AEOLUS-SV12-324G

TP-IPC®
TO BE YOUR PARTNER OF INDUSTRIAL PC

- 12th-14th Gen Intel® Core™ i7/i5/i3 with Desktop-grade Intel® H610 chipset, support processor up to 65W TDP;
- Comes with On board 6 Gigabit LAN, supports Wake-on-LAN, PXE;
- 4*RS232/RS485 (2*DB9, 2*DIP switches, switchable via BIOS or DIP);
- Ideal for complex inspection tasks, providing the I/O and control needed for automated defect detection, measurement, and grading—powered by 4 dedicated light source outputs;
- Supports HD video output, the graphics, media, and display engine with up to two VDBOXes that can decode over 40 incoming video streams at 1080p and 30 frames per second;
- Supports DC 12V-24V power supply with RVP/OVP/OCP;
- Supports multiple installation methods: wall-mounted, vertical, and DIN rail mounting;
- Adopts sealed chamber cooling with an open grille, featuring active fans and heat pipes to keep the mainboard dust-free and cool;

Specifications

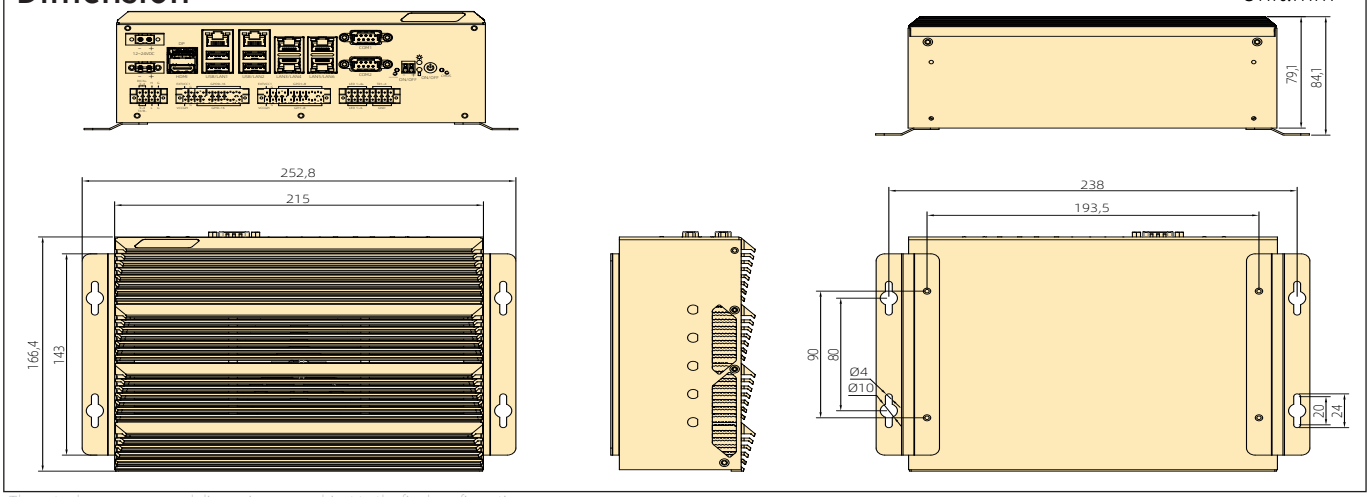
The actual appearance is subject to the final configuration.

Model	AEOLUS-SV12-324G	
Supported OS	Win 10, Win 11, Linux (Ubuntu, Dibian, Kali, CentOS), Win 10 IoT	
Chipset	Model	Intel® H610 Chipset, TDP 6W
	Intel VT-d	Supported
CPU	Socket	Intel® Desktop Processors Socket LGA1700
	Series	12th-14th Gen. Intel® Core™ i7/ i5 /i3 Processor
	TDP	Up to 65W
	Graphic	Intel® UHD Graphics (depends on processor model)
	BIOS	AMI UEFI BIOS
RAM	SO-DIMM	2* DDR4 3200 MHz SO-DIMM Socket, Capacity up to 64GB;
Storage Device	M.2	1* M.2 (NGFF) 2280 M-key slot, support SATA3.0 (6Gps) SSD
I/O Interface	COM	4* RS232/RS485, switchable via switches or BIOS;
	Ethernet	5* Intel i210-AT GbE LAN, 1* Intel i219-V GbE LAN; Supports wake-on-LAN, PXE
	USB	4* USB 3.2; 1* Internal USB 2.0; 2* 4-Pin USB 2.0 internal header
	Video	1* HDMI (Max Resolution: 4096x2160 @30Hz); 1* DP (Max Resolution: 4096x2160 @30Hz);
	SIM	1* Nano SIM connected to Mini-pcie, support 4G wireless
	Power Supply	DC 12V-24V, Auto detected, support RVP/OVP/OCP; 2* 2-PIN green connector, 5.08mm
	Featured Interface	32*onboard GPIO channels (16 DI + 16 DO) supporting a wide DC 3.3V - 30V input range. It features switching mode with a sink current capability of 150mA per port (total max 600mA); 4* Light source output, each capable of delivering up to 60W, the output voltage is determined by the motherboard's power supply, with support for both software and hardware triggering; 1* Clear CMOS; 1* Recovery Button;
Extended Capabilities	Additional Internal Interface	1* Full Size Mini-PCIe slot (PCIE x1 GEN3), optional CAN/LAN/WiFi ect. 1* Full Size Mini-PCIe (USB2.0), support 4G;
Environment	Operating Temp.	-10 ~ 60 °C w/ 0.7m/s Airflow
	Storage Temp.	-20 ~ 75 °C (-40~185 °F)
	Relative Humidity	40 °C @95%, Non-Condensing
Physical Characteristics	Dimensions	215* 86.1* 166.8 mm (W* H* D)
	Net Weight	2.30 KG
Regulation	EMC	CE/FCC Class B, CCC
	Safety	CE-LVD, RoHS, CCC

AEOLUS-SV12-324G

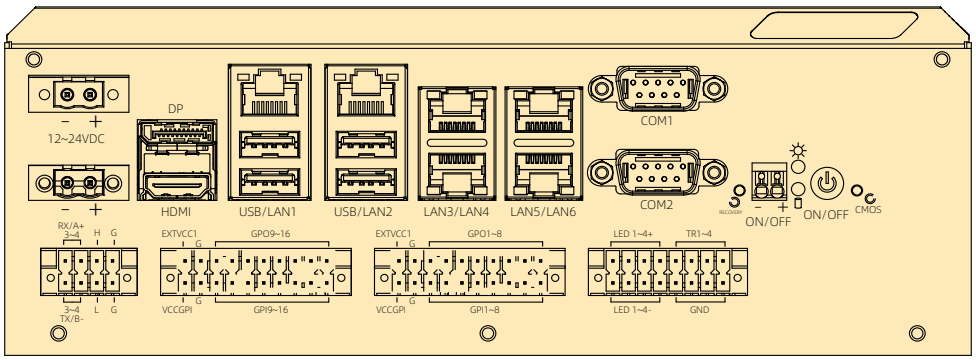
Dimension

Unit:mm



The actual appearance and dimensions are subject to the final configuration

Front Panel External IO Mechanical Layout/Drawing



Ordering Information

SO-DIMM Socket	M.2 2280 M-key Slot	Full Size Mini-PCIe	DB9 RS232/RS485 switchable	DIP RS232/RS485 switchable	Intel i210-AT GbE LAN	Intel i219-V GbE LAN	Nano SIM Card Slot	Clear CMOS
2	1	2	2	2	5	1	1	1

USB3.2	USB2.0 Header	Internal USB 2.0 (4-Pin)	32-bit GPIO	Light	HDMI	DP	Remote Switch Button	Power Supply
4	1	2	1	4*LED out 4*Trigger	1	1	1	DC 12V-24V

Processors Info & Available List

CPU	Code Name	Total Cores	Total Threads	Max Turbo Frequency	Base Frequency	Cache	TDP	Memory Types	Integrated Graphics
Intel® Core ™ I3-12100	Alder Lake	4	8	4.30 GHz	3.30 GHz	12 MB Intel® Smart Cache	60W	DDR4	Intel® UHD Graphics 730
Intel® Core ™ I5-12400	Alder Lake	6	12	4.40 GHz	2.50 GHz	18 MB Intel® Smart Cache	65W	DDR4	Intel® UHD Graphics 730
Intel® Core ™ I7-12700	Alder Lake	12	20	4.90 GHz	2.10 GHz	25 MB Intel® Smart Cache	65W	DDR4	Intel® UHD Graphics 770
Intel® Core ™ I9-12900	Alder Lake	16	24	5.10 GHz	2.40 GHz	30 MB Intel® Smart Cache	65W	DDR4	Intel® UHD Graphics 770
Intel® Core ™ I3-13100	Alder Lake	4	8	4.50 GHz	3.40 GHz	12 MB Intel® Smart Cache	60W	DDR4	Intel® UHD Graphics 730
Intel® Core ™ I5-13400	Alder Lake	10	16	4.60 GHz	2.50 GHz	20 MB Intel® Smart Cache	65W	DDR4	Intel® UHD Graphics 730
Intel® Core ™ I7-13700	Alder Lake	16	24	5.20 GHz	2.10 GHz	30 MB Intel® Smart Cache	65W	DDR4	Intel® UHD Graphics 770
Intel® Core ™ I3-14100	Alder Lake	4	8	4.70 GHz	3.50 GHz	12 MB Intel® Smart Cache	60W	DDR4	Intel® UHD Graphics 730
Intel® Core ™ I5-14400	Alder Lake	10	16	4.70 GHz	2.50 GHz	20 MB Intel® Smart Cache	65W	DDR4	Intel® UHD Graphics 730
Intel® Core ™ I7-14700	Alder Lake	20	28	5.40 GHz	2.10 GHz	33 MB Intel® Smart Cache	65W	DDR4	Intel® UHD Graphics 770

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Packing list

Deafult Items	Qty
AEOLUS-SV12-324G Unit	1
Wall-mounted bracket	1
AC-to-DC Adapter	1
Power cable 3-pin 150cm	1

Options for default items

Optional Items	Qty
Power cable 3-pin 150cm, USA type	-
Power cable 3-pin 150cm, EU type	-
Power cable 3-pin 150cm, UK type	-

Optional accessories or internal modules for unit

Optional Items	Max Qty	Description
4G Module	1	Connected by Mini-PCIe interface
WiFi Module without AP mode	1	Connected by Mini-PCIe interface
USB 16 bit GPIO		Connected by USB
EtherCAT	1	EtherCAT Master, supporting a maximum of 16 slaves (servos + I/O) at a 1ms cycle

!! Note: As this product has expansion slots, please consult sales for the specific maximum number of expandable interfaces.