0GHz	-	-	3.9GHz	
Intel® Core™ i3-10100 Processor	65W	4	8	3.6GHz	-	-	4.3GHz	
Intel® Core™ i3-10100T Processor	35W	4	8	3.0GHz	-	-	3.8GHz	
Intel® Core™ i3-10110U Processor	15W	2	4	2.1GHz	-	-	4.1GHz	
Intel® Pentium® Gold G6405T Processor	35W	2	4	3.5GHz	-	-	-	
Intel® Pentium® Gold G6405 Processor	58W	2	4	4.1GHz	-	-	-	
Intel® Pentium® Gold G6505 Processor	58W	2	4	4.2GHz	-	-	-	
Intel® Pentium® Gold G6505T Processor	35W	2	4	3.6GHz	-	-	-	
Intel® Pentium® Gold G6605 Processor	58W	2	4	4.3GHz	-	-	-	
Intel® Pentium® Gold G6400E Processor	58W	2	4	3.8GHz	-	-	-	
Intel® Pentium® Gold G6400TE Processor	35W	2	4	3.2GHz	-	-	-	
Intel® Pentium® Gold G6500 Processor	58W	2	4	4.1GHz	-	-	-	
Intel® Pentium® Gold G6400 Processor	58W	2	4	4.0GHz	-	-	-	
Intel® Pentium® Gold G6400T Processor	35W	2	4	3.4GHz	-	-	-	
Intel® Pentium® Gold G6600 Processor	58W	2	4	4.2GHz	-	-	-	
Intel® Pentium® Gold G6500T Processor	35W	2	4	3.5GHz	-	-	-	
Intel® Pentium® Gold 6405U Processor	15W	2	4	2.4GHz	-	-	-	
Intel® Celeron® Processor G5905	58W	2	2	3.5GHz	-	-	-	
Intel® Celeron® Processor G5905T	35W	2	2	3.3GHz	-	-	-	
Intel® Celeron® Processor G5925	58W	2	2	3.6GHz	-	-	-	
Intel® Celeron® Processor G5900E	58W	2	2	3.2GHz	-	-	-	
Intel® Celeron® Processor G5900TE	35W	2	2	3.0GHz	-	-	-	

(1) CPU information is based on Intel ARK, subject to change by Intel without notice.
   Please note the board specifications might not comply with Intel Cores/Threads/Frequency, but depending on Avalue board specifications.
(2) The 2 processors, i9-14901KE & Ultra 9 285T, are not listed on Intel ARK, for support needed, please contact with Avalue FAE/Sales.

EAX-R680BP	EAX-R680FP	EAX-C246P	RX680R	ERX-W480P	MX610HD	MX610H	EMX-W880P	EMX-R680P	EMX-C246P	EPI-ARLS	ECM-ADLS	ECM-CFS	ESM-HRPL
				V									
				V									
				V									
				V									

Intel® Desktop Processors

SKUs (with Intel ARK Link)	TDP (W)	Total Cores	Total Threads	Processor Base Frequency	Performance-core Base Frequency	Efficient-core Base Frequency	Max Turbo Frequency	BC680R
Intel® Celeron® Processor G5900	58W	2	2	3.4GHz	-	-	-	
Intel® Celeron® Processor G5920	58W	2	2	3.5GHz	-	-	-	
Intel® Celeron® Processor G5900T	35W	2	2	3.2GHz	-	-	-	
Intel® Celeron® Processor 5305U	15W	2	2	2.3GHz	-	-	-	
Intel® Celeron® Processor 5205U	15W	2	2	1.9GHz	-	-	-	
Intel® Xeon® E-2278GE Processor	80W	8	16	3.3GHz	-	-	4.7GHz	
Intel® Xeon® E-2278GEL Processor	35W	8	16	2.0GHz	-	-	3.9GHz	
Intel® Xeon® E-2226GE Processor	80W	6	6	3.4GHz	-	-	4.6GHz	
Intel® Xeon® E-2124G Processor	71W	4	4	3.4GHz	-	-	4.5GHz	
Intel® Xeon® E-2176G Processor	80W	6	12	3.7GHz	-	-	4.7GHz	
Intel® Core™ i7-9700TE Processor	35W	8	8	1.8GHz	-	-	3.8GHz	
Intel® Core™ i7-9700E Processor	65W	8	8	2.6GHz	-	-	4.4GHz	
Intel® Core™ i7-8700T Processor	35 W	6	12	2.4GHz	-	-	4.0GHz	
Intel® Core™ i7-8700 Processor	65W	6	12	3.2GHz	-	-	4.6GHz	
Intel® Core™ i5-9500TE Processor	35W	6	6	2.2GHz	-	-	3.6GHz	
Intel® Core™ i5-9500E Processor	65W	6	6	3.0GHz	-	-	4.2GHz	
Intel® Core™ i5-8500T Processor	35W	6	6	2.1GHz	-	-	3.5GHz	
Intel® Core™ i5-8500 Processor	65 W	6	6	3.0GHz	-	-	4.1GHz	
Intel® Core™ i3-9100TE Processor	35W	4	4	2.2GHz	-	-	3.2GHz	
Intel® Core™ i3-9100E Processor	65W	4	4	3.1GHz	-	-	3.7GHz	
Intel® Core™ i3-8100T Processor	35W	4	4	3.1GHz	-	-	-	
Intel® Core™ i3-8100 Processor	65W	4	4	3.6GHz	-	-	-	
Intel® Celeron® G4900 Processor	54W	2	2	3.1GHz	-	-	-	
Intel® Celeron® G4900T Processor	35W	2	2	2.9GHz	-	-	-	
Intel® Pentium® Gold G5400 Processor	58W	2	4	3.7GHz	-	-	-	
Intel® Pentium® Gold G5400T Processor	35W	2	4	3.1GHz	-	-	-	

(1) CPU information is based on Intel ARK, subject to change by Intel without notice.
   Please note the board specifications might not comply with Intel Cores/Threads/Frequency, but depending on Avalue board specifications.
(2) The 2 processors, i9-14901KE & Ultra 9 285T, are not listed on Intel ARK, for support needed, please contact with Avalue FAE/Sales.

EAX-R680BP	EAX-R680FP	EAX-C246P	RX680R	ERX-W480P	MX610HD	MX610H	EMX-W880P	EMX-R680P	EMX-C246P	EPI-ARLS	ECM-ADLS	ECM-CFS	ESM-HRPL
		V							V				
		V							V				
		V							V				
		V							V				
		V							V			V	
		V							V				
		V							V			V	
		V							V				
		V							V			V	
		V							V				
		V							V			V	
		V							V				
		V							V			V	
		V							V				
		V							V			V	
		V							V				
		V							V				
		V							V			V	
		V							V				
		V							V			V	

CPU List

Mobile - Intel® Core™ Ultra Processors, Intel® Core™ Processors, Intel® Processor, Intel® Processor U-series, Intel® Celeron® Processor 6000 Series

SKUs (with Intel ARK Link)	TDP (W)	Total Cores	Total Threads	Processor Base Frequency	Performance-core Base Frequency	Efficient-core Base Frequency	Max Turbo Frequency	EMX-MTLP
Intel® Core™ Ultra 9 Processor 285H	45W	16	16	-	2.9GHz	2.7GHz	5.4GHz	
Intel® Core™ Ultra 7 Processor 265H	28W	16	16	-	2.2GHz	1.7GHz	5.3GHz	
Intel® Core™ Ultra 7 Processor 265U	15W	12	14	-	2.1GHz	1.7GHz	5.3GHz	
Intel® Core™ Ultra 7 Processor 255U	15W	12	14	-	2.0GHz	1.7GHz	5.2GHz	
Intel® Core™ Ultra 7 Processor 255H	28W	16	16	-	2.0GHz	1.5GHz	5.1GHz	
Intel® Core™ Ultra 5 Processor 235H	28W	14	14	-	2.4GHz	1.8GHz	5.0GHz	
Intel® Core™ Ultra 5 Processor 235U	15W	12	14	-	2.0GHz	1.6GHz	4.9GHz	
Intel® Core™ Ultra 5 Processor 225H	28W	14	14	-	1.7GHz	1.3GHz	4.9GHz	
Intel® Core™ Ultra 5 Processor 225U	15W	12	14	-	1.5GHz	1.3GHz	4.8GHz	
Intel® Core™ Ultra 7 Processor 165H	28W	16	22	-	1.4GHz	0.9GHz	5.0GHz	V
Intel® Core™ Ultra 7 Processor 155H	28W	16	22	-	1.4GHz	0.9GHz	4.8GHz	V
Intel® Core™ Ultra 5 Processor 135H	28W	14	18	-	1.7GHz	1.2GHz	4.6GHz	V
Intel® Core™ Ultra 5 Processor 125H	28W	14	18	-	1.2GHz	0.7GHz	4.5GHz	V
Intel® Core™ Ultra 7 Processor 165U	15W	12	14	-	1.7GHz	1.2GHz	4.9GHz	V
Intel® Core™ Ultra 7 Processor 155U	15W	12	14	-	1.7GHz	1.2GHz	4.8GHz	V
Intel® Core™ Ultra 5 Processor 135U	15W	12	14	-	1.6GHz	1.1GHz	4.4GHz	V
Intel® Core™ Ultra 5 Processor 125U	15W	12	14	-	1.3GHz	0.8GHz	4.3GHz	V
Intel® Core™ i7-1365UE Processor	15W	10	12	1.7GHz	-	-	4.9GHz	
Intel® Core™ i5-1345UE Processor	15W	10	12	1.4GHz	-	-	4.6GHz	
Intel® Core™ i5-1335UE Processor	15W	10	12	1.3GHz	-	-	4.5GHz	
Intel® Core™ i3-1315UE Processor	15W	6	8	1.2GHz	-	-	4.5GHz	
Intel® Processor U300E	15W	5	6	1.1GHz	-	-	4.3GHz	
Intel® Core™ i7-13800HE Processor	45W	14	20	2.5GHz	-	-	5.0GHz	
Intel® Core™ i5-13600HE Processor	45W	12	16	2.7GHz	-	-	4.8GHz	
Intel® Core™ i3-13300HE Processor	45W	8	12	2.1GHz	-	-	4.6GHz	
Intel® Core™ i7-1365URE Processor	15W	10	12	1.7GHz	-	-	4.9GHz	
Intel® Core™ i5-1345URE Processor	15W	10	12	1.4GHz	-	-	4.6GHz	
Intel® Core™ i3-1315URE Processor	15W	6	8	1.2GHz	-	-	4.5GHz	
Intel® Core™ i7-1370PE Processor	28W	14	20	1.9GHz	-	-	4.8GHz	
Intel® Core™ i5-1350PE Processor	28W	12	16	1.8GHz	-	-	4.6GHz	
Intel® Core™ i5-1340PE Processor	28W	12	16	1.8GHz	-	-	4.5GHz	
Intel® Core™ i3-1320PE Processor	28W	8	12	1.7GHz	-	-	4.5GHz	
Intel® Core™ i7-1370PRE Processor	28W	14	20	1.9GHz	-	-	4.8GHz	
Intel® Core™ i5-1350PRE Processor	28W	12	16	1.8GHz	-	-	4.6GHz	
Intel® Core™ i3-1320PRE Processor	28W	8	12	1.7GHz	-	-	4.5GHz	
Intel® Core™ i5-13600HE Processor	45W	12	16	2.7GHz	-	-	4.8GHz	
Intel® Core™ i7-13800HRE Processor	45W	14	20	2.5GHz	-	-	5.0GHz	
Intel® Core™ i5-13600HRE Processor	45W	12	16	2.7GHz	-	-	4.8GHz	
Intel® Core™ i3-13300HRE Processor	45W	8	12	2.1GHz	-	-	4.6GHz	
Intel® Core™ i9-11980HK Processor	45W	8	16	2.6GHz*	-	-	5.0GHz	
Intel® Core™ i9-11950H Processor	45W	8	16	2.1GHz*	-	-	5.0GHz	

CPU information is based on Intel ARK, subject to change by Intel without notice.
Please note the board specifications might not comply with Intel Cores/Threads/Frequency, but depending on Avalue board specifications.
* => Configurable TDP-down Base Frequency

EMX-RPLP	EMX-TGLP	ECM-ARL	ECM-MTL	ECM-RPL	ECM-TGU	ESM-ARL	ESM-RPL	ESM-TGH	ESM-RPLC	EMX-R680P	EMX-C246P	EPI-ARLS	ECM-ADLS	ECM-CFS	ESM-HRPL
		V													
		V													
		V				V									
		V				V									
		V				V									
		V				V									
			V												
			V												
			V												
			V												
			V												
			V												
			V												
			V												
V				V					V						
V				V					V						
V				V					V						
V				V					V						
							V								
							V								
							V								
V				V			V		V						
V				V					V						
V				V					V						
				V											
V				V			V		V						
V				V											
				V			V		V						
V				V			V		v						
V				V					v						
V							V								
							V								
							V								
							V								

CPU List

Mobile - Intel® Core™ Ultra Processors, Intel® Core™ Processors, Intel® Processor, Intel® Processor U-series, Intel® Celeron® Processor 6000 Series

SKUs (with Intel ARK Link)	TDP (W)	Total Cores	Total Threads	Processor Base Frequency	Performance-core Base Frequency	Efficient-core Base Frequency	Max Turbo Frequency	EMX-MTLP
Intel® Core™ i7-11800H Processor	45W	8	16	1.9GHz*	-	-	4.6GHz	
Intel® Core™ i5-11400H Processor	45W	6	12	2.2GHz*	-	-	4.5GHz	
Intel® Core™ i5-11260H Processor	45W	6	12	2.1GHz*	-	-	4.4GHz	
Intel® Core™ i7-1185G7 Processor	12-28W	4	8	1.2GHz*	-	-	4.8GHz	
Intel® Core™ i7-1185G7E Processor	12-28W	4	8	1.8GHz	-	-	4.4GHz	
Intel® Core™ i7-1185GRE Processor	12-28W	4	8	1.8GHz	-	-	4.4GHz	
Intel® Core™ i5-1145G7E Processor	12-28W	4	8	1.5GHz	-	-	4.1GHz	
Intel® Core™ i5-1145GRE Processor	12-28W	4	8	1.5GHz	-	-	4.1GHz	
Intel® Core™ i3-1115G4E Processor	12-28W	2	4	2.2GHz	-	-	3.9GHz	
Intel® Core™ i3-1115GRE Processor	12-28W	2	4	2.2GHz	-	-	3.9GHz	
Intel® Pentium® Gold 7505 Processor	15W	2	4	2.0GHz*	-	-	3.5GHz	
Intel® Celeron® 6305 Processor	15W	2	2	1.8GHz*	-	-	-	
Intel® Celeron® 6305E Processor	15W	2	2	1.8GHz	-	-	-	
Intel® Core™ i7-11850HE Processor	45W	8	16	2.1GHz*	-	-	4.7GHz	
Intel® Core™ i5-11500HE Processor	45W	6	12	2.1GHz*	-	-	4.5GHz	
Intel® Core™ i3-11100HE Processor	45W	4	8	1.9GHz*	-	-	4.4GHz	
Intel® Celeron® 6600HE Processor	35W	2	2	2.6GHz*	-	-	-	
Intel® Xeon® W-11865MRE Processor	45W	8	16	2.1GHz*	-	-	4.7GHz	
Intel® Xeon® W-11155MRE Processor	45W	4	8	1.9GHz*	-	-	4.4GHz	
Intel® Core™ i7-8569U Processor	28W	4	8	2.8GHz	-	-	4.7GHz	
Intel® Core™ i7-8559U Processor	28W	4	8	2.7GHz	-	-	4.5GHz	
Intel® Core™ i5-8279U Processor	28W	4	8	2.4GHz	-	-	4.1GHz	
Intel® Core™ i5-8259U Processor	28W	4	8	2.3GHz	-	-	3.8GHz	
Intel® Core™ i5-8269U Processor	28W	4	8	2.6GHz	-	-	4.2GHz	
Intel® Core™ i3-8109U Processor	28W	2	4	3.0GHz	-	-	3.6GHz	
Intel® Xeon® E-2276ML Processor	25W	6	12	2.0GHz	-	-	4.2GHz	
Intel® Xeon® E-2254ML Processor	25W	4	8	1.7GHz	-	-	3.5GHz	
Intel® Core™ i7-9850HL Processor	25W	6	12	1.9GHz	-	-	4.1GHz	
Intel® Core™ i3-9100HL Processor	25W	4	4	1.6GHz	-	-	2.9GHz	
Intel® Celeron® Processor G4932E	25W	2	2	1.9GHz	-	-	1.9GHz	
Intel® Core™ i7-8557U Processor	15W	4	8	1.7GHz	-	-	4.5GHz	
Intel® Core™ i5-8260U Processor	15W	4	8	1.6GHz	-	-	3.9GHz	
Intel® Core™ i5-8257U Processor	15W	4	8	1.4GHz	-	-	3.9GHz	
Intel® Core™ i3-8140U Processor	15W	2	4	2.1GHz	-	-	3.9GHz	

CPU information is based on Intel ARK, subject to change by Intel without notice.
Please note the board specifications might not comply with Intel Cores/Threads/Frequency, but depending on Avalue board specifications.
* => Configurable TDP-down Base Frequency

EMX-RPLP	EMX-TGLP	ECM-ARL	ECM-MTL	ECM-RPL	ECM-TGU	ESM-ARL	ESM-RPL	ESM-TGH	ESM-RPLC	EMX-R680P	EMX-C246P	EPI-ARLS	ECM-ADLS	ECM-CFS	ESM-HRPL
	V				V										
	V				V										
	V				V										
	V				V										
	V				V										
	V				V										
	V				V										
								V							
								V							
								V							
								V							
								V							
								V							

Atom - Intel Atom® Processor, Intel® Pentium® Processor J/N Series
Intel® Celeron® Processor J/N Series

SKUs (with Intel ARK Link)	TDP (W)	Total Cores	Total Threads	Processor Base Frequency	Performance- Core Base Frequency	Efficient- Core Base Frequency	Max Turbo Frequency	EMX- TWLP	EMX- ASLP	EMX- EHLP	ECM- TWL
Intel® Core™ 3-N355 Processor	15W	8	8	-	-	-	3.9GHz	V			V
Intel® Core™ 3-N350 Processor	7W	8	8	-	-	-	3.9GHz				
Intel® Processor N250	6W	4	4	-	-	-	3.8GHz	V			V
Intel® Processor N150	6W	4	4	-	-	-	3.6GHz	V			V
Intel Atom® x7835RE Processor	12W	8	-	1.3GHz	-	-	3.6GHz		V		
Intel Atom® x7433RE Processor	9W	4	-	1.5GHz	-	-	3.4GHz		V		
Intel Atom® x7213RE Processor	9W	2	-	1.7GHz	-	-	3.4GHz		V		
Intel Atom® x7211RE Processor	9W	2	-	1.0GHz	-	-	3.2GHz		V		
Intel® Core™ i3-N305 Processor	15W	8	8	1.0GHz	-	-	3.8GHz		V		
Intel® Processor N200	6W	4	4	1.0GHz	-	-	3.7GHz				
Intel® Processor N97	6W	4	-	2.0GHz	-	-	3.6GHz		V		
Intel® Processor N50	6W	2	-	1.0GHz	-	-	3.4GHz				
Intel Atom® x6425RE Processor	12 W	4	4	1.9GHz	-	-	-			V	
Intel Atom® x6416RE Processor	9 W	4	4	1.7GHz	-	-	-				
Intel Atom® x6214RE Processor	6 W	2	2	1.4GHz	-	-	-				
Intel Atom® x6414RE Processor	9 W	4	4	1.5GHz	-	-	-				
Intel Atom® x6212RE Processor	6 W	2	2	1.2GHz	-	-	-				
Intel Atom® x6427FE Processor	12 W	4	4	1.9GHz	-	-	-				
Intel Atom® x6200FE Processor	4.5 W	2	2	1.0GHz	-	-	-				
Intel Atom® x6425E Processor	12 W	4	4	2.0GHz	-	-	-				
Intel Atom® x6413E Processor	9 W	4	4	1.5GHz	-	-	-			V	
Intel Atom® x6211E Processor	6 W	2	2	1.3GHz	-	-	-				
Intel® Pentium® Processor J6426	10 W	4	4	2.0GHz	-	-	-				
Intel® Celeron® Processor J6412	10 W	4	4	2.0GHz	-	-	-			V	
Intel® Celeron® Processor J6413	10 W	4	4	1.8GHz	-	-	-			V	
Intel® Pentium® Processor N6415	6.5 W	4	4	1.2GHz	-	-	-				
Intel® Celeron® Processor N6210	6.5 W	2	2	1.2GHz	-	-	-				
Intel® Celeron® Processor N6211	6.5 W	2	2	1.2GHz	-	-	-				
Intel Atom® x7-E3950 Processor	12 W	4	4	1.6GHz	-	-	-				
Intel Atom® x5-E3940 Processor	9.5 W	4	4	1.6GHz	-	-	-				
Intel Atom® x5-E3930 Processor	6.5 W	2	2	1.3GHz	-	-	-				
Intel® Pentium® Processor J4205	10 W	4	4	1.5GHz	-	-	-				
Intel® Celeron® Processor J3455E	10 W	4	4	1.5GHz	-	-	-				
Intel® Celeron® Processor J3455	10 W	4	4	1.5GHz	-	-	-				
Intel® Celeron® Processor J3355E	10 W	2	2	2.5GHz	-	-	-				
Intel® Celeron® Processor J3355	10 W	2	2	2.0GHz	-	-	-				
Intel® Pentium® Processor N4200E	6 W	4	4	1.1GHz	-	-	-				
Intel® Pentium® Processor N4200	6 W	4	4	1.1GHz	-	-	-				
Intel® Celeron® Processor N3450	6 W	4	4	1.1GHz	-	-	-				
Intel® Celeron® Processor N3350E	6 W	2	2	1.1GHz	-	-	-				
Intel® Celeron® Processor N3350	6 W	2	2	1.1GHz	-	-	-				

CPU information is based on Intel ARK, subject to change by Intel without notice.
Please note the board specifications might not comply with Intel Cores/Threads/Frequency, but depending on Avalue board specifications.

ECM-TWL3	ECM-ASL3	ECM-ASL	ECM-EHL3	ECM-EHL	ECM-APL	EPX-TWLP	EPX-ASLP	EPX-EHLP	EPX-APLP	EZX-EHLP	ESM-TWLC	ESM-ASLC	ESM-EHLC	ESM-APLC	ESM-APLM	EOM-TWL	EOM-EHL	EOM-APL
V											V							
V						V					V					V		
V						V					V					V		
	V	V					V					V						
	V	V										V						
	V	V					V					V						
	V	V					V					V						
	V	V																
	V	V					V											
			V	V									V					
			V										V					
										V								
			V	V									V					
			V	V				V		V			V				V	
			V	V				V		V							V	
			V	V														
			V	V				V		V			V					
			V	V				V		V			V					
																	V	
			V															
			V														V	
					V													
					V													
					V													
					V				V					V				V
					V									V	V			V
					V				V					V	V			V

Embedded Peripheral

No	Embedded Peripherals	Description
1	Power Board	**EPM-1712** Vehicle 100Watt Smart DC/DC Converter
		EPM-1715 Super Cap Power Module
		EPM-1721 Railway 60W Power Board
		EPM-1722 DC to DC 60W Marine Power Module
2	Display Board	**EPM-1502** eDP to VGA Converter
3	IO Board	**EPM-1601** mPCIe to 4-RS-232 Module
		EPM-1602 mPCIe to 4-RS-422/485 Module
		EPM-1603 USB to 4-RS-232/422/485 Module
		EPM-1604 4 Port USB 2.0 Hub
		EPM-1605 USB to mPCIe Module
		EPM-1606 mPCIe to M.2 Transfer Board
		EPM-1607 M.2 2242/2260/2280 to 4-RS-232 Module
		EPM-1608 M.2 2242/2260/2280 Dual 2.5 GbE LAN Module
		EPM-1609 M.2 2280 B/M Key 2.5GbE Module
4	Industrial Storage	SSD: 2.5", mSATA, M.2, CFAST, CF, DOM HDD: 2.5", 3.5" M.2: 2242, 2280
5	Industrial Module	Type: SO-DIMM, Long-DIMM Capacity: Max. Up to 32GB Temperature: Standard or Industrial Temperature
6	Wi-Fi Module	Form Factor: mPCIe/ M.2 Bluetooth Supported
7	4G/ 5G Module	Type: 4G/ 5G Module Interface: mPCIe, M.2
8	Capture Card	Mini SDI/ HDV Capture Card w/ H.264 High Profile Encoding
9	Mini LAN Port	2-port 10/100/1000 Ethernet Board
10	Power Adapter	AC DC Adapter 60W/ 84W/ 120W/ 200W/ 220W
11	Microsoft Windows Embedded OS	Avalue Provides Embedded Software to Customers Who Integrated Avalue's Hardware Products. Windows 10 IoT Enterprise Windows 11 IoT Enterprise

with a full line of products, Avalue peripherals can provide everything that you need to build a system or solution. If the item is not covered by our standard product offerings, our purchasing team can help source any part based on a customer's specified vendor and product.

In short, the ultimate goal of us is to provide customers the most efficient services, the best quality products, and the shortest shipment lead time.

EPM-1502

eDP to VGA Converter

- Input Interface 40pin eDP Signal
- Output Interface DB-Sub VGA
- Industrial Temperature (W/T Temp. -40 ~ 85°C) Operation
- Support VESA and CEA Timing Standards Up to 1920 x 1200 @ 60Hz

EPM-1601

mPCIe to 4-RS-232 Module

- Input Interface PCI-Express. 2.0
- Output Interface 4 x RS-232
- Industrial Temperature (W/T Temp. -40 ~ 85°C) Operation
- Support Ring Wake Function (Optional)

EPM-1602

mPCIe to 4-RS-422/485 Module

- Input Interface PCI-Express. 2.0
- Output Interface 4 x RS-422/285
- Industrial Temperature (W/T Temp. -40 ~ 85°C) Operation
- Support Auto Flow Control
- Cable for mPCIe to Four DB-9 Connectors

EPM-1603

USB to 4-RS-232/422/485 Module

- Input Interface USB 2.0
- Output Interface 4 x RS232/422/485
- 2 x USB 2.0 w/ Type A Connector
- Industrial Temperature (W/T Temp. -40 ~ 85°C) Operation

EPM-1604

4-Port USB 2.0 Hub

- 4 x Port USB Hub, Open Bare-board Design
- 4 x Internal USB2.0 Type A Female Connector for Down Port
- 1 x Internal Wafer 2pin Connector for DC-input (+12V, Max 1A)
- Compliant with Universal Serial Bus Specification Revision 2.0 (Data Rate 1.5/12/480Mbps), USB 1.1 Compatible

EPM-1605

USB to mPCIe Module with USIM

- Input Interface USB 2.0
- Output Interface USB 2.0
- Operation Temperature : 0 ~ 60°C
- 1 x USIM Slot Expansion

EPM-1606

mPCIe to M.2 A/E key Transfer Board

- M.2 Wi-Fi & Bluetooth Module (PCIe and USB Base) to Mini PCIe Converter
- Support Windows, MAC and Linux
- Multiple Plated-holes Support M.2 Type 2230/2242
- Operating Temperature: -40 ~ 80°C

EPM-1607

M.2 2242/2260/2280 to 4 -RS-232 Module

- Input Interface PCI-Express. 2.0
- Output Interface 4 x RS-232
- Support M.2 Type 2242/2260/2280 Plated-holes
- Industrial Temperature (W/T Temp. -40 ~ 85°C) Operation
- Support Ring Wake Function (Optional)

EPM-1608

M.2 2242/2260/2280 Dual 2.5 GbE LAN Module

- 3-in-1 form Factor 2280/2260/2242
- Ultrafast Transfer Speeds via 2-Native PCIe Lane
- Quickly Adds Two Independent Gigabit Ethernet Ports (with 2kV Isolation) to Embedded Systems
- Supports Wake-on LAN Ensures Unhindered Remoting

EPM-1609

M.2 2280 B/M Key 2.5GbE Module

- M.2 2280 B/M Key Support Max 2.5GBbE Module
- Compact M.2 PCIe Ethernet Card with RJ-45 Connector on Board
- Support PCI Express x1-lane Host Interface
- Supports Wake-on LAN Ensures Unhindered Remoting
- Quickly Adds Single Independent Ethernet Ports to Embedded Systems

EPM-1712

Vehicle 100Watt Smart DC/DC Converter

- Wide Range DC Input: Typical 12/24Vdc (+9 ~ +36V)
- Intelligent System on/off Control via Jumper Setting
- 6 Selectable Power on/off Timing Modes
- Load Down/ Over Voltage/ Short Circuit/ Over Current Protection
- Battery Voltage Monitor

EPM-1715

Supercap Power Module

- 500'000 Charge & Discharge Cycling
- 4 x 400F Supercapacitor Up to 6-Cell and 8-Cell
- AP for the Parameter Selecting
- Wide Temperature Range: 0 ~ 60°C
- Wide DC Input: +12 ~ 24Vdc
- Over Temperature Protection

EPM-1721

Railway 60W Power Board

- Input to Output Isolation 1500Vdc
- Output Voltage 12Vdc
- Output Current 5000mA
- Wide Temperature Range: -40 ~ +85°C
- Wide DC Input: +9 ~ 36Vdc
- Over Voltage and Current Protection
- Certified with EN50155 and EN50121-3-2

EPM-1722

DC to DC 60W Marine Power Module

- Typical +24Vdc (+9Vdc ~ +36Vdc) w/1.5kV Isolation
- Output Voltage: 12Vdc
- Output Current: 5000mA
- Input to Output Isolation: 1500Vdc
- Operating temperature range: -40 ~ 85°C
- Support IEC60945
- Over Voltage Protection, Hiccup Mode
- Over Current Protection, Hiccup Mode

A small form factor Computer-on-Module (COM) offers reliable embedded platform for critical or industrial applications, ready to use, ideal for user customizable and reduce project schedule and cost. Include COM Express Type 6, COM Express Type 7, COM Express Type 10, Eval Carrier Board, Qseven, SMARC.

Computer-on-Module

Qseven Module

COM-HPC
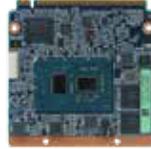
Model Number	EQM-EHL	EQM-APL
Processor	Intel® Atom™ x6000E / Celeron® / Pentium® SoC Processor	Intel® Pentium® / Celeron® Processor
System Memory	Onboard Single Channel LPDDR4 3200MHz 4GB (8GB for BOM Option)	Onboard DDR3L 1600 & 1333MHz 4GB (Up to 8GB)
Expansion	4 x PCIe x1 Gen3	3 x PCIe x1
USB	8 x USB 2.0, 1 x USB 3.2 Gen1	6 x USB 2.0, 2 x USB 3.0
SATA	2 x SATA III	2 x SATA III
UART	1 x UART	1 x UART
MIO	1 x SMBus, 1 x LPC, 1 x I²C, 1 x SPI, 1 x SD, 1 x SDIO	1 x SMBus, 1 x LPC, 1 x I²C, 1 x SPI
Display Chipset	Intel® SoC CPU Integrated Intel® UHD Gen11 LP Graphics	Intel® Apollo Lake Integrated Graphics
Display	1 x DP/ HDMI, 1 x LVDS/ eDP	1 x HDMI/ DP, 1 x LVDS/ eDP
Audio	Intel® HD Audio Integrated in SoC	Intel® HD Audio Integrated on CPU
Ethernet Chipset	1 x Intel® I226LM/IT	1 x Intel® I210AT
Power Requirement	+5V	+5V
Operating Temp.	0°C ~ 60°C (32°F ~ 140°F) -40°C ~ 85°C (-40°F ~ 185°F) for Wide Temperature CPU SKU	0°C ~ 60°C (32°F ~ 140°F) (N4200/N3350)
Dimension (L x W)	2.75" x 2.75" (70 x 70 mm)	2.75" x 2.75" (70 x 70 mm)
Software Support	Win 10, Win 11 IoT Enterprise (64-bit), Linux	Win 10, Linux, Android

Model Number	ESM-HRPL
Processor	Intel® LGA1700 Socket Supports 12/13/14th Gen Intel® Core™ Processor, Supports TDP Up to 65W
System Memory	4 x 262-pin DDR5 SO-DIMM 3600MHz Supports Up to 128GB, Optional ECC Supports (CPU Depending)
Expansion	1 x PCIe x16 Gen5 1 x PEG x4 Gen4 3 x PCIe x4 Gen4 2 x PCIex4 Gen 3 (from PCH) 1 x PCIex1 Gen3 for BMC (Owned by Carrier Board)
USB	8 x USB 2.0, 4 x USB 3.2 Gen2x2
SATA	2 x SATA III
COM Port	2 x UART (2 Wire)
MIO	1 x SMBus, 1 x I2C, 1 x GSPI, 1 x SPI, 1 x IPMB, 1 x Audio
Display Chipset	Intel® UHD Graphics 770 Up to 32EUs
Display	Supports Four Display 3 x DDI for DP 1.4a or HDMI 2.1b, 1 x eDP 1.4b
Audio	N/A
Ethernet	2 x Intel® I226LM
Power Requirement	N/A
Operating Temperature	0°C ~ 60°C (32°F ~ 140°F) with CPU Cooler
Dimension (L x W)	6.3" x 4.7" (160 x 120mm)

COM Express

» COM Express Type 10
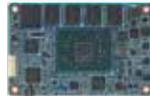
Model Number	ESM-APLM
Processor	Intel® Celeron® / Pentium® Series SoC Processor, Supports TDP Up to 6W
System Memory	Onboard DDR3L 1333/1600MHz SO-DIMM Supports Up to 8GB
Expansion	1 x PCIe x4 (Supports x1, x2, x4, Optional 1 PCIe x4 while Removing Ethernet) Compliant to PCIe Gen2 5.0 GT/s
USB	8 x USB 2.0 2 x USB 3.1 Gen1
SATA	2 x SATA III
COM Port	N/A
MIO	1 x SMBus 1 x LPC
Display Chipset	Intel® SoC Integrated Graphics
Display	Supports Dual Display DDI (DP/ HDMI/ DVI-D), LVDS/ eDP (Build Option, in Place of LVDS) DP 1.2: Max 4096 x 2160 @ 60Hz HDMI 1.4b: Max 3840 x 2160 @ 30Hz LVDS: 1366 x 768 @ 60Hz Single Channel 18/24-bits eDP 1.3: 3840 x 2160 @ 60Hz (4 Lanes)
Audio	Intel® HD Integrated in SoC
Ethernet	1 x Intel® I210AT
Power Requirement	+4.75V ~ +20V
Operating Temperature	0°C ~ 60°C (32°F ~ 140°F)
Dimension (L x W)	3.31" x 2.17" (84 x 55 mm)

» COM Express Type 6
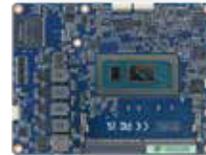
Model Number	ESM-ARL	ESM-RPL	ESM-RPLC
Processor	Intel® Core™ Ultra Processor U/H Series, Supports TDP 15/28W	13th Gen Intel® Embedded Mobile Processor P/H Series, Supports TDP 28/45W	13th Gen Intel® Embedded Industrial Processor U/P Series, Supports TDP 15/28W
System Memory	2 x 262-Pin DDR5 6400/5600MHz SO-DIMM Supports Up to 96GB	2 x 262-pin DDR5 5600MHz SO-DIMM Supports Up to 64GB	1 x 262-pin DDR5 5600MHz SO-DIMM Supports Up to 32GB
Expansion	PEG (H Series): 1 x PCIe x8 Gen4, 2 x PCIe x4 Gen4 PEG (U Series): 3 x PCIe x4 Gen4 1 x PCIe x1 Gen4, 1 x PCIe x4 Gen 4 (Configurable x1, x2, or x4)	1 x PCIe x8 Gen4 (Selected SKU, H Series) 2 x PCIe x4 Gen4 Default : 5 x PCIe x1 Gen3 (2 Lanes Shares with SATA)	2 x PCIe x4 Gen4, Only for SSD (From CPU) Default : 5 x PCIe x1 Gen3 (2 Lanes Shares with SATA)
USB	8 x USB 2.0 4 x USB 3.2 Gen2 2 x USB4 (Co-lay with DDI and in Place of DDI1 & DDI2)	8 x USB 2.0 4 x USB 3.2 Gen2 2 x USB4 by TCP Ports (Optional by BIOS)	8 x USB 2.0 4 x USB 3.2 Gen2 2 x USB4 by TCP Ports (Optional by BIOS)
SATA	2 x SATA III	2 x SATA III	2 x SATA III
COM Port	2 x UART (Rx/Tx Only)	2 x UART (Rx/Tx Only)	2 x UART (Rx/Tx Only)
MIO	1 x SMBus 1 x LPC (via eSPI-to-LPC Bridge IC) 1 x I²C 1 x SPI	1 x SMBus 1 x LPC (via eSPI-to-LPC Bridge IC) 1 x I²C (User) 1 x GP_SPI	1 x SMBus 1 x LPC (via eSPI-to-LPC Bridge IC) 1 x I²C (User) 1 x GP_SPI
Display Chipset	Intel® Xe LPG Graphics	Intel® Iris® Xe Graphics on i7/i5 Processor Intel® UHD Graphics on i3/Celeron® Processor Intel® Gfx Up to 96 EU	Intel® Iris® Xe Graphics on i7/i5 Processor Intel® UHD Graphics on i3/Celeron® Processor Intel® Gfx Up to 96 EU
Display	Supports Four Display 3 x DDI (Supports Configurable HDMI/ DP), 1 x LVDS/ eDP (By BOM Optional) DP 1.4: 8K @ 30Hz HDMI 2.1: 8K @ 60Hz LVDS: 1920 x 1200 @ 60Hz eDP: Max 4K	Supports Four Display, Up to 4K (3DDI + eDP) 3 x DDI (USB4 Max 2 x USB4 in place of DDI 1/2, Supports DP 1.4a by DP Alternative Mode, VGA Supported by Build Option via DP-to-VGA IC, 1 x LVDS/ eDP (By BOM Optional) VGA: Max 1920 x 1200 @ 60Hz LVDS: Max 1920 x 1200 @ 60Hz in Dual Mode (Single/Dual Channel 18/24-bits)	Supports Four Display, Up to 4K (3DDI + eDP) 3 x DDI (USB4 Max 2 x USB4 in place of DDI 1/2, Supports DP 1.4a by DP Alternative Mode, VGA Supported by Build Option via DP-to-VGA IC, 1 x LVDS/ eDP (By BOM Optional) VGA : Max 1920 x 1200 @ 60Hz LVDS : Max 1920 x 1200 @ 60Hz in Dual Mode (Single/Dual Channel 18/24-bits)
Audio	Intel® HD Audio Integrated in SoC	Intel® HD Audio Integrated on CPU	Intel® HD Audio Integrated on CPU
Ethernet	1 x Intel® I226LM	1 x Intel® I226LM/IT	1 x Intel® I226LM/IT
Power Requirement	+9V ~ +19V	+9V ~ +19V	+9V ~ +19V
Operating Temperature	0°C ~ 60°C (32°F ~ 140°F)	0°C ~ 60°C (32°F ~ 140°F) -40°C ~ 70°C (-40°F ~ 158°F) for Wide Temperature CPU SKU	0°C ~ 60°C (32°F ~ 140°F) -40°C ~ 75°C (-40°F ~ 167°F) for Wide Temperature CPU SKU
Dimension (L x W)	4.92" x 3.74" (125 x 95 mm)	4.92" x 3.74" (125 x 95 mm)	3.74" x 3.74" (95 x 95 mm)

ESM-TGH	ESM-TWLC	ESM-ASLC	ESM-EHLC	ESM-APLC
11th Gen Intel® Core™ i7/i5/i3 & Xeon®/ Celeron® Processor, Supports TDP Up to 45W	Intel® N150, N250 & Intel® Core™ 3 Processor N355	Intel® Atom™ x7000RE Series Processor	Intel® Celeron®/ Pentium®/ Atom™ Processor, Supports TDP Up to 12W	Intel® Celeron® N3350,J3455 / Pentium® N4200 SoC Processor, Supports TDP Up to 10W
3x 260-pin DDR4-3200MHz SO-DIMM Supports Up to 96 GB with ECC (ECC is Supported with Specific SKU) *3rd Socket on Rear Side by Request	1 x 262-pin DDR5 4800MHz SO-DIMM socket, Supports Up to 16GB	1 x 262-pin DDR5 4800MHz SO-DIMM Supports Up to 16GB, Supports In-Band ECC Memory Protection (Selected SKUs)	2 x 260-pin DDR4 3200MHz SO-DIMM Supports Up to 32GB, Supports In-Band ECC Memory Protection (Selected SKUs)	1 x 204-pin DDR3L 1600/1333MHz SO-DIMM Supports Up to 8GB (Non-ECC)
1 x PCIe x16 Gen4 (Supports dGFX and NVMe Storage) 8 x PCIe x1 Gen3	BOM1 (Default): 4 x PCIe x1 Gen3 BOM2: 1 x PCIe x4 Gen3 BOM3: 2 x PCIe x1 Gen3	BOM1 (Default): 4 x PCIe x1 Gen3 BOM2: 1 x PCIe x4 Gen3 BOM3: 2 x PCIe x1 Gen3	3 x PCIe x1 Gen3	3 x PCIex1 (Optional 4 PCIe x1 or 1 x PCIe x4 while Removing Ethernet), Compliant to PCIe Gen2
8 x USB 2.0 4 x USB 3.2 Gen2 x1	8 x USB 2.0 BOM1 (Default): 2 x USB 3.2 Gen2x1 BOM2: 4 x USB 3.2 Gen 2x1 BOM3: 4 x USB 3.2 Gen 2x1	8 x USB 2.0 BOM1 (Default): 2 x USB 3.2 Gen2x1 BOM2: 4 x USB 3.2 Gen 2x1 BOM3: 4 x USB 3.2 Gen 2x1	8 x USB 2.0 4 x USB 3.2 Gen2	8 x USB 2.0 4 x USB 3.0
4 x SATA III	BOM1 (Default): 2 x SATA III BOM2: N/A BOM3: 2 x SATA III	BOM1 (Default): 2 x SATA III BOM2: N/A BOM3: 2 x SATA III	2 x SATA III	2 x SATA III
2 x UART (Rx/Tx Only)	2 x UART (Rx/Tx Only)	2 x UART (Rx/Tx Only)	2 x UART (Rx/Tx Only)	2 x UART (Rx/Tx Only)
1 x SMBus 1 x LPC (via eSPI to LPC Bridge) 1 x I²C	1 x SMBus 1 x LPC 1 x eSPI (W-B 10Px1 1.0mm 90D for Debug Conn) 1 x I²C 1 x SPI	1 x SMBus 1 x LPC 1 x eSPI (W-B 10Px1 1.0mm 90D for Debug Conn) 1 x I²C 1 x SPI	1 x SMBus 1 x LPC (via eSPI-to-LPC Bridge) or 1 x eSPI (Only Supports 20MHz), Build Option 1 x I²C	1 x SMBus 1 x LPC 1 x I²C
12th Gen Intel® UHD Graphics (Xe architecture)	Integrated Intel® Graphics	Intel® UHD Graphics	Intel® SoC Processor Integrated Gen11 LP Graphics	Intel® Apollo Lake SoC Integrated Graphics
Supports Four Display, Up to 2K (3DDI + eDP) 3 x DDI (VGA/ HDMI/ DP), 1 x LVDS/ eDP (Optional) DP 1.4: 4096 x 2304 @ 60Hz HDMI 2.0b: 4096 x 2304 @ 60Hz LVDS: 1920 x 1080 @ 60Hz Dual Channel 18/24-bits eDP 1.4b: 4096 x 2304 @ 60Hz (Only Supports 2560 x 1440 4 Lanes & 1920 x 1080 2 Lanes)	Supports Triple Display DDI (DP/ HDMI), LVDS/ eDP (By BOM Optional) DP 1.4: 4096 x 2160 @ 60Hz HDMI 2.0b: 1920 x 1080 (Default) or 4096 x 2160 @ 60Hz (Set by BIOS) LVDS: 1920 x 1080 @ 60Hz eDP 1.4b: 1920 x 1080 @ 60Hz 2 Lanes	Supports Triple Display DDI (DP/ HDMI), LVDS/ eDP (By BOM Optional) DP 1.4: 3840 x 2160 @ 60Hz HDMI 2.0b: 1920 x 1080 (Default) or 4096 x 2160 @ 60Hz (Set by BIOS) LVDS: 1920 x 1080 @ 60Hz eDP 1.4b: 1920 x 1080 @ 60Hz 2 Lanes	Supports Triple Display DDI (HDMI/ DP/ VGA), LVDS/ eDP DP 1.4: 4096 x 2160 @ 60Hz HDMI 1.4b/2.0b: 4096 x 2160 @ 60Hz VGA: 1920 x 1080 @ 60Hz LVDS: 1920 x 1080 @ 60Hz eDP 1.3b: 4096 x 2160 @ 60Hz (Only Supports 4 Lanes 2560 x 1440 & 2 Lanes 1920 x 1080)	Supports Triple Display DDI (VGA/ HDMI/ DP), LVDS DP: Max 4096 x 2160 @ 60Hz HDMI: Max 3840 x 2160 @ 30Hz VGA: Max 1920 x 1200 @ 60Hz LVDS: Max 1920 x 1200 @ 60Hz
Intel® HD Audio Integrated in SoC	Intel® HD Audio Integrated in SoC	Intel® HD Audio Integrated on CPU	Intel® HD Audio Integrated on CPU	Intel® HD Audio Integrated on CPU
1 x Intel® I225LM/IT	1 x Intel® I226V	1 x Intel® I226IT	1 x Intel® I225LM/IT	1 x Intel® WGI210AT
+9V ~ +19V	+9V ~ +19V	+9V ~ +19V	+9V ~ +19V	+9V ~ +19V
0°C ~ 60°C (32°F ~ 140°F) -40°C ~ 75°C (-40°F ~ 167°F) for Wide Temperature CPU SKU	0°C ~ 60°C (32°F ~ 140°F)	-40°C ~ 80°C (-40°F ~ 176°F)	0°C ~ 60°C (32°F ~ 140°F) -40°C ~ 85°C (-40°F ~ 185°F) for Wide Temperature CPU SKU (Note: Above 70°C Tc, the Recommended Ethernet Speed is 1G.)	0°C ~ 60°C (32°F ~ 140°F)
4.92" x 3.74" (125 x 95 mm)	3.74" x 3.74" (95 x 95 mm)	3.74" x 3.74" (95 x 95 mm)	3.74" x 3.74" (95 x 95 mm)	3.74" x 3.74" (95 x 95 mm)

Eval Carrier Board

» Q7 Carrier Board

» COMe Type 6 Carrier Board
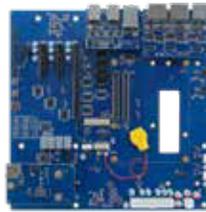
» COMe Type 10 Carrier Board

Model Number	REV-Q703 (A/B)	EEV-EX26	EEV-EX16-B1	EEV-EX14	EEV-EX15
USB	4 x USB 2.0, 1 x USB 3.0	4 x USB 2.0 4 x USB 3.2 Gen2x1 by 1 x IET Module 2 x USB4 Type C by 1 x IET Module (OEM by Request) *Module Board at I/O (EEV-EX26 Only)	4 x USB 2.0 4 x USB 3.2 Gen2	8 x USB 2.0 4 x USB 3.0 (4 x USB External)	6 x USB 2.0, 2 x USB 3.1 Gen1 (Contain 2 x USB 2.0)
SATA	2 x SATA (Internal)	4 x SATA III	4 x SATA III	4 x SATA II	2 x SATA III
COM Port	1 x COM	N/A	N/A	1 x RS-232/422/485,1 x RS-232 (Onboard Connector) 1 x LPT	N/A
Video	1 x HDMI, 1 x DP Onboard Connector: 1 x LVDS Connector, 1 x Backlight Connector	3 x HDMI, 3 x DP, 1 x VGA, 1 x IET Connector to 2 x USB Type-C Module Board at IO Onboard Connector: 1 x LVDS, 1 x eDP	3 x DP, 1 x VGA, 3 x HDMI, Onboard Connector: 1 x LVDS, 1 x eDP	1 x DP, 1 x VGA, 1 x HDMI OnBoard Connector: 1 x LVDS	1 x DP, 1 x HDMI, Onboard Connector: 1 x LVDS, 1 x eDP
Other	Edge I/O Connector: 1 x Ethernet, 3 x Audio Phone Jack, 1 x OTG Onboard I/O Connector: 1 x PCIe x1, 1 x SPI, 1 x CAN, 1 x LPC, 1 x JFP, 1 x PWM CPU Fan Pin-Header, 1 x 4P PWR Pin-Header	1 x LAN (Supports 2.5G)	1 x LAN (Supports 2.5G)	1 x PS2/KB & MS 1 x SDIO 2 x LAN	1 x LAN 1 x SDIO/DIO (Optional, Depend on Module Board)
DIO	1 x 16bit GPIO	1 x 16bit GPIO	1 x 8bit GPIO	1 x 8bit GPIO	1 x 8bit GPIO
MIO	1 x SD Socket for Version A 1 x Micro SD Socket for Version B	1 x SD Socket 1 x IET connector for LPC 1 x LPC	1 x SD Socket 1 x Multi-function Pin-Header	1 x IrDA	N/A
Expansion	1 x Mini PCIe Supports SIM Card	1 x PCI-e Gen4 x16 Slot 2 x PCI-e Gen4 x4 Slot	1 x PCIe x16 Gen4 2 x PCIe x4 Gen4	1 x PCIe x16 1 x PCIe x4 1 x PCIe x1 1 x Express Card (Optional) 1 x Mini PCIe	1 x PCIe x4
Audio	ALC888S/ WM8962	ALC888S	ALC888S	ALC892	ALC892
Audio Interface	Mic-in, Line-in, Line-out	Mic-in, Line-out	Mic-in, Line-out	Mic-in, Line-in, Line-out	Mic-in, Line-out
Power Requirement	+12V	ATX	ATX	AT/ ATX	ATX
Operating Temp.	-40°C ~ 85°C (-40°F ~ 185°F)	-40°C ~ 85°C (-40°F ~ 185°F)	0°C ~ 60°C (32°F ~ 140°F)	0°C ~ 60°C (32°F ~ 140°F)	0°C ~ 60°C (32°F ~ 140°F)
Dimension (L x W)	6.69" x 6.69" (170 x 170 mm)	9.6" x 9.6" (243.84 x 243.84 mm)	9.6" x 9.6" (243.84 x 243.84 mm)	9.6" x 9.6" (243.84 x 243.84 mm)	6.7" x 6.7" (170 x 170 mm)

» COM-HPC Carrier Board

» SMARC Carrier Board
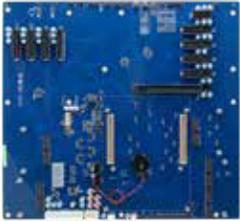
EEV-HC10
4 x USB 3.2 Gen2 x2 (Type C) by 2x IET Module 4 x USB 2.0 by Pin Header
2 x SATAIII
2 x Serial Port
3 x DDI Configurable to DP2.1 or HDMI 2.1b by 2 x IET Module 1 x eDP
2 x 2.5G Ethernet Connector by 2x IET Module
1x 12bit GPIO
N/A
1 x PCIe x16 Gen5 Slot 8 x PCIe x4 Slot 1 x PCIe x1 Slot for BMC
ALC888S
Mic-in, Line-out
ATX
0°C ~ 60°C (32°F ~ 140°F)
13" x 12" (330 x 305 mm)
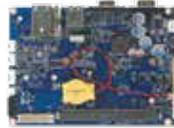
Model Number	REV-SA01	REV-SA02	REV-SA03
External I/O Connector	1 x HDMI 1 x VGA 2 x RJ45 1 x DB9 1 x Mini-USB 2 x USB Type A	1 x LAN, 2 x RCA 1 x HDMI, 1 x VGA 1 x Micro SD Socket 1 x Mini USB (OTG) 1 x USB Type A 2.0 Double Deck 1 x Display Port, 2 x RS232 1 x RST Switch, 1 x Power Switch 1 x Power LED, 1 x DIP SW	1 x Power Key 1 x Reset Key 1 x DC Jack 1 x USB 2.0 Type A 1 x USB Type C 1 x Giga Ethernet 1 x Headphone 1 x Micro SD Socket 1 x SIM Socket
Internal I/O Connector	1 x LVDS 1 x Backlight 1 x SD Socket 1 x USB Connector 2 x CAN BUS 1 x Speaker-out/ Mic-in 1 x RS-232 1 x GPIO 1 x SATA 1 x RTC Battery 1 x 2 Cell Li Battery Connector	1 x Camera 2 x Speaker 1 x D-MIC 1 x Mini PCIe (SATA) 1 x Mini PCIe (USB) 1 x Sim Card 1 x GPIO 1 x I²C 1 x USB2.0 1 x PCIE-1 1 x LVDS 1 x Battery Charger Connect 1 x Inverter 2 x RS485 2 x CAN	1 x USB 2.0 4P Header 1 x Mic Phone 2P Header 1 x Speaker 2P Header 1 x RTC-Battery (CR2032) 1 x M.2 Key E for Wi-Fi/ BT 1 x M.2 key B for LTE 1 x M.2 Key M for SSD (Only for PCIE Switch) 1 x Backlight 4P Header 1 x I²C Touch Screen Connector 1 x MIPI CSI Screen Connector for MIPI Camera (Option) 1 x MIPI DSI (Option) 1 x LVDS Screen Connector (Default) 1 x GPIO 16 bit 1 x CAN Bus
Power Requirement	+9V ~ 36V DC-in (REV-SA01-02-A1R) +9V ~ 24V DC-in (REV-SA01-03-A1R)	DC +12V	DC +12V
Operating Temperature	0°C ~ 60°C (32°F ~ 140°F)	-40°C ~ 85°C (-40°F ~ 185°F)	-40°C ~ 85°C (-40°F ~ 185°F)
Storage Temperature	-20°C ~ 80°C (-40°F ~ 176°F)	-40°C ~ 85°C (-40°F ~ 185°F)	-40°C ~ 85°C (-40°F ~ 185°F)
Dimension (L x W)	146 x 101 mm	170 x 170 mm	165 x 120 mm
Weight	0.13 kg	0.024 kg	0.024 kg
Certification	CE, FCC Class B	CE, FCC Class B	CE, FCC Class B
Software Support	N/A	N/A	N/A

SMARC

Model Number	SMA-IMX8MP	SMA-3588	SMA-3568	SMA-X8I	SMA-IMX6 E1
Processor	Quad Cortex®-A53 Processors	RockChip RK3588J Quad-core Cortex-A76 and Quad-core Cortex-A55	Rock Chip RK3568 Quad-core Cortex-A55	NXP i.MX 8M Mini	NXP i.MX 6 Dual NXP i.MX 6 Quad Core
System Memory	2GB/ 4GB LPDDR4	2GB/ 4GB/ 8GB LPDDR4	2GB (Default)/ 4GB/ 8GB LPDDR4	2GB DDR4 (Default)	1 GB/ 2GB DDR3
Storage	16GB/ 32GB eMMC	16GB eMMC	16GB (Default)/ 32GB / 64GB eMMC	eMMC 16GB	eMMC 8GB
Internal I/O Connector	2 x CAN/CAN FD 1 x I²S 5 x GPIO 1 x SDIO 2 x Ethernet 1 x HDMI 1 x LVDS 2 x MIPI CSI 1 x MIPI DSI 1 x PCIE 3.0 4 x UART 1 x USB (Type C) 2 x USB 3.0 3 x uSDHC 6 x I²C 3 x SPI	1 x CAN 14 x GPIO 4 x I²C 1 x I²S 1 x SDIO 2 x SPI 6 x UART 1 x Wi-Fi 802.11 a/b/g/n/ac 1 x HDMI 1 x MIPI CSI 1 x MIPI DSI/LVDS 2 x Giga Ethernet 1 x PCIe 2.1 1 x PCIe 3.0 1 x USB 3.0 Type A 1 x USB 3.0 Type A OTG 2 x USB 2.0 Type B	2 x Ethernet (Giga ethernet) 1 x PCIe 2.1 (1 lane) 1 x PCIe 3.0 (2 lanes) 2 x USB2.0 1 x USB3.0 HOST 1 x USB3.0 OTG 1 x MIPI CSI (4 lanes) 1 x MIPI DSI (DSI0 & DSI1) 1 x HDMI (HDMI 2.0) 1 x LVDS (Multiplex with DSI1) 1 x Wi-Fi (Option) 14 x GPIO (or more) 1 x SDIO 6 x UART 2 x SPI 4 x I²C 1 x CAN 1 x I²S	1 x Giga LAN Controller 8 x GPIO 3 x I²C 1 x I²S 1 x LVDS (Default) 1 x PCIe 1 x MIPI CSI (Option) 1 x MIPI DSI (Option) 1 x SPI 1 x UART 4 x USB 2.0 1 x USB 2.0 OTG	2 x CAN 12 x GPIO 3 x I²C 1 x JTAG 1 x MLB150 3 x PCIe (Option) 2 x RX/TX (Ser1/3) 1 x SATA eMMC 1 x SDIO 1 x SPDIF 2 x SPI 2 x UART (Ser0/2) 2 x USB 2.0 Port (One OTG) 1 x WDT
Power Requirement	5V	5V	5V	5V	3V ~ 5.25V
Operating Temperature	-40°C ~ 85°C (-40°F ~ 185°F)	-40°C ~ 85°C (-40°F ~ 185°F)	-40°C ~ 85°C (-40°F ~ 185°F)	-40°C ~ 85°C (-40°F ~ 185°F)	-40°C ~ 85°C (-40°F ~ 185°F)
Storage Temperature	-40°C ~ 85°C (-40°F ~ 185°F)	-40°C ~ 85°C (-40°F ~ 185°F)	-40°C ~ 85°C (-40°F ~ 185°F)	-40°C ~ 85°C (-40°F ~ 185°F)	-40°C ~ 85°C (-40°F ~ 185°F)
Dimension (L x W)	50 x 82 mm	82 x 50 mm	82 x 50 mm	82 x 50 mm	82 x 50 mm
Weight	0.06 kg	0.06 kg	0.06 kg	0.06 kg	0.06 kg
Certification	CE, FCC, Class B	CE, FCC, Class B	CE, FCC, Class B	CE, FCC Class B	CE, FCC Class B
Software Support	Yocto 4.0	Linux Debian, Android	Linux Debian 11, Android 11	Yocto 2.5, Android 10.0	Android 4.4, Yocto 2.1

Open Standard Module

Model Number	OSM-3568	OSM-IMX8MM	OSM-IMX93	OSM-IMX95
Chipset	Rockchip RK3568J	NXP iMX8M Mini	NXP i.MX93	NXP i.MX95
Processor	Quad-core Cortex-A55	NXP iMX8M Mini Quad-core Cortex-A53	Dual-Core ARM Cortex-A55 + ARM Cortex-M33	Six-Core Cortex-A55 Cortex-A7 + ARM Cortex-M33
Software Support	Debian11	Yocto (Kirkstone) 4.0	Yocto (Kirkstone) 4.0	Yocto (Kirkstone) 4.0
System Memory	2GB	4GB	2GB	LPDDR5 4GB
Storage	16GB eMMC	16GB eMMC	16GB eMMC (Optional 8G/ 32G)	32GB eMMC
I/O	1 x HDMI Out 2 x SDIO (1 x TF Card,1 x Wi-Fi & BT) 2 x USB3.0 (1 x USB Host, 1 x USB OTG) 2 x USB Host 1 x MIPI-CSI 1 x MIPI-DSI 1 x PCIE 1 x IR 2 x CAN 1 x SPI 1 x Edp 2 x UART 1 x DC in (USB Type-C) 2 x RJ45 10/100/1000M	2 x SDIO 4 x UART 4 x I²C 3 x SAI 2 x SPI 3 x PWM 1 x JTAG 29 x GPIO 1 x PCIE 1 x MIPI-CSI 1 x MIPI-DSI 1 x RGMII	1 x MIPI-CSI 1 x MIPI-DSI USB 2.0 2 x Gigabit Ethernet Controller 1 x SD 1 x CAN 2 x SPI 2 x PWM 3 x SAI 24 x GPIO	1 x 4 lane MIPI-DSI 1 x LVDS 1 x USB 3.2 1 x USB 2.0 5 x UART 4 x I2C 16 x GPIO 3 x PWM 2 x CAN-FD
Power Requirement	5V/ 2A	5V/ 3A	5V/ 3A	5V/ 3A
Operating Temperature	-40℃ ~ 85℃ (-40°F ~ 185°F)	-40℃ ~ 85℃ (-40°F ~ 185°F)	-40℃ ~ 85℃ (-40°F ~ 185°F)	-40℃ ~ 85℃ (-40°F ~ 185°F)
Dimensions	45 x 45 mm (Size-L)	45 x 45 mm (Size-L)	30 x 30mm (Size-S)	45 x 45mm (Size-L)
Certification	CE, FCC Class B	CE, FCC Class B	CE, FCC Class B	CE, FCC Class B

The compact and integrated platform offers fast time-to-market solutions with reliable and rugged designs. Providing certified, robust, industrial-grade computing solutions for mission-critical applications.

Computing System

ARM-based System

» NXP Series

Model Number	AIB-IMX6	AIB-IMX6A	AIB-IMX8M
Processor	NXP i.MX6 Cortex-A9 Dual Lite/ Quad 1GHz CPU	NXP i.MX6 Cortex-A9 Quad 1GHz CPU	NXP i.MX8M Cortex-A53 Quad Core 1.3GHz; Cortex-M4 Core Processor
System Memory	1 GB LPDDR3	1 GB LPDDR3	2 GB LPDDR4
Storage	8GB eMMC	8GB eMMC	16GB eMMC
External I/O Connector	1 x 10/100/1000 RJ45 Powered LAN 1 x HDMI 2.0 Out 1 x Micro SD Slot 1 x USB 2.0 Type A 1 x Jack for I/R Extender Cable, Co-design (Optional) 1 x with on Board I/R Sensor (Optional)	2 x 10/100/1000 RJ45 Powered LAN 1 x HDMI 2.0 Out 1 x Micro SD Slot 1 x Mini USB 3 x RS-232/422/485 DB9 1 x RS-232/422/485 Debug 2 x USB 2.0 Type A 1 x Jack for I/R Extender Cable, Co-design (Optional) 1 x with on Board I/R Sensor (Optional)	2 x 10/100/1000 RJ45 1 x HDMI 2.0 Out 1 x Headphone Jack 1 x Micro SD Slot 1 x USB 3.0 Type A 1 x USB 3.0 Type C (Data Only) 2 x DB9 Connector (Default) 4 x DB9 for RS232/485 (Option) 1 x 1x8P GPIO - DB9 Connector 1 x 1x4P CAN - DB9 Connector 1 x Reset 2 x Wi-Fi Antenna (Optional)
Power Requirement	DC 12V ~ 24V, 2.5mm DC Jack, Typical 19V Input with Brownout Detection or Powered LAN (Optional)	DC 12V ~ 24V, 2.5mm DC Jack, Typical 19V Input With Brownout Detection	DC 12V ~ 24V
Operating Temperature	-20°C ~ 70°C (-4°F ~ 158°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 60°C (-4°F ~ 140°F)
Storage Temperature	-40°C ~ 70°C (-40°F ~ 158°F)	-20°C ~ 70°C (-4°F ~ 158°F)	-40°C~ 60°C (-40°F ~ 140°F)
Dimension (L x W x H)	153 x 107.8 x 30 mm	186 x 121.35 x 37 mm	177 x 112 x 53.5 mm
Weight	1.5 kg	1.0 kg	2.0 kg
Certification	CE, FCC Class B	CE, FCC Class B	CE, FCC Class B
Software Support	Android 4.4 or 6.0 Yocto 2.1	Android 4.4 or 6.0 Yocto 2.1	Yocto 2.5 (Default) Android 10.0

ARM-based System

» Rockchip Series

Model Number	AIB-3566	AIB-3588	AIB-3568J
Processor	Rockchip RK3566 Quad-core ARM Cortex-A55	Rockchip RK3588 Quad-core ARM Cortex-A76 and Quad-core ARM Cortex-A55	Rockchip RK3568J Quad-core Cortex-A55 1.8GHz
System Memory	2GB/ 4GB LPDDR4 RAM	4GB (Default) & 8GB 64bit LPDDR4	4GB LPDDR4
Storage	32GB/ 64GB eMMC 5.1	32GB (Default)/ 64GB eMMC	64GB eMMC 5.1
External I/O Connector	1 x USB HOST 3.0 1 x USB OTG 2.0 1 x RS232 or 1 x IR Blaster (Choose One of Two, Default RS232) 1 x HDMI Out 1 x HDMI In 1 x Ethernet RJ45, 1000M 1 x Wi-Fi 802.11 a/b/g/n/ac 1 x Mini PCIE LTE (Optional) 1 x Micro SIM Slot	1 x USB Host 3.0 2 x USB Host 2.0 1 x USB Type C for DP (& FW Date) 2 x RS232 (Phoenix) 1 x RS485 (Phoenix) 1 x CAN (Phoenix) 1 x GPIO (Phoenix) 1 x TTL (Phoenix) 2 x LAN Port 1000/100/10 Mbps 1 x SD Card 1 x Micro SIM Card 1 x Power Button 4 x LED (Power, Ethernet Network, WiFi, 4G) 1 x IR In 2 x HDMI1 Out (1920 x 1080) 1 x HDMI In (1920 x 1080) 2 x Wi-Fi Antennas by Default, (1 x 4G Antenna and 1 x Wi-Fi Antennaare Optional) 1 x DC Input	2 x 10/100/1000 RJ45 Powered LAN 1 x HDMI Out 1 x RS232/422/485 DB9 1 x USB 3.0 Type A 1 x USB 3.0 Type A (OTG) 1 x Micro SD Card Slot
Power Requirement	DC 12V/ 1.5A	DC 12V	DC 12V ~ 24V
Operating Temperature	-5°C ~ 55°C (23°F ~ 131°F)	0°C ~ 50°C (0°F ~ 122°F)	-40 ~ 85°C (-40 ~ 185°F)
Storage Temperature	-10°C ~ 60°C (14°F ~ 140°F)	0°C ~ 50°C (0°F ~ 122°F)	-40 ~ 85°C (-40 ~ 185°F)
Dimension (L x W x H)	106 x 100 x 25 mm	160 x 125.5 x 48 mm	140 x 90 x 66 mm
Weight	2.58 kg	0.46 kg	1.14 kg
Certification	CE, FCC Class A	CE, FCC Class A	CE, FCC Class B
Software Support	Android 11.0 Linux Debian 10	Android 13 Linux Debian 11.0	Android 13 Debian 11

Model Number	AIB-3576	AIB-Q6490	AIB-Q5430
Processor	Rockchip RK3576 Quad-core Cortex-A72 and Quad-core Cortex-A53	QCS6490, Qualcomm® Kryo™ 670, 8 Cores, Up to 2.7 GHz, 12 TOPS	QCS5430, Qualcomm® Kryo™ 670, 6 Cores, Up to 2.1 GHz, 12 TOPS
System Memory	4GB LPDDR4	8GB LPDDR4	4 GB LPDDR4
Storage	32GB eMMC 5.1	USF 128GB	USF 128 GB
External I/O Connector	2 x 10/100/1000 RJ45 Powered LAN 1 x HDMI Out 1 x USB 3.0 Type A 1 x USB 2.0 Type A 1 x 3.5mm Audio Jack 1 x SMA	2 x RJ45 2 x USB 3.2 (Type A) 1 x HDMI 1 x USB Type C (DP Alt) 1 x DC Out (via USB Type C PD, 36W) DC In (20V/ 5A) PD In (20V/ 5A)	2 x RJ45 2 x USB 3.2 (Type A) 1 x HDMI 1 x USB Type C (DP Alt) 1 x DC Out (via USB Type C PD, 36W) DC In (20V/ 5A) PD In (20V/ 5A)
Power Requirement	DC 9V ~ 24V	DC 20V/ 5A, w/ Power Adapter	DC 20V/ 5A, w/ Power Adapter
Operating Temperature	-40 ~ 85°C (-40 ~ 185°F)	-30°C ~ 60°C, tbc	-30°C ~ 65°C, tbc
Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)	-40°C ~ 85°C (-40°F ~ 185°F)	-40°C ~ 85°C (-40°F ~ 185°F)
Dimension (L x W x H)	146 x 101 x 66 mm	108 x 88 x 53 mm	108 x 88 x 53 mm
Weight	1.16 kg	570 g	570 g
Certification	CE, FCC Class B	CE, FCC, UKCA	CE, FCC, UKCA
Software Support	Android 13 Debian 11	Win 11 IoT Enterprise LTSC (2nd) Android 13 Ubuntu 24.04 LTS (1st) Qualcomm Linux	Win 11 IoT Enterprise LTSC (2nd) Android 13 Ubuntu 24.04 LTS (1st) Qualcomm Linux

Edge AI Platform

» NVIDIA Jetson Series

Model Number	AIB-NW01	AIB-NIAO-S
Processor	Jetson Orin Nano 4GB Jetson Orin Nano 8GB Jetson Orin NX 8GB Jetson Orin NX 16GB	Jetson AGX Orin 32GB Jetson AGX Orin 64GB
AI Performance	Orin Nano 4GB: 20 TOPS Orin Nano 8GB: 40 TOPS Orin NX 8GB: 70 TOPS Orin NX 16GB: 100TOPS	32GB: 200 TOPS 64GB: 275 TOPS
System Memory	Nano: 4GB/ 8GB NX: 8GB/ 16GB	32GB 64GB
Storage	128GB M.2 2280 NVMe SSD	64GB eMMC 5.1
Expansion	1 x M.2 M Key 1 x M.2 E Key 1 x M.2 B Key 1 x Micro SIM Slot	1 x M.2 2230 E Key 2 x M.2 2280 M Key 1 x M.2 3042 B Key
External I/O Connector	2 x 10/100/1000 RJ45 LAN 1 x DC Phoenix 1 x HDMI 2.0 Type A 1 x M.2 B Key 1 x M.2 E Key 1 x Micro SIM 1 x Micro USB OTG 1 x Power LED 1 x Reset 2 x RS-232/485 DB9 (Jumper) 4 x USB 3.0 Type A	1 x Power Button 1 x Recovery Pin Hole 2 x USB 3.2 1 x DC Jack 2 x Ethernet 2 x HDMI Out 1 x DP Out 2 x USB 2.0 1 x Line in/out 8 x PSE Port (with 8PSE Model)
Protection	N/A	N/A
Power Requirement	DC 10V ~ 24V	DC: 12 ~ 28V (Base Model) / DC: 48V (8PSE Model)
Operating Temperature	-20°C ~ 60°C (-4°F ~ 140°F)	0°C ~ 60°C (32°F ~ 140°F) with Airflow
Storage Temperature	-40°C ~ 80°C (-40°F ~ 176°F)	-20°C ~ 80°C (-4°F ~ 176°F)
Dimension (L x W x H)	196 x 125 x 66.1 mm	265.08 x 186.70 x 105.29 mm
Weight	1.41 kg	5.0 kg
Certification	CE, FCC Class B	CE, FCC Class B
Software Support	AI SDK by Request Ubuntu: 22.04 JetPack 6.2 or Higher	AI SDK by Request Ubuntu: 22.04 JetPack 6.2 or Higher
Optional Product Features Extension by Daughter Board		SDK/ Software: By Request AGX 5G: 5G Mobility Network (Supports 5G / 4G / 3G SIM Module) AGX PSE: PSE Power Supply:8 x 15W (IEEE802.3af)

Model Number	AIB-NINX-S	AIB-NINX-SC
Processor	Jetson NX Orin 8GB Jetson NX Orin 16GB	Jetson NX Orin 8GB Jetson NX Orin 16GB
AI Performance	8GB: 70 TOPS (Super Mode: 117 TOPS) 16GB: 100 TOPS (Super Mode: 157 TOPS)	8GB: 70 TOPS (Super Mode: 117 TOPS) 16GB:100 TOPS (Super Mode: 157 TOPS)
System Memory	8GB 16GB	8GB 16GB
Storage	128GB M.2 2280 NVMe SSD	128GB M.2 2280 NVMe SSD
Expansion	1 x M.2 2280/3080 M Key 2 x M.2 2280 M Key	1 x M.2 M key 1 x M.2 E Key
External I/O Connector	1 x Power Button 1 x RS232/RJ485 1 x Ethernet 2 x HDMI Out 1 x Line in/out 4 x USB 3.2 1 x DC IN 1 x HDMI2.0 In (HDMI 2.0 Model) 4 x PSE Port (with 4PSE Model)	1 x Power Key 2 x Antenna 1 x Micro SD Slot 1 x GPIO/RS232, I²C 1 x USB3.2 Type-C 1 x RJ45 1 x DC IN 1 x Mini DP 1.4
Protection	N/A	N/A
Power Requirement	DC: 9 ~ 36V (HDMI2.0 Model) / DC: 48V (4PSE Model)	DC 9 ~ 36V
Operating Temperature	0°C ~ 60°C (32°F ~ 140°F) with Airflow	0°C ~ 60°C (32°F ~ 140°F) with Airflow
Storage Temperature	-20°C ~ 70°C (-4°F ~ 158°F)	-20°C ~ 80°C (-4°F ~ 176°F)
Dimension (L x W x H)	284 x 144 x 76.6 mm	94.4 x 66 x 69.8 mm
Weight	3.5 kg	0.5 kg
Certification	CE, FCC Class B	CE, FCC Class B
Software Support	AI SDK by Request Ubuntu: 22.04 JetPack 6.2 or Higher	AI SDK by Request Ubuntu: 22.04 JetPack 6.2 or Higher
Optional Product Features Extension by Daughter Board	SDK/ Software: By Request NX 5G: 5G Mobility Network (Supports 5G / 4G / 3G SIM Module) NX PSE: PSE Power Supply 4 x 15W (IEEE802.3af)	SDK/ Software: By Request 4K60 12G-SDI: 1 x 12G-SDI In & Loop 12G-SDI QL 1 x 4K60/ 2 x 4K30/ 4 x HD60: 1 x 12G-SDI, 2 x 6G-SDI, 4 x 3G-SDI In (Single-Link, Dual-Link, Quad-Link Support) 4K60 HDMI2.1: 1 x HDMI2.1 In & Loop 4K60 HDMI2.0: 1 x HDMI2.0 In & Loop HD60 GMSL2 and CAN Bus: 4 x GMSL2 In, 1 x CAN Bus 4 x TVI: 4 x TVI In HD60 4 x HDMI: 4 x HDMI 4 x USB3.2-A: 1 x USB3.2 Gen2, 4 x USB3.2 Gen1

Compact Computing System

Model Number	EPS-RPR	EPS-RPS	ACS10-TGU
Board	EBM-ADS	EBM-ADS	ECM-TGUC
Processor	14th Gen Intel® Core™ i9/i7/i5/i3 Processor (TDP 35/65W)	13th Gen Intel® Core™ i9/i7/i5/i3 Processor (TDP 35/65W)	Intel® Core™ i5-1135G7 Intel® Core™ i3-1115G4
System Chipset	Intel® Q670E / H610E Chipset	Intel® Q670E / H610E Chipset	N/A
System Memory	2 x 262-Pin SO-DIMM Socket Max. Up to 64GB DDR5 5600MHz	2 x 262-Pin SO-DIMM Socket Max. Up to 64GB DDR5 4800MHz	1 x 260-Pin SO-DIMM Socket Max Up to 32GB DDR4 3200MHz
Expansion	1 x mPCIe (PCIe, USB 2.0) 1 x M.2 Key-E 2230 (PCIe, USB2.0) 1 x M.2 Key-B 2242/3042/3052 (PCIe, USB3.2, USB2.0) w/ SIM Slot 1 x M.2 Key-M 2242/2280 (PCIe Gen 4x4)	1 x mPCIe (PCIe, USB 2.0) 1 x M.2 Key-E 2230 (PCIe, USB2.0) 1 x M.2 Key-B 2242/3042/3052 (PCIe, USB3.2, USB2.0) w/ SIM Slot 1 x M.2 Key-M 2242/2280 (PCIe Gen 4x4)	1 x M.2 Key-E 2230 (PCIe, USB 2.0) 1 x M.2 Key-B 2242/3052 with 1 x SIM Slot (SATA, USB3.2, USB 2.0)
Storage	1 x 2.5" Drive Bay 1 x M.2 Key-B 2242 (SATA3) 1 x M.2 Key-M 2242/2280 (PCIe Gen 4x4, Support NVMe SSD, Q670E SKU only)	1 x 2.5" Drive Bay 1 x M.2 Key-B 2242 (SATA3) 1 x M.2 Key-M 2242/2280 (PCIe Gen 4x4, Support NVMe SSD, Q670E SKU only)	1 x M.2 Key-B 2242 (SATA3) 1 x M.2 Key-M 2280 NVMe (PCIe Gen4 x 4)
USB	2 x USB 2.0, 6 x USB 3.2	2 x USB 2.0, 6 x USB 3.2	3 x USB 3.2 Gen.2 3 x USB 2.0
COM Port	2 x RS-232 4 x RS-232/422/485	2 x RS-232 4 x RS-232/422/485	1 x RS-232/422/485 1 x RS-232
Display Chipset	Intel® UHD Graphics 770 (i9, i7, i5) Intel® UHD Graphics 730 (i3)	Intel® UHD Graphics 770 (i9, i7, i5) Intel® UHD Graphics 730 (i3)	Intel® Iris® Xe Graphics (i5-1135G7) Intel® UHD Graphics for 11th Gen Intel® Processors (i3-1115G4)
Display Resolution	2 x HDMI 2.0b: 4096 x 2304 @ 60Hz 2 x DP++ 1.4: 4096 x 2304 @ 60Hz	2 x HDMI 2.0b: 4096 x 2304 @ 60Hz 2 x DP++ 1.4: 4096 x 2304 @ 60Hz	DP++ 1.4: 4096 x 2304 @ 60Hz
Audio Chipset	Realtek Audio Codec	Realtek Audio Codec	Realtek Audio Codec
Audio Interface	1 x Mic-in 1 x Line-out	1 x Mic-in 1 x Line-out	1 x Mic-in 1 x Line-out
Ethernet Chipset	1 x Intel® I219-LM 1 x Intel® I226-LM	1 x Intel® I219-LM 1 x Intel® I226-LM	1 x Intel® I219LM 1 x Intel® I225-V
Ethernet Interface	2 x RJ45	2 x RJ45	2 x RJ45
Power Connector	5-Pin Terminal Block	5-Pin Terminal Block	Lockable DC Jack
Power Requirement	DC in Typical 12V/ 24V, Wide Voltage	DC in Typical 12V/ 24V, Wide Voltage	+12V
ACPI	Single Power ATX Support S0, S1, S3, S4, S5; ACPI 5.0 Compliant	Single Power ATX Support S0, S1, S3, S4, S5; ACPI 5.0 Compliant	Single Power ATX Support S0, S1, S3, S4, S5; ACPI 5.0 Compliant
Power Mode	AT/ ATX (ATX is Default Setting)	AT/ ATX (ATX is Default Setting)	AT/ ATX (ATX is Default Setting)
Dimension (L x W x H)	216 x 203 x 75 mm	216 x 203 x 75 mm	188 x 120 x 48 mm
Operating Temp.	-10°C ~ 55°C (14°F ~ 131°F) with 0.5m/s Air Flow (35W) -10°C ~ 50°C (14°F ~ 122°F) with 0.5m/s Air Flow (65W w/ External Fan kit)	-10°C ~ 55°C (14°F ~ 131°F) with 0.5m/s Air Flow (35W) -10°C ~ 50°C (14°F ~ 122°F) with 0.5m/s Air Flow (65W w/ External Fan kit)	0°C ~ 50°C (32°F ~ 122°F) with 0.5m/s Air Flow
Certification	CE, FCC Class B	CE, FCC Class B	CE, FCC Class A, UKCA

Model Number	ACS-ALUC	ACS-ADNC	ACS-ADN2C
Board	ECM-ALUC	ACS-N97MB	N/A
Processor	Intel® 12th Gen Core™ i5/i3 Processors	Intel® Alder Lake i3N & N Series & Twin Lake Series Processors	Intel® Alder Lake i3N & N Series & Twin Lake Series Processors
System Chipset	N/A	N/A	N/A
System Memory	1 x 260-Pin SO-DIMM Socket, Up to 32GB DDR4 3200MHz	1 x 260-Pin SO-DIMM Socket, Up to 16GB DDR4 3200MHz	1 x 262-Pin SO-DIMM Socket, Up to 16GB DDR5 4800MHz
Expansion	1 x M.2 Key-E 2230 (PCIe) 1 x M.2 Key-B 2242/3052 (PCIe, USB 2.0) 1 x M.2 Key-M 2280 (SATA/PCIe)	1 x M.2 Key-E 2230 (PCIe, USB 2.0) 1 x M.2 Key-B 2242/3052 (USB3.0, USB 2.0) 1 x M.2 Key-M 2280 (SATA/PCIe)	1 x M.2 Key-E 2230 (PCIe,USB2.0) 1 x M.2 Key-B 2242 Key M (NVMe x1, SATA)
Storage	1 x M.2 Key-M 2280 NVMe (PCIe x 4)	1 x M.2 Key-M 2280 NVMe (PCIe x4)	1 x M.2 Key-B 2242 Key M (NVMe x1, SATA)
USB	6 x USB 3.2 Gen.1	4 x USB 3.2 Gen.1 2 x USB 2.0	4 x USB 3.2 Gen.1
COM Port	4x RS-232	4x RS-232	2 x RS-232
Display Chipset	Intel® UHD Graphics for 13th Gen Intel® Processors or Intel® Iris® Xe Graphics Eligible for 12th Gen Intel® Processors	Intel® UHD Graphics for Intel® Processors	Intel® UHD Graphics for Intel® Processors
Display Resolution	HDMI 2.0: 2048 x 1080 @ 60Hz DP++: Max 4096 x 2340 @ 60Hz	HDMI 2.0: 2048 x 1080 @ 60Hz DP++: Max 4096 x 2340 @ 60Hz	HDMI 2.0: 4096 x 2160 @ 60Hz
Audio Chipset	Realtek Audio Codec	Realtek Audio Codec	Realtek Audio Codec
Audio Interface	1 x Mic-in & Line-out	1 x Mic-in & Line-out	1 x Mic-in 1 x Line-out
Ethernet Chipset	1 x Intel® I226V 1 x Intel® I219V	1 x Intel® I226V 1 x Intel® I210AT	2 x Realtek 8111H
Ethernet Interface	2 x RJ45	2 x RJ45	2 x RJ45
Power Connector	Lockable DC Jack	Lockable DC Jack	DC jack
Power Requirement	+12V	+12V	+12V
ACPI	Single Power ATX Support S0, S1, S3, S4, S5; ACPI 5.0 Compliant	Single Power ATX Support S0, S1, S3, S4, S5; ACPI 5.0 Compliant	Single Power ATX Support S0, S1, S3, S4, S5; ACPI 5.0 Compliant
Power Mode	AT/ ATX (ATX is Default Setting)	AT/ ATX (ATX is Default Setting)	AT/ ATX (ATX is Default Setting)
Dimension (L x W x H)	180 x 136 x 40 mm	180 x 136 x 40 mm	129 x 129 x 38.7mm
Operating Temp.	-10°C ~ 50°C (14°F ~ 122°F) with 0.5m/s Air Flow	-10~55°C (14°F ~ 131°F) with 0.5m/s Air Flow	0°C ~ 40°C (32°F ~ 104°F) with 0.5m/s Air Flow
Certification	CE, FCC Class A, UKCA	CE, FCC Class A, UKCA	CE, FCC Class A, UKCA

Compact Computing System

Model Number	EPC-WCL	EPC-RPU	EPC-TGU	EPC-TWL	EPC-ASL
Board	ECM-WCL	ECM-RPL	ECM-TGU	ECM-TWL	ECM-ASL
Processor	Intel® Core™ Series 3 Wildcat Lake-U 7/5/3 BGA Processor	13th Gen Intel® Raptor Lake-U Core™ i7/i5/i3 Processor	11th Gen Intel® Tiger Lake-U Core™ i7/i5/i3/ Celeron® Processor	Intel® Processor N150/ N250/ N355	Intel® Processor N97
System Memory	1 x 262-pin DDR5 6400MHz SO-DIMM Socket, Max. Up to 48GB	1 x 262-pin DDR5 4800MHz SO-DIMM Socket, Max. Up to 32GB	1 x 260-Pin DDR4 3200MHz SO-DIMM Socket, Max. Up to 32GB	1 x 262-pin DDR5 4800MHz SO-DIMM Socket, Max. Up to 16GB	1 x 262-pin DDR5 4800MHz SO-DIMM Socket, Max. Up to 16GB
Expansion	1 x M.2 Key-B 2242/3042/3052 (PCIe x1, USB 3.2 GEN1,USB 2.0) 1 x M.2 Key-E 2230 (PCIe x1, USB 2.0)	1 x M.2 Key-B 2242/3042/3052 w/ SIM Slot (PCIe x1, USB 3.2 GEN1, USB 2.0) 1 x M.2 Key-M 2280 (PCIe Gen 4x4) 1 x M.2 Key-E 2230 (PCIe, USB 2.0, CNVi)	1 x M.2 Key-B 2242/3042 w/ SIM Slot (SATA3, USB 2.0) 1 x M.2 Key-M 2280 (PCIe Gen 4x4) 1 x M.2 Key-E 2230 (PCIe, USB 2.0)	1 x M.2 Key-B 2242/3042/3052 (PCIe x1, USB 3.2 GEN1,USB 2.0) 1 x M.2 Key-E 2230 (PCIe x1, USB 2.0)	1 x M.2 Key-B 2242/3042/3052 (PCIe x1, USB 3.2 GEN1,USB 2.0) 1 x M.2 Key-E 2230 (PCIe x1, USB 2.0)
Storage	1 x M.2 Key-B 2242 (PCIe x1) 1 x M.2 Key-M 2280 NVMe (PCIe Gen4 x2)	1 x M.2 Key-B 2242 (SATA3) 1 x M.2 Key-M 2280 NVMe (PCIe Gen4x4) 1 x 2.5" Drive Bay (7mm)	1 x M.2 Key-B 2242 SATA3) 1 x M.2 Key-M 2242 NVMe (PCIe Gen4x4) 1 x 2.5" Drive Bay (7mm)	1 x M.2 Key-B 2242 (PCIe x1) 1 x 2.5 Drive Bay (SATA3, 7mm)	1 x M.2 Key-B 2242 (PCIe x1) 1 x 2.5 Drive Bay (SATA3, 7mm)
USB	2 x USB 3.2 Gen 1 1 x USB 3.2 Gen 2 1 x USB Type-C (with USB 3.2 Gen 2 & DP 1.4a) 2 x USB2.0	3 x USB 2.0 3 x USB 3.2 Gen2 1 x USB 3.2 Gen 2 (Type C)	2 x USB 2.0 4 x USB 3.2 Gen 2	3 x USB2.0 3 x USB 3.2 Gen2	3 x USB2.0 3 x USB 3.2 Gen2
COM Port	2 x RS232/422/485	2 x RS232/422/485	2 x RS232/422/485	2 x RS232	2 x RS232
Other	4 x Antenna Mounting with Dust Protection Cover	4 x Antenna Mounting with Dust Protection Cover	2 x Antenna Mounting with Dust Protection Cover	4 x Antenna Mounting with Dust Protection Cover	4 x Antenna Mounting with Dust Protection Cover
Display Chipset	Intel® 3rd Gen Xe Cores Graphics	Intel® Iris® Xe Graphics for 13th Gen Intel® Processors	Intel® Iris® Xe Graphics (i7/i5) Intel® Iris® UHD Graphics (i3/ Celeron)	Intel® UHD Graphics	Intel® UHD Graphics
Resolution	1 x HDMI 2.0b: 4096 x 2160 @ 60Hz 1 x DP 1.4a: 4096 x 2160 @ 60Hz 1 x USB Type C Support DP: 4096 x 2160 @ 60Hz	1 x HDMI 2.0b: 4096 x 2160 @ 60Hz 1 x DP1.4: 7680 x 4320 @ 60Hz 1 x DP (Type C): 4096 x 2304 @ 60Hz	2 x DP++ 1.4a: 4096 x 2304 @ 60Hz	1 x HDMI 2.0b Max Resolution 4096 x 2160 @ 60Hz 1 x DP 1.4a Max Resolution 4096 x 2160 @ 60Hz	1 x HDMI 2.0b Max Resolution 4096 x 2160 @ 60Hz 1 x DP 1.4a Max Resolution 4096 x 2160 @ 60Hz
Audio Chipset	Realtek Audio Codec	Realtek Audio Codec	Realtek Audio Codec	Realtek Audio Codec	Realtek Audio Codec
Audio Interface	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in	1 x Combo Jack (Mic-in + Line-out)	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in
Ethernet Chipset	1 x Intel® I226LM, 1 x Intel® I226V	2 x Intel® I226LM	2 x Intel® I226-LM	2 x Intel® I226V	2 x Intel® I226V
Ethernet Interface	2 x RJ45	2 x RJ45	2 x RJ45	2 x RJ45	2 x RJ45
Power Connector	Lockable DC Jack	Lockable DC Jack	Lockable DC Jack	Lockable DC Jack	Lockable DC Jack
Power Requirement	+12V/ +24V	+12V/ +24V	+12V/ +24V	+12V/ +24V	+12V/ +24V
ACPI	Single Power ATX Support S0, S3, S4, S5 ACPI 5.0 Compliant	Single Power ATX Support S0, S3, S4, S5 ACPI 5.0 Compliant	Single Power ATX Support S0, S3, S4, S5 ACPI 5.0 Compliant	Single Power ATX Support S0, S3, S4, S5 ACPI 5.0 Compliant	Single Power ATX Support S0, S3, S4, S5 ACPI 5.0 Compliant
Power Mode	AT/ ATX (ATX is Default Setting)	AT/ ATX (ATX is Default Setting)	AT/ ATX (ATX is Default Setting)	AT/ ATX (ATX is Default Setting)	AT/ ATX (ATX is Default Setting)
Adapter	120W AC to DC Adapter (Default)	120W AC to DC Adapter (Default)	60W AC to DC Adapter (Default)/ 120W AC to DC Adapter (Option)	60W AC to DC Adapter (Default)/ 120W AC to DC Adapter (Option)	60W AC to DC Adapter (Default)/ 120W AC to DC Adapter (Option)
Construction	Aluminum + Metal	Aluminum + Metal	Aluminum + Metal	Aluminum + Metal	Aluminum + Metal
Dimension (L x W x H)	6.97" x 4.94" x 2.24" (177x 126 x 57mm)	6.97" x 4.94" x 2.24" (177x 126 x 57mm)	6.97" x 4.84" x 2.17" (177 x 123 x 55mm)	6.97" x 4.96" x 2.24" (177 x 127 x 57mm)	6.97" x 4.96" x 2.24" (177 x 127 x 57mm)
Operating Temp.	-10°C ~ 60°C (14°F ~ 140°F) with 0.5m/s Air Flow	0°C ~ 50°C (32°F ~ 122°F) with 0.5m/s Air Flow	0°C ~ 50°C (32°F ~ 122°F) with 0.5m/s Air Flow	-10°C ~ 60°C (14°F ~ 140°F) with 0.5m/s Air Flow	0°C ~ 50°C (32°F ~ 122°F) with 0.5m/s Air Flow
Certification	CE, FCC, Class B, UKCA	CE, FCC, Class B, UKCA	CE, FCC Class B, UKCA	CE, FCC, Class B, UKCA	CE, FCC Class B, UKCA

EPC-EHL	EPC-EHL-8COM	EPC-EHL-8USB	EPC-EHL-4LAN	EPC-WHL
ECM-EHL				ECM-WHL
Intel® ATOM® Processor x6413E Processor				8th Generation Intel® Core™ i7/i5/i3/ Celeron® Processor
1 x 260-Pin SO-DIMM Socket, Max. Up to 32GB DDR4 3200MHz				2 x 260-Pin DDR4 2400MHz SO-DIMM Socket Up to 64GB
1 x M.2 (Key-E, 2230, PCIex1, USB2.0)				1 x M.2 (Key-B, 2242/3042, w/ SIM Slot) 1 x M.2 (Key-E, 2230, CNVi)
1 x 2.5" Drive Bay (7mm) 1 x M.2 (Key-B, 2242)	1 x 2.5" Drive Bay (7mm)	1 x 2.5" Drive Bay (7mm)	1 x 2.5" Drive Bay (7mm) 1 x M.2 (Key-B, 2242)	1 x 2.5" Drive Bay (7 mm) 1 x M.2 (Key-B, 2242)
2 x USB 3.1 Gen2 2 x USB2.0	2 x USB 3.1 Gen2 2 x USB2.0	6 x USB 2.0 2 x USB 3.1 Gen2	2 x USB 3.1 Gen2 2 x USB 2.0	4 x USB 3.1 2 x USB2.0 (Factory Option)
4 x RS232	8 x RS232	4 x RS232	2 x RS232	1 x RS232 (Factory Option)
4 x Antenna Mounting with Dust Protection Cover				2 x Antenna Mounting with Dust Protection Cover
Intel® UHD Graphics for 10th Gen Intel® Processors				Intel® UHD Graphics 620 (i7/i5/i3) Intel® UHD Graphics 610 (Celeron)
1 x HDMI 2.0b: 4096 x 2160 @ 60Hz 1 x DP 1.4a: 4096 x 2160 @ 60Hz				2 x HDMI 1.4: 4096 x 2160 @ 24Hz
Realtek Audio Codec	Realtek Audio Codec	Realtek Audio Codec	Realtek Audio Codec	Realtek Audio Codec
1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in	1 x Line-out, 1 x Mic-in
2 x Intel® I226-IT	2 x Intel® I226-IT	2 x Intel® I226-IT	4 x Intel® I226-IT	1 x Intel® I210AT, 1 x Intel® I219LM
2 x RJ45	2 x RJ45	2 x RJ45	4 x RJ45	2 x RJ45
Lockable DC Jack	Lockable DC Jack	Lockable DC Jack	Lockable DC Jack	Lockable DC Jack
+12V/ +24V	+12V/ +24V	+12V/ +24V	+12V/ +24V	+12V
Single Power ATX Support S0, S3, S4, S5; ACPI 5.0 Compliant				Single Power ATX Support S0, S3, S4, S5; ACPI 5.0 Compliant
AT/ ATX (ATX is Default Setting)				AT/ ATX (ATX is Default Setting)
Input: 100 ~ 240Vdc/ 50 ~ 60Hz Output: 12V/5A AC-DC 60W Adapter				Input: 100 ~ 240Vdc/ 50 ~ 60Hz Output: 12V/10A AC-DC 120W Adapter
Aluminum + Metal	Aluminum + Metal	Aluminum + Metal	Aluminum + Metal	Aluminum + Metal
6.97" x 4.84" x 2.2" (177 x 123 x 65mm)	6.97" x 4.84" x 2.2" (177 x 123 x 65mm)	6.97" x 4.84" x 2.2" (177 x 123 x 65mm)	6.97" x 4.84" x 2.2" (177 x 123 x 65mm)	6.97" x 4.84" x 2.17" (177 x 123 x 55mm)
-40°C ~ 60°C (-40°F ~ 140°F) with 0.2m/s Air Flow -40°C ~ 70°C (-40°F ~ 158°F) with 0.5m/s Air Flow			-40°C ~ 60°C (-40°F ~ 140°F) with 0.2m/s Air Flow -20°C ~ 60°C (-4°F ~ 140°F)	-10°C ~ 50°C (14°F ~ 122°F) with 0.5m/s Air Flow -10°C ~ 40°C (14°F ~ 104°F) with 0.2m/s Air Flow with 2.5" Hard Drive: 0°C ~ 40°C (32°F ~ 113°F) with 0.5m/s Air Flow
CE, FCC Class B	CE, FCC Class B	CE, FCC Class B	CE, FCC Class B	CE, FCC Class B, UKCA

Compact Computing System

Model Number	NUC-RPU	NUC-TGU	NUC-EHL
Processor	13th Generation Intel® Core™ i7/i5/i3 BGA Processor	11th Generation Intel® Core™ i7/ i5/ i3 BGA Processor	Intel® Celeron® J6412 Processor
System Memory	1 x 262-Pin SO-DIMM Socket Max. Up to 32GB DDR5 4800MHz	1 x 260-pin SODIMM Socket Max. Up to 64GB DDR4 3200 MT/s	1 x 260-pin SODIMM Socket Max. Up to 64GB DDR4 3200 MT/s
Expansion	1 x M.2 Key-E 2230 (PCIe, USB 2.0) 1 x M.2 Key-B 2242/3042/3052 with Internal SIM Slot (PCIe, SATA, USB 3.0, USB 2.0) 1 x M.2 Key-M 2280 (PCIe4x4)	1 x M.2 (Key-M, 2280) 1 x M.2 (Key-B, 2242/3024/3052, w/ SIM Slot) 1 x M.2 (Key-E 2230)	1 x M.2 (Key-B, 2242/3042, w/ SIM Slot) 1 x M.2 (Key-B, 2242) 1 x M.2 (Key-E, 2230)
Storage	1 x M.2 Key-M 2280 NVMe 1 x M.2 Key-B 2242 SSD	1 x M.2 (Key-M, 2280, NVMe) 1 x M.2 (Key-B, 2242)	1 x M.2 (Key-B, 2242)
USB	4 x USB 3.2 Gen 2 2 x USB 3.2 Gen1 2 x USB 2.0	4 x USB 3.2 Gen.2, 2 x USB 2.0	4 x USB 3.2 Gen.2 , 2 x USB 2.0
COM Port	2 x RS-232/422/485 (BIOS)	2 x RS-232/422/485 (BIOS)	2 x RS-232/422/485 (BIOS)
Other	1 x Power on/off Button w/ LED 1 x LED for Storage, WLAN, WWLAN 1 x Kensington Lock	1 x Power on/off Button w/ LED 1 x LED for Storage/ WLAN/ WWLAN 4 x Antenna Mounting with Dust Cover 1 x Kensington Lock	1 x Power on/off Button w/ LED 1 x Storage LED 4 x Antenna Mounting with Dust Cover 1 x Kensington Lock 1 x Micro SD Slot
Display	4 x HDMI 2.0b: Max. Resolution 4096 x 2304 @ 60Hz	2 x HDMI 2.0b: Max. Resolution 4096 x 2304 @ 60Hz	2 x HDMI 2.0b: 4096 x 2304 @ 60Hz
Audio	Realtek Audio Codec 1 x Mic-in, 1 x Line-out	Realtek Audio Codec 1 x Mic-in, 1 x Line-out	Realtek Audio Codec 1 x Mic-in, 1 x Line-out
Ethernet	1 x Intel I226V, 1 x Intel I219LM	1 x Intel I225LM, 1 x Intel I219LM	2 x Intel I225LM
Power Connector	Lockable DC Jack	Lockable DC Jack	Lockable DC Jack
Power Requirement	+12V	+12V	+12V
Power Mode	ATX	ATX	ATX
Adapter	Input: 100 ~ 240Vdc/ 50 ~ 60Hz Output: 120W Adapter (12V @ 10A)	Input: 100 ~ 240Vdc/ 50 ~ 60Hz Output: 120W Adapter (12V @ 10A)	Input: 100 ~ 240Vdc/ 50 ~ 60Hz Output: 120W Adapter (12V @ 10A)
Operating Temperature	With Extended Temperature Peripherals w/ Air Flow: 0°C ~ 50°C (32°F ~ 122°F)	With Extended Temperature Peripherals w/ Air Flow: 0°C ~ 50°C (32°F ~ 122°F)	With Extended Temperature Peripherals w/ Air Flow: 0°C ~ 60°C (14°F ~ 122°F)
Construction	Aluminum + Metal	Aluminum + Metal	Aluminum + Metal
Mounting Kit	Stand/ Din Rail/ VESA	Stand/ Din Rail/ VESA	Stand/ Din Rail/ VESA
Dimension (L x W x H)	6.85" x 4.92" x 1.52" (174 x 125x 38.7mm)	6.69" x 4.92" x 1.42" (170 x 125 x 36 mm)	6.69" x 4.92" x 1.42" (170 x 125 x 36 mm)
Weight	1 kg	1 kg	1 kg
Certification	CE, FCC Class A	CE, FCC Class A	CE, FCC Class A

Model Number	NUC-ADN	NUC-APL	NUC-APL-Slim
Processor	Intel® Processor N97	Intel® Celeron® J3455/ N3350 Processor	Intel® Celeron® J3455/ N3350 Processor
System Memory	1 x 262-pin SODIMM Socket Max. Up to 16GB DDR5 4800 MHz	1 x 204-pin SO-DIMM Socket, Max. Up to 8GB DDR3L 1866MHz	1 x 204-pin SO-DIMM Socket, Max. Up to 8GB DDR3L 1866MHz
Expansion	1 x M.2 (Key-E, 2230)	1 x M.2 (Key-B, 2242/3042, w/ SIM Slot) 1 x M.2 (Key-E, 2230)	1 x M.2 (Key-B, 2242/3042) 1 x M.2 (Key-E, 2230)
Storage	1 x 2.5" Drive Bay (7 mm)	1 x 2.5" Drive Bay (7 mm) 1 x M.2 (Key-B,2242)	1 x M.2 (Key-B,2242)
USB	4 x USB 3.2 Gen.2 (Type A) 1 x USB3.2 Gen 2 (Type C)	4 x USB 3.0 (5Gbps)	4 x USB 3.0 (5Gbps)
COM Port	1 x RS-232/422/485 (BIOS) 1 x RS-232	1 x RS-232/422/485 (BIOS & Cable) 1 x RS-232	1 x RS-232/422/485 (BIOS & Cable)
Other	1 x Power on/off Button w/ LED 1 x Storage LED 2 x Antenna Mounting with Dust Cover	1 x Power on/off Button w/ LED 1 x Storage LED 2 x Antenna Mounting with Dust Cover	1 x Power on/off Button w/ LED 1 x Storage LED 2 x Antenna Mounting with Dust Cover
Display	2 x HDMI 2.0b: 4096 x 2160 @ 60Hz	2 x HDMI 1.4b: Max. Resolution 3840 x 2160 @ 30Hz 1 x DP (DVI-I/ VGA Factory Option): Max. Resolution 1920 x 1080 @ 60Hz	2 x HDMI 1.4b: Max. Resolution 3840 x 2160 @ 30Hz *1 x DP/ DVI-I/ VGA (Factory Option): Max. Resolution 1920 x 1080 @ 60Hz *DP/ DVI-I/ VGA is an Option which will Replace the Location of COM
Audio	Realtek Audio Codec 1 x Audio Jack (Mic-in + Line-out)	Realtek Audio Codec 1 x Audio Jack (Mic-in + Line-out Combo)	Realtek Audio Codec 1 x Audio Jack (Mic-in + Line-out Combo)
Ethernet	2 x I226V	2 x Realtek RTL8111E Gigabit	2 x Realtek RTL8111E Gigabit
Power Connector	Lockable DC Jack	Lockable DC Jack	Lockable DC Jack
Power Requirement	+12V	+12V	+12V
Power Mode	ATX	ATX	ATX
Adapter	Input: 100 ~ 240Vdc/ 50 ~ 60Hz Output: 120W Adapter (12V @ 10A)	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 60W Adapter (12V @ 5A)	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 60W Adapter (12V @ 5A)
Operating Temperature	0°C ~ 50°C (32°F ~ 122°F) with 0.5m/s air flow	With Extended Temperature Peripherals w/ Air Flow: -10°C ~ 60°C (14°F ~ 140°F)	With Extended Temperature Peripherals w/ Air Flow: -10°C ~ 50°C (14°F ~ 122°F)
Construction	Aluminum + Metal	Aluminum + Metal	Aluminum + Metal
Mounting Kit	VESA/ Din Rail	VESA/ Din Rail	VESA/ Din Rail
Dimension (L x W x H)	4.53" x 4.37" x 2.28" (115 x 111 x 58 mm)	4.53" x 4.37" x 2.28" (115 x 111 x 58 mm)	4.53" x 4.37" x 1.77" (115 x 111 x 45 mm)
Weight	0.85 kg	0.85 kg	0.72 kg
Certification	CE, FCC Class A	CE, FCC Class A	CE, FCC Class A

Modular Computing System

Model Number	EMS-RPR	EMS-ARH	EMS-MTH
Processor	14th Gen Intel® Core™ i9/i7/i5/i3 Processor (TDP 35W)	Intel® Arrow Lake-H Core™ Ultra 7/5 Processor (Series 2) (TDP 28W)	Intel® Meteor Lake-H Core™ Ultra 7/5 Processor (Series 1) (TDP 28W)
System Memory	2 x 262-Pin SO-DIMM Socket Max. Up to 64GB DDR5 5600MHz	2 x 262-Pin SO-DIMM Socket Max. Up to 64GB DDR5 6400MHz	2 x 262-Pin SO-DIMM Socket Max. Up to 64GB DDR5 5600MHz
Expansion	1 x Avalue 80-Pin IET Module Interface 1 x M.2 Key-B 2242/3042/3052 (PCIe/SATA3, USB3.2, USB2.0) w/ SIM slot 1 x M.2 Key-M 2280 (PCIex4/SATA3) 1 x M.2 Key-E 2230 (PCIe, USB2.0)	1 x Avalue 80-Pin IET Module Interface 1 x M.2 Key-B 2242/3042/3052 (PCIe/SATA3, USB3.2, USB2.0) w/ SIM slot 1 x M.2 Key-M 2280 (PCIex4) 1 x M.2 Key-E 2230 (PCIe, USB2.0)	1 x Avalue 80-Pin IET Module Interface 1 x M.2 Key-B 2242/3042/3052 (PCIe/SATA3, USB3.2, USB2.0) w/ SIM slot 1 x M.2 Key-M 2280 (PCIex4) 1 x M.2 Key-E 2230 (PCIe, USB2.0)
Storage	1 x M.2 Key-B 2242 (SATA3) 1 x M.2 Key-M 2280 (PCIex4/SATA3), supports NVMe	1 x M.2 Key-B 2242 (SATA3) 1 x M.2 Key-M 2280 (PCIex4) supports NVMe	1 x M.2 Key-B 2242 (SATA3) 1 x M.2 Key-M 2280 (PCIex4) supports NVMe
USB	2 x USB2.0 4 x USB 3.2 Gen.1	2 x USB2.0, 4 x USB 3.2 Gen.1	2 x USB2.0, 4 x USB 3.2 Gen.1
COM Port	2 x COM RS232/422/485 w/ 3kV Isolation	2 x COM RS232/422/485	2 x COM RS232/422/485
Other	2 x CAN FD compatible with CAN 2.0A/B w/ 3kV Isolation 8 x Antenna Mounting w/ Dust Cover	8 x Antenna Mounting w/ Dust Cover	8 x Antenna Mounting w/ Dust Cover
DIO	1 x 8-bit GPIO w/ 3kV Isolation	1 x 8-bit GPIO	1 x 8-bit GPIO
Display Chipset	Intel® UHD Graphics 770	Intel® Arc™ Graphics	Intel® Arc™ Graphics
Display Resolution	1 x DP++: 4096x2304 @ 60Hz 2 x HDMI : 4096x2160 @ 24Hz	1 x DP++ : 4096 x 2304 @ 60Hz 2 x HDMI : 4096 x 2304 @ 60Hz	1 x DP++ : 4096 x 2304 @ 60Hz 2 x HDMI : 4096 x 2304 @ 60Hz
Audio Chipset	Realtek Audio Codec	Realtek Audio Codec	Realtek Audio Codec
Audio Interface	1 x Mic-in 1 x Line-out	1 x Mic-in 1 x Line-out	1 x Mic-in 1 x Line-out
Ethernet Chipset	1 x Intel® Ethernet GbE Controller 1 x Intel® Ethernet GbE PHY Controller	2 x Intel® I226-IT	2 x Intel® I226-IT
Ethernet Interface	2 x RJ45	2 x RJ45	2 x RJ45
Power Connector	3-Pin Terminal Block	3-Pin Terminal Block	3-Pin Terminal Block
Power Requirement	Typical +12/ 24Vdc (+9V ~ +36Vdc)	Typical +12/ 24Vdc (+9V ~ +36Vdc)	Typical +12/ 24Vdc (+9V ~ +36Vdc)
ACPI	Single Power ATX Support S0, S4, S5 ACPI 5.0 Compliant	Single Power ATX Support S0, S4, S5 ACPI 5.0 Compliant	Single Power ATX Support S0, S4, S5 ACPI 5.0 Compliant
Power Mode	AT/ ATX (ATX Default) Ignition Control and Power Management	AT/ ATX (ATX Default)	AT/ ATX (ATX Default)
Adapter	Optional AC-DC Adapter (150W)	Optional AC-DC Adapter (120W)	Optional AC-DC Adapter (120W)
Construction	Aluminum + Metal	Aluminum + Metal	Aluminum + Metal
Dimension (L x W x H)	240 x 150 x 59 mm (Standard) 240 x 150 x 85 mm (w/ IET Module)	240 x 150 x 59 mm (Standard) 240 x 150 x 85 mm (w/ IET Module)	240 x 150 x 59 mm (Standard) 240 x 150 x 85 mm (w/ IET Module)
Operating Temp.	-40°C ~ 60°C (w/ SSD) Ambient w/ Air Flow, Fanless -40°C ~ 70°C (w/ SSD) Ambient w/ Air Flow, Fan kit	-40°C ~ 50°C (w/ SSD) Ambient w/ Air Flow	-40°C ~ 50°C (w/ SSD) Ambient w/ Air Flow
Certification	CE, FCC Class B, UKCA	CE, FCC Class B, UKCA	CE, FCC Class B, UKCA

EMS-MTU	EMS-TGL	EMS-ADNC	EMS-EHL
Intel® Meteor Lake-U Core™ Ultra 7/5 Processor (Series 1)(TDP 15W)	11th Gen Intel® Tiger Lake-U Core™ i7/i5/i3 Processor (TDP 15W)	Intel® Alder Lake-N N97 Processor	Intel® Elkhart Lake Celeron® J6413 / Atom® x6425E Processor
2 x 262-Pin SO-DIMM Socket Max. Up to 64GB DDR5 5600MHz	2 x 260-Pin SO-DIMM Socket Max. Up to 64GB DDR4 3200MHz	2 x 262-Pin SO-DIMM Socket Max. Up to 64GB DDR5 5600MHz	1 x 260-Pin SO-DIMM Socket Max. Up to 32GB DDR4 3200MHz
1 x Avalue 80-Pin IET Module Interface 1 x M.2 Key-B 2242/3042/3052 (PCIe/SATA3, USB3.2, USB2.0) w/ SIM slot 1 x M.2 Key-M 2280 (PCIex4) 1 x M.2 Key-E 2230 (PCIe, USB2.0)	1 x Avalue 80-Pin IET Module Interface 1 x M.2 Key-B 2242/3042/3052 (PCIe/SATA3, USB3.2) w/ SIM Slot 1 x M.2 Key-E 2230 (PCIe, USB2.0) 1 x M.2 Key-M 2242/2280 (PCIex4)	1 x Avalue 80-Pin IET Module Interface 1 x M.2 Key-B 2242/3042/3052 (PCIe/SATA3, USB3.2, USB2.0) w/ SIM Slot 1 x M.2 Key-E 2230 (PCIe, USB2.0)	1 x Avalue 80-Pin IET Module Interface 1 x M.2 Key-B 2242/3042/3052 (PCIe/SATA, USB3.2) w/ SIM Slot 1 x M.2 Key-E 2230 (PCIe, USB2.0)
1 x M.2 Key-B 2242 (SATA3) 1 x M.2 Key-M 2280 (PCIex4) supports NVMe	1 x M.2 Key-B 2242 (SATA3) 1 x M.2 Key-M 2242/2280 (PCIex4) supports NVMe	1 x M.2 Key-B 2242 (SATA3) 1 x M.2 Key-M 2280 (SATA3)	1 x M.2 Key-B 2242 (SATA3) 1 x M.2 Key-B 2242/2280 (SATA3)
2 x USB2.0, 4 x USB 3.2 Gen.1	2 x USB 3.1 Gen.1 2 x USB 3.1 Gen.2	2 x USB2.0 4 x USB 3.2 Gen.1	2 x USB 3.2 Gen.1 2 x USB 3.2 Gen.2
2 x COM RS232/422/485	2 x COM RS232/422/485	2 x COM RS232/422/485 w/ 3kV Isolation	2 x COM RS232/422/485
8 x Antenna Mounting w/ Dust Cover	8 x Antenna Mounting w/ Dust Cover	2 x CAN FD compatible with CAN 2.0A/B w/ 3kV Isolation 8 x Antenna Mounting w/ Dust Cover	8 x Antenna Mounting w/ Dust Cover
1 x 8-bit GPIO	1 x 8-bit GPIO	1 x 8-bit GPIO w/ 3kV Isolation	1 x 8-bit GPIO
Intel® Graphics	Intel® Iris® Xe Graphics (Core i7/i5) Intel® UHD Graphics (Core i3)	Intel® UHD Graphics	Intel® UHD Graphics
1 x DP++ : 4096 x 2304 @ 60Hz 2 x HDMI : 4096 x 2304 @ 60Hz	1 x DP++ : 4096 x 2304 @ 60Hz 1 x HDMI : 4096 x 2304 @ 60Hz	1 x DP++: 4096x2304 @ 60Hz 2 x HDMI : 4096x2160 @ 24Hz	1 x DP++ : 4096 x 2304 @ 60Hz 1 x HDMI : 4096 x 2304 @ 60Hz
Realtek Audio Codec	Realtek Audio Codec	Realtek Audio Codec	Realtek Audio Codec
1 x Mic-in 1 x Line-out	1 x Mic-in 1 x Line-out	1 x Mic-in 1 x Line-out	1 x Mic-in 1 x Line-out
2 x Intel® I226-IT	1 x Intel® I225-LM 1 x Intel® I219-LM	2 x Intel® I210	2 x Intel® I226-IT
2 x RJ45	2 x RJ45	2 x RJ45	2 x RJ45
3-Pin Terminal Block	3-Pin Terminal Block	3-Pin Terminal Block	3-Pin Terminal Block
Typical +12/ 24Vdc (+9V ~ +36Vdc)	Typical +12/ 24Vdc (+9V ~ +36Vdc)	Typical +12/ 24Vdc (+9V ~ +36Vdc)	Typical +12/ 24Vdc (+9V ~ +36Vdc)
Single Power ATX Support S0, S4, S5 ACPI 5.0 Compliant	Single Power ATX Support S0, S3, S4, S5 ACPI 5.0 Compliant	Single Power ATX Support S0, S4, S5 ACPI 5.0 Compliant	Single Power ATX Support S0, S3, S4, S5 ACPI 5.0 Compliant
AT/ ATX (ATX Default)	AT/ ATX (ATX Default)	AT/ ATX (ATX Default) Ignition Control and Power Management	AT/ ATX (ATX Default)
Optional AC-DC Adapter (120W)	Optional AC-DC Adapter (60W)	Optional AC-DC Adapter (60W)	Optional AC-DC Adapter (60W)
Aluminum + Metal	Aluminum + Metal	Aluminum + Metal	Aluminum + Metal
240 x 150 x 49 mm (Standard) 240 x 150 x 75 mm (w/ IET Module)	240 x 150 x 48 mm (Standard) 240 x 150 x 69 mm (w/ IET Module)	240 x 150 x 59 mm (Standard) 240 x 150 x 85 mm (w/ IET Module)	240 x 150 x 43 mm (Standard) 240 x 150 x 64 mm (w/ IET Module)
-40°C ~ 65°C (w/ SSD) Ambient w/ Air Flow	-40°C ~ 70°C (w/ SSD) Ambient Air Flow, WT SKU 0°C ~ 70°C (w/ SSD) Ambient w/ Air Flow, ST SKU	-40°C ~ 70°C (w/ SSD) Ambient w/ Air Flow	-40°C ~ 70°C (w/ SSD) ambient w/ Air Flow, WT SKU 0°C ~ 65°C (w/ SSD) Ambient w/ Air Flow, ST SKU
CE, FCC Class B, UKCA	CE, FCC Class B	CE, FCC Class B, UKCA	CE, FCC Class B, LVD 62368-1

Model Number	VMS-EHLR	EMS-TGL-Marine	VMS-RPPS
Processor	Intel® Elkhart Lake Atom® x6425E Processor	11th Gen Intel® Tiger Lake-U Core™ i7/i5/i3 Processor (TDP 15W)	13th Gen Intel® Raptor Lake-PS Core™ 7/5/3/ Celeron® Processor (TDP 15W)
System Memory	1 x 260-Pin SO-DIMM Socket Max. Up to 32GB DDR4 3200MHz	2 x 260-Pin SO-DIMM Socket Max. Up to 64GB DDR4 3200MHz	2 x 262-Pin SO-DIMM Socket Max. Up to 64GB DDR5 4800MHz
Expansion	1 x M.2 Key-B 2242/ 3042/3052 (PCIe, USB 3.2) w/ SIM Slot1 (External) 1 x M.2 Key-E 2230 (PCIe, USB 2.0) 1 x mPCIe (PCIe, USB 2.0) w/ SIM Slot2 (External)	1 x M.2 Key-B 2242/3042/3052 (PCIe/SATA3, USB3.2) w/ SIM Slot 1 x M.2 Key-E 2230 (PCIe, USB2.0) 1 x M.2 Key-M 2242/2280 (PCIex4)	1 x M.2 Key-B 2242/3042/3052 (PCIe, USB3.2) w/ SIM Slot1 (External) 1 x M.2 Key-E 2230 (PCIe, USB 2.0) 1 x Full Size Mini PCIe (PCIe/ USB 2.0) w/ SIM Slot2 (External)
Storage	1 x M.2 Key-B 2242 (SATA3) 1 x 2.5" Drive Bay (SATA3)	1 x M.2 Key-B 2242 (SATA3) 1 x M.2 Key-M 2242/2280 (PCIex4) Supports NVMe	1 x M.2 Key-M 2280 (PCIex4) Supports NVMe 2 x 2.5" Drive Bay (SATA3)
USB	2 x USB 3.2 Gen.2 1 x USB 2.0 (M12 A-coded)	2 x USB 2.0 2 x USB 3.2 Gen.1 2 x USB 3.2 Gen.2	2 x USB 2.0 2 x USB 3.2 Gen.2
COM Port	2 x RS-232/422/485	2 x RS-232/422/485 4 x RS-232/422/485 w/ 2.5KV Isolation	3 x RS232/422/485
Other	1 x CAN 2.0B (DB9) 2 x SIM Card Slot (External Accessible w/ Dust Cover) 7 x Antenna Mounting w/ Dust Cover	8 x Antenna Mounting w/ Dust Cover	2 x SIM Card Slot (External Accessible w/ Dust Cover) 8 x Antenna Mounting w/ Dust Cover 1 x GND
DIO	1 x 8-Bit GPIO w/ 2.5KV Isolation	1 x 8-bit GPIO	1 x 10-bits GPIO
Display Chipset	Intel® UHD Graphics	Intel® Iris® Xe Graphics (Core i7/i5) Intel® UHD Graphics (Core i3)	Intel® Graphics
Display Resolution	1 x DP++: 4096 x 2304 @ 60Hz 1 x HDMI: 4096 x 2304 @ 60Hz 1 x VGA: 1920 x 1080 @ 60Hz	1 x DP++: 4096 x 2304 @ 60Hz 1 x HDMI: 4096 x 2304 @ 60Hz	2 x DP++: 4096x2304 @ 60Hz 2 x HDMI: 4096 x 2304 @ 60Hz
Audio Interface	Mic-in, Line-out, Line-in (DB15)	1 x Mic-in 1 x Line-out	1 x Mic-in 1 x Line-out
Ethernet Chipset	2 x Intel® I210-IT	1 x Intel® I225-LM 1 x Intel® I219-LM	4 x Intel® I226IT
Ethernet Interface	2 x M12 (X-coded)	2 x RJ45	4 x RJ-45 (4 x PoE Available for BOM Option)
Power Requirement	Typical 24Vdc (+9V ~ +36V) w/ Isolation	Typical 12/ 24Vdc (+9V ~ +36V) w/ Isolation	Typical 12/24/48 Vdc (+9 ~ 60Vdc)
Power Mode	AT/ ATX (AT Default), w/ Ignition Control and Power Management	AT/ ATX (ATX Default)	AT/ ATX (AT Default), w/ Ignition Control and Power Management
Dimension (L x W x H)	240 x 150 x 55 mm	240 x 150 x 69 mm	239 x 160 x 56 mm
Operating Temperature	-40°C ~ 70°C (-40°F ~ 158°F) (w/ SSD) Ambient w/ Air Flow, Follow EN50155, Class OT4	-40°C ~ 60°C (-40°F ~ 140°F) (w/ SSD) Ambient w/ Air Flow	Standard System: -40°C ~ 65°C (-40°F ~ 149°F) Ambient w/ Air Flow System with PoE: -40°C ~ 60°C (-40°F ~ 140°F) Ambient w/ Air Flow
Certification Information	CE, FCC Class A, EN50155, EN50121	CE, FCC Class A, IEC 60945, IP50 Rating	CE, FCC Class A, E24 Mark, ISO 7637-2

VMS-CFS	VMS-CFS-PSE	VMS-CFS-SLIM	VMS-APL
8/9th Gen Intel® Core™ i7/i5/i3/ Pentium®/ Celeron® Processor (TDP 35W)	8/9th Gen Intel® Core™ i7/i5/i3/ Pentium®/ Celeron® Processor (TDP 35W)	8/9th Gen Intel® Core™ i7/i5/i3/ Pentium®/ Celeron® Processor (TDP 35W)	Intel® Pentium® N4200 Intel® Celeron® N3350/ J3455 Intel Atom® x7-E3950/ x5-E3940/ x5-E3930
2 x 260-Pin SO-DIMM Socket Max. Up to 64GB DDR4 2400/2666MHz	2 x 260-Pin SO-DIMM Socket Max. Up to 64GB DDR4 2400/2666MHz	2 x 260-Pin SO-DIMM Socket Max. Up to 64GB DDR4 2400/2666MHz	1 x 204-Pin SO-DIMM Socket Max. Up to 8GB DDR3L 1866MHz
1 x Avalue 80-Pin IET Interface 1 x mPCIe (PCIe, USB 2.0) w/ SIM Slot1 (External) 2 x M.2 Key-B 2242/ 2280/ 3042 (PCIe, USB 3.1, SATA3) w/ SIM Slot2, 3 (External) 1 x M.2 Key-E 2230 (PCIe, USB 2.0) 1 x CAN Bus Module Interface	1 x mPCIe (PCIe, USB 2.0) w/ SIM Slot1 (External) 2 x M.2 Key-B 2242/ 2280/ 3042 (PCIe, USB 3.1, SATA3) w/ SIM Slot2, 3 (External) 1 x M.2 Key-E 2230 (PCIe, USB 2.0) 1 x CAN Bus Module Interface	1 x mPCIe (PCIe, USB 2.0) w/ SIM Slot1 (External) 2 x M.2 Key-B 2242/ 2280/ 3042 (PCIe, USB 3.1, SATA3) w/ SIM Slot2, 3 (External) 1 x M.2 Key-E 2230 (PCIe, USB 2.0) 1 x CAN Bus Module Interface	1 x Avalue 80-Pin IET Interface 2 x mPCIe (PCIe, USB2.0) w/ SIM Slot1, 2 (External) 1 x CAN Bus Module Interface
2 x 2.5" Drive Bay (SATA3) 2 x M.2 Key-B 2242/2280 (SATA3)	2 x 2.5" Drive Bay (SATA3) 2 x M.2 Key-B 2242/2280 (SATA3)	2 x M.2 Key-B 2242/2280 (SATA3)	1 x 2.5" Drive Bay (SATA3) 1 x M.2 key-B 2242 (SATA3) 1 x SD (3.0)
6 x USB 3.1	2 x USB 2.0 6 x USB 3.1	6 x USB 3.1	4 x USB 3.0
1 x RS232 2 x RS-232/422/485	1 x RS232 2 x RS-232/422/485	1 x RS232 2 x RS-232/422/485	2 x RS-232/422/485
3 x SIM Card Slot (External Accessible w/ Dust Cover) 5 x Antenna Mounting w/ Dust Cover	3 x SIM Card Slot (External Accessible w/ Dust Cover) 5 x Antenna Mounting w/ Dust Cover	3 x SIM Card Slot (External Accessible w/ Dust Cover) 5 x Antenna Mounting w/ Dust Cover	2 x SIM Card Slot (External Accessible w/ Dust Cover) 5 x Antenna Mounting w/ Dust Cover
1 x 8-Bit GPIO w/ 1.5KV Isolation	1 x 8-Bit GPIO w/ 1.5KV Isolation	1 x 8-Bit GPIO w/ 1.5KV Isolation	1 x 8-Bit GPIO
Intel® UHD Graphics 630/ 610	Intel® UHD Graphics 630/610	Intel® UHD Graphics 630/ 610	Intel® HD Graphics 505/500
1 x DP: 4096 x 2160 @ 60Hz 2 x HDMI: 4096 x 2160 @ 30Hz 1 x LVDS: 1920 x 1200 @ 60Hz	1 x DP: 4096 x 2160 @ 60Hz 2 x HDMI: 4096 x 2160 @ 30Hz 1 x LVDS: 1920 x 1200 @ 60Hz	1 x DP: 4096 x 2160 @ 60Hz 2 x HDMI: 4096 x 2160 @ 30Hz	1 x DP: 4096 x 2160 @ 60Hz 1 x LVDS: 1920 x 1200 @ 60Hz
2 x Mic-in 2 x Line-out	2 x Mic-in 2 x Line-out	2 x Mic-in 2 x Line-out	2 x Mic-in 2 x Line-out
1 x Intel® I211-AT 1 x Intel® I219-LM	1 x Intel® I211-AT 1 x Intel® I219-LM 4 x Intel® WG82574L	1 x Intel® I211-AT 1 x Intel® I219-LM	2 x Intel® I211-AT
2 x RJ45	6 x RJ45 (4 x Ports Support 802.3af PoE)	2 x RJ45	2 x RJ45
Typical 12/ 24Vdc (+9V ~ +36V)	Typical 12/ 24Vdc (+9V ~ +36V)	Typical 12/ 24Vdc (+9V ~ +36V)	Typical 12/ 24Vdc (+9V ~ +36V)
AT/ ATX (AT Default) w/ Ignition Control and Power Management	AT/ ATX (AT Default) w/ Ignition Control and Power Management	AT/ ATX (AT Default) w/ Ignition Control and Power Management	AT/ ATX (AT Default), w/ Ignition Control and Power Management
240 x 210 x 110 mm	240 x 210 x 110 mm	240 x 210 x 75 mm	239 x 186 x 62 mm
-40°C ~ 70°C (-40°F ~ 158°F) (w/ SSD) Ambient w/ Air Flow	-40°C ~ 60°C (-40°F ~ 140°F) (w/ SSD) Ambient w/ Air Flow	-40°C ~ 60°C (-40°F ~ 140°F) (w/ SSD) Ambient w/ Air Flow	N4200/ N3350/J3455: -20°C ~ 70°C (-4°F ~ 158°F) (w/ SSD) Ambient w/ Air Flow E3950/ E3940/ E3930: -40°C ~ 70°C (-40°F ~ 158°F) (w/ SSD) Ambient w/ Air Flow
CE, FCC Class A, E13 Mark, ISO7637-2, IP50 Rating	CE, FCC Class A, E13 Mark, ISO7637-2, IP50 Rating	CE, FCC Class A, E13 Mark, ISO7637-2, IP50 Rating	CE, FCC Class B, E13 Mark, ISO7637-2, IP50 Rating

Barebone System

Model Name	BMX-T550-B	BMX-T820	BMX-P820
Processor	Intel® 13th Gen Core™ i9/i7/i5/i3 Processor 35W TDP Processor Intel® Core™ i9-13900TE Processor Intel® Core™ i7-13700TE Processor Intel® Core™ i5-13500TE Processor Intel® Core™ i3-13100TE Processor 65W TDP Processor Intel® Core™ i9-13900E Processor Intel® Core™ i7-13700E Processor Intel® Core™ i5-13500E Processor Intel® Core™ i3-13100E Processor	Intel® 13th Gen Core™ i9/i7/i5/i3 Processor 35W TDP Processor Intel® Core™ i9-13900TE Processor Intel® Core™ i7-13700TE Processor Intel® Core™ i5-13500TE Processor Intel® Core™ i3-13100TE Processor 65W TDP Processor Intel® Core™ i9-13900E Processor Intel® Core™ i7-13700E Processor Intel® Core™ i5-13500E Processor Intel® Core™ i3-13100E Processor	Intel® 14th Gen Core™ i7/i5/i3 Processor 35W TDP Processor Intel® Core™ i7-14700T Processor Intel® Core™ i5-14500T Processor Intel® Core™ i3-14100T Processor 65W TDP Processor Intel® Core™ i7-14700 Processor Intel® Core™ i5-14500 Processor Intel® Core™ i3-14100 Processor
Platform Controller Hub	Intel® H610E Chipset	Intel® H610E Chipset	Intel® H610E Chipset
System Memory	2 x SODIMM Sockets Support Dual Channel DDR5 5600MHz Up to 64GB	2 x SODIMM Sockets Support Dual Channel DDR5 5600MHz Up to 64GB	2 x SODIMM Sockets Support Dual Channel DDR5 5600MHz Up to 64GB
Expansion	1 x M.2 Key-E 2230 CNVi (PCIe x 1, USB 2.0) 1 x M.2 Key-M 2242/2280 (PCIe x 4) 1 x PCIe x 16 (Gen 4)	1 x M.2 Key-E 2230 CNVi (PCIe x 1, USB 2.0) 1 x M.2 Key-M 2242/2280 (PCIe x 4)	1 x M.2 Key-M 2242/2280 (PCIe x 4) 1 x PCIe x 16 (Gen 4) (NVIDIA RTX 2000 Ada Generation Graphics Card, by Optional)
Storage	1 x M.2 Key-M 2242/2280 NVMe (PCIe x 4, SATA3) 2 x Internal 2.5" Drive Bay (12.5mm)	1 x M.2 Key-M 2242/2280 NVMe (PCIe x 4, SATA3) 1 x Internal 2.5" Drive Bay (12.5mm)	1 x M.2 Key-M 2242/2280 NVMe (PCIe x 4, SATA3) 2 x Internal 2.5" Drive Bay
Chassis' Expansion Slot & Storage	2 x PCIe Expansion Slots (Full-height) 2 x Internal 2.5" Drive Bay	1 x Internal 2.5" Drive Bay	4 x PCIe Expansion Slots (Full-height) 2 x Internal 2.5" Drive Bay 1 x Internal 3.5" Drive Bay
USB	Front I/O: 2 x USB 2.0 Rear I/O: 2 x USB 2.0, 4 x USB 3.2	Front I/O: 2 x USB 2.0 Rear I/O: 2 x USB 2.0, 2 x USB 3.2	Front I/O: 2 x USB 2.0, 2 x USB 3.2 Rear I/O: 2 x USB 2.0, 4 x USB 3.2
COM Port	2 x RS-232/422/485	1 x RS-232, 2 x RS-232/422/485	2 x RS-232/422/485
Display Chipset	Intel® UHD Graphics	Intel® UHD Graphics	Intel® UHD Graphics 770 (Depends on CPU)
Display Resolution	2 x DP: 4096x2304@60Hz 1 x HDMI: 3840x2160@30Hz	1 x DP++ 1.4a: 4096 x 2304 @ 60Hz 1 x HDMI 1.4b: 3840 x 2160 @ 30Hz	2 x DP: 4096 x 2304 @ 60Hz 1 x HDMI: 3840 x 2160 @ 30Hz
Audio Chipset	Realtek HD Audio	Realtek HD Audio	Realtek HD Audio
Ethernet Chipset	Intel® I219-LM Ethernet Controller (1GbE) Intel® I225-V Ethernet Controller (2.5GbE)	Intel® I219-V Ethernet Controller (1GbE) Intel® I225-LM Ethernet Controller (2.5GbE)	Intel® I219-LM Ethernet Controller (1GbE) Intel® I225-V Ethernet Controller (2.5GbE)
Ethernet Interface	2 x RJ45	2 x RJ45	2 x RJ45
Power Supply	220W Flex ATX Power Supply	AC to DC Adapter	500W PS2 ATX Power Supply
Voltage Input Spec.	100 Vac~240 Vac	+12/24Vdc	100 Vac~240 Vac
ACPI	Single Power ATX Support S0, S3, S4, S5	Single Power ATX Support S0, S3, S4, S5	Single Power ATX Support S0, S3, S4, S5
Power Mode	AT/ ATX Mode (Default: ATX Mode)	AT/ ATX Mode (Default: ATX Mode)	AT/ ATX Mode (Default: ATX Mode)
Color	Black	Black	Black
Dimension (W x D x H)	283 x 268 x 77 mm	210 x 206 x 55 mm	185 x 306 x 350 mm
Gross Weight	4.7 kg	2.2 kg	5.6 kg
Operating Temp.	0℃~40℃ (32℉~104℉) with 0.5m/s Air Flow	0℃~40℃ (32℉~104℉) with 0.5m/s Air Flow	0℃ ~ 40℃ (32℉ ~ 104℉) with 0.5m/s Air Flow
Certification	CE, FCC Class B, UKCA	CE, FCC Class A, UKCA	TBD

Model Name	BMX-P850	BMX-P820A	BMX-P550
Processor	Intel® 14th Gen Core™ i9/i7/i5/i3 Processor 35W TDP Processor Intel® Core™ i9-14900T Processor Intel® Core™ i7-14700T Processor Intel® Core™ i5-14500T Processor Intel® Core™ i3-14100T Processor 65W TDP Processor Intel® Core™ i9-14900 Processor Intel® Core™ i7-14700 Processor Intel® Core™ i5-14500 Processor Intel® Core™ i3-14100 Processor	Intel® 14th Gen Core™ i7/i5/i3 Processor 35W TDP Processor Intel® Core™ i7-14700T Processor Intel® Core™ i5-14500T Processor Intel® Core™ i3-14100T Processor 65W TDP Processor Intel® Core™ i7-14700 Processor Intel® Core™ i5-14500 Processor Intel® Core™ i3-14100 Processor	Intel® 14th Gen Core™ i7/i5/i3 Processor 35W TDP Processor Intel® Core™ i7-14700T Processor Intel® Core™ i5-14500T Processor Intel® Core™ i3-14100T Processor 65W TDP Processor Intel® Core™ i7-14700 Processor Intel® Core™ i5-14500 Processor Intel® Core™ i3-14100 Processor
Platform Controller Hub	Intel® R680E Chipset	Intel® H610E Chipset	Intel® H610E Chipset
System Memory	4 x U-DIMM Sockets Support Quad Channel DDR5 4400MHz Up to 128GB (ECC Memory Support by CPU)	2 x U-DIMM Sockets Support Dual Channel DDR5 4800MHz Up to 64GB	2 x SODIMM Sockets Support Dual Channel DDR5 5600MHz Up to 64GB
Expansion	1 x M.2 M-Key 2242/2280/22110 NVMe (Gen 4 PCIe x4) 1 x M.2 M-Key 2242/2280/22110 NVMe (Gen 3 PCIe x4) 1 x PCIe x16 (Gen 5) 2 x PCIe x4 (x16 Physical, Gen 4) 1 x PCIe x4 (Gen 3)	1 x M.2 M-Key 2242/2280/22110 NVMe (Gen 4 PCIe x4) 1 x PCIe x16 (Gen 5) 1 x PCIe x1 (x4 Physical, Gen 3) 2 x PCIe x1 (x16 Physical, Gen 3) 4 x Full-Height Expansion Slots 1 x 5.25" CD ROM	1 x M.2 Key-M 2242/2280 (PCIe x 4) 1 x PCIe x 16 (Gen 4) (NVIDIA RTX 2000 Ada Generation Graphics Card, by Optional)
Storage	1 x M.2 M-Key 2242/2280/22110 NVMe (Gen 4 PCIe x4, SATA3) 1 x M.2 M-Key 2242/2280/22110 NVMe (Gen 3 PCIe x4, SATA3) 2 x Internal 2.5" Drive Bay 2 x Internal 3.5" Drive Bay	1 x M.2 M-Key 2242/2280/22110 NVMe (PCIe x4 + SATA III) 1 x Internal 2.5" Drive Bay 2 x Internal 3.5" Drive Bay	1 x M.2 M-Key 2242/2280 NVMe (PCIe x4 + SATA III) 2 x Internal 2.5" Drive Bay
Chassis' Expansion Slot & Storage	7 x PCIe Expansion Slots (Full-height) 2 x Internal 2.5" Drive Bay 2 x Internal 3.5" Drive Bay	4 x PCIe Expansion Slots (Full-height) 1 x Internal 2.5" Drive Bay 2 x Internal 3.5" Drive Bay	2 x PCIe Expansion Slots (Half-height) 3 x Internal 2.5" Drive Bay
USB	Front I/O: 2 x USB 3.2 Rear I/O: 6 x USB 3.2, 1 x USB 3.2 Type C	Front I/O: 4 x USB 3.2 Gen1x1, 2 x USB 2.0	Front I/O: 2 x USB 2.0 Rear I/O: 2 x USB 2.0, 4 x USB 3.2
COM Port	NA	NA	2 x RS-232/422/485
Display Chipset	Intel® UHD Graphics 770 (Depends on CPU)	Intel® UHD Graphics 770 (Depends on CPU)	Intel® UHD Graphics 770 (Depends on CPU)
Display Resolution	4 x DP: 4096 x 2304 @ 60Hz	2 x DP: 7680 x 4320 @ 60Hz 1 x HDMI: 3840 x 2160 @ 60Hz	2 x DP: 4096 x 2304 @ 60Hz 1 x HDMI: 3840 x 2160 @ 30Hz
Audio Chipset	Realtek HD Audio	Realtek HD Audio	Realtek HD Audio
Ethernet Chipset	Intel® I226-LM Ethernet Controller (2.5GbE) Intel® I226-LM Ethernet Controller (2.5GbE)	Intel® I219-V Ethernet Controller (1GbE) Intel® I225-LM Ethernet Controller (2.5GbE)	Intel® I219-LM Ethernet Controller (1GbE) Intel® I225-V Ethernet Controller (2.5GbE)
Ethernet Interface	2 x RJ45	2 x RJ45	2 x RJ45
Power Supply	500W / 850W PS2 ATX Power Supply	300W Flex ATX Power Supply	300W Flex ATX Power Supply
Voltage Input Spec.	100 Vac~240 Vac	100 Vac~240 Vac	100 Vac~240 Vac
ACPI	Single Power ATX Support S0, S3, S4, S5	Single Power ATX Support S0, S3, S4, S5	Single Power ATX Support S0, S3, S4, S5
Power Mode	AT/ ATX Mode (Default: ATX Mode)	AT/ ATX Mode (Default: ATX Mode)	AT/ ATX Mode (Default: ATX Mode)
Color	Black	Silver	Gray
Dimension (W x D x H)	370 x 208 x 445 mm	320 x 317.2 x 164 mm	270 x 235 x 88 mm
Gross Weight	5.8 kg	5.6 kg	4.7 kg
Operating Temp.	0°C ~ 40°C (32°F ~ 104°F) with 0.5m/s Air Flow	0°C ~ 40°C (32°F ~ 104°F) with 0.5m/s Air Flow	0°C ~ 40°C (32°F ~ 104°F) with 0.5m/s Air Flow
Certification	TBD	TBD	TBD

Rackmount System

Model Name	BAX-R1U0	BAX-R2U0	BAX-R4U0
M/B Form Factor	Up to 12" (W) x 9.6" (D) ATX Compliant MB	Up to 12" (W) x 9.6" (D) ATX Compliant MB	Up to 12" (W) x 9.6" (D) ATX Compliant MB
Industry Standard	Compatible with EIA-RS310D Standard 19" Cabinets	Compatible with EIA-RS310D Standard 19" Cabinets	Compatible with EIA-RS310D Standard 19" Cabinets
Dimension (W x D x H)	381 x 482.6 x 44.4 mm	504 x 482.6 x 88.9 mm	515 x 430 x 174.8 mm
Drive Bay	External : 1 x Slim ODD Internal : 2 x 3.5" or 1 x 3.5" & 1 x 2.5"	External : 2 x 5.25" Internal : 4 x 3.5"	External: 3 x 5.25", 1 x 3.5" Internal: 3 x 3.5" or 2 x 3.5" & 1 x 2.5"
Expansion Slot	1 x Full Height PCIe Slot (via Riser Card and Bracket)	7 x Low Profile Expansion Slots	7 x Full Profile
System Cooling	2 x 40 x 28 mm Fans	2 x 80 x 25 mm Fans 1 x 97 mm Blower (Rear)	2 x 80 x 25 mm Fans 1 x 97 mm Blower (Rear)
Front I/O	2 x USB 2.0	2 x USB 2.0	2 x USB
Button	System Power on/off System Reset	System Power on/off System Reset	System Power on/off System Reset
LED	Power Status, HDD, LAN Activity LEDs	Power Status, HDD, LAN Activity LEDs	Power Status, HDD, LAN Activity LEDs
Limitation of CPU Cooler	Depend on CPU TDP	Depend on CPU TDP	Depend on CPU TDP
Power Supply	315W 1U Flex 100-240Vac	500W PS2 100-240Vac	500W PS2 100-240Vac
Material	Material: SGCC Thickness: 1.0 mm		Material: SGCC Thickness: 1.2mm
Rail Kit	Supports 20" Friction Slide Rail	Supports 28" Tool-less & Ball-bearing Slide Rails	Supports 28" Tool-less & Ball-bearing Slide Rails
Operating Temperature	0°C ~ 35°C (32°F ~ 95°F) w/HDD, Ambient w/ 0.5m/s Air Flow	0°C ~ 35°C (32°F ~ 95°F) w/HDD, Ambient w/ 0.5m/s Air Flow	0°C ~ 40°C (32°F ~ 104°F) w/HDD, Ambient w/ 0.5m/s Air Flow
Weight (Chassis Only)	Net Weight: 3.67 kg Gross Weight : 4.79 kg	Net Weight: 7.18 kg Gross Weight : 10.12 kg	Net Weight: 11.5 kg Gross Weight : 14.7kg

Model Name	BAX-R1UA	BAX-R2UA	BAX-R4UA
M/B Form Factor	Up to 12"(W) x 9.6"(D) ATX Compliant MB	Up to 12"(W) x 9.6"(D) ATX Compliant MB	Up to 12"(W) x 9.6"(D) ATX Compliant MB
Industry Standard	Compatible with EIA-RS310D Standard 19" Cabinets	Compatible with EIA-RS310D Standard 19" Cabinets	Compatible with EIA-RS310D Standard 19" Cabinets
Dimension (W x D x H)	480 x 420 x 45 mm	490.2 x 428 x 88.5 mm	450 × 430 × 177 mm
Drive Bay	Internal: 2 x 3.5" or 2.5"	Internal: 5 x 3.5" + 1 x 3.5 or 2.5"	Internal: 4 x 3.5" or 3 x 3.5" and 1 x 2.5"
Expansion Slot	1 x Full Height PCIe Slot (via Riser Card and Bracket)	7 x Low Profile PCIe Slot	7 x Full Height PCIe Slot
System Cooling	3 x 40 x 20S Fans	3 x 80 x 25 mm Fans	2 x 80 x 25 mm Fans 1 x 120 x 25 mm Fans
Front I/O	2 x USB 2.0	2 x USB 2.0	2 x USB 2.0
Button	System Power on/off System Reset	System Power on/off System Reset	System Power on/off System Reset
LED	Power Status, HDD LEDs	Power Status, HDD, LAN Activity LEDs	Power Status, HDD LEDs
Limitation of CPU Cooler	Depend on CPU TDP	Depend on CPU TDP	Depend on CPU TDP
Power Supply	1U Single PSU	1U/2U Single PSU PS2 ATX PSU	PS2 ATX PSU
Material	Material: SGCC Thickness: 1.2 mm	Material: SGCC Thickness: 1.2 mm	Material: SGCC Thickness: 1.2 mm
Rail Kit	Supports 28" Tool-less & Ball-bearing Slide Rails	Supports 28" Tool-less & Ball-bearing Slide Rails	Supports 28" Tool-less & Ball-bearing Slide Rails
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F) w/HDD, Ambient w/ 0.5m/s Air Flow	0°C ~ 40°C (32°F ~ 104°F) w/HDD, Ambient w/ 0.5m/s Air Flow	0°C ~ 40°C (32°F ~ 104°F) w/HDD, Ambient w/ 0.5m/s Air Flow
Weight (Chassis Only)	Net Weight: 4.1 kg	Net Weight: 5.5 kg	Net Weight: 11.4 kg

HPC stands for High Performance Computing. Avalue's HPC products are with the high ability to process data and perform complex calculations at high speed. HPC series are the next era of computing products that brings lightning-fast, real-time analysis & extreme reliability performance.
And it's optimized for AI, 5G, IoT, ML (machine learning), edge computing, medical precision computing and other applications requiring real-time and faster performance and high reliability.

High Performance Computing

Generative AI Solution

Model Number	GAI-ERS-70B	GAI-ERS-33B	GAI-ERS-13B
Processor (CPU Type)	1 x Intel® Xeon® Silver 4514Y	1 x Intel® Xeon® Silver 4510	1 x Intel® Xeon® Silver 4510
Chipset	Intel® C741 Chipset	Intel® C741 Chipset	Intel® C741 Chipset
Memory	6 x DDR5 4800 96GB RDIMM 288pin 0 ~ 85°C (Total 576 GB)	4 x DDR5 5600 64GB RDIMM 288pin 0 ~ 85°C (Total 256 GB)	2 x DDR5 5600 64GB RDIMM 288pin 0 ~ 85°C (Total 128 GB)
Storage	1 x M.2 2280 NVMe SSD 4TB 3D TLC for OS	1 x M.2 2280 NVMe SSD 4TB 3D TLC for OS	1 x M.2 2280 NVMe SSD 4TB 3D TLC for OS
IPMI	IPMI 2.0	IPMI 2.0	IPMI 2.0
Expansion Slots	4 x PCIe Gen5 x16 Slots 3 x PCIe Gen5 x4 Slots Slot 1, PCIe 5.0 x16 (GPU: RTX4000 Ada) Slot 2, PCIe 5.0 x4 Slot 3, PCIe 5.0 x16 (GPU: RTX4000 Ada) Slot 4, PCIe 5.0 x4 Slot 5, PCIe 5.0 x16 (GPU: RTX4000 Ada) Slot 6, PCIe 5.0 x4 Slot 7, PCIe 5.0 x16 (GPU: RTX4000 Ada) (Slot 7 is the Slot Closest to CPU)	4 x PCIe Gen5 x16 Slots 3 x PCIe Gen5 x4 Slots Slot 1, PCIe 5.0 x16 Slot 2, PCIe 5.0 x4 Slot 3, PCIe 5.0 x16 (GPU: RTX4000 Ada) Slot 4, PCIe 5.0 x4 Slot 5, PCIe 5.0 x16 Slot 6, PCIe 5.0 x4 Slot 7, PCIe 5.0 x16 (GPU: RTX4000 Ada) (Slot 7 is the Slot Closest to CPU)	4 x PCIe Gen5 x16 Slots 3 x PCIe Gen5 x4 Slots Slot 1, PCIe 5.0 x16 Slot 2, PCIe 5.0 x4 Slot 3, PCIe 5.0 x16 (GPU: RTX4000 Ada) Slot 4, PCIe 5.0 x4 Slot 5, PCIe 5.0 x16 Slot 6, PCIe 5.0 x4 Slot 7, PCIe 5.0 x16 (Slot 7 is the Slot Closest to CPU)
LAN	5 x RJ45 MGMT Port for Dedicated IPMI Access Only LAN1 Port for 1GbE Shares with IPMI Access LAN2 Port for 2.5GbE LAN3 and 4 Ports for 10GbE	5 x RJ45 MGMT Port for Dedicated IPMI Access Only LAN1 Port for 1GbE Shares with IPMI Access LAN2 Port for 2.5GbE LAN3 and 4 Ports for 10GbE	5 x RJ45 MGMT Port for Dedicated IPMI Access Only LAN1 Port for 1GbE Shares with IPMI Access LAN2 Port for 2.5GbE LAN3 and 4 Ports for 10GbE
USB	Rear: 4 x USB 3.2 Gen1 Ports 2 x USB 2.0 Type A Ports	Rear: 4 x USB 3.2 Gen1 Ports 2 x USB 2.0 Type A Ports	Rear: 4 x USB 3.2 Gen1 Ports 2 x USB 2.0 Type A Ports
Display	AST 2600 BMC Controller	AST 2600 BMC Controller	AST 2600 BMC Controller
Display Resolution	1 x VGA Port VGA: 1920 x 1200 @ 60Hz 32bpp	1 x VGA Port VGA: 1920 x 1200 @ 60Hz 32bpp	1 x VGA Port VGA: 1920 x 1200 @ 60Hz 32bpp
Cooling Fan	1 x 120 x 25mm Front Fan 2 x 80 x 25mm Rear Fans	1 x 120 x 25mm Front Fan 2 x 80 x 25mm Rear Fans	1 x 120 x 25mm Front Fan 2 x 80 x 25mm Rear Fans
Power Supply	1 x 1300W PS2 ATX PSU	1 x 1300W PS2 ATX PSU	1 x 1300W PS2 ATX PSU
Operating Temp.	0 ~ 35°C (32 ~ 95°F)	0 ~ 35°C (32 ~ 95°F)	0 ~ 35°C (32 ~ 95°F)
Dimension (W x H x D)	482.6 x 174.8 x 528 mm with Ear Mount	482.6 x 174.8 x 528 mm with Ear Mount	482.6 x 174.8 x 528 mm with Ear Mount
Form Factor	19" 4U Rackmount	19" 4U Rackmount	19" 4U Rackmount
OS	Ubuntu 22.04 LTS	Ubuntu 22.04 LTS	Ubuntu 22.04 LTS

Server Board

Model Number	HPM-GNRUA	HPM-GNRDE	HPM-ERSUA	HPM-ERSDE
Processor	Intel® LGA4710 Socket Supports Intel® Xeon® 6 6500P & 6700P Series Processor (Max. TDP at 350W)	Dual Intel® LGA4710 Sockets Support Intel® Xeon® 6 6500P & 6700P Series Processor (Max. TDP at 350W Each)	Intel® LGA4677 Socket Supports 4th and 5th Generation Intel® Xeon® Scalable Processor (Max. TDP at 270W)	Dual Intel® LGA4677 Sockets Support 4th and 5th Generation Intel® Xeon® Scalable Processor (Max. TDP at 270W Each)
System Chipset	N/A	N/A	Intel® C741 Chipset	Intel® C741 Chipset
System Memory	8 x DDR5 6400 MHz RDIMM & 8000 MHz MRDIMM Up to 2TB	16 x DDR5 6400 MHz RDIMM & 8000 MHz MRDIMM Up to 4TB	6 x DDR5 5600MHz RDIMM Up to 1.5TB	12 x DDR5 5600MHz RDIMM Up to 3TB
Expansion	4 x PCIe Gen5 x16 Slots Slot 1, PCIe Gen5 x16 Slot 2, NA Slot 3, PCIe Gen5 x16 Slot 4, NA Slot 5, PCIe Gen5 x16 Slot 6, NA Slot 7, PCIe Gen5 x16 (Slot 7 Is the Slot Closest to CPU)	5 x PCIe Gen5 x16 Slots and 1 x PCIe Gen5 x8 Slot Slot 1, PCIe 5.0 x16 from CPU1 Slot 2, PCIe 5.0 x16 from CPU2 Slot 3, PCIe 5.0 x16 from CPU2 Slot 4, PCIe 5.0 x16 from CPU2 Slot 5, PCIe 5.0 x16 from CPU2 Slot 6, PCIe 5.0 x8 from CPU1 (Slot 6 Is the Slot Closest to CPU)	4 x PCIe Gen5 x16 Slots and 3 x PCIe Gen5 x4 Slots Slot 1, PCIe 5.0 x16 Slot 2, PCIe 5.0 x4 Slot 3, PCIe 5.0 x16 Slot 4, PCIe 5.0 x4 Slot 5, PCIe 5.0 x16 Slot 6, PCIe 5.0 x4 Slot 7, PCIe 5.0 x16 (Slot 7 Is the Slot Closest to CPU)	7 x PCIe Gen5 x16 Slots Slot 1, PCIe 5.0 x16 from CPU2 Slot 2, PCIe 5.0 x16 from CPU1 Slot 3, PCIe 5.0 x16 from CPU2 Slot 4, PCIe 5.0 x16 from CPU1 Slot 5, PCIe 5.0 x16 from CPU2 Slot 6, PCIe 5.0 x16 from CPU1 Slot 7, PCIe 5.0 x16 from CPU2 (Slot 7 Is the Slot Closest to CPU)
Display	AST 2600 BMC Controller	AST 2600 BMC Controller	AST 2600 BMC Controller	AST 2600 BMC Controller
Resolution	1 x VGA Port VGA: 1920 x 1200 @ 60Hz 32bpp	1 x VGA Port VGA: 1920 x 1200 @ 60Hz 32bpp	1 x VGA Port VGA: 1920 x 1200 @ 60Hz 32bpp	1 x VGA Port VGA: 1920 x 1200 @ 60Hz 32bpp
Ethernet	1 x Intel® I210AT Giga-bit Ethernet 1 x Intel® E610-XAT2 10Giga-bit Ethernet	2 x Intel® I210AT Giga-bit Ethernets 1 x Intel® E610-XAT2 10Giga-bit Ethernet	1 x Intel® I210AT Giga-bit Ethernet 1 x Intel® I226-LM 2.5Giga-bit Ethernet 1 x Intel® X550-AT2 10Giga-bit Ethernet	1 x Intel® I210AT Giga-bit Ethernet 1 x Intel® I226-LM 2.5Giga-bit Ethernet 1 x Intel® X550-AT2 10Giga-bit Ethernet
USB/SATA/COM/LAN	6/5/2/4	11/9/2/5	10/5/2/5	12/5/2/5
Power Requirement	1 x Std. 24 Pin ATX Connector 3 x 8 Pin SSI 12V Connectors	1 x Std. 24 Pin ATX Connector 4 x 8 Pin SSI 12V Connectors	1 x Std. 24 Pin ATX Connector 3 x 8 Pin SSI 12V Connectors	1 x Std. 24 Pin ATX Connector 3 x 8 Pin SSI 12V Connectors
IPMI	IPMI 2.0	IPMI 2.0	IPMI 2.0	IPMI 2.0
Operating Temp.	0 ~ 55°C (32 ~ 131°F) to Support Up to 350W TDP CPU 0 ~ 55°C (32 ~ 131°F) to Support Up to 270W TDP CPU	0 ~ 50°C (32 ~ 122°F) to Support Up to 350W TDP CPU 0 ~ 50°C (32 ~ 122°F) to Support Up to 270W TDP CPU	0 ~ 55°C (32 ~ 131°F) to Support Up to 250W TDP CPU 0 ~ 45°C (32 ~ 113°F) to Support Up to 270W TDP CPU	0 ~ 50°C (32 ~ 122°F) to Support Up to 250W TDP CPU 0 ~ 40°C (32 ~ 104°F) to Support Up to 270W TDP CPU
Dimension (L x W)	12" x 9.6" (304.8 x 243.84 mm) PCB Thickness is 2.59 mm	12" x 14.5" (304.8 x 368.3 mm) PCB Thickness is 2.8 mm	12" x 9.6" (304.8 x 243.84 mm) PCB Thickness is 2.54 mm	12" x 16.452" (304.8 x 417.88 mm) PCB Thickness is 2.86 mm
Weight	4.19lbs (1.9 kg)	4.3lbs (1.95 kg)	2.62 lbs (1.19 kg)	4.85 lbs (2.2 kg)

Server Board
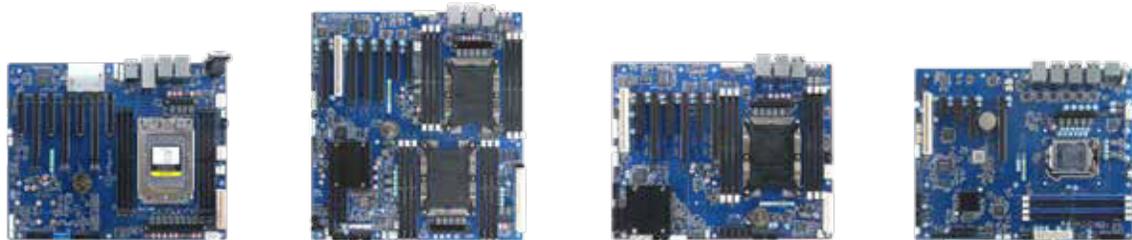
Model Number	HPM-SIEUA	HPM-621DE	HPM-621UA	HPM-246UA
Processor	AMD SP6 Socket Supports 4th Generation AMD EPYC Processor (Max. TDP at 225W)	Dual Intel® FCLGA3647 Sockets Support 1st and 2nd Generation Intel® Xeon® Scalable Processors (Max. TDP at 150W Each)	Intel® FCLGA3647 Socket Supports 1st and 2nd Generation Intel® Xeon® Scalable Processors (Max. TDP at 150W)	Intel® LGA1151 Socket Supports 8th/ 9th Gen. Core i7/i5/i3/Pentium/ Celeron/ Xeon E Processors (Max. TDP at 95W)
System Chipset	N/A	Intel® C621 Chipset	Intel® C621 Chipset	Intel® C246 Chipset
System Memory	6 x DDR5 4800/ 4400MHz RDIMM Up to 1.5TB	12 x DDR4 2933/ 2666/ 2400/ 2133MHz RDIMM/ LRDIMM Up to 1.5TB	6 x DDR4 2933/ 2666/ 2400/ 2133MHz RDIMM/ LRDIMM Up to 768GB	4 x DDR4 2666MHz ECC and Non-ECC DIMM Support Up to 128GB (ECC Memory Supported by Specific CPU SKUs)
Expansion	3 x PCIe Gen5 x16 Slots and 4 x PCIe Gen5 x8 Slots Slot 1, PCIe 5.0 x8 Slot 2, PCIe 5.0 x16 Slot 3, PCIe 5.0 x8 Slot 4, PCIe 5.0 x16 Slot 5, PCIe 5.0 x8 Slot 6, PCIe 5.0 x16 Slot 7, PCIe 5.0 x8 (Slot 7 Is the Slot Closest to CPU)	4 x PCIe Gen3 x16 Slots 2 x PCIe Gen3 x8 Slots 1 x PCI 3.0 Slot Slot 1, PCIe 3.0 x16 from CPU1 Slot 2, PCI 3.0 Slot 3, PCIe 3.0 x16 from CPU1 Slot 4, PCIe 3.0 x16 from CPU2 Slot 5, PCIe 3.0 x16 from CPU2 Slot 6, PCIe 3.0 x8 from CPU1 Slot 7, PCIe 3.0 x8 from CPU1 (Slot 7 Is the Slot Closest to CPU)	1 x PCI 3.0 Slot, 3 x PCIe Gen3 x16 Slots or 6 x PCIe Gen3 x8 Slots Slot 1, PCI 3.0 Slot 2, PCIe 3.0 x8 Slot 3, PCIe 3.0 x16 (x16 Will Switch to x8 Automatically When Slot 2 Is Used) Slot 4, PCIe 3.0 x8 Slot 5, PCIe 3.0 x16 (x16 Will Switch to x8 Automatically When Slot 4 Is Used) Slot 6, PCIe 3.0 x8 Slot 7, PCIe 3.0 x16 (Slot 7 Is The Slot Closest to CPU, x16 Will Switch to x8 Automatically When Slot 6 Is Used)	1 x PCIe Gen3 x16 Slot, 1 x PCIe Gen2 x8 Slot, 1 x PCIe Gen3 x4 Slot, 1 x PCIe Gen3 x1 Slot 1 x PCI 3.0 Slot Slot 1, PCI 3.0 Slot 2, PCIe Gen 3.0 x 16 Slot 3, PCIe Gen 2.0 x 8 Slot 4, PCIe Gen 3.0 x 4 Slot 5, PCIe Gen 3.0 x 1 (Slot 5 Is the Slot Closest to CPU)
Display	AST 2600 BMC Controller	AST 2500 BMC Controller	AST 2500 BMC Controller	Intel® 8/ 9th Generation CPU Integrated AST 2500 BMC Controller
Resolution	1 x VGA Port VGA: 1920 x 1200 @ 60Hz 32bpp	1 x VGA Port VGA: 1920 x 1200 @ 60Hz 32bpp	1 x VGA Port VGA: 1920 x 1200 @ 60Hz 32bpp	3 x DP++ Ports DP: 4096 x 2304 @ 60Hz HDMI : 4096 x 2160 @ 30Hz 1 x VGA Port VGA: 1920 x 1200 @ 60Hz 32bpp
Ethernet	1 x Intel® I210AT Giga-bit Ethernet 1 x Intel® I226-LM 2.5Giga-bit Ethernet 1 x Intel® X550-AT2 10Giga-bit Ethernet	4 x Intel® I210AT Giga-bit Ethernet	4 x Intel® I210AT Giga-bit Ethernet	7 x Intel® I210AT Giga-bit Ethernet
USB/SATA/COM/LAN	4/4/2/5	8/10/2/4	8/9/2/4	8/4/2/7
Power Requirement	1 x Std. 24 Pin ATX Connector 3 x 8 Pin SSI 12V Connectors	1 x Std. 24 Pin ATX Connector 2 x 8 Pin SSI 12V Connectors	1 x Std. 24 Pin ATX Connector 1 x 8 Pin SSI 12V Connector	1 x Std. 24 pin ATX Connector 1 x 8 Pin SSI 12V Connector
IPMI	IPMI 2.0	IPMI 2.0	IPMI 2.0	IPMI 2.0
Operating Temp.	0 ~ 45°C (32 ~ 113°F) to Support up to 225W TDP CPU	0°C ~ 60°C (32°F ~ 140°F)	0°C ~ 60°C (32°F ~ 140°F)	0°C ~ 60°C (32°F ~ 140°F)
Dimension (L x W)	12" x 9.6" (304.8 x 243.84 mm) PCB Thickness is 2.0 mm	12" x 13" (304.8 x 330.2 mm) PCB Thickness is 2.0 mm	12" x 9.6" (304.8 x 243.84 mm) PCB Thickness is 2.0 mm	12" x 9.6" (304.8 x 243.84 mm) PCB Thickness is 2.0 mm
Weight	2.14 lbs (0.97 kg)	3.96 lbs (1.8 kg)	2.14 lbs (0.97 kg)	1.54 lbs (0.7 kg)

Rackmount & Tower Workstation

Model Number	HPS-GNRD4A	HPS-GNRDTA	HPS-GNRU4A	HPS-GNRUTA
Processor (CPU Type)	Dual Intel® LGA4710 Sockets Support Intel® Xeon® 6 6500P & 6700P Series Processor (Max. TDP at 350W each)		Intel® LGA4710 Socket Supports Intel® Xeon® 6 6500P & 6700P Series Processor (Max. TDP at 350W)	
Chipset	N/A		N/A	
Memory	16 x DDR5 6400 MHz RDIMM & 8000 MHz MRDIMM Up to 4TB		8 x DDR5 6400 MHz RDIMM & 8000 MHz MRDIMM Up to 2TB	
Storage	3 x Front Accessible 2.5" Storage Bays		3 x Front Accessible 2.5" Storage Bays	
IPMI	IPMI 2.0		IPMI 2.0	
Expansion Slots	5 x PCIe Gen5 x16 Slots and 1 x PCIe Gen5 x8 Slot Slot 1, PCIe 5.0 x16 from CPU1 Slot 2, PCIe 5.0 x16 from CPU2 Slot 3, PCIe 5.0 x16 from CPU2 Slot 4, PCIe 5.0 x16 from CPU2 Slot 5, PCIe 5.0 x16 from CPU2 Slot 6, PCIe 5.0 x8 from CPU1 (Slot 6 Is the Slot Closest to CPU)		4 x PCIe Gen5 x16 Slots Slot 1, PCIe Gen5 x16 Slot 2, NA Slot 3, PCIe Gen5 x16 Slot 4, NA Slot 5, PCIe Gen5 x16 Slot 6, NA Slot 7, PCIe Gen5 x16 (Slot 7 Is the Slot Closest to CPU)	
LAN	5 x RJ45 MGMT Port for Dedicated IPMI Access Only LAN1 Port for 1GbE Shared with IPMI Access LAN2 Port for 1GbE LAN3 and 4 Ports for 10GbE		4 x RJ45 MGMT Port for Dedicated IPMI Access Only LAN1 Port for 1GbE Shared with IPMI Access LAN2 and 3 Ports for 10GbE	
USB	Front: 2 x USB 3.2 Gen1 Ports Rear: 6 x USB 3.2 Gen2 Ports		Front: 2 x USB 3.2 Gen1 Ports Rear: 2 x USB 3.2 Gen1 Ports	
Display	AST 2600 BMC Controller		AST 2600 BMC Controller	
Display Resolution	1 x VGA Port VGA: 1920 x 1200 @ 60Hz 32bpp		1 x VGA Port VGA: 1920 x 1200 @ 60Hz 32bpp	
Cooling Fan	1 x 120 x 25mm Front Fan 2 x 80 x 25mm Rear Fans		1 x 120 x 25mm Front Fan 2 x 80 x 25mm Rear Fans	
Power Supply	1 x 1300W PS2 ATX PSU		1 x 1300W PS2 ATX PSU	
Operating Temp.	0 ~ 35°C (32 ~ 95°F)		0 ~ 35°C (32 ~ 95°F)	
Dimension (W x H x D)	482.6 x 174.8 x 650 mm with Ear Mount	340 x 488 x 650 mm with External Handles & Pedestal Stand	482.6 x 174.8 x 528 mm with Ear Mount	340 x 488 x 528 mm with External Handles & Pedestal Stand
Form Factor	19" 4U Rackmount	Tower Chassis	19" 4U Rackmount	Tower Chassis
OS	Windows 11 SAC and LTSC Windows Server 2025 Ubuntu 24.04 LTS or later Red Hat Enterprise Linux (RHEL)			

Model Number	HPS-ERSD4A	HPS-ERSDTA	HPS-ERSU4A	HPS-ERSUTA	HPS-ERSU2A
Processor (CPU Type)	Dual Intel® LGA4677 Sockets Support 4th and 5th Gen. Intel® Xeon® Scalable Processors (Max. TDP at 270W Each)		Intel® LGA4677 Socket Supports 4th and 5th Generation Intel® Xeon® Scalable Processor (Max. TDP at 270W)		Intel® LGA4677 Socket Supports 4th and 5th Gen. Intel® Xeon® Scalable Processor (Max. TDP at 270W)
Chipset	Intel® C741 Chipset		Intel® C741 Chipset		Intel® C741 Chipset
Memory	12 x DDR5 5600MHz RDIMM Up to 3TB		6 x DDR5 5600MHz RDIMM Up to 1.5TB		6 x DDR5 5600MHz RDIMM Up to 1.5TB
Storage	3 x Front Accessible 2.5" Storage Bays		3 x Front Accessible 2.5" Storage Bays		4x Internal 3.5" Storage Bays + 2x Internal 3.5" or 2.5" Storage Bays
IPMI	IPMI 2.0		IPMI 2.0		IPMI 2.0
Expansion Slots	7 x PCIe Gen5 x16 Slots Slot 1, PCIe 5.0 x16 from 2nd CPU Slot 2, PCIe 5.0 x16 from 1st CPU Slot 3, PCIe 5.0 x16 from 2nd CPU Slot 4, PCIe 5.0 x16 from 1st CPU Slot 5, PCIe 5.0 x16 from 2nd CPU Slot 6, PCIe 5.0 x16 from 1st CPU Slot 7, PCIe 5.0 x16 from 2nd CPU (Slot 7 Is the Slot Closest to CPU)		4 x PCIe Gen5 x16 Slots and 3 x PCIe Gen5 x4 Slots Slot 1, PCIe 5.0 x16 Slot 2, PCIe 5.0 x4 Slot 3, PCIe 5.0 x16 Slot 4, PCIe 5.0 x4 Slot 5, PCIe 5.0 x16 Slot 6, PCIe 5.0 x4 Slot 7, PCIe 5.0 x16 (Slot 7 Is the Slot Closest to CPU)		4 x PCIe Gen5 x16 Slots and 3 x PCIe Gen5 x4 Slots Slot 1, PCIe 5.0 x16 Slot 2, PCIe 5.0 x4 Slot 3, PCIe 5.0 x16 Slot 4, PCIe 5.0 x4 Slot 5, PCIe 5.0 x16 Slot 6, PCIe 5.0 x4 Slot 7, PCIe 5.0 x16 (Slot 7 Is the Slot Closest to CPU)
LAN	5 x RJ45 MGMT Port for Dedicated IPMI Access Only LAN1 Port for 1GbE Shares with IPMI Access LAN2 Port for 2.5GbE LAN3 and 4 Ports for 10GbE		5 x RJ45 MGMT Port for Dedicated IPMI Access Only LAN1 Port for 1GbE Shares with IPMI Access LAN2 Port for 2.5GbE LAN3 and 4 Ports for 10GbE		5 x RJ45 MGMT Port for Dedicated IPMI Access Only LAN1 Port for 1GbE Shares with IPMI Access LAN2 Port for 2.5GbE LAN3 and 4 Ports for 10GbE
USB	Front: 2 x USB 3.2 Gen1 Ports Rear: 6 x USB 3.2 Gen1 Ports		Front: 2 x USB 3.2 Gen1 Ports Rear: 4 x USB 3.2 Gen1 Ports + 2 x USB 2.0 Type A Ports		Front: 2 x USB 3.2 Gen1 Ports Rear: 4 x USB 3.2 Gen1 Ports + 2 x USB 2.0 Type A Ports
Display	AST 2600 BMC Controller		AST 2600 BMC Controller		AST 2600 BMC Controller
Display Resolution	1 x VGA Port VGA: 1920 x 1200 @ 60Hz 32bpp		1 x VGA Port VGA: 1920 x 1200 @ 60Hz 32bpp		1 x VGA Port VGA: 1920 x 1200 @ 60Hz 32bpp
Cooling Fan	1 x 120 x 25mm Front Fan 2 x 80 x 25mm Rear Fans		1 x 120 x 25mm Front Fan 2 x 80 x 25mm Rear Fans		3 x 80 x 25mm Middle Fans
Power Supply	1 x 1300W PS2 ATX PSU		1 x 1300W PS2 ATX PSU		1 x 500W PS2 ATX PSU
Operating Temp.	0 ~ 35°C (32 ~ 95°F)		0°C ~ 35°C (32°C ~ 95°F)		0°C ~ 35°C (32°C ~ 95°F)
Dimension (W x H x D)	482.6 x 174.8 x 650 mm with Ear Mount	340 x 488 x 650 mm with External Handles & Pedestal Stand	482.6 x 174.8 x 528 mm with Ear Mount	340 x 488 x 528 mm with External Handles & Pedestal Stand	432.4 x 88 x 661 mm with Ear Mount
Form Factor	19" 4U Rackmount	Tower Chassis	19" 4U Rackmount	Tower Chassis	19" 2U Rackmount
OS	Windows 10 IoT Enterprise LTSC 2021 Windows Server IoT 2019 with VT-d Disabled, Windows Server 2022 Ubuntu 21.10, 22.04 LTS or Later Red Hat Enterprise Linux (RHEL) 8.2 and Later				

Rackmount & Tower Workstation

Model Number	HPS-SIEU4A	HPS-SIEUTA	HPS-621U4A	HPS-621UTA
Processor (CPU Type)	AMD LGA4844 Socket Support 4th Generation AMD EPYC 8004 Processors (Max. TDP at 225W)		Intel® LGA3647 Socket Supports 1st and 2nd Generation Intel® Xeon® Scalable Processors (Max. TDP at 150W)	
Chipset	N/A		Intel® C621 Chipset	
Memory	6 x DDR5 4800/4400MHz RDIMM Up to 1.5TB		6 x DDR4 2933/ 2666/ 2400/ 2133MHz RDIMM/ LRDIMM Up to 768GB	
Storage	3 x Front Accessible 2.5" Storage Bays		3 x Front Accessible 2.5" Storage Bays	
IPMI	IPMI 2.0		IPMI 2.0	
Expansion Slots	3 x PCIe Gen5 x16 Slots and 4 x PCIe Gen5 x8 Slots Slot 1, PCIe 5.0 x8 Slot 2, PCIe 5.0 x16 Slot 3, PCIe 5.0 x8 Slot 4, PCIe 5.0 x16 Slot 5, PCIe 5.0 x8 Slot 6, PCIe 5.0 x16 Slot 7, PCIe 5.0 x8 (Slot 7 is the Slot Closest to CPU)		1 x PCI 3.0 Slot, 3 x PCIe Gen3 x16 Slots or 6 x PCIe Gen3 x8 Slots Slot 1, PCI 3.0 Slot 2, PCIe 3.0 x8 Slot 3, PCIe 3.0 x16 (x16 will Switch to x8 Automatically When Slot 2 is Used) Slot 4, PCIe 3.0 x8 Slot 5, PCIe 3.0 x16 (x16 will Switch to x8 Automatically When Slot 4 is Used) Slot 6, PCIe 3.0 x8 Slot 7, PCIe 3.0 x16 (Slot 7 is the Slot Closest to CPU, x16 Will Switch to x8 Automatically When Slot 6 is Used)	
LAN	5 x RJ45 MGMT Port for Dedicated IPMI Access Only LAN1 Port for 1GbE Shares with IPMI Access LAN2 Port for 2.5GbE LAN3 and 4 Ports for 10GbE		4 x RJ45 (LAN1 Shares IPMI Port)	
USB	Front: 2 x USB 3.2 Gen1 Ports Rear: 4 x USB 3.2 Gen1 Ports		Front: 2 x USB 3.2 Gen1 Ports Rear: 4 x USB 3.2 Gen1 Ports	
Display	AST 2600 BMC Controller		AST 2500 BMC Controller	
Display Resolution	1 x VGA Port VGA: 1920 x 1200 @ 60Hz 32bpp		1 x VGA Port VGA: 1920 x 1200 @ 60Hz 32bpp	
Cooling Fan	1 x 120 x 25mm Front Fan 2 x 80 x 25mm Rear Fans		1 x 120 x 25mm Front Fan 2 x 80 x 25mm Rear Fans	
Power Supply	1 x 1300W PS2 ATX PSU		1 x 1300W PS2 ATX PSU	
Operating Temp.	0°C ~ 35°C (32°C ~ 95°F)		0 ~ 40°C (32 ~ 104°F)	
Dimension (W x H x D)	482.6 x 174.8 x 528 mm with Ear Mount	340 x 488 x 528 mm with External Handles & Pedestal Stand	482.6 x 174.8 x 528 mm with Ear Mount	340 x 488 x 528 mm with External Handles & Pedestal Stand
Form Factor	19" 4U Rackmount	Tower Chassis	19" 4U Rackmount	Tower Chassis
OS	Windows Server 2019 bare-metal support (KB5017379) & Hyper-V support (KB5018419) Windows Server 2022 Ubuntu 20.04/22.04 LTS or later Red Hat Enterprise Linux (RHEL) 8.2 and later		Windows 10 IoT Enterprise Windows Server 2016 Windows Server 2019	

Rackmount & Tower Workstation

Model Number	HPS-621D4A	HPS-621DTA	HPS-246U4A	HPS-246UTA	HPS-621U2A
Processor (CPU Type)	Dual Intel® LGA3647 Sockets Support 1st and 2nd Generation Intel® Xeon® Scalable Processors (Max. TDP at 150W Each)		Intel® LGA1151 Socket Supports 8th/ 9th Generation Core i7/i5/i3/ Pentium/ Celeron/ Xeon E Processors (Max. TDP at 95W)		Intel® LGA3647 Socket Supports 1st and 2nd Generation Intel® Xeon Scalable Processors (Max. TDP at 150W)
Chipset	Intel® C621 Chipset		Intel® C246 Chipset		Intel® C621 Chipset
Memory	12 x DDR4 2933/ 2666/ 2400/ 2133 MHz RDIMM/ LRDIMM Up to 1.5TB		4 x DDR4 2666MHz ECC and Non-ECC DIMM Support Up to 128GB (ECC Memory Supported by Specific CPU SKUs)		6 x DDR4 2933/ 2666/ 2400/ 2133MHz RDIMM/ LRDIMM Up to 768GB
Storage	3 x Front Accessible 2.5" Storage Bays		3 x Front Accessible 2.5" Storage Bays		4 x External 5.25" Storage Bays 2 x Internal 3.5" Storage Bays
IPMI	IPMI 2.0		IPMI 2.0		IPMI 2.0
Expansion Slots	4 x PCIe Gen3 x16 Slots, 2 x PCIe Gen3 x8 Slots 1 x PCI 3.0 Slot Slot 1, PCIe 3.0 x16 from CPU1 Slot 2, PCI 3.0 Slot 3, PCIe 3.0 x16 from CPU1 Slot 4, PCIe 3.0 x16 from CPU2 Slot 5, PCIe 3.0 x16 from CPU2 Slot 6, PCIe 3.0 x8 from CPU1 Slot 7, PCIe 3.0 x8 from CPU1 (Slot 7 is the Slot Closest to CPU)		1 x PCIe Gen3 x16 Slot, 1 x PCIe Gen2 x8 Slot 1 x PCIe Gen3 x4 Slot, 1 x PCIe Gen3 x1 Slot 1 x PCI 3.0 slot Slot 1, PCI 3.0 Slot 2, PCIe Gen 3.0 x 16 Slot 3, PCIe Gen 2.0 x 8 Slot 4, PCIe Gen 3.0 x 4 Slot 5, PCIe Gen 3.0 x 1 (Slot 5 is the Slot Closest to CPU)		1 x PCI 3.0 Slot, 3 x PCIe Gen3 x16 Slots or 6 x PCIe Gen3 x8 Slots Slot 1, PCI 3.0 Slot 2, PCIe 3.0 x8 Slot 3, PCIe 3.0 x16 (x16 Will Switch to x8 Automatically When Slot 2 is Used) Slot 4, PCIe 3.0 x8 Slot 5, PCIe 3.0 x16 (x16 Will Switch to x8 Automatically When Slot 4 is Used) Slot 6, PCIe 3.0 x8 Slot 7, PCIe 3.0 x16 (Slot 7 is The Slot Closest to CPU, x16 Will Switch to x8 Automatically When Slot 6 is Used)
LAN	4 x RJ45 (LAN1 Shares IPMI Port)		7 x RJ45 (LAN1 Shares IPMI Port)		4 x RJ45 (LAN1 Shares IPMI Port)
USB	Front: 2 x USB 3.2 Gen1 Ports Rear: 4 x USB 3.2 Gen1 Ports		Front: 2 x USB 3.2 Gen1 Ports Rear: 2 x USB 3.2 Gen2 Ports		Front: 2 x USB 2.0 Type A Ports Rear: 4 x USB 3.2 Gen1 Ports
Display	AST 2500 BMC Controller		Intel® 8/ 9th Generation CPU Integrated AST 2500 BMC Controller		AST 2500 BMC Controller
Display Resolution	1 x VGA Port VGA: 1920 x 1200 @ 60Hz 32bpp		3 x DP++ Ports, DP: 4096 x 2304 @ 60Hz HDMI : 4096 x 2160 @ 30Hz 1 x VGA Port VGA: 1920 x 1200 @ 60Hz 32bpp		1 x VGA Port VGA: 1920 x 1200 @ 60Hz 32bpp
Cooling Fan	1 x 120 x 25mm Front Fan 2 x 80 x 25mm Rear Fans		2 x 80 x 25 mm Rear Fans		4 x 80 x 25 mm Middle Fans
Power Supply	1 x 1300W PS2 ATX PSU		1 x 500W PS2 ATX PSU		1 x 1U 80plus Gold 500W PSU
Operating Temp.	0°C ~ 40°C (32°F ~ 104°F)		0 ~ 45°C (32 ~ 113°F)		0 ~ 40°C (32 ~ 104°F)
Dimension (W x H x D)	482.6 x 174.8 x 528 mm with Ear Mount	340 x 488 x 528 mm with External Handles & Pedestal Stand	482.6 x 174.8 x 528 mm with Ear Mount	340 x 488 x 528 mm with External Handles & Pedestal Stand	483 x 88 x 650 mm
Form Factor	19" 4U Rackmount	Tower Chassis	19" 4U Rackmount	Tower Chassis	19" 2U Rackmount
OS	Windows 10 IoT Enterprise Windows Server 2016 Windows Server 2019				

CPU List

Server Intel Xeon® Scalable Processor Series List

Supported Sockets	Process	Brand	Processor Number	Cores	Threads	Processor Base Frequency	Max Turbo Frequency	TDP	Chipset
FCLGA3647	Skylake	Bronze	3106	8	8	1.70 GHz		85 W	C621
		Silver	4109T	8	16	2.00 GHz	3.00 GHz	70 W	
			4110	8	16	2.10 GHz	3.00 GHz	85 W	
			4114T	10	20	2.20 GHz	3.00 GHz	85 W	
			4116	12	24	2.10 GHz	3.00 GHz	85 W	
			4116T	12	24	2.10 GHz	3.00 GHz	85 W	
		Gold	5118	12	24	2.30 GHz	3.20 GHz	105 W	
			5119T	14	28	1.90 GHz	3.20 GHz	85 W	
			5120T	14	28	2.20 GHz	3.20 GHz	105 W	
			6126T	12	24	2.60 GHz	3.70 GHz	125 W	
			6126	12	24	2.60 GHz	3.70 GHz	125 W	
			6130T	16	32	2.10 GHz	3.70 GHz	125 W	
			6130	16	32	2.10 GHz	3.70 GHz	125 W	
			6138	20	40	2.00 GHz	3.70 GHz	125 W	
	Cascade Lake	Silver	4209T	8	16	2.20 GHz	3.20 GHz	70 W	
			4210	10	20	2.20 GHz	3.20 GHz	85 W	
			4215	8	16	2.50 GHz	3.50 GHz	85 W	
			4214	12	24	2.20 GHz	3.20 GHz	85 W	
			4216	16	32	2.10 GHz	3.20 GHz	100 W	
		Gold	5215	10	20	2.50 GHz	3.40 GHz	85 W	
			5218T	16	32	2.10 GHz	3.80 GHz	105 W	
			6226	12	24	2.70 GHz	3.70 GHz	125 W	
			6230	20	40	2.10 GHz	3.90 GHz	125 W	
			6238T	22	44	1.90 GHz	3.70 GHz	125 W	
FCLGA4677	Sapphire Rapids	Bronze	3408U	8	8	1.8 GHz	1.9 GHz	125 W	C741
		Silver	4416+	20	40	2.0 GHz	3.9 GHz	165 W	
			4410Y	12	24	2.0 GHz	3.9 GHz	150 W	
			4410T	10	20	2.7 GHz	4.0 GHz	150 W	
		Gold	6448Y	32	64	2.1 GHz	4.1 GHz	225 W	
			6426Y	16	32	2.5 GHz	4.1 GHz	185 W	
			6418H	24	48	2.1 GHz	4.0 GHz	185 W	
			5415+	8	16	2.9 GHz	4.1 GHz	150 W	
			5420+	28	56	2.0 GHz	4.1 GHz	205 W	
			5418Y	24	48	2.0 GHz	3.8 GHz	185 W	
			6430	32	64	2.10 GHz	3.40 GHz	270 W	
	Emerald Rapids	Bronze	3508U (Only HPM-ERSUA)	8	8	2.1 GHz	2.2 GHz	125 W	
		Silver	4516Y+	24	48	2.2 GHz	3.7 GHz	185 W	
			4514Y	16	32	2.0 GHz	3.4 GHz	150 W	
			4510	12	24	2.4 GHz	4.1 GHz	150 W	
			4509Y	8	16	2.6 GHz	4.1 GHz	125 W	
			4510T	12	24	2.0 GHz	3.7 GHz	115 W	
		Gold	6548Y+	32	64	2.5 GHz	4.1 GHz	250 W	
			6526Y	16	32	2.8 GHz	3.9 GHz	195 W	
			5515+	8	16	3.2 GHz	4.1 GHz	165 W	
			5520+	28	56	2.2 GHz	4.0 GHz	205 W	
			6530	32	64	2.1 GHz	4.0 GHz	270 W	

Supported Sockets	Process	Brand	Processor Number	Cores	Threads	Processor Base Frequency	Max Turbo Frequency	TDP	Chipset
FCLGA4710	Granite Rapids SP	Xeon	6740P	48	96	2.1 GHz	3.8 GHz	270 W	NA
			6781P *(Only HPM-GNRUA use)	80	160	2.0 GHz	3.8 GHz	350 W	
			6530P	32	64	2.3 GHz	4.1 GHz	225 W	
			6520P	24	48	2.4 GHz	4.0 GHz	210 W	
			6731P *(Only HPM-GNRUA use)	32	64	2.5 GHz	4.1 GHz	245 W	
			"6521P *(Only HPM-GNRUA use)	24	48	2.6 GHz	4.1 GHz	225 W	
			6736P	36	72	2.0 GHz	4.1 GHz	205 W	
			6517P	16	32	3.2 GHz	4.2 GHz	190 W	
			6515P	16	32	2.3 GHz	3.8 GHz	150 W	
			6505P	12	24	2.2 GHz	4.1 GHz	150 W	

Server Board HPM-246UA CPU List
8/9th Generation Intel® Core™ i7/i5/i3/Pentium®/Celeron®/Xeon® E

Supported Sockets	Process	Brand	Processor Number	Cores	Threads	Processor Base Frequency	Max Turbo Frequency	TDP	Chipset
FCLGA1151	Coffee Lake	Xeon® E	E-2176G	6	12	3.70 GHz	4.70 GHz	80 W	C246
			E-2124G	4	4	3.40 GHz	4.50 GHz	71 W	
			E-2278GEL	8	16	2.00 GHz	3.90 GHz	35 W	
			E-2278GE	8	16	3.30 GHz	4.70 GHz	80 W	
			E-2226GE	6	6	3.40 GHz	4.60 GHz	80 W	
		Core™ i7	i7-8700	6	12	3.20 GHz	4.60 GHz	65 W	
			i7-8700T	6	12	2.40 GHz	4.00 GHz	35 W	
			i7-9700E	8	8	2.60 GHz	4.40 GHz	65 W	
			i7-9700TE	8	8	1.80 GHz	3.80 GHz	35 W	
		Core™ i5	i5-8500	6	6	3.00 GHz	4.10 GHz	65 W	
			i5-8500T	6	6	2.10 GHz	3.50 GHz	35 W	
			i5-9500E	6	6	3.00 GHz	4.20 GHz	65 W	
			i5-9500TE	6	6	2.20 GHz	3.60 GHz	35 W	
		Core™ i3	i3-8100	4	4	3.60 GHz		65 W	
			i3-8100T	4	4	3.10 GHz		35 W	
			i3-9100E	4	4	3.10 GHz	3.70 GHz	65 W	
			i3-9100TE	4	4	2.20 GHz	3.20 GHz	35 W	
		Pentium	G5400	2	4	3.70 GHz		58 W	
			G5400T	2	4	3.10 GHz		35 W	
		Celeron	G4900	2	2	3.10 GHz		54 W	
				2	2	2.90 GHz		35 W	

Server AMD EPYC Processor Series List

Supported Sockets	Process	Brand	Processor Number	Cores	Threads	Processor Base Frequency	Max Turbo Frequency	TDP	Chipset
LGA4844	EPYC 8004	Embedded	8534P	64	128	2.3 GHz	3.15 GHz	200 W	NA
			8434P	48	96	2.5 GHz	3.15 GHz	200 W	
			8324P	32	64	2.65 GHz	3.0 GHz	180 W	
			8224P	24	48	2.55 GHz	3.0 GHz	160 W	
			8124P	16	32	2.45 GHz	3.0 GHz	125 W	
			8C24P	12	24	2.45 GHz	3.0 GHz	100 W	

Avalue's Panel PC lineup spans sizes from 7" to 32", featuring versatile designs including fanless, expansion, rugged, and light industrial options. Our offerings include Industrial Panel PCs, Industrial Displays, Medical Panel PCs, Medical Displays, Open Frame Panel PCs, Android Multi-Touch Panel PCs, and Audio & Video Extenders.

Panel PC / Monitor / Mobile

POS Terminal

» Compact POS

Model Number	RiPac-1039	RiPac-10P3
Processor	Intel® Processor N150	Intel® Celeron® N3350 1.1GHz Processor
System Memory	8GB LPDDR5 Onboard	4GB LPDDR4 Onboard
Storage	Onboard 128GB eMMC	64G eMMC/ Option for 128GB
Operating System	Windows 10, Windows 11, Linux	Windows 10, Android 8.1
LCD Panel	10.1" LCD 5" LCD (Customer Facing)	10.1" LCD 5" LCD (Customer Facing)
Resolution	1280 x 800 (10.1") 1280 x 720 (5")	1280 x 800 (10.1") 1280 x 720 (5")
Touch Screen	Projected Capacitive Touch	Projected Capacitive Touch
Wireless LAN	Option IEEE 802.11 a/b/g/n/ac	Built-in IEEE 802.11 a/b/g/n/ac
Bluetooth	Option Bluetooth 4.2	Bluetooth 4.2
Serial Port	2 x RS-232, Powered with 5V/ 12V	2 x RS-232 in DB9, Powered with 5V/ 12V
USB Port	4 x USB 3.0	4 x USB 3.0
SD Card	1 x SD Card Slot	1 x SD Card Slot Support Up to 128GB
LAN Port	2 x RJ45	2 x RJ45 (Realtek 8111H)
Cash Drawer	1 x RJ11 (12V/24V)	1 x RJ11 (12V/ 24V)
NFC	N/A	ISO/ IEC 14443 A/B, 15693, 18092 (Optional)
Thermal Printer	Printing Method: Thermal Dot Line Printing Resolution: (W) 8 Dots/mm, (H) 8 Dots/mm Maximum Print Speed: 200 mm/s Maximum Print Width: 72 mm Maximum Paper Width: 80 mm Type of Paper Cutting: Full Cut & Partial Cut	Printing Method: Thermal Dot Line Printing Resolution: (W) 8 Dots/mm, (H) 8 Dots/mm Maximum Print Speed: 200 mm/s Maximum Print Width: 72 mm Maximum Paper Width: 80 mm Type of Paper Cutting: Full Cut & Partial Cut
Power Type	+24V/ 6A 120W	+24V/ 6A 120W
Dimensions	299 (L) x 316.2 (W) x 148.9 (H) mm	299 (L) x 316.2 (W) x 148.9 (H) mm
Weight	3 kg ±10%	3 kg ±10%
Operating Temperature	5°C ~ 40°C (41°F ~ 104°F)	5°C ~ 40°C (41°F ~ 104°F)
Storage Temperature	-10°C ~ 60°C (14°F ~ 140°F)	-10°C ~ 60°C (14°F ~ 140°F)
Operating Humidity	0% ~ 95% Non-condensing	0% ~ 95% Non-condensing
Certifications	CE, FCC, VCCI	CE, FCC, VCCI

POS Terminal

» Desktop POS

Model Number	ISS-15K4	ISS-15K5	ISS-32K4
LCD Size	15.6", 16:9	15.6", 16:9	32" 16:9
Display Type	Full HD	Full HD	Full HD
Resolution	1920 x 1080	1920 x 1080	1920 x 1080
Pixel Pitch	0.179 x 0.179 mm	0.179 x 0.179 mm	0.179 x 0.179 mm
Luminance	220 cd/m²	220 cd/m²	400 cd/m²
Viewing Angle	85 (U), 85 (D), 85 (L), 85 (R)	85 (U), 85 (D), 85 (L), 85 (R)	89 (U), 89 (D), 89 (L), 89 (R)
Touch Type	Projective Capacitive	Projective Capacitive	Projective Capacitive
Touch Light Transmission	85%	85%	85%
Touch Controller	Built-in Touch Controller	Built-in Touch Controller	Built-in Touch Controller
Processor	Intel® Celeron® Processor J6412	CPU Rockchip RK3568 Quad-core Cortex-A55 Up to 2.0GHz	Intel® Celeron® Processor J6412
System Chipset	Intel® Elkhart Lake SoC	Rockchip	Intel® Elkhart Lake SoC
System Memory	Onboard 2GB Memory	Onboard 4GB Memory	Single DRAM Socket, Max. Up to 32GB DDR4 3200MHz
Expansion	N/A	N/A	1 x M.2 Key-B 2242/3042 with Internal SIM Slot (PCIe, USB 2.0); 1 x M.2 Key-E 2230 (PCIe, USB 2.0)
Storage	Onboard 32GB eMMC	Onboard 128GB eMMC	1 x M.2 Key-B, 2242 (SATA3) 1 x Micro SD Card Slot
I/O	2 x USB 2.0 2 x USB 3.0 1 x RJ45 10/100M 1 x RJ12 for Cashdrawer 1 x RJ11 (RS-232)	4 x USB 2.0 1 x RJ45 10/100M 1 x RJ12 for Cashdrawer 1 x RJ11 (RS-232)	2 x USB 2.0 (Front) 4 x USB 3.2 Gen.2 (10Gbps) 1 x RS232/422/485 (BIOS) 2 x RJ45 2 x HDMI 2.0b
Display Chipset	Intel® UHD Graphics	Rockchip	Intel® UHD Graphics
Audio	Build in	Build in	RealTek ALC888S
Audio Interface	1 x 3W Speaker	1 x 3W Speaker	2 x 10W Speaker
Ethernet	1 x 10/100M LAN	1 x 10/100M LAN	2 x Intel® I225-LM
2nd LCD Panel	N/A	N/A	N/A
Optional	N/A	N/A	N/A
Power Connector	Mini-din 4P for DC in w/ Lock Type +24V DC in	Mini-din 4P for DC in w/ Lock Type +24V DC in	AC Power Input
Power Type	ATX	ATX	ATX
Adapter	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 90W Adapter (24V @ 4A Adapter)	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 90W Adapter (24V @ 4A Adapter)	N/A
Construction	Plastic	Plastic	Plastic
IP Rating	N/A	N/A	N/A
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)
Storage Temperature	-10°C ~ 60°C (14°F ~ 140°F)	-10°C ~ 60°C (14°F ~ 140°F)	-10°C ~ 60°C (14°F ~ 140°F)
Dimension (L x W x H)	300 x 250 x 599.9 mm	300 x 250 x 599.9 mm	TBC
Weight	6 kg	6 kg	TBC
Certifications	CE, FCC, VCCI	CE, FCC, VCCI	CE, FCC
OS Information	Win10 IoT	Android 11	Win10 IoT

POS Terminal

» Desktop POS

Model Number	PT58	RiVar-1502	RiVar-1539
LCD Size	15.6", 16:9	15.6", 16:9	15.6", 16:9
Display Type	Full HD	Full HD	Full HD
Resolution	1920 x 1080	1920 x 1080	1920 x 1080
Pixel Pitch	0.179 x 0.179 mm	0.179 x 0.179 mm	0.179 x 0.179 mm
Luminance	250 cd/m²	300 cd/m²	250 cd/m²
Viewing Angle	85 (U), 85 (D), 85 (L), 85 (R)	89 (U), 89 (D), 89 (L), 89 (R)	89 (U), 89 (D), 89 (L), 89 (R)
Touch Type	Projective Capacitive	Projective Capacitive	Projective Capacitive
Touch Light Transmission	85%	85%	85%
Touch Controller	Built-in Touch Controller	Built-in Touch Controller	Built-in Touch Controller
Processor	Intel® Celeron® Processor J6412 12th Gen. Intel® Core™ i3-1215U/ i5-1235U	Intel® Celeron® Processor J3455	Intel® Processor N150
System Chipset	Intel® Elkhart Lake SoC Intel® Alder Lake SoC	Intel® Apollo Lake SoC	Intel® Twin Lake SoC
System Memory	1 x 8GB DDR4 SO-DIMM Memory (Max. Support Up to 16GB)	Default Onboard 4GB DDR4 SDRAM (Option Up to 8GB)	Onboard 8GB LPDDR5
Expansion	1 x M.2 Slot for Storage	1 x M.2 E Key Slot for .2.4/ 5G Wi-Fi Module	1 x M.2 E Key Slot for 2.4/ 5G Wi-Fi Module
Storage	M.2 2242 SATA 128GB	Default 128GB eMMC	Onboard 128GB eMMC
I/O	3 x USB 2.0, 3 x USB 3.1 2 x COM Supported 5V/ 12V Output 1 x RJ-11 for Cash Drawer 12/ 24V 1 x Type C (DP+PD)	4 x USB 3.0 2 x COM Supported 5V/ 12V Output 1 x RJ-11 for Cash Drawer 12/ 24V 1 x HDMI	4 x USB 3.0 2 x COM Supported 5V/ 12V Output 1 x RJ-11 for Cash Drawer 12/ 24V 1 x HDMI
Display Chipset	Intel® UHD Graphics	Intel® HD Graphics 500	Intel® Graphics
Audio	Realtek ALC887	ES8316C	Realtek ALC897
Audio Interface	2 x 2W Speaker	2 x 2W Speaker	2 x 2W Speaker
Ethernet	1 x RJ45 with Realtek RTL8111H	2 x RJ45 with Realtek 8111H	2 x RJ45 Gigabit LAN RTL8125BG
2nd LCD Panel	10.1" Resolution 1280 x 800	N/A	N/A
Optional	iButton Reader/ RFID Reader/ Fingerprint Reader/ 2D Scanner/ 2 x 20 Character LCM/ 3-Track MSR USB Interface	Camera/ NFC/ MSR	N/A
Power Connector	Mini-din 4P for DC in w/ Lock Type +19V DC in	DC Jack w/ Lock Type +24V DC in	DC Jack w/ Lock Type +24V DC in
Power Type	ATX	ATX	ATX
Adapter	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 65W Adapter (19V @ 3.42A Adapter)	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 60W Adapter (24V @ 2.5A Adapter)	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 60W Adapter (24V @ 2.5A Adapter)
Construction	Aluminum + Plastic	Plastic	Plastic
IP Rating	IP65 for Front Panel	IP65 for Front Panel, IP41 for Rear	IP65 for Front Panel
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)
Storage Temperature	-10°C ~ 60°C (14°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)
Dimension (L x W x H)	361.6 x 300.5 x 191.9 mm	391 x 251 x 44.5 mm	391 x 251 x 44.5 mm
Weight	3 kg	2.7 kg	2.7 kg
Certifications	CE, FCC, VCCI	CE, FCC, VCCI: Class B	CE, FCC, VCCI
OS Information	Windows 10 IoT (64 bit), Windows 11 (64 bit)	Windows 10, Android 8.1	Windows 10, Windows 11, Linux

» Desktop POS

Model Number	Rity103	Rity153	Rity-1539	PPC-1539
LCD Size	10.1", 16:9	15", 4:3	15", 4:3	15", 4:3
Display Type	WSVGA	XGA	XGA	XGA
Resolution	1024 x 600	1024 x 768	1024 x 768	1024 x 768
Pixel Pitch	0.2175 x 0.2088 mm	0.297 x 0.297 mm	0.297 x 0.297 mm	0.297 x 0.297 mm
Luminance	350 cd/m²	500 cd/m²	300 cd/m²	300 cd/m²
Viewing Angle	70 (U), 70 (D), 70 (L), 70 (R)	88 (U), 88 (D), 88 (L), 88 (R)	88 (U), 88 (D), 88 (L), 88 (R)	88 (U), 88 (D), 88 (L), 88 (R)
Touch Type	5-Wire Resistive/ Projective Capacitive Touch	5-Wire Resistive/ Projective Capacitive Touch	5-Wire Resistive/ Projective Capacitive Touch	PCAP Multi-touch Up to 10 Points
Touch Light Transmission	RES 75%/ PCT90%	RES 75%/ PCT90%	RES 75%/ PCT90%	PCT90%
Touch Controller	Onboard USB Touch (PenMount)/ USB Touch (EETI)	Onboard USB Touch (PenMount)/ USB Touch (EETI)	Onboard USB Touch (PenMount)/ USB Touch (EETI)	USB Touch (EETI)
Processor	Intel® Celeron® Processor N3350 1.1GHz	Intel® Celeron® Processor N3350 1.1GHz	Intel Atom® x7211E Processor	Intel® Processor N150
System Chipset	Intel® Apollo Lake SoC	Intel® Apollo Lake SoC	Intel® Alder Lake N	Intel® Twin Lake
System Memory	1 x 204-Pin DDR3L 1066MHz SO-DIMM Up to 8 GB	1 x 204-Pin DDR3L 1066MHz SO-DIMM Up to 8 GB	DDR5 8GB SO-DIMM 262pin	DDR5 8GB SO-DIMM 262pin
Expansion	1 x M.2 B Key Slot Support	1 x M.2 B Key Slot Support	1, M.2 E-Key 2230, PCIE+USB2.0, Support Wi-Fi +Bluetooth Module 1, M.2 B-Key 2242/3052, USB3.0+ USB2.0, Support 5G/4G	1, M.2 E-Key 2230, PCIE+USB2.0, Support Wi-Fi +Bluetooth Module 1, M.2 B-Key 2242/3052, USB3.0+ USB2.0, Support 5G/4G
Storage	1 x M.2 B Key Slot	1 x 2.5" Drive Bay, 1 x M.2 B Key Slot	1 x 2.5" SSD, 1 x M.2 M-Key 2280, PCIE x/SATA, Support PCIE X1 NVMe/SATA SSD, Auto Detect	1 x 2.5" SSD, 1 x M.2 M-Key 2280, PCIE x/SATA, Support PCIE X1 NVMe/SATA SSD, Auto Detect
I/O	4 x USB 3.0 2 x RS-232/422/485 (BIOS) 1 x RS-232 1 x HDMI 1.4b 1 x RJ11 for Cash Drawer	2 x USB 2.0, 4 x USB 3.0 2 x RS-232/422/485 (BIOS) 2 x RS-232, 1 x HDMI 1.4b, 1 x VGA 1 x RJ11 for Cash Drawer 1 x Battery in Connector	2 x USB 2.0, 4 x USB 3.0 2 x COM 1 x HDM 2 x RJ45 Gigabit LAN 1 x MIC + LINE out	2 x USB 2.0, 4 x USB 3.0 2 x COM 1 x HDMI 2 x RJ45 Gigabit LAN 1 x MIC + LINE out
Display Chipset	Intel® HD Graphics 500	Intel® HD Graphics 500	Intel® UHD Graphics	Intel® UHD Graphics
Audio	Realtek 888S	Realtek 888S	Realtek Audio HDA codec	Realtek Audio HDA codec
Audio Interface	2 x 2W Speaker	2 x 2W Speaker	2 x 2W Speaker	2 x 2W Speaker
Ethernet	2 x Realtek RTL8111E-VB-GR	2 x Realtek RTL8111E-VB-GR	1 x Intel® i210-AT GbE Ethernet Controller 1 x Intel® i226-V GbE Ethernet Controller	1 x Intel® i210-AT GbE Ethernet Controller 1 x Intel® i226-V GbE Ethernet Controller
Optional	N/A	MSR	MSR	N/A
Power Connector	Mini-din 4P for DC in w/ Lock Type +19V ~ 24V DC in	Mini-din 4P for DC in w/ Lock Type +19V ~ 24V DC in	Mini-din 4P for DC in w/ Lock Type +24V DC in	Mini-din 4P for DC in w/ Lock Type +24V DC in
Power Type	AT/ ATX (ATX Is Default Setting)	AT/ ATX (ATX Is Default Setting)	AT/ ATX (ATX Is Default Setting)	AT/ ATX (ATX Is Default Setting)
Adapter	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 90W Adapter (24V @ 3.75A)	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 90W Adapter (24V @ 3.75A)	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 60W Adapter (24V @ 2.5A)	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 60W Adapter (24V @ 2.5A)
Construction	Black Coverlens, ABS Plastic	Black Coverlens, ABS Plastic	Black / White Plastic	White+ Gray Plastic
IP Rating	IP65 for Front Panel	IP65 for Front Panel	IP65 for Front Panel	IP65 for Front Panel
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)
Storage Temperature	-10°C ~ 60°C (14°F ~ 140°F)	-10°C ~ 60°C (14°F ~ 140°F)	-10°C ~ 60°C (14°F ~ 140°F)	-10°C ~ 60°C (14°F ~ 140°F)
Dimension (L x W x H)	260 x 178 x 42 mm	362.1 x 290.08 x 51 mm	362.1 x 290.08 x 51 mm	351 x 319 x 54 mm
Weight	1.8 kg	4 kg	4 kg	4 kg
Certifications	CE, FCC Class B, VCCI	CE, FCC Class B, VCCI	CE, FCC , VCCI, UKCA	CE, FCC , VCCI, UKCA
OS Information	Win10 IoT, Linux	Win10 IoT, Linux	Win10 IoT, Win 11, Linux	Win10 IoT, Win 11, Linux

Rugged Panel PC

Model Number	ARC-1235	ARC-1535	ARC-21W35
LCD Size	12.1", 4:3	15", 4:3	21.5"
Display Type	XGA	XGA	Full HD
Resolution	1024 x 768	1024 x 768	1920 x 1080
Pixel Pitch	0.240 x 0.240 mm	0.297 x 0.297 mm	0.248 x 0.248
Luminance	600 cd/m²	300 cd/m²	250 cd/m²
Contrast Ratio	1000	2000	3000
Viewing Angle	89 (U), 89 (D), 89 (L), 89 (R)	88 (U), 88 (D), 88 (L), 88 (R)	89 (U), 89 (D), 89 (L), 89 (R)
Response Time	13 ms	16 ms	20 ms
Backlight	LED	LED	LED
Touch Type	A Model: 5-Wire Resistive Touch B Model: PCAP Multi-touch Up to 10 Points (Full Flat Design)		PCAP Multi-touch Up to 10 Points
Touch Light Transmission	A Model: 80%, B Model: 89%		88%
Touch Controller	A Model: Onboard USB Touch (PenMount) B Model: B Model: External USB Controller (EETI/ ILITEK)		USB Touch (EETI)
SBC	ARC-EHL		
Processor	Onboard Intel® Pentium®/ Celeron®/ Atom™ SoC BGA Processor		
I/O Chipset	EC ITE IT5571		
System Memory	Single 260-pin DDR4 SODIMM Socket Supports Up to 32GB DDR4 3200MTs SDRAM		
Expansion	1 x M.2 Key-E 2230 for Wi-Fi & BT Module 1 x M.2 Key-B 2242/3042/3052 for SATA 3/ PCIe x1/ USB 3.1		
Storage	1 x M.2 Key-B 2242/3042/3052 for SATA 3/ PCIe x1/ USB 3.1 or 1 x 2.5" Drive Bay (7mm HDD Restricted)		
USB	4 x USB 3.1 Gen.2		
COM Port	1 x RS-232/422/485, Selectable by BIOS, RS-485 Supports Auto Flow, Pin-9 Selected by Ring/ +5V/ +12V); 1 x RS-232		
Display Chipset	Intel® Elkhart Lake SoC Processor Integrated Gen11 LP Graphics		
Display Resolution	HDMI: Max. Resolution 4096 x 2160 @ 60Hz (Optional by IET Module)		
Audio	Realtek ALC888S/ 897		
Audio Interface	2 x 2W Speakers		
Ethernet	2 x Intel® I225-IT 2.5 Gigabit Ethernet (Wide Temperature)		
Power Connector	Lockable DC Jack, +12V ~ 24V		
Power Type	AT/ ATX (ATX Is Default Setting)		
Adapter	Input:100 ~ 240 Vac/ 50 ~ 60 Hz Output: 72W Adapter (19V @ 3.78A)		Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 120W Adapter (24V @ 5A)
Construction (Front, Rear)	A Model: Front Metal, Rear Aluminum Die Casting; B Model: Aluminum Die Casting		
Operating Temperature	A Model: -20°C ~ 60°C (-4°F ~ 140°F), B Model: -10°C ~ 50°C (14°F ~ 122°F)		
Storage Temperature	-30°C ~ 70°C (-22°F~158°F)		
Certification	CE, FCC Class B		
OS Information	Windows 10 IoT, Windows 11 IoT, Linux		
Dimension	A Model: 283 x 221.1 x 51.2 mm B Model: 192.86 x 225.4 x 51.5 mm	A Model: 350 x 274 x 54.5 mm B Model: 350.51 x 274.51 x 56.5 mm	538.05 x 341.05 x 64 mm
Weight	2.4 kg	3.7 kg	7.3 kg

Rugged Panel PC

Model Number	ARC-1039	ARC-10W39	ARC-1239	ARC-1539
LCD Size	10.4" 4:3	10.1", 16:10	12.1", 4:3	15", 4:3
Display Type	XGA	WXGA	XGA	XGA
Resolution	1024 x 768	1280 x 800	1024 x 768	1024 x 768
Pixel Pitch	0.0685 mm (H) x 0.2055 mm (V)	0.1695 mm (H) x 0.1695 mm (V)	0.240 mm (H) x 0.240 mm (V)	0.297 mm (H) x 0.297 mm (V)
Luminance	500 cd/m²	400 cd/m²	600 cd/m²	500 cd/m²
Contrast Ratio	1200	800	1000	2500
Viewing Angle	88 (U), 88 (D), 88 (L), 88 (R)	85 (U), 85 (D), 85 (L), 85 (R)	89 (U), 89 (D), 89 (L), 89 (R)	88 (U), 88 (D), 88 (L), 88 (R)
Response Time	25 ms	25 ms	13 ms	16 ms
Backlight	LED	LED	LED	LED
Touch Type	5 Wires Resistive	Projective Capacitive Multi-touch Up to 10 Points	A Model: 5 Wires Resistive Touch B Model: PCAP Multi-touch Up to 10 Points	
Touch Light Transmission	80%	88%	80% (Resistive)/ 89% (PCAP)	
Touch Controller	Onboard USB Touch (PenMount)	EETI	Onboard USB Touch (PenMount) for Resistive; USB Touch (EETI/ ILITEK) for PCAP	
SBC	ARC-ASL			
Processor	Onboard Intel® Processor N150 (Option for Intel® Core™ 3 Processor N355/ Intel® Processor N97/ Intel Atom® x7433RE Processor /Intel® Core™ i3-N305 Processor)			
I/O Chipset	EC ITE IT5782VG			
System Memory	1 x 262-pin DDR5 4800MHz SO-DIMM Socket, Supports Up to 16GB			
Expansion	1 x M.2 Key-B 2242/3042/3052 for SATA3/ PCIe x1/ USB3.2 1 x M.2 Key-E 2230 for Wi-Fi & BT Module 1 x 80-pin IET Interface			
Storage	1 x M.2 Key-B 2242/3042/3052 for SATA3/ PCIe x1/ USB 3.2 or 1 x 2.5" Drive Bay (7 mm HDD Restricted)			
USB	2 x USB 3.2 (1 x Dual Deck, Type A) 1 x USB Type C (w/ PD (20V/3A Input), USB3.2 (Gen2x1,10Gbps), Display Function)			
COM Port	1 x RS-232/422/485, Selectable by BIOS, RS-485 Supports Auto Flow, Pin-9 Selected by Ring/ +5V/ +12V) ; 1 x RS-232			
Display Chipset	Intel® Graphics			
Display Resolution	HDMI: Max. Resolution 4096 x 2160 @ 60Hz (Optional by IET Module)			
Audio	Realtek ALC888S			
Audio Interface	2 x 2W Speaker Output Line-in, Line-out, Mic-in by Expandable IET (Option)			
Ethernet	2 x Intel® I226IT 2.5 GbE			
Power Connector	Lockable DC Jack (Phoenix Connector by option), +12V ~ 24V			
Power Type	AT/ ATX (ATX is Default Setting)			
Adapter	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 72W Adapter (19V @ 3.78A Adapter)			
Construction (Front, Rear)	Silver Aluminum (Resistive); Black Die Casting	Die Casting with Cover Lens (P-cap); Black Die Casting	Silver Aluminum (Resistive), Die Casting with Cover Lens (P-cap); Black Die Casting	
Operating Temperature	-10°C ~ 50°C (-14°F ~ 122°F)	-10°C ~ 50°C (-14°F ~ 122°F)	A Model: -20°C ~ 60°C (-4°F ~ 140°F), B Model: -10°C ~ 50°C (14°F ~ 122°F)	
Storage Temperature	-20°C ~ 60°C (-4°F ~ 140°F)			
Certification	CE, FCC Class A			
OS Information	Windows 10 IoT, Windows 11 IoT, Linux			
Dimension	259.6 x 195.8 x 46 mm	282.4 x 201 x 50.9 mm	A Model: 292.86 x 225.4 x 51.5 mm B Model: 284 x 223 x 46 mm	A Model: 350 x 274 x 54.5 mm B Model: 350 x 274.5 x 53 mm
Weight	2.3 kg	2.3 kg	A Model: 2.54 kg B Model: 2.4 kg	A Model: 5.6 kg B Model: 5.6 kg

Model Number	ARC-15W39	ARC-18W39	ARC-21W39
LCD Size	15.6", 16:9	18.5", 16:9	21.5", 16:9
Display Type	FHD	FHD	FHD
Resolution	1920 x 1080	1920 x 1080	1920 x 1080
Pixel Pitch	0.17925 mm (H) x 0.17925 mm (V)	0.213 mm (H) x 0.213 mm (V)	247.95 um (H) x 247.95 um (V)
Luminance	350 cd/m²	500 cd/m²	500 cd/m²
Contrast Ratio	800	1200	1000
Viewing Angle	89 (U), 89 (D), 89 (L), 89 (R)	85 (U), 85 (D), 85 (L), 85 (R)	89 (U), 89 (D), 89 (L), 89 (R)
Response Time	11 ms	35 ms	14 ms
Backlight	LED	LED	LED
Touch Type	Projective Capacitive Multi-touch Up to 10 Points	Projective Capacitive Multi-touch Up to 10 Points	Projective Capacitive Multi-touch Up to 10 Points
Touch Light Transmission	88%	85%	89%
Touch Controller	ILITEK	ILITEK	EETI
SBC	ARC-ASL		
Processor	Onboard Intel® Processor N150 (Option for Intel® Core™ 3 Processor N355/ Intel® Processor N97/ Intel Atom® x7433RE Processor /Intel® Core™ i3-N305 Processor)		
I/O Chipset	EC ITE IT5782VG		
System Memory	1 x 262-pin DDR5 4800MHz SO-DIMM Socket, Supports Up to 16GB		
Expansion	1 x M.2 Key-B 2242/3042/3052 for SATA3/ PCIe x1/ USB3.2 1 x M.2 Key-E 2230 for Wi-Fi & BT Module 1 x 80-pin IET Interface		
Storage	1 x M.2 Key-B 2242/3042/3052 for SATA3/ PCIe x1/ USB 3.2 or 1 x 2.5" Drive Bay (7 mm HDD Restricted)		
USB	2 x USB 3.2 (1 x Dual Deck, Type A) 1 x USB Type C (w/ PD (20V/3A Input), USB3.2 (Gen2x1,10Gbps), Display Function)		
COM Port	1 x RS-232/422/485, Selectable by BIOS, RS-485 Supports Auto Flow, Pin-9 Selected by Ring/ +5V/ +12V) ; 1 x RS-232		
Display Chipset	Intel® Graphics		
Display Resolution	HDMI: Max. Resolution 4096 x 2160 @ 60Hz (Optional by IET Module)		
Audio	Realtek ALC888S		
Audio Interface	2 x 2W Speaker Output Line-in, Line-out, Mic-in by Expandable IET (Option)		
Ethernet	2 x Intel® I226IT 2.5 GbE		
Power Connector	Lockable DC Jack (Phoenix Connector by option), +12V ~ 24V		
Power Type	AT/ ATX (ATX is Default Setting)		
Adapter	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 72W Adapter (19V @ 3.78A Adapter)		
Construction (Front, Rear)	Die Casting with Cover Lens (P-cap); Black Die Casting		
Operating Temperature	-10°C ~ 50°C (-14°F ~ 122°F)		
Storage Temperature	-20°C ~ 60°C (-4°F ~ 140°F)		
Certification	CE, FCC Class A		
OS Information	Windows 10 IoT, Windows 11 IoT, Linux		
Dimension	391.2 x 239.2 x 57.5 mm	460 x 285.2 x 55.5 mm	538.05 x 341.05 x 60.05 mm
Weight	3.7 kg	4.6 kg	7.3 kg

Rugged Panel PC

Model Number	ARC-1242	ARC-1542	ARC-15W42
LCD Size/ Display Type	12.1", 4:3/ XGA	15", 4:3/ XGA	15.6", 16:9 / FHD
Resolution	1024 x 768	1024 x 768	1920 x 1080
Pixel Pitch	0.240 mm (H) x 0.240 mm (V)	0.297mm (H) x 0.297mm (V)	0.17925mm (H) x 0.17925mm (V)
Luminance	600 cd/m²	A Model: 500 cd/m², B Model: 300 cd/m²	350 cd/m²
Contrast Ratio	1000	A Model: 2500, B Model: 2000	800
Viewing Angle	89 (U), 89 (D), 89 (L), 89 (R)	88 (U), 88 (D), 88 (L), 88 (R)	89 (U), 89 (D), 89 (L), 89 (R)
Response Time	13 ms	16 ms	11 ms
Backlight	LED	LED	LED
Touch Type	A Model: 5 Wires Resistive Touch B Model: PCAP Multi-touch Up to 10 Points	A Model: 5 Wires Resistive Touch B Model: PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points
Touch Light Transmission	80% (Resistive)/ 89% (PCAP)	80% (Resistive)/ 89% (PCAP)	88%
Touch Controller	Onboard USB Touch (PenMount) for Resistive; USB Touch (EETI) for PCAP	Onboard USB Touch (PenMount) for Resistive; USB Touch (EETI) for PCAP	ILITEK
SBC	HID-2340 SBC		
Processor	13th Generation Intel® Raptor Lake PS Processors (FCLGA1700 Socket) Intel® Core™ 3 Processor 100UL (10M Cache, Up to 4.50 GHz) Intel® Core™ 5 Processor 120UL (12M Cache, Up to 4.60 GHz) Intel® Core™ 7 Processor 160UL (12M Cache, Up to 5.20 GHz)		
I/O Chipset	EC ITE IT5782VG		
System Memory	1 x 262-pin DDR5 4800MHz SO-DIMM Up to 32GB		
Expansion	1 x M.2 Key B 3042/3052/2280 (PCIe, USB3, SATA) for 4G/5G/Capture Card 1 x M.2 Key E 2230 (PCIex1, USB2.0) for Wi-Fi 1 x M.2 Key M 2280 (PCI-e x4) Slot for Storage 1 x 80-pin IET Interface		
Storage	1 x M.2 Key M 2280 (PCI-e x4) Slot for Storage		
USB	3 x USB3.2, 1 x USB2.0, 1 x USB Type C		
COM Port	1 x RS-232/422/485		
Other	7 x Knockouts for Antenna Mounting (5 from Rear Cover + 2 from IET Bracket)		
Display Chipset	Intel® Iris® Xe Graphics (for Core i5 & i7) Intel® UHD Graphics for 12th Gen Intel® Processors (for Core i3 & Celeron)		
Audio	Realtek ALC 888S		
Audio Interface	2 x 2W Speaker Output; Line-in, Line-out, Mic-in by Expandable IET (Option)		
Ethernet	1 x Intel® I225LM 2.5 Gigabit Ethernet, 1 x Intel® I226LM 2.5 Gigabit Ethernet		
Power Connector	Lockable DC Jack (Phoenix Connector by option), +12V ~ 24V		
Power Type	AT/ ATX (ATX is Default Setting)		
Adapter	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 120W Adapter (24V @ 5A Adapter)		
Construction (Front, Rear)	Silver Aluminum (Resistive), Die Casting with Cover Lens (P-cap); Black Die Casting	Silver Aluminum (Resistive), Die Casting with Cover Lens (P-cap); Black Die Casting	Die Casting with Cover Lens (P-cap) Black Die Casting
Operating Temperature	-10°C ~ 50°C (14°F ~ 122°F)		
Storage Temperature	-20°C ~ 60°C (-4°F ~ 140°F)		
Certification	CE/ FCC Class A		
OS Information	Windows 10 IoT, Windows 11 IoT, Linux		
Dimension	A Model: 283 x 222.1 x 51.2 mm B Model: 293.77 x 226.31 x 54.5 mm	A Model: 350 x 274 x 54.5 mm B Model: 350.51 x 274.51 x 56.5 mm	391.21 x 293.21 x 61 mm
Weight	2.4 kg	3.7 kg	3.7 kg

Model Number	ARC-18W42	ARC-21W42	ARC-1742-C1
LCD Size/ Display Type	18.5", 16:9	21.5", 16:9/ Full HD	17", 4:3
Resolution	1920 x 1080	1920 x 1080	1280 x 1024
Pixel Pitch	0.213mm(H) x 0.213mm(V)	247.95 um (H) x 247.95 um (V)	0.264mm(H) x 0.264mm(V)
Luminance	500 cd/m2	500 cd/m²	250 cd/m2
Contrast Ratio	1200	1000	1000
Viewing Angle	85 (U), 85 (D), 85 (L), 85 (R)	89 (U), 89 (D), 89 (L), 89 (R)	80 (U), 80 (D), 85 (L), 85 (R)
Response Time	35 ms	14 ms	5 ms
Backlight	LED	LED	LED
Touch Type	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points
Touch Light Transmission	85%	89 %	89%
Touch Controller	ILITEK	EETI	ILITEK
SBC	HID-2340 SBC		EMX-ALUC
Processor	13th Generation Intel® Raptor Lake PS Processors (FCLGA1700 Socket) Intel® Core™ 3 Processor 100UL (10M Cache, Up to 4.50 GHz) Intel® Core™ 5 Processor 120UL (12M Cache, Up to 4.60 GHz) Intel® Core™ 7 Processor 160UL (12M Cache, Up to 5.20 GHz)		Onboard Intel® 12th/13th Gen Alder Lake & Raptor Lake U Series BGA Processor (TDP: 15W)
I/O Chipset	EC ITE IT5782VG		ITE IT8786E-I
System Memory	1 x 262-pin DDR5 4800MHz SO-DIMM Up to 32GB		2 x 260-Pin DDR4 3200MHz non-ECC SO-DIMM Socket Supports Up to 2 x 32GB
Expansion	1 x M.2 Key B 3042/3052/2280 (PCIe, USB3, SATA) for 4G/5G/Capture Card 1 x M.2 Key E 2230 (PCIex1, USB2.0) for Wi-Fi 1 x M.2 Key M 2280 (PCI-e x4) Slot for Storage 1 x 80-pin IET Interface		1 x M.2 Key-B 2242/3052 1 x M.2 Key-E 2230, 1 x M.2 Key-M 2280 1 x Wafer Connector for SIM Card Cable (Option)
Storage	1 x M.2 Key M 2280 (PCI-e x4) Slot for Storage		1 x M.2 Key-M 2280 (PCIe x4/SATA) slot for storage NVMe/SATA SSD (Auto Detect), 1 x 2.5" Drive Bay
USB	3 x USB3.2, 1 x USB2.0, 1 x USB Type C		6 x USB3.2 Gen1x1, *2 x USB 2.0 on Bottom (Optional, Multi-purpose I/O for USB/COM/GPIO) or on Top (Optional)
COM Port	1 x RS-232/422/485		2 x RS232 / 485 (Default), 1 x RS232 (Default) *3 pre-cut Hole for 3 x RS232 / 1 x GPIO / 2 x USB2.0 (Optional)
Other	7 x Knockouts for Antenna Mounting (5 from Rear Cover + 2 from IET Bracket)		AUX-089 (SIM Card Expansion Card)
Display Chipset	Intel® Iris® Xe Graphics (for Core i5 & i7) Intel® UHD Graphics for 12th Gen Intel® Processors (for Core i3 & Celeron)		Intel® Iris® Xe Graphics eligible
Audio	Realtek ALC 888S		Realtek ALC 888S
Audio Interface	2 x 2W Speaker Output; Line-in, Line-out, Mic-in by Expandable IET (Option)		2 x 5W Speaker Output
Ethernet	1 x Intel® I225LM 2.5 Gigabit Ethernet 1 x Intel® I226LM 2.5 Gigabit Ethernet		1 x Intel® I219LM Gigabit Ethernet PHY (LAN1) 1 x Intel® I226LM 2.5 Gigabit Ethernet (LAN2)
Power Connector	Lockable DC Jack (Phoenix Connector by option), +12V ~ 24V		Lockable DC Jack, +12V
Power Type	AT/ ATX (ATX is Default Setting)		AT/ ATX (ATX is Default Setting)
Adapter	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 120W Adapter (24V @ 5A Adapter)		Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 120W Adapter (12V @ 10A Adapter)
Construction (Front, Rear)	Die Casting with Cover Lens (P-cap), Black Die Casting		Front Aluminum Die Casting, Rear Aluminum Alloy
Operating Temperature	-10°C ~ 50°C (14°F ~ 122°F)		0°C ~ 50°C (32°F ~ 122°F)
Storage Temperature	-20°C ~ 60°C (-4°F ~ 140°F)		-20°C ~ 60°C (-4°F ~ 140°F)
Certification	CE/ FCC Class A		CE, FCC Class A, CCC
OS Information	Windows 10 IoT, Windows 11 IoT, Linux		Windows 10 IoT, Windows 11 IoT, Linux
Dimension	460 x 285.2 x 59 mm	538.05 x 341.05 x 64mm	392.7 x 325.3 x 71.65mm
Weight	4.6 kg	7.3 kg	5.6 kg

Rugged Panel PC

Model Number	ARC-1238	ARC-1538	ARC-21W38
LCD Size	12.1"	15"	21.5"
Display Type	XGA	XGA	Full HD
Resolution	1024 x 768	1024 x 768	1920 x 1080
Pixel Pitch	0.240 x 0.240 mm	0.297 x 0.297 mm	0.248 x 0.248
Luminance	600 cd/m^2	300 cd/m^2, 500 cd/m^2	250 cd/m^2
Contrast Ratio	1000	2000	3000
Viewing Angle	89 (U), 89 (D), 89 (L), 89 (R)	88 (U), 88 (D), 88 (L), 88 (R)	89 (U), 89 (D), 89 (L), 89 (R)
Response Time	13 ms	16 ms	20 ms
Backlight	LED	LED	LED
Touch Type	A Model: 5-Wire Resistive Touch B Model: PCAP Multi-touch Up to 10 Points (Full Flat Design)		PCAP Multi-touch Up to 10 Points
Touch Light Transmission	5-Wire Resistive Touch: 80%, Projective Capacitive Multi-Touch: 89%		88%
Touch Controller	A Model: Onboard USB Touch (PenMount) B Model: External USB Controller (EETI/ ILITEK)		USB Touch (EETI)
SBC	ARC-TGL		
Processor	On board 11th Gen. Intel® Core™ i7/i5/i3/ Celeron BGA Processor		
I/O Chipset	EC (IT8528VG-I/FX)		
System Memory	Single 260-pin DDR4 SODIMM Socket, Supports Up to 32GB DDR4 3200MTs SDRAM		
Expansion	1 x M.2 Key-E 2230 for Wi-Fi & BT Module 1 x M.2 Key-B 2242/3042/3052 for SATA3/PCIe x1/ USB3.1		
Storage	1 x M.2 Key-B 2242/3042/3052 for SATA3/PCIe x1/ USB3.1 or 1 x 2.5" Drive Bay (7 mm HDD Restricted)		
USB	4 x USB 3.1 Gen.2		
COM Port	1 x RS-232/422/485, Selectable by BIOS, RS-485 Supports Auto Flow, Pin-9 Selected by Ring/ +5V/ +12V); 1 x RS-232		
Display Chipset	Intel® 11th Generation CPU Integrated		
Display Resolution	HDMI: Max. Resolution 4096 x 2160 @ 60Hz (Optional by IET Module)		
Audio	Realtek ALC897		
Audio Interface	2 x 2W Speakers		
Ethernet	1 x Intel® I219LM PCI-e Gigabit Ethernet, 1 x Intel® I225LM 2.5 Gigabit Ethernet		
Power Connector	Lockable DC Jack, +12 ~ 24V		
Power Type	AT/ ATX (ATX is Default Setting)		
Adapter	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 72W Adapter (19V @ 3.78A)		Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 120W Adapter (24V@ 5A)
Construction (Front, Rear)	A Model: Front Metal, Rear Aluminum Die Casting; B Model: Aluminum Die Casting		
Operating Temperature	-10°C ~ 50°C (14°F ~ 122°F)		
Storage Temperature	-20°C ~ 60°C (-4°F ~ 140°F)		
Certification	CE, FCC Class B		
OS Information	Windows 10 IoT, Windows 11 IoT, Linux		
Dimension	A Model: 283 x 221 x 51.2 mm B Model: 284 x 223 x 46 mm	A Model: 350 x 274 x 54.5 mm B Model: 350.51 x 274.51 x 56.5 mm	538.05 x 341.05 x 64 mm
Weight	2.4 kg	3.7 kg	7.3 kg

Model Number	ARC-1538-C1	ARC-1738-C2	ARC-21W38-C1
LCD Size	15"	17"	21.5"
Display Type	XGA	SXGA	FHD
Resolution	1024 x 768	1280 x 1024	1920 x 1080
Pixel Pitch	0.297 mm (H) x 0.297 mm (V)	0.264 mm (H) x 0.264 mm (V)	247.95 um (H) x 247.95 um (V)
Luminance	350 cd/m²	250 cd/m²	250 cd/m²
Contrast Ratio	1000	1000	1000
Viewing Angle	89 (U), 89 (D), 89 (L), 89 (R)	80 (U), 80 (D), 85 (L), 85 (R)	89 (U), 89 (D), 89 (L), 89 (R)
Response Time	30 ms	5 ms	20 ms
Backlight	LED	LED	LED
Touch Type	PCAP Multi-touch Up to 10 Points (Full Flat Design)	PCAP Multi-touch Up to 10 Points (Full Flat Design)	PCAP Multi-touch Up to 10 Points (Full Flat Design)
Touch Light Transmission	>=85%	89%	>=85%
Touch Controller	USB Touch (ILITEK)	USB Touch (ILITEK)	USB Touch (ILITEK)
SBC	EMX-TGLC-B1		
Processor	On board 11th Gen. Intel® Core™ i5/i3/Celeron BGA Processor		
I/O Chipset	NuvoTon_NCT6126D		
System Memory	2 x 260-pin DDR4 3200 MHz SO-DIMM Socket, Supports Up to 64GB Max		
Expansion	1 x M.2 Key B + M 3042/3052/2242/2260/2280 Support 1 x PCIEx1/SATA/USB3.0/USB2.0 with 1 x SIM Card Slot Support WWAN + GNSS 1 x M.2 Key E 2230 Support Wi-Fi Module		
Storage	M.2 Type B + M 3042/3052/2242/2260/2280 SSD (SATA) 1 x 2.5" Drive Bay Design		
USB	3 x USB 3.2 Gen2, 1 x USB 3.2 Gen1 3 x RS232 or GPIO or USB 2.0 (Optional)		
COM Port	1 x RS232/422/485 (Default) 2 x RS232 (Default) 3 x RS232 or GPIO or USB2.0 (Optional)		
Display Chipset	Intel® 11th Generation CPU Integrated		
Display Resolution	2 x DP++: 1920 x 1080 @ 60 Hz		
Audio	Realtek ALC897 co-lay ALC888S (Default: ALC897)		
Audio Interface	2 x 5W Speakers		
Ethernet	1 x Intel® I219LM Gigabit Ethernet PHY (LAN1) 1 x Intel® I226LM 2.5 Gigabit Ethernet (LAN2)		
Power Connector	Mini-DIN 4pin DC-in, +12V ~ 24V DC-in		
Power Type	AT/ ATX (ATX is Default Setting)		
Adapter	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 120W Adapter (24V @ 5A)		
Construction (Front, Rear)	Front Aluminum Die Casting, Rear Aluminum Alloy		
Operating Temperature	0°C ~ 50°C (32°F ~ 122°F)		
Storage Temperature	-20°C ~ 60°C (-4°F ~ 140°F)		
Certification	CE, FCC Class B, UKCA, LVD, VCCI, CCC	CE, FCC Class A, CCC	CE, FCC Class B, UKCA, LVD, VCCI
OS Information	Windows 10 IoT, Windows 11 IoT, Linux		
Dimension	350.51 x 274.51 x 65 mm	392.7 x 325.3 x 71.65 mm	538.05 x 341.05 x 63.55 mm
Weight	5.8 kg	5.6 kg	10.1 kg

Rugged Panel PC

Model Number	FPC-08W29	FPC-10W09
LCD Size	8"	10.1"
Display Type	WSVGA	WSVGA
Resolution	1024 x 600	1024 x 600
Pixel Pitch	0.1725 mm (H) x 0.1656 mm (V)	0.2175 mm (H) x 0.2088 mm (V)
Luminance	500 cd/m²	350 cd/m²
Contrast Ratio	700	500
Viewing Angle	70 (U), 75 (D), 75 (L), 75 (R)	70 (U), 70 (D), 70 (L), 70 (R)
Response Time	20 ms	16 ms
Backlight	LED	LED
Touch Type	5-Wire Resistive	5-Wire Resistive
Touch Light Transmission	80 %	80 %
Touch Controller	Onboard USB Touch (PenMount)	Onboard USB Touch (PenMount)
SBC	ECM-BYT	ECM-BYT
Processor	Intel® Atom™ E3845 4-Core 1.91GHz Processor	Intel® Atom™ E3845 4-Core 1.91GHz Processor
System Chipset	Intel® Valleyview SoC	Intel® Valleyview SoC
I/O Chipset	Nuvoton W83627DHG-P	Nuvoton W83627DHG-P
System Memory	1 x 204-Pin DDR3L 1333MHz SO-DIMM Up to 8GB	1 x 204-Pin DDR3L 1333MHz SO-DIMM Up to 8 GB
Expansion	1 x Mini PCIe Supports mSATA	1 x Mini PCIe Supports mSATA
Storage	1 x CompactFlash Type I/II Socket (CF-SATA Optional)	2.5" SSD/ HDD or Type I/II CF Card
I/O	3 x USB 2.0, 1 x USB 3.0 1 x RS-232/422/485, 1 x RS-232	4 x USB 2.0, 1 x USB 3.0 1 x RS-232/422/485
Display Chipset	Intel® Valleyview SoC Integrated Graphics Supports Dual Display	Intel® Valleyview SoC Integrated Graphics Supports Dual Display
Display Resolution	VGA: Max. Resolution 2560 x 1080 @ 60Hz HDMI: Max. Resolution 1920 x 1200 @ 60Hz	VGA: Max. Resolution 2560 x 1080 @ 60Hz HDMI: Max. Resolution 1920 x 1200 @ 60Hz
Audio	Realtek ALC888S Support 5.1-CH	Realtek ALC888S Support 5.1-CH
Ethernet	2 x Intel® I210AT	2 x Intel® I210AT
Power Type	AT/ ATX (ATX is Default Setting), Lockable DC Jack, +12V ~ +26V (12V @ 5A Adapter)	AT/ ATX (ATX is Default Setting), Lockable DC Jack, +12V ~ +26V (12V @ 5A Adapter)
Construction (Front, Rear)	Metal, Aluminum + Metal	Metal, Aluminum + Metal
Dimension	225 x 129 x 43.4 mm	300 x 195 x 56 mm
Weight	1.27 kg	1.50 kg
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)
Storage Temperature	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)
Certification	CE, FCC Class B	CE, FCC Class B
OS Information	Windows 7, Windows 8.1, Linux, Windows 10 IoT	Windows 7, Windows 8.1, Linux, Windows 10 IoT

Model Number	FPC-10W39	FPC-1736	FPC-21W42
LCD Size	10.1"	17"	21.5
Display Type	WSVGA	SWGA	FHD
Resolution	1024 x 600	1280 x 1024	1920 x 1080
Pixel Pitch	0.2175 mm (H) x 0.2088 mm (V)	0.264 mm (H) x 0.264 mm (V)	0.248 mm (H) x 0.248 mm (V)
Luminance	350 cd/m²	250 cd/m²	250 cd/m²
Contrast Ratio	500	1000	1000
Viewing Angle	70 (U), 70 (D), 70 (L), 70 (R)	80 (U), 80 (D), 85 (L), 85 (R)	89 (U), 89 (D), 89 (L), 89 (R)
Response Time	16 ms	5 ms	20 ms
Backlight	LED	LED	LED
Touch Type	5-Wire Resistive	Projective Capacitive	Projective Capacitive
Touch Light Transmission	80 %	89 %	85%
Touch Controller	Onboard USB Touch (EETI)	Onboard USB Touch (ILITEK)	Onboard USB Touch (EETI)
SBC	ECM-ASL	EMX-H3102C	MX610H
Processor	Intel® Processor N97	Intel® Core™ i3/i5/i7 Processors (LGA1151 Socket, Max. TDP at 65W)	13th Generation Intel® Core™ i3/i5/i7 Processors (LGA1700 Socket, Max. TDP 65W)
System Chipset	N/A	Intel® H310 Express Chip	Intel® H610E
I/O Chipset	ITE IT5782VG	ITE IT8786E-I	Fintek® F81966AB-I
System Memory	1 x 262-Pin DDR5 4800MHz SO-DIMM Up to 16GB Max	2 x 260-Pin DDR4 2666MHz SO-DIMM Up to 64GB Max	2 x 262-pin DDR5 4800MHz SO-DIMM Up to 64GB Max
Expansion	1 x M.2 E-key Slot, Type-2230 with PCIe	1 x PCIe x4 Slot (Option for 2 x PCI Slot) 1 x M.2 E-key Slot, Type-2230 with PCIe	1 x PCIe x16 Slot (Option for 2 x PCI Slot) 1 x M.2 E-key Slot, Type-2230 with PCIe
Storage	1 x M.2 B-Key 2242 with PCIe x1	1 x M.2 M-key 2242 with SATA	1 x M.2 M-key 2280/2242 with SATA
I/O	3 x USB 3.2, 1 x USB 2.0 1 x RS-422/485	4 x USB 3.0 4 x RS-232	4 x USB 3.2, 2 x USB 2.0 2 x RS-232/422/485
Display Chipset	Intel® UHD Graphics Integrated Graphics Supports Triple Display	Intel® 8/ 9th Generation CPU Integrated	Intel® UHD Graphics Integrated Graphics Supports Triple Display
Display Resolution	HDMI: Max. Resolution 4096 x 2160 @ 60Hz	VGA: Max. Resolution 2560 x 1080 @ 60Hz HDMI: Max. Resolution 1920 x 1200 @ 60Hz	DP: Max. Resolution 4096 x 2304 @ 60Hz HDMI: Max. Resolution 3840 x 2160 @ 30Hz
Audio	Realtek ALC888S	Realtek ALC888S Support 5.1-CH	Realtek ALC897
Ethernet	2 x Intel® I226V/I226IT 2.5 Gigabit Ethernet	1 x Intel® I219-V Gigabit Ethernet 1 x Intel® I225-V 2.5 Gigabit Ethernet	1 x Intel® I219-LM Gigabit Ethernet 1 x Intel® I225-V 2.5 Gigabit Ethernet
Power Type	AT/ ATX (ATX is Default Setting), Lockable DC Jack, +12V ~ +26V (19V @ 3.78A Adapter)	AT/ ATX (ATX is Default Setting), Lockable DC Jack, +12V ~ +24V (19V @ 6.32A Adapter)	AT/ ATX (ATX is Default Setting), PSU Flex ATX 300W
Construction (Front, Rear)	Metal, Aluminum + Metal	Metal	Metal
Dimension	300 x 195 x 73 mm	392.7 x 325.32 x 121.55 mm	538 x 341 x 122 mm
Weight	1.50 kg	7.5 kg	12.6 kg
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 45°C (32°F ~ 113°F)	0°C ~ 45°C (32°F ~ 113°F)
Storage Temperature	-10°C ~ 50°C (14°F ~ 122°F)	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)
Certification	CE, FCC Class B, UKCA, LVD, VCCI	CE, FCC Class A, CCC	CE, FCC Class B, UKCA, LVD, VCCI
OS Information	Windows 10, Windows 11, Linux	Windows 10 IoT, Linux	Windows 10, Windows 11, Linux

Stainless Steel Panel PC

Model Number	SPC-1542	SPC-2142	SPC-10W35
LCD Size	15", 4:3	21.5", 16:9	10.1", 16:10
Display Type	XGA	Full HD	WXGA
Resolution	1024 x 768	1920 x 1080	1280 x 800
Pixel Pitch	0.297 x 0.297 mm	0.248 x 0.248 mm	0.1695mm (H) x 0.1695mm (V)
Luminance	300 cd/m²	250 cd/m²	350 cd/m²
Contrast Ratio	2000	3000	800
Viewing Angle	88 (U), 88 (D), 88 (L), 88 (R)	89 (U), 89 (D), 89 (L), 89 (R)	85 (U), 85 (D), 85 (L), 85 (R)
Response Time	16 ms	18 ms	25 ms
Backlight	LED	LED	LED
Touch Type	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points
Touch Light Transmission	89%	89%	88 %
Touch Controller	USB (EETI)	USB (EETI)	EETI
SBC	HID-2340	HID-2340	ECM-EHL3
Processor	Socketed FCLGA1700 Intel® 12th/13th Gen Core™ i7/i5/i3 Processor	Socketed FCLGA1700 Intel® 12th/13th Gen Core™ i7/i5/i3 Processor	Onboard Intel® Elkhart Lake Processor
I/O Chipset	ITE IT8883FN-I	ITE IT8883FN-I	IT5571E
System Memory	1 x 262-pin DDR5 4800MHz SO-DIMM, Up to 32GB Max.	1 x 262-pin DDR5 4800MHz SO-DIMM, Up to 32GB Max.	1 x 204-Pin DDR4 3200MHz SO-DIMM, Up to 32GB Max.
Expansion	1 x M.2 Key-B 2280/3042/3052 with SIM Card Slot Support SATA3/ PCIe & USB for LTE (4/5G) 1 x M.2 Key-E, 2230 Supports Wi-Fi Module	1 x M.2 Key-B 2280/3042/3052 with SIM Card Slot Support SATA3/ PCIe & USB for LTE (4/5G) 1 x M.2 Key-E, 2230 Supports Wi-Fi Module	1 x M.2 key-E 2230 Supports Wi-Fi Module 1 x M.2 key-B 3042/2242 1 x M.2 key-M Supports 2260 Slot
Storage	1 x M.2 Support SATA, 1 x 2.5" SATA3 Drive Bay	1 x M.2 Support SATA, 1 x 2.5" SATA3 Drive Bay	1 x M.2 Support SATA, 1 x 2.5" SATA3 Drive Bay
USB	2 x M12 Connector (USB2.0)	2 x M12 Connector (USB2.0)	2 x M12 Connector (USB 2.0)
COM Port	1 x M12 Connector (RS232/422/485 by Jumper & BIOS Selection)	1 x M12 Connector (RS232/422/485 by Jumper & BIOS Selection)	1 x M12 Connector (RS232/422/485 by Jumper & BIOS Selection)
Display Chipset	Intel® UHD Graphics	Intel® UHD Graphics	Intel® SoC Integrated Graphics
Audio	Realtek ALC 888S	Realtek ALC 888S	Realtek ALC 888S
Ethernet	1 x M12 Connector (1 x Intel® I225LM, 1 x Intel® I226LM 2.5 Gigabit Ethernet)	1 x M12 Connector (1 x Intel® I225LM, 1 x Intel® I226LM 2.5 Gigabit Ethernet)	1 x M2 Connector (2 x Intel® I210AT PCIe Gigabit Ethernet)
Power Connector	1 x M12 DC Jack, +12V ~ 24V	1 x M12 DC Jack, +12V ~ 24V	1 x M12 DC Jack, +12V ~ 24V
Power Type	AT/ ATX (ATX is Default Setting)	AT/ ATX (ATX is Default Setting)	AT/ ATX (ATX is Default Setting)
Adapter	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 90W Adapter (24V @ 3.75A Adapter)	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 90W Adapter (24V @ 3.75A Adapter)	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 60W Adapter (24V @ 2.5A Adapter)
Construction (Front, Rear)	Stainless Steel	Stainless Steel	Stainless Steel
Operating Temperature	-10°C ~ 50°C (-14°F ~ 122°F)	-10°C ~ 50°C (-14°F ~ 122°F)	-10°C ~ 50°C (-14°F ~ 122°F)
Storage Temperature	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)
Certification	CE, FCC Class A	CE, FCC Class A	CE, FCC Class A
OS Information	Windows 10 IoT, Windows 11 IoT, Linux	Windows 10 IoT, Windows 11 IoT, Linux	Windows 10 IoT, Windows 11 IoT, Linux
IP Rating	Full IP66, IP69K	Full IP66, IP69K	Full IP66, IP69K
Dimension	TBD	562 x 365.8 x 49 mm	296 x 214 x 49 mm
Weight	5.7 kg	11.3 kg	3 kg

SPC-1533-B1	SPC-2133-B1	SPC-07WR2	SPC-10WR2	SPC-21WR2
15", 4:3	21.5", 16:9	7", 75:128	10.1", 10:16	21.5", 16:9
XGA	Full HD	WSVGA	WXGA	Full HD
1024 x 768	1920 x 1080	600 x 1024	800 x 1280	1920 x 1080
0.297 x 0.297 mm	0.248 x 0.248 mm	0.1488 x 0.1488 mm	0.1692 x 0.1692 mm	0.24795 x 0.24795 mm
300 cd/m²	250 cd/m²	350 cd/m²	350 cd/m²	250 cd/m²
2000	3000	800	1000	3000
88 (U), 88 (D), 88 (L), 88 (R)	89 (U), 89 (D), 89 (L), 89 (R)	85 (U), 85 (D), 85 (L), 85 (R)	85 (U), 85 (D), 85 (L), 85 (R)	89 (U), 89 (D), 89 (L), 89 (R)
16 ms	18 ms	25 ms	25 ms	10 ms
LED	LED	LED	LED	LED
PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points
89%	89%	86%	86%	85%
USB (EETI)	USB (EETI)	USB (EETI)	USB (ILITEK)	USB (EETI)
EMX-APLP		ACP-RK3568		
Onboard Intel® Apollo Lake Processor		Onboard Rockchip RK3568		
ITE IT8528		N/A		
2 x 204-pin DDR3L 1600MTs, Up to 16GB Max.		2GB DDR4 on board		
1 x Full Size Mini PCI-e Support mSATA (SATA III and mSATA by Auto Switch IC) 1 x SIM Card Slot 1 x M.2 (2230) A-Key, Support Wi-Fi Module		N/A		
1 x Full Size Mini PCI-e mSATA, 1 x 2.5" SATA3 Drive Bay		32GB eMMC on board		
2 x M12 Connector (USB2.0)		2 x USB 3.0 Type-A (for KDS Model) 1 x M12 Connector (USB 2.0) (Option for M12 Model)		
1 x M12 Connector (RS232/422/485 by Jumper & BIOS Selection)		1 x M12 Connector (RS232) (Option for M12 Model)		
Intel® SoC Integrated Graphics				
Realtek ALC 888S/897		1 x Headphone Jack for Line Out (for KDS Model)		
1 x M2 Connector (1 x Intel® I210AT PCIe Gigabit Ethernet)		1 x RJ45 10/100/1000 (for KDS Model) 1 x M12 Connector (Option for M12 Model)		
1 x M12 DC Jack, +12 ~ 26V (Option for Phoenix Connector)		1 x DC Jack +12 ~ 24V (for KDS Model) 1 x M12 DC Jack +19 ~ 24V (Option for M12 Model)		
AT/ ATX (ATX is Default Setting)		AT only (Default)		
Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 60W Adapter (12V @ 5A Adapter)		KDS Model: Input: 100 ~ 240Vac/ 50 ~ 60Hz, Output: 72W Adapter (19V @ 3.78A Adapter) M12 Model: Input: 100 ~ 240Vac/ 50 ~ 60Hz, Output: 60W Adapter (24V @ 2.5A Adapter)		
Stainless Steel		Stainless Steel		
-10°C ~ 50°C (-14°F ~ 122°F)		0°C ~ 40°C (32°F ~ 104°F)		
-20°C ~ 60°C (-4°F ~ 140°F)		-20°C ~ 60°C (-4°F ~ 140°F)		
CE, FCC Class A		CE, FCC Class B		
Windows 10 IoT, Linux, Android x86 8.1		Android 14, Debian 11		
Full IP66, IP69K		5-Sides IP65 (for KDS Model), Full IP66, IP69K (for M12 Model)		
393 x 315.8 x 49 mm	562 x 365.8 x 49 mm	212.6 x 171.6 x 36.9 mm	276.6 x 216.6 x 36.9 mm	541.6 x 358.6 x 47 mm
5.7 kg	9.4 kg	1.8kg	2.4kg	8.2kg

General Purpose Panel PC

Model Number	SID-10WR2	SID-15WR2	SID-21WR2	SID-10W04
LCD Size	10.1"	15.6"	21.5"	10.1"
Resolution	1280 x 800	1920 x 1080	1920 x 1080	1280 x 800
Pixel Pitch	0.1695 (H) x 0.1695 (V) mm	0.17925 (H) x 0.17925 (V) mm	0.24795 (H) x 0.24795 (V) mm	0.1692 (H) x 0.1692 (V) mm
Luminance	350 cd/m²	300 cd/m²	250 cd/m²	350 cd/m²
Contrast Ratio	800	700	3000	1000
Viewing Angle	85 (U), 85 (D), 85 (L), 85 (R)	85 (U), 85 (D), 85 (L), 85 (R)	89 (U), 89 (D), 89 (L), 89 (R)	85 (U), 85 (D), 85 (L), 85 (R)
Response Time	30 ms	30 ms	30 ms	25 ms
Backlight	LED	ELED	LED	LED
Touch Type	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points
Touch Light Transmission	86%	86%	86%	86%
Processor	Rockchip RK3568	Rockchip RK3568	Rockchip RK3568	Intel Celeron J3455
Memory	Onboard 2GB DDR4	Onboard 4GB LPDDR4	Onboard 2GB DDR4	4GB DDR3L SO-DIMM (Up to 8GB Optional)
Storage	Onboard 32GB eMMC	Onboard 64GB eMMC	Onboard 32GB eMMC	Onboard 32GB eMMC
Graphics	Mali-G52 GPU	Mali-G52 GPU	Mali-G52 GPU	Intel® HD Graphics 500
HDMI	1 x HDMI 2.0	1 x HDMI-in	1 x HDMI 2.0	1 x HDMI 1.4b
USB Port	2 x USB 3.0 Type-A	1 x USB 3.0 Type-A, 1 x USB 3.0 Type-C 1 x USB 2.0 Type-A	2 x USB 3.0 Type-A	2 x USB 3.0 Type-A
Serial Port	1 x RS-232	N/A	1 x RS-232 1 x RS-485	1 x RS-232
Audio Interface	1 x Headphone Jack 2 x 4Ω 2W Speakers (Optional)	2 x 4Ω 3W Speaker	1 x Headphone Jack 2 x 4Ω 2W Speakers (Optional)	1 x Headphone Jack 2 x 4Ω 2W Speakers (Optional)
Ethernet	1 x 10/100/1000 Mbps RJ45 LAN	1 x 10/100/1000 Mbps RJ45 LAN	1 x 10/100/1000 Mbps RJ45 LAN	1 x 10/100/1000 Mbps RJ45 LAN
Wi-Fi	Wi-Fi 802.11 a/b/g/n/ac	Wi-Fi 802.11 a/b/g/n/ac	Wi-Fi 802.11 a/b/g/n/ac	Wi-Fi 802.11 a/b/g/n/ac
Bluetooth	5.0	5.4	5.0	5.0
Power Connector	DC Jack, 12-24 VDC	DC Jack, 12 VDC/ Powered LAN 802.3at	DC Jack, 12-24 VDC	DC Jack, 12-24 VDC
Power Type	AT / ATX (default: AT)	AT / ATX (default: AT)	AT / ATX (default: AT)	AT / ATX (default: AT)
Adapter	Input: 100 ~ 240 Vac/ 50 ~ 60Hz Output: 60W Adapter (12V @ 5A Adapter)	Input: 100 ~ 240 Vac/ 50 ~ 60Hz Output: 24W Adapter (12V @ 2A Adapter)	Input: 100 ~ 240 Vac/ 50 ~ 60Hz Output: 60W Adapter (12V @ 5A Adapter)	Input: 100 ~ 240 Vac/ 50 ~ 60Hz Output: 60W Adapter (12V @ 5A Adapter)
Construction/Color	Metal, Black	Plastic, Black	Metal, Black	Metal, Black
Mounting	VESA 75 x 75	VESA 75 x 75	VESA 100 x 100	VESA 75 x 75
Dimension	258.8 x 182.8 x 41.1 mm	370 x 228 x 23.5mm	535.3 x 329.3 x 48.1 mm	258.8 x 182.8 x 49.6 mm
Weight	1.36 kg	2.1 kg	7.2 kg	2.6 kg
IP Rating	Front IP65	N/A	Front IP65	Front IP65
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)
Operating Humidity	5% ~ 90% Relative Humidity, Non-condensing	20% ~ 80% Relative Humidity, Non-condensing	5% ~ 90% Relative Humidity, Non-condensing	5% ~ 90% Relative Humidity, Non-condensing
Certification	CE, FCC Class B	CE, FCC Class B	CE, FCC Class B	CE, FCC Class B
OS Information	Android 11/14 Debian 11	Android 14	Android 11/14 Debian 11	Windows 10 IoT Ubuntu 20.04

SID-15W04	SID-21W04	SID-10WAD	SID-15WAD	SID-21WAD
15.6"	21.5"	10.1"	15.6"	21.5"
1920 x 1080	1920 x 1080	800 x 1280	1920 x 1080	1920 x 1080
0.17925 (H) x 0.17925 (V) mm	0.24795 (H) x 0.24795 (V) mm	0.1692 (H) x 0.1692 (V) mm	0.17925 (H) x 0.17925 (V) mm	0.24795 (H) x 0.24795 (V) mm
220 cd/m²	250 cd/m²	350 cd/m²	220 cd/m²	500 cd/m²
800	3000	1000	800	1000
85 (U), 85 (D), 85 (L), 85 (R)	89 (U), 89 (D), 89 (L), 89 (R)	87.5 (U), 87.5 (D), 87.5 (L), 87.5 (R)	85 (U), 85 (D), 85 (L), 85 (R)	89 (U), 89 (D), 89 (L), 89 (R)
30 ms	30 ms	25 ms	30 ms	14 ms
LED	LED	LED	LED	LED
PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points
85%	86%	85%	85%	85%
Intel Celeron J3455	Intel Celeron J3455	Intel N50 / Intel N150	Intel N50 / Intel N150	Intel N50 / Intel N150
4GB DDR3L SO-DIMM	4GB DDR3L SO-DIMM	Onboard 8GB LPDDR5	Onboard 8GB LPDDR5	Onboard 8GB LPDDR5
Onboard 32GB eMMC Micro SD Slot	Onboard 32GB eMMC Micro SD Slot	Onboard 64GB eMMC 128GB (Optional)	Onboard 64GB eMMC 128GB (Optional)	Onboard 64GB eMMC 128GB (Optional)
Intel® HD Graphics 500	Intel® HD Graphics 500	Intel® UHD Graphics	Intel® UHD Graphics	Intel® UHD Graphics
1 x HDMI 1.4b	1 x HDMI 1.4b	1 x HDMI 2.1	N/A	N/A
2 x USB 3.0 Type-A	2 x USB 3.0 Type A	2 x USB 3.0 Type A	2 x USB 3.0 Type A	2 x USB 3.0 Type A
1 x RS-232 1 x RS-485	1 x RS-232 1 x RS-485	1 x RS-232	1 x RS-232/422/485	1 x RS-232/422/485
1 x Headphone Jack 2 x 4Ω 2W Speakers (Optional)	1 x Headphone Jack 2 x 4Ω 2W Speakers (Optional)	1 x Headphone Jack 2 x 4Ω 2W Speakers (Optional)	1 x Headphone Jack 2 x 4Ω 2W Speakers (Optional)	1 x Headphone Jack 2 x 4Ω 2W Speakers (Optional)
1 x 10/100/1000 Mbps RJ45 LAN	1 x 10/100/1000 Mbps RJ45 LAN	1 x 10/100/1000 Mbps RJ45 LAN	1 x 10/100/1000 Mbps RJ45 LAN	1 x 10/100/1000 Mbps RJ45 LAN
Wi-Fi 802.11 a/b/g/n/ac	Wi-Fi 802.11 a/b/g/n/ac	Wi-Fi 802.11 a/b/g/n/ac/ax	Wi-Fi 802.11 a/b/g/n/ac/ax	Wi-Fi 802.11 a/b/g/n/ac/ax
5.0	5.0	5.2	5.2	5.2
DC Jack +12 ~ +24VDC	DC Jack +12 ~ +24VDC	DC Jack +12 ~ +24VDC	DC Jack +12 ~ +24VDC	DC Jack +12 ~ +24VDC
AT / ATX (default: AT)	AT / ATX (default: AT)	AT / ATX (default: AT)	AT / ATX (default: AT)	AT / ATX (default: AT)
Input: 100 ~ 240 Vac/ 50 ~ 60Hz Output: 60W Adapter (12V @ 5A Adapter)	Input: 100 ~ 240 Vac/ 50 ~ 60Hz Output: 60W Adapter (12V @ 5A Adapter)	Input: 100 ~ 240 Vac/ 50 ~ 60Hz Output: 60W Adapter (12V @ 5A Adapter)	Input: 100 ~ 240 Vac/ 50 ~ 60Hz Output: 60W Adapter (12V @ 5A Adapter)	Input: 100 ~ 240 Vac/ 50 ~ 60Hz Output: 60W Adapter (12V @ 5A Adapter)
Metal, Black	Metal, Black	Metal, Black	Metal, Black	Metal, Black
VESA 100 x 100	VESA 100 x 100	VESA 75 x 75	VESA 100 x 100	VESA 100 x 100
388.8 x 258.8 x 49.6 mm	533.3 x 329.3 x 56.6 mm	255 x 169 x 42 mm	384 x 258 x 39 mm	535.3 x 329.3 x 46mm
4.5 kg	8.7 kg	1.27 kg	2.85 kg	7.27 kg
Front IP65	Front IP65	Front IP65	Front IP65	Front IP65
0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)
5% ~ 90% Relative Humidity, Non-condensing	5% ~ 90% Relative Humidity, Non-condensing	5% ~ 90% Relative Humidity, Non-condensing	5% ~ 90% Relative Humidity, Non-condensing	5% ~ 90% Relative Humidity, Non-condensing
CE, FCC Class B	CE, FCC Class B	CE, FCC Class B	CE, FCC Class B	CE, FCC Class B
Windows 10 IoT Ubuntu 20.04	Windows 10 IoT Ubuntu 20.04	Windows 10 IoT Windows 11 IoT (w/ TPM) Ubuntu 24.04	Windows 10 IoT Windows 11 IoT (w/ TPM) Ubuntu 24.04	Windows 10 IoT Windows 11 IoT (w/ TPM) Ubuntu 24.04

General Purpose Panel PC

Model Number	APC-15WR2
LCD Size, Display Type	15.6", Full HD
Resolution	1920 x 1080
Pixel Pitch	0.17925 (H) x 0.17925 (V) mm
Luminance	400 cd/m^2
Contrast Ratio	800
Viewing Angle	85 (U), 85 (D), 85 (L), 85 (R)
Response Time	8 ms
Backlight	LED
Touch Type	PCAP Multi-touch Up to 10 Points
Touch Light Transmission	87%
Touch Controller	USB Touch (ILITEK)
Processor	Rockchip RK3568
System Memory	Onboard 4GB LPDDR4
Expansion	1 x M.2 3042 B-Key
Storage	Onboard 64GB eMMC
USB	2 x USB 3.0 Type A
COM Port	1 x RS-232/485
Audio	1 x 3.5mm Combo Audio Jack 2 x 4Ω 2W Speakers
Ethernet	1 x Realtek RTL8211F Gigabit
Power Connector	DC Jack, 12-24 VDC/ Powered LAN 802.3at
Power Type	AT
Adapter	Optional Input: 100 ~ 240 Vac/ 50 ~ 60Hz Output: 60W Adapter (12V @ 5A Adapter)
Construction	Plastic PC + ABS w/ Antibacterial
Dimension	388.5 x 263 x 31.5 mm
Weight	2.2 kg
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)
Storage Temperature	-10°C ~ 60°C (-14°F ~ 140°F)
Certification	CE, FCC Class B
OS Information	Android 11 / 14

Model Number	CCD-07WR2	CCD-10WR2
LCD Size	7"	10.1"
Display Type	WXGA	WXGA
Resolution	1024 x 600	1280 x 800
Pixel Pitch	0.1488 (H) x 0.1488 (V) mm	0.1695 (H) x 0.1695 (V) mm
Luminance	350 cd/m^2	350 cd/m^2
Contrast Ratio	800	800
Viewing Angle	85 (U), 85 (D), 85 (L), 85 (R)	85 (U), 85 (D), 85 (L), 85 (R)
Response Time	25 ms	30 ms
Backlight	LED	LED
Touch Type	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points
Touch Light Transmission	86%	86%
Processor	Rockchip RK3568	
Memory	Onboard 2GB DDR4	
Storage	Onboard 32GB eMMC	
HDMI Resolution	HDMI Up to 1080p @ 30Hz	
USB Port	2 x USB 3.0 Type A	
Audio	1 x Headphone Jack 1 x 2W Speaker	
Other	1 x 2MP Camera with Digital Microphone	
Ethernet	1 x 10/100/1000 RJ45 LAN	
Wi-Fi	Wi-Fi 802.11 a/b/g/n/ac	
Bluetooth	5.0	
Power Connector	DC Jack, 12 - 24 VDC	
Power Type	AT	
Adapter	Input: 100 ~ 240 Vac/ 50 ~ 60Hz Output: 50W Adapter (19V @ 2.1A Adapter)	
Construction, Color	Plastic, White	
Mounting	VESA 75 x 75	
Dimension	190.8 x 123.6 x 30.5 mm	260.8 x 174.7 x 34 mm
Weight	580 g	800 g
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)	
Operating Humidity	5% ~ 90% Relative Humidity, Non-condensing	
Certification	CE, FCC Class B	
OS Information	Android 11, Debian 11	

Model Number	VNS-10WR2	VNS-10WAD
LCD Size	10.1"	10.1"
Display Type	WXGA	WXGA
Resolution	1280 x 800	1280 x 800
Pixel Pitch	0.1695 (H) x 0.1695 (V) mm	0.1695 (H) x 0.1695 (V) mm
Luminance	350 cd/m²	350 cd/m²
Contrast Ratio	800	800
Viewing Angle	85 (U), 85 (D), 85 (L), 85 (R)	85 (U), 85 (D), 85 (L), 85 (R)
Response Time	30 ms	30 ms
Backlight	LED	LED
Touch Type	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points
Touch Light Transmission	86%	86%
Processor	Rockchip RK3568	Intel N50 / Intel N150
System Memory	Onboard 4GB LPDDR4	Onboard 8GB LPDDR5
Storage	Onboard 64GB eMMC	Onboard 64GB eMMC
USB	2 x USB 3.0 Type A	2 x USB 3.0 Type A
COM Port	1 x RS-232/485	1 x RS-232/422/485
Other	2.0MP Camera Wi-Fi 802.11ac/a/b/g/n NFC LED Indicating Bar Touch Button for Power/ Brightness/ Volume	Wi-Fi 802.11a/b/g/n/ac/ax 1 x 2.0MP Camera 1 x LED Indicating Bar 1 x NFC 1 x Touch Button
Display Chipset	Mali-G52 GPU	Intel® UHD Graphics
Display Resolution	1280 x 800	1280 x 800
Audio	1 x 3.5mm Combo Audio Jack 2 x 4Ω 2W Speakers	1 x 3.5mm Combo Audio Jack 2 x 4Ω 2W Speakers
Ethernet	Realtek RTL8211F	Realtek RTL8111I-CG
Power Requirements	DC 12-24 VDC / Powered LAN 802.3at	DC 12-24 VDC / Powered LAN 802.3at
Power Type	AT	AT
Adapter	Optional Input: 100 ~ 240 Vac/ 50 ~ 60Hz Output: 60W Adapter (12V @ 5A Adapter)	Optional Input: 100 ~ 240 Vac/ 50 ~ 60Hz Output: 60W Adapter (12V @ 5A Adapter)
Construction	White Plastic w/ Antibacterial	White Plastic w/ Antibacterial
Dimension	270 x 193 x 28 mm	270 x 193 x 28 mm
Weight	1.1 kg	1.1 kg
Certification	CE, FCC Class B	CE, FCC Class B
OS Information	Android 11, Debian 11	Windows 10/11 IoT, Ubuntu 24.04

General Purpose Panel PC

Model Number	APC-15WR6	APC-21WR6	APC-24WR6	APC-32WR6
LCD Size, Display Type	15.6"	21.5"	23.8"	32"
Resolution	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
Luminance	250 cd/m²	250 cd/m²	300 cd/m²	300 cd/m²
Contrast Ratio	700	3000	1000	1000
Viewing Angle	85 (U), 85 (D), 85 (L), 85 (R)	89 (U), 89 (D), 89 (L), 89 (R)	89 (U), 89 (D), 89 (L), 89 (R)	89 (U), 89 (D), 89 (L), 89 (R)
Backlight	ELED	ELED	ELED	ELED
Touch Type	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points
Processor	Rockchip RK3576S	Rockchip RK3576S	Rockchip RK3576S	Rockchip RK3576S
System Memory	Onboard 4GB LPDDR5	Onboard 4GB LPDDR5	Onboard 4GB LPDDR5	Onboard 4GB LPDDR5
Expansion	N/A	N/A	N/A	N/A
Storage	Onboard 64GB eMMC	Onboard 64GB eMMC	Onboard 64GB eMMC	Onboard 64GB eMMC
USB	1 x USB 2.0 Type A 1 x USB 3.0 Type A 1 x USB Type C	1 x USB 2.0 Type A 1 x USB 3.0 Type A 1 x USB Type C	1 x USB 2.0 Type A 1 x USB 3.0 Type A 1 x USB Type C	1 x USB 2.0 Type A 1 x USB 3.0 Type A 1 x USB Type C
Audio	2 x 3W Speakers	2 x 3W Speakers	2 x 5W Speakers	2 x 5W Speakers
Ethernet	1 x 10/100/1000 Mbps RJ45 LAN	1 x 10/100/1000 Mbps RJ45 LAN	1 x 10/100/1000 Mbps RJ45 LAN	1 x 10/100/1000 Mbps RJ45 LAN
Power Requirement	DC 12VDC/ Powered LAN 802.3at	DC 12VDC/ Powered LAN 802.3bt	DC 12VDC/ Powered LAN 802.3bt	DC 12VDC/ Powered LAN 802.3bt
Power Type	AT/ ATX (AT is Default Setting)	AT/ ATX (AT is Default Setting)	AT/ ATX (AT is Default Setting)	AT/ ATX (AT is Default Setting)
Adapter	Input: 100 ~ 240 Vac/ 50 ~ 60Hz Output: 24W Adapter (12V @ 2A Adapter)	Input: 100 ~ 240 Vac/ 50 ~ 60Hz Output: 36W Adapter (12V @ 3A Adapter)	Input: 100 ~ 240 Vac/ 50 ~ 60Hz Output: 48W Adapter (12V @ 4A Adapter)	Input: 100 ~ 240 Vac/ 50 ~ 60Hz Output: 60W Adapter (12V @ 5A Adapter)
Construction	Plastic, White	Plastic, White	Plastic, White	Plastic, White
Dimension	369.45 x 227 x 14.7 mm	506.97 x 305.47 x 27.7 mm	536.6 x 336.75 x 29 mm	378.5 x 228 x 47.2 mm
Weight	2.1 kg	3.5 kg	3.82 kg	7.7 kg
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)
Certification	CE, FCC	CE, FCC	CE, FCC	CE, FCC
OS Information	Android 14	Android 14	Android 14	Android 14
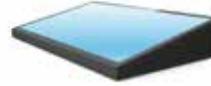
Model Number	RPC-15WM	RPC-15WL	RPC-15WT	RPC-15KD
LCD Size, Display Type	15.6"	15.6"	15.6"	15.6"
Resolution	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
Luminance	280 cd/m²	280 cd/m²	280 cd/m²	400 cd/m²
Contrast Ratio	1000	1000	1000	1000
Viewing Angle	85 (U), 85 (D), 85 (L), 85 (R)	85 (U), 85 (D), 85 (L), 85 (R)	85 (U), 85 (D), 85 (L), 85 (R)	85 (U), 85 (D), 85 (L), 85 (R)
Backlight	ELED	ELED	ELED	ELED
Touch Type	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points
Processor	Rockchip RK3576	Rockchip RK3576S	Rockchip RK3576S	Rockchip RK3576S
System Memory	Onboard 4GB LPDDR5	Onboard 4GB LPDDR5	Onboard 4GB LPDDR5	Onboard 4GB LPDDR5
Expansion	1 x Micro SD Optional Camera/ MSR/ NFC/ Scanner	N/A	N/A	N/A
Storage	Onboard 64GB eMMC	Onboard 64GB eMMC	Onboard 64GB eMMC	Onboard 64GB eMMC
USB	2 x USB 2.0 Type A 1 x USB 3.0 Type A 1 x USB Type C	1 x USB 2.0 Type A 1 x USB 3.0 Type A 1 x USB Type C	1 x USB 2.0 Type A 1 x USB 3.0 Type A 1 x USB Type C	1 x USB 2.0 Type A 1 x USB 3.0 Type A 1 x USB Type C
COM Port	1 x RS232 1 x RJ11 1 x RJ12	N/A	N/A	N/A
Audio	Quad Microphone 2 x 3W Speakers	Quad Microphone 2 x 3W Speakers	Quad Microphone 2 x 5W Speakers	2 x 3W Speakers
Ethernet	1 x 10/100/1000 Mbps RJ45 LAN	1 x 10/100/1000 Mbps RJ45 LAN	1 x 10/100/1000 Mbps RJ45 LAN	1 x 10/100/1000 Mbps RJ45 LAN
Power Requirement	DC Jack +24VDC/ Powered LAN 802.3at	DC Jack +12 VDC/ Powered LAN 802.3at	DC Jack +12VDC/ Powered LAN 802.3at	DC Jack +12VDC/ Powered LAN 802.3at
Power Type	AT/ ATX (AT is Default Setting)	AT/ ATX (AT is Default Setting)	AT/ ATX (AT is Default Setting)	AT/ ATX (AT is Default Setting)
Adapter	Input: 100 ~ 240 Vac/ 50 ~ 60Hz Output: 72W Adapter (24V @ 3A Adapter)	Input: 100 ~ 240 Vac/ 50 ~ 60Hz Output: 24W Adapter (12V @ 2A Adapter)	Input: 100 ~ 240 Vac/ 50 ~ 60Hz Output: 24W Adapter (12V @ 2A Adapter)	Input: 100 ~ 240 Vac/ 50 ~ 60Hz Output: 24W Adapter (12V @ 2A Adapter)
Construction	Plastic	Plastic	Plastic	Stainless Steel
Dimension	374.8 x 223.5 x 40.1 mm	365 x 220 x 173.9 mm	364.9 x 211.2 x 71.85 mm	378.5 x 228 x 47.2 mm
Weight	2.3 kg	2.5 kg	1.7 kg	2.91 kg
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)
Certification	CE, FCC	CE, FCC	CE, FCC	CE, FCC
OS Information	Android 15	Android 15	Android 15	Android 15

Light Industrial Panel PC

Model Number	APC-2132	APC-2138	APC-2146
LCD Size	21.5"	21.5"	21.5"
Display Type	Full HD	Full HD	Full HD
Resolution	1920 x 1080	1920 x 1080	1920 x 1080
Pixel Pitch	0.248mm (H) x 0.248mm (V)	0.248mm (H) x 0.248mm (V)	0.248mm (H) x 0.248mm (V)
Luminance	250 cd/m²	250 cd/m²	250 cd/m²
Contrast Ratio	1000	1000	1000
Viewing Angle	89 (U), 89 (D), 89 (L), 89 (R)	89 (U), 89 (D), 89 (L), 89 (R)	89 (U), 89 (D), 89 (L), 89 (R)
Response Time	14 ms	14 ms	14 ms
Backlight	LED	LED	LED
Touch Type	Projective Capacitive	Projective Capacitive	Projective Capacitive
Touch Light Transmission	≥ 85%	≥ 85%	≥ 85%
Touch Controller	USB Touch (EETI)	USB Touch (EETI)	USB Touch (ILITEK)
SBC	ARC-SKLU	EMX-TGLC	EMX-MTLP
Processor	Intel® Core™ i7/i5/i3/ Celeron Processor	Intel® Core™ i5/i3/ Celeron Processor	Intel® Core™ Ultra 5 Processor 125U
System Chipset	Intel® Skylake U SoC Integrated	Intel® Tigerlake U SoC Integrated	Intel® Meteor Lake U SoC Integrated
I/O Chipset	EC ITE IT8528E	EC ITE IT8528E	EC iTE IT5782VG
System Memory	1 x 260-Pin DDR4 2133MHz SO-DIMM Up to 16GB	2 x 260-pin DDR4 3200MHz SO-DIMM Up to 64GB	2 x 262-Pin DDR5 5600MHz SO-DIMM Socket Supports Up to 64GB
Expansion	1 x Full Size (Support Half Size, Auto Switch for mSATA, USB, PCIe Signal)	1 x M.2 Type B 3042/3052/2242/2260/ 2280 1 x M.2 Key E 2230 Support Wi-Fi Module	1 x M.2 Type B 2242/3042/3052 1 x M.2 Key E 2230 Support Wi-Fi Module and CNVi 2 x M.2 Key M 2280 (PCIe x4) Slot for Storage NVMe SSD
Storage	1 x 2.5" Drive Bay	1 x 2.5" Drive Bay	1 x 2.5" Drive Bay
USB	4 x USB 3.0, 2 x USB 2.0 (by IET Module)	3 x USB 3.1 Gen 2; 1 x USB 3.1 Gen 1	3 x USB 3.2 Gen2 (1 from Type C) 2 x USB 3.2 Gen1
COM Port	1 x RS-232/422/485, 1 x RS-232	2 x RS-232/422/485	N/A
Display Chipset	Intel® Skylake SoC Integrated Graphics Supports Dual Display	Intel® Tigerlake SoC Integrated Graphics Supports Dual Display	Intel® Xe LPG Graphics
Audio	Realtek ALC888S Support 5.1-CH	RealTek ALC897	Realtek ALC888S
Audio Interface	1 x Line-out, 1 x Mic-in (by IET Module)	N/A	Support Line-out & Mic-in on rear I/O
Ethernet	1 x Intel® I210AT 1 x Intel® I219LM	1 x Intel® I219LM 1 x Intel® I225IT	1 x Intel® i226LM 2.5 Gigabit Ethernet Controller 1 x Intel® i226V 2.5 Gigabit Ethernet Controller
Power Connector	Lockable DC Jack, +12V ~ +26V	Lockable Mini Din 4-pin, +12V ~ +24V	Lockable DC Jack, +12V ~ +26V
Power Type	AT/ ATX	AT/ ATX	AT/ ATX
Adapter	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 72W Adapter (19V @ 3.78A Adapter)	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 72W Adapter (19V @ 3.78A Adapter)	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 90W Adapter (24V @ 3.75A Adapter)
Construction (Front, Rear)	Plastic-black	Plastic-black / White	Plastic-black / White
Dimension	539.6 x 342.6 x 45.5 mm	539.6 x 342.6 x 45.2 mm	539.6 x 342.6 x 45.2 mm
Weight	6.3 kg	6.3 kg	6.3 kg
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)
Storage Temperature	-10°C ~ 60°C (14°F ~ 140°F)	-10°C ~ 60°C (14°F ~ 140°F)	-10°C ~ 60°C (14°F ~ 140°F)
Certification	CE, FCC Class B	CE, FCC Class B	CE, FCC, VCCI, UKCA
OS Information	Windows 7, Windows 8.1, Windows 10 IoT, Linux	Windows 10 IoT, Linux	Windows 11 IoT, Linux

Model Number	APC-2334	APC-2340	APC-2346
LCD Size	23.8"	23.8"	23.8"
Display Type	Full HD	Full HD	Full HD
Resolution	1920 x 1080	1920 x 1080	1920 x 1080
Pixel Pitch	274.5 um (H) x 274.5 um (V)	274.5 um (H) x 274.5 um (V)	274.5 um (H) x 274.5 um (V)
Luminance	250 cd/m2	250 cd/m²	250 cd/m²
Contrast Ratio	3000	3000	3000
Viewing Angle	89 (U), 89 (D), 89 (L), 89 (R)	89 (U), 89 (D), 89 (L), 89 (R)	89 (U), 89 (D), 89 (L), 89 (R)
Response Time	16 ms	16 ms	16 ms
Backlight	LED	LED	LED
Touch Type	Projective Capacitive	Projective Capacitive	Projective Capacitive
Touch Light Transmission	89%	89%	89%
Touch Controller	USB Touch (EETI)	USB Touch (EETI)	USB Touch (EETI)
SBC	EMX-KBLUP	EMX-ADLP	EMX-MTLP
Processor	Intel® Core™ i7/i5/i3/ Celeron Processor	12th/13th Gen Intel® Core™ i7/5/3/Celeron Processor	Intel® Core™ Ultra 5 Processor 125U
System Chipset	Intel® Kabylake U SoC Integrated	Intel® Alder Lake SoC	Intel® Meteor Lake U SoC Integrated
I/O Chipset	EC ITE IT8528E	EC iTE IT5782VG	EC iTE IT5782VG
System Memory	2 x 260-pin DDR4 2400MHz SO-DIMM Supports Up to 32GB	2 x 262-pin DDR5 4800 MHz SO-DIMM Supports Up to 64GB	2 x 262-Pin DDR5 5600MHz SO-DIMM Socket Supports Up to 64GB
Expansion	1 x M.2 2230 1 x mPCIe with SATA or PCIE x1 mSATA	1 x M.2 Key B 3042/3052 for 4G/5G 1 x M.2 Key E 2230 Support Wi-Fi Module	1 x M.2 Type B 2242/3042/3052 1 x M.2 Key E 2230 Support Wi-Fi Module and CNVi 2 x M.2 Key M 2280 (PCIe x4) Slot for Storage NVMe SSD
Storage	1 x 2.5" Drive Bay	1 x 2.5" Drive Bay 1 x M.2 Key M 2280 (PCI-e x4) Slot for Storage	1 x 2.5" Drive Bay
USB	4 x USB 3.0	2 x USB 3.2 Gen2, 2 x USB 3.0 Gen.2	3 x USB 3.2 Gen2 (1 from Type C) 2 x USB 3.2 Gen1
COM Port	N/A	N/A	N/A
Display Chipset	Intel® Kabylake SoC Integrated Graphics Supports Dual Display	Intel® UHD Graphics for 12th Gen Intel® Processors	Intel® Xe LPG Graphics
Audio	Realtek ALC888S Support 5.1-CH	Realtek ALC888S HD	Realtek ALC888S
Audio Interface	1 x Line-out, 1 x Mic-in	N/A	Support Line-out & Mic-in on rear I/O
Ethernet	1 x Intel® I210AT 1 x Intel® I219LM	1 x Intel® i226LM 1 x Intel® i219LM	1 x Intel® i226LM 2.5 Gigabit Ethernet Controller 1 x Intel® i226V 2.5 Gigabit Ethernet Controller
Power Connector	Lockable DC Jack, +12V ~ +24V	Lockable DC Jack, +12V ~ +24V	Lockable DC Jack, +12V ~ +24V
Power Type	AT/ ATX	AT/ ATX	AT/ ATX
Adapter	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 72W Adapter (19V @ 3.78A Adapter)	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 90W Adapter (24V @ 3.75A Adapter)	Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 90W Adapter (24V @ 3.75A Adapter)
Construction (Front, Rear)	Plastic-black	Plastic-black / White	Plastic-black / White
Dimension	592 x 382 x 49.5 mm	592 x 382 x 49.5 mm	592 x 382 x 49.5 mm
Weight	7.2 kg	6.2 kg	6.2 kg
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)
Storage Temperature	-10°C ~ 60°C (14°F ~ 140°F)	-10°C ~ 60°C (14°F ~ 140°F)	-10°C ~ 60°C (14°F ~ 140°F)
Certification	CE, FCC Class B	CE, FCC Class B, VCCI	CE, FCC, VCCI, UKCA
OS Information	Windows 10 IoT, Linux	Windows 10 IoT, Linux	Windows 11 IoT, Linux

Open Frame Panel PC

Model Number	OFP-07W33	OFP-10W39	OFP-15W33
LCD Size	7", 16:10	10.1", 16:10	15.6", 16:9
Resolution	1280 x 800	1280 x 800	1920 x 1080
Luminance	300 cd/m²	500 cd/m²	220 cd/m²
Viewing Angle	89 (U), 89 (D), 89 (L), 89 (R)	89 (U), 89 (D), 89 (L), 89 (R)	85 (U), 85 (D), 85 (L), 85 (R)
Touch Type	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points
Processor	Onboard Intel® Celeron® N3350/J3455 SoC BGA Processor	Onboard Intel® Processor N97	Onboard Intel® Celeron® N3350/J3455 SoC BGA Processor
System Memory	4GB DDR3L Memory (Option Up to 8GB by One SO-DIMM Socket)	8GB DDR5 Memory (Option Up to 16GB)	4GB DDR3L Memory (Option Up to 16GB by Two SO-DIMM Socket)
Wireless	Option by Mini PCIe : 802.11 a/b/g/n/ac Wireless LAN and Bluetooth 4.0+	Option by M.2 Wi-Fi/ BT Module	Option by Mini PCIe : 802.11 a/b/g/n/ac Wireless LAN and Bluetooth 4.0+
Storage	64GB mSATA by mPCIe Slot	Default with 128GB M.2 Key-M SSD	64GB mSATA by mPCIe Slot (Option for SATA interface 2.5" HDD/ SSD)
External I/O Connector	2 x Intel® I210AT 4 x USB 3.0 1 x HDMI 1 x RS-232 1 x DC Jack	2 x Intel® I226AT 4 x USB 3.2 1 x HDMI 2 x DP 1 x Line-out, 1 x Mic-in 1 x DC Jack	2 x Intel® I210AT, 4 x USB 3.0 1 x RS-232/422/485 1 x DP++, 1 x DP, 1 x HDMI 1 x Line-out, 1 x Mic-in 1 x DC Jack, 1 x Phoenix Connector for DC in 1 x Phoenix Connector for Reset
Internal I/O Connector	1 x RS-232/422/485 2 x USB2.0 1 x GPIO 1 x Full Size Mini-PCIe Support mSATA 1 x Half Size Mini-PCIe for Option Wi-Fi/ BT	N/A	4 x RS-232 (Optional) 4 x USB 2.0 (Optional) 1 x GPIO 1 x Full Size Mini PCI-e Support mSATA 1 x SIM Card Slot 1 x M.2 (2230) A-Key, Support Wi-Fi Module
Power Requirement	+12V ~ 26V DC in	+24V DC in	+12V ~ 24V DC in
Power Type	AT/ ATX (Default is AT Mode)	AT/ ATX (Default is AT Mode)	AT/ ATX (Default is AT Mode)
Operating Temperature	0°C ~ 45°C (32°F ~ 113°F)	0°C ~ 45°C (32°F ~ 113°F)	0°C ~ 45°C (32°F ~ 113°F)
Storage Temperature	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)
Operating Humidity	0% ~ 90% Relative Humidity, Non-condensing	40°C @ 95% Relative Humidity, Non-condensing	0% ~ 90% Relative Humidity, Non-condensing
OS Information	Windows 10 IoT, Linux, x86 Android 8.1	Windows 10 IoT, Windows 11 IoT, Linux	Windows 10 IoT, Linux, x86 Android 8.1
Dimension	183.1 x 115.8 x 48.6 mm	244 x 229 x 38.8 mm	387 x 235 x 46 mm
Weight	700 g	1.8 kg	2.5 kg
Certification	CE, FCC Class A	CE, FCC Class A	CE, FCC Class A

Model Number	OFP-21W33	OFP-15W38	OFP-21W38
LCD Size	21.5", 16:9	15.6",16:9	21.5". 16:9
Resolution	1920 x 1080	1920 x 1080	1920 x 1080
Luminance	250 cd/m²	220 cd/m²	250 cd/m²
Viewing Angle	89 (U), 89 (D), 89 (L), 89 (R)	85 (U), 85 (D), 85 (L), 85 (R)	89 (U), 89 (D), 89 (L), 89 (R)
Touch Type	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points
Processor	Onboard Intel® Celeron® N3350/J3455 SoC BGA Processor	Onboard Tiger Lake U 11th Intel® Core™ SoC i7/i5/i3 BGA Processor or Celeron® BGA Processor	Onboard Tiger Lake U 11th Intel® Core™ SoC i7/i5/i3 BGA Processor or Celeron® BGA Processor
System Memory	4GB DDR3L Memory (Option Up to 16GB by Two SO-DIMM Socket)	4GB DDR4 Memory (Option Up to 64GB)	4GB DDR4 Memory (Option Up to 64GB)
Wireless	Option by Mini PCIe : 802.11 a/b/g/n/ac Wireless LAN and Bluetooth 4.0+	Option by M.2 Wi-Fi/ BT Module	Option by M.2 Wi-Fi/ BT Module
Storage	64GB mSATA by mPCIe Slot (Option for SATA Interface 2.5" HDD/ SSD)	Default with 64GB M.2 (Option for SATA Interface 2.5" HDD/ SSD)	Default with 64GB M.2 (Option for SATA Interface 2.5" HDD/ SSD)
External I/O Connector	2 x Intel® I210AT, 4 x USB 3.0 1 x RS-232/422/485 1 x DP++, 1 x DP, 1 x HDMI 1 x Line-out, 1 x Mic-in 1 x DC Jack, 1 x Phoenix Connector for DC in 1 x Phoenix Connector for Reset	3 x USB 3.1 Gen2, 1 x USB 3.1 Gen1 1 x RS-232 (Default)/422/485 1 x Intel® I225IT 2.5 GbE 1 x Intel® I219LM GbE PHY 2 x DP++ 1 x Line-out, 1 x Mic-in 1 x Mini Din 4-pin DC Jack 1 x Phoenix Connector for DC in 1 x Phoenix Connector for Reset	3 x USB 3.1 Gen2, 1 x USB 3.1 Gen1 1 x RS-232 (Default)/422/485 1 x Intel® I225IT 2.5 GbE 1 x Intel® I219LM GbE PHY 2 x DP++ 1 x Line-out, 1 x Mic-in 1 x Mini Din 4-pin DC Jack, 1 x Phoenix Connector for DC in 1 x Phoenix Connector for Reset
Internal I/O Connector	4 x RS-232 (Optional) 4 x USB 2.0 (Optional) 1 x GPIO 1 x Full Size Mini PCI-e Support mSATA 1 x SIM Card Slot 1 x M.2 (2230) A-Key, Support Wi-Fi Module	1 x RS-232/422/485 (Optional) 3 x RS-232 (Optional) 4 x USB 2.0 (Optional) 1 x GPIO 1 x SIM Card Slot 1 x M.2 (2230) E-Key, Support Wi-Fi Module/ BT 1 x M.2 (2242) B-Key, Support Storage/ 5G Module	1 x RS-232/422/485 (Optional) 3 x RS-232 (Optional) 4 x USB 2.0 (Optional) 1 x GPIO 1 x SIM Card Slot 1 x M.2 (2230) E-Key, Support Wi-Fi Module/ BT 1 x M.2 (2242) B-Key, Support Storage/ 5G Module
Power Requirement	+12V ~ 24V DC in	DC in +12~24V	DC in +12~24V
Power Type	AT/ ATX (Default is AT Mode)	AT/ ATX (Default is AT Mode)	AT/ ATX (Default is AT Mode)
Operating Temperature	0°C ~ 45°C (32°F ~ 113°F)	0°C ~ 45°C (32°F ~ 113°F)	0°C ~ 45°C (32°F ~ 113°F)
Storage Temperature	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)
Operating Humidity	0% ~ 90% Relative Humidity, Non-condensing	40°C @ 95% Relative Humidity, Non-condensing	40°C @ 95% Relative Humidity, Non-condensing
OS Information	Windows 10 IoT, Linux, x86 Android 8.1	Windows 10 IoT, Windows 11 IoT, Linux	Windows 10 IoT, Windows 11 IoT, Linux
Dimension	501.9 x 296.2 x 52.4 mm	387 x 235 x 48 mm	501.9 x 296.2 x 55 mm
Weight	4.1 kg	2.9 kg	5.2 kg
Certification	CE, FCC Class A	CE, FCC Class A	CE, FCC Class A

Open Frame Tablet

Model Number	OFT-07WR2	OFT-10WR2	OFT-21WR2
LCD Size	7"	10.1"	21.5"
Resolution	600 x 1024	800 x 1280	1920 x 1080
Luminance	350 cd/m^2	350 cd/m^2	250 cd/m^2
Viewing Angle	85 (U), 85 (D), 85 (L), 85 (R)	80 (U), 80 (D), 80 (L), 80 (R)	89 (U), 89 (D), 89 (L), 89 (R)
Touch Type	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points
Processor	Rockchip RK3568	Rockchip RK3568	Rockchip RK3568
System Memory	Onboard 2GB DDR4	Onboard 2GB DDR4	Onboard 2GB DDR4
Wireless	Wi-Fi 802.11 a/b/g/n/ac	Wi-Fi 802.11 a/b/g/n/ac	Wi-Fi 802.11 a/b/g/n/ac
Storage	Onboard 32GB eMMC	Onboard 32GB eMMC	Onboard 32GB eMMC
External I/O Connector	1 x 10/100/1000 RJ45 1 x DC Jack 1 x Headphone Jack 1 x HDMI 1.4 Out 1 x Reset 2 x USB 3.0 Type A	1 x 10/100/1000 RJ45 1 x DC Jack 1 x Headphone Jack 1 x HDMI 1.4 Out 1 x Reset 2 x USB 3.0 Type A	1 x 10/100/1000 RJ45 1 x DC Jack 1 x Headphone Jack 1 x HDMI 1.4 Out 1 x Reset 2 x USB 3.0 Type A
Internal I/O Connector	1 x A-MIC 1 x DC Input 1 x 16-bit GPIO 1 x I^{2}C 1 x M.2 3042 B-Key 1 x RS-232 1 x RS-232 + RS-485 1 x RTC Battery 1 x Speaker 1 x Touch Button 1 x USB 2.0 + DMIC	1 x A-MIC 1 x DC Input 1 x 16-bit GPIO 1 x I^{2}C 1 x M.2 3042 B-Key 1 x RS-232 1 x RS-232 + RS-485 1 x RTC Battery 1 x Speaker 1 x Touch Button 1 x USB 2.0 + DMIC	1 x A-MIC 1 x DC Input 1 x 16-bit GPIO 1 x I^{2}C 1 x M.2 3042 B-Key 1 x RS-232 1 x RS-232 + RS-485 1 x RTC Battery 1 x Speaker 1 x Touch Button 1 x USB 2.0 + DMIC
Power Requirement	DC 12 ~ 24 V	DC 12 ~ 24 V	DC 12 ~ 24 V
Power Type	AT	AT	AT
Operating Temp.	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)
Storage Temp.	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)
Operating Humidity	40°C @ 95% Relative Humidity, Non-condensing	40°C @ 95% Relative Humidity, Non-condensing	40°C @ 95% Relative Humidity, Non-condensing
OS Information	Android 11/14, Debian 11	Android 11/14, Debian 11	Android 11/14, Debian 11
Dimension	190 x 130 x 31.8 mm	254 x 178 x 33.8 mm	515 x 322 x 44.9 mm
Weight	0.5 kg	0.7 kg	3.6 kg
Certification	CE, FCC Class A	CE, FCC Class A	CE, FCC Class A

Model Number	OFT-10W04	OFT-15W04	OFT-21W04
LCD Size	10.1"	15.6"	21.5"
Resolution	800 x 1280	1920 x 1080	1920 x 1080
Luminance	350 cd/m^2	220 cd/m^2	250 cd/m^2
Viewing Angle	85 (U), 85 (D), 85 (L), 85 (R)	85 (U), 85 (D), 85 (L), 85 (R)	89 (U), 89 (D), 89 (L), 89 (R)
Touch Type	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points
Processor	Intel® Celeron® J3455	Intel® Celeron® J3455	Intel® Celeron® J3455
System Memory	1 x 4GB 204 pin SO-DIMM DDR3L 8GB (Optional)	1 x 4GB 204 pin SO-DIMM DDR3L 8GB (Optional)	1 x 4GB 204 pin SO-DIMM DDR3L 8GB (Optional)
Wireless	Wi-Fi 802.11 a/b/g/n/ac	Wi-Fi 802.11 a/b/g/n/ac	Wi-Fi 802.11 a/b/g/n/ac
Storage	Onboard 32GB eMMC	Onboard 32GB eMMC	Onboard 32GB eMMC
External I/O Connector	1 x DC Jack 1 x Headphone Jack 1 x HDMI 1.4 Out 1 x Reset 2 x USB 3.0 Type A	1 x DC Jack 1 x Headphone Jack 1 x HDMI 1.4 Out 1 x Reset 2 x USB 3.0 Type A	1 x DC Jack 1 x Headphone Jack 1 x HDMI 1.4 Out 1 x Reset 2 x USB 3.0 Type A
Internal I/O Connector	1 x A-MIC 1 x DC Input 1 x 16-bit GPIO 1 x I²C 1 x M.2 3042 B-Key 1 x Micro SIM Card Slot 1 x RS-232 1 x RS-422/485 1 x Micro SD Card Slot 1 x Speaker 1 x Touch Button 1 x USB 2.0 + DMIC	1 x A-MIC 1 x DC Input 1 x 16-bit GPIO 1 x I²C 1 x M.2 3042 B-Key 1 x Micro SIM Card Slot 1 x RS-232 1 x RS-422/485 1 x Micro SD Card Slot 1 x Speaker 1 x Touch Button 1 x USB 2.0 + DMIC	1 x A-MIC 1 x DC Input 1 x 16-bit GPIO 1 x I²C 1 x M.2 3042 B-Key 1 x Micro SIM Card Slot 1 x RS-232 1 x RS-422/485 1 x Micro SD Card Slot 1 x Speaker 1 x Touch Button 1 x USB 2.0 + DMIC
Power Requirement	DC 12V ~ 24V	DC 12V ~ 24V	DC 12V ~ 24V
Power Type	AT	AT	AT
Operating Temp.	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)
Storage Temp.	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)
Operating Humidity	40°C @ 95% Relative Humidity, Non-condensing	40°C @ 95% Relative Humidity, Non-condensing	40°C @ 95% Relative Humidity, Non-condensing
OS Information	Windows 10 IoT, Ubuntu 20.04	Windows 10 IoT, Ubuntu 20.04	Windows 10 IoT, Ubuntu 20.04
Dimension	254 x 178 x 41.6 mm	384 x 254 x 47.5 mm	515 x 322 x 53.7 mm
Weight	1.28 kg	2.2 kg	4.3 kg
Certification	CE, FCC Class A	CE, FCC Class A	CE, FCC Class A

Open Frame Tablet

» General Purpose

Model Number	OFT-07WR3	OFT-10WR3	OFT-15WR3
LCD Size	7"	10.1"	15"
Resolution	800 x 400	800 x 1280	1024 x 768
Luminance	500 cd/m² / 1000 cd/m²	500 cd/m² / 1200 cd/m²	500 cd/m²
Viewing Angle	89 (U), 89 (D), 89 (L), 89 (R)	85 (U), 85 (D), 85 (L), 85 (R)	88 (U), 88 (D), 88 (L), 88 (R)
Touch Type	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points
Processor	Rockchip RK3568J	Rockchip RK3568J	Rockchip RK3568J
System Memory	Onboard 4GB LPDDR4	Onboard 4GB LPDDR4	Onboard 4GB LPDDR4
Wireless	Wi-Fi 802.11 a/b/g/n/ac	Wi-Fi 802.11 a/b/g/n/ac	Wi-Fi 802.11 a/b/g/n/ac
Storage	Onboard 64GB eMMC	Onboard 64GB eMMC	Onboard 64GB eMMC
External I/O Connector	2 x 10/100/1000 RJ45 LAN 1 x DC Jack 1 x HDMI 2.0 Out 1 x Reset 1 x RS-232/422/485 DB9 2 x USB 3.0 Type A	2 x 10/100/1000 RJ45 LAN 1 x DC Jack 1 x HDMI 2.0 Out 1 x Reset 1 x RS-232/422/485 DB9 2 x USB 3.0 Type A	2 x 10/100/1000 RJ45 LAN 1 x DC Jack 1 x HDMI 2.0 Out 1 x Reset 1 x RS-232/422/485 DB9 2 x USB 3.0 Type A
Internal I/O Connector	2 x CAN FD 1 x DC Input 1 x 16-bit GPIO 1 x I²C 1 x M.2 3042 B-Key 2 x RS-232 1 x RS-485 1 x RTC Battery 1 x SIM Card Slot 1 x Speaker 1 x Touch Button 2 x USB 2.0	2 x CAN FD 1 x DC Input 1 x 16-bit GPIO 1 x I²C 1 x M.2 3042 B-Key 2 x RS-232 1 x RS-485 1 x RTC Battery 1 x SIM Card Slot 1 x Speaker 1 x Touch Button 2 x USB 2.0	2 x CAN FD 1 x DC Input 1 x 16-bit GPIO 1 x I²C 1 x M.2 3042 B-Key 2 x RS-232 1 x RS-485 1 x RTC Battery 1 x SIM Card Slot 1 x Speaker 1 x Touch Button 2 x USB 2.0
Power Requirement	DC 12V ~ 24V	DC 12V ~ 24V	DC 12V ~ 24V
Power Type	AT	AT	AT
Operating Temperature	-30°C ~ 60°C (-22°F ~ 140°F)	-30°C ~ 60°C (-22°F ~ 140°F)	-30°C ~ 60°C (-22°F ~ 140°F)
Storage Temperature	-30°C ~ 60°C (-22°F ~ 140°F)	-30°C ~ 60°C (-22°F ~ 140°F)	-30°C ~ 60°C (-22°F ~ 140°F)
Operating Humidity	40°C @ 95% Relative Humidity, Non-condensing	40°C @ 95% Relative Humidity, Non-condensing	40°C @ 95% Relative Humidity, Non-condensing
OS Information	Android 13/14, Debain 11	Android 13/14, Debain 11	Android 13/14, Debain 11
Dimension	192 x 131 x 39.4 mm	262 x 178 x 40.9 mm	515 x 322 x 60 mm
Weight	0.69 kg	1.05 kg	2.3 kg
Certification	CE, FCC Class A	CE, FCC Class A	CE, FCC Class A

Open Frame Tablet

Flex Touch Console (HMI)

» General Purpose

	OFT-07WAD	OFT-10WAD
	7"	10.1"
	800 x 1280	800 x 1280
	350 cd/m²	350 cd/m²
	87.5 (U), 87.5 (D), 87.5 (L), 87.5 (R)	87.5 (U), 87.5 (D), 87.5 (L), 87.5 (R)
	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points
	Intel N50 / Intel N150	Intel N50 / Intel N150
	Onboard 8GB LPDDR5 16GB (Optional)	Onboard 8GB LPDDR5 16GB (Optional)
	Wi-Fi 802.11 a/b/g/n/ac/ax	Wi-Fi 802.11 a/b/g/n/ac/ax
	64GB eMMC 32/ 128GB (Optional)	64GB eMMC 32/ 128GB (Optional)
	1 x 10/100/1000 RJ45 LAN 1 x Audio Jack TRS 1 x DC Jack 1 x HDMI 2.0 Out 1 x Reset 2 x USB 3.0 Type A	1 x 10/100/1000 RJ45 LAN 1 x Audio Jack TRS 1 x DC Jack 1 x HDMI 2.0 Out 1 x Reset 2 x USB 3.0 Type A
	1 x A-MIC 1 x 16-bit GPIO 1 x I²C 1 x Micro SD slot 1 x RS-232 + RS-485 1 x RTC Battery 1 x Speaker 1 x Touch Button 1 x USB 2.0 1 x USB 2.0 + DMIC	1 x A-MIC 1 x 16-bit GPIO 1 x I²C 1 x Micro SD Slot 1 x RS-232 + RS-485 1 x RTC Battery 1 x Speaker 1 x Touch Button 1 x USB 2.0 1 x USB 2.0 + DMIC
	DC 12V ~ 24V	DC 12V ~ 24V
	AT	AT
	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)
	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)
	40°C @ 95% Relative Humidity, Non-condensing	40°C @ 95% Relative Humidity, Non-condensing
	Windows 10 IoT Windows 11 IoT (w/ TPM) Ubuntu 24.04	Windows 10 IoT Windows 11 IoT (w/ TPM) Ubuntu 24.04
	183.1 x 115.9 x 24.3 mm	252 x 166 x 38 mm
	0.4 kg	0.64 kg
	CE, FCC Class A	CE, FCC Class A

Model Number	FTC-05WN	FTC-07WN
LCD Size	5.0"	7.0"
Resolution	800 x 480	800 x 480
Luminance	800 cd/m²	800 cd/m²
Viewing Angle	80 (U), 80 (D), 80 (L), 80 (R)	80 (U), 80 (D), 80 (L), 80 (R)
Touch Type	Projective Capacitive Touch Panel	Projective Capacitive Touch Panel
Processor	SMT32H7	SMT32H7
System Memory	32MB (RAM) 256MB (ROM)	32MB (RAM) 256MB (ROM)
Wireless	Wi-Fi 802.11 b/g/n	Wi-Fi 802.11 b/g/n
Storage	NA	NA
External I/O Connector	1 x RS-485 1 x SD Card Slot	1 x RS-485 1 x CAN Bus 1 x Ethernet 1 x SD Card Slot
Internal I/O Connector	NA	NA
Power Requirement	DC 12V ~ 24V	DC 12V ~ 24V
Power Type	AT	AT
Operating Temperature	-15 ~ 65°C (-5 ~ 181°F)	-15 ~ 65°C (-5 ~ 181°F)
Storage Temperature	-30 ~ 80°C (-22 ~ 176°F)	-30 ~ 80°C (-22 ~ 176°F)
Operating Humidity	40°C @ 95% Relative Humidity, Non-condensing	40°C @ 95% Relative Humidity, Non-condensing
OS Information	Non-OS	Non-OS
Dimension	133.7 x 85 x 1.58 mm	184 x 107 x 1.56 mm
Weight	164 g	276 g
Certification	CE Class A	CE Class A

» Open Frame Display

Model Number	OFM-10W00	OFM-15W00	OFM-21W00		ARC-10W00
LCD Size	10.1", 16:10	15.6", 16:9	21.5", 16:9		10.1"
Display Type	WXGA	Full HD	Full HD		WXGA
Resolution	1280 x 800	1920 x 1080	1920 x 1080		1280 x 800
Pixel Pitch	0.1695 x 0.1695 mm	0.17925 (H) x 0.17925 (V)	0.24795 (H) x 0.24795 (V)		0.1695 x 0.1695 mm
Luminance	500 cd/m²	220 cd/m²	250 cd/m²		350 cd/m²
Contrast Ratio	800	800	2000		800
Viewing Angle	89 (U), 89 (D), 89 (L), 89 (R)	85 (U), 85 (D), 85 (L), 85 (R)	89 (U), 89 (D), 89 (L), 89 (R)		85 (U), 85 (D), 85 (L), 85 (R)
Response Time	29 ms	30 ms	35 ms		25 ms
Backlight	LED	LED	LED		LED
Touch Type	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points	PCAP Multi-touch Up to 10 Points		PCAP Multi-touch Up to 10 Points
Touch Light Transmission	86%	89 %	89 %		88%
Touch Controller	USB Type (EETI)	USB Type (EETI)	USB Type (EETI)		USB Type
Input Connector	HDMI, VGA, USB Type B for Touch Function	HDMI, Display Port, VGA, USB Type B for Touch Function, OSD Keys	HDMI, Display Port, VGA, USB Type B for Touch Function, OSD Keys		HDMI, Display Port, VGA, USB Type B for Touch Function, OSD Keys, Line in
Power Connector	DC Jack	DC Jack (Option for Phoenix Connector)	DC Jack (Option for Phoenix Connector)		DC Jack (Option for Phoenix Connector)
Power Type	+9V ~ 36V DC in	+12V DC in (Option for 9V ~ 36V DC in)	+12V DC in (Option for 9V ~ 36V DC in)		+12V DC in (Option for 9V ~ 36V DC in)
Adapter	By option	By option	By option		Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 60W Adapter (12V @ 5A Adapter)
Construction (Front, Rear)	Metal	Metal	Metal		Full Flat Die Casting with Cover Lens/ Metal Default with Panel Mount Kits
Option Features	N/A	Support Wi-Fi 6 Media Server Function Bi-direction Image Transfer and USB Signal Available Panel Mount Kits, Wall Mount Kits by option	Support Wi-Fi 6 Media Server Function Bi-direction Image Transfer and USB Signal Available Panel Mount Kits, Wall Mount Kits by option		Support Wi-Fi 6 Media Server Function Bi-direction Image Transfer and USB Signal
Dimension	244 x 229 x 38.8mm	387 x 235 x 46 mm	501.9 x 294.2 x 53.4 mm		282.36 x 201 x 61.4 mm
Weight	1.8kg	2.5 kg	4.1 kg		2 kg
Operating Temperature	0°C ~ 45°C (32°F ~ 113°F)	0°C ~ 45°C (32°F ~ 113°F)	0°C ~ 45°C (32°F ~ 113°F)		-10°C ~ 50°C (14°F ~ 122°F)
Storage Temperature	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)		-20°C ~ 60°C (-4°F~140°F)

» Rugged Industrial Display

ARC-1200	ARC-1500	ARC-15W00	ARC-1700	ARC-18W00	ARC-21W00
12.1"	15"	15.6"	17"	18.5"	21.5"
XGA	XGA	WXGA	SXGA	WXGA	FHD
1024 x 768	1024 x 768	1366 x 768 (Optional for 1920 x 1080)	1280 x 1024	1366 x 768 (Optional for 1920 x 1080)	1920 x 1080
0.240 x 0.240 mm	0.297 x 0.297 mm	0.252 x 0.252 mm	0.264 x 0.264 mm	0.1 x 0.3 mm	0.24795 x 0.24795
600 cd/m²	300 cd/m²	300 cd/m²	350 cd/m²	500 cd/m²	250 cd/m²
1000	2000	500	800	1000	3000
88 (U), 88 (D), 88 (L), 88 (R)	88 (U), 88 (D), 88 (L), 88 (R)	80 (U), 80 (D), 80 (L), 80 (R)	60 (U), 88 (D), 88 (L), 88 (R)	89 (U), 89 (D), 89 (L), 89 (R)	89 (U), 89 (D), 89 (L), 89 (R)
11 ms	16 ms	8 ms	30 ms	25 ms	25 ms
LED					
PCAP Multi-touch Up to 10 Points					
88%					
USB Type					
HDMI, Display Port, VGA, USB Type B for Touch Function, OSD Keys, Line in					
DC Jack (Option for Phoenix Connector)					
+12V DC in (Option for 9V ~ 36V DC in)					
Input: 100 ~ 240Vac/ 50 ~ 60Hz Output: 60W Adapter (12V @ 5A Adapter)					
Full Flat Die Casting with Cover Lens/ Metal Default with Panel Mount Kits					
Support Wi-Fi 6 Media Server Function Bi-direction Image Transfer and USB Signal					
293.77 x 226.31 x 61.5 mm	350.5 x 274.5 x 63.5 mm	391.21 x 239.21 x 68 mm	392.72 x 325.32 x 70.25 mm	460.40 x 285.60 x 66 mm	538.05 x 341.05 x 71 mm
2.5 kg	3.7 kg	3.2 kg	4.6 kg	5.1 kg	5.9 kg
-10°C ~ 50°C (14°F ~ 122°F) Option -20°C ~ 70°C	-10°C ~ 50°C (14°F ~ 122°F) Option -20°C ~ 70°C	-10°C ~ 50°C (14°F ~ 122°F) Option -10°C ~ 60°C	-10°C ~ 50°C (14°F ~ 122°F) Option -20°C ~ 70°C	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)
-20°C ~ 60°C (-4°F~140°F) Option -30°C ~ 70°C	-20°C ~ 60°C (-4°F~140°F) Option -30°C ~ 70°C	-20°C ~ 60°C (-4°F~140°F) Option -30°C ~ 70°C	-20°C ~ 60°C (-4°F~140°F), Option -30°C ~ 70°C	-20°C ~ 60°C (-4°F~140°F)	-20°C ~ 60°C (-4°F~140°F)

Panel Kits

Model Number	PCC-LPC-AB08-R	PCC-FPC-AB08-R	PCC-FPC-AB10-R	PCC-ARC-AB12-R
LCD Size	8", 4:3	8", 16:9	10.1", 16:9	12.1", 4:3
Display Type	SVGA	WVGA	WSVGA	XGA
LED Driving Board	Panel Built-in	External Board	Panel Built-in	Panel Built-in
Resolution	800 x 600	1024 x 600	1024 x 600	1024 x 768
Pixel Pitch	0.0675 mm (H) x 0.2025 mm (V)	0.1725 mm (W) x 0.1656 mm (H)	0.2175 mm (W) x 0.2088 mm (H)	0.240 mm (H) x 0.240 mm (V)
Luminance	500	500	350	600
Contrast Ratio	500	700	500	1000
Viewing Angle	50 (U), 70 (D), 70 (L), 70 (R)	70 (U), 75 (D), 75 (L), 75 (R)	70 (U), 70 (D), 70 (L), 70 (R)	89 (U), 89 (D), 89 (L), 89 (R)
Response Time	25 ms	20 ms	16 ms	11 ms
Touch light Transmission	80%	80%	80%	80%
Touch Controller	EETI	EETI	EETI	EETI
Touch Type	5W	5W	5W	5W
Interface	LVDS	LVDS	LVDS	LVDS
Operating Temperature	-10°C ~ 70°C	-10°C ~ 70°C	0°C ~ 50°C	-10°C ~ 70°C

Model Number	PCC-PPC-AB15-R	PCC-SPC-AB17-R	PCC-PPC-AB21-R
LCD Size	15", 4:3	17", 4:3	21.5", 16:9
Display Type	XGA	SXGA	FHD
LED Driving Board	Panel Built-in	Panel Built-in	External Board
Resolution	1024 x 768	1280 x 1024	1920 x 1080
Pixel Pitch	0.297 mm (H) x 0.297 mm (V)	0.264 mm (H) x 0.264 mm (V)	0.248 mm (H) x 0.248 mm (V)
Luminance	300	350	250
Contrast Ratio	2000	800	3000
Viewing Angle	88 (U), 88 (D), 88 (L), 88 (R)	80 (U), 80 (D), 85 (L), 85 (R)	89 (U), 89 (D), 89 (L), 89 (R)
Response Time	16 ms	30 ms	18 ms
Touch light Transmission	80%	80%	80%
Touch Controller	EETI	EETI	EETI
Touch Type	5W	5W	5W
Interface	LVDS	LVDS	LVDS
Operating Temperature	-10°C ~ 70°C	-10°C ~ 70°C	0°C ~ 50°C

Model Number	PCC-OFP-AB07-C	PCC-ARC-AB10-C	PCC-ARC-AB12-C	PCC-ARC-AB15-C
LCD Size	7", 16:10	10.1" 16:10	12.1", 4:3	15", 4:3
Display Type	WXGA	WXGA	XGA	XGA
LED Driving Board	Panel Built-in	Panel Built-in	Panel Built-in	Panel Built-in
Resolution	1280 x 800	1280 x 800	1024 x 768	1024 x 768
Pixel Pitch	0.03925 (H) x 0.11775 (V)	0.1695 mm (H) x 0.1695 mm (V)	0.240 mm (H) x 0.240 mm (V)	0.297 mm (H) x 0.297 mm (V)
Luminance	300	350	600	300
Contrast Ratio	900	800	1000	2000
Viewing Angle	89 (U), 89 (D), 89 (L), 89 (R)	85 (U), 85 (D), 85 (L), 85 (R)	89 (U), 89 (D), 89 (L), 89 (R)	88 (U), 88 (D), 88 (L), 88 (R)
Response Time	30 ms	25 ms	11 ms	16 ms
Touch light Transmission	89%	88%	89%	89%
Touch Controller	EETI	EETI	EETI	ILITEK
Touch Type	PCAP	PCAP	PCAP	PCAP
Interface	LVDS	LVDS	LVDS	LVDS
Operating Temperature	-20°C ~ 70°C	-10°C ~ 50°C	-20°C ~ 70°C	-10°C ~ 70°C

Model Number	PCC-ARC-AB15-C	PCC-ARC-AB15-C	PCC-ARC-AB17-C	PCC-ARC-AB21-C	PCC-APC-AB23-C
LCD Size	15.6", 16:9	15.6", 16:9	17", 4:3	21.5", 16:9	23.8", 16:9
Display Type	WXGA	FHD	SXGA	FHD	FHD
LED Driving Board	Panel Built-in	Panel Built-in	Panel Built-in	External Board	External Board
Resolution	1366 x 768	1920 x 1080	1280 x 1024	1920 x 1080	1920 x 1080
Pixel Pitch	0.252 mm (H) x 0.252 mm (V)	0.17925 (H) x 0.17925 (V)	0.264 mm (H) x 0.264 mm (V)	0.24795 mm (H) x 0.24795 mm (V)	0.2745 mm (H) x 0.2745 mm (V)
Luminance	300	450	350	250	250
Contrast Ratio	500	800	800	3000	1000
Viewing Angle	80 (U), 80 (D), 80 (L), 80 (R)	85 (U), 85 (D), 85 (L), 85 (R)	60 (U), 80 (D), 80 (L), 80 (R)	89 (U), 89 (D), 89 (L), 89 (R)	89 (U), 89 (D), 89 (L), 89 (R)
Response Time	8 ms	13 ms	30 ms	20 ms	16 ms
Touch light Transmission	89%	85%	89%	89%	85%
Touch Controller	WEIDA	WEIDA	EETI	EETI	EETI
Touch Type	PCAP	PCAP	PCAP	PCAP	PCAP
Interface	LVDS	LVDS	LVDS	LVDS	LVDS
Operating Temperature	0°C ~ 60°C	-20°C ~ 70°C	-20°C ~ 70°C	0°C ~ 50°C	0°C ~ 50°C

Comprehensive smart medical computing solutions, featuring high-performance systems for AI edge computing and imaging gateways. Complemented by precision medical displays, mobile-ready tablets, and IP65-rated Intel panel PCs, our lineup enhances efficiency and reliability for digital healthcare

Intelligent Healthcare

Medical Tablet

Model Number	CAXA0
Processor	Intel® Celeron® N3350 1.1GHz Processor
System Memory	Onboard 4GB LPDDR4
Storage	64GB M.2 Solid State Drive (Option Up to 128GB)
Operating System	Windows 10/ Android 8.1
LCD Size	10.1", WXGA
Resolution	1280 x 800
Luminance	300 cd/m²
Touch Screen	10 Points Projective Capacitive
Wireless LAN	802.11 a/b/g/n/ac
Bluetooth	Bluetooth 5.0
Camera	2MP Front Camera 8MP Rear Camera With Auto Focus
NFC	ISO/ IEC 14443 A/B, 15693/ 18092, NFCIP-1, NFCIP-2 Support MIFARE and Felica
Barcode Scanner	1D/2D Barcode Scanner (Optional)
Downside I/O Connectors	1 x Audio Jack 2 x USB 2.0 Type A 1 x Micro SD 1 x DC Jack 1 x HDMI Output
Control Button	1 x Power Button 1 x Barcode Scanner Trigger
LED Indicator	1 x Power
Power Requirement	DC Jack +19V
Battery	28.44W Li-Polymer Battery
Battery Operating Time	6 Hours
Construction	Rubber + Plastic
Dimensions	281 x 193.3 x 19.95 mm
Weight	1 kg
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)
Storage Temperature	-20°C ~ 60°C (-4°F ~ 140°F)
IP Rating	Front IP65
Certifications	CE, FCC, VCCI, CCC, BSMI, EN60601-1, EN60601-1-2

CAXA0-DC
CAXA0 Desktop Cradle

- Desktop Cradle for CAXA0
- +19V DC Input
- Support 3 x USB2.0/ 1 x 10/100 LAN
- 180 x 198.2 x 129.2 mm
- 1.05 kg

CAXA0-WM
CAXA0 Wall Mount kit

- Wall Mount Kit for CAXA0
- +19V DC Input
- Support 3 x USB2.0/ 1 x 10/100 LAN
- VESA Mount Compliant (75 x 75 mm)
- 143.6 x 218.8 x 48.6 mm
- 0.58 kg

CAXA0-CS
CAXA0 Battery Charging Station

- Battery Charging Station for CAXA0
- +19V DC Input
- Support 3 Batteries Charging
- 159 x 105 x 57.9 mm
- 0.62 Kg

CAXA0-SS
CAXA0 Shoulder Strap

- Shoulder Strap for CAXA0
- Adjustable Shoulder Strap with 130 cm Drop

CAXA0-HS
CAXA0 Hand Strap

- Hand Strap for CAXA0

Medical Panel PC

Model Number	HID-2340	HID-2334	HID-2146
LCD Size	23.8"	23.8"	21.5"
Display Type	Full HD	Full HD	Full HD
Resolution	1920 x 1080	1920 x 1080	1920 x 1080
Pixel Pitch	0.274 x 0.274	0.274 x 0.274	0.248 x 0.248
Luminance	250 cd/m²	250 cd/m²	250 cd/m²
Contrast Ratio	3000	3000	1000
Viewing Angle	89 (U), 89 (D), 89 (L), 89 (R)	89 (U), 89 (D), 89 (L), 89 (R)	89 (U), 89 (D), 89 (L), 89 (R)
Response Time	16 ms	16 ms	22 ms
Backlight	LED	LED	LED
Touch Type	Projective Capacitive	Projective Capacitive	Projective Capacitive
Touch Light Transmission	86%	86%	89%
Touch Controller	USB Interface, EETI	USB Interface, EETI	USB Interface, EETI
SBC	HID-2340 Motherboard	HID-2334 M/B + Charger Board	HID-2146
Processor	Socketed FCLGA1700 Intel® 13th Gen Core™ i7/i5/i3 Processor	7th Generation Intel® Kaby Lake Core™ i7/i5/i3/ Celeron® Processor	Arrow Lake U Core Ultra 5/7 Processor
I/O Chipset	EC ITE IT5782VG	EC ITE IT8518E	EC ITE IT5782VG
System Memory	1 x 262-pin DDR5 4800MHz SO-DIMM Socket Up to 32GB Max (Min 8GB)	2 x 260pin SODIMM Socket Up to 32GB DDR4 2400 SDRAM	2 x 262-pin DDR5 Up to 5600MHz SO-DIMM Socket Up to 96GB Max
Expansion	Optional M.2 Key B 3042/3052/2280 x 1 Optional M.2 Key E for Wi-Fi x 1 Optional IET Expansion x 1	1 x M.2 (Key E, 2230) with PCIe x1 CNVI and USB2.0 for Wireless 1 x mini PCIe with SATA or PCIEx1, mSATA	1 x M.2 Key E 2230 for Wi-Fi (1 x PCIe x1 & USB 2.0 Signal) 1 x M.2 Key B 2280 for AI card (PCIe x 2) 2 x M.2 Key M 2280 (PCIe x4) for storage NVMe SSD 1 x PCIe x4 Gen4 Slot
Storage	1 x M.2 Key M Storage (Optional) 1 x 2.5" SSD (Optional)	1 x 2.5" SATA3 SSD (Optional)	2 x M.2 Key M Storage (Optional)
USB	1 x USB 2.0, 3 x USB 3.0 1 x USB Type C, 1 x USB 1.1 (Isolated 5KV)	4 x USB 3.0	2 x USB 3.2, 4 x USB 2.0 1 x USB Type C 2 x USB 2.0 (Isolated 5KV Optional)
COM Port	1 x RS-232/422/485 1 x RS-232 (Isolated 5KV)	N/A	1 x RS-232/422/485 1 x RS-232 (Isolated 5KV Optional)
Other	Optional 5.0M AF Camera Optional Barcode Scanner Optional NFC, Optional IET Board Optional Capture Card, Optional Wi-Fi/ BT	Optional Hot Swappable Batteries and 4 Slot Charging Bay Optional 5.0M Auto Focus Camera with Cover Optional Wi-Fi/ BT	Optional RFID, Optional Wi-Fi/ BT Optional Camera, Optional Soundbar Optional MIC, Optional Isolation IET Optional PCIE Cards Optional Backup Battery
Display Chipset	Intel® 13th Generation CPU Integrated	Intel® HD Graphics 620	CPU Integrated
Audio	Realtek ALC888S	Realtek ALC888S	Realtek ALC888S
Audio Interface	Line-out, Mic-in, 2 x 2W Speaker	Line-out, Mic-in, 2 x 2W Speaker	Line-out, Mic-in, 2 x 2W Speaker
Ethernet	1 x Intel® I225LM Gigabit Ethernet 1 x Intel® I226LM Gigabit Ethernet	1 x Intel® I210AT, 1 x Intel® I219LM	1 x Intel® i226LM
Adapter	AC/ DC Medical Power Adapter Output: 120W Adapter (24V/ 5A Adapter)	AC/ DC Medical Power Adapter Output: 120W Adapter (24V/ 5A Adapter)	AC/ DC Medical Power Adapter
Construction (Front, Rear)	Plastic, Plastic	Plastic, Plastic	Plastic, Plastic
Dimension	592 x 382 x 49.5mm	380 x 587 x 45.5mm	510 x 321 x 55mm
Weight	6.0 kg	6.9 kg (without Batteries)	5.4 kg
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)
Storage Temperature	-10°C ~ 60°C (14°F ~ 140°F)	-30°C ~ 70°C (-22°F ~ 158°F)	-20°C ~ 60°C (-4°F ~ 140°F)
Certification	CE, FCC Class B, UL60601-1	CE, FCC Class B, UL60601-1 4th Edition	CE, FCC Class B, UL60601-1
OS Information	Win 10/ 11, Linux	Win 10, Linux	Win 11, Linux

HID-2138	HID-2132	HID-1540	HID-1337
21.5"	21.5"	15.6"	13.3"
Full HD	Full HD	Full HD	Full HD
1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
0.248 x 0.248	0.248 x 0.248	0.179 x 0.179	0.153 x 0.153
250 cd/m²	250 cd/m²	500 cd/m²	300 cd/m²
1000	1000	1000	600
89 (U), 89 (D), 89 (L), 89 (R)	89 (U), 89 (D), 89 (L), 89 (R)	89 (U), 89 (D), 89 (L), 89 (R)	89 (U), 89 (D), 89 (L), 89 (R)
22 ms	22 ms	25 ms	27 ms
LED	LED	LED	LED
Projective Capacitive	Projective Capacitive	Projective Capacitive	Projective Capacitive
89%	89%	89%	85%
USB Interface, EETI	USB Interface, EETI	USB Interface, EETI	USB Interface, EETI
HID TGLP Motherboard	ARC-SKLU	HID-2340 Motherboard	HID-1337 Motherboard
11th Gen Intel® Core™ i7/i5/i3/Celeron Processor	6th Gen Intel® Core™ i7/5/3/ Celeron Processor	Socketed FCLGA1700 Intel® 12th/13th Gen Core™ i7/i5/i3 Processor	Intel® Alder Lake-N Processor
EC ITE IT8528E	EC ITE IT8528E	EC ITE IT5782VG	EC ITE IT5782VG
2 x 260-pin DDR4 3200 MHz SO-DIMM Socket Up to 64GB Max	1 x 260pin SODIMM Socket Up to 16GB DDR4 2133 SDRAM	1 x 262-pin DDR5 4800MHz SO-DIMM Socket Up to 32GB Max (Min 8GB)	1 x 262-pin DDR5 4800MHz SO-DIMM Socket Up to 16GB
Optional PCIE Low Profile Card x 1 Optional M.2 Storage x 1 Optional M.2 5G Module x 1	1 x Full Size (Support Half Size, Auto Switch for mSATA, USB, PCIe Signal Optional IET Expansion x 1	Optional M.2 Key B 3042/3052/2280 x 1 Optional M.2 Key E for Wi-Fi x 1	Optional M.2 (Key-B, 2242/3042/3052, SATA only) x 1 Optional M.2 (Key-E, 2230, PCIex1, USB2.0) x 1
1 x M.2 Key-B 2242/3042/2260 for Storage	1 x 2.5" SATA3 SSD (Optional)	1 x M.2 Key M Storage (Optional)	1 x M.2 Key-B 2242/3042/3052 for M.2 SATAIII SSD (Optional)
2 x USB 2.0 2 x USB Type C	4 x USB 3.0, 2 x USB 2.0 by Pin Header 1 x USB 2.0 (Isolated 5KV)	1 x USB 2.0 3 x USB 3.0 1 x USB Type C	4 x USB 3.2 at Bottom, 2 x USB 3.2 at Side 1 x USB Type C (PD Output 5V/3A 15W, USB, Display Function)
Optional	1 x RS-232/422/485, 1 x RS-232 1 x RS-232 (Isolated 5KV)	1 x RS-232/422/485	1 x RS-232/422/485
Optional 5.0M AF Camera Optional Barcode Scanner Optional NFC, Optional Wi-Fi/ BT Optional Handset	Optional 5.0M AF Camera Optional Barcode Scanner Optional Wi-Fi/ BT, Optional NFC Optional Handset	Default with Programable LED Light Bar Optional 5.0M AF Camera Optional NFC Optional Wi-Fi/ BT	Default with Programable LED Light Bar Optional RFID Optional Wi-Fi/ BT
Intel® 11th Generation CPU Integrated	Intel® HD Graphics 520	Intel® 12th Generation CPU Integrated	Intel® 12th Generation CPU Integrated
Realtek ALC888S	Realtek ALC888S	Realtek ALC888S	Realtek ALC888S
Line-out, Mic-in, 2 x 2W Speaker	2 x 2W	Line-out, Mic-in, 2 x 5W Speaker	2 x 5W Speaker
1 x Intel® I219LM Gigabit Ethernet PHY 1 x Intel® I226LM Gigabit Ethernet PHY	1 x Intel® I219LM, 1 x Intel® I210AT 1 x Intel® I210AT (Isolated 5KV) on IET Module	1 x Intel® I225LM Gigabit Ethernet 1 x Intel® I226LM Gigabit Ethernet	2 x Intel® I226LM 2.5 Gigabit Ethernet
AC/ DC Medical Power Adapter Output: 90W Adapter (19V/ 4.73A Adapter)	AC/ DC Medical Power Adapter Output: 90W Adapter (19V/ 4.74A Adapter)	AC/ DC Medical Power Adapter Output: 120W Adapter (24V/5A Adapter)	AC/ DC Medical Power Adapter Output: 72W Adapter (24V/3A Adapter)
Plastic, Plastic	Plastic, Plastic	Plastic, Plastic	Plastic, Plastic
539.6 x 342.6 x 45.4 mm	539.6 x 342.6 x 45.2 mm	400 x 263 x 42.5 mm	198 x 325 x 38 mm
4.8 kg	5.6 kg	2.3 kg	1.8 kg
0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)
-10°C ~ 60°C (14°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)	-10°C ~ 60°C (14°F ~ 140°F)	-10°C ~ 60°C (14°F ~ 140°F)
CE, FCC Class B, UL60601-1	CE, FCC Class B, UL60601-1 4th Edition	CE, FCC Class B, UL60601-1	CE, FCC Class B, UL60601-1
Win 10, Linux	Win 7/ 10, Linux	Win 10/ 11, Linux	Win 10/ 11, Linux

Medical Display

Model Number	HID-2100	RCC-MS-GMD23G-01R	RCC-MS-GMD23T-01R
LCD Size	21.5"	23.8"	23.8"
Display Type	Full HD	Full HD	Full HD
Resolution	1920 x 1080	1920 x 1080	1920 x 1080
Pixel Pitch	0.248 x 0.248	0.2745 x 0.2745	0.2745 x 0.2745
Luminance	250 cd/m²	230 cd/m² with AR Glass	210 cd/m² PCAP with AG
Contrast Ratio	1000	3000	3000
Viewing Angle	89 (U), 89 (D), 89 (L), 89 (R)	89 (U), 89 (D), 89 (L), 89 (R)	89 (U), 89 (D), 89 (L), 89 (R)
Response Time	22 ms	16ms	16ms
Backlight	LED	LED	LED
Touch Type	Projective Capacitive	N/A	Projective Capacitive
Touch Light Transmission	89%	95%	89%
Calibration Mode/ DICOM/ ASL	N/A	N/A	N/A
Digital Input	N/A	Standard DVI connector	Standard DVI connector
Analog Input	N/A	Video: 0.7Vpp/75 ohm, Sync: Separate TTL level. Composite Sync or sync on green, Hor: 30~92KHz, Ver: 50~85Hz	
Compatible Digital Analog	N/A	DVI, Up to VESA FHD 1920 x 1080, VESA 1280 x 1024 @75/60Hz, VESA 1024 x 768@75/70/60Hz,VESA 800 x 600 @75/72/60/56Hz, VESA 640 x 480@75/72/60Hz,Super VGA,VGA,Mac 832 x 624@75Hz, Power Mac and more.	
Signal Input Connectors	HDMI, DP, VGA	VGA, DVI, HDMI & Display Port , Audio (Optional)	
Power Connectors	Lockable DC in 24V	DC in 24V	
Audio Interface	Line-out, Mic-in, 2 x 2W Speaker	0.5W Speaker x 2 (Option)	
Color Mode	N/A	Color Temperature: Cool/Neutral/Warm/User Gamma: 1.8/2.0/2.2/2.4/Linear	
Others	DC out 24V (30W)	N/A	
Adapter	AC/ DC Power Adapter Output: 120W Adapter (24V/ 5A Adapter)	AC/DC Adapter Input: 100~250Vac, 0.6A, 60/50Hz Universal Output: 24V, 3.75A 90W	
Construction (Front, Rear)	Plastic, Plastic	Plastic	
IP Rating	Front IP65	IPX1 Whole Unit	
Dimension	539.6 x 342.6 x 45.5 mm	587.0 x 367.5 x 59.5 mm	
Weight	5.3 kg	6.8 kg	
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	
Storage Temperature	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)	
Certification	CE, FCC Class B	cTUVus (ANSI/AAMI ES60601-1:2005+A1, CAN/CSA C22.2 NO.60601-1:14) FCC Class B CE (IEC/EN60601-1:ed3.1,IEC/EN60601-1-2)	

RCC-MS-GMD27G-01R	RCC-MS-GMD27T-01R	RCC-MS-GMD27G-03R	RCC-MS-GMD27T-03R
27"	27"	27"	27"
Full HD	Full HD	4K	4K
1920 x 1080	1920 x 1080	3840 x 2160	3840 x 2160
0.3114 x 0.3114	0.3114 x 0.3114	0.15525 x 0.15525	0.15525 x 0.15525
930 cd/m² with AR Glass	850 cd/m² PCAP with AG	740cd/m² with AR Glass	700 cd/m² PCAP with AG
1000	1000	1000	1000
89 (U), 89 (D), 89 (L), 89 (R)	89 (U), 89 (D), 89 (L), 89 (R)	89 (U), 89 (D), 89 (L), 89 (R)	89 (U), 89 (D), 89 (L), 89 (R)
14ms	14ms	16ms	16ms
LED	LED	LED	LED
N/A	Projective Capacitive	N/A	Projective Capacitive
95%	89%	95%	89%
Communication Protocol is Ready to Calibrate the Monitor through, USB Ambient Light 0/0.5/1/1.5/2/2.5/3 nits, ASL		Communication Protocol is Ready to Calibrate the Monitor through, USB Ambient Light 0/0.5/1/1.5/2/2.5/3 nits, ASL	
Standard DVI Connector		Standard DVI & DisplayPort	
Video: 0.7 Vpp/75 ohm, Sync: Separate TTL Level. Composite Sync or Sync on Green, Hor: 30~92KHz, Ver: 50~85Hz		Video: 0.7Vpp/75 ohm, Sync: Separate TTL level. Composite Sync or Sync on Green, Hor: 30~92KHz, Ver: 50~85Hz	
DVI, Up to VESA FHD 1920 x 1080, VESA 1280 x 1024 @ 75/60Hz, VESA 1024 x 768 @ 75/70/60Hz,VESA 800 x 600 @ 75/72/60/56Hz, VESA 640 x 480 @ 75/72/60Hz,Super VGA, VGA, Mac 832 x 624 @ 75Hz, Power Mac and More.		Up to VESA UHD 3840 x 2160, QHD 2560 x 1440, FHD 1920 x 1080, VESA 1280 x 1024 @ 75/60Hz, VESA 1024 x 768 @ 75/70/60Hz, VESA 800 x 600 @ 75/72/60/56Hz, VESA 640 x 480 @ 75/72/60Hz, Super VGA, VGA, Mac 832 x 624 @ 75Hz, Power Mac and More.	
VGA, DVI, HDMI & Display Port, Audio (Optional)		DVI (HDMI 1.4), HDMI (HDMI 2.0), Display Port (Display Port 1.2a), VGA & USB HUB/Calibration.	
DC in 24V		DC in 24V	
2W Speaker x 2 (Option)		2W Speaker x 2 (Option)	
Color Temperature: Cool/Neutral/Warm/User Gamma: 1.8/2.0/2.2/2.4/Linear		Color Temperature: Cool/Neutral/Warm/User Gamma: 1.8/2.0/2.2/2.4/Linear	
DIN6868-157		DIN6868-157 BT 709/ BT 1886/ BT 2020 Supported by 3D LUT (option)	
AC/DC Adapter Input: 100~250Vac, 0.6A, 60/50Hz Universal Output: 24V, 3.75A 90W		AC/DC Adapter Input: 100~250Vac, 0.6A, 60/50Hz Universal Output: 24V, 6.25A 150W	
Plastic		Plastic	
IPX1 Whole Unit		IPX1 Whole Unit	
660.2 x 408.8 x 65.8 mm		660.2 x 408.76 x 52.9 mm	
8 Kg		7.5 Kg	
0°C ~ 40°C (32°F ~ 104°F)		0°C ~ 40°C (32°F ~ 104°F)	
-20°C ~ 60°C (-4°F ~ 140°F)		-20°C ~ 60°C (-4°F ~ 140°F)	
FCC Class B CE (IEC/EN60601-1:ed3.1,IEC/EN60601-1-2:2014/2015, 4th ed.)		UL/cUL(ANSI/AAMI ES60601-1:2005+A1, CAN/CSA C22.2 NO.60601-1:14) FCCB CE (IEC/EN 60601-1: ed.3.1; IEC/EN 60601-1-2:2014/2015, 4th ed.)	

Medical Display

Model Number	RCC-MS-GMD32G-01R	RCC-MS-GMD32T-01R	RCC-MS-GMD55G-01R
LCD Size	32"	32"	55"
Display Type	4K	4K	4K
Resolution	3840 x 2160	3840 x 2160	3840 x 2160
Pixel Pitch	0.1845 x 0.1845	0.1845 x 0.1845	0.315 x 0.315
Luminance	780 cd/m² with AR Glass	750 cd/m² PCAP with AG	460 cd/m² with AG Glass
Contrast Ratio	1000	1000	4000
Viewing Angle	89 (U), 89 (D), 89 (L), 89 (R)	89 (U), 89 (D), 89 (L), 89 (R)	89 (U), 89 (D), 89 (L), 89 (R)
Response Time	14ms	14ms	8.5ms
Backlight	LED	LED	LED
Touch Type	N/A	Projective Capacitive	N/A
Touch Light Transmission	95%	89%	89%
Calibration Mode/ DICOM/ ASL	Communication Protocol Is Ready to Calibrate the Monitor through USB Ambient Light 0/0.5/1/1.5/2/2.5/3 nits ASL	Communication Protocol Is Ready to Calibrate the Monitor through USB Ambient Light 0/0.5/1/1.5/2/2.5/3 nits ASL	Communication Protocol Is Ready to Calibrate the Monitor through USB (Optional) Barten Curve (Optional)
Digital Input	Standard DVI, HDMI & Display Port	Standard DVI, HDMI & Display Port	Standard DVI & Display Port
Analog Input	Video: 0.7 Vpp/75 ohm, Sync: Separate TTL Level. Composite Sync or Sync on Green, Hor: 30 ~ 92KHz, Ver: 50 ~ 85Hz		
Compatible Digital Analog	Up to VESA UHD 3840 x 2160,QHD 2560 x 1440,FHD 1920 x 1080, VESA 1280 x 1024 @ 75/60Hz, VESA 1024 x 768 @ 75/70/60Hz, VESA 800 x 600 @ 75/72/60/56Hz, VESA 640 x 480 @ 75/72/60Hz, Super VGA, VGA, Mac 832 x 624 @ 75Hz, Power Mac and More.		
Signal Input Connectors	DVI (HDMI 1.4), HDMI (HDMI 2.0), Display Port (DP 1.2) x 2, VGA	DVI (HDMI 1.4), HDMI (HDMI 2.0), Display Port (DP 1.2) x 2, VGA	DVI x4 (HDMI 1.4 Compliant), Display Port x2 (Display Port 1.2a Compliant), VGA & USB HUB/ Calibration.
Signal Output Connectors	DVI (HDMI 1.4), DisplayPort (DP 1.2 SST or MST Daisy-chaining)	DVI (HDMI 1.4), DisplayPort (DP 1.2 SST or MST Daisy-chaining)	N/A
Power Input Connectors	DC in 24V	DC in 24V	100~240Vac
Audio Interface	5W Speaker x 2 (Option)	5W Speaker x 2 (Option)	N/A
Color Mode	Color Temperature: Cool/Neutral/Warm/User Gamma: 1.8/2.0/2.2/2.4/Linear	Color Temperature: Cool/Neutral/Warm/User Gamma: 1.8/2.0/2.2/2.4/Linear	Color Temperature: Cool/Neutral/Warm/User Gamma: 1.8/2.0/2.2/2.4/Linear
Others	DC output 5V/1A, DIN6868-157 BT 709/ DCI-P3/ BT 2020 supported by 3D LUT (option)	DC output 5V/1A, DIN6868-157 BT 709/ DCI-P3/ BT 2020 supported by 3D LUT (option)	N/A
Adapter	AC/DC Adapter Input: 100~250Vac, 0.6A, 60/50Hz Universal Output: 24V, 6.25A 150W	AC/DC Adapter Input: 100~250Vac, 0.6A, 60/50Hz Universal Output: 24V, 6.25A 150W	Internal power supply:100~250Vac, 60/50Hz universal
Construction (Front, Rear)	Metal	Metal	Metal
IP Rating	IP32 Whole Unit	IP32 Whole Unit	IP 65 in front & IP x1 whole unit
Dimension	764.2 x 468.6 x 79.0 mm	764.2 x 468.6 x 79.0 mm	1314 x 785 x 85 mm
Weight	11 kg	11 kg	39 kg
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)
Storage Temperature	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)
Certification	UL/cUL (ANSI/AAMI ES60601-1 ed. 3.2; CAN/ CSA C22.2 NO.60601-1:14 ed. 3.2) FCC B, VCCI, CE (EN60601-1, ed.3.2; EN60601-1-2, ed. 4.1)	UL/cUL (ANSI/AAMI ES60601-1 ed. 3.2; CAN/ CSA C22.2 NO.60601-1:14 ed. 3.2) FCC B, VCCI, CE (EN60601-1, ed.3.2; EN60601-1-2, ed. 4.1)	cTUVus (ANSI/AAMI ES60601-1:2005+A1, CAN/CSA C22.2 NO.60601-1:14) FCC B,CE (IEC/EN60601-1:ed3.1,IEC/EN60601-1-2)

Model Number	RCC-MS-GMD55T-01R	RCC-MS-GMD65G-01R	RCC-MS-GMD65T-01R
LCD Size	55"	65"	65"
Display Type	4K	4K	4K
Resolution	3840 x 2160	3840 x 2160	3840 x 2160
Pixel Pitch	0.315 x 0.315	0.372 x 0.372	0.372 x 0.372
Luminance	440 cd/m² PCAP with AG	460 cd/m² with AG Glass	440 cd/m² PCAP with AG
Contrast Ratio	4000	4000	4000
Viewing Angle	89 (U), 89 (D), 89 (L), 89 (R)	89 (U), 89 (D), 89 (L), 89 (R)	89 (U), 89 (D), 89 (L), 89 (R)
Response Time	8.5ms	8ms	8ms
Backlight	LED	LED	LED
Touch Type	Projective Capacitive	N/A	Projective Capacitive
Touch Light Transmission	89%	89%	89%
Calibration Mode/ DICOM/ ASL	Communication Protocol Is Ready to Calibrate the Monitor through USB (Optional) Barten Curve (Optional)	Communication Protocol Is Ready to Calibrate the Monitor through USB (Optional) Barten Curve (Optional)	Communication Protocol Is Ready to Calibrate the Monitor through USB (Optional) Barten Curve (Optional)
Digital Input	Standard DVI & Display Port	Standard DVI & Display Port	Standard DVI & Display Port
Analog Input	Video: 0.7 Vpp/75 ohm, Sync: Separate TTL Level. Composite Sync or Sync on Green, Hor: 30 ~ 92KHz, Ver: 50 ~ 85Hz		
Compatible Digital Analog	Up to VESA UHD 3840 x 2160, QHD 2560 x 1440, FHD 1920 x 1080, VESA 1280 x 1024 @ 75/60Hz, VESA 1024 x 768 @ 75/70/60Hz, VESA 800 x 600 @ 75/72/60/56Hz, VESA 640 x 480 @ 75/72/60Hz, Super VGA, VGA, Mac 832 x 624 @ 75Hz, Power Mac and More.		
Signal Input Connectors	DVI x4 (HDMI 1.4 Compliant), Display Port x2 (Display Port 1.2a Compliant), VGA & USB HUB/ Calibration.	DVI (HDMI 1.4), HDMI (HDMI 2.0), Display Port (DP 1.2) x 2, VGA	DVI (HDMI 1.4), HDMI (HDMI 2.0), Display Port (DP 1.2) x 2, VGA
Signal Output Connectors	N/A	DVI (HDMI 1.4), Display Port (DP 1.2 SST or MST Daisy-chaining)	DVI (HDMI 1.4), Display Port (DP 1.2 SST or MST Daisy-chaining)
Power Input Connectors	100-240Vac	100-240Vac	100-240Vac
Audio Interface	N/A	N/A	N/A
Color Mode	Color Temperature: Cool/Neutral/Warm/User Gamma: 1.8/2.0/2.2/2.4/Linear	Color Temperature: Cool/Neutral/Warm/User Gamma: 1.8/2.0/2.2/2.4/Linear	Color Temperature: Cool/Neutral/Warm/User Gamma: 1.8/2.0/2.2/2.4/Linear
Others	N/A	DC output 5V/1A	DC Output 5V/1A
Adapter	Internal Power Supply:100 ~ 250Vac, 60/50Hz Universal	Internal power supply:100~250Vac, 60/50Hz universal	Internal Power Supply: 100 ~ 250Vac, 60/50Hz Universal
Construction (Front, Rear)	Metal	Metal	Metal
IP Rating	IP 65 in Front & IP x1 Whole Unit	IPX5 in Front & IPX1 Whole Unit	IPX5 in Front & IPX1 Whole Unit
Dimension	1314 x 785 x 85 mm	1521 x 904 x 105 mm	1521 x 904 x 105 mm
Weight	39 kg	50 kg	50 kg
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)
Storage Temperature	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)
Certification	cTUVus (ANSI/AAMI ES60601-1:2005+A1, CAN/CSA C22.2 NO.60601-1:14) FCC B, CE (IEC/EN60601-1:ed3.1,IEC/EN60601-1-2)	FCC, VCCI CE (EN60601-1, ed 3.2 ; EN60601-1-2, ed 4.1)	FCC, VCCI CE (EN60601-1, ed 3.2 ; EN60601-1-2, ed 4.1)

Model Name	MAB-T690	MAB-T660	MAB-T660D	MAB-T600	MAB-T600-B1
Processor	12/13/14th & Series 2 Gen Intel® Core™ i9/i7/i5/i3 Processors	12/13th Generation Intel® Core™ i9/i7/i5/i3 LGA1700 Processor	12/13/14th Generation Intel® Core™ i3/i5/i7/i9 Processors	12/13th Generation Intel® Core™ i9/i7/i5/i3 LGA1700 Processor	12/13th Generation Intel® Core™ i9/i7/i5/i3 LGA1700 Processor
Motherboard	EAX-R680BP	EMX-R680P	MX610HD	RX610H	RX680R
System Memory	4 x 288-Pin DDR5 4400MHz U-DIMM Socket Supports Up to 192GB (ECC Memory Support by CPU)	2 x SODIMM Up to 64GB Dual Channel DDR5 4800MHz Non-ECC DRAM Support	2 x SODIMM Sockets Support DDR5 5600MHz up to 64GB (Non-ECC) (CPU Dependent)	2 x DIMM Slots Support Dual Channel DDR5 Memory Speed up to 4800/5600MHz (CPU Dependent) with UDIMM, up to 64GB	4 x DIMM Slots Support Dual Channel DDR5 Memory Speed up to 4400MHz with UDIMM, up to 128GB, with ECC Support
Expansion	2 x PCIe x16 slots for 1 x PCIex16 Gen5 default or 2 x PCIex8 Gen5 (BIOS selection) 2 x PCIe x4 Gen4 1 x PCIe x4 Gen3 1 x PCIe x4 slot for 1 x PCIe x2 Gen3 2 x M.2 NVMe Key M 2242/2280/22110 (PCIe Gen4 x4, for Storage only, no SATA)	1 x M.2 (2230) E-Key, Support Wi-Fi Module 1 x M.2 (2242/2280) M-Key 1 x PCI-e x 16 Gen 5 or 2 x PCI-e x 8 by Switch (from CPU)	1 x M.2 M-Key 2242/2280 NVMe (PCIe x4 + SATA III) 1 x M.2 E-Key 2230 CNVi (PCIe x1 + USB 2.0) 1 x Gen 4 PCIe x16	1 x M.2 M-Key 2242/2280/22110 NVMe 1 x M.2 E-Key 2230 with CNVi Support 1 x Gen 5 PCIe x16 (x16 Physical Black) 1 x Gen 3 PCIe x1 (x4 Physical Open Ended) 2 x Gen 3 PCIe x1 (x16 Physical Yellow)	1 x M.2 M-Key 2242/2280/22110 NVMe 1 x M.2 M-Key 2242/2280/22110 NVMe 1 x M.2 E-Key 2230 with CNVi Support 1 x Gen 5 PCIe x16 2 x Gen 4 PCIe x4 (x16 Physical Yellow) 1 x Gen 3 PCIe x4 Open Ended
Storage	2 x M.2 Key M NVMe (Gen4x4) 2242/2280/22110 2 x SATAIII	1 x 2.5" SATAIII HDD/SSD Drive	1 x M.2 Key-M 2242/2280 NVMe (PCIex4, SATA3) 1 x 2.5" SATAIII	2 x 2.5" SATAIII HDD/SSD Drive (2 x 3.5" SATAIII HDD/SSD Drive as Option)	2 x 2.5" SATAIII HDD/SSD Drive (2 x 3.5" SATAIII HDD/SSD Drive as Option)
USB	2 x USB 2.0 (Front I/O) 8 x USB 3.2 Gen2	2 x USB 2.0 (Front I/O) 4 x USB 3.2 Gen 2 4 x USB 3.2 Gen 1	2 x USB 2.0 (Front I/O) 2 x USB 2.0 (Type A) 2 x USB 3.2 (Type A)	2 x USB 2.0 (Front I/O) 2 x USB 2.0 Type A 4 x USB 3.2 Type A	2 x USB 2.0 (Front I/O) 6 x USB 3.2 Gen 2 x 1 Ports 1 x USB 3.2 Gen 2 x 2 Type-C
Other I/O	1 x HDMI, 2 x DP, 4 x RJ45	1 x HDMI, 2 x DP, 4 x RJ45	1 x HDMI, 1 x DP, 2 x RJ45	1 x HDMI, 2 x DP, 2 x RJ45	4 x DP, 2 x RJ45
Audio	Realtek Audio Code 1 x Mic-in, 1 x Line-out	Realtek Audio Code 1 x Mic-in, 1 x Line-out	Realtek Audio Code 1 x Mic-in, 1 x Line-out	Realtek Audio Code 1 x Mic-in, 1 x Line-out	Realtek Audio Code 1 x Mic-in, 1 x Line-out
Operating Temperature	0 ~ 40°C (32°F ~ 104°F) w/ SSD, Ambient w/ 0.5m/s Air Flow	0 ~ 35°C (32°F ~ 95°F) w/ SSD, Ambient w/ 0.5m/s Air Flow	0°C ~ 40°C (32°F ~ 104°F) with 0.5m/s air flow	0 ~ 40°C (32°F ~ 104°F) w/ SSD, Ambient w/ 0.5m/s Air Flow	0 ~ 40°C (32°F ~ 104°F) w/ SSD, Ambient w/ 0.5m/s Air Flow
Power Supply	1000W ATX Power Supply (AC in)	400W ATX Power Supply (Medical Grade) (AC in)	180w Adapter 19V/9.47A 90 plug Type (DC in)	500W ATX Power Supply (Medical Grade) (AC in)	500W ATX Power Supply (Medical Grade) (AC in)
Color	White	White	White	White	White
Dimension (W x D x H)	437 x 433 x 189.2 mm	315 x 273 x 92 mm	315 x 273 x 92 mm	330 x 344 x 160 mm	330 x 344 x 160 mm
Weight	9 kg	4.8 kg	4.8 kg	7 kg	7 kg
Certification	IT Grade CE, FCC Class A	IT Grade CE, FCC Class A	IT Grade CE, FCC Class A	Medical Grade CE, FCC Class B	Medical Grade CE, FCC Class B
Compatible Add-on Card List	NVIDIA RTX5000 Ada PCIex16 NVIDIA RTX5090 Blackwell PCIex16 NVIDIA RTX4000 Ada PCIex16 NVIDIA RTX4000 SFF Ada PCIex16 NIVIDIA RTX2000 Ada PCIex8 NVIDIA A1000 PCIex16 YUAN SC400N2-L HDMI 2CH 1080p YUAN SC400N4 HDMI 4CH 1080p YUAN SC710N2-L HDMI 2CH 4K YUAN SC410N4 HDMI 4CH 4K Intel 82574 1CH LAN Card Intel I350AM2 2CH LAN Card Intel I210 PoE Card PCIe WIFI 6/6E Module Kit/Set	NVIDIA RTX4000 SFF Ada NVIDIA RTX2000 Ada NVIDIA T1000 YUAN SC400N2-L HDMI 2CH 1080p YUAN SC400N4 HDMI 4CH 1080p YUAN SC710N2-L HDMI 2CH 4K YUAN SC410N4 HDMI 4CH 4K Intel 82574 1CH LAN Card Intel I350AM2 2CH LAN Card Intel I210 PoE Card PCIe WIFI 6/6E Module Kit/Set	NVIDIA RTX4000 SFF Ada NVIDIA RTX2000 Ada NVIDIA T1000 YUAN SC400N2-L HDMI 2CH 1080p YUAN SC400N4 HDMI 4CH 1080p YUAN SC710N2-L HDMI 2CH 4K YUAN SC410N4 HDMI 4CH 4K Intel 82574 1CH LAN Card Intel I350AM2 2CH LAN Card Intel I210 PoE Card PCIe WIFI 6/6E Module Kit/Set	NVIDIA RTX4000 Ada NVIDIA RTX4000 SFF Ada NVIDIA RTX2000 Ada NVIDIA T1000 YUAN SC400N2-L HDMI 2CH 1080p YUAN SC400N4 HDMI 4CH 1080p YUAN SC710N2-L HDMI 2CH 4K YUAN SC410N4 HDMI 4CH 4K Intel 82574 1CH LAN Card Intel I350AM2 2CH LAN Card Intel I210 PoE Card PCIe WIFI 6/6E Module Kit/Set PCIe 5G Module Set	NVIDIA RTX4000 Ada NVIDIA RTX4000 SFF Ada NVIDIA RTX2000 Ada NVIDIA T1000 YUAN SC400N2-L HDMI 2CH 1080p YUAN SC400N4 HDMI 4CH 1080p YUAN SC710N2-L HDMI 2CH 4K YUAN SC410N4 HDMI 4CH 4K Intel 82574 1CH LAN Card Intel I350AM2 2CH LAN Card Intel I210 PoE Card PCIe WIFI 6/6E Module Kit/Set PCIe 5G Module Set

Video Manager

Model Name	MED-VPR-8430
CPU Memory	Intel Elkhart Lake x6425E 2.0Ghz (Boost 3.0Ghz) DDR4-16GB Soldered on Board
Storage	2.5 Inch SATA SSD 1TB M.2 SATA SSD (Expandable)
Color	White
Dimension (W x D x H)	296 x 296 x 67 mm (Case Only) 318 x 316 x 67 mm (All Inclusive)
I/O	4 x 4K HDMI-IN, 2 x 4K HDMI-OUT 2 x RJ45, 1 x HDBaseT (100m Extension) 2 x RS-232 8 x GPIO 6 x USB Ports
Platform	Intel x86 & NXP
System Cooling	Fanless
Software	Built-in Time Cabinet Software
Screen Layout	Multi-view Layout
Button	System Power on/off
LED	Power LED
Power Supply	24V/4.17A DC
Operating Temp.	0°C ~ 40°C (32°F ~ 104°F)
Gross Weight	4.3 kg

Medical Battery System

Model Number	EPB-1001
SBC	EPB-1001 Battery Board
MCU	IT8911
Charger IC	LTC1760
Power IC	LTC3789 for Vout1
DC Input	24Vdc/ 5A
Charge Current	4A Max. for 2 Batteries
Charge Voltage	16.8 V
Output Current Per Battery	6.8 A
Output Voltage per Battery	14.4 V
Output Power	12V/ 19V DC-out 80W
USB Port	Type A
Indicator Light	Power/ Battery1/ Battery 2
Power Connector	DC Jack with Lock
Power Type	DC in
Color	Black/ White
Dimension	235 x 182 x 43 mm
Weight	1.2 kg
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)
Storage Temperature	-40°C ~ 75°C (-40 ~ 167°F) (without Battery Pack)
Certification	CE/ FCC ANSI/ AAMI ES 60601 CAN/ CSA C22.2 No. 60601-1

Tailored to
Your Needs

avalue
Technology Inc.

ESG