JHCTECH IoT Computer Connecting the Dots

The webinar is about to start...

JHCTECH IoT Computer Connecting the Dots

KMDA-7611

ALAD-K2350T

Speakers

Gary
Customer Solution Manager
JHCTECH Shenzhen Office

Reese
Customer Solution Manager
JHCTECH Shenzhen Office

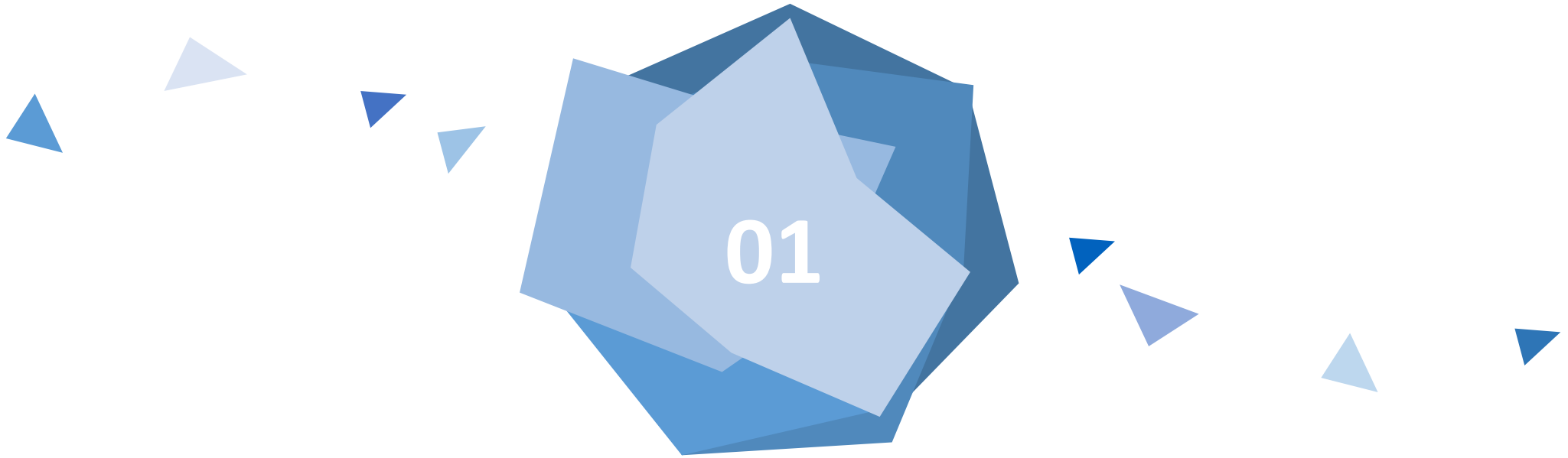
NEW PRODUCT LAUNCH

LIVE

Product Launch Announcement

Time	Agenda
16:00 ~ 16:05	**Opening** Chi Wang, Marketing Manager, Shenzhen Office
16:05 ~ 16:25	**Introduction of New Product** **Unmanned Forklift & Machine Vision Dedicated Controller --- KMDA-7611** Gary Shu, Customer Solution Manager, Shenzhen Office
16:25 ~ 16:45	**Introduction of New Product** **Large-sized Expandable Industrial Panel PC --- ALAD-K2350T(P)** Reese Li, Customer Solution Manager, Shenzhen Office
16:45 ~ 16:55	**Q&A**

Introduction of JHCTECH's New Products



Unmanned Forklift & Machine Vision Dedicated Controller --- KMDA-7611

Gary Shu, Customer Solution Manager, Shenzhen Office

Unmanned Forklift & Machine Vision Dedicated Controller

KMDA-7611

JHCTECH

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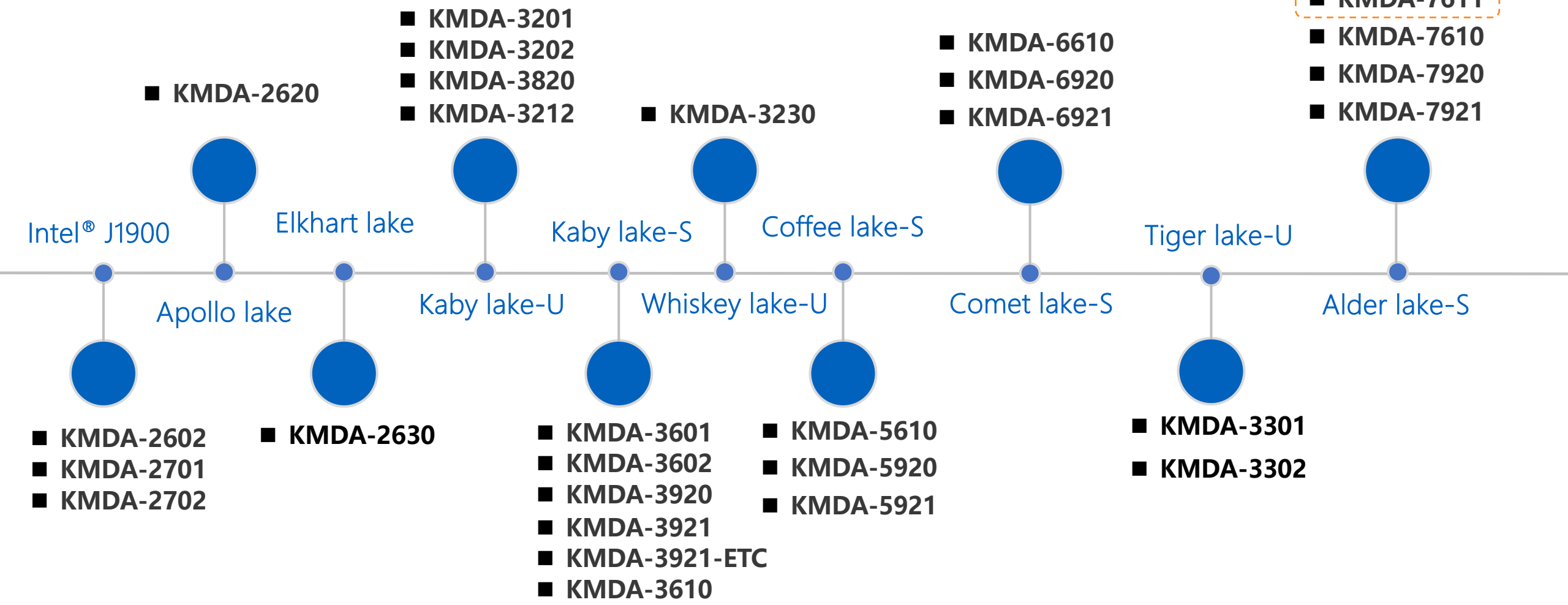
02 KMDA-7611 Features

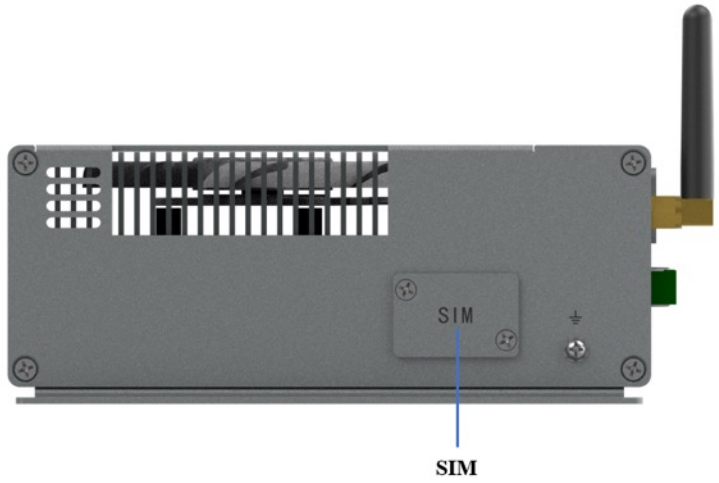
03 KMDA-7611 Ordering Info

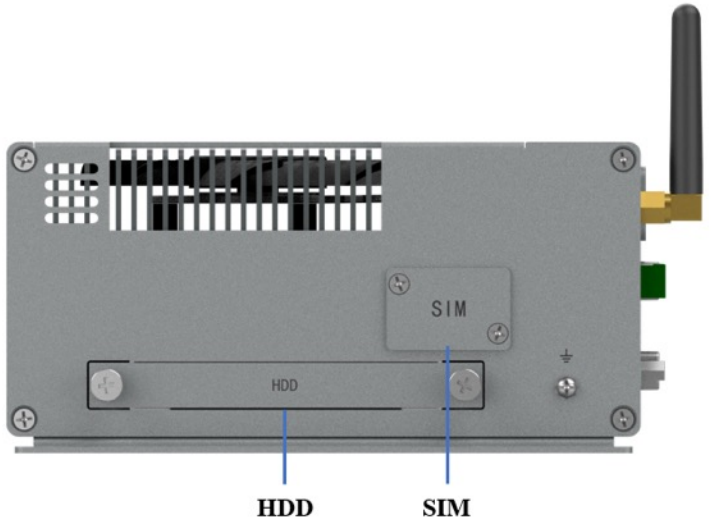
04 KMDA-7611 Market Direction

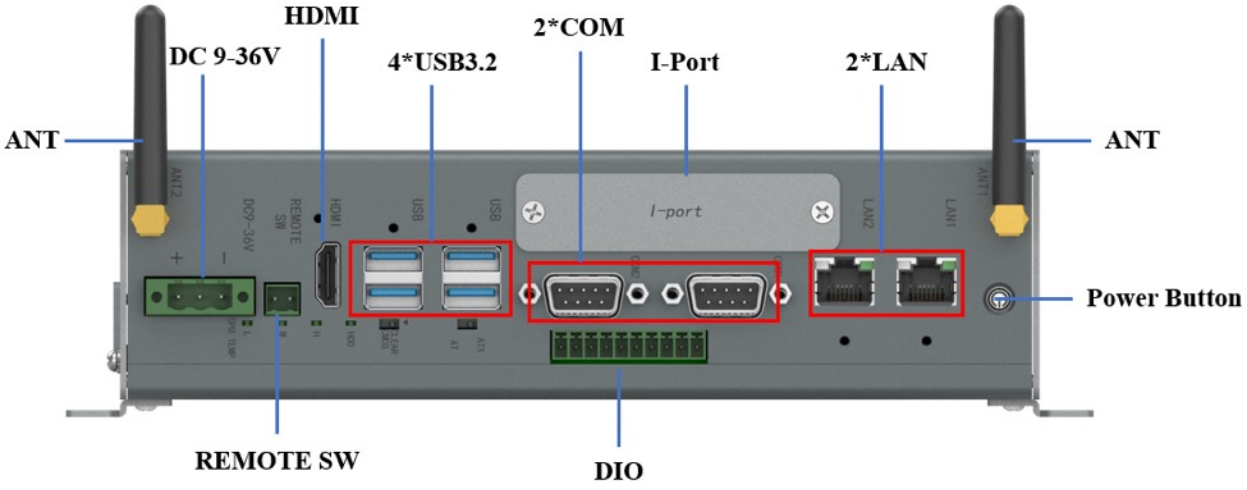
05 KMDA-7611 Product Schedule

01 KMDA ROADMAP

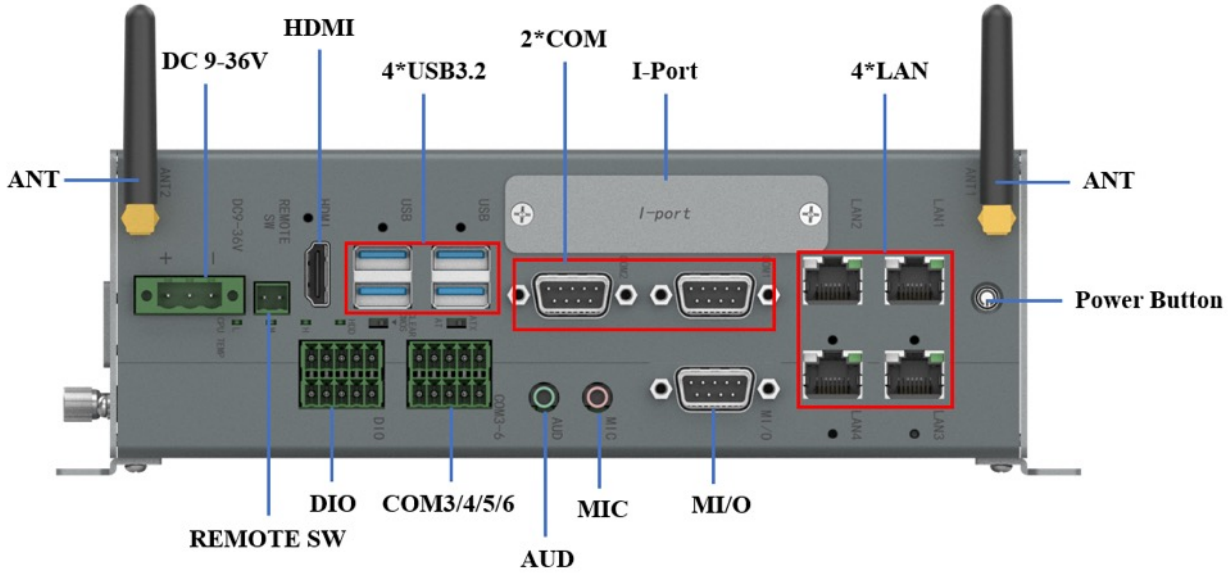








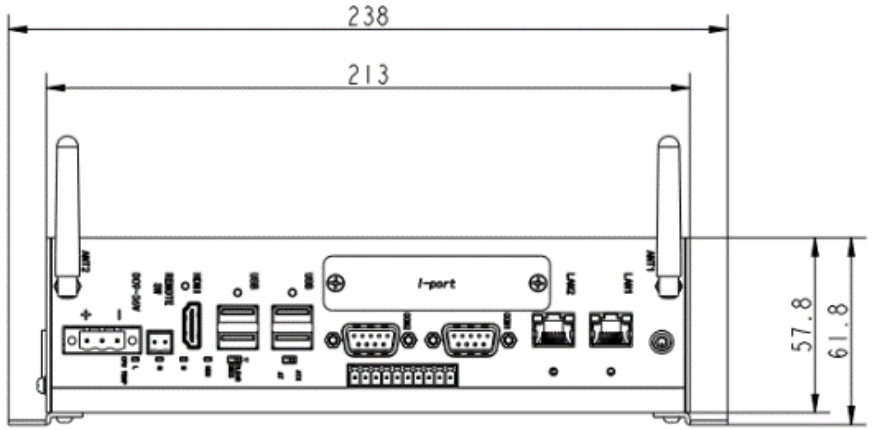
KMDA-7611-T001

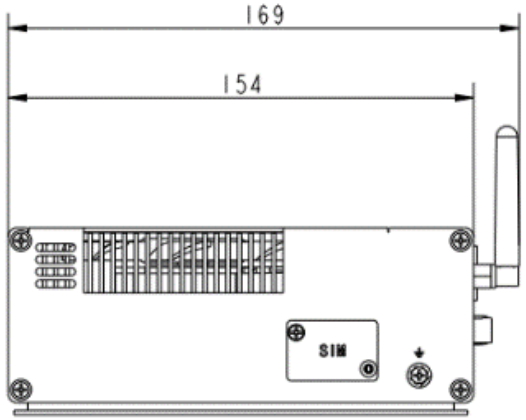


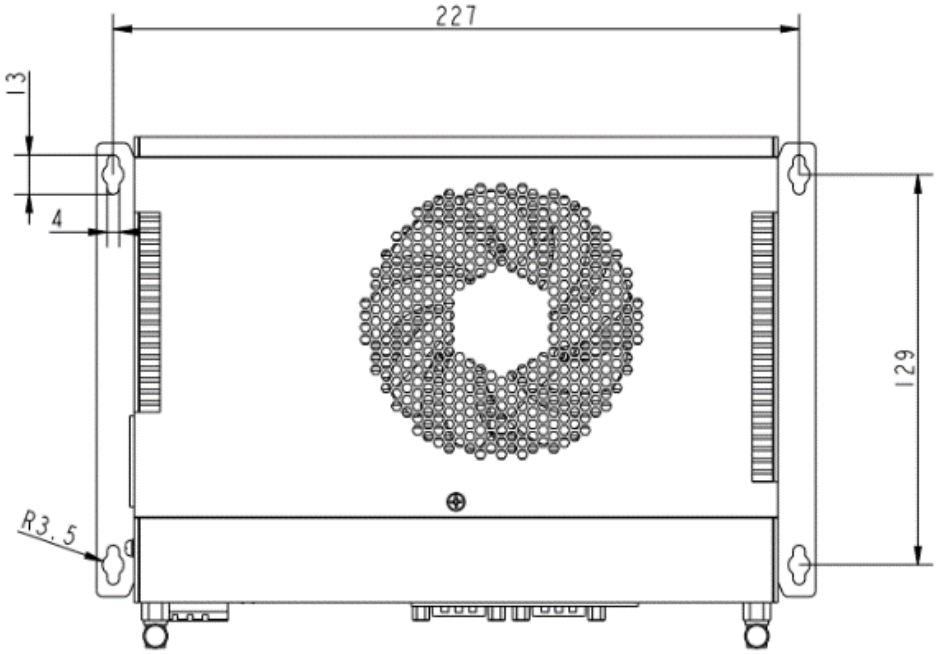
KMDA-7611-S001

02 KMDA-7611 Product Features

	KMDA-7611-T001	KMDA-7611-S001
CPU	Intel® 12th Alder Lake-S/13th Raptor lake-S Core i9/i7/i5/i3/Pentium/Celeron LGA1700 CPU, maximum power consumption of 65W	
Chipset	Intel® H610 Chipset	
RAM	2*DDR5 4800 MHz SODIMM, maximum 96GB	
Display	1*HDMI, maximum resolution 4096*2160@60Hz	
LAN	1*Intel I210AT Gigabit LAN + 1*Intel I219LM Gigabit 10M/100M/1000Mbps adaptive, supports WOL	3*Intel I210AT Gigabit LAN + 1*Intel I219LM Gigabit LAN 10M/100M/1000Mbps adaptive，supports WOL
I/O Port	2*USB3.2 gen2.0 Type A, 10Gbps transfer speed；2*USB3.2 gen1.0 Type A, 5Gbps transfer speed； 1*USB2.0 Type A（built-in）； 2*RS232/422/485 via BIOS settings (DB9 male)； 8bit isolated DIO	2*USB3.2 gen2.0 Type A, 10Gbps transfer speed； 2*USB3.2 gen1.0 Type A, 5Gbps transfer speed； 1*USB2.0 Type A（built-in）； 2*RS232/422/485 via BIOS settings (DB9 male) , 4*RS232(2*5 Pin Phoenix terminal) 8-bit isolated DIO (2*5pin Phoenix terminal); 1*Line out+1*Mic (3.5mm phone jack)
Storage	1*full-length mSATA, with SATA3.0 signal, supporting a maximum transfer speed of 6Gbps.	1*2.5” SATA3 hot-swappable hard drive tray, supports a maximum transfer speed of 6 Gbps 1*Full-length mSATA, with SATA3.0 signal, supports a maximum transfer speed of 6 Gbps
Expansion Port	2*full-length Mini-PCIe，with PCIeX1 and USB2.0 signal，Expandable PCIe Signal Functional Module, 1*M.2 3052/3042 B-Key，with SIM slot，with PCIeX1 and USB2.0 signal, supports 5G NR modules	
Power supply	DC IN 9-36V, with short circuit, overvoltage, and overcurrent protection.	

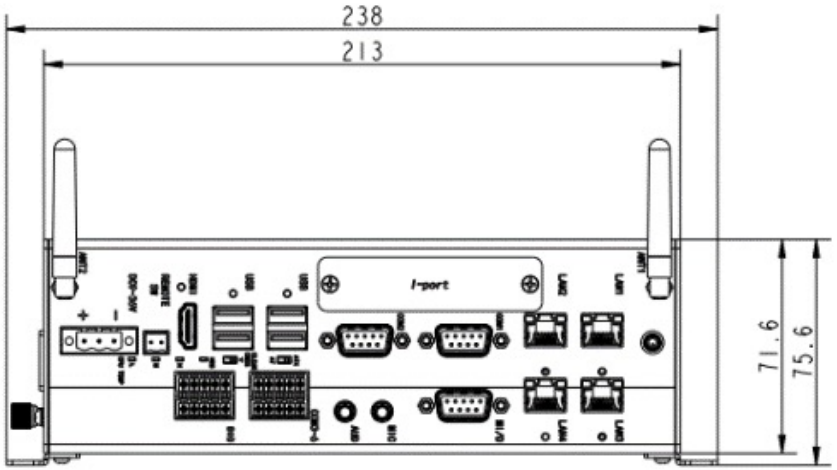


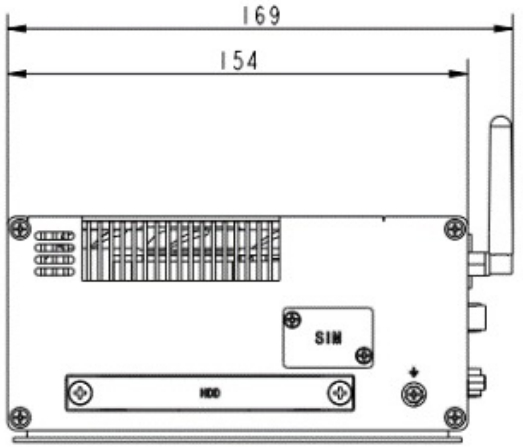


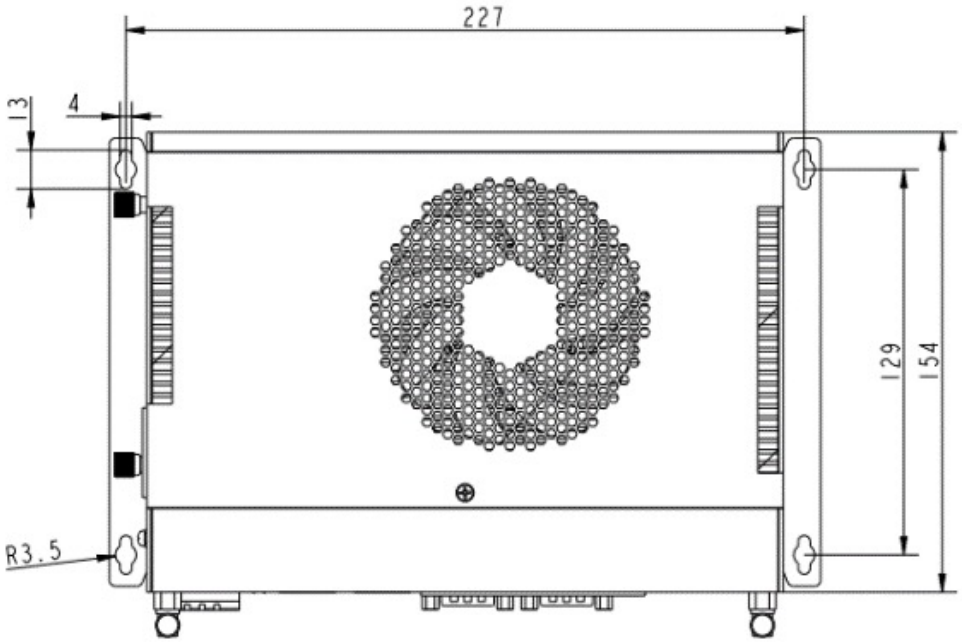


(W*D*H)

KMDA-7611-T001：238*169*61.8 mm（Including installation accessories）







(W*D*H)

KMDA-7611-S001：238*169*75.6 mm （Including installation accessories）

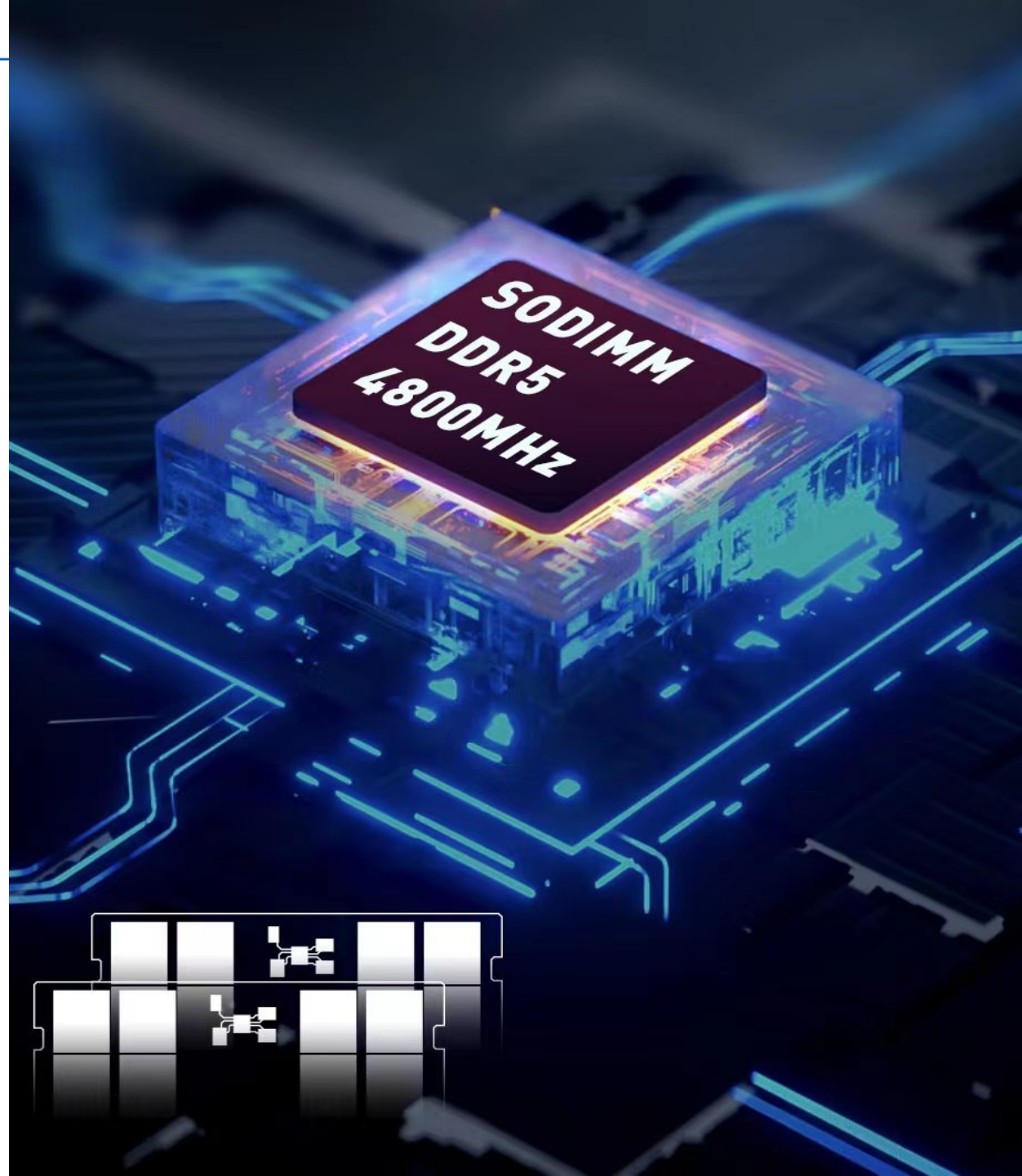
KMDA-7611

Product Features

1. Supports high-frequency memory
2. High-speed Isolated DIO
3. Support multiple CAN protocols
4. Multiple network functions
5. Rich IO interfaces
6. IO interface anti-falling design
7. Installation diversity

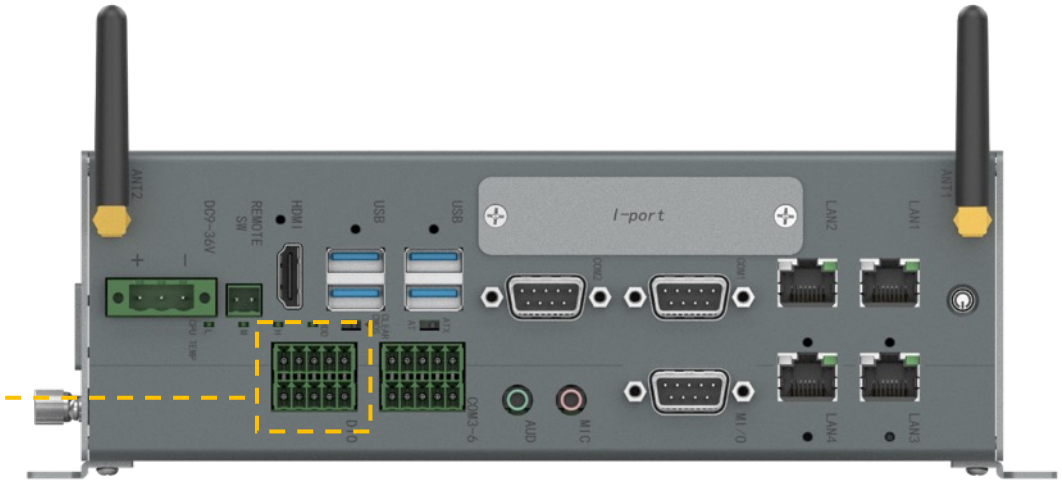
Supports high-frequency memory

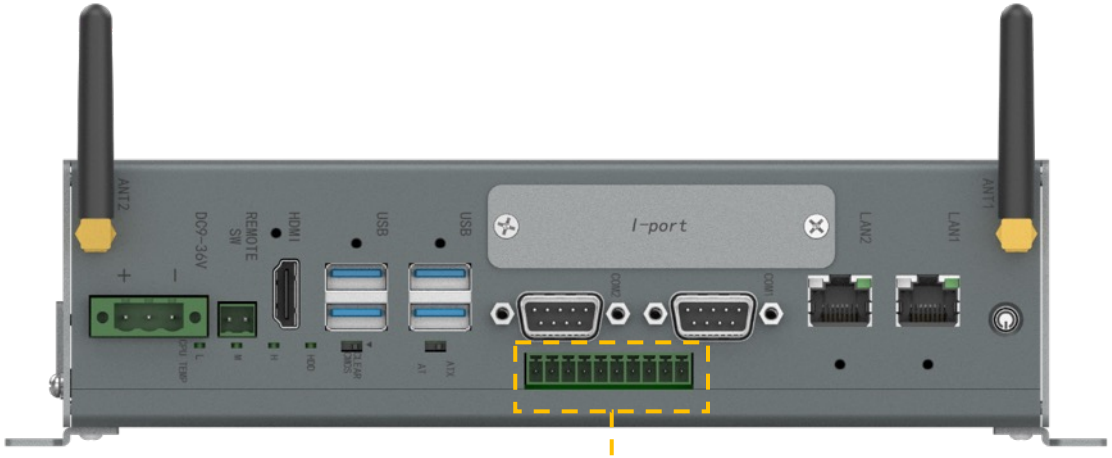
- Dual channel memory DDR5 SODIMM, frequency 4800MHz
- Maximum memory capacity 96GB
- High compatibility supports most mainstream memory manufacturers on the market



High-speed Isolated DIO

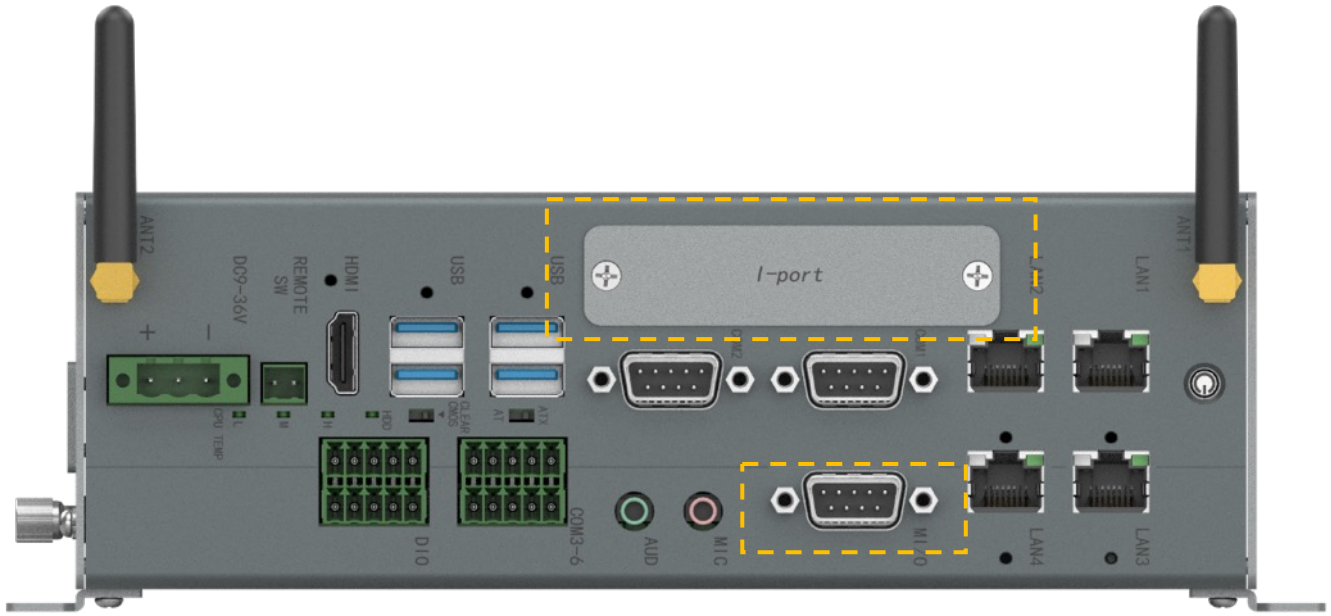
- 8-bit isolated DIO, 4-bit DI is 2.5KV photoelectric isolation, supports PNP and NPN mode selection; 4-bit DO is 2.5KV optical isolation Darlington output, with built-in matching resistor, which can be selected based on different drive currents.
- The pulse period reaches 2ms/pulse wave
- Capable of directly controlling brake devices such as signal lights, limit switches, and high-speed switch valves
- It can also operate the transfer device on the forklift, eliminating the need for a micro PLC on the forklift.



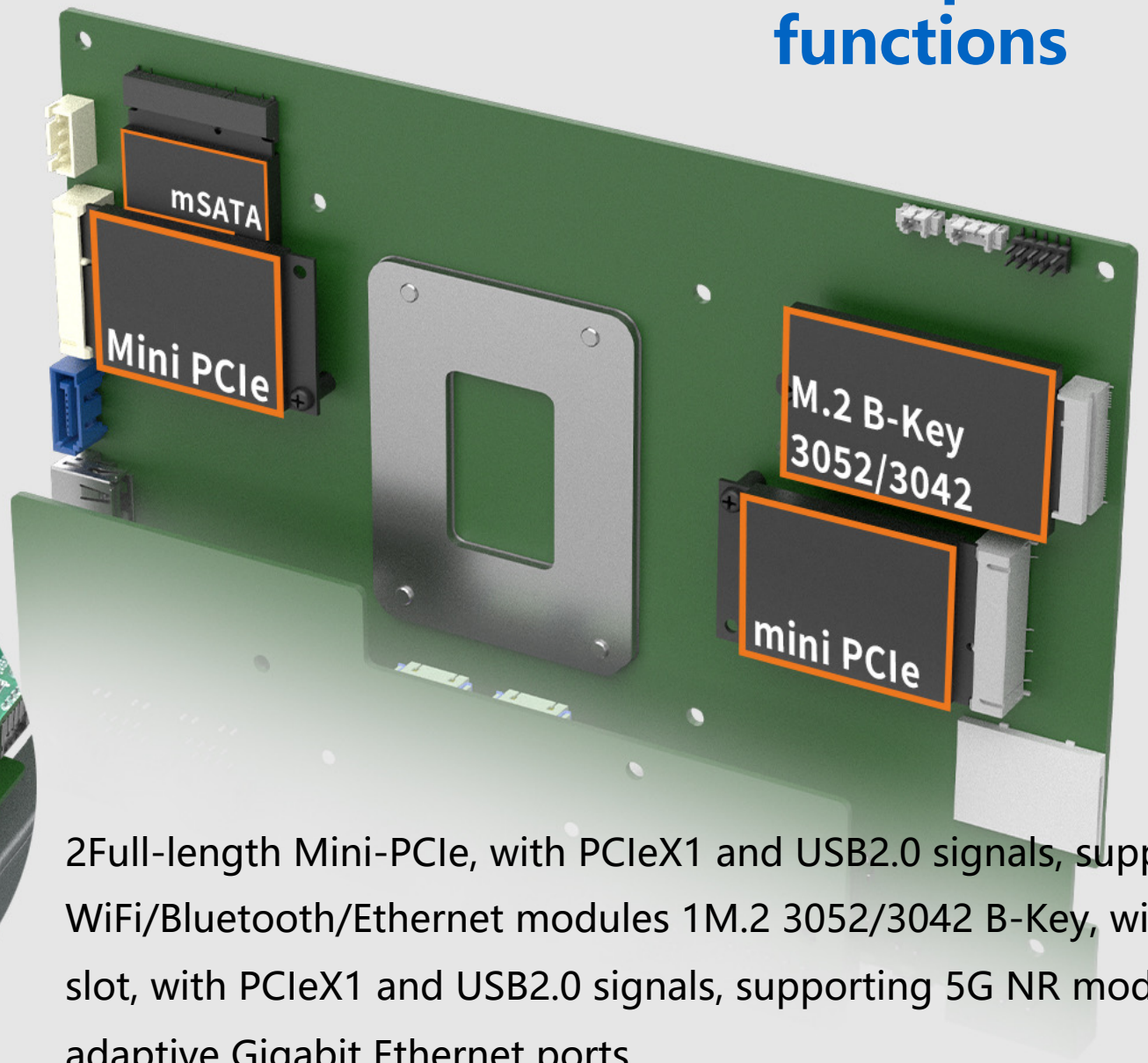


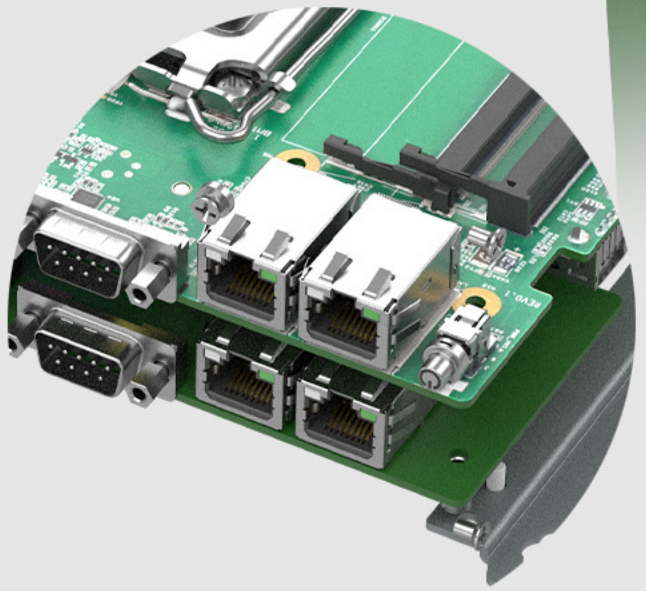
Support multiple CAN protocols

- Dual Mini PCIe interfaces, which can support up to 4 channels of CAN;
- Support CAN 2.0B, CAN OPEN, Socket CAN and other protocols, and is seamlessly connected to the forklift chassis;



Multiple network functions



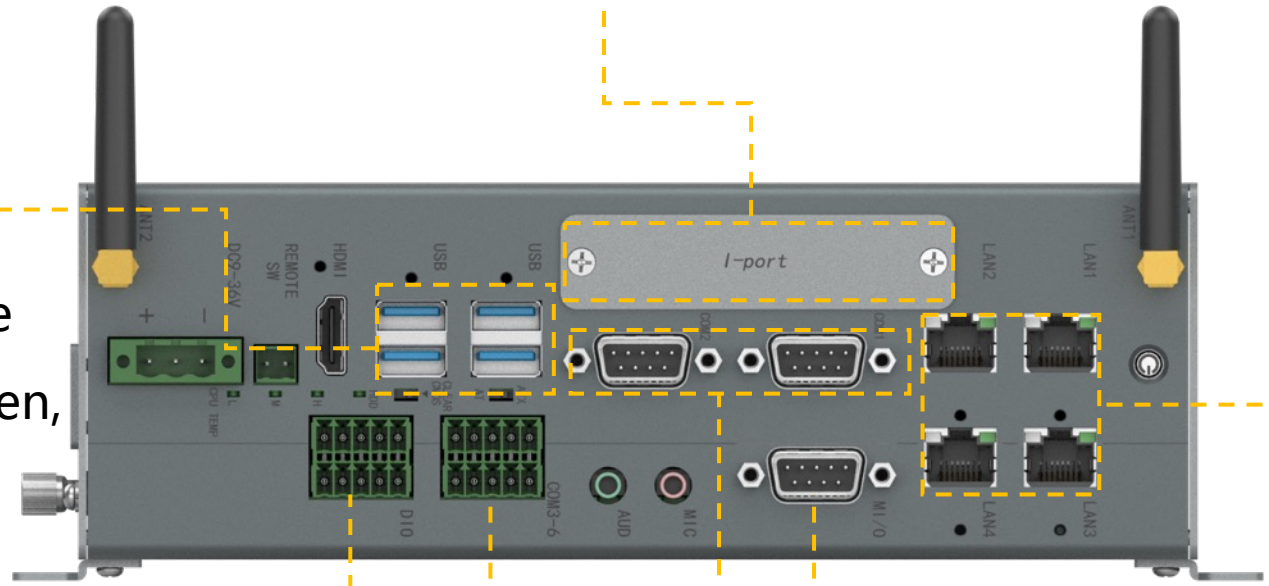


2Full-length Mini-PCIe, with PCIeX1 and USB2.0 signals, supporting WiFi/Bluetooth/Ethernet modules 1M.2 3052/3042 B-Key, with SIM card slot, with PCIeX1 and USB2.0 signals, supporting 5G NR modules 2 or 4 adaptive Gigabit Ethernet ports.

Rich IO interfaces

Expandable dual Ethernet ports/CAN

4*USB3.2：Barcode scanner, touchscreen, camera, keyboard, and mouse

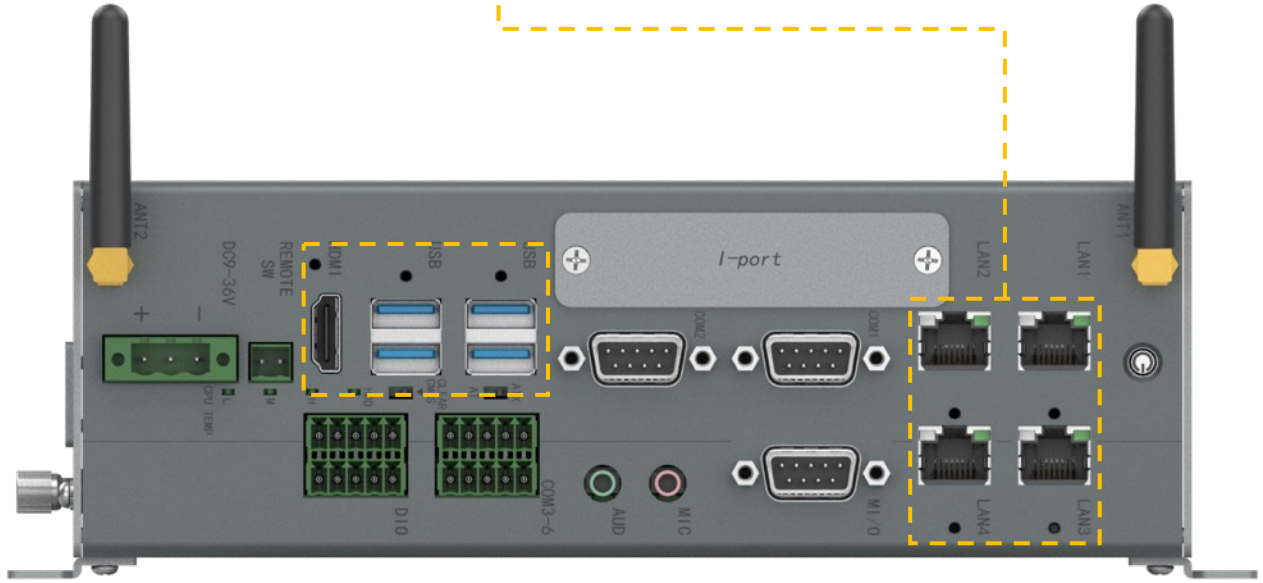


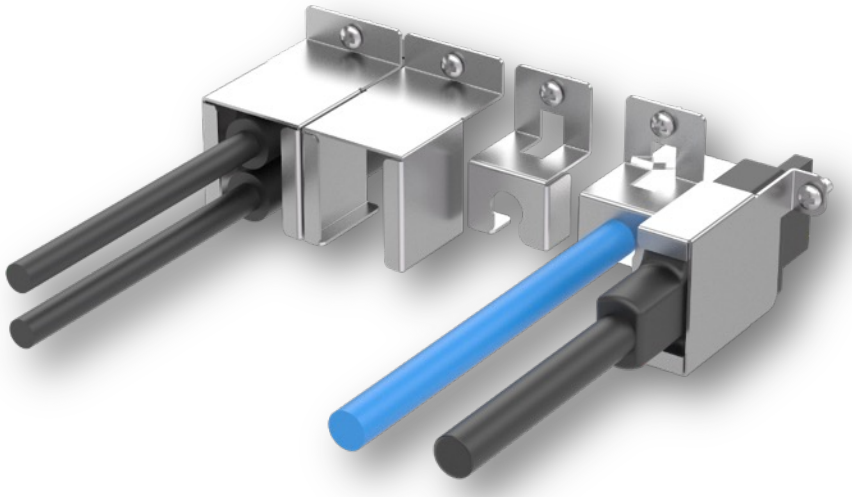
8bit isolated DIO

Expandable CAN

6*COM：MCU board, access control, face recognition system

★ IO interface anti-falling design





Installation Diversity

Wall Mounting

Rail Mounting

Desktop Mounting

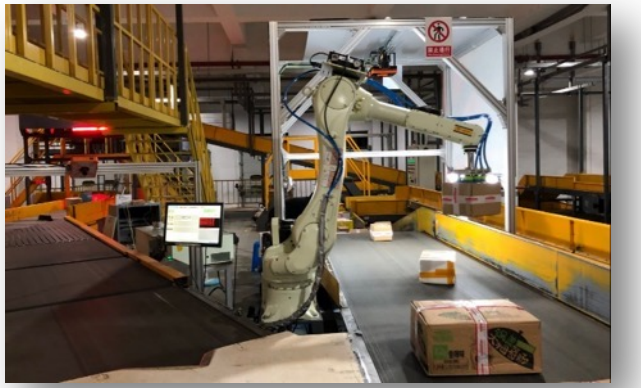
03> Ordering Info

Model	Description
KMDA-7611-T001	Embedded box computer，Intel® 12th Gen Alderlake-S LGA1700 CPU，H610 PCH，2*DDR5 SODIMM, 2*LAN, 4*USB3.2, 1*USB2.0, 2*COM,1*HDMI, 8bit isolated DIO, 1*I-Port, 1*mSATA, 2*Mini PCIe, 1*M.2 B-Key, 1*SIM slot, DC 9-36V.
PA-120DC19	AC/DC power adapter，DC 19V/6.32A,120W

Model	Description
KMDA-7611-S001	Embedded box computer，Intel® 12 Gen Alderlake-S LGA1700 CPU，H610 PCH，2*DDR5 SODIMM, 4*LAN, 4*USB3.2, 1*USB2.0, 6*COM,1*HDMI, Line out & Mic，8bit isolated DIO, 1*I-Port, 1*M I/O, 1*mSATA, 1*2.5” SATA bay, 2*Mini PCIe, 1*M.2 B-Key, 1*SIM slot, DC 9-36V.
PA-120DC19	AC/DC power adapter，DC 19V/6.32A,120W

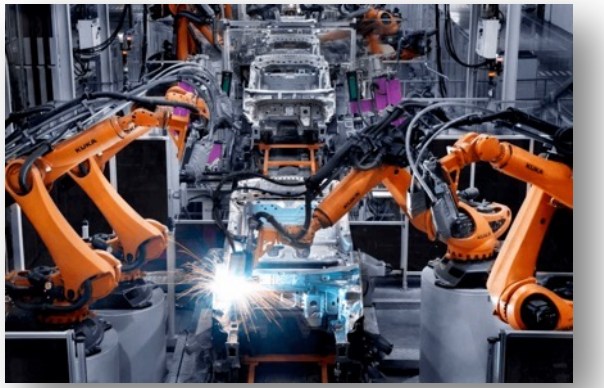
04 Market Direction

Unmanned forklift



Machine Vision

- Logistics Vision Sorting
- Photovoltaic Vision Inspection
- Intelligent Quality Inspection Machine
- Automotive Manufacturing Inspection



Industrial Manufacturing

- Industrial Robotic Arm Laser Cutting Machine/Engraving Machine/CNC Machining Center
- Dispensing Machine/3D Printer
- Distributed Control System (DCS)

05> Product Schedule

Small Batch 2024 January

JHCTECH
IoT Computer
Connecting the Dots
JHCTECH Other Logistics
Product Overview

JHCTECH | IoT Computer Connecting the Dots

KMDA-3302

High energy efficiency and small size AGV/AMR controller

Product Specifications

KMDA-3302

- Intel® Tiger lake U Soc CPU
- SGCC box design, 4-wire speed fan cooling
- 1*DDR4 3200MHz SODIMM, up to 32GB
- 1*HDMI 4K display output
- 2*I210AT Gigabit network port, 2*USB3.2, 2*USB2.0
- 8bit DIO, 1*RS232/422/485, 1*RS232
- 1*M.2 2230 E-Key, support Wifi/BT function extension
- A 1*M.2 B-Key with a SIM card slot supports 5G NR wireless modules
- 1*Mini PCIe supports functions such as CAN, and can be replaced with mSATA
- 1*Full Size mSATA for storage
- DC 9~36V wide voltage power supply, with reverse connection, overcurrent, overvoltage protection
- Standard horizontal tabletop mount, single DIN-RAIL rail mount optional

JHCTECH | IoT Computer Connecting the Dots

CNTI-R351

Edge Computing Magic Box

Based on Ruixin Micro RK3588 platform

Product Specifications

- Rockchip RK3588 CPU, 4-core Cortex-A76 and 4-core Cortex-A55, 2.4GHz main frequency
- Onboard 4GB memory
- GPU only 1*HDMI
- 4*LAN, 2*USB3.0, 2*USB2.0, 2*COM, 1*8bit DIO, 2* isolation CAN2.0, 1*Audio out
- 1*Full size Mini PCIe with SIM card slot and 4G LTE support
- Optional onboard Gigabit WiFi6/ Bluetooth 5.0
- Onboard 32GB eMMC and 1*M.2 2242 M-Key dual storage
- DC 9-36V wide voltage power supply, with reverse connection, overcurrent, overvoltage protection
- Aluminum rectangular profile housing, no fan cooling design
- Standard horizontal tabletop mount with DIN-RAIL rail and wall mount options

Wi-Fi 6 ARM Rockchip 瑞芯微电子 Fanless

RoHS COMPLIANT 2002/95/EC CE FCC

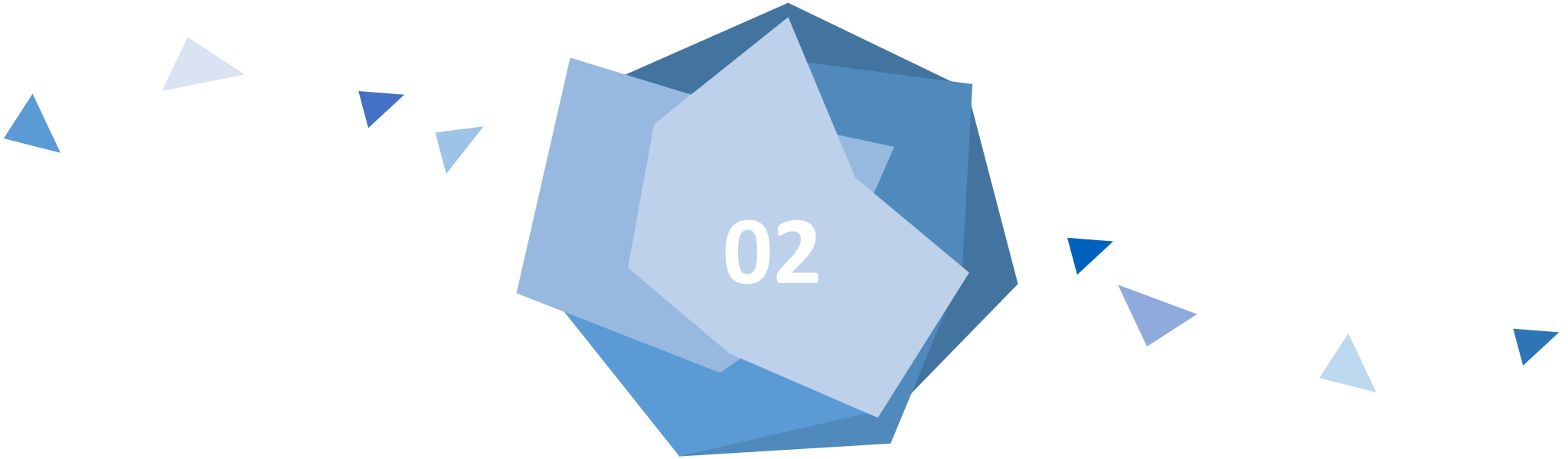
Market Direction

AGV/AMR

Logistics visual inspection

Service robot

Introduction of JHCTECH's New Products



Large-Sized Expandable Industrial Panel PC --- ALAD-K2350T(P)

Reese Li, Customer Solution Manager, Shenzhen Office

Large-sized Expandable Industrial Panel PC

ALAD-K2350T(P)

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01 ALAD Roadmap

02 ALAD-K2350T(P) Specifications

03 ALAD-K2350T(P) Features

04 ALAD-K2350T(P) Ordering Info

05 ALAD Series Upgrade

06 ALAD-K2350T(P) Market Direction

07 ALAD-K2350T(P) Product Schedule

Naming Rules for the ALAD Series Products

ABC(D)-X xx x x- T/T(P)

Serial Number: The priority is highest for values ranging from 0 to 9.0.

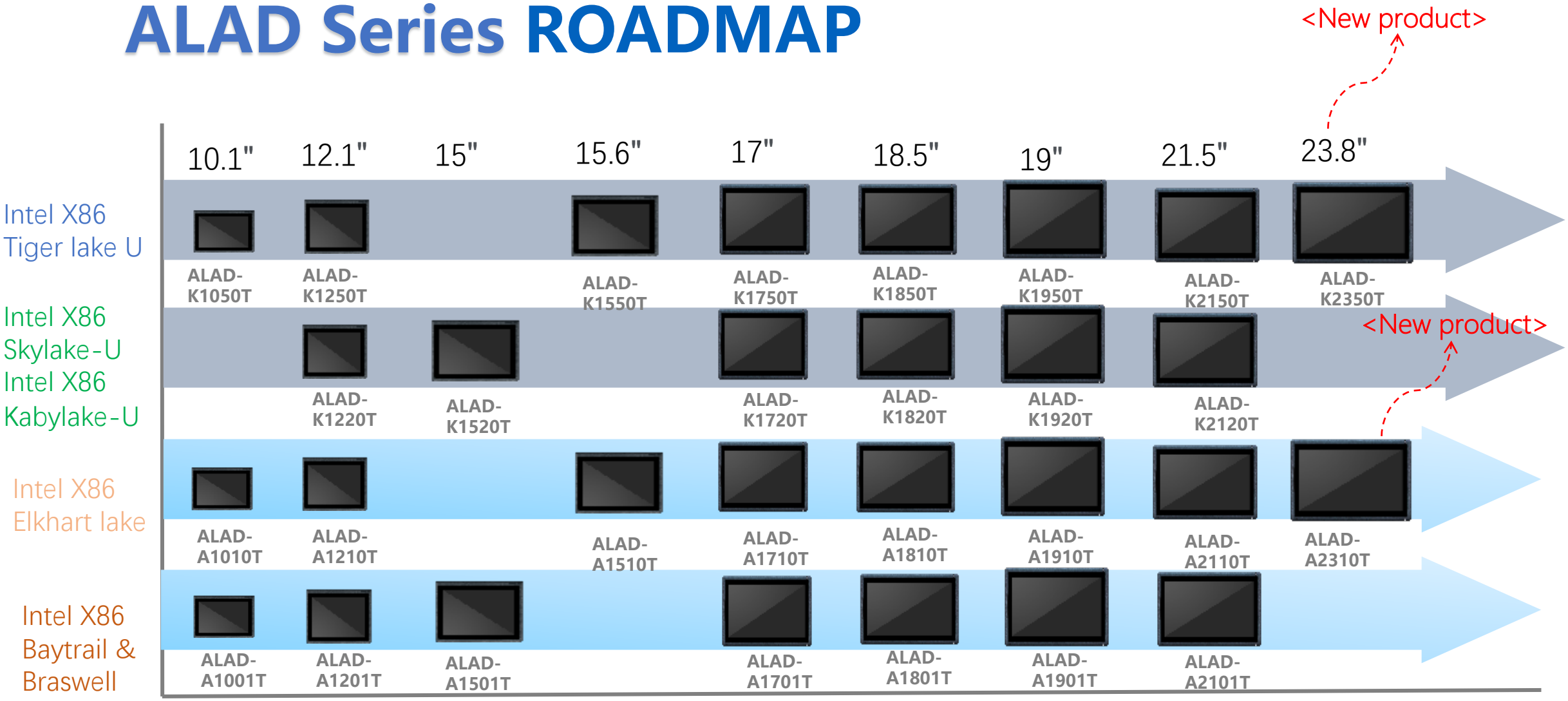
CPU Performance Levels:
0: Lowest Performance, 1 (6): Low Performance, 2 (7) and 3 (8): Medium Performance, 4 (9) and 5: High Performance

LCD Size: 08: 8/8.4 inches, 10: 10.1/10.4 inches, 12: 12.1 inches, 15: 15/15.6 inches, 17: 17 inches, 18: 18.5 inches, 19: 19 inches, 21: 21.5 inches, 23: 23.8 inches

1. **Scene Characteristics: H: High-level Protection, I: In-vehicle Mobile, K: Kiosk Mobile Terminal, F: Fully Rugged Portable, M: Military Use**
2. **CPU Platform Architecture or Performance: S: ARM Architecture CPU, A: Entry-level X86 CPU, K: Mid-to-High Performance X86 Core CPU**

Product Series Names:
- **Universal Type: ALAD and JAVS**
- **Industry-specific Types: WPFC (Waterproof Flat Panel Computer) and MBPC (Mobile Panel Computer)**

ALAD Series ROADMAP



ALAD Series ROADMAP

	Before 2020	2020~2022	2023 Q1	2023 Q2	2023 Q3	2023 Q4
Intel X86 Alderlake-P						
Intel X86 Tigerlake-U				ALAD-K1550T		K1050T/K1250T/K1750T/K1850T/ K1950T/K2150T/K2350T
Intel X86 Kabylake-U	K1220T/K1520T/K1720T K1820T/K1920T/K2120T					
Intel X86 Elkhart lake				ALAD-A1510T		A1010T/A1210T/A1710T/A1810T/ A1910T/A2110T/A2310T
Intel X86 Baytrail & Braswell	A1001T/A1201T A1501T/A1701T A1801T/A1901T/A2101T					

Planning | Developing | MP

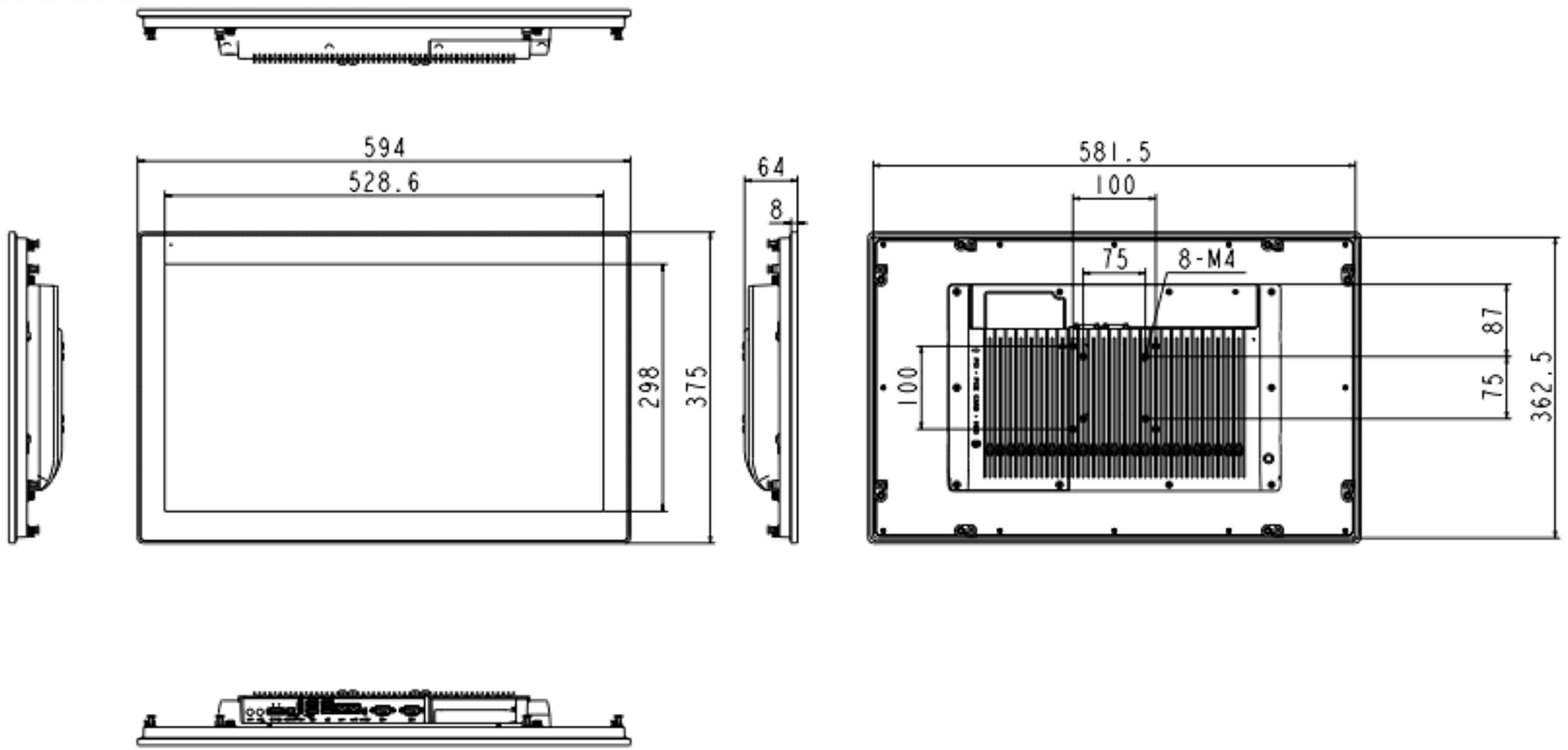
ALAD Series ROADMAP

Panel PC Model	K1050T/T(P)	K1250T/T(P)	K1550T(P)	K1750T/T(P)	K1850T(P)	K1950T/T(P)	K2150T(P)	K2350T(P)
CPU		Tiger lake-U						
LCD Screen Size	16:10 Widescreen	4:3 Standard Screen	16:9 Mirror Widescreen	4:3 Standard Screen	16:9 Widescreen	4:3 Standard Screen	16:9 Widescreen	16:9 Mirror Widescreen
Expansion	N/A	N/A	1 PCIe x4 or PCI Expansion Slot	N/A	1 PCIe x4 or PCI Expansion Slot	1 PCIe x4 or PCI Expansion Slot	1 PCIe x4 or PCI Expansion Slot	1 PCIe x4 or PCI Expansion Slot
Panel PC Model	**A1010T/T(P)**	**A1210T/T(P)**	**A1510T(P)**	**A1710T/T(P)**	**A1810T(P)**	**A1910T/T(P)**	**A2110T(P)**	**A2310T(P)**
CPU	Elkhart lake							
Expansion	N/A							

02 ALAD-K2350T(P)
Product Specifications

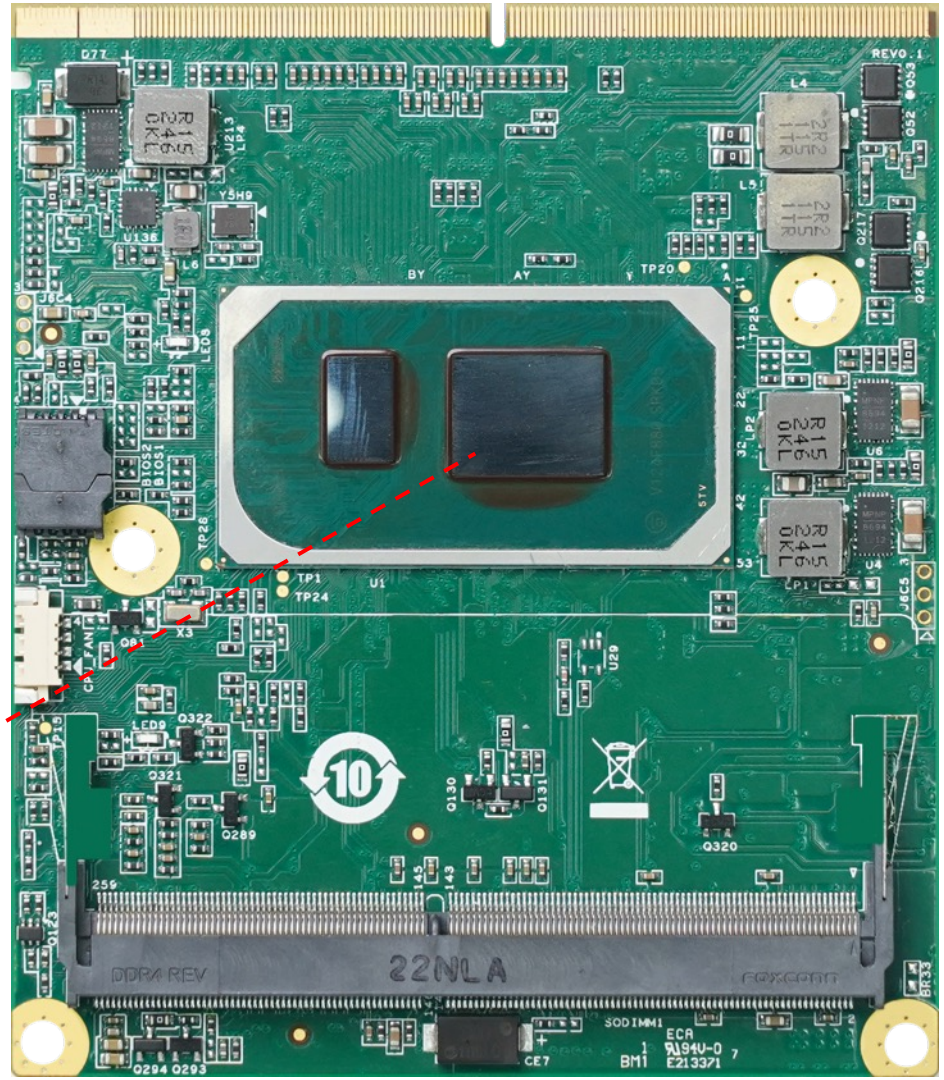
CPU+PCH	Intel® Tigerlake U Celeron/Core I3/I5/I7 CPU
RAM	1*DDR4 3200MHz SODIMM, maximum Support: 32GB
LAN	2*Intel I226V
Display	23.8-inch Full HD TFT LCD, 1*HDMI for extended display
USB	4*USB3.2，1*USB2.0（Built-in）
Serial port	2*RS232/422/485+2*RS232
Expansion Port	1*Mini PCIe(PCIe&USB signal), Supports functional modules with PCIe or USB signals; 1*M.2 B-Key Type 3042/3052 with SIM card slot, supports 4G LTE/5G NR; Optional 1 PCIeX4 slot (X4 signal) or 1 32-bit PCI slot expansion
Storage	1*2.5'' SATA HDD disk, supports SATA3.0 6Gbps HDD/SSD; 1*mSATA
Power Supply	DC-IN 9~36V wide voltage input, overvoltage and overcurrent reverse connection protection

02 ALAD-K2350T(P)
Dimensions



03- Product Highlights

1 Comprehensive CPU Performance Enhancement	2 Ultra High-Performance Integrated Graphics	3 Dual Independent Displays
4 Expanded Network Capabilities	5 (1+1) Storage	6 With PCIe or PCI Expansion Support
7 Full Mirror Panel	8 Modular Structural Design	9 Diverse Installation Options

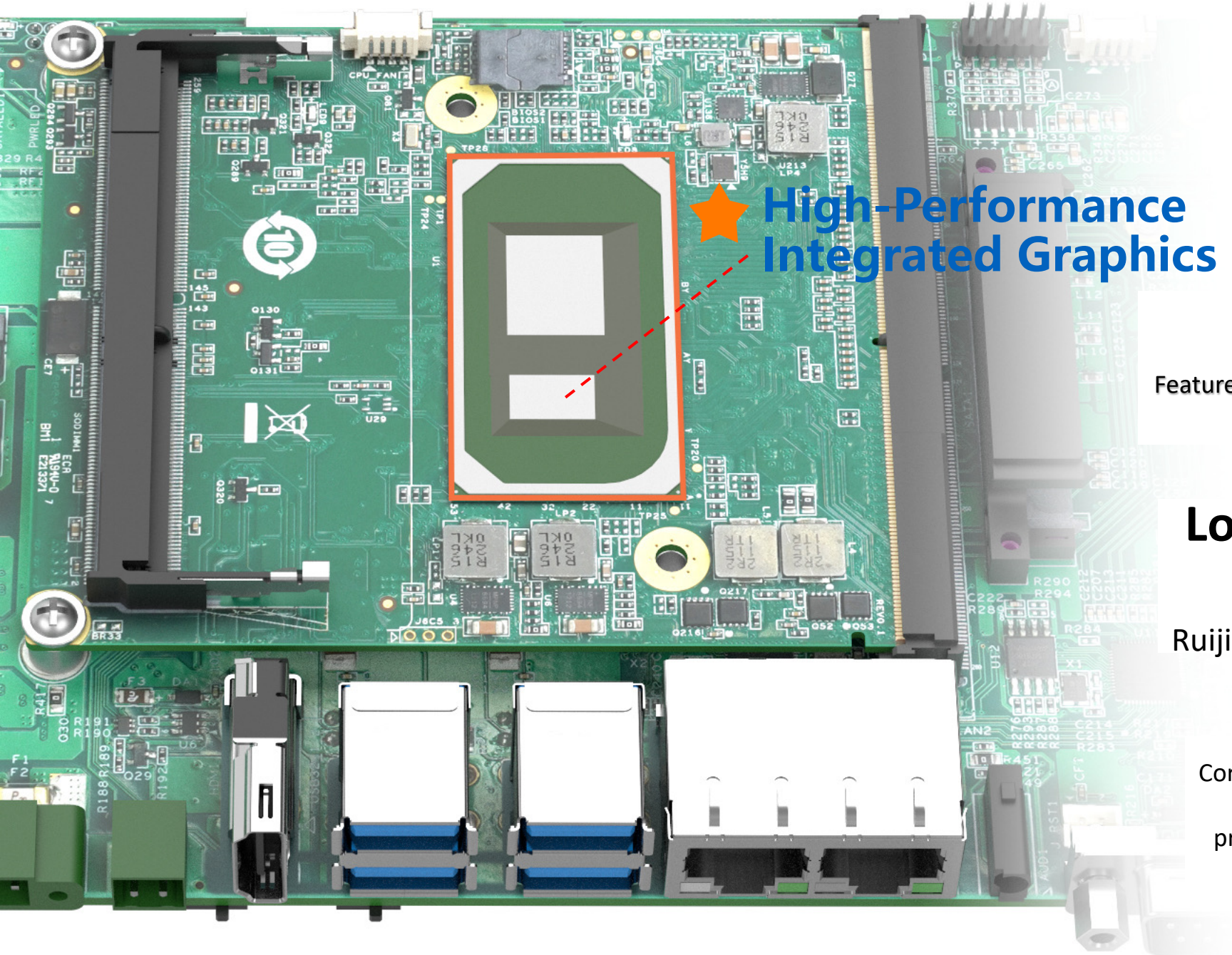


intel 11TH CORE Tiger lake-U

Comprehensive CPU Performance Enhancement

11th Gen Intel Processor

Tiger lake-U ULT SOC
System-on-Chip (SOC), ultra-low power consumption, and fanless cooling.



High-Performance Integrated Graphics

Supporting Intel Deep Learning Boost
Theoretical inference capability of up to 8 TOPS
Features Intel GNA (High-Speed Neural Accelerator 2.0)
AI voice neural noise reduction functionality

Low-power Neural Network Acceleration

Ruijie Xe Integrated Graphics (INTEL DX1 GPU)

Core i3/Pentium/Celeron integrates the UHD Graphics, while Core i5/i7 integrates the Ruijie Xe Graphics, providing computing power of 3-4 TOPS, comparable to the performance of NV 1030/1050.

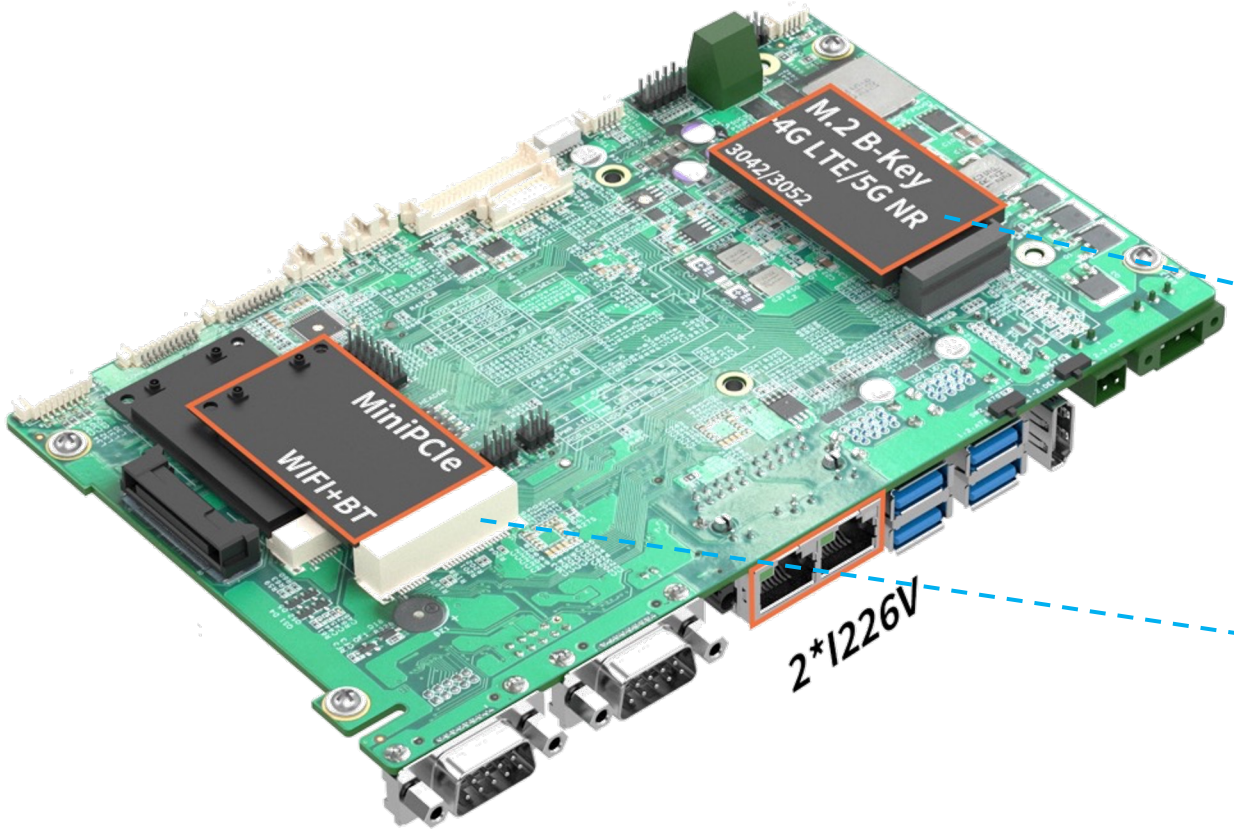
Dual Independent Display

23.8 inches TFT LCD Display

1920*1080@60Hz，Full HD

Second display is HDMI

1*HDMI(4K), maximum resolution 4096*2304@60Hz



M.2 Optional

1*M.2 B-Key Type 3042/3052 with SIM card slot, supporting 4G LTE/5G NR

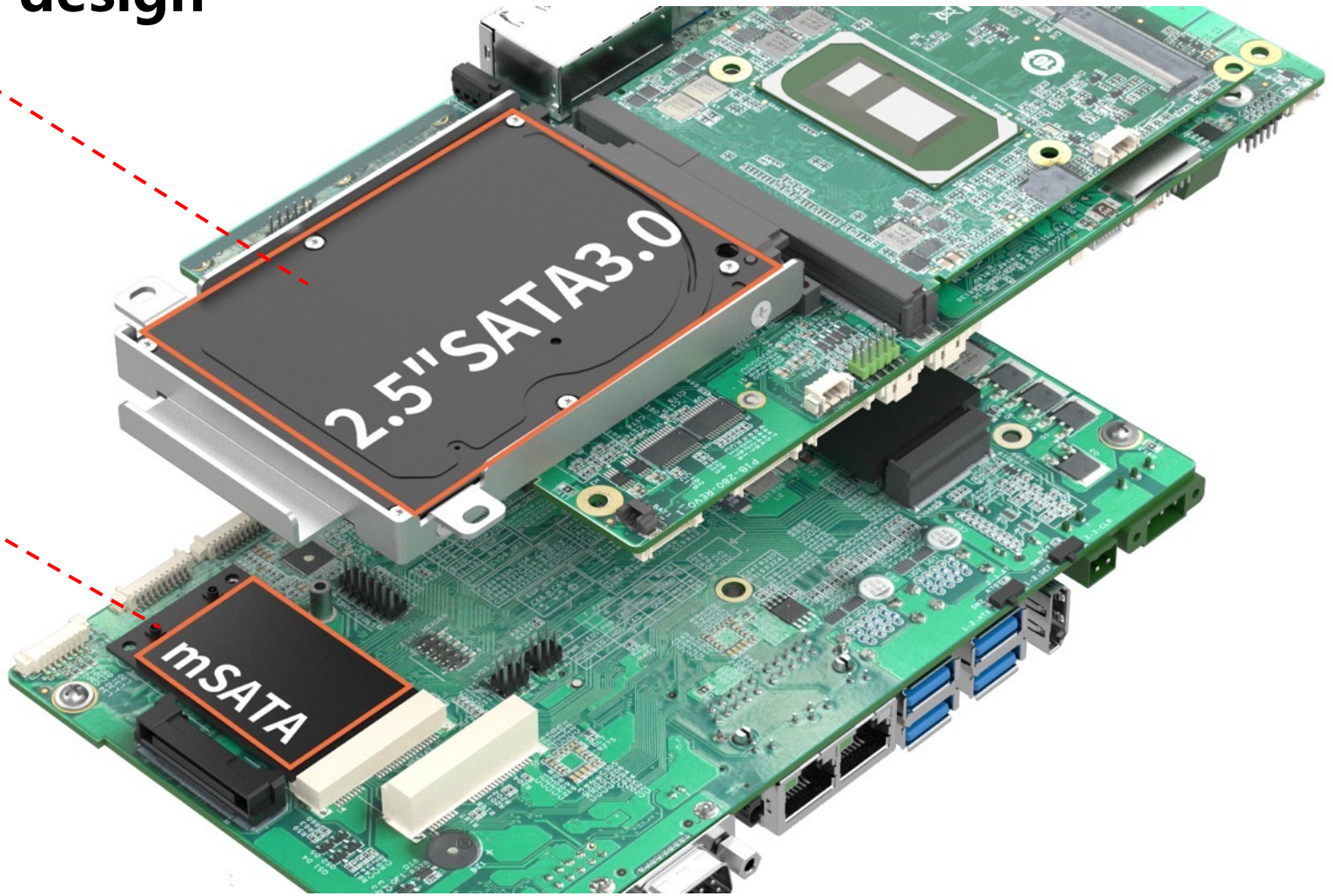
Mini PCIe optional Wifi+BT

1*Mini PCIe(PCIe&USB signal), supporting Wifi+BT wireless function

Expanded Network Capabilities

1*2.5'' SATA drive, SATA3.0 6Gbps
Hot-swappable design

+1 Storage



1*mSATA Slot

Optional PCIe or PCI Expansion

- ALAD-K2350T(P) can be expanded through sub-cards ECX-168 or ECI-169, using JHCTECH standard EI/O hybrid interface, achieving expansion of 1 PCIe x4 or 1 32-bit PCI.
- The PCIe x4 (gen4 bandwidth) slot comes with an auxiliary power port, supporting high-power devices such as POE+ network cards.

Optional PCIeX4 (gen4 X4 signal) or PCI expansion or COM3&4

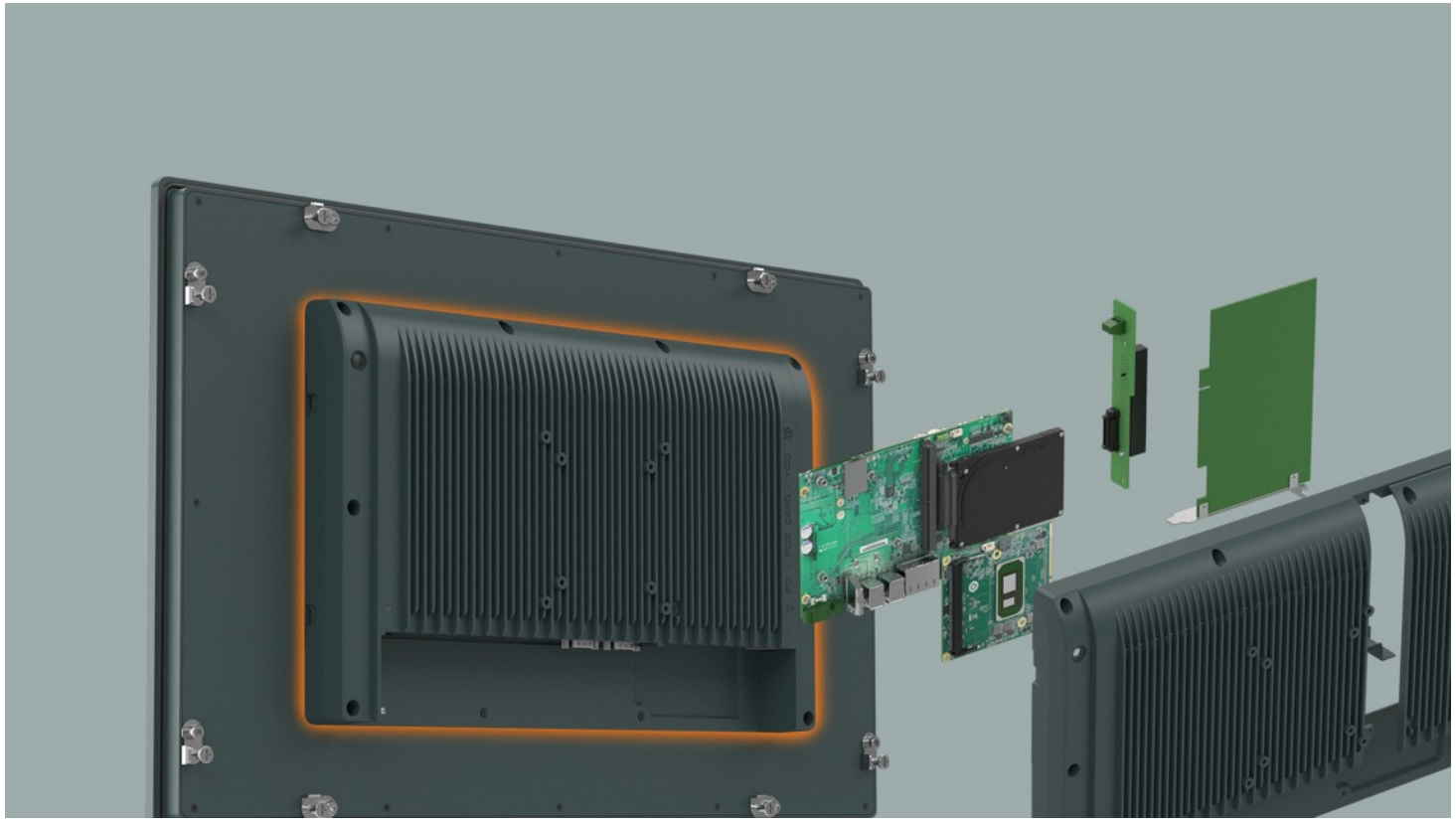
Board Name	Expansion Interface
ECX-168 Expansion Sub-Card	1*PCIeX4 slot(X4 signal) (It does not have COM3 & 4 in use.)
ECI-169 Expansion Sub-Card	1*32-bit PCI slot (It does not have COM3 & 4 in use)

Full Mirror Panel

- High-ratio touch panel, full mirror design ID.
- Touch LCD fully integrated for an immersive experience

- A die-cast mold forms a three-in-one main structure: front panel + main rear cover + expandable slot cover.
- Modular built-in components include TP & LCD module, MXM motherboard, PIB carrier board, HDD/SSD bracket, and PCIe/PCI expansion sub-cards.
- Fanless cooling design + mechanical design + ergonomic design, featuring high practicality, assembly, and maintenance.

Modular Structural Design

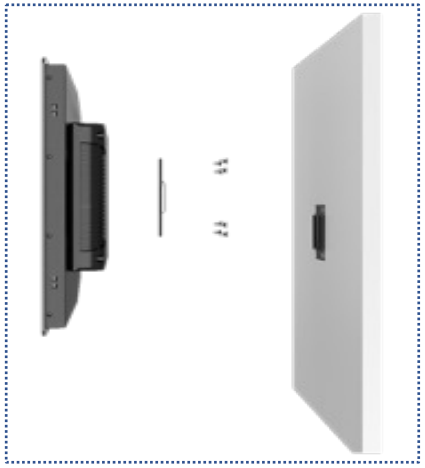


Diverse Installation Options

Supports panel installation, cabinet shelf installation, and VESA installation (desktop upright, wall-mounted, and cantilever)

Panel Installation

Desktop Installation



Wall Mounted

Cantilever Installation

04-Ordering Info

ALAD-K2350T(P) Ordering Info

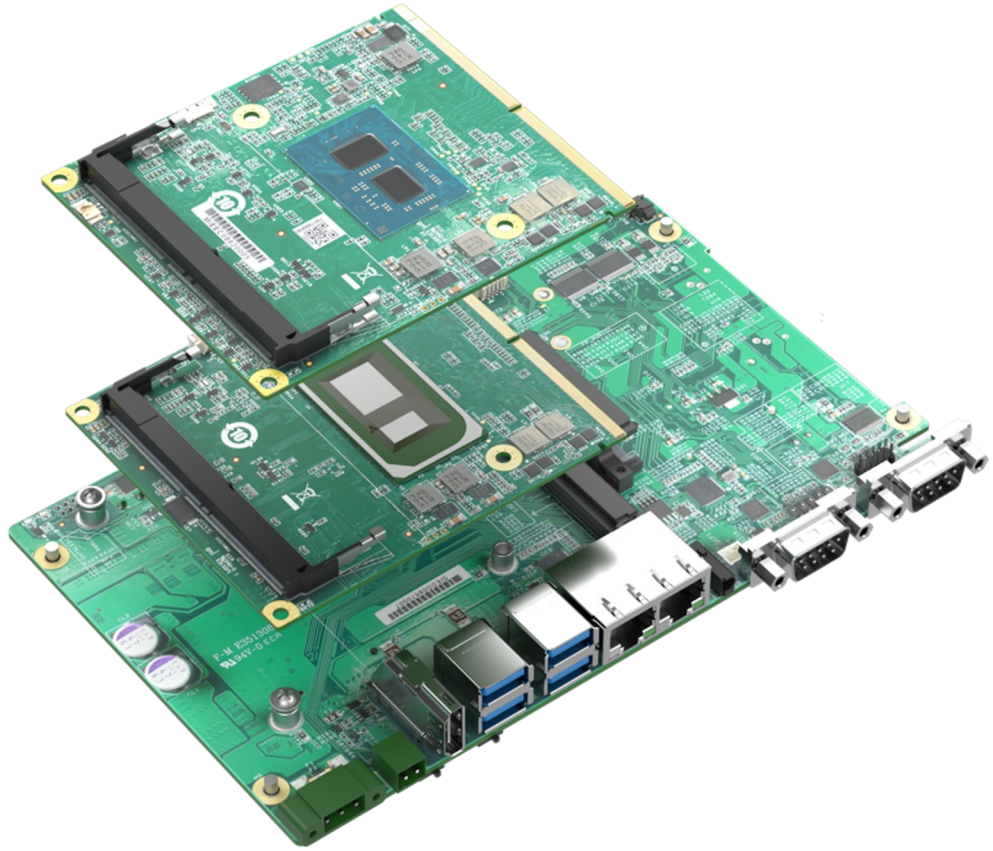
Model	CPU	Touchscreen	Specification Description
ALAD-K2350T(P)/ S001	Intel® Core I3-1115G4	Projected Capacitive Touchscreen	Industrial Panel PC, 23.8'' TFT LCD, 4*COM, 4*USB3.2, 1*USB2.0, 2*LAN, 1*HDMI,1*Mini PCIe, 1*M.2 B-Key , 1*Line out, 1*2.5" SATA drive bay, 1*mSATA, 2*3W built-in speakers, DC 9~36V power supply.
ALAD-K2350T(P)/ S002	Intel® Core I5-1135G7		
ALAD-K2350T(P)/ S003	Intel® Core I7-1165G7		
ALAD-K2350T(P)/ S004	Intel® Celeron 6305E		
ECX-168 Expansion Daughter Card	1*PCIeX4 slot(X4 signal) (It does not have COM3 & 4 in use)		
ECI-169 Expansion Daughter Card	1*32-bit PCI slot (It does not have COM3 & 4 in use)		
PA-60DC12	AC/DC power adapter, DC12V@5A ,60W		
PA-120DC19	AC/DC power adapter, DC19V@6.32A ,120W (When using a POE network card as an expansion)		

05-ALAD Series Upgrade

Platform Upgrade: Adopts the "Core Module + Carrier Board"

- Different architectures and platform CPUs are used to meet various performance requirements.
- This creates a series of product lines, making it extremely convenient for customers to iterate, upgrade, and maintain.

Core Module	MXM-I914	MXM-I719
CPU	Intel® Tigerlake U Celeron/Core I3/I5/I7 CPU	Intel® Elkhart lake : Celeron J6412 或 Celeron N6210
Chipset	Intel® CPU SoC MCP	
RAM	1*DDR4 3200MHz SODIMM, maximum support 32GB	
Dimension	95*82mm	
Standard Specification	JHC MXMe	



06-ALAD Series Market Direction

1、Machine Vision, Visual Guidance, and Measurement

Automatic Solar Cell String Welding Machine with Positioning and Detection System

2, Self-Service Terminals

Bank Self-Service Terminal

3. Logistics and Warehousing"

AGV Car, Material Management

4. Factory Information Automation MES

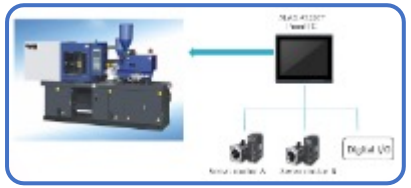
Application of MES System in Automotive Company Including Complete Vehicle and Engine Assembly, etc.

Application of MES System in Factory Including Automation Production Lines, SMT Mounting, etc

5. Environmental Data Acquisition Instrument

Online Smoke Gas Detection System

6. Machine Tool Motion Control and Human-Machine Interface (HMI)



Integrated Display and Control for Injection Molding Machine

Motion Control for Vulcanizing Machine

Control for High-Temperature Furnace

7. Smart Medical

Smart medicine cabinet system

Nurse mobile workstation

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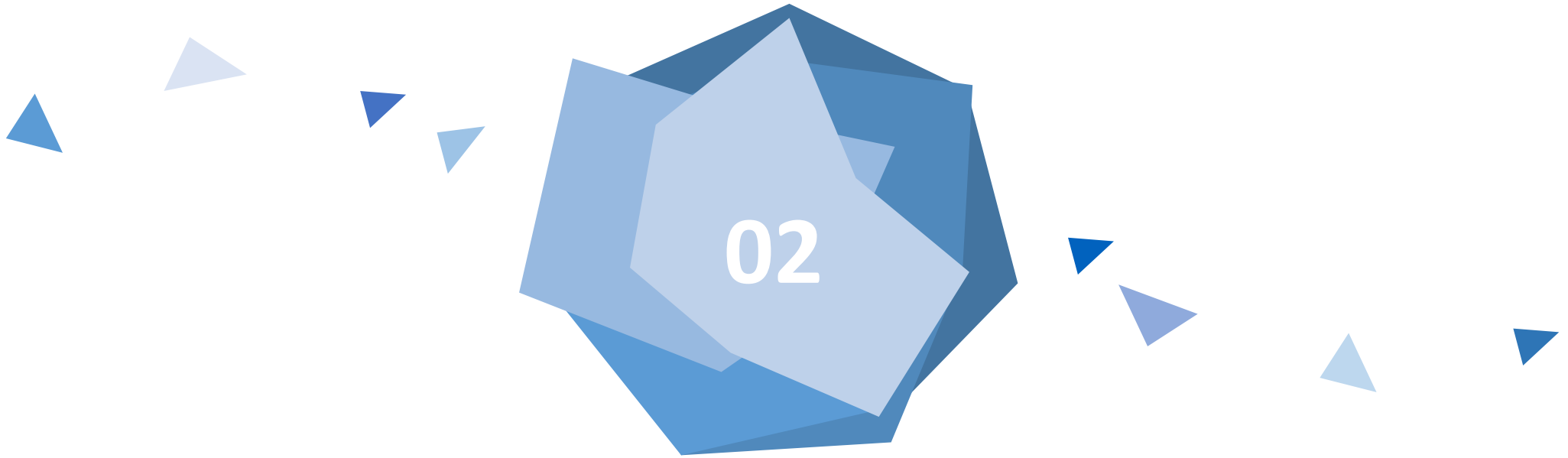
07 ALAD-K2350T(P) Product Schedule

Sample Testing Period

December 2023

Small Batch Production Period

January 2024



Q&A

Q1:What are the functions of I-port and MIO for KMDA-7611?

A1:MIO can expand dual CAN with 1*DB9 port.I-port can expand 2*LAN or dual CAN with 1*DB9 port .

Stay in Touch

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