

Shuttle[®]

2024

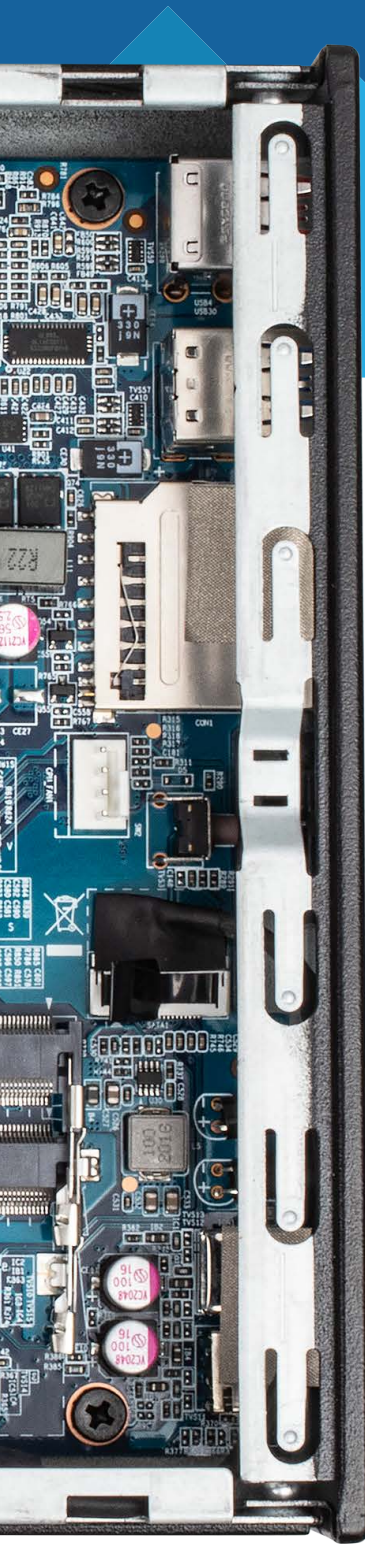


KIOSK & SMART RETAIL PRODUCT GUIDE

Discover resilient, long-lasting, and trustworthy computing solutions designed to empower your future business. Our offerings span across diverse sectors, including factory automation, digital healthcare, smart retail, and IoT Edge applications.



ShuttleComputers.com



Company Profile

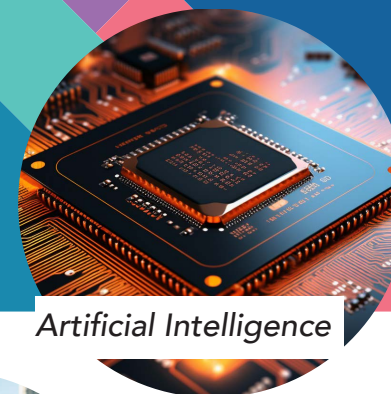
Since its inception in 1983, **Shuttle** has been a trailblazer in the development of compact commercial and industrial computers, establishing a robust foundation in the technology landscape. Our proud legacy is rooted in the seamless combination of innovation, design prowess, and the manufacturing of cutting-edge computer products.

Among our impressive lineup are mini PCs, all-in-one PCs, edge computing solutions, embedded computers, and industrial and medical-grade Panel PCs. These sophisticated products find extensive applications in various domains such as automation control, intelligent self-service kiosks, digital signage, IP monitoring edge computing, machine vision, VR/AR, and more. As a result, we've garnered acclaim across diverse industries, including manufacturing, hospitality, retail, healthcare, and business.

As technology evolves at an unprecedented pace, embracing advancements like artificial intelligence and the Internet of Things, Shuttle remains at the forefront. Our commitment to continuous improvement is evident

in the strengthening of our research and development capabilities and the enhancement of our system integration expertise. This strategic approach ensures that we offer a high-quality, diverse, and competitive product portfolio.

Our dedication goes beyond providing cutting-edge solutions; it extends to empowering our customers to triumph in their projects. By delivering efficiency, productivity, and effectiveness, we contribute to the success of businesses navigating the dynamic landscape of advanced technologies. At **Shuttle**, we envision a future where our innovations redefine the possibilities of computing, and we're driven to make that vision a reality.



Artificial Intelligence



Automation / HMI



Digital Signage



Edge Computing



Kiosk / Smart Retail

Tech Innovations and Integrated Solutions

Embark on a transformative journey with our comprehensive suite of solutions, seamlessly integrating cutting-edge technologies to elevate your business capabilities.

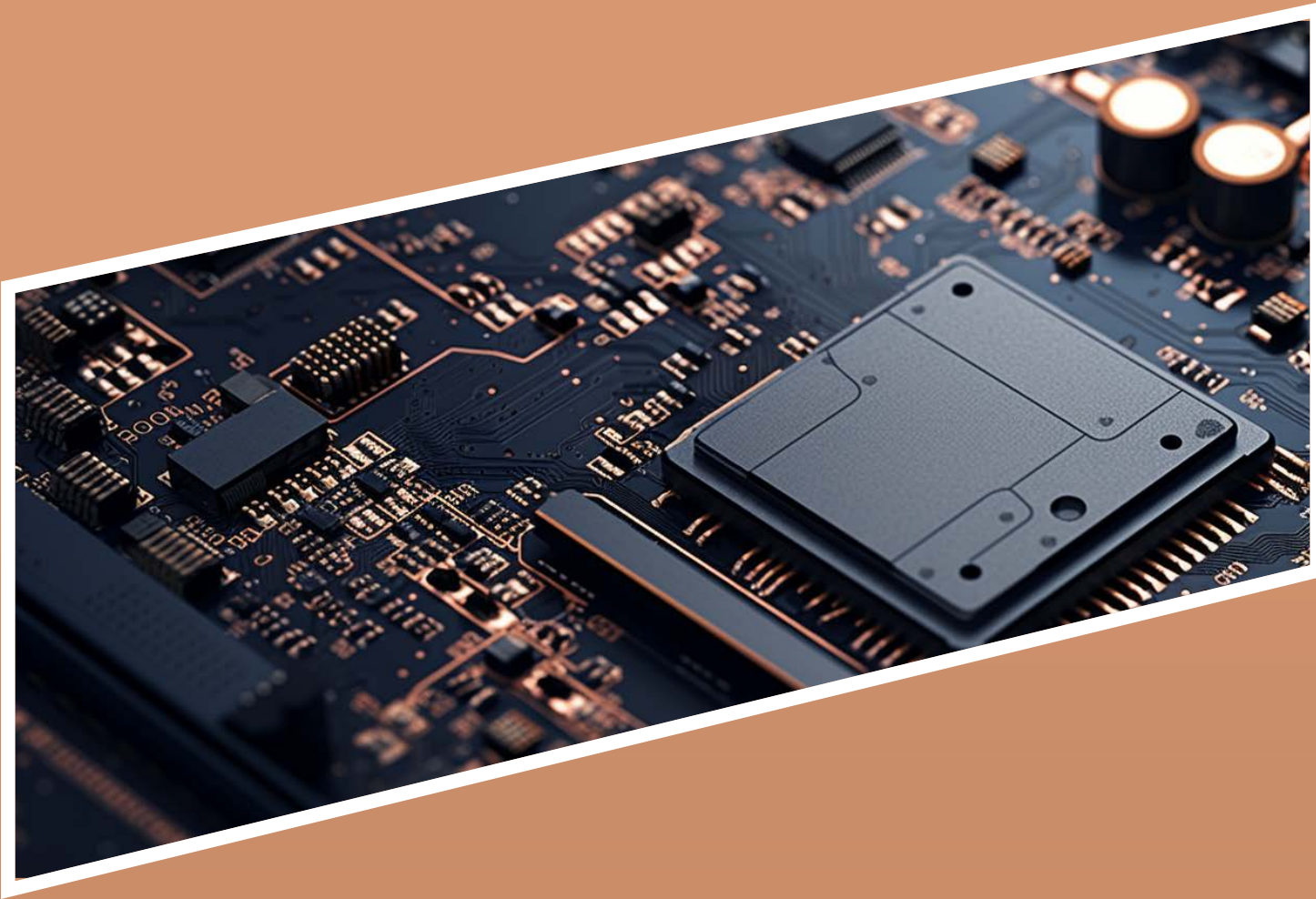
From interactive kiosk systems that redefine customer engagement to sophisticated Artificial Intelligence (AI) applications that augment decision-making processes, our offerings span a spectrum of innovative solutions.

Experience the future of automation and Human-Machine Interface (HMI) through our state-of-the-art solutions designed to optimize operations and enhance efficiency.

Our Industrial/Edge computing solutions form the backbone of your technological infrastructure, providing robust support for critical processes.

Navigate the digital landscape with confidence using our advanced digital signage solutions. Whether you're aiming to captivate audiences with dynamic displays or streamline information dissemination, our digital signage technologies offer versatility and impact.

This path of solutions isn't just a technological upgrade; it's a strategic investment in the future of your business. By seamlessly integrating kiosk, AI, automation/HMI, Industrial/Edge, and digital signage solutions, we empower you to stay ahead in a rapidly evolving digital era. Explore the possibilities, enhance your operational landscape, and pave the way for sustainable growth with our innovative suite of technologies.



Kiosk / Smart Retail

Kiosks, multifunctional self-service machines in public spaces, serve diverse roles. From providing information and facilitating purchases to event bookings and check-ins, they extend to bill payments, healthcare services, navigation, surveys, photo printing, restaurant orders, and more. Streamlining processes, they enhance user convenience and reduce wait times.



BPCAL02 / BPCAL03

Intel® Alder Lake-Based

Real-Time Edge Processing with Unmatched Performance

Shuttle's BPCAL02 and BPCAL03 are advanced embedded PCs featuring Intel® 12th Gen Alder Lake processors. With Intel® Iris® Xe graphics and dual-channel DDR5-4800 memory support, providing enhanced computing and loading efficiency, providing reliable solutions for IoT Edge, machine learning, industrial process monitoring, data analysis, and image recognition tasks. Moreover, this device boasts rich connectivity options, supports up to 4 displays, and modular designs for flexible expansions, while the BPCAL03 operates in a wide temperature range -20°C to +60°C.

Features

- 12th Gen. Intel® Alder Lake U-series / 15W Core™ and Celeron® processors
- Max four independent displays via HDMI 2.0 and optional video output expansion kit
- Dual Intel® LAN, 4 x USB 3.2 Gen 2, 4 x USB 2.0, 3 x RS232, M.2 2280 Type M, and M.2 2230 Type E
- Modularity for I/O configurations to meet diverse application needs
- Multiple installation support: VESA, Ear Mount, DIN-rail
- Operating Temperature: BPCAL02: 0°C ~ 40°C BPCAL03: -20°C ~ 60°C

* Intel® Iris® Xe graphics for Core i5 / i7 model only



4K UHD



Dual LAN



Fanless



DDR5





BPCEL02 / BPCEL03 / BPCEL07



Intel Elkhart Lake-Based Accelerate Your IoT Innovations with Powerful Computing

Shuttle BPCEL02/BPCEL03/BPCEL07 are versatile fanless embedded PCs designed with the Intel® Elkhart Lake platform, offering multiple processor options to meet different performance requirements. The series has a rich set of I/O and expansion interfaces, and its modular design allows for different I/O expansions and replacements to meet various customization needs. Moreover, the aluminum alloy housing design provides excellent heat dissipation and anti-interference capabilities, supporting a broad working temperature range of up to -30°C to +70°C. It is well-suited for several applications, including industrial control, automation, IoT, edge computing, retail, and more.

Features

- CPU options of Intel® Elkhart Lake Pentium® J6426 / Celeron® J6412 / Atom® x6425E
- Dual independent display via HDMI (Support up to triple display through optional video output expansion kit)
- 4 x USB 3.2 Gen 1, 4 x USB 2.0, 3 x RS232, M.2 2280 Type M, and M.2 2230 Type E
- Dual Intel® 2.5G LAN supports Wake On LAN
- Dual DDR4 3200MHz memory, up to 32GB
- Multiple installation support: VESA, Ear Mount, DIN-rail

	BPCEL02	BPCEL03	BPCEL07
PROCESSOR	Pentium® J6426 Celeron® J6412 Atom® x6425E	Pentium® J6426 Celeron® J6412 Atom® x6425E	Atom® x6425E
OPERATING TEMPERATURE	0°C ~ 40°C	-20°C ~ 60°C	-30°C ~ 70°C
BUNDLED ADAPTER	19V/4.74A 90W external adapter	19V/7.89A 150W external adapter	19V/7.89A 150W external adapter



Wide Range
Voltage Support
(Optional)



Wide
Temperature
(BPCEL07 Only)



Dual 2.5G LAN



Fanless

		BPCAL02	BPCAL03
SYSTEM	Processor	12 th Gen. Intel® Alder Lake Core™ i3-1215UE (default) Optional: i5-1235U, i5-1245UE, i7-1255U, i7-1265UE, Celeron® 7305E	
	Memory	2 x 262 pin SO-DIMM up to 64GB Dual Channel DDR5 4800 MHz	
	BIOS	AMI UEFI 64 Mbit	
GRAPHICS	Chipset	Intel® UHD or Iris® Xe Graphics	
	Display Interface	2 x HDMI 2.0: 4096 x 2160@60Hz	
	Display Output	Max: 4 independent or clone	
STORAGE	Internal	1 x M.2 2280 M key (PCIe NVMe / SATA) 1 x 2.5” HDD / SSD (Optional)	
	Audio Codec	Realtek ALC888S-VD 2-channel	
	WLAN	Realtek RTL8821CE 802.11a/b/g/n/ac + Bluetooth 5.0 WLAN card M.2 2230 E key (Optional) External antenna (Dipole) x 2 (Optional)	
I/O INTERFACE	Serial Ports	1 x RS-232 (DB-9) 2 x RS-232/422/485 (DB-9) (RS-232 with power supply: Ring in / 5V (standard) & 12V (with specific optional board))	
	USB	4 x USB3.2 Gen 2 (Type A) 4 x USB2.0	
	Audio	1 x Line-out 1 x Mic-in	
POWER	Bundled Adapter	19V/4.74A 90W external adapter	19V/7.89A 150W external adapter
	Option	With option wide range board, MB support 9-36V DC-in	
WATCHDOG TIMER	Watchdog	Support watchdog	
OS SUPPORT	OS Support	Windows 11 64bit / Linux 64bit	
MECHANISM	Mounting	VESA Mount 75 x 75 mm / Ear Mount 256 x 100 mm / Din Rail	
	Dimension (L/W/H)	245 x 169 x 57	245 x 169 x 57
	Weight	2.85kg	2.85kg
ENVIRONMENT	Operating Temperature	0°C ~ 40°C	-20°C ~ 60°C
	Relative Humidity	20% - 80% RH (non-condensing)	20% - 80% RH (non-condensing)
	EMC	CE, FCC, VCCI, BSMI, RCM	CE, FCC, VCCI, BSMI, RCM
	Safety	CB, CEC, cTUVus, BSMI, EAC	CB, CEC, cTUVus, BSMI, EAC

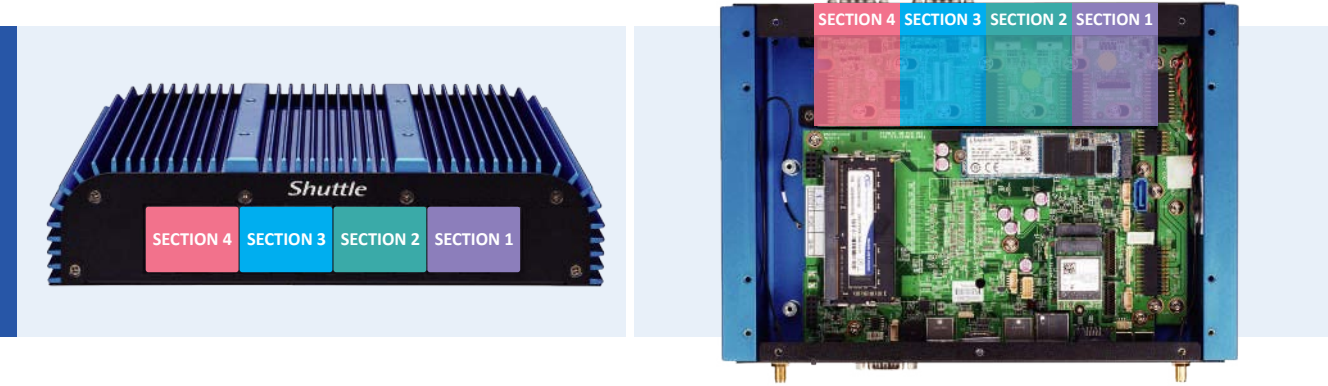
		BPCELO2	BPCELO3	BPCELO7
		Intel® Elkhart Lake Celeron® J6412 (default) Optional: Pentium® J6426, Atom® x6425E		Intel® Elkhart Lake Atom® x6425E
		2 x 260 pin SO-DIMM up to 32GB Dual Channel DDR4 3200 MHz AMI UEFI 64 Mbit		
		Intel® UHD Graphics 2 x HDMI 2.0b: 4096 x 2160@60Hz Max: 3 independent or clone MPEG-2, WMV9/VC1, H.264, JPEG/MJPEG, H.265/HEVC, VP8, VP9		
		1 x M.2 2280 M key (PCIe NVMe / SATA) 1 x 2.5” HDD / SSD (Optional)		
		Realtek ALC888S-VD 2-channel		
		2 x Intel® 2.5 Gb LAN Support Wake On LAN Realtek RTL8821CE 802.11a/b/g/n/ac + Bluetooth 5.0 WLAN card M.2 2230 E key (Optional) External antenna (Dipole) x 2 (Optional)		
		1 x RS-232 (DB-9) 2 x RS-232/422/485 (DB-9) (RS-232 with power supply: Ring in / 5V (standard) &12V (with specific optional board)) 4 x USB3.2 Gen 1 (Type A) 4 x USB2.0 1 x Line-out 1 x Mic-in		
		19V/4.74A 90W external adapter	19V/7.89A 150W external adapter	19V/7.89A 150W external adapter
		With option wide range board, MB support 9-36V DC-in		
		Support watchdog		
		Windows 11 64bit / Linux 64bit		
		VESA Mount 75 x 75 mm / Ear Mount 256 x 100 mm / Din Rail		
		245 x 169 x 57 2.85kg	245 x 169 x 57 2.85kg	245 x 169 x 57 2.85kg
		0°C ~ 40°C 20% - 80% RH (non-condensing) CE, FCC, VCCI, BSMI, RCM CB, CEC, cTUVus, BSMI, EAC	-20°C ~ 60°C 20% - 80% RH (non-condensing) CE, FCC, VCCI, BSMI, RCM CB, CEC, cTUVus, BSMI, EAC	-30°C ~ 70°C 20% - 80% RH (non-condensing) CE, FCC, VCCI, BSMI, RCM CB, CEC, cTUVus, BSMI, EAC

		BPCWL02	BPCWL03
SYSTEM	Processor	8 th Gen. Intel® Whiskey Lake Core™ i3-8145UE (default) Optional: i5-8265U, i5-8365UE, i7-8565U, i7-8665UE, Celeron® 4305UE	
	Memory	2 x 260 pin SO-DIMM up to 64GB Dual Channel DDR4 2666MHz	
	BIOS	AMI UEFI 64 Mbit	
GRAPHICS	Chipset	Intel® UHD Graphics	
	Display Interface	2 x HDMI 1.4b: 4096 x 2160@30Hz	
	Display Output	Max: 3 independent or clone	
	Video Decoder	MPEG2, WMV9/VC1, AVC/H.264, JPEG/MPEG, HEVC/H.265, VP8, VP9	
STORAGE	Internal	1 x M.2 2280 M key (PCIe NVMe / SATA)	
AUDIO	Audio Codec	Realtek ALC662 / ALC888S 2-channel	
NETWORK	Ethernet	2 x Intel® Gigabit LAN Support Wake On LAN	
	WLAN	Realtek RTL8821CE 802.11a/b/g/n/ac + Bluetooth 5.0 WLAN card M.2 2230 E key (Optional) External antenna (Dipole) x 2 (Optional)	
I/O INTERFACE	Serial Ports	1 x RS-232 (DB-9) 2 x RS-232/422/485 (DB-9) (RS-232 with power supply: Ring in / 5V (standard) & 12V (with specific optional board))	
	USB	4 x USB3.2 Gen 1 (Type A) 4 x USB2.0	
	Audio	1 x Line-out 1 x Mic-in	
POWER	Bundled Adapter	19V/4.74A 90W external adapter	19V/7.89A 150W external adapter
	Option	With option wide range board, MB support 9-36V DC-in	
WATCHDOG TIMER	Watchdog	Support watchdog	
OS SUPPORT	OS Support	Windows 10/11 64bit / Linux 64bit	
MECHANISM	Mounting	VESA Mount 75 x 75 mm / Ear Mount 256 x 100 mm / Din Rail	
	Dimension (L/W/H) Weight	245 x 169 x 57 2.85kg	245 x 169 x 57 2.85kg
ENVIRONMENT	Operating Temperature	0°C ~ 40°C	-20°C ~ 60°C
	Relative Humidity	20% - 80% RH (non-condensing)	20% - 80% RH (non-condensing)
	EMC	CE, FCC, VCCI, BSMI, RCM	CE, FCC, VCCI, BSMI, RCM
	Safety	CB, CEC, cTUVus, BSMI, EAC	CB, CEC, cTUVus, BSMI, EAC

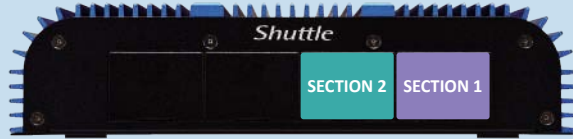
Flexible I/O Customization with Expansion Kits

Shuttle's Embedded Box PCs offer flexible I/O design, making it easy to customize and optimize IoT applications for maximum efficiency.

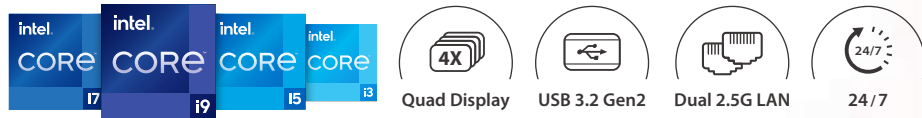
The front panel is divided into 4 sections, accommodating optional expansion kits equipped with daughter boards, allowing for the addition of I/O ports. *Expansion must begin with Section 1, with subsequent kits occupying Section 2, and so on.



Guidance for Video Output Port Customized Configuration

BACK PANEL		
	DEFAULT VIDEO OUTPUT	
		
FRONT PANEL		
	VIDEO OPTIONS (SECTION 1)	VIDEO OPTIONS (SECTION 2)
	 HDMI 1.4  HDMI 2.0  VGA  DisplayPort  DVI-I	 VGA  DisplayPort

DH670 / DH670 V2



Compact 1-liter, Elite Performance, Future-Proof Agility

13th Gen Ready. AI-Enhancement and Four Displays

DH670 / DH670V2 supports Intel® Raptor Lake / Alder Lake hybrid architecture, combining high-performance and high-efficiency cores. Thanks to the new integrated Intel® UHD graphic processor, the model can deliver incredible clarity for 4K / 60P and bring more achievement to AI and computer vision applications. Quad-display is supported via two HDMI 2.0b and two DisplayPort. DH670 / DH670V2 offers multiple interfaces to deliver expandability and flexible connectivity, including four USB 3.2 Gen2, four USB 3.2 Gen1 (including one Type-C), two RS232 ports, and two M.2 expansion slots. It's suitable for various applications, such as digital signage and kiosk.



Feature

- Support 13th/12th Gen Intel® Core™, Pentium®, Celeron® 65W LGA 1700 processors
- Four independent displays via two HDMI 2.0b and two DisplayPort
- Support up to 64GB DDR4-3200 memory
- Flexible connectivity** : 4 x USB 3.2 Gen2, 4 x USB 3.2 Gen1 (including one Type-C), 2 x RS232, 1 x M.2 2280 M Key (PCIe 4.0 x4/SATA), 1 x M.2 2230 E Key
- DH670 V2** : Dual Intel® 2.5 Gigabit LAN
DH670 : Dual Intel® Gigabit LAN

DH410



Cooling system	Smart fan
Processor	Intel® 10 th Gen LGA1200 socket Core i3/i5/i7/i9, Pentium, Celeron 65W processor
Chipset	Intel® H410
Graphics	Intel® UHD Graphics series
Display Resolution Max.	HDMI : 4096 x 2160@60Hz DisplayPort : 4096 x 2160@60Hz
Display Output	2 Independent Displays
Video Decoder	MPEG2, WMV9 / VC1, AVC / H.264, JPEG / MPEG, HEVC / H.265, VP8, VP9, AV1
Memory	2 x DDR4 2933/2666 MHz, Max. 64GB
Storage	1 x 2.5" HDD/SSD (max. 12.5 mm) / 1 x SD card(Optional)
RAID	-
Expansion Slot	1 x M.2 2280, M Key 1 x M.2 2230, E Key
HDMI Port	1
DisplayPort	1
VGA Port	Optional
USB 3.2 (Front)	Gen1 : 2
USB 3.2 (Rear)	Gen1 : 2
USB 2.0 (Front)	2
USB 2.0 (Rear)	2
COM Port	1 x RS232 / 1 x RS232/422/485, Support 5V/12V
Line out / Mic in	1 / 1
Network	LAN : 2 x Intel® 1G LAN WLAN: Optional
VESA	Bracket included
Dimension	L : 190 x W: 165 x H : 43 mm
Weight	NW (kg) : 1.2 / GW (kg) : 2
Certification	CB, CE, BSMI, cTUVus, FCC, RCM, RoHS, VCCI
Operating Temperature(°C)	0~50
Chassis	Metal
Power Supply	Power Input : 12V or 19V DC in Bundled Adapter : 19V/4.74A 90W external adapter
Operating System	Windows 10/11 64bit, Linux
Optional Accessories	WLN-M, PVG01, PS02, WWN03

DH410S



Cooling system	Smart fan
Processor	Intel® 10 th Gen LGA1200 socket Core i3/i5/i7/i9, Pentium, Celeron 65W processor
Chipset	Intel® H410
Graphics	Intel® UHD Graphics series
Display Resolution Max.	HDMI : 3840 x 2160@30Hz DisplayPort : 4096 x 2160@60Hz
Display Output	2 Independent Displays
Video Decoder	MPEG2, WMV9 / VC1, AVC / H.264, JPEG / MPEG, HEVC / H.265, VP8, VP9, AV1
Memory	2 x DDR4 2933/2666 MHz, Max. 64GB
Storage	1 x 2.5" HDD/SSD (max. 12.5 mm) / 1 x SD card(Optional)
RAID	-
Expansion Slot	1 x M.2 2280, M Key 1 x M.2 2230, E Key
HDMI Port	1
DisplayPort	1
VGA Port	Optional
USB 3.2 (Front)	Gen1 : 2
USB 3.2 (Rear)	Gen1 : 2
USB 2.0 (Front)	2
USB 2.0 (Rear)	2
COM Port	-
Line out / Mic in	1 / 1
Network	LAN : 1 x Realtek 1G LAN WLAN: Optional
VESA	Optional
Dimension	L : 190 x W: 165 x H : 43 mm
Weight	NW (kg) : 1.2 / GW (kg) : 2
Certification	CB, CE, BSMI, cTUVus, FCC, RCM, RoHS, VCCI
Operating Temperature(°C)	0~50
Chassis	Metal
Power Supply	Power Input : 19V DC in Bundled Adapter : 19V/4.74A 90W external adapter
Operating System	Windows 10/11 64bit, Linux
Optional Accessories	WLN-M, PVG01, PS02, WWN03, PV04

DH32U SERIES



Cooling system	Smart fan
Processor	Intel® Pentium® Gold 7505 or Intel® i3-1115G4/i5-1135G7/i7-1165G7
Chipset	Integrated in CPU
Graphics	Intel® UHD or Iris® Xe Graphics
Display Resolution Max.	HDMI : 4096 x 2160@60Hz
Display Output	4 Independent Displays
Video Decoder	MPEG2, WMV9, AVC / H.264, JPEG / MPEG, HEVC / H.265, VP9, AV1
Memory	2 x DDR4 3200/2933/2666 MHz, Max. 64GB
Storage	1 x 2.5" HDD/SSD (max. 12.5 mm) / 1 x SD card
RAID	-
Expansion Slot	1 x M.2 2280, M Key 1 x M.2 2230, E Key
HDMI Port	4
DisplayPort	-
VGA Port	Optional
USB 3.2 (Front)	Gen2 : 4
USB 3.2 (Rear)	Gen1 : 4
USB 2.0 (Front)	-
USB 2.0 (Rear)	-
COM Port	1 x RS232 / 1 x RS232/422/485, Support 5V/12V
Line out / Mic in	1 / 1
Network	LAN : 2 x Intel® 1G LAN WLAN: Optional
VESA	Bracket included
Dimension	L : 190 x W: 165 x H : 43 mm
Weight	NW (kg) : 1.03 / GW (kg) : 2.2
Certification	CB, CE, BSMI, cTUVus, FCC, RCM, RoHS, VCCI
Operating Temperature(°C)	0~50
Chassis	Metal
Power Supply	Power Input : 19V DC in Bundled Adapter : 19V/4.74A 90W external adapter
Operating System	Windows 10/11 64bit, Linux
Optional Accessories	WLN-M, PVG01, PS02, WWN03

DH02U SERIES



Cooling system	Smart fan
Processor	Intel® Celeron 3865U or Intel® i3-7100U/i5-7200U/i7-7500U
Chipset	Integrated in CPU
Graphics	NVIDIA GeForce GTX 1050 GPU 4GB
Display Resolution Max.	HDMI : 4096 x 2160@60Hz 8192 x 4320@60Hz in Surround Mode
Display Output	4 Independent Displays
Video Decoder	MPEG, MPEG2, VC1, VP9, AVC / H.264, HEVC / H.265, AV1
Memory	2 x DDR4 2133 MHz, Max. 32GB
Storage	1 x 2.5" HDD/SSD (max. 12.5 mm)
RAID	-
Expansion Slot	1 x M.2 2280, M Key 1 x M.2 2230, E Key
HDMI Port	4 (HDMI 2.0)
DisplayPort	-
VGA Port	Optional
USB 3.2 (Front)	Gen1 : 2
USB 3.2 (Rear)	Gen1 : 2
USB 2.0 (Front)	2
USB 2.0 (Rear)	-
COM Port	1 x RS232
Line out / Mic in	1 / 1
Network	LAN : 1 x Intel® Gigabit LAN WLAN: Optional
VESA	Bracket included
Dimension	L : 190 x W: 165 x H : 43 mm
Weight	NW (kg) : 2.2 / GW (kg) : 3.5
Certification	CB, CE, BSMI, ETL, FCC, RCM, RoHS, VCCI
Operating Temperature(°C)	0~50
Chassis	Metal
Power Supply	Power Input : 19V DC in Bundled Adapter : 19V/6.32A 120W external adapter
Operating System	Windows 10 64bit, Linux
Optional Accessories	WLN-M, PS02



DH670/DH670 V2

Cooling system	Smart fan
Processor	Intel® 13 th /12 th Gen LGA1700 socket Core i3/i5/i7/i9, Pentium, Celeron 65W processor
Chipset	Intel® H670
Graphics	Intel® UHD Graphics series
Display Resolution Max.	HDMI : 4096 x 2160@60Hz DisplayPort : 4096 x 2160@60Hz
Display Output	4 Independent Displays
Video Decoder	WMV9, AVC / H.264, JPEG / MPEG, HEVC / H.265, VP9, AV1
Memory	2 x DDR4 3200/2933/2666 MHz, Max. 64GB
Storage	1 x 2.5" HDD/SSD (max. 12.5 mm) / 1 x SD card (only DH670)
RAID	0, 1
Expansion Slot	1 x M.2 2280, M Key 1 x M.2 2230, E Key
HDMI Port	2
DisplayPort	2
VGA Port	Optional
USB 3.2 (Front)	Gen1 : 2(Include Type C x 1) / Gen2 : 2
USB 3.2 (Rear)	Gen1 : 2 / Gen2 : 2
USB 2.0 (Front)	-
USB 2.0 (Rear)	-
COM Port	1 x RS232 / 1 x RS232/422/485, Support 5V/12V
Line out / Mic in	1 / 1
Network	LAN : 2 x Intel® 1G LAN (DH670) / 2 x Intel® 2.5G LAN (DH670 V2) WLAN : Optional
VESA	Bracket included
Dimension	L : 190 x W: 165 x H : 43 mm
Weight	NW (kg) : 1.3 / GW (kg) : 2.05
Certification	CB, CE, BSMI, cTUVus, FCC, RCM, RoHS, VCCI
Operating Temperature (°C)	0~50
Chassis	Metal
Power Supply	Power Input : 19V DC in Bundled Adapter : 19V/6.32A 120W external adapter
Operating System	Windows 10/11 64bit, Linux
Optional Accessories	WLN-M, PVG01, PS02, WWN03

* BIOS v2.05 and up to version support Raptor Lake (13th) CPU



DH610

Cooling system	Smart fan
Processor	Intel® 13 th /12 th Gen LGA1700 socket Core i3/i5/i7/i9, Pentium, Celeron 65W processor
Chipset	Intel® H610
Graphics	Intel® UHD Graphics series
Display Resolution Max.	HDMI : 4096 x 2160@60Hz DisplayPort : 4096 x 2160@60Hz
Display Output	3 Independent Displays
Video Decoder	WMV9, AVC / H.264, JPEG / MPEG, HEVC / H.265, VP9, AV1
Memory	2 x DDR4 3200/2933/2666 MHz, Max. 64GB
Storage	1 x 2.5" HDD/SSD (max. 12.5 mm)
RAID	-
Expansion Slot	1 x M.2 2280, M Key 1 x M.2 2230, E Key
HDMI Port	1
DisplayPort	2
VGA Port	Optional
USB 3.2 (Front)	Gen1 : 2(Include Type C x 1)
USB 3.2 (Rear)	Gen1 : 2
USB 2.0 (Front)	2
USB 2.0 (Rear)	2
COM Port	1 x RS232 / 1 x RS232/422/485, Support 5V/12V
Line out / Mic in	1 / 1
Network	LAN : 1 x Intel® 1G LAN / 1 x Intel® 2.5G LAN WLAN : Optional
VESA	Bracket included
Dimension	L : 190 x W: 165 x H : 43 mm
Weight	NW (kg) : 1.3 / GW (kg) : 2.05
Certification	CB, CE, BSMI, cTUVus, FCC, RCM, RoHS, VCCI
Operating Temperature (°C)	0~50
Chassis	Metal
Power Supply	Power Input : 12V or 19V DC in Bundled Adapter : 19V/6.32A 120W external adapter
Operating System	Windows 10/11 64bit, Linux
Optional Accessories	WLN-M, PVG01, PS02, WWN03

* BIOS v2.02 and up to version support Raptor Lake (13th) CPU



DH610S

Cooling system	Smart fan
Processor	Intel® 13 th /12 th Gen LGA1700 socket Core i3/i5/i7/i9, Pentium, Celeron 65W processor
Chipset	Intel® H610
Graphics	Intel® UHD Graphics series
Display Resolution Max.	HDMI : 4096 x 2160@60Hz DisplayPort : 4096 x 2160@60Hz
Display Output	2 Independent Displays
Video Decoder	WMV9, AVC / H.264, JPEG / MPEG, HEVC / H.265, VP9, AV1
Memory	2 x DDR4 3200/2933/2666 MHz, Max. 64GB
Storage	1 x 2.5" HDD/SSD (max. 12.5 mm)
RAID	-
Expansion Slot	1 x M.2 2280, M Key 1 x M.2 2230, E Key
HDMI Port	1
DisplayPort	1
VGA Port	Optional
USB 3.2 (Front)	Gen1 : 2(Include Type C x 1)
USB 3.2 (Rear)	Gen1 : 2
USB 2.0 (Front)	2
USB 2.0 (Rear)	2
COM Port	-
Line out / Mic in	1 / 1
Network	LAN : 1 x Intel® 1G LAN WLAN: Optional
VESA	Optional
Dimension	L : 190 x W: 165 x H : 43 mm
Weight	NW (kg) : 1.3 / GW (kg) : 2.05
Certification	CB, CE, BSMI, cTUVus, FCC, RCM, RoHS, VCCI
Operating Temperature (°C)	0~50
Chassis	Metal
Power Supply	Power Input : 19V DC in Bundled Adapter : 19V/6.32A 120W external adapter
Operating System	Windows 10/11 64bit, Linux
Optional Accessories	WLN-M, PVG01, PS02, WWN03, PV04

* BIOS v2.01 and up to version support Raptor Lake (13th) CPU



DH470

Cooling system	Smart fan
Processor	Intel® 10 th Gen LGA1200 socket Core i3/i5/i7/i9, Pentium, Celeron 65W processor
Chipset	Intel® H470
Graphics	Intel® UHD Graphics series
Display Resolution Max.	HDMI : 4096 x 2160@60Hz DisplayPort : 4096 x 2160@60Hz
Display Output	3 Independent Displays
Video Decoder	MPEG2, WMV9 / VC1, AVC / H.264, JPEG / MPEG, HEVC / H.265, VP8, VP9, AV1
Memory	2 x DDR4 2933/2666 MHz, Max. 64GB
Storage	1 x 2.5" HDD/SSD (max. 12.5 mm) / 1 x SD card(Optional)
RAID	0, 1
Expansion Slot	1 x M.2 2280, M Key 1 x M.2 2230, E Key
HDMI Port	1
DisplayPort	2
VGA Port	Optional
USB 3.2 (Front)	Gen1 : 2(Include Type C x 1) / Gen2 : 2
USB 3.2 (Rear)	Gen1 : 2 / Gen2 : 2
USB 2.0 (Front)	-
USB 2.0 (Rear)	-
COM Port	1 x RS232 / 1 x RS232/422/485, Support 5V/12V
Line out / Mic in	1 / 1
Network	LAN : 2 x Intel® 1G LAN WLAN: Optional
VESA	Bracket included
Dimension	L : 190 x W: 165 x H : 43 mm
Weight	NW (kg) : 1.2 / GW (kg) : 2
Certification	CB, CE, BSMI, cTUVus, FCC, RCM, RoHS, VCCI
Operating Temperature (°C)	0~50
Chassis	Metal
Power Supply	Power Input : 19V DC in Bundled Adapter : 19V/4.74A 90W external adapter
Operating System	Windows 10/11 64bit, Linux
Optional Accessories	WLN-M, PVG01, PS02, WWN03



DS50U^{SERIES}

Fanless Design With 5G/LTE Support Ready

Get Amplified Processing Power with 13th-Gen Raptor Lake-U

DS50U series is a 5G-supported fanless PC powered by Intel® 13th Gen Raptor Lake-U processor with Intel® Iris Xe graphics* and support up to 64GB DDR5 5200 memory, providing robust multi-core processing and powerful AI workloads. Combined with rich I/Os as HDMI 2.0b, DisplayPort 1.4a, VGA, USB3.2 Gen2, USB3.2 Gen1, RS232, and dual LAN. In addition, with the feature of passive cooling architecture, the DS50U series is virtually maintenance-free and is approved for 24/7 nonstop operation. The DS50U can be integrated into various IoT applications, such as IoT gateways, smart digital signage, visual processing, robotic automation control, edge computing, interactive kiosks, and more.

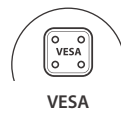
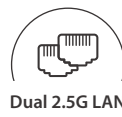


Feature

- CPU options of Intel® Core™ i3-1315U/ i5-1335U/i7-1355U and Intel® processor U300
- Support optional WiFi AC+BT kit and 5G/LTE network extension kit
- 1 x Intel® 2.5G LAN + 1 x Intel® 1G LAN
- Triple-display productivity via HDMI 2.0b, DisplayPort 1.4a, and VGA outputs
- Great connectivity** : 2 x USB3.2 Gen2, 4 x USB3.2 Gen1, 2 x USB2.0, 1 x RS232, 2 x M.2 2280 M Key and 1 x M.2 2230 E Key

* Intel® Iris® Xe graphics for Core™ i5/i7 model only

DL30N SERIES



Maximize IoT Capabilities With Reliable Fanless PC

12th Gen Processor, Dual 2.5G LAN, 4G/LTE Supports

The DL30N series is a fanless PC powered by Intel® Alder Lake-N series processors with DDR5 memory speeds up to 4800Hz. The integrated Intel® UHD graphics promise reliable performance for multitasking. Equipped with dual Intel® 2.5G LAN, it supports Wake On Lan. It is compatible with optional 802.11 AC WiFi and 4G/LTE adapter kit to enable excellent network applications. The device also features rich I/O interfaces, including HDMI 2.0b, DisplayPort 1.4a, VGA output, 8 x USB3.2 Gen1, and 2 x RS232, making it effortless to configure into various applications such as digital signage, POS/kiosk, IoT/edge, and more.



Feature

CPU options of Intel® i3-N300 or Intel® Processor N200/N100

24/7 certified in 0-40°C environments

Support optional WiFi AC+BT kit and 4G/LTE adapter kit

Triple-display productivity via HDMI 2.0b, DisplayPort 1.4a, and VGA outputs

Great connectivity : 2 x Intel® 2.5G LAN, 8 x USB3.2 Gen1 and 2 x RS232

DS50U SERIES



Cooling system	Fanless
Processor	Intel® Processor U300 Intel® i3-1315U/i5-1335U/i7-1355U
Chipset	Integrated in CPU
Graphics	Intel® UHD or Iris® Xe Graphics
Display Resolution Max.	HDMI : 4096 x 2160@60Hz VGA : 1920 x 1080@60Hz DisplayPort : 4096 x 2160@60Hz
Display Output	3 Independent Displays
Video Decoder	WMV9, AVC / H.264, JPEG / MPEG, HEVC / H.265, VP9, AV1
Memory	2 x DDR5 5200MHz Max. 64GB
Storage	1 x 2.5" HDD/SSD (max. 9.5 mm)
Expansion Slot	2 x M.2 2280, M Key 1 x M.2 2230, E Key
HDMI Port	1
DisplayPort	1
VGA Port	1
USB 3.2 (Front)	Gen1 : 4 / Gen2 : 2
USB 3.2 (Rear)	-
USB 2.0 (Front)	-
USB 2.0 (Rear)	2
COM Port	1
Line out / Mic in	1 / 1
Network	LAN : 1 x Intel® 1G LAN + 1 x 2.5G LAN WLAN: Optional
VESA	Bracket included
Dimension	L : 200 x W: 165 x H : 39.5 mm
Weight	NW (kg) : TBD / GW (kg) : TBD
Certification	CB, CE, BSMI, cTUVus, FCC, RCM, RoHS, VCCI, UKCA
Operating Temperature (°C)	0~40
Chassis	Metal + Plastic
Power Supply	Power Input : 12V or 19V DC in Bundled Adapter : 19V/4.74A 90W external adapter
Operating System	Windows 11 64bit, Linux
Optional Accessories	WWN04, WLN-M

DS20U/DS20U V2 SERIES



Cooling system	Fanless
Processor	Intel® Celeron 5205U or Intel® i3-10110U/i5-10210U/i7-10510U
Chipset	Integrated in CPU
Graphics	Intel® UHD Graphics
Display Resolution Max.	HDMI : 4096 x 2160@60Hz VGA : 1920 x 1080@60Hz DisplayPort : 4096 x 2160@60Hz
Display Output	3 Independent Displays
Video Decoder	MPEG2, WMV9 / VC1, AVC / H.264, JPEG / MPEG, HEVC / H.265, VP8, VP9, AV1
Memory	2 x DDR4 2666/2400 MHz, Max. 64GB
Storage	1 x 2.5" HDD/SSD (max. 12.5 mm) / 1 x SD card
Expansion Slot	1 x M.2 2280, M Key 1 x M.2 2230, E Key
HDMI Port	1
DisplayPort	1
VGA Port	1
USB 3.2 (Front)	Gen1 : 2 (for Celeron) / Gen2 : 2 (for Core i series)
USB 3.2 (Rear)	Gen1 : 2 (for Celeron) / Gen2 : 2 (for Core i series)
USB 2.0 (Front)	4
USB 2.0 (Rear)	-
COM Port	1 x RS232/422/485, Support 5V/12V
Line out / Mic in	1 / 1
Network	LAN : 2 x Intel® 1G LAN (DS20U series) 1 x Intel® 1G LAN + 1 x 2.5G LAN (DS20U V2 series) WLAN : Optional
VESA	Bracket included
Dimension	L : 200 x W: 165 x H : 39.5 mm
Weight	NW (kg) : 1.4 / GW (kg) : 2.1
Certification	CB, CE, BSMI, cTUVus, FCC, RCM, RoHS, VCCI
Operating Temperature (°C)	0~40
Chassis	Metal + Plastic
Power Supply	Power Input : 12V or 19V DC in Bundled Adapter : 19V/3.42A 65W external adapter
Operating System	Windows 10/11 64bit, Linux
Optional Accessories	WWN03, WLN-M

DS10U SERIES



Cooling system	Fanless
Processor	Intel® Celeron 4205U or Intel® i3-8145U/i5-8265U/i7-8565U
Chipset	Integrated in CPU
Graphics	Intel® UHD Graphics
Display Resolution Max.	HDMI : 4096 x 2160@60Hz VGA : 1920 x 1080@60Hz DisplayPort : 4096 x 2160@60Hz
Display Output	3 Independent Displays
Video Decoder	MPEG2, WMV9 / VC1, AVC / H.264, JPEG / MPEG, HEVC / H.265, VP8, VP9
Memory	2 x DDR4 2400/2133 MHz, Max. 64GB
Storage	1 x 2.5" HDD/SSD (max. 12.5 mm) / 1 x SD card
Expansion Slot	1 x M.2 2280, M Key 1 x M.2 2230, E Key
HDMI Port	1
DisplayPort	1
VGA Port	1
USB 3.2 (Front)	Gen1 : 2 (for Celeron) / Gen2 : 2 (for Core i series)
USB 3.2 (Rear)	Gen1 : 2 (for Celeron) / Gen2 : 2 (for Core i series)
USB 2.0 (Front)	4
USB 2.0 (Rear)	-
COM Port	1 x RS232/422/485, Support 5V/12V
Line out / Mic in	1 / 1
Network	LAN : 2 x Intel® 1G LAN WLAN: Optional
VESA	Bracket included
Dimension	L : 200 x W: 165 x H : 39.5 mm
Weight	NW (kg) : 1.4 / GW (kg) : 2.1
Certification	CB, CE, BSMI, cTUVus, FCC, RCM, RoHS, VCCI, RED
Operating Temperature (°C)	0~40
Chassis	Metal + Plastic
Power Supply	Power Input : 12V or 19V DC in Bundled Adapter : 19V/3.42A 65W external adapter
Operating System	Windows 10/11 64bit, Linux
Optional Accessories	WWN03, WLN-M

DL30N SERIES



Cooling system	Fanless
Processor	Intel® i3-N300 or Intel® Processor N200/N100
Chipset	Integrated in CPU
Graphics	Intel® UHD Graphics
Display Resolution Max.	HDMI : 4096 x 2160@60Hz VGA : 1920 x 1080@60Hz DisplayPort : 4096 x 2160@60Hz
Display Output	3 Independent Displays
Video Decoder	MPEG2, WMV9 / VC1, AVC / H.264, JPEG / MPEG, HEVC / H.265, VP9, AV1
Memory	1 x DDR5 4800MHz, Max. 16GB
Storage	1 x 2.5" HDD/SSD (max. 9.5mm)
Expansion Slot	1 x M.2 2280, M Key 1 x M.2 2230, E Key
HDMI Port	1
DisplayPort	1
VGA Port	1
USB 3.2 (Front)	Gen1 : 4
USB 3.2 (Rear)	Gen1 : 4
USB 2.0 (Front)	-
USB 2.0 (Rear)	-
COM Port	1 x RS232 / 1 x RS232/422/485, Support 5V/12V
Line out / Mic in	1 / 1
Network	LAN : 2 x Intel® 2.5G LAN WLAN: Optional
VESA	Bracket included
Dimension	L : 190 x W: 165 x H : 43 mm
Weight	NW (kg) : TBD / GW (kg) : TBD
Certification	CB, CE, BSMI, cTUVus, FCC, RCM, RoHS, VCCI, UKCA
Operating Temperature (°C)	0~40
Chassis	Metal
Power Supply	Power Input : 12V or 19V DC in Bundled Adapter : 19V/3.42A 65W external adapter
Operating System	Windows 11 64bit, Linux
Optional Accessories	PS02, WWN03, WLN-M

DL20N/DL20N V2 SERIES



Cooling system	Fanless
Processor	Intel® Celeron N4505 or Intel® Celeron N5105/Pentium N6005
Chipset	Integrated in CPU
Graphics	Intel® UHD Graphics
Display Resolution Max.	HDMI : 4096 x 2160@60Hz VGA : 1920 x 1080@60Hz DisplayPort : 4096 x 2160@60Hz
Display Output	3 Independent Displays
Video Decoder	MPEG2, WMV9 / VC1, H.264, JPEG / MPEG, HEVC / H.265, VP9
Memory	2 x DDR4 2933/2666 MHz, Max. 16GB
Storage	1 x 2.5" HDD/SSD (max. 9.5mm) / 1 x SD card
Expansion Slot	1 x M.2 2280, M Key 1 x M.2 2230, E Key
HDMI Port	1
DisplayPort	1
VGA Port	1
USB 3.2 (Front)	Gen2 : 2
USB 3.2 (Rear)	Gen1 : 2
USB 2.0 (Front)	-
USB 2.0 (Rear)	2
COM Port	1 x RS232 / 1 x RS232/422/485, Support 5V/12V
Line out / Mic in	1 / 1
Network	LAN : 1 x Intel® 1G LAN (DL20N series) 1 x Intel® 2.5G LAN (DL20N V2 series) WLAN: Optional
VESA	Bracket included
Dimension	L : 190 x W: 165 x H : 43 mm
Weight	NW (kg) : 1.5 / GW (kg) : 2.07
Certification	CB, CE, BSMI, cTUVus, FCC, RCM, RoHS, VCCI
Operating Temperature (°C)	0~40
Chassis	Metal
Power Supply	Power Input : 12V or 19V DC in Bundled Adapter : 19V/2.1A 40W external adapter
Operating System	Windows 10/11 64bit, Linux
Optional Accessories	PS02, WWN01, WWN03, WLN-M

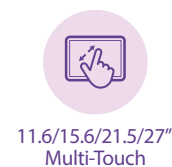
K11WL02 , K15WL01 K21WL01 , K27WL04

X86-Based Self-Service KIOSK

The kiosk is an advanced self-service terminal that seamlessly integrates hardware and software, offering businesses automation and efficiency. Powered by the Intel® 8th Gen Whiskey Lake processor and integrated Intel® UHD Graphics, this x86-based interactive kiosk is robust in computing, boasting four USB 3.2 Gen1, an RS232, and one Intel® Gigabit LAN. Its modular design is highly customizable and can support a wide range of peripherals such as 1D/2D scanners, thermal printers, NFC readers, IC card readers, payment devices, and webcams, tailored to meet specific business requirements like ticketing, check-in, guide maps, and other information services in entertainment and healthcare applications.

Features

- Intel® Whiskey Lake-U/UE processors
- 11.6/15.6/21.5/27-inch 1080P FHD, PCAP 10-point multi-touch screen
- Sturdy and robust SECC metal enclosure
- Mounting supports : Counter mount (optional), Pole mount (optional), Wall mount
- Provide 4 x USB 3.2 Gen1, 1 x RS232, 1 x Intel® Gigabit LAN, and WiFi 802.11ac + Bluetooth 4.2
- Support a wide range of peripherals of 1D/2D scanner, thermal printer, NFC/RFID reader, IC card reader, a payment device, and webcam



11.6/15.6/21.5/27"
Multi-Touch



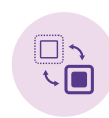
IP65



Fanless



Simplified Service
& Maintenance



Modular Design



K11RK02
K15RK01
K21RK01
K27RK04

ARM-Based Self-Service Kiosk

The ARM-based interactive self-service kiosks are designed with functionality in mind and are well-suited for delivering extensive self-service capability for desktop, counter, or wall mount deployment. Equipped with a Rockchip RK3368 Octa-Core processor, the kiosk provides eight USB 2.0, a Realtek Gigabit LAN, and WiFi 802.11 ac & Bluetooth 5.0. In addition, it can house a variety of peripherals of 1D/2D scanner, thermal printer, NFC/RFID reader, IC card reader, a payment device, and a webcam, customizing based on the functional requirements and service purposes to meet needs for ticketing, payments, check-in, queue management, guide map, information services, etc.



11.6/15.6/21.5/27"
Multi-Touch



IP65



Robust Design



Modular Design



Flexible
Customization



Android

Features

- Rockchip RK3368 Octa-core Cortex-A53 processor
- 11.6/15.6/21.5/27-inch 1080P FHD, PCAP 10-point multi-touch screen
- Customizable configurations to suit your brand and function
- Mounting supports : Counter mount (optional), Pole mount (optional), Wall mount
- Provide 8 x USB 2.0, Realtek Gigabit LAN, and WiFi 802.11ac + Bluetooth 5.0
- Support with customizable configurations: Thermometer, 1D/2D scanner, RFID/ NFC/IC card reader, thermal printer, webcam, and hand sanitizer dispenser



P21AL01/P21EL01

21.5" Multi-Touch Panel PC

Perfect for various Industrial and Commercial Applications

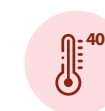
Shuttle's industrial-grade panel PCs come in a 21.5-inch size and offer multiple processor options suitable for IoT applications. The performance-oriented P21AL01 supports Intel® 12th Gen Alder Lake Core™ processors, supporting up to 64GB DDR5-4800 memory. Meanwhile, the P21EL01 offers CPU options of Intel® Elkhart Lake Atom®, Pentium®, and Celeron®, offering an excellent price-performance ratio. These panel PCs feature a rugged aluminum housing front bezel with IP65 dust and waterproof protection and a 10-point touch function. They offer four USB 3.2, three RS232, one HDMI, dual Intel® LAN, WiFi AC+Bluetooth 5.0, one M.2 2280 M key slot, and one SATA connector for flexible connectivity. These features make them ideal for industrial control, automation, and edge computing applications.



IP65



21.5" Multi-Touch



Environments



Easy Swap Storage

Features

- 21.5-inch 10-point capacitive multi-touch
 - IP65 front panel waterproof protection
 - 1 x HDMI 2.0, 4 x USB 3.2, 1 x RS232, 2 x RS232 /422 /485
 - Provide one swappable 2.5" SSD SATA drive bay
 - Dual Intel® LAN and WiFi 802.11ac+BT 5.0
- [RS232 with power supply : ring in/ 5V (standard) &12V (with specific optional board)]

	P21AL01	P21EL01
PROCESSOR	Core™ i3-1215UE (default), i5-1235U, i5-1245UE, i7-1255U, i7-1265UE, Celeron® 7305E	Pentium® J6426 Atom® x6425E Celeron® J6412

		P21AL01	P21EL01	P21WL01
SYSTEM	Processor	12 th Gen. Intel® Alder Lake Core™ i3-1215UE (default) Optional : i5-1235U, i5-1245UE, i7-1255U, i7-1265UE, Celeron® 7305E	Intel® Elkhart Lake Celeron® J6412 (default) Optional : Pentium® J6426, Atom® x6425E	8 th Gen. Intel® Whiskey Lake Core™ i3-8145UE (default) Optional : i5-8265U, i5-8365UE, i7-8565U, i7-8665UE, Celeron® 4305UE
	Memory	2 x 262 pin SO-DIMM up to 64GB Dual Channel DDR5 4800MHz	2 x 260 pin SO-DIMM up to 32GB Dual Channel DDR4 3200MHz	2 x 260 pin SO-DIMM up to 64GB Dual Channel DDR4 2666MHz
	BIOS	AMI UEFI 64bit	AMI UEFI 64bit	AMI UEFI 64bit
DISPLAY AND TOUCH SCREEN	Display	21.5” 1920 x 1080 Full HD TFT LED with 10-Point Projected Capacitive Multi-Touch	21.5” 1920 x 1080 Full HD TFT LED with 10-Point Projected Capacitive Multi-Touch	21.5” 1920 x 1080 Full HD TFT LED with 10-Point Projected Capacitive Multi-Touch
	Viewing Angle (H/V°)	89 (left), 89 (right), 89 (up), 89 (down)	89 (left), 89 (right), 89 (up), 89 (down)	89 (left), 89 (right), 89 (up), 89 (down)
	Brightness	500 cd/m2	500 cd/m2	500 cd/m2
	Contrast	1000 : 1	1000 : 1	1000 : 1
GRAPHICS	Backlight Lifetime	30,000 hrs	30,000 hrs	30,000 hrs
	Chipset	Intel® UHD or Iris® Xe Graphics	Intel® UHD Graphics	Intel® UHD Graphics
	Display Interface	Supports two independent displays 1 x HDMI 2.0 : 4096 x 2160@60Hz 1 x DVI : 1920 x 1080@60Hz	Supports two independent displays 1 x HDMI 2.0 : 4096 x 2160@60Hz 1 x DVI : 1920 x 1080@60Hz	Supports two independent displays 1 x HDMI 1.4b : 4096 x 2160@30Hz 1 x DVI-I : 1920 x 1080@60Hz
STORAGE	Video Decoder	WMV,AVC/ H264,JPEG/ MJPEG,HEVC/ H265,VP9,AV1	MPEG-2,WMV9 / VC1,H.264,JPEG/ MJPEG,H.265/ HEVC,VP8,VP9	MPEG-2,WMV9/ VC1,H.264,JPEG/ MJPEG,H.265/ HEVC,VP8,VP9
	Internal	1 x M.2 2280 M key (PCIe NVMe / SATA) 1 x Swappable 2.5” SSD SATA 3.0 drive bay (compatible 7mm)	1 x M.2 2280 M key (PCIe NVMe / SATA) 1 x Swappable 2.5” SSD SATA 3.0 drive bay (compatible 7mm)	1 x M.2 2280 M key (PCIe NVMe / SATA) 1 x Swappable 2.5” SSD SATA 3.0 drive bay (compatible 7mm)
	AUDIO	Audio Codec	Realtek ALC888S-VD 2-channel	Realtek ALC662/ALC888S 2-channel
NETWORK	Ethernet	2 x Intel® LAN / Support Wake On LAN	2 x Intel® 2.5 Gb LAN / Support Wake On LAN	2 x Intel® Gigabit LAN / Support Wake On LAN
	WLAN	Realtek RTL8821CE 802.11a/b/g/n/ac + Bluetooth 5.0 (M.2 2230 E key) with 2 internal antenna(default)/external antenna (optional)	Realtek RTL8821CE 802.11a/b/g/n/ac + Bluetooth 5.0 (M.2 2230 E key) with 2 internal antenna(default)/external antenna (optional)	Realtek RTL8821CE 802.11a/b/g/n/ac + Bluetooth 5.0 (M.2 2230 E key) with 2 internal antenna(default)/external antenna (optional)
I/O INTERFACE	Serial Ports	1 x RS-232 (DB-9) 2 x RS-232/422/485 (DB-9) (RS-232 with power supply : Ring in/ 5V (standard) &12V (with specific optional board))	1 x RS-232 (DB-9) 2 x RS-232/422/485 (DB-9) (RS-232 with power supply : Ring in/ 5V (standard) &12V (with specific optional board))	1 x RS-232 (DB-9) 2 x RS-232/422/485 (DB-9) (RS-232 with power supply : Ring in/ 5V (standard) &12V (with specific optional board))
	USB	4 x USB3.2 Gen 2 (Type A)	4 x USB3.2 Gen 1 (Type A)	4 x USB3.2 Gen 1 (Type A)
	Audio	1 x Line-out / 1 x Mic-in	1 x Line-out / 1 x Mic-in	1 x Line-out / 1 x Mic-in
POWER	Bundled Adapter	19V/4.74A 90W external adapter	19V/4.74A 90W external adapter	19V/4.74A 90W external adapter
WATCHDOG TIMER	Watchdog	Support watchdog	Support watch dog	Support watchdog
OS SUPPORT	OS Support	Windows 11 64bit / Linux 64bit	Windows 11 64bit / Linux 64bit	Windows 10/11 64bit / Linux 64bit
MECHANISM	IP Rating	IP65 Front Panel Protection	IP65 Front Panel Protection	IP65 Front Panel Protection
	Mounting	VESA Mount 100 x 100 mm	VESA Mount 100 x 100 mm	VESA Mount 100 x 100 mm
	Dimension (W/H/D) mm	543 x 334 x 49.9	543 x 334 x 49.9	543 x 334 x 49.9
	Weight	7.6kg	7.6kg	7.6kg
ENVIRONMENT	Operating Temperature	0°C ~ 40°C	0°C ~ 40°C	0°C ~ 40°C
	Storage Temperature	-20°C ~ 60°C	-20°C ~ 60°C	-20°C ~ 60°C
	Relative Humidity	20% - 80% RH (non-condensing)	20% - 80% RH (non-condensing)	20% - 80% RH (non-condensing)
	EMC	CE, FCC, VCCI, BSMI, UKCA	CE, FCC, VCCI, BSMI, UKCA	CE, FCC, VCCI, BSMI, UKCA
	Safety	CB, CEC, cTUVus, BSMI, EAC	CB, CEC, cTUVus, BSMI, EAC	CB, CEC, cTUVus, BSMI, EAC
	RF	US, EU, Taiwan	US, EU, Taiwan	US, EU, Taiwan



P15AL01/P15EL01

15.6" Multi-Touch Panel PC

The Perfect HMI Replacement for Industrial Automation

Shuttle P15AL01/P15EL01 integrates a 15.6-inch FHD TFT LCD panel and features an IP65-certified front bezel panel. They feature Intel® Alder Lake and Elkhart Lake processors, which deliver outstanding performance, efficiency, and connectivity for a wide range of IoT applications. Rich I/O interfaces include USB 3.2, RS232, HDMI 2.0, M.2 2280 M key, Intel® LAN, and IEEE 802.11ac WiFi + Bluetooth 5.0. Moreover, the series offers customized I/O configurations to integrate with industrial production architecture. Equipped with high-performance computing capability, it is suitable for human-machine interface (HMI), process control, infotainment, and kiosk.



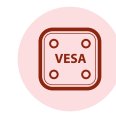
IP65



15.6" Multi-Touch



Fanless



Vesa Mount

Features

- 15.6-inch 10-point capacitive multi-touch
- IP65 front panel waterproof protection
- 1 x HDMI 2.0, 4 x USB 3.2, 1 x RS232, 1 x M.2 2280 M key (Supports PCIe x 4 / SATA storage interface)
- Network connectivity : Intel® LAN, WiFi 802.11 a/b/g/n/ac + Bluetooth 5.0
- Customized I/O options : DVI-I, VGA, RS232, USB 2.0, POAG, M.2 2280, wide voltage range board, external antenna, etc.

	P15AL01	P15EL01
PROCESSOR	Core™ i3-1215UE (default), i5-1235U, i5-1245UE, i7-1255U, i7-1265UE, Celeron® 7305E	Pentium® J6426 Atom® x6425E Celeron® J6412

		P15AL01	P15EL01	P15WL01
SYSTEM	Processor	12 th Gen. Intel® Alder Lake Core™ i3-1215UE (default) Optional : i5-1235U, i5-1245UE, i7-1255U, i7-1265UE, Celeron® 7305E	Intel® Elkhart Lake Celeron® J6412 (default) Optional : Pentium® J6426, Atom® x6425E	8 th Gen. Intel® Whiskey Lake Core™ i3-8145UE (default) Optional: i5-8265U, i5-8365UE, i7-8565U, i7-8665UE, Celeron® 4305UE
	Memory	2 x 262 pin SO-DIMM up to 64GB Dual Channel DDR5 4800MHz	2 x 260 pin SO-DIMM up to 32GB Dual Channel DDR4 3200MHz	2 x 260 pin SO-DIMM up to 64GB Dual Channel DDR4 2666MHz
	BIOS	AMI UEFI 64bit	AMI UEFI 64 bit	AMI UEFI 64bit
DISPLAY AND TOUCH SCREEN	Display Viewing Angle (H/V°) Brightness Contrast Backlight Lifetime	15.6” 1920 x 1080 Full HD LED with 10-Point Capacitive Multi-Touch 85 (left), 85 (right), 85 (up), 85 (down) 450/350/250 cd/m2 1000 : 1 50,000/30,000/15,000 hrs	15.6” 1920 x 1080 Full HD LED with 10-Point Capacitive Multi-Touch 85 (left), 85 (right), 85 (up), 85 (down) 450/350/250 cd/m2 1000 : 1 50,000/30,000/15,000 hrs	15.6” 1920 x 1080 Full HD LED with 10-Point Capacitive Multi-Touch 85 (left), 85 (right), 85 (up), 85 (down) 450/350/250 cd/m2 1000 : 1 50,000/30,000/15,000 hrs
GRAPHICS	Chipset	Intel® UHD or Iris® Xe Graphics	Intel® UHD Graphics	Intel® UHD Graphics
	Display Interface	Supports two independent displays 1 x HDMI 2.0 : 4096 x 2160@60Hz 1 x DVI-I (optional daughter board) 1 x VGA (optional daughter board)	Supports two independent displays 1 x HDMI 2.0 : 4096 x 2160@60Hz 1 x DVI-I (optional daughter board) 1 x VGA (optional daughter board)	Supports two independent displays 1 x HDMI 1.4b : 4096 x 2160@30Hz 1 x DVI-I (optional daughter board) 1 x VGA (optional daughter board)
	Video Decoder	WMV,AVC/ H264,JPEG/ MJPEG,HEVC/ H265,VP9,AV1	MPEG-2,WMV9/ VC1,H.264,JPEG/ MJPEG,H.265/ HEVC,VP8,VP9	MPEG2, WMV9/ VC1, AVC/ H.264, JPEG/ MPEG, HEVC/ H.265, VP8, VP9
STORAGE	Internal	1 x M.2 2280 M key (PCIe x4 or SATA, either one) Optional : 1 x M.2 M 2280 SSD, SATA I/F, slidable design 1 x M.2 M 2280 SSD, SATA I/F, fixed design (Either one of above)	1 x M.2 2280 M key (PCIe x4 or SATA, either one) Optional: 1 x M.2 M 2280 SSD, SATA I/F, slidable design 1 x M.2 M 2280 SSD, SATA I/F, fixed design (Either one of above)	1 x M.2 2280 M key (PCIe x4 or SATA, either one) Optional : 1 x M.2 M 2280 SSD, SATA I/F, slidable design 1 x M.2 M 2280 SSD, SATA I/F, fixed design (Either one of above)
AUDIO	Audio Codec	Realtek ALC888S-VD 2-channel	Realtek ALC888S-VD 2-channel	Realtek ALC662/ALC888S 2-channel
NETWORK	Ethernet WLAN	1 x Intel® LAN / Support Wake On LAN Realtek RTL8821CE 802.11a/b/g/n/ac + Bluetooth 5.0 (M.2 2230 E key) with 2 internal antenna (default)/external antenna (optional)	1 x Intel® 2.5 Gb LAN / Support Wake On LAN Realtek RTL8821CE 802.11a/b/g/n/ac + Bluetooth 5.0 (M.2 2230 E key) with 2 internal antenna (default) /external antenna (optional)	1 x Intel® Gigabit LAN / Support Wake On LAN Realtek RTL8821CE 802.11a/b/g/n/ac + Bluetooth 5.0 (M.2 2230 E key) with 2 internal antenna (default) /external antenna (optional)
I/O INTERFACE	Serial Ports	1 x RS-232 (DB-9) 2 x RS-232/422/485 (DB-9) (RS-232 with power supply : Ring in/ 5V (standard) &12V (with specific optional board))	1 x RS-232 (DB-9) 2 x RS-232/422/485 (DB-9) (RS-232 with power supply : Ring in/ 5V (standard) &12V (with specific optional board))	1 x RS-232 (DB-9) 2 x RS-232/422/485 (DB-9) (RS-232 with power supply : Ring in/ 5V (standard) &12V (with specific optional board))
	USB	4 x USB3.2 Gen 2 (Type A)	4 x USB3.2 Gen 1 (Type A)	4 x USB3.2 Gen 1 (Type A)
	Audio	1 x Line-out / 1 x Mic-in	1 x Line-out / 1 x Mic-in	1 x Line-out / 1 x Mic-in
POWER	Bundled Adapter	19V/4.74A 90W external adapter	19V/4.74A 90W external adapter	19V/4.74A 90W external adapter
WATCHDOG TIMER	Watchdog	Support watchdog	Support watch dog	Support watchdog
OS SUPPORT	OS Support	Windows 11 64bit / Linux 64bit	Windows 11 64bit / Linux 64bit	Windows 10/11 64bit / Linux 64bit
MECHANISM	IP Rating Mounting Dimension (W/H/D) mm Weight	IP65 Front Panel Protection VESA Mount 100 x 100 mm 394 x 256 x 48.9 4.6kg	IP65 Front Panel Protection VESA Mount 100 x 100 mm 394 x 256 x 48.9 4.6kg	IP65 Front Panel Protection VESA Mount 100 x 100 mm 394 x 256 x 48.9 4.6kg
ENVIRONMENT	Operating Temperature Storage Temperature Relative Humidity EMC Safety RF	0°C ~ 40°C -20°C ~ 60°C 20% - 80% RH (non-condensing) CE, FCC, VCCI, BSMI, UKCA CB, CEC, cTUVus, BSMI, EAC EU, US, Taiwan	0°C ~ 40°C -20°C ~ 60°C 20% - 80% RH (non-condensing) CE, FCC, VCCI, BSMI, UKCA CB, CEC, cTUVus, BSMI, EAC EU, US, Taiwan	0°C ~ 40°C -20°C ~ 60°C 20% - 80% RH (non-condensing) CE, FCC, VCCI, BSMI, UKCA CB, CEC, cTUVus, BSMI, EAC EU, US, Taiwan

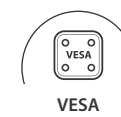
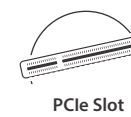
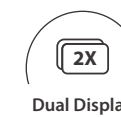


Versatile 3-liter PC for Expanded Possibilities

Single PCIe Slot for Multi-Application Expansion

Shuttle XH510G has a PCIe expansion slot that provides installing add-on cards to meet diverse circumstances. Equipped with Intel® H510 chipset and compatible with Intel® 10th/ 11th Gen Rocket-Lake platform, it supports up to 8 cores and 16 threads for high-performance computing and 4K UHD content. Multiple I/O ports, including 4 x USB 3.2 Gen 1, 4 x USB 2.0, a SATA connector, 3 x M.2, and an Intel® Gigabit LAN. XH510G can be attached to a wall mount or a monitor mount for space-constrained applications, a standout performance for Data Acquisition System (DAQ), Digital Motion Control, Surveillance, and Kiosk.

XH510G



Feature

Support 10th/11th Gen Intel® Core™, Pentium®, Celeron® 65W LGA 1200 processors

Dual display productivity via one HDMI 2.0 and one DisplayPort 1.4

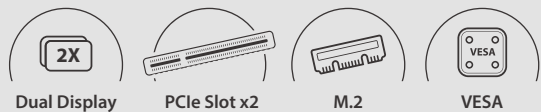
24/7 Certified, operable in 0-50°C

Built-in a PCI-e x 16 expansion slot for various card installation (maximum size 208.5 x 120 x 30mm)

Rich connectivity : 4 x USB 3.2 Gen 1, 4 x USB 2.0, 3 x M.2 slot, SATA connector, Intel® i219LM Gigabit LAN



XH510G2



Discover Dynamic Potential With The Flexible 4.75-liter PC

Dual PCIe for Expansive Add-on Card Options

Equips with Intel® H510 chipset, Shuttte XPC slim XH510G2 supports 10th/11th Gen Intel® Core™ processors delivering high-performance computing for high-speed processing applications. Despite its 4.75-liter compact chassis, XH510G2 provides two PCI-E slots to install an extra graphics card, capture card, or more to meet diverse application requirements. Furthermore, it offers multiple interfaces to connect peripherals, including 4 x USB 3.2 Gen1, 4 x USB 2.0, an HDMI 2.0, a DisplayPort 1.4, M.2 slots, and Intel® Gigabit LAN. As a result, it is perfect for video walls, data modeling and analytics, surveillance, visualization projects, and a functional kiosk that requires port-intensive.



Feature

Support 10th/11th Gen Intel® Core™, Pentium®, Celeron® 65W LGA 1200 processors

Dual display productivity via one HDMI 2.0 and one DisplayPort 1.4

24/7 Certified, operable in 0-50°C

Integrated Dual PCI-E Slots for various card installations : one PCI-E x16 and one PCI-E x1

Rich connectivity : 4 x USB 3.2 Gen 1, 4 x USB 2.0, 3 x M.2 slot, SATA connector, Intel® Gigabit LAN

* PCIe card size Max 205 x 120 x 45mm



XH610/XH610V

Cooling system	Smart fan
Processor	Intel® 13 th /12 th Gen LGA1700 socket Core i3/i5/i7/i9, Pentium, Celeron 65W processor
Chipset	Intel® H610
Graphics	Intel® UHD Graphics series
Display Resolution Max.	HDMI : 4096 x 2160@60Hz VGA : 1920 x 1080@60Hz DisplayPort : 4096 x 2160@60Hz
Display Output	3 Independent Displays
Video Decoder	WMV9, AVC / H.264, JPEG / MPEG, HEVC / H.265, VP9, AV1
Memory	2 x DDR4 3200/2933/2666 MHz, Max. 64GB
Storage	2 x 2.5" HDD/SSD + 1 x slim ODD or 3 x 2.5" HDD /SSD
Expansion Slot	1 x M.2 2280, M Key 1 x M.2 2230, E Key
HDMI Port	1
DisplayPort	1
VGA Port	1
USB 3.2 (Front)	Gen1 : 2
USB 3.2 (Rear)	Gen1 : 2
USB 2.0 (Front)	2
USB 2.0 (Rear)	2
COM Port	1 x RS232 (Max. 4) / 1 x RS232/422/485, Support 5V/12V
Line in/Line out/Mic in	1 / 2 / 2
Network	LAN : 1 x Intel® 1G LAN / 1 x Intel® 2.5G LAN WLAN: Optional
VESA	Optional (PV02)
Dimension	L : 241 x W: 200 x H : 72 mm
Weight	NW (kg) : 2.2 / GW (kg) : 3.5
Certification	CB, CE, BSMI, cTUVus, FCC, RCM, RoHS, VCCI
Operating Temperature (°C)	0~50
Chassis	Metal
Power Supply	Power Input : 12V or 19V DC in Bundled Adapter : 19V/6.32A 120W external adapter
Operating System	Windows 10/11 64bit, Linux
Optional Accessories	PS01, PV02, PHD4, WLN-M,PCM31

* BIOS v2.03 and up to version support Raptor Lake (13th) CPU



XH510G2

Cooling system	Smart fan
Processor	Intel® 11 th /10 th Gen LGA1200 socket Core i3/i5/i7/i9, Pentium, Celeron 65W processor
Chipset	Intel® H510
Graphics	Intel® UHD Graphics series
Display Resolution Max.	HDMI : 4096 x 2160@60Hz DisplayPort : 4096 x 2160@60Hz
Display Output	2 Independent Displays
Video Decoder	MPEG2, WMV9 / VC1, AVC / H.264, JPEG / MPEG, HEVC / H.265, VP8, VP9, AV1
Memory	2 x DDR4 3200/2933/2666 MHz, Max. 64GB
Storage	1 x 2.5" HDD/SSD (max. 9.5 mm)
Expansion Slot	2 x M.2 2280, M Key / 1 x M.2 2230, E Key 1 x PCIe Gen3 x 16 / 1 x PCIe Gen3 x 1 (PCIe card size Max 205 x 120 x 45mm)
HDMI Port	1
DisplayPort	1
VGA Port	Optional
USB 3.2 (Front)	Gen1 : 2
USB 3.2 (Rear)	Gen1 : 2
USB 2.0 (Front)	2
USB 2.0 (Rear)	2
COM Port	RS232 x 1 (Optional)
Line in/Line out/Mic in	- / 1 / 1
Network	LAN : 1 x Intel® 1G LAN WLAN: Optional
VESA	Bracket included
Dimension	L : 250 x W: 200 x H : 95 mm
Weight	NW (kg) : 2.98 / GW (kg) : 3.49
Certification	CB, CE, BSMI, cTUVus, FCC, RCM, VCCI, RoHS
Operating Temperature (°C)	0~50
Chassis	Metal
Power Supply	Power Input : 19V DC in Bundled Adapter : 19.5V/9.23A 180W external adapter
Operating System	Windows 10/11 64bit, Linux
Optional Accessories	PVG01, PRC01, WLN-M, WWN03

* Graphics and PCIe specifications may vary depending on CPU support



XH510G

Cooling system	Smart fan
Processor	Intel® 11 th /10 th Gen LGA1200 socket Core i3/i5/i7/i9, Pentium, Celeron 65W processor
Chipset	Intel® H5 10
Graphics	Intel® UHD Graphics series
Display Resolution Max.	HDMI : 4096 x 2160@60Hz DisplayPort : 4096 x 2160@60Hz
Display Output	2 Independent Displays
Video Decoder	MPEG2, WMV9 / VC1, AVC / H.264, JPEG / MPEG, HEVC / H.265, VP8, VP9, AV1
Memory	2 x DDR4 3200/2933/2666 MHz, Max. 64GB
Storage	1 x 2.5" HDD/SSD (max. 9.5 mm)
Expansion Slot	2 x M.2 2280, M Key / 1 x M.2 2230, E Key 1 x PCIe Gen3 x 16 (PCIe card size Max 208.5 x 120 x 30mm)
HDMI Port	1
DisplayPort	1
VGA Port	Optional
USB 3.2 (Front)	Gen1 : 2
USB 3.2 (Rear)	Gen1 : 2
USB 2.0 (Front)	2
USB 2.0 (Rear)	2
COM Port	RS232 x 1 (Optional)
Line in/Line out/Mic in	- / 1 / 1
Network	LAN : 1 x Intel® 1G LAN WLAN: Optional
VESA	Bracket included
Dimension	L : 250 x W: 200 x H : 78.5 mm
Weight	NW (kg) : 1.9 / GW (kg) : 3.2
Certification	CB, CE, BSMI, cTUVus, FCC, RCM, VCCI, RoHS
Operating Temperature (°C)	0~50
Chassis	Metal
Power Supply	Power Input : 19V DC in Bundled Adapter : 19.5V/9.23A 180W external adapter
Operating System	Windows 10/11 64bit, Linux
Optional Accessories	PVG01, WLN-M, PS01



XH410G

Cooling system	Smart fan
Processor	Intel® 10 th Gen LGA1200 socket Core i3/i5/i7/i9, Pentium, Celeron 65W processor
Chipset	Intel® H410
Graphics	Intel® UHD Graphics series
Display Resolution Max.	HDMI : 4096 x 2160@60Hz VGA : 1920 x 1080@60Hz
Display Output	2 Independent Displays
Video Decoder	MPEG2, WMV9 / VC1, AVC / H.264, JPEG / MPEG, HEVC / H.265, VP8, VP9, AV1
Memory	2 x DDR4 2933/2666 MHz, Max. 64GB
Storage	1 x 2.5" HDD/SSD (max. 9.5 mm)
Expansion Slot	1 x M.2 2280, M Key / 1 x M.2 2230, E Key 1 x PCIe Gen3 x 16 (PCIe card size Max 208 x 120 x 30mm)
HDMI Port	1
DisplayPort	-
VGA Port	1
USB 3.2 (Front)	Gen1 : 2
USB 3.2 (Rear)	Gen1 : 2
USB 2.0 (Front)	2
USB 2.0 (Rear)	2
COM Port	RS232 x 1 (Optional)
Line in/Line out/Mic in	- / 1 / 1
Network	LAN : 1 x Intel® 1G LAN WLAN: Optional
VESA	Bracket included
Dimension	L : 250 x W: 200 x H : 78.5 mm
Weight	NW (kg) : 1.9 / GW (kg) : 3.2
Certification	CB, CE, BSMI, cTUVus, FCC, RCM, VCCI, RoHS
Operating Temperature (°C)	0~50
Chassis	Metal
Power Supply	Power Input : 19V DC in Bundled Adapter : 19.5V/9.23A 180W external adapter
Operating System	Windows 10/11 64bit, Linux
Optional Accessories	WLN-M, PS01



XC60J

Cooling system	Fanless
Processor	Intel® Celeron J3355
Chipset	Integrated in CPU
Graphics	Intel® HD Graphics 500
Display Resolution Max.	HDMI : 3840 x 2160@30Hz VGA : 1920 x 1080@60Hz
Display Output	2 Independent Displays
Video Decoder	MPEG2, WMV9, VC1, H.264, JPEG / MPEG, MVC, HEVC / H.265, VP8, VP9
Memory	2 x DDR3L 1866 MHz, Max. 8GB
Storage	1 x 3.5" / 2.5" HDD/SSD
Expansion Slot	1 x M.2 2280, M Key 1 x M.2 2230, E Key
HDMI Port	1 x HDMI 1.4
DisplayPort	-
VGA Port	1
USB 3.2 (Front)	Gen1 : 2
USB 3.2 (Rear)	-
USB 2.0 (Front)	2
USB 2.0 (Rear)	2
COM Port	7 x RS232 / 1 x RS232/422/485, Support 5V/12V
Line in/Line out/Mic in	- / 1 / 1
Network	LAN : 1 x Intel® 1G LAN WLAN: Optional
VESA	Optional (PV02)
Dimension	L : 238 x W: 200 x H : 72 mm
Weight	NW (kg) : 2.2 / GW (kg) : 3.5
Certification	CB, CE, BSMI, ETL, FCC, RCM, VCCI, RoHS
Operating Temperature (°C)	0~40
Chassis	Metal
Power Supply	Power Input : 12V or 19V DC in Bundled Adapter : 19V/3.42A 65W external adapter
Operating System	Windows 10 64bit, Linux
Optional Accessories	WLN-M, PS01, PV02