

KMDA-7921-S001

Intel® 12th Gen Alder Lake-S LGA1700 CPU,
2*LAN, 4*USB3.2, 1*VGA, 1*DP, 1*HDMI,
4*COM, 16bit DIO, 1*mSATA, 1*Mini PCIe,
2*PCIe+2*PCI, 2*SATA3.0, DC 9-36V.

JHCTECH

IoT Computer
Connecting the Dots

Fanless Computer--KAMD Series



PCIe GEN5
32 GT/s

DDR 5



FCC



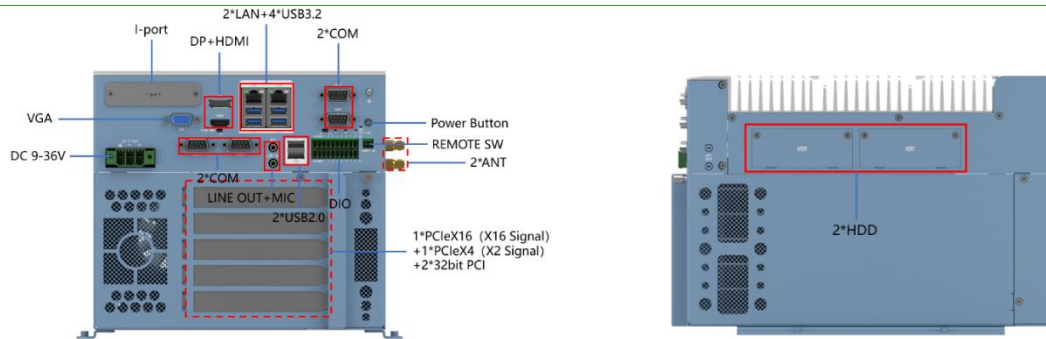
Key Feature

- Intel® 12th Gen Alder lake-S LGA1700 CPU
- Intel® H610 PCH
- 2*DDR5 4800MHz SODIMM, up to 64GB
- 1*DP, 1*HDMI and 1*VGA, 3 independent displays
- 2*LAN, 4*USB3.2, 2*USB2.0, 16bit Iso. DIO
- Audio 1*MIC+1*LINE OUT
- 2*RS232/422/485 and 2*RS232 COM
- 1*Mini-PCIe full size with SIM card slot, support 4G LTE modem
- 1*PCIeX16+1*PCIeX4 (X2 signal)+2*PCI Quad expansions
- 2*2.5" Easy-plug SATA3.0 bay and 1*mSATA
- DC IN 9-36V, wide power input, with OVP, OCP and SCP

Product Overview

KMDA-7921 is a fanless high-performance box computer with H610 chipset, powered by Intel® 12th Gen Alder lake-S CPU, multi IO interfaces, dual PCIe dual PCI quad expansions and moderate size. It is suitable for industrial automation, highway tolling, AI edge computing, security monitoring and environmental detection and other industries and fields.

IO Layout



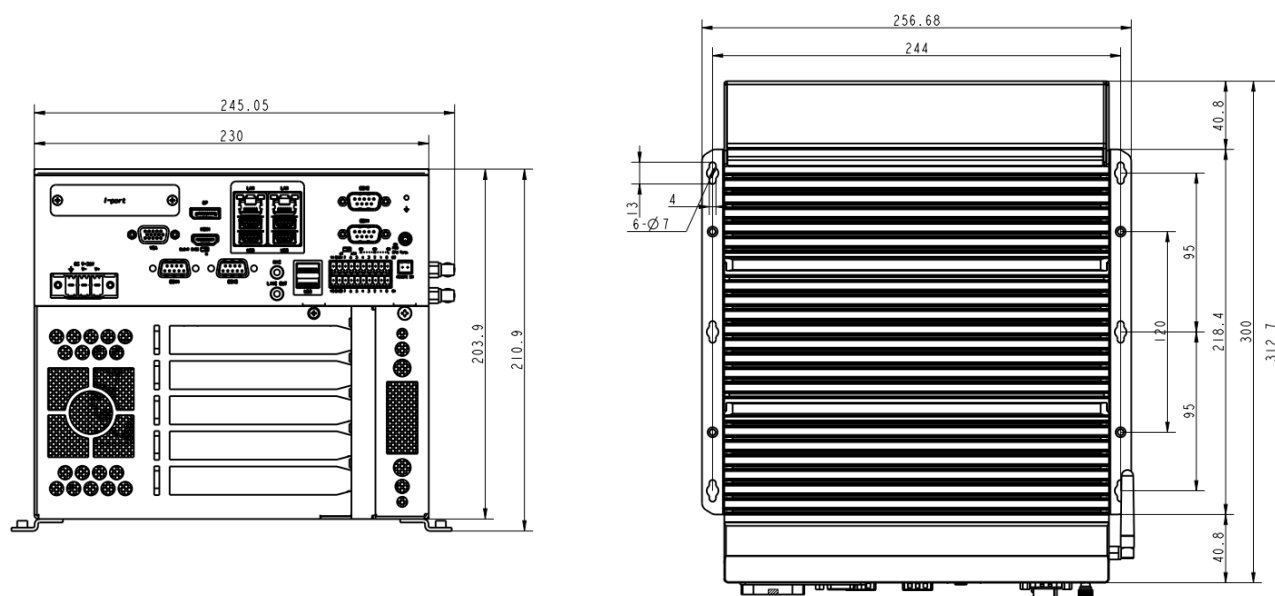
SPEC.

CPU+PCH	Intel® Alder lake-S 12th Gen Core™ i9/i7/i5/i3/Pentium/Celeron LGA1700 CPU, Intel® H610 PCH
System memory	2*262-Pin SODIMM, dual-channel DDR5 4800MHz, up to 64GB
Expansion	1*PCIeX16 (X16 signal from CPU) gen5.0 and 1*PCIeX4 (X2 signal from PCH) gen3.0, can be inserted the highest power consumption 150W GPU or AI acceleration card (card length is less than 250mm) or other function card (card length is less than 280mm); 2*32bit PCI slot; 1*full size Mini-PCIe(PCIeX1+USB2.0 signal) with SIM card slot, support 4G LTE modem or PCIe signal function module
Graphics	Intel® UHD Graphics, Support 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, support 3 independent displays
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
Storage	2*2.5" easy-plug SATA bay, larger capacity thickness15mm HDD, with SATA3.0 signal max 6Gbps; 1*full size mSATA, with SATA3.0 signal, max 6Gbps
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); 16bit Iso. DIO(2*10pin term. block) and 16bit non-iso. DIO(2*10pin header inside); 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)
I-port	Support 16bit DIO pin header lead wire, USB2.0 or Mini PCIe and other expansion interfaces lead wire
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
LED	1*Power LED (on the power button), 1*HDD LED, 3*CPU temp LED (Red is warning, Yellow is high, Green is normal)
Control SW	1*Power SW, 1*Remote SW, 1*AT/ATX dip, 1*Clear CMOS dip
Power supply	DC IN 9-36V, 3-pin Term. block 7.62mm, with short circuit(SCP), over voltage(OVP) and over current(OCP) protection; TDP : TBD
Security	Support TPM2.0 (optional)
Watchdog timer	Watchdog timeout programmable via software 1 to 255 second
OS	Windows 11, Windows 10 IoT Enterprise 2021 LTSC, Ubuntu, SuSe, Red Hat Enterprise, Wind River Linux, Wind River VxWorks 7

Mechanical	Aluminium-magnesium alloy chassis and fanless cooling design, SGCC frame
Color	Pigeon blue + White aluminum grey
Mounting	Desktop Mounting
Dimension	(L*W*H): 256.68*312.7*210.9mm
Net weight	TBD
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

Dimension

Unit: mm



Ordering Info.

Model No.	Introduction	Expansion
KMDA-7921-S001	Fanless box computer, Intel® 12 th Gen Alderlake-S LGA1700 CPU, H610 PCH, 2*DDR5 SODIMM, 2*LAN, 4*USB3.2, 2*USB2.0, 4*COM, 1*Mini PCIe, 1*mSATA, 1*VGA, 1*DP, 1*HDMI, Line out & Mic, 16bit Iso. DIO, 1*I-Port, 2*2.5 " SATA bay, DC 9-36V.	Default: ECX-266 riser card, 1*PCIeX16 (X16 signal) + 1*PCIeX4 (X2 signal) + 2*32bit PCI
PA-120DC19	AC/DC power adapter, DC 19V/6.32A, 120W	
PA-220DC24	AC/DC power adapter, DC 24V/9.17A, 220W	
PA-300DC24	AC/DC power adapter, DC 24V/12.5A, 300W	