

In the top-left corner, there are three overlapping circles: a small dark grey one, a medium blue one, and a large one with black diagonal hatching. The background is white with numerous thin, vertical gold lines, each ending in a small, glowing gold dot. A large, bright yellow four-pointed starburst is positioned below the text.

Let's wait five minutes, our
webinar is about to begin



Product Launch Announcement

JHCTECH



KMDA-7610



KMDA-7920/7921



Jun.6. 2023 16:00pm

Live



	Product Launch Announcement
Time	Agenda
16:00~16:05	Opening Cristina Zeng, Marketing manager
16:05~16:35	Introduction of New Products 《Intel Alder lake Scalable BOX PC series KMDA-7610/7920/7921》 Reese Li, Product Director
16:35~16:40	Q&A Reese Li

Part1:Introduction of JHCTECH New Products

《Intel Alder lake Scalable BOX PC series
KMDA-7610/7920/7921》



01 KMDA Roadmap

02 Product specification

03 Ordering Info

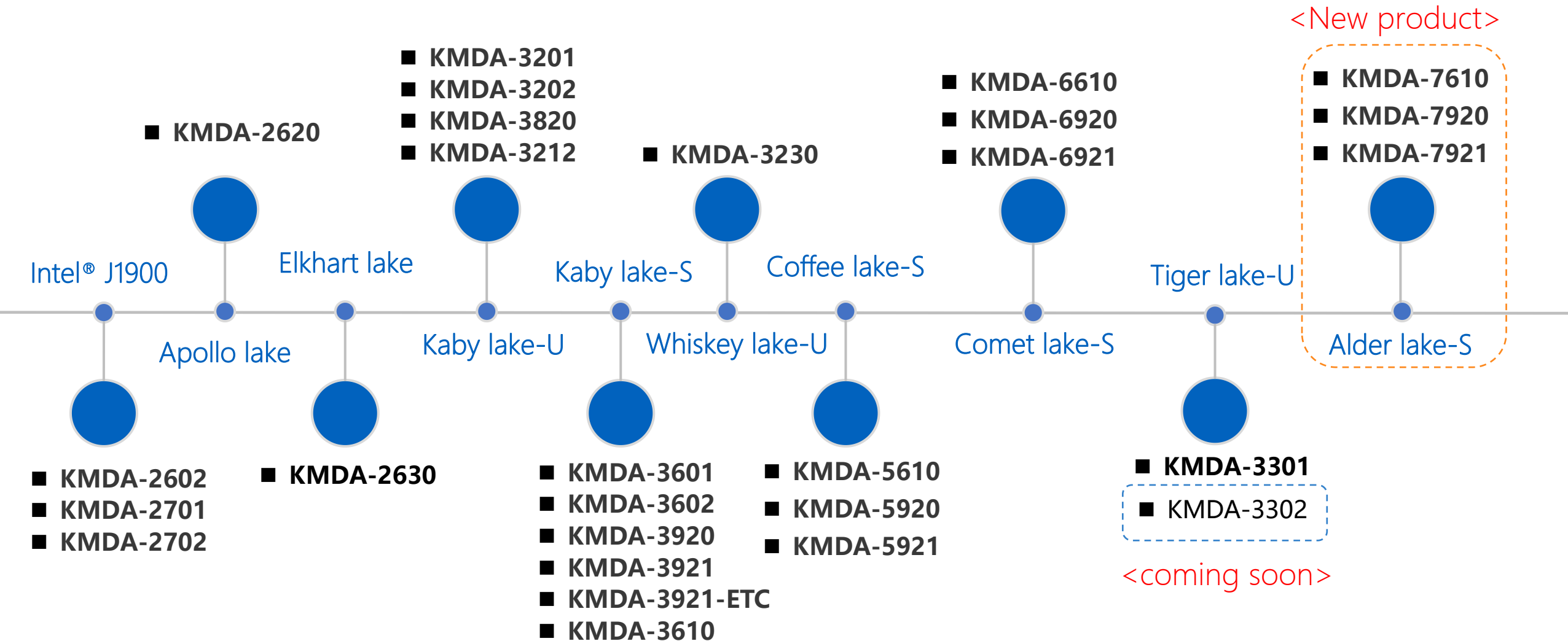
04 Product characteristics

05 Target Market

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01 KMDA ROADMAP





KMDA-7610



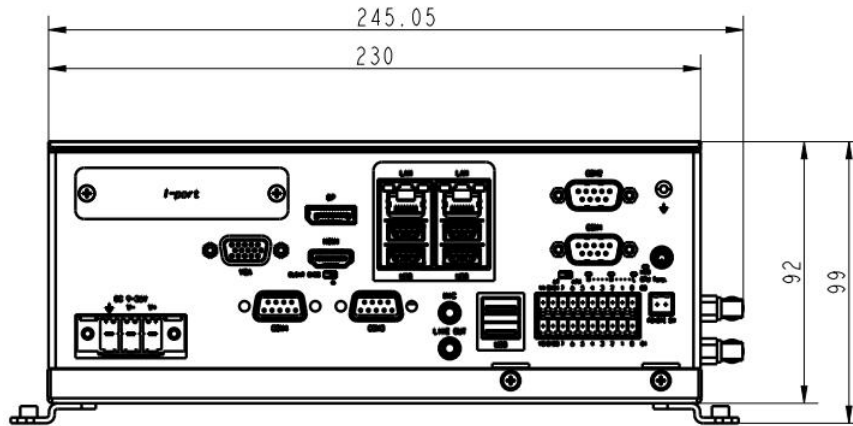
KMDA-7920



KMDA-7921

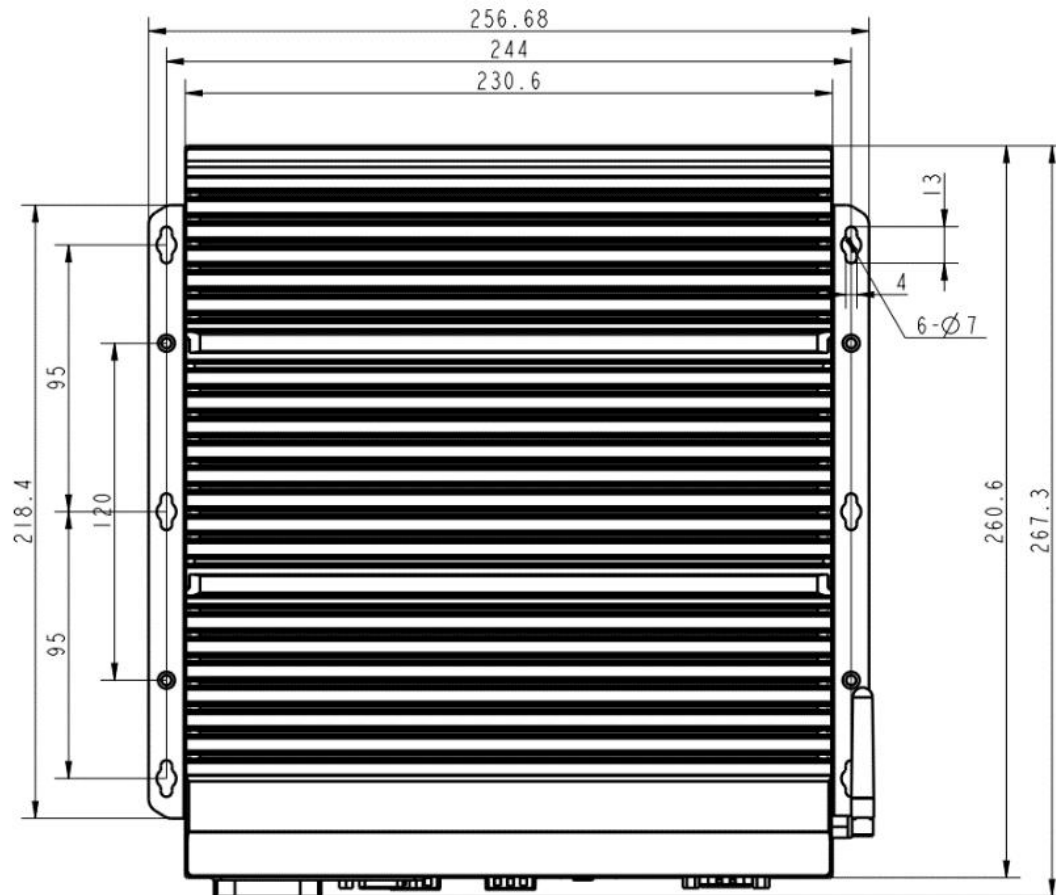
02 KMDA-7610/7920/7921 Product specification

	KMDA-7610	KMDA-7920	KMDA-7921
CPU	Intel® 12th Alder Lake-S/13th Raptor lake-S Core i9/i7/i5/i3/Pentium/Celeron LGA1700 CPU		
PCH	Intel® H610 PCH		
System memory	2*DDR5 4800MHz SODIMM, up to 64GB		
LAN	1*Intel I226V, , 10M/100M/1000Mbps, support WOL 1*Intel I219LM, 10M/100M/1000M bps, support WOL		
Reveal	1*DP, 1*HDMI, 1*VGA, Support three displays		
I/O Interface	2*LAN, 4*USB3.2, 2*USB2.0, 1*16bit DIO, 4*COM (2*RS232/422/485 via BIOS Settings,, 2*RS232) , 1*Line out & 1*MIC, 1*REMOTE SW, 1*VGA+1*DP+1*HDMI		
Storage	2*2.5” SATA3easy to insert and remove hard drive holder, optionally supports large-capacity 15mm thick HDD, and supports transfer speeds of up to 6Gbps. 1* full-length mSATA with SATA3.0 signal and up to 6Gbps transmission speed		
Power Supply	DC IN 9-36V, With short circuit, overvoltage and overcurrent protection		
Expansion	1 x full-length Mini-PCIe with a SIM card slot (support 4G LTE/Wifi/BT)	1*PCIe X16 slot (X16 signal) 1*PCIe X16 slot (X4 signal) or 1*PCI (32bit) 1 x full-length Mini PCIe with SIM card slot (Support 4G LTE/Wifi/BT)	1*PCIe X16 slot (X16 signal) 1*PCIe X4 slot (X2 signal) 2*PCI slot (32bit) 1*Mini PCIe with SIM card slot (support 4G LTE/Wifi/BT)

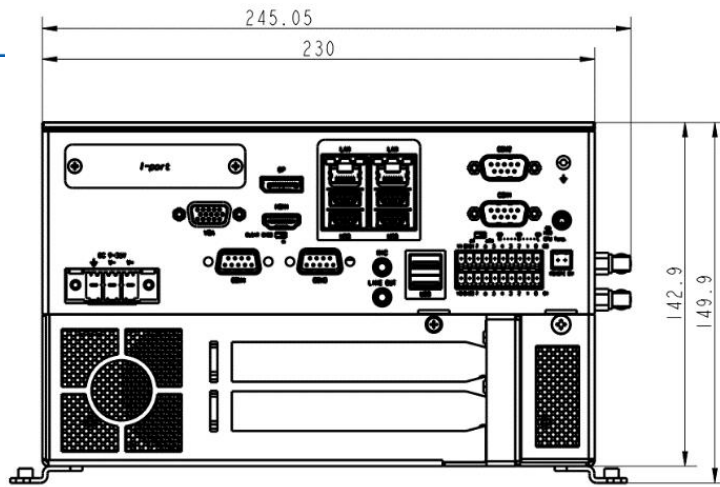


(L*W*H)

KMDA-7610: 256.68*267.3*99mm

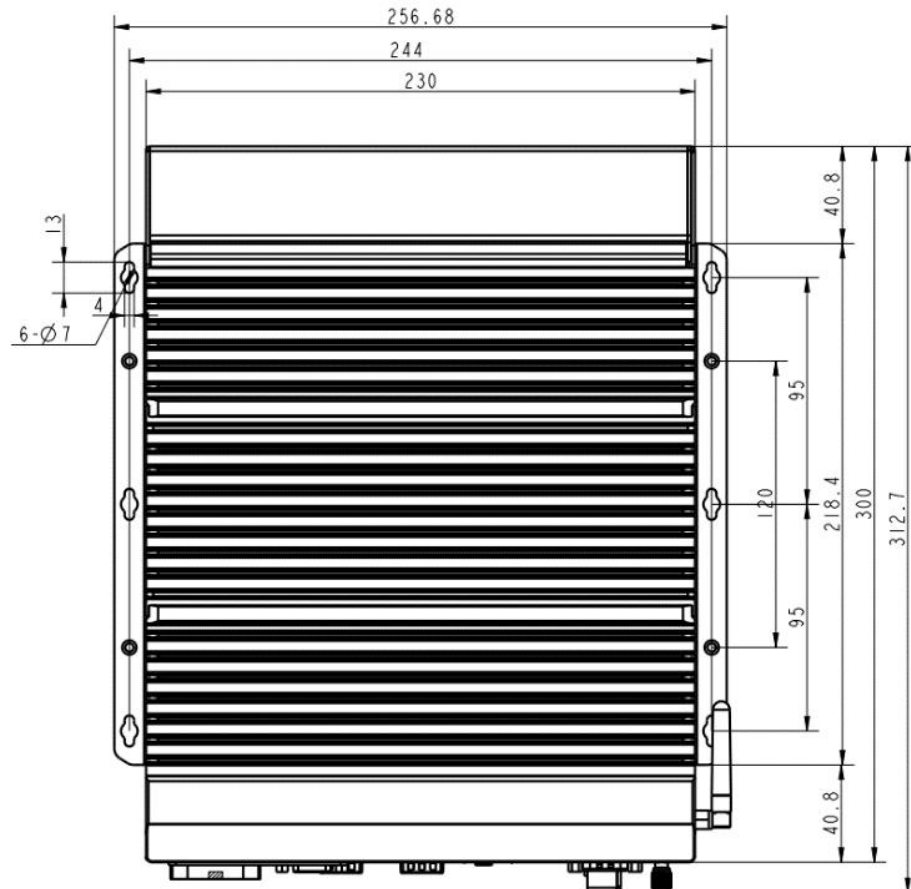


KMDA-6610: 230*267.3*92mm

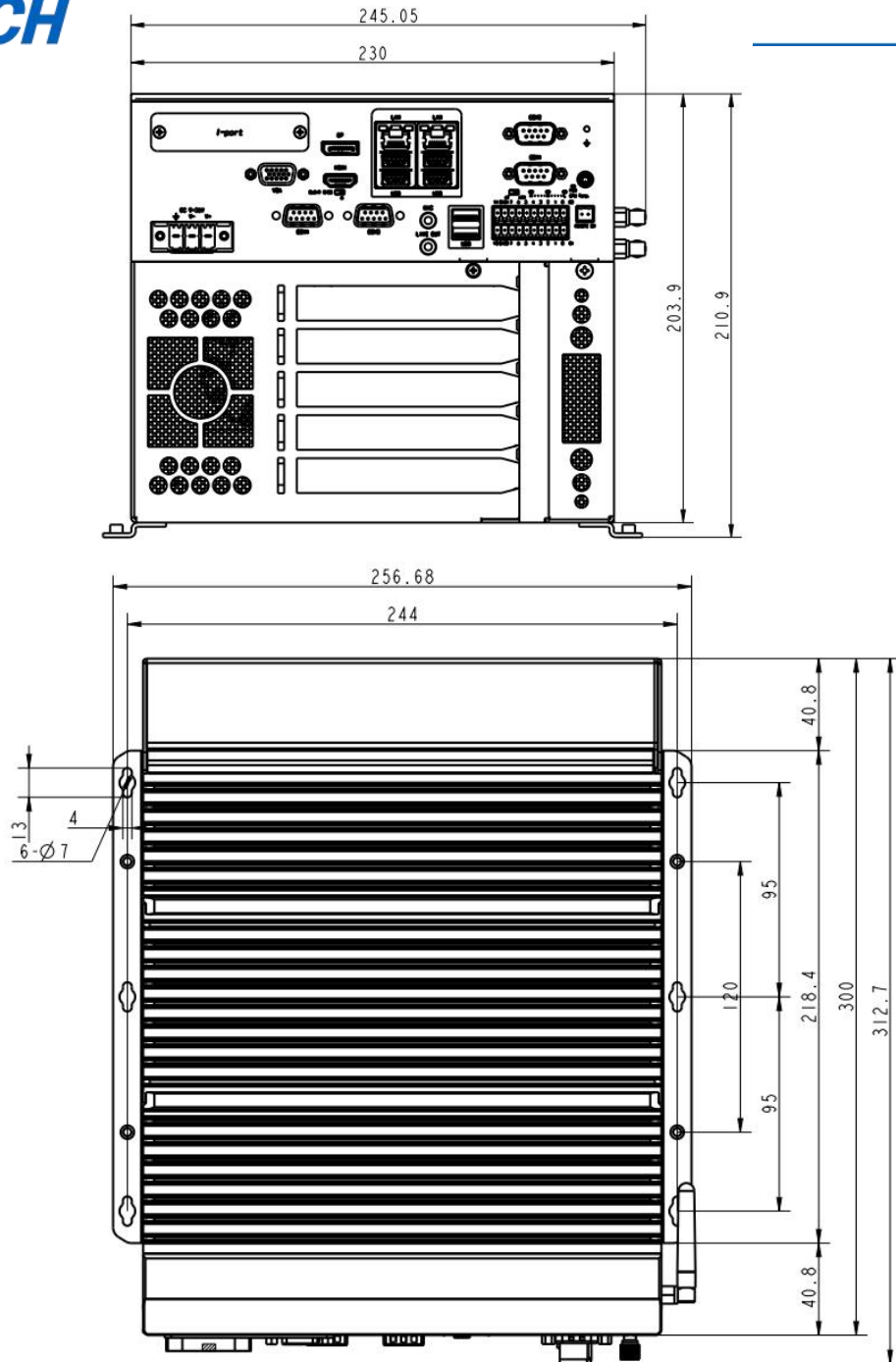


(L*W*H)

KMDA-7920: 256.68*312.7*149.9mm



KMDA-6920: 230*273*143mm



(L*W*H)

KMDA-7921: 256.68*312.7*210.9mm

KMDA-6921: 230*273*204mm

KMDA-7610/7920/7921

Product characteristics

1

High performance processor

2

High performance kernel display

3

Support high frequency memory

4

1+2 Storage selection

5

Varied pcles/pc extensions

6

Support GPU graphics card /AI acceleration card

7

Flexible and versatile function IO extension

13th-generation desktop processor raptor lake-s

Supports up to I9-13900k 24 core 32 threads, full core up to 5.5GHZ

Faster performance core (p core)
+ more efficiency core (e core) +
larger cache capacity



CPU performance is significantly improved

★ Ultra high performance core display



- Xe Architecture Intel® Hypercore graphics card 770, up to 32 EUs
- 1 resolution up to 4K and 1 resolution 8K display output
- Windows implements Genlock (synchronous phase lock) video synchronization
- Graphics and display virtualization, 2 video decoders (VDbox)
- VNNI instruction Intel® DL Boost and int8/dp4 instruction +Open VINO,
- Improve image AI inference performance

Twelfth
generation Intel
Core desktop
processor

Compared to the
10th generation

up to
1.94X

Video card
performance
improved

up to
2.81X

GPU image classification
reasoning performance
improved

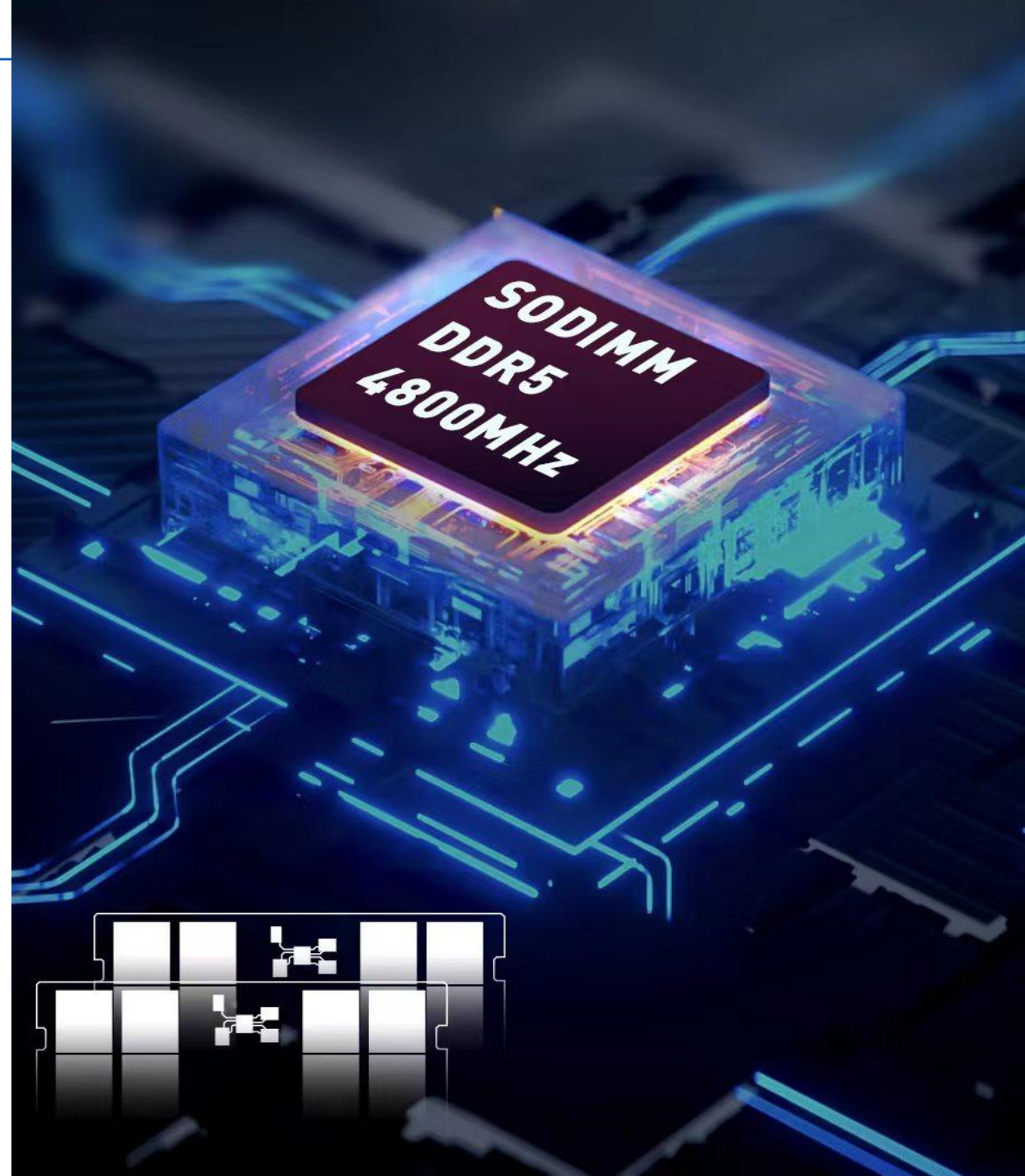


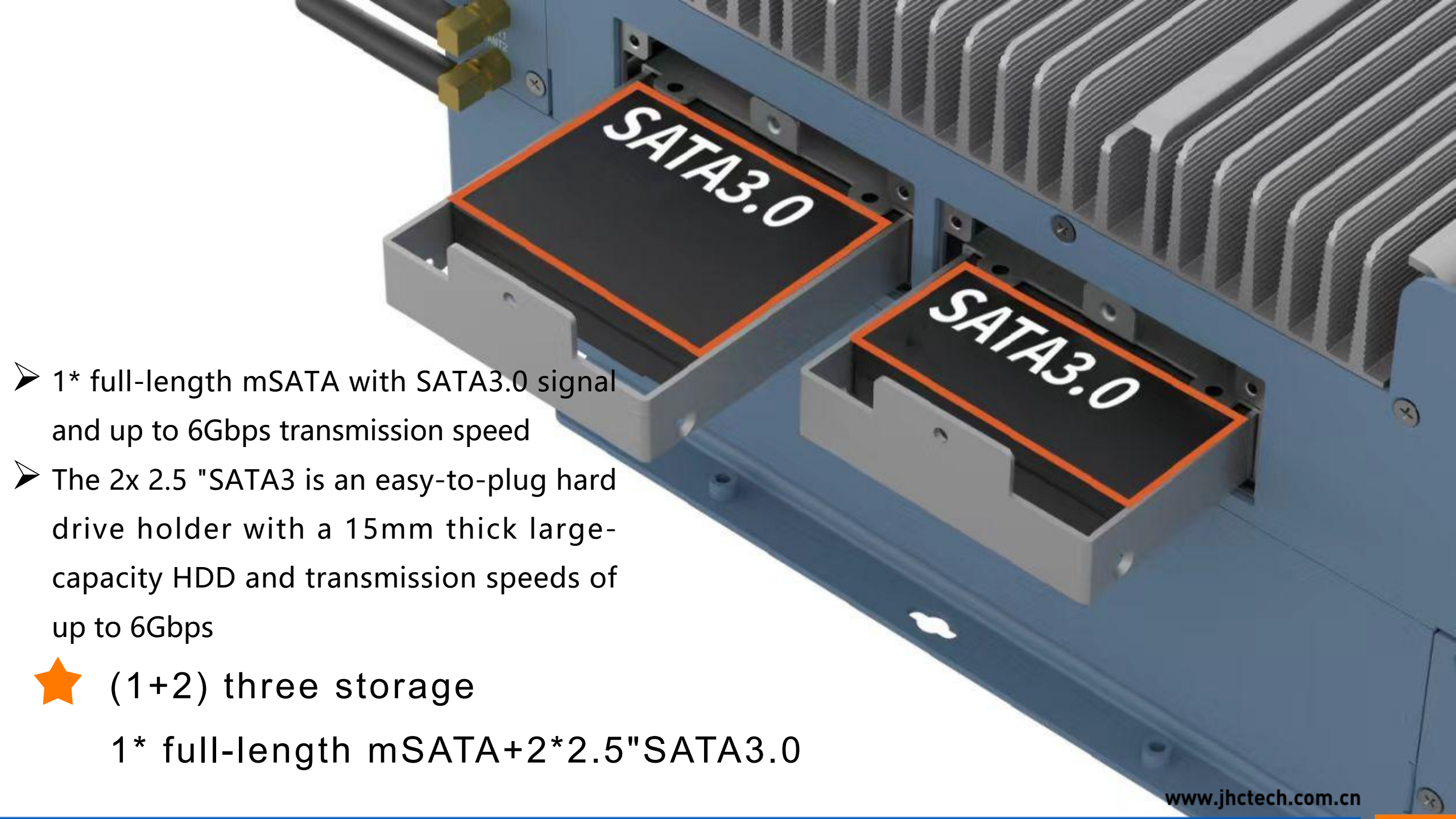
Data come from Intel official



Supports high frequency memory

- Dual-channel DDR5 SODIMM at 4800MHz
- Maximum memory capacity 64GB
- High compatibility Supports most major memory manufacturers in the market





- 1* full-length mSATA with SATA3.0 signal and up to 6Gbps transmission speed
- The 2x 2.5 "SATA3 is an easy-to-plug hard drive holder with a 15mm thick large-capacity HDD and transmission speeds of up to 6Gbps

★ (1+2) three storage
1* full-length mSATA+2*2.5"SATA3.0

★ Varied expansion

KMDA-7920 is a standard double extension, and the KMDA-7921 is a standard 4 extension design

Product model	Extended backplane name	Extension interface
KMDA-7920-S001	ECX-255	1*PCIeX16 (X16 signal) + 1*PCIeX16 (X4 signal)
	ECX-271	1*PCIeX16 (X16 signal)+ 1*32bit PCI
KMDA-7921-S001	ECX-266	1*PCIeX16 (X16 signal) +1*PCIeX4 (X2 signal) +2*32bit PCI



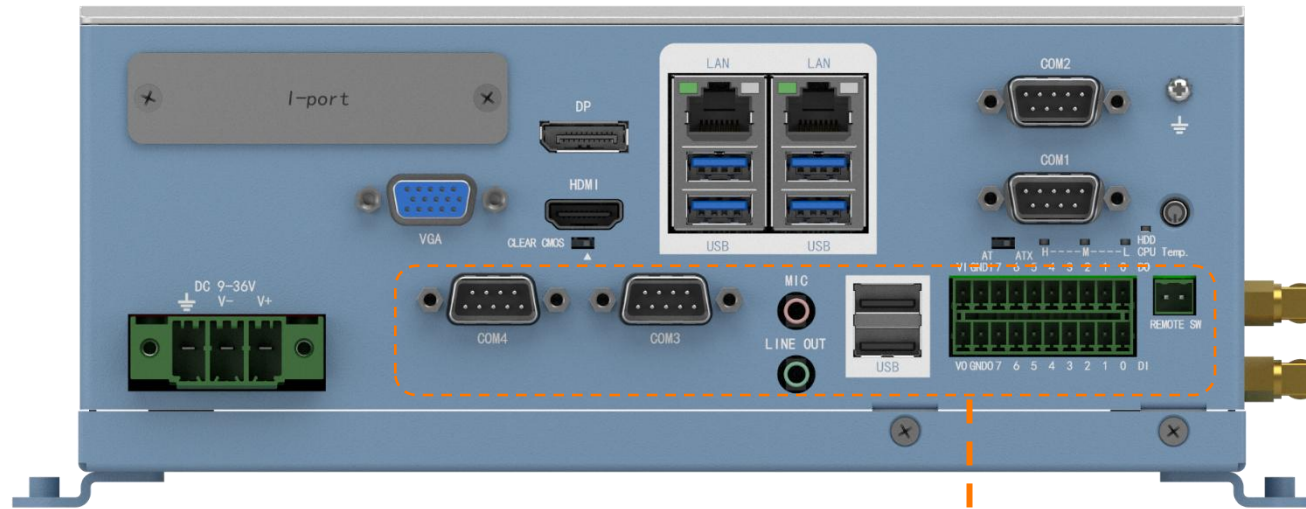


Support GPU graphics cards and AI acceleration cards

- The KMDA-7920 and KMDA-7921 have a body depth of 312.7mm and can support GPU/AI cards up to 280mm.
- The power supply with the maximum power output of 300W can ensure the power supply requirements of the GPU with the power consumption below 170W.
- Different power passive acceleration cards or GPU cards, with different built-in fan components to dissipate heat; Acceleration cards or GPU cards with fan active, do not require air duct components;

Expansion card unique power supply design

Ensure the power supply stability of 75w and 150w acceleration cards



★ Comprehensive IO functionality and flexible transformation

IO card ECB-9810, optionally replaced with ECB-9620, ECB-9600 and ECD-9720

03>Ordering Info



Model number	Description
KMDA-7610-S001	Fanless box computer, Intel® 12th generation Alderlake-S LGA1700 CPU, H610 PCH, 2*DDR5 SODIMM, 2*LAN, 4*USB3.2, 2*USB2.0, 4*COM, 1*VGA, 1*DP,1*HDMI, Line out & Mic, 16bit DIO, 1*I-Port, 2*2.5" SATA bay, 1*mSATA, 1*Mini PCIe, DC 9-36V.

Model number	Description	extend
KMDA-7920-S001	Fanless box computer, Intel® 12th generation Alderlake-S LGA1700 CPU, H610 PCH, 2*DDR5 SODIMM, 2*LAN, 4*USB3.2, 2*USB2.0, 4*COM, 1*VGA, 1*DP,1*HDMI, Line out & Mic, 16bit DIO, 1*I-Port, 2*2.5" SATA bay, 1*mSATA, 1*Mini PCIe, DC 9-36V.	Standard configuration: ECX-255Dual expansion card, 1*PCleX16 (X16 signal) +1*PCleX16 (X4 signal) Standard configuration: ECX-271 Dual expansion card, 1*PCleX16 (X16 signal) +1*32bit PCI

Model number	Description	extend
KMDA-7921-S001	Fanless box computer, Intel® 12th generation Alderlake-S LGA1700 CPU, H610 PCH, 2*DDR5 SODIMM, 2*LAN, 4*USB3.2, 2*USB2.0, 4*COM, 1*VGA, 1*DP,1*HDMI, Line out & Mic, 16bit DIO, 1*I-Port, 2*2.5" SATA bay, 1*mSATA, 1*Mini PCIe, DC 9-36V.	Standard configuration: ECX-264 Dual expansion card, 1*PCleX16 (X16 signal) +1*PCleX4 (X2 signal) +2*32bit PCI

04 Target Market

- Logistics visual sorting
- Photovoltaic visual inspection
- Intelligent inspection machine
- Automobile manufacturing inspection

Machine vision



expressway

- Frame free flow
- ETC and MTC
- Event detection
- Law enforcement evidence collection



Medical imaging

- X-ray machine
- monitor

Industrial manufacturing



- Industrial robot arm
- Laser cutting machine/engraving machine /CNC machining center
- Dispenser /3D printer
- DCS



Vehicle-road collaboration/vehicle-networking

- Roadside MEC
- High precision mapping

Application case

- It can be applied to intelligent high-speed event detection edge computing.
- The volume and size perfectly meet the needs of the project can be on the pole box;
- Placed at 16 gate crossings and 2 tunnel crossings, LiDAR and cameras are arranged, and 18 scenes are processed according to different structured data, providing an extremely safe and stable intelligent high-speed event detection system for Pingyi High-speed.



KMDA-7920

Application case

The ETC gate frame system is an important facility to cancel the provincial toll station and realize the electronic toll collection without stopping.

The product can be applied to the highway ETC toll, the machine can work in a wide temperature range of -35°C to $+70^{\circ}\text{C}$, and has a dustproof, anti-corrosion, anti-shock, anti-electromagnetic interference of extremely high stable reliability, can continue to operate reliably and stably under harsh environmental conditions, in order to improve the overall highway traffic efficiency.



KMDA-7610



05> Product Schedule

Small batch time: early June 2023

Q: Can these products support RAID?

A: NO.

Q: What functional interfaces can be extended with the I-port?

A: This supports the expansion of 2 network ports or 2 USB or 16bit DIO.

Stay in Touch



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Thank you!