



Front

High-performance fanless industrial PC with H610 chipset, Intel® 12th Gen Alder Lake-S i3 12100 CPU (4 cores / 8 threads) up to 4.40 GHz. Thanks to its wide range of connectivity options and two **PCIe expansion slots (x16 + x4)**, it is a highly versatile solution. This system is specifically designed for sectors such as industrial automation, toll collection, edge artificial intelligence (**Edge AI**), video surveillance and environmental monitoring.



TECHNICAL SPECIFICATIONS

Intel® 12th Gen Alder Lake-S LGA1700 CPU i3 12100 (see other processors). Intel® H610 PCH
2x DDR5 4800MHz SODIMM, up to 64GB
 1x DP, 1x HDMI and 1x VGA, **3 independent displays**
 2*LAN, 4*USB 3.2, 2*USB 2.0, **16-bit ISO**. DIO
 Audio 1*MIC + 1*LINE OUT
 2*RS232/422/485 and 2*RS232 COM
 1*Full-size Mini-PCIe with SIM card slot, supports 4G LTE modem
1*PCIeX16+1*PCIeX16 (X4 signal) dual expansion slots. Compatible with **GPU** or AI acceleration cards up to **150 W** (with a maximum length of 250 mm). Alternatively, supports AI accelerator cards or other expansion cards up to 75 W (with a maximum length of 280 mm).
 2 x 2.5" Easy-plug SATA 3.0 bays and 1 x mSATA
 DC IN **9-36 V**, wide power input, with OVP, OCP and SCP

OTHER TECHNICAL SPECIFICATIONS

Graphics Intel® UHD Graphics: Supports DirectX 12, OpenGL 4.5, OpenCL 3.0, DP max res. 7680*4320@60Hz, HDMI max res. 4096*2160@60Hz, VGA max res. 1920*1200@60Hz, **supports 3 independent monitors.**
 Audio Realtek ALC897 controller, 1*Line out and 1*MIC high fidelity Audio, supports 5.1 channel
LAN: 1*Intel I226V 2.5G Gigabit Ethernet, full PCIe X1 bandwidth, 10M/100M/1000M/2.5Gbps, support WOL. 1*Intel I219LM Gigabit Ethernet, full PCIe X1 bandwidth, 10M/100M/1000Mbps, support WOL
I/O Interface: 2*RJ45 Gig-LAN; 2*USB3.2(gen2.0 10Gbps, Type A); 2*USB3.2 (gen1.0 5Gbps, Type A) ; 2*USB2.0 Type A, 2*USB2.0 (pin header inside); 2*RS232/422/485 (via BIOS , DB9 male), 2*RS232(DB9 male); 1*VGA+1*HDMI+1*DP; 1*Line out+1*Mic (3.5mm phone jack); 1*SM Bus and 1*F-Audio(pin header inside)
DIO: 16bit Iso. DIO support NPN (sink) and PNP (Source) mode, and 8-bit DI each channel is equipped with a 2.5KV photocoupler for isolated protection; 8-bit DO each DO with isolator chip, each DO channel current up to 200mA
Mounting: Desktop Mounting **Dimension (L*W*H):** 256.68*312.7*149.9mm
Operating temperature: -20~60°C, SSD, air flow / -10~55°C,HDD, air flow
Storage temperature: -40°C~85°C
Storage humidity: 10~95%@40°C, Non-condensing
Vibration: 5grms/5~500Hz/random/in working(SSD); 1grms/5~500Hz/random/in working(HDD)
Shock: 50g peak acceleration(11ms duration)(SSD); 20g peak acceleration(11ms duration)(HDD)
EMC / Certification: CE/FCC Class A

I/O PORTS



CONNECTIVITY OPTIONS



PRODUCT FEATURES

> Robust, fanless design: Constructed with a heat-dissipating aluminium chassis, ideal for quiet, clean and continuous 24/7 operation.
 > High connectivity and expandability: Features multiple ports (USB 3.2, serial COM ports, isolated DIO) and dual PCIe expansion slots for graphics or AI acceleration cards.
 > Resistance to extreme environments: Withstands a wide temperature range (from -20 °C to 60 °C), vibrations of up to 5g and impacts, as well as a flexible input voltage (9-36V).

MOST COMMON APPLICATIONS

> Machine vision
 > Automation
 > Robot guidance
 > Industrial control systems (ICS)
 > Metrology
 > Signal acquisition and the Internet of Things (IoT)
 > Distributed control systems / SCADA
 > Data acquisition systems (DAQs)
 > Product sorting
 > On-site assembly lines
 > Edge computing

APPLICATION SECTORS

> Artificial intelligence
 > Aerospace
 > Automotive
 > Data centres
 > Retail
 > Marine sector
 > Pharmaceutical industry
 > Intelligent Transport Systems (ITS)
 > Meat industry
 > Fishing vessels
 > Shipyards

SOME SUCCESS STORIES

> Automotive production lines
 > Outdoor lighting
 > Machine vision

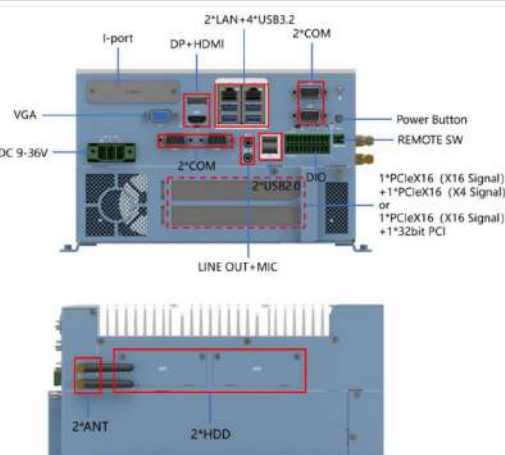
ALTERNATIVE MODELS

> eRX TH Modular industrial PC

CERTIFICATIONS



CONNECTIONS



DIMENSIONS

