



Let's wait five minutes for everyone



Product Launch Conference

JHCTECH



CNTI-R351



ALAD-K1550T(P)



KMDA-3302

Aug.30. 2023 16:00pm



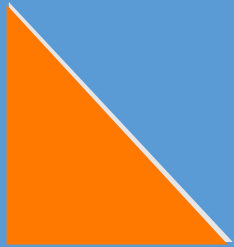
Live

	Product Launch Announcement
Time	Agenda
16:00~16:05	Opening Cristina Zeng, Marketing manager
16:05~16:20	Introduction of New Products 《Edge Computing Magic Box, Based on Ruixin Micro RK3588 platform----CNTI-R351》 Gary Shu, Product Director
16:20~16:50	Introduction of New Products 《Node modular design for scalable industrial tablets computer----ALAD-1550T(P), High energy efficiency and small size AGV/AMR controller----KMDA-3302》 Reese Li, Product Director
16:50~17:00	Q&A Gary Shu & Reese Li

Part1: 《Edge Computing Magic Box --CNTI-R351 Based on Ruixin Micro RK3588 platform》



CNTI-R351



- 01 CNTI Roadmap
- 02 CNTI-R351
Product Specifications
- 03 CNTI-R351 product highlight
- 04 Ordering Info
- 05 Target Market
- 06 Product Schedule

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CNTI SESIES ROADMAP



CNTI-3A51

MIPS Loongson
3A5000

MIPS

<New product>



CNTI-R351

ARM Cortex®-
A76+A55

ARM®

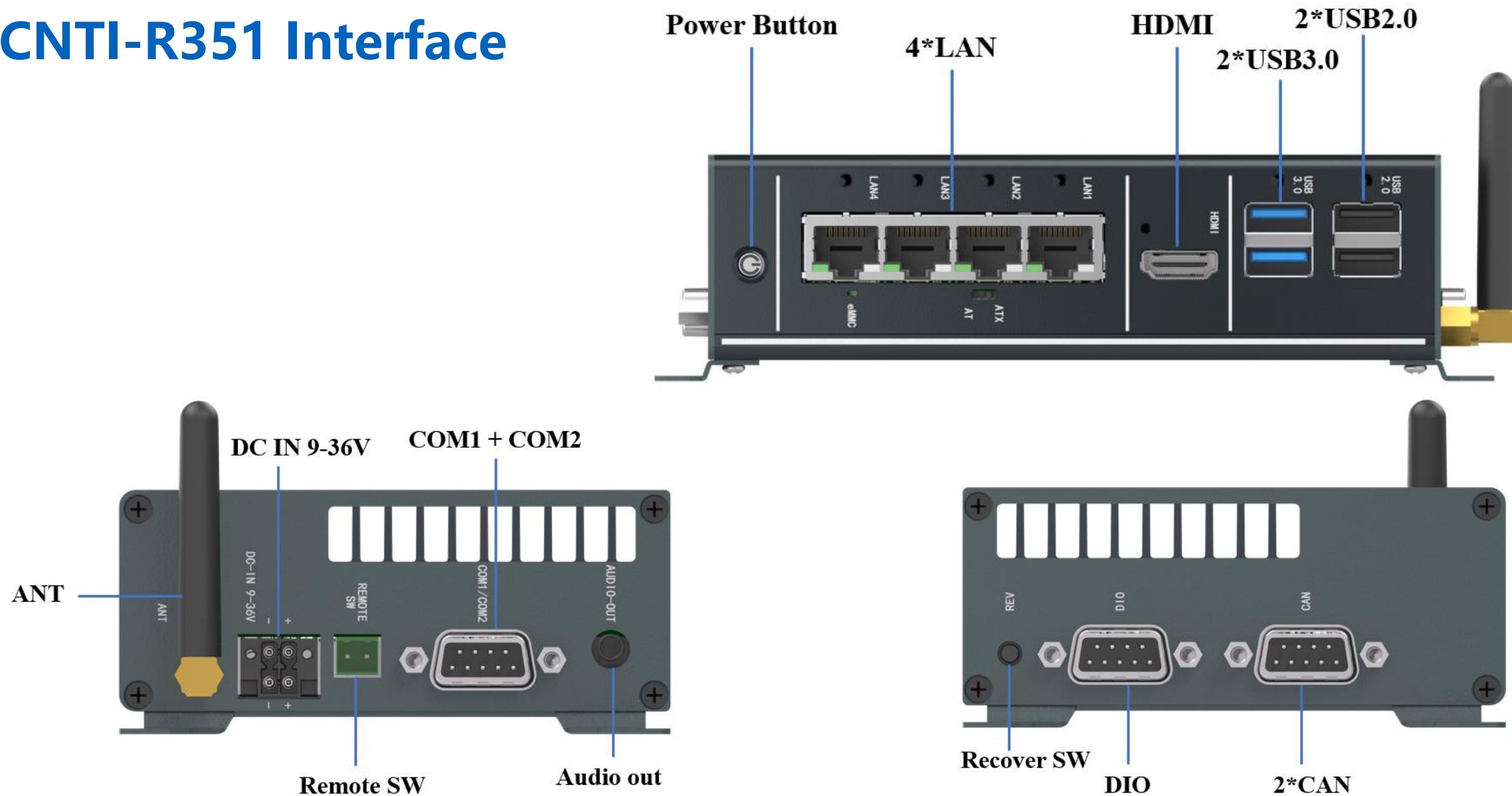
Product Specifications



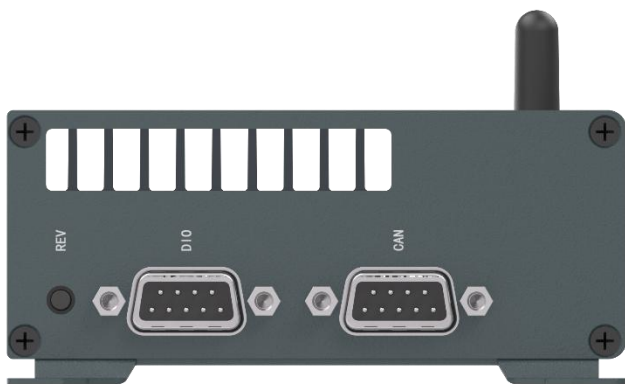
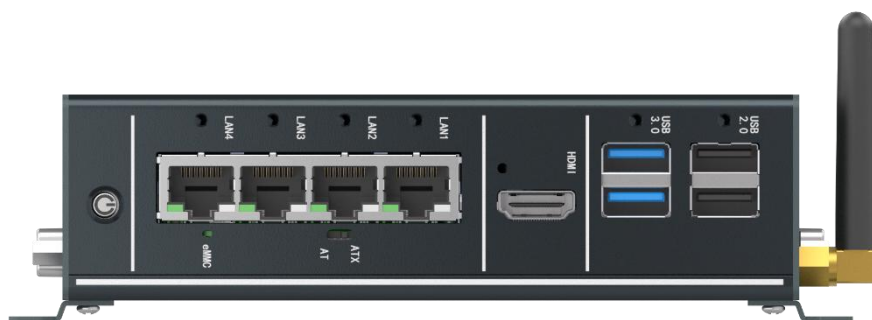
- Rockchip RK3588 CPU, 4-core Cortex-A76 and 4-core Cortex-A55, 2.4GHz main frequency
- Onboard 4GB memory
- GPU only 1*HDMI
- 4*LAN, 2*USB3.0, 2*USB2.0, 2*COM, 1*8bit DIO, 2* isolation CAN2.0, 1*Audio out
- 1*Full size Mini PCIe with SIM card slot and 4G LTE support
- Optional onboard Gigabit WiFi6/ 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



CNTI-R351 Interface



CNTI-R351 Product Highlights



1

High energy
efficiency SOC

2

ALL IN ONE
onboard design

3

More network
solutions

4

Dual photoelectri
isolation CAN

5

High AI reasoning
power

6

Mini size, super
light weight

7

Flexible
installation

8

The I/O
interface is
designed to
prevent falling
off

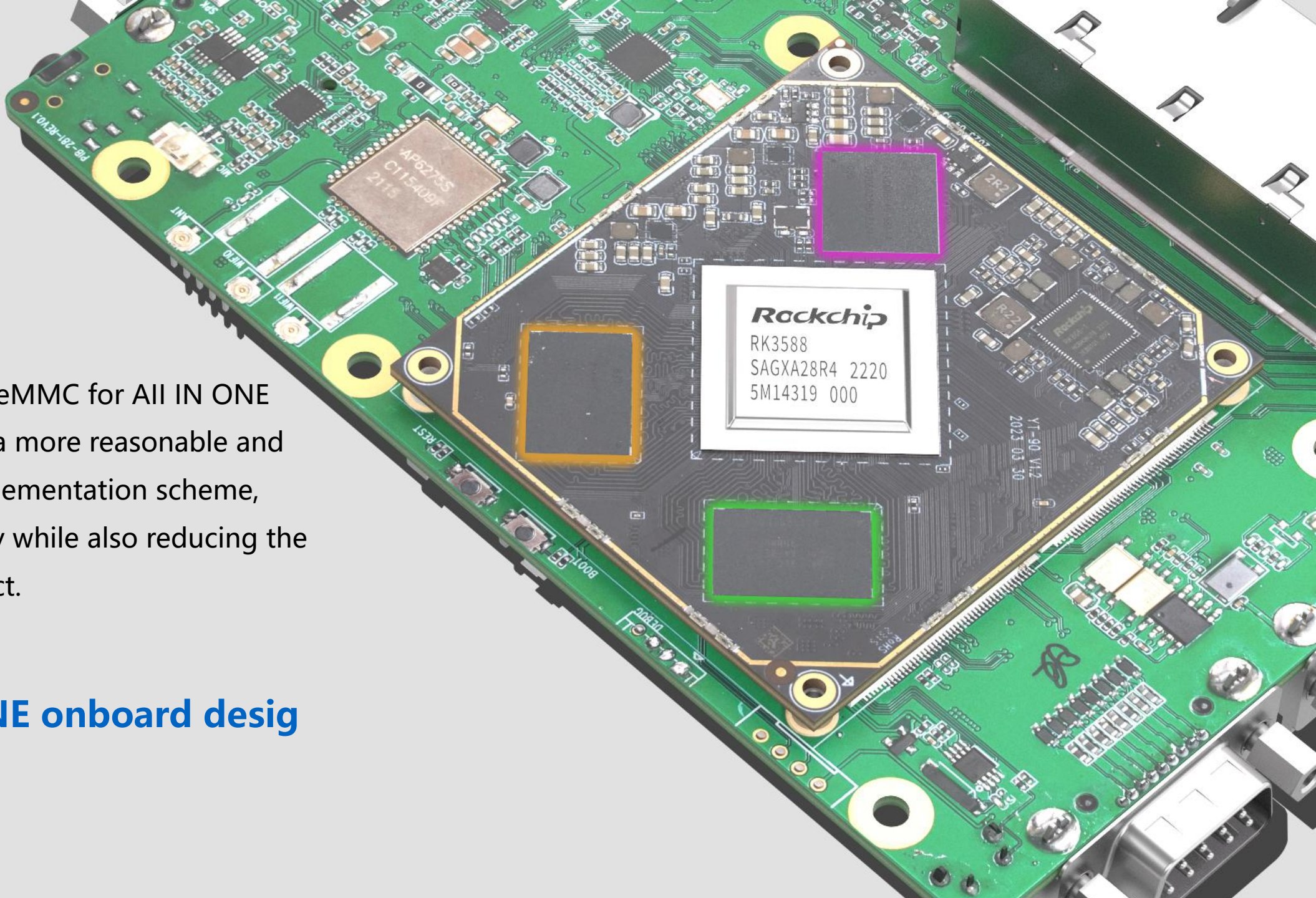
★ High energy efficiency SOC

Set CPU+GPU+NPU multiple cores, ULT BGA package high integration and high reliability.

CPU Central processing unit	quad-core Cortex-A76 and quad-core Cortex-A55, The main frequency is up to 2.4GHz
GPU graphics processor	Mali-G610
	Support OpenGL ES3.2/OpenCL2.2/Vulkan1.1
	Embedded high performance 2D and 3D acceleration hardware
NPU Embedded neural network processor	Support 6.0T computing power, support INT4/INT8/INT16/FP16 operations

SOC+ Memory +eMMC for All IN ONE onboard design, a more reasonable and simple PCBA implementation scheme, improve reliability while also reducing the size of the product.

★ **ALL IN ONE onboard design**



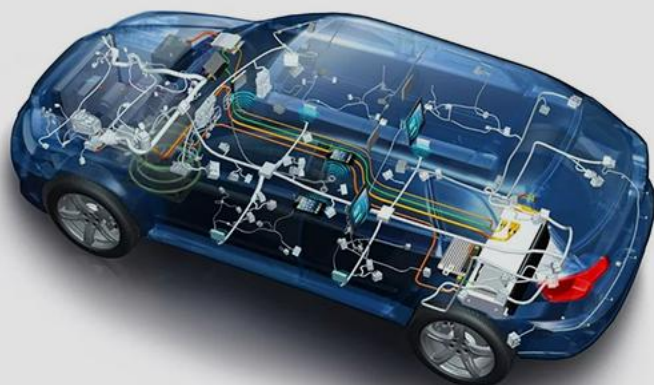
WiFi 6

4G^{LTE}  **BT5.0**

Four gigabit network ports +4G LTE+Wifi6+BT5.0, providing multi-category network communication capabilities to meet a wider range of network application needs

★ **More network solutions**





Dual photoelectric isolation CAN-FD fieldbus interface (higher bandwidth, reliability and security) for automotive communication and inspection application scenarios

★ **Dual photoelectric isolation CAN**



Mini PCIe can optionally support AI acceleration modules such as HAILO-8, increasing AI inference computing power to 26TOPS.

★ **High AI reasoning power**

★ Mini size, super light weight

169*100* 44.2mm mini size (including mounting parts), weight only 0.69 KG.

It can be adapted to application scenarios that require large or small sizes, such as AGVs or small-size distribution boxes.



Wall-mounted

Din-Rail

Desktop
installation

★ The I/O interface is designed
to prevent falling off

After the power and I/O port pair
cables are inserted
The cable is reinforced with an anti-
trip latch to prevent the cable from
falling off in a moving environment

Select different installation methods
according to different structural
Spaces on the application site

★ Flexible installation



CNTI-R351 Ordering Info

Model	Instructions
CNTI-R351-S001-4G	Domestic fanless box computer, , Rockchip RK3588 CPU, 4GB memory, 32GB eMMC, 4*LAN, 2*USB3.1, 2*USB2.0, 2 *COM (1*RS485, 1*RS232), 1*8bit DIO, 2* isolation CAN, 1*HMDI, Audio out, 1*Mini PCIe, 1*M.2 2242 M-Key, optional onboard WIFI6+BT5.0, DC 9-36V.
PA-60DC12	AC/DC Power adapter, DC12V/5A,60W

Target Market



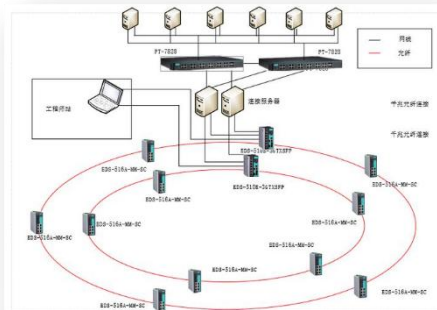
AGV



Logistics visual inspection



Intelligent connected car MEC



DCS system data gateway



Service robot

Product Schedule

Test prototype time Jul 2023

Small lot time Aug 2023

Part2: 《Node modular design for scalable industrial tablets computer》



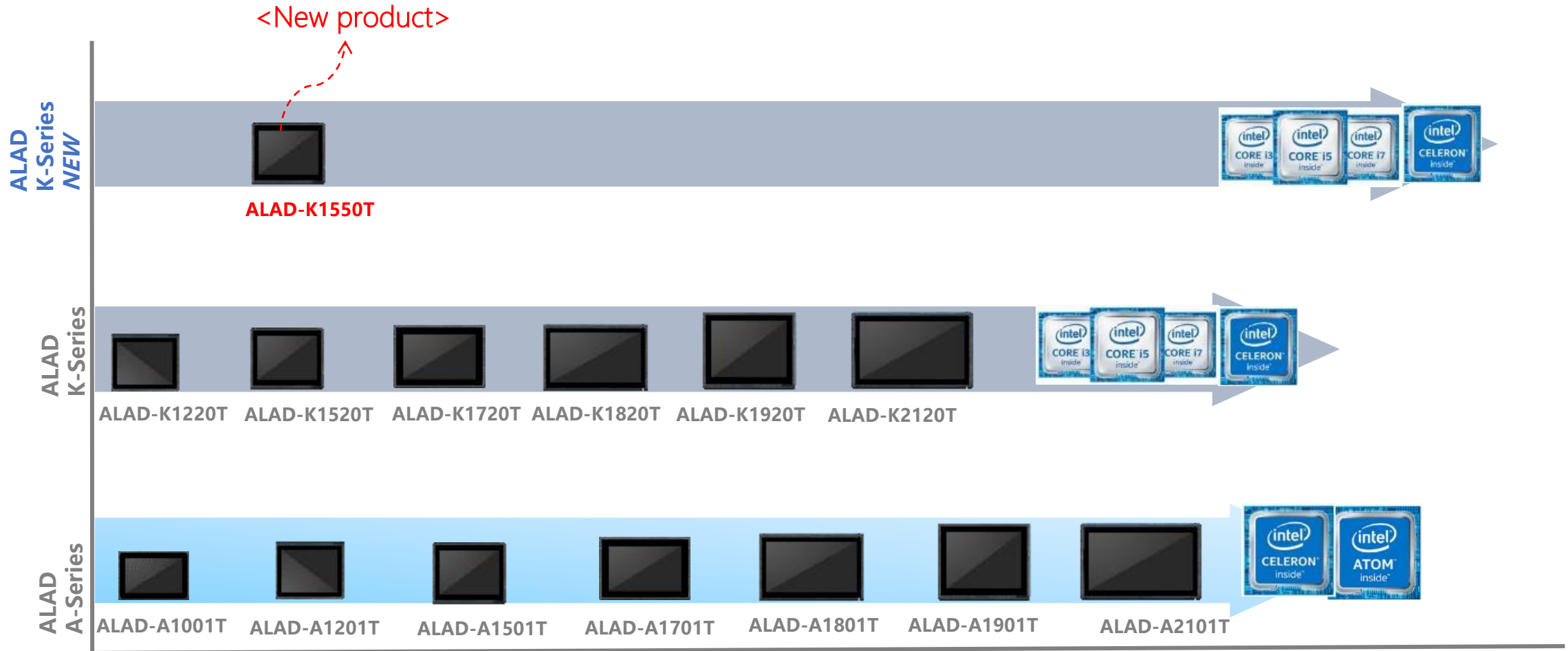
ALAD-K1550T(P)



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- 05 ALAD Tablet series upgrade**
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01-ALAD Roadmap



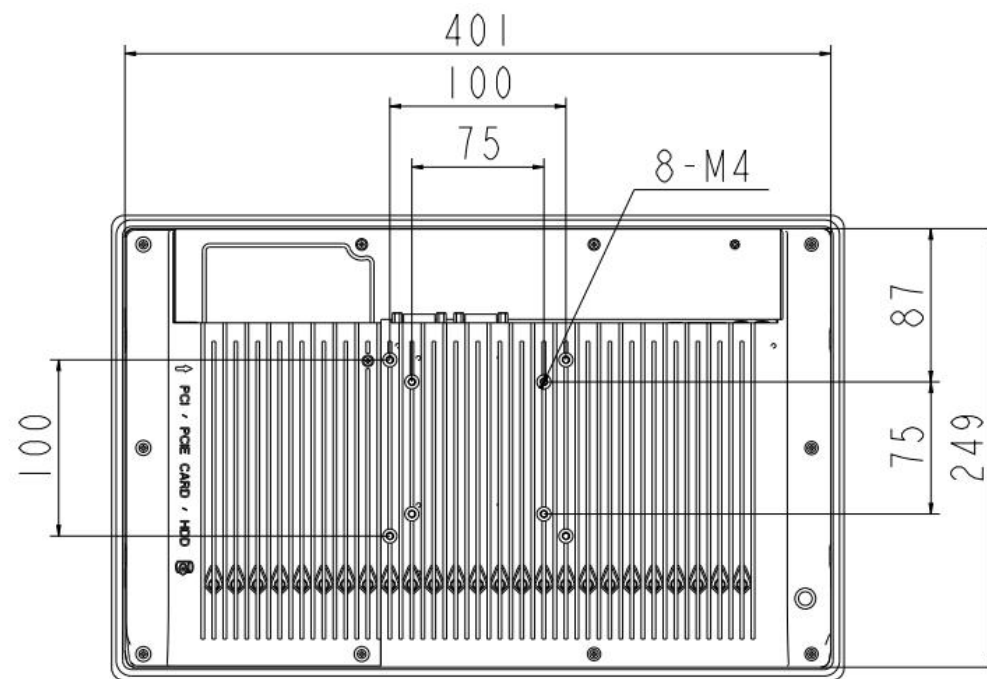
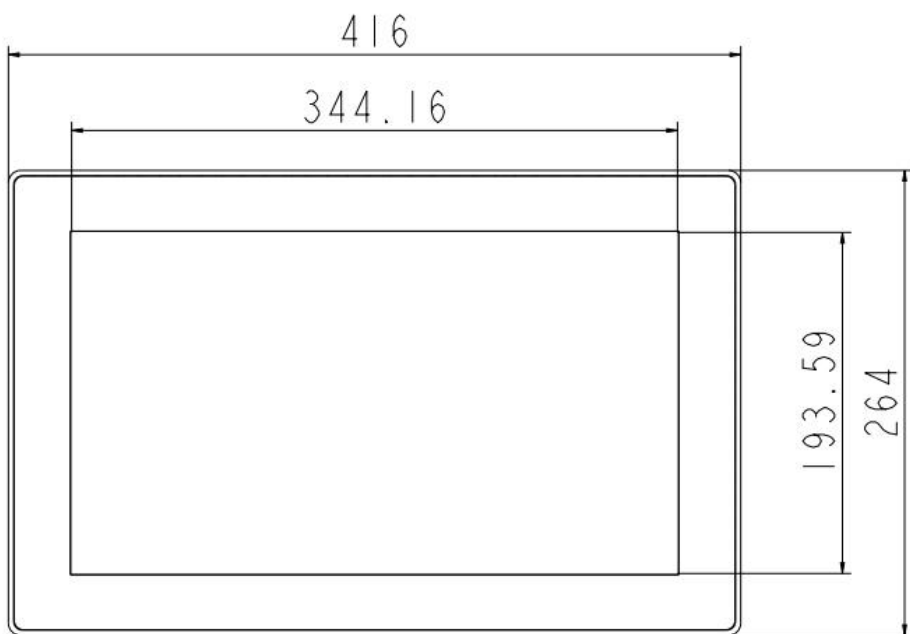
02 ALAD-K1550T(P) Product Specifications



CPU+PCH	Intel® Tigerlake U Celeron/Core I3/I5/I7 CPU
Memory	1*DDR4 3200MHz SODIMM, The maximum support is 32GB
LAN	2*Intel I226V
Graphics	15.6 inches ICD, 1* HDMI
USB	4*USB3.2, 1*USB2.0 (built-in)
Interface	2*RS232/422/485+2*RS232
Expansion	1*Mini PCIe(PCIe&USBSignal), support PCIe or USB signal function module; 1*M.2 B-Key Type 3042/3052 with SIM card slot, support 4G LTE/5G NR; Optionally, one PCIeX4 slot (X4 signal) or one 32-bit PCI slot extension is available
Storage	1*2.5" SATA HDD , support SATA3.0 6Gbps HDD/SSD; 1*mSATA
Power Supply	DC-IN 9~36V Wide voltage input, over voltage and over current reverse protection

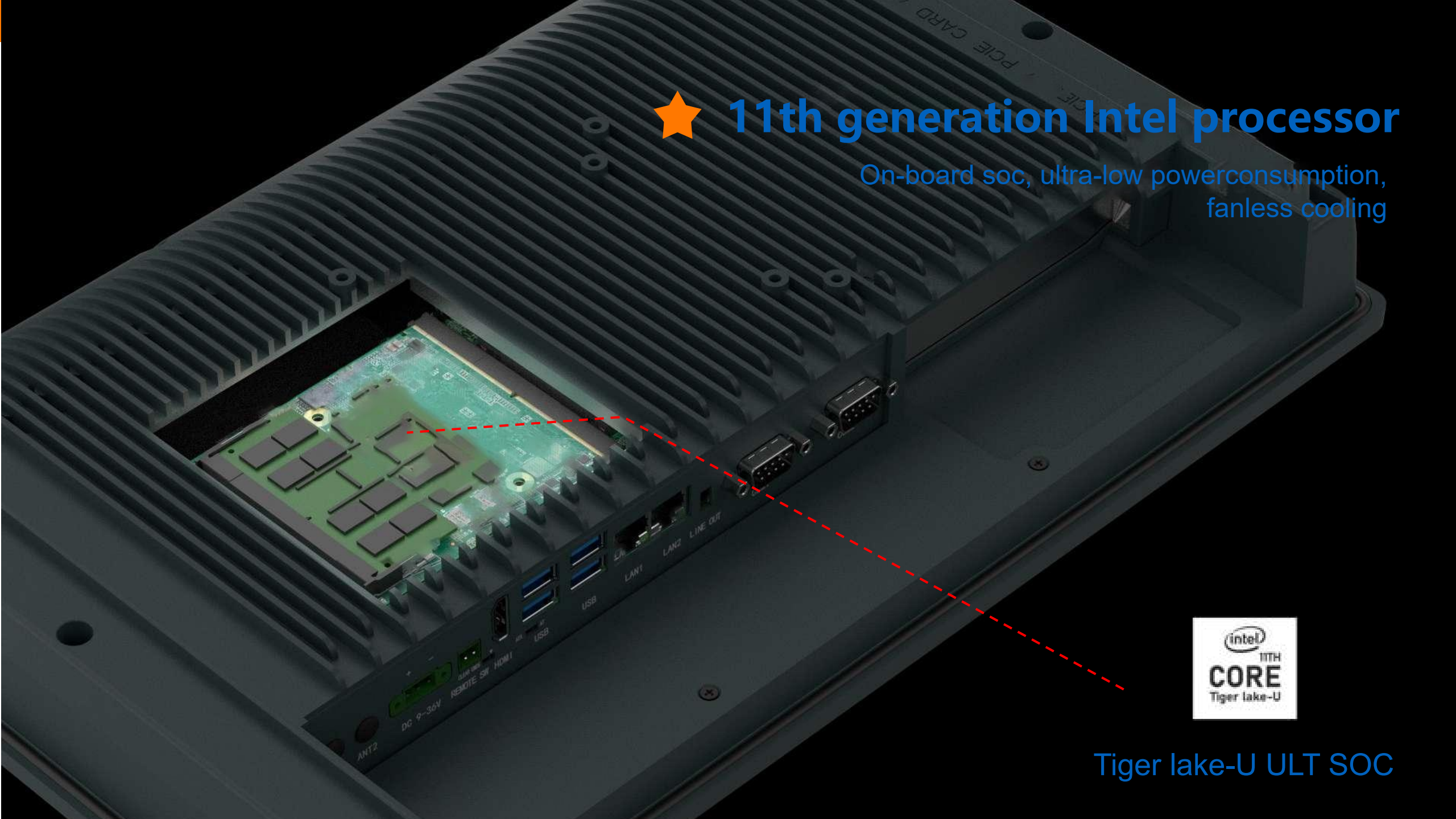
02 ALAD-K1550T(P) Product Features

Product Features



03-Product Features

1 High energy efficiency CPU	2 High performanceG PU	3 Dual independent display
4 More network features	5 (1+1) Storage	6 High computational DLA&PVA
7 Full mirror panel	8 Modular structure design	9 Diverse installation methods



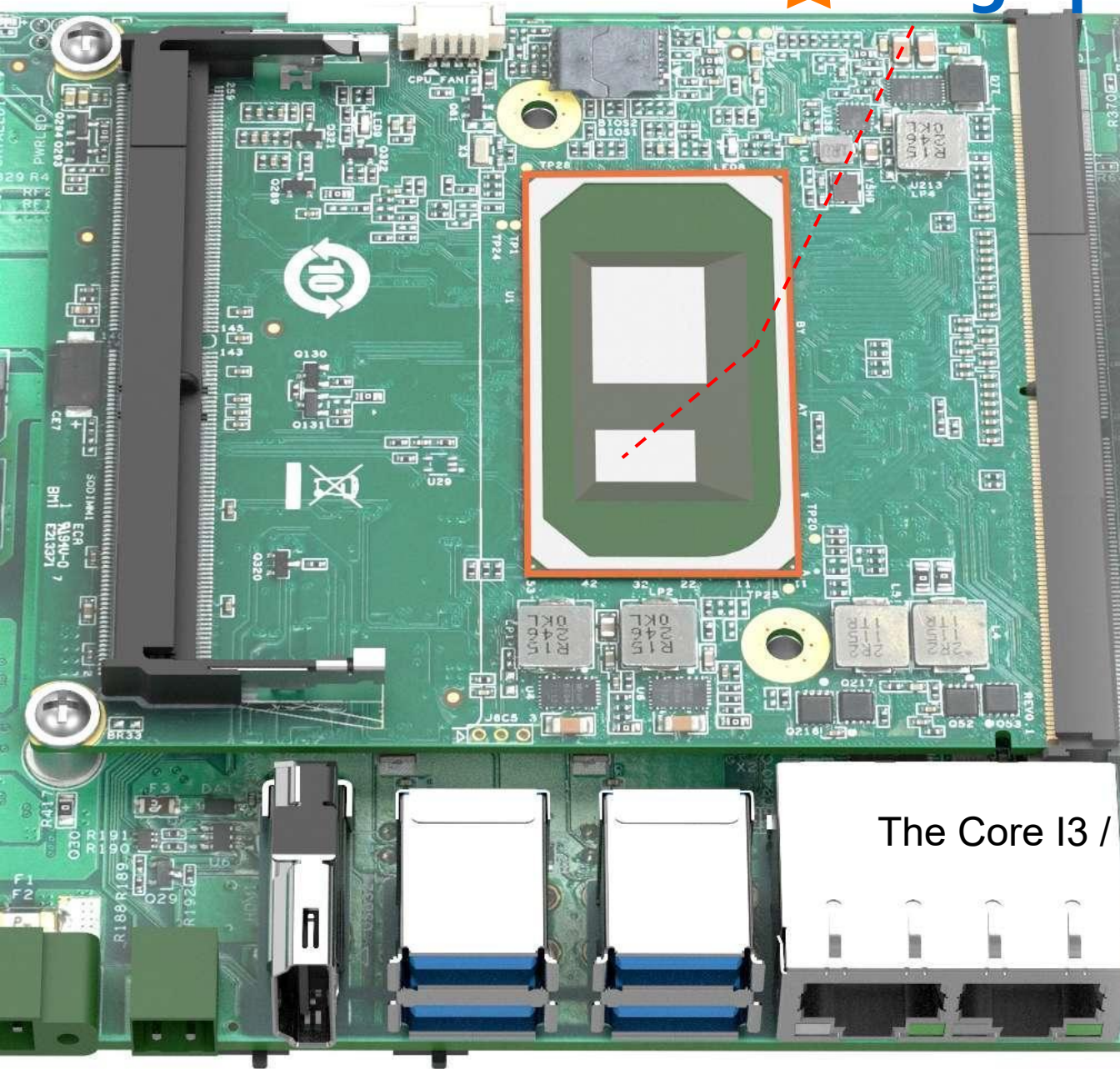
★ 11th generation Intel processor

On-board soc, ultra-low powerconsumption,
fanless cooling



Tiger lake-U ULT SOC

★ High performance GPU



Support Intel Deep Learning Boost.
The reasoning computing power theory can reach 8TOPS

Supports Intel GNA
AI speech neural noise reduction function

Low power neural network acceleration
INTEL DX1 GPU

The Core i3 / Pentium / Celeron integrates the super Core UHDG,
Core i5/i7 integrates the Intel® HD Graphics
with 3-4 tops
Performance comparable to NV 1030/1050

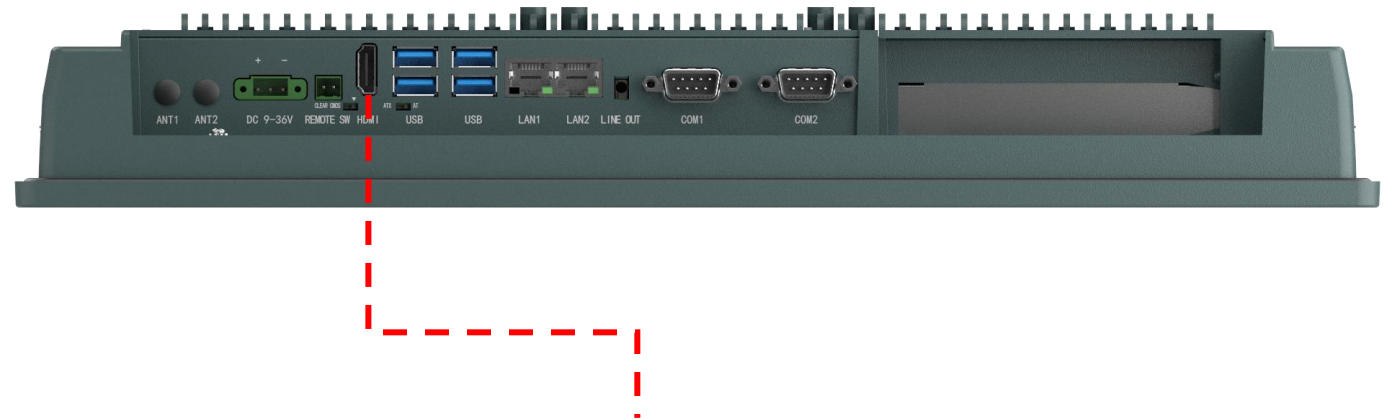
★ Dual independent display

15.6 "TFT LCD display



1920*1080@60Hz, FHD Full HD

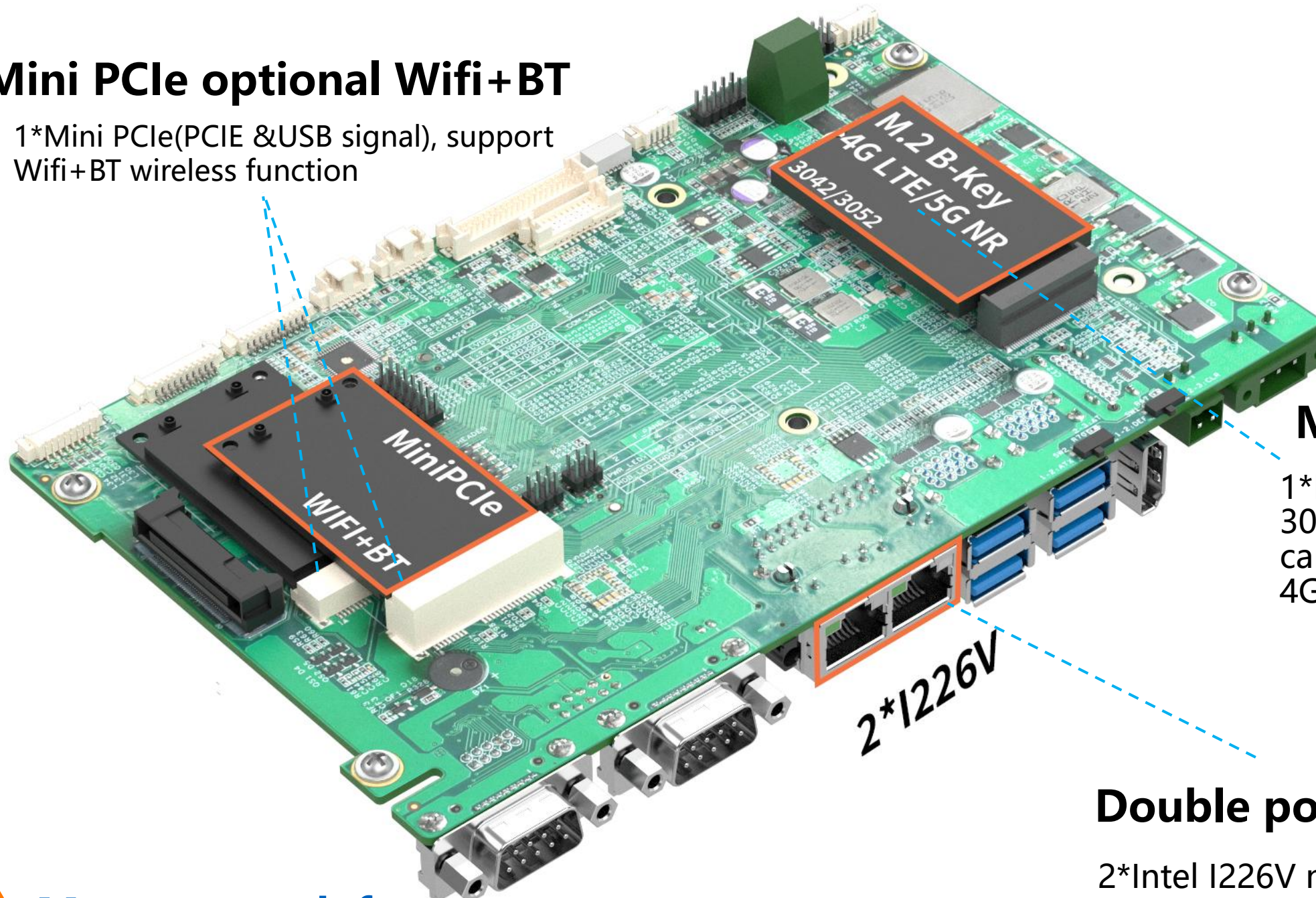
The second display is HDMI



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

Mini PCIe optional Wifi+BT

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



M.2 Optional

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

2*I226V

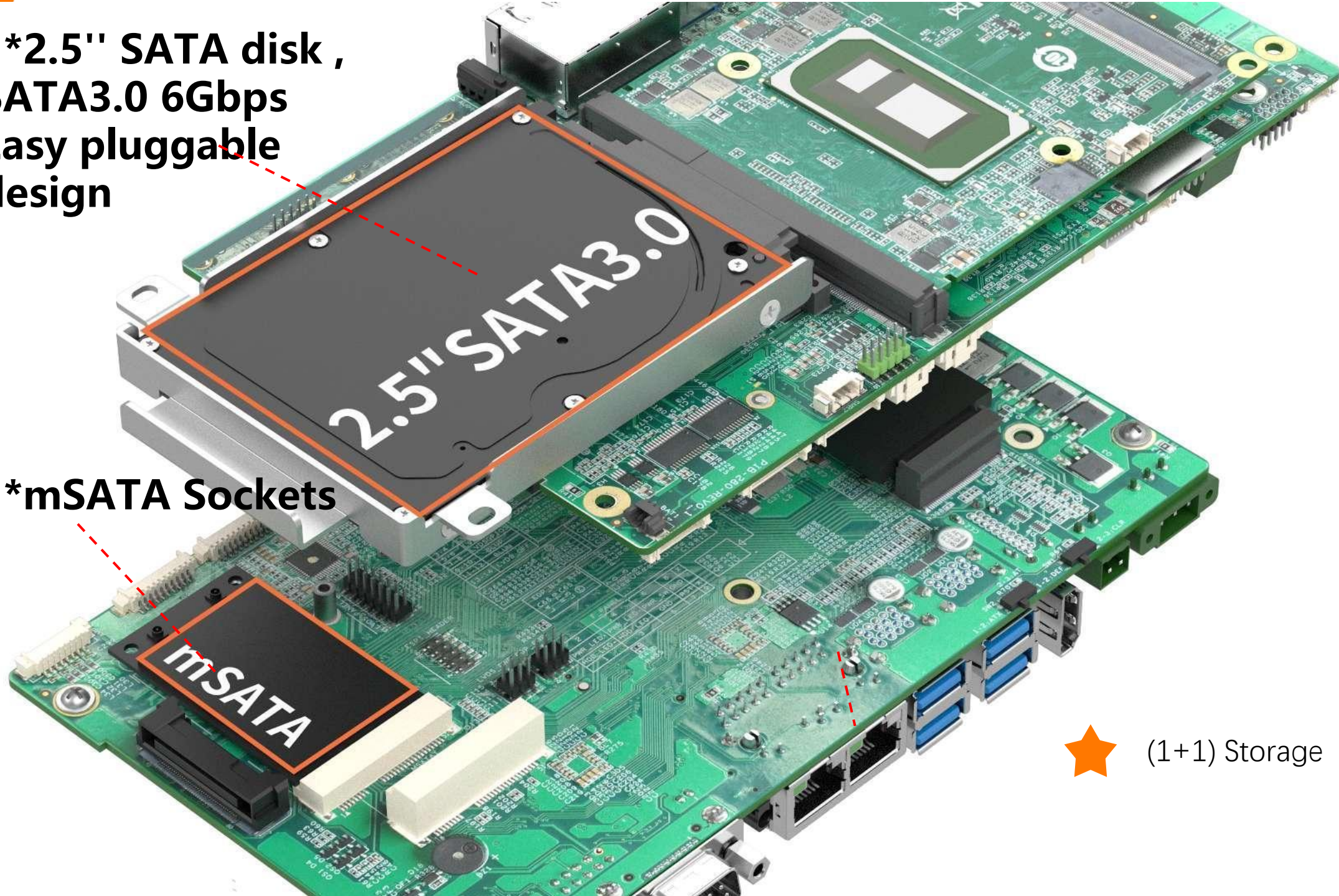
Double port gigabit

2*Intel I226V network chip

★ More network features

**1*2.5" SATA disk ,
SATA3.0 6Gbps
Easy pluggable
design**

1*mSATA Sockets



(1+1) Storage

★ High computational DLA&PVA

- The ALAD-K1550T(P) can be extended to one PCIeX4 or one 32-bit PCI via the subcard ECX-168 or ECI-169, using the EI/O composite interface of the set and Cheng Express specifications
- The PCIeX4(gen4 bandwidth) slot has an auxiliary power supply port and can be connected to high-power nics such as POE+.



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

Board name	Extension interface
ECX-168 Expansion subcard	1*PCleX4 slot(X4 signal) (No COM3&4 when used)
ECI-169 Expansion subcard	1*32-bit PCI slot (No COM3&4 when used)

- High proportion touch panel, full mirror design ID
- Touch LCD fully fit, immersive experience effect

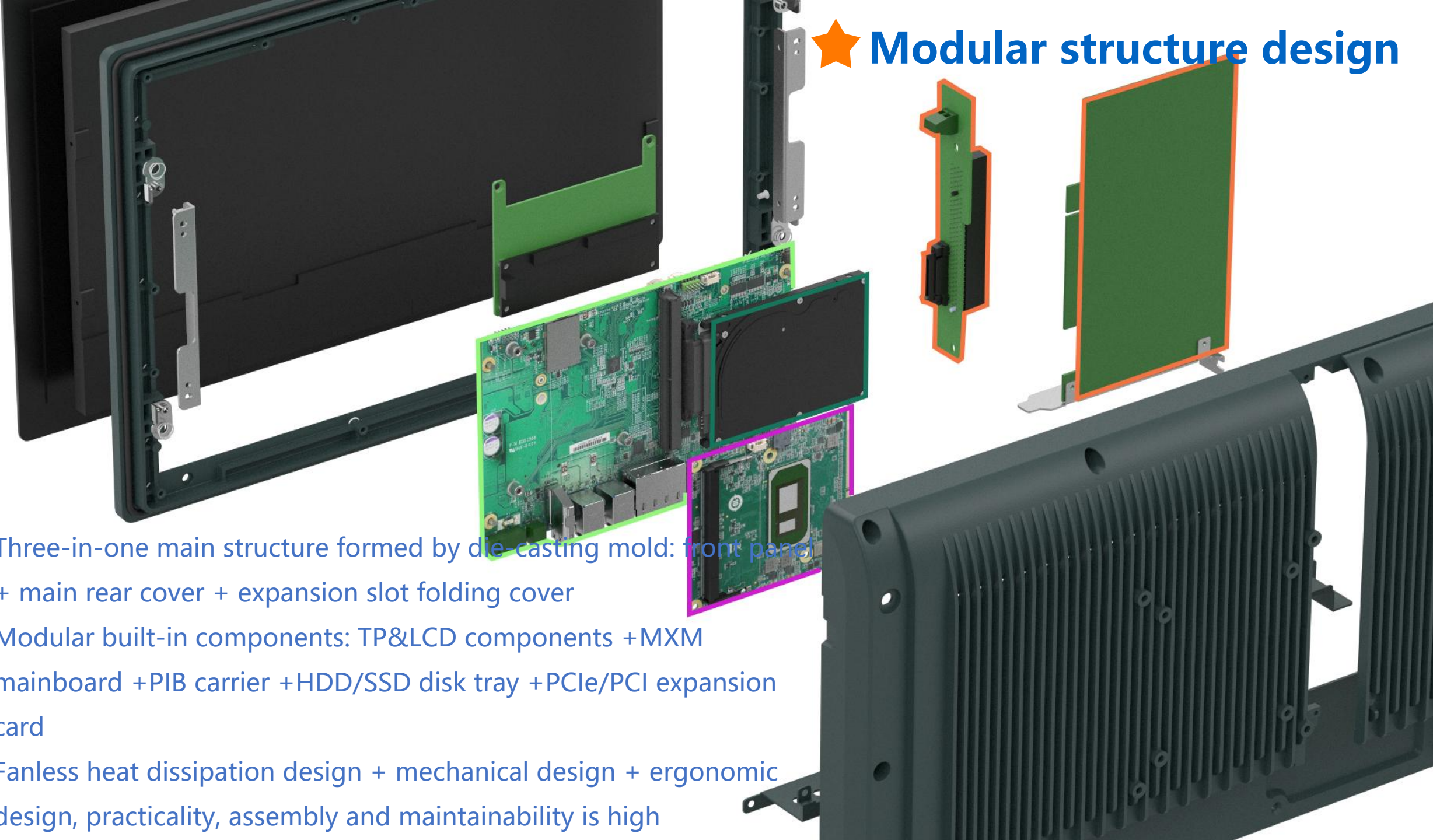
★ **Full mirror panel**



Full lamination / Full mirror surface / High screen occupation

★ Modular structure design

- Three-in-one main structure formed by die-casting mold: front panel + main rear cover + expansion slot folding cover
- Modular built-in components: TP&LCD components + MXM mainboard + PIB carrier + HDD/SSD disk tray + PCIe/PCI expansion card
- Fanless heat dissipation design + mechanical design + ergonomic design, practicality, assembly and maintainability is high



★ Diverse installation methods

Supports panel mounting, cabinet mount, and VESA mounting
(upright, wall mount, and cantilever)



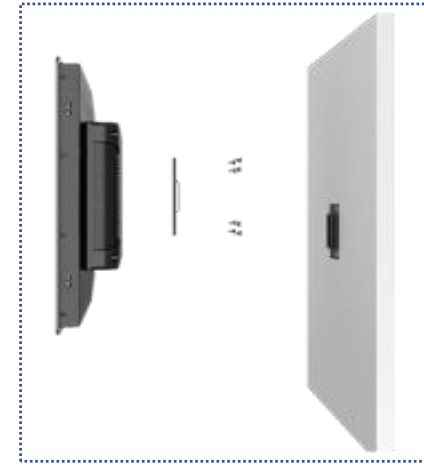
Panel mounting



Rack mounting



Desktop installation



Wall mounting



Cantilever mounting

Cut out: 403*251mm:



ALAD-K1550T(P) Order specification

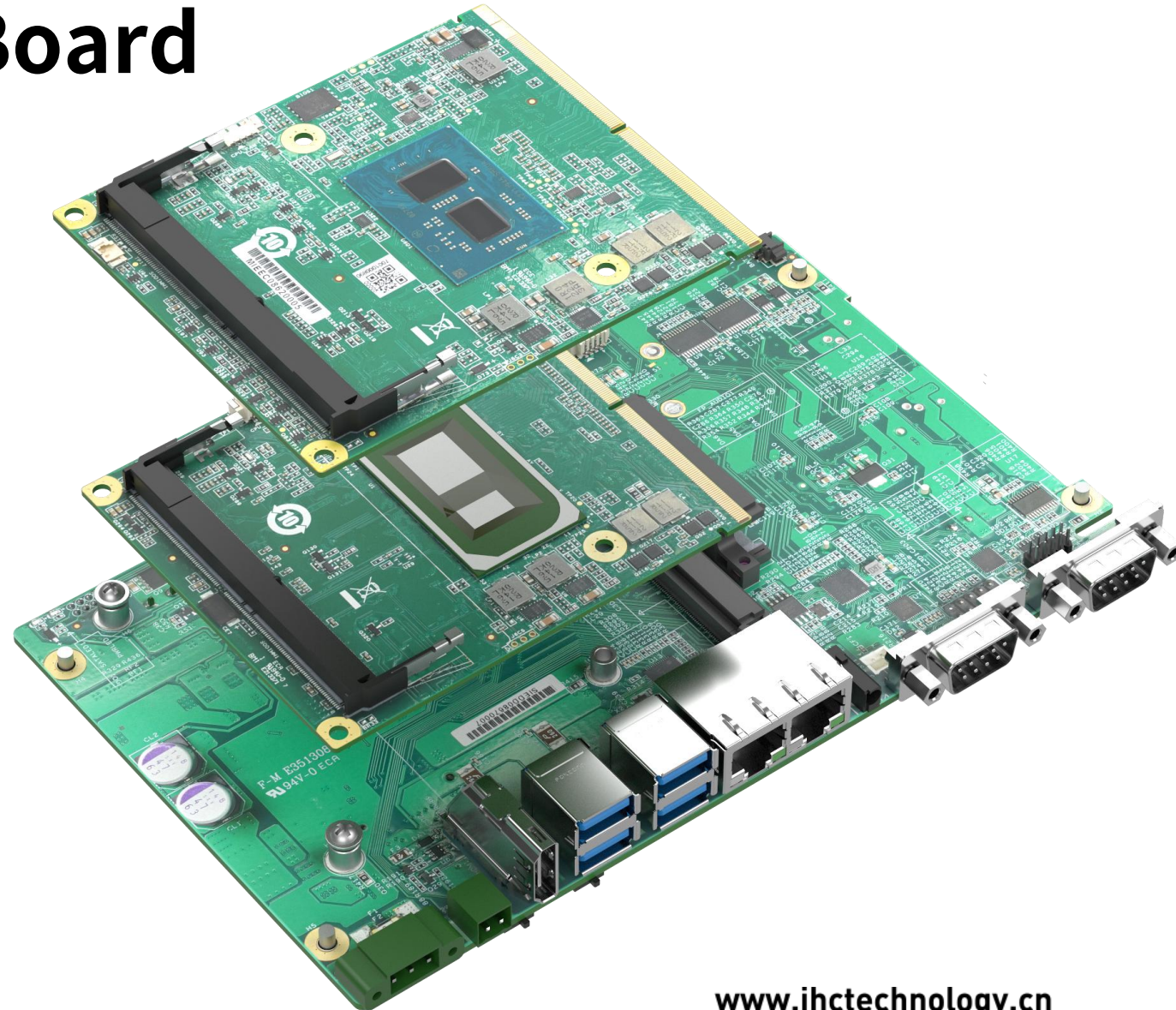


04-Order specification

Model number	CPU	Touch screen	Specification description
ALAD-K1550T(P)/ S001	Intel® Core I3-1115G4	Projected capacitive touch screen	Industrial tablet computer, 15.6" 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 disk slot, 1*mSATA, 2*3WPower amplifier speaker, DC 9~36VDc power supply
ALAD-K1550T(P)/ S002	Intel® Core I5-1135G7		
ALAD-K1550T(P)/ S003	Intel® Core I7-1165G7		
ALAD-K1550T(P)/ S004	Intel® Celeron 6305E		
ECX-168 Expansion card	1*PCIeX4 slot(X4 signal) (no COM3&4 when use)		
ECI-169 Expansion card	1*32-bit PCI slot (no COM3&4 when use)		
PA-60DC12	AC/DC power adapter, DC12V@5A ,60W		
PA-120DC19	AC/DC power adapter, DC19V@6.32A ,120W (When a POE NIC is used as an extension)		

Core Module + Carrier Board

Core Module	MXM-I914	MXM-I719
CPU	Intel® Tigerlake U Celeron/Core I3/I5/I7 CPU	Intel® Elkhart lake : Celeron J6412 or Celeron N6210
Chipset	Intel® CPU SoC MCP	
RAM	1*DDR4 3200MHz SODIMM, up to32GB	
Size	95*82mm	
Standard Specification	JHC Node-3	



05-An upgrade to the ALAD tablet series

<New product>

Coming Soon

ALAD
K-Series
NEW



Intel Tiger lake U

Coming Soon

ALAD
A-Series
NEW



Intel Elahart lake

ALADTablet series ROADMAP (二)

Intel X86 Alderlake-P						
Intel X86 Tigerlake-U				 6月EVT ALAD-K1550T	 8月EVT K1250T/K1750T K1850T/K1950T K2150T/K2350T	
Intel X86 Kabylake-U	 MP K1220T/K1520T K1720T/K1820T K1920T/K2120T					
Intel X86 Elkhart lake					 8月EVT A1210T/A1510T/A1710T A1810T/A1910T/A2110T/A2310T	
Intel X86 Baytrail & Braswell	 MP A1001T/A1201T A1501T/A1701T A1801T/A1901T/A2101T					

2020年之前

2020~2022年

2023年Q1

2023年Q2

2023年Q3

2023年Q4

EVT Engineering
verification

DVT Design verification

PVT Production
verification

MP Mass production
www.jhctechology.cn

06-ALAD tablet market direction

1、Machine vision, visual guidance and measurement



Solar cell automatic string welding machine
Positioning and detection system

2、Self-service terminal



Bank self-service
terminal

3、Logistics warehousing



AGV car, material
management

4、Factory information automation MES system



Automobile company MES system
application
Complete vehicle, engine
assembly, etc

5、Environmental data collection instrument



Smoke on-line
detection
system

6、机床运动控制和HMI



Injection molding machine
display and control
Vulcanizing press motion
control
High temperature
furnace control

7、smart medical care



Intelligent medicine cabinet
system
Nurse mobile workstation

.....
...



Factory MES system application
Automated production line SMT, etc

07 ALAD-K1550T(P)Diverse installation methods

installation methods

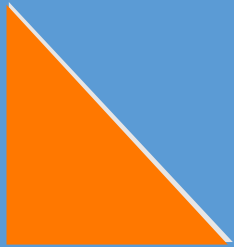
Test prototype time June 2023

Small lot time Aug 2023

Part3: 《High energy efficiency and small size AGV/AMR controller》



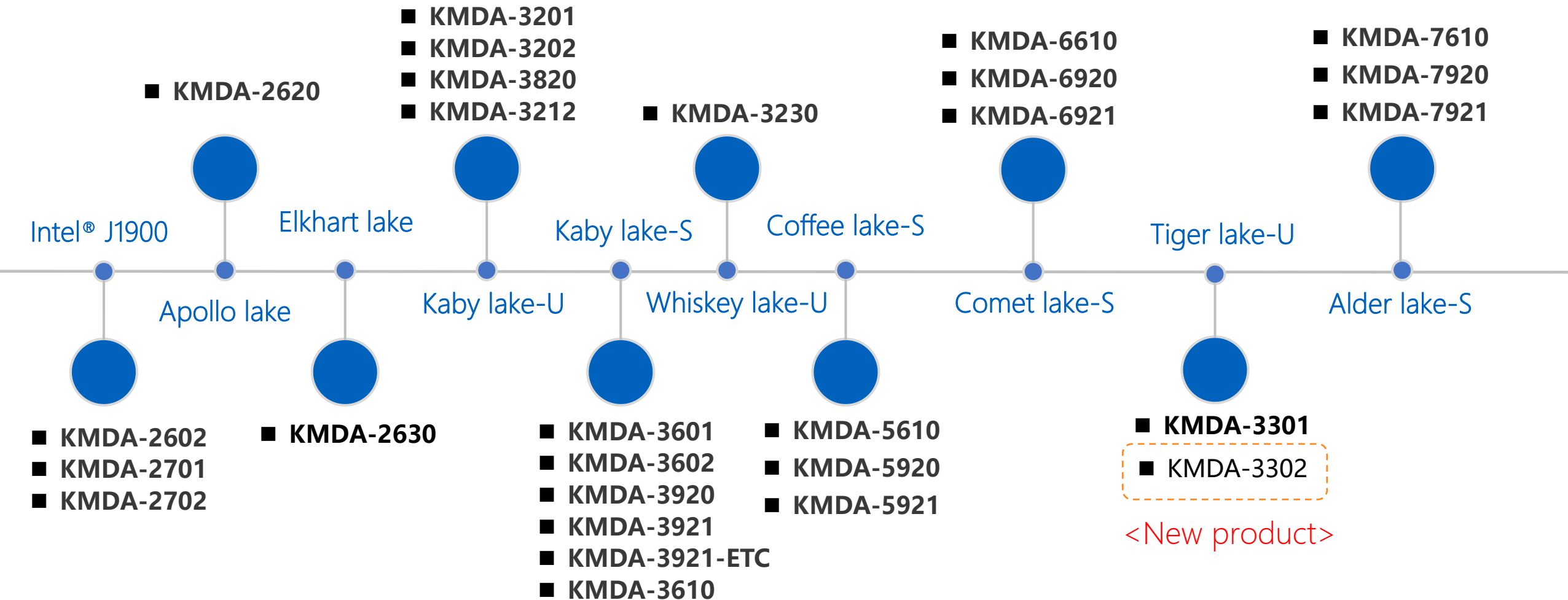
KMDA-3302



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01 KMDA ROADMAP



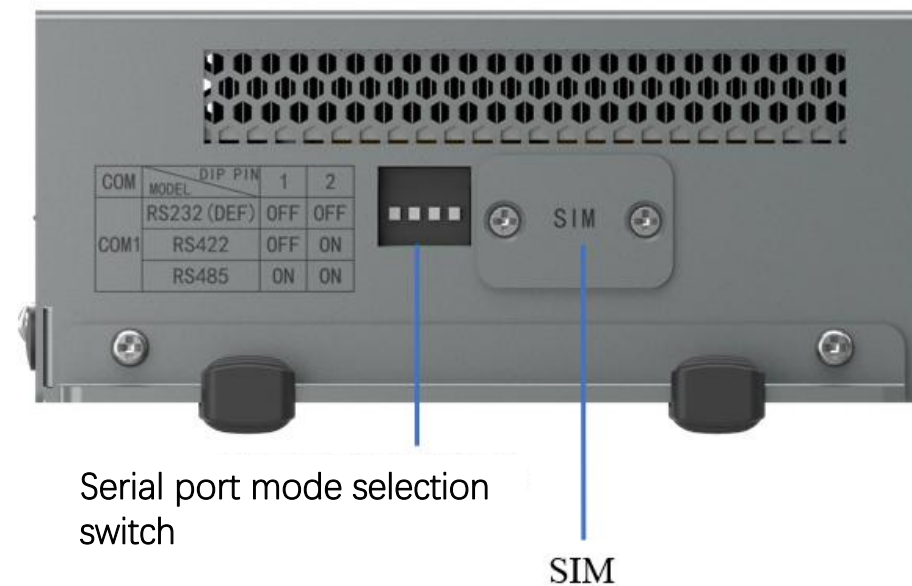
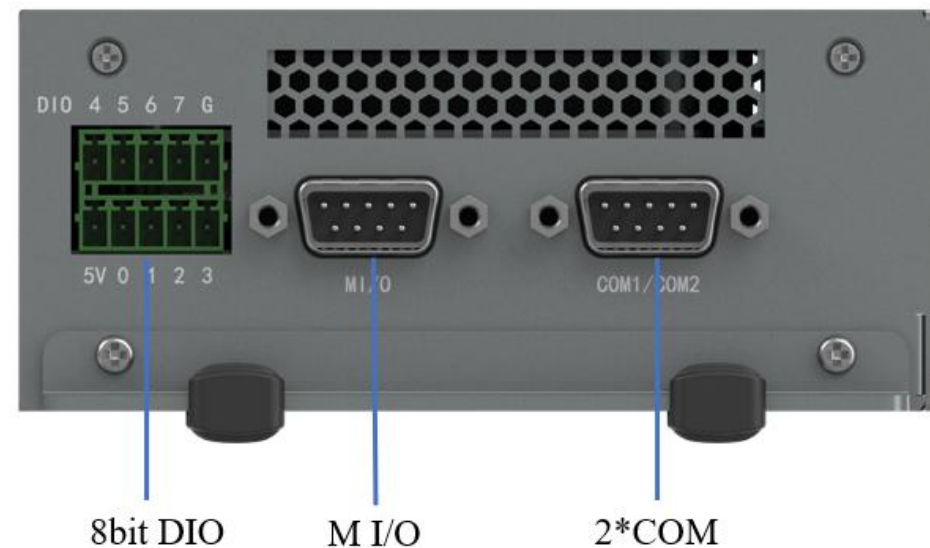
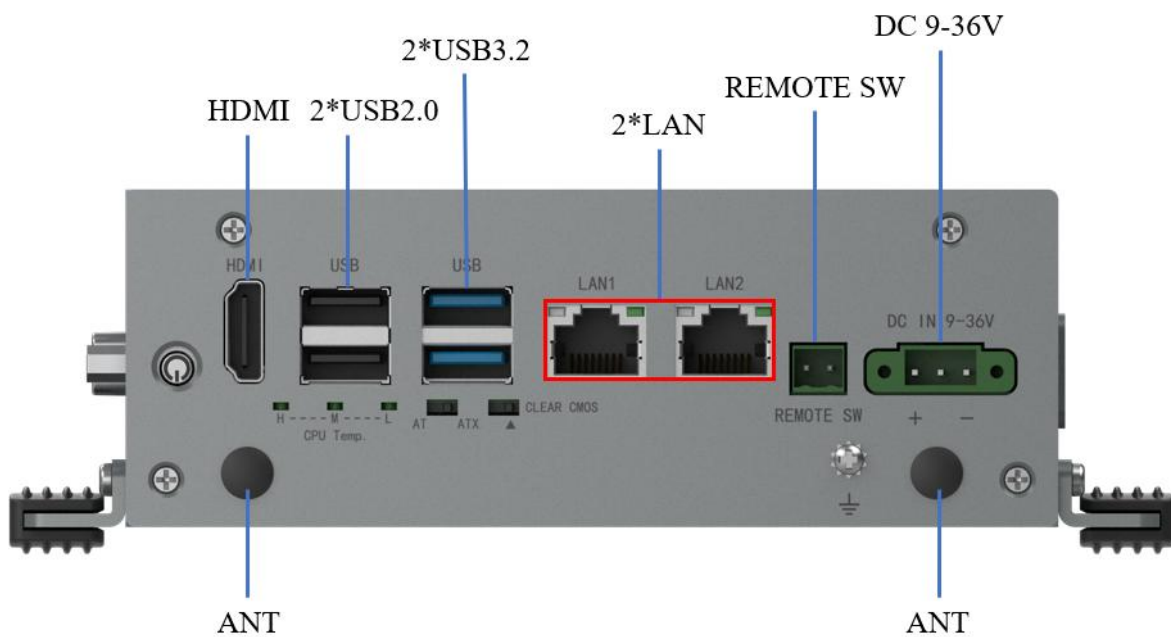
Product Specifications



- 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



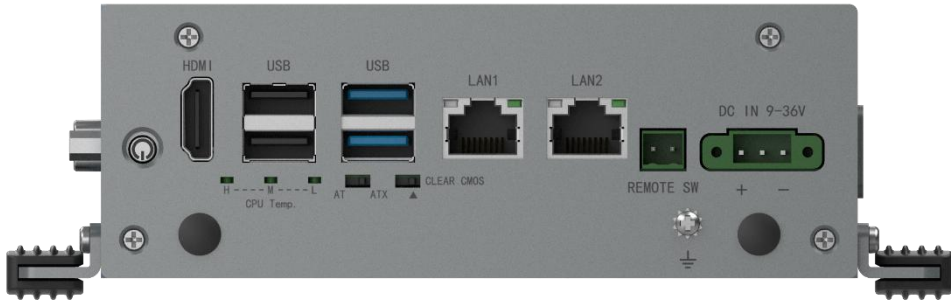
KMDA-3302 Interface



KMDA-3302 & KMDA-3301 Comparison of specifications

	KMDA-3301	KMDA-3302
Network chip	3*Intel I226V, 10M / 100M / 1000M / 2.5G adaptive, support iAMT 13.0 active management technology	2*Intel I210AT, 10/100/1000Mbps adaptive, Supports WOL remote wake-up
Heat dissipation mode	Passive cooling (fanless)	initiative cooling (fan)
Dimensions (including mounting parts: L*W*H)	286.4*154*64.9mm	172*116*54mm
Design specification (standard)	Intel IEN Type F	JHC NODE standard

KMDA-3302 Product highlights



1 Intel gen11
High performance
processor

2 Ultra high
performance
core display
Mini size,
super light
weight

3 More network
features

5 Interface
anti-fall
design

4 Flexible
installation

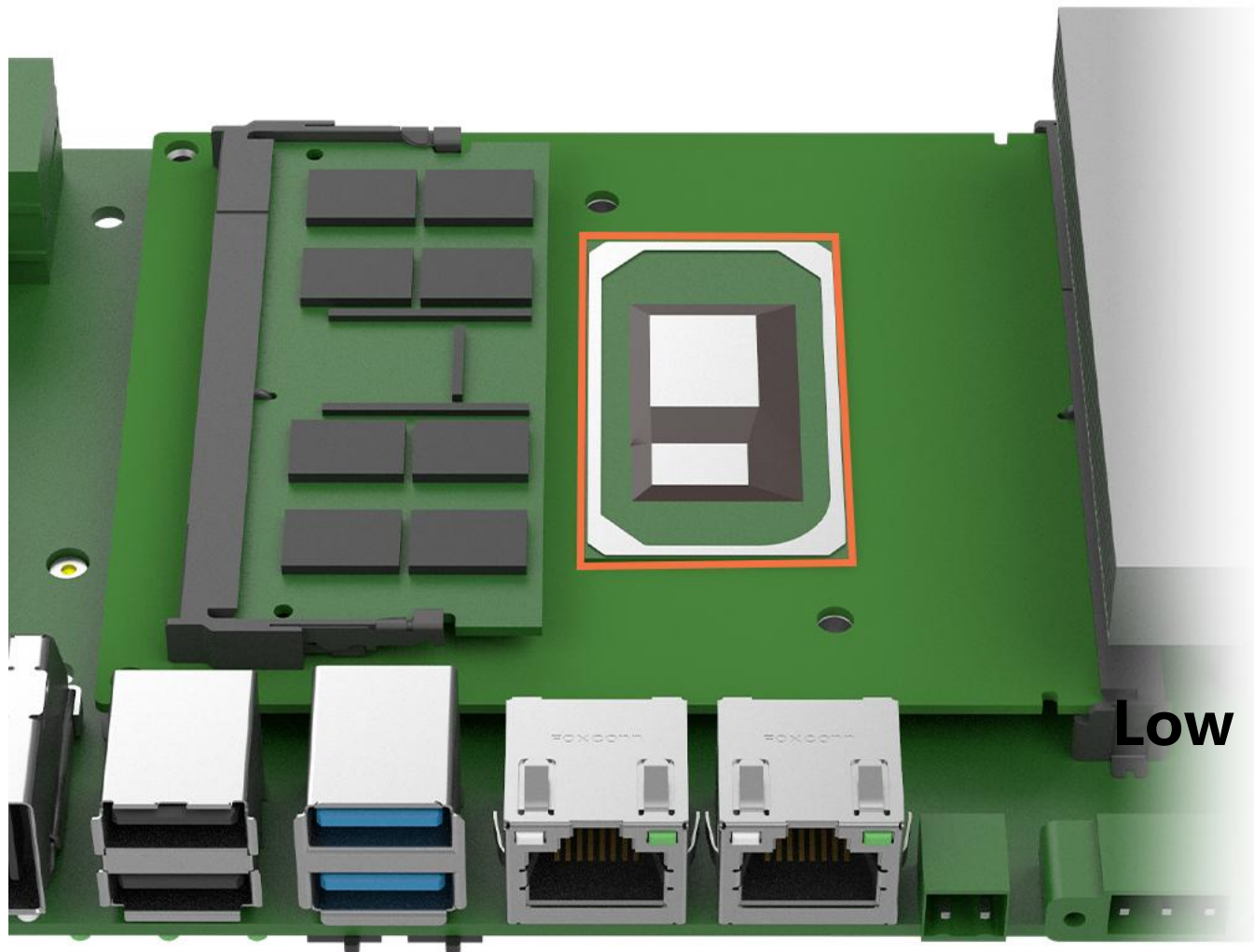
7 Shock absorption design of the
whole machine

Intel 11th generation processor

Tiger lake-U ULT SoC, ultra-low power consumption

The 4-wire speed regulating fan provides quiet heat dissipation.





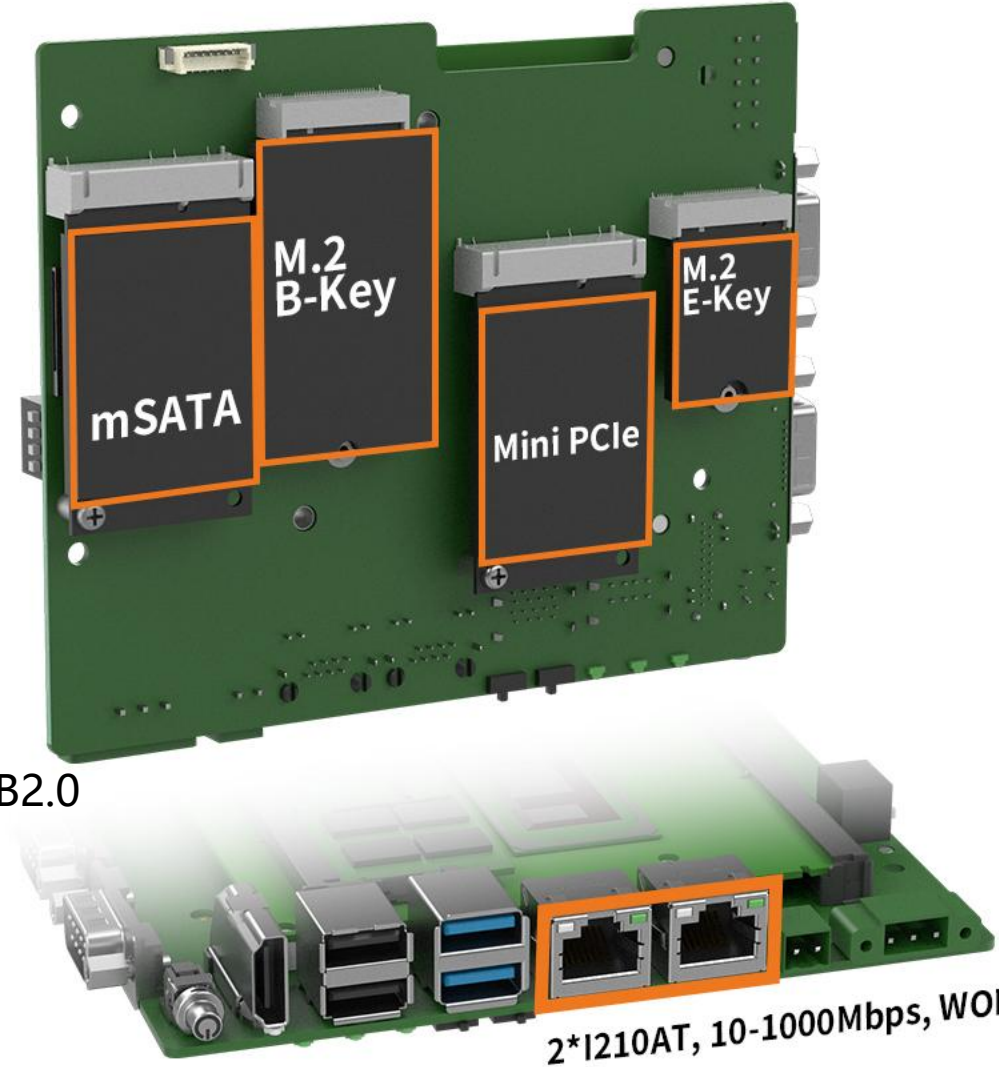
**Support Intel Deep learning Boost,
reasoning computing power theory up to 8tops**

**Support Intel GNA (high-speed neural accelerator 2.0,
AI speech neural noise reduction function**

Low power neural network acceleration

Sharp Torch XE core display

Core I3/ Pentium/ Celeron integrates the super core UHDG, and the i5 integrates the sharp torch XE core, the computing power 3-4tops, and the NV1030, 1050 performance mutual



1*Full Size Mini PCIe, with PCIe X1+USB2.0 signal,

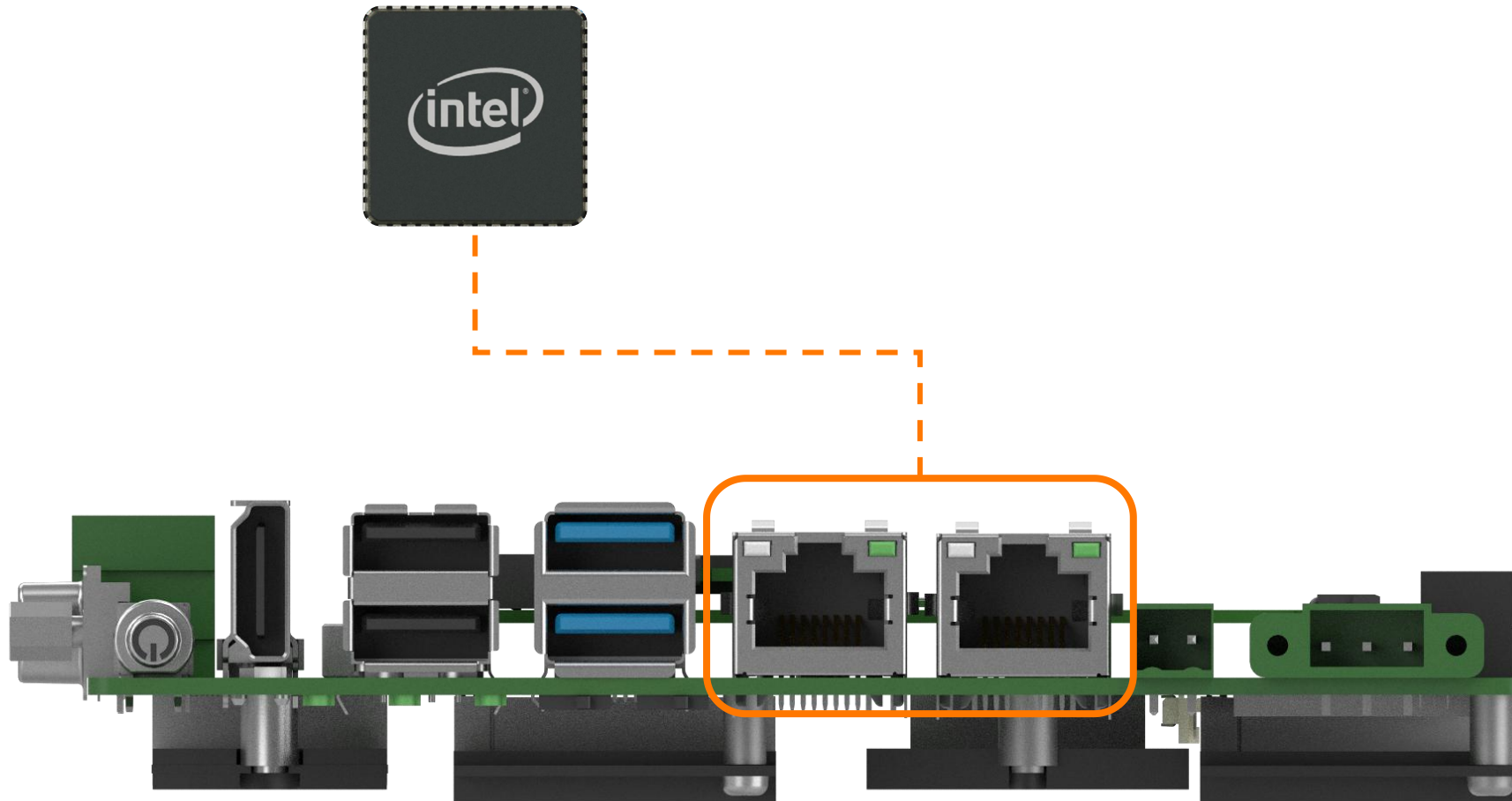
1*M.2 3042/3052 B-Key with SIM card slot, PCIe X1+USB2.0 signal,

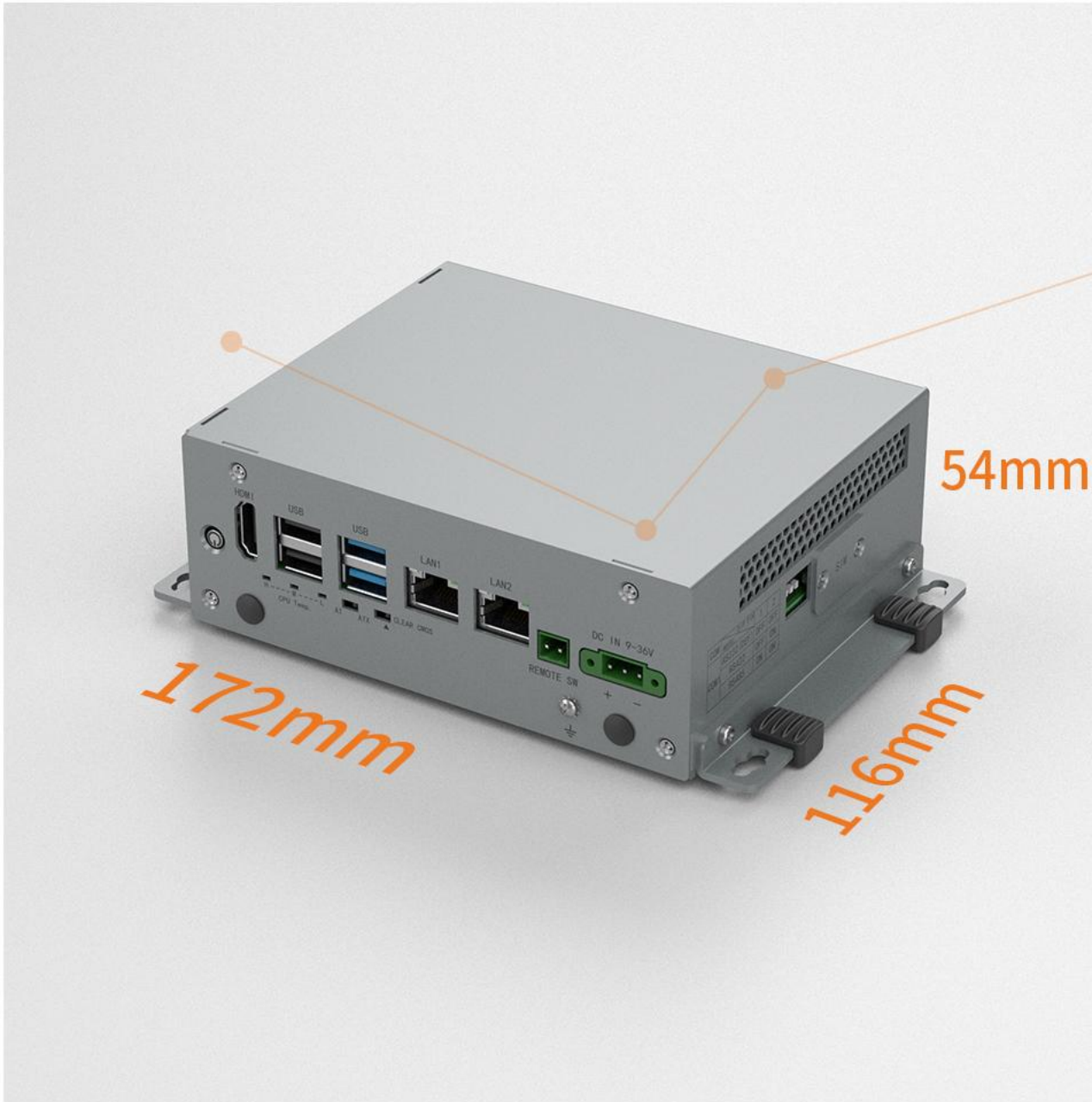
1*M.2 2230 E-Key with PCIe X1+USB2.0 signal,

2*I210AT adaptive Gigabit network port

2*I210AT, 10-1000Mbps, WOL

It uses Intel I210 AT network chip and supports mainstream Linux system





Weights only 0.89 KG

172*116*54 mm mini size (including mounting parts)

It can be adapted to application scenarios that require large or small sizes, such as AGVs or small-size distribution boxes.

Flexible installation

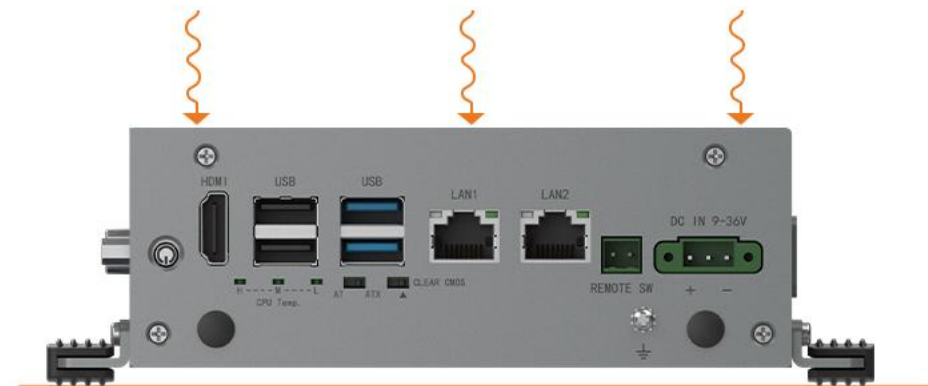
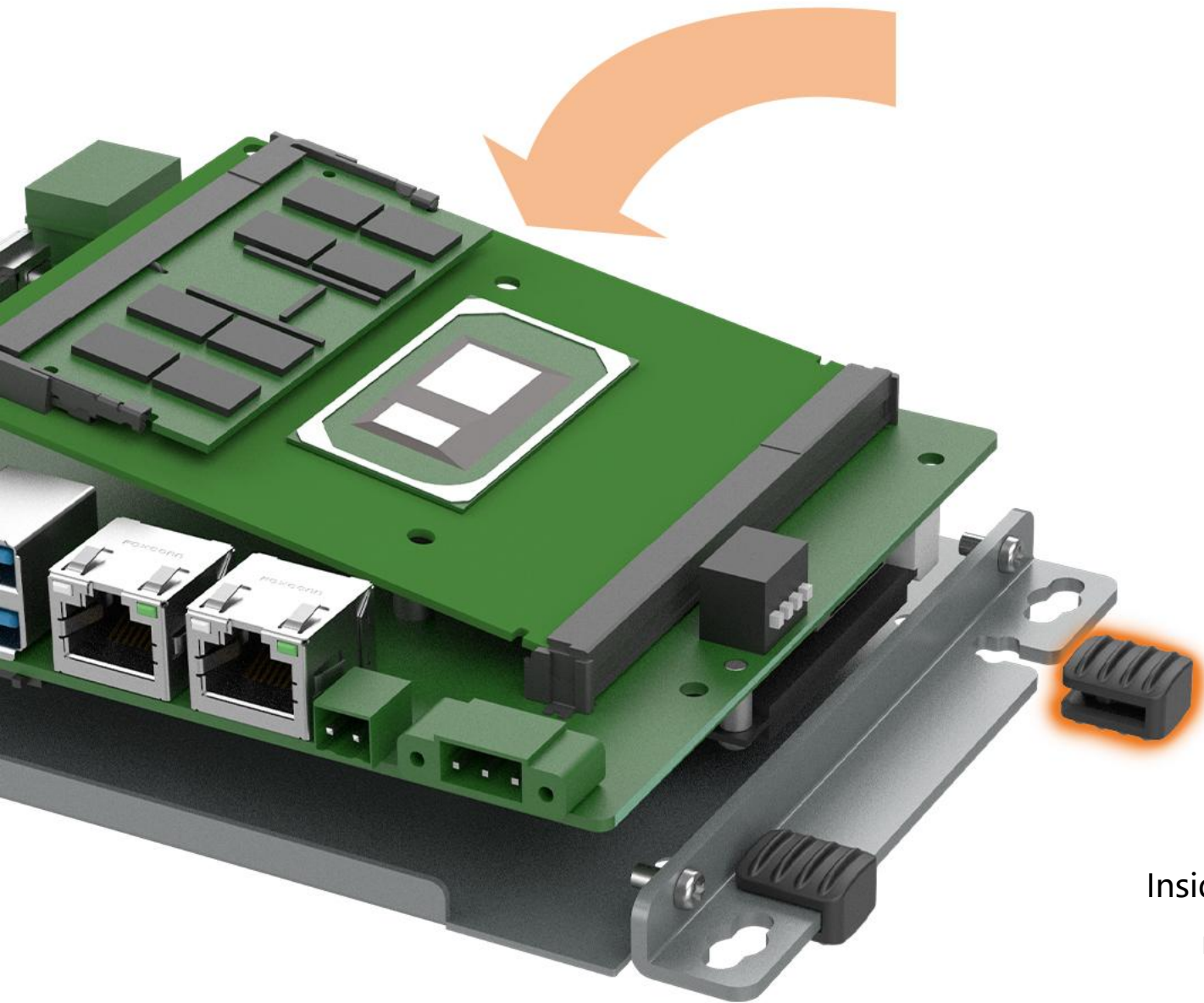
Desktop installation



Din Rail



The I/O interface is designed to prevent falling off



Shock absorption design of the whole machine

Inside the body is PCB to PCB without cable docking, and the mounting kit is equipped with shock-absorbing foot pads



Model	CPU	Instructions
KMDA-3302-S001	Intel® Core I3-1115G4	1*DDR4 SODIMM, 2*LAN, 2*USB3.2, 2*USB2.0, 2*COM, 8bit DIO, 1*HDMI, 1*Mini PCIe, 1*M.2 B-key, 1.*M.2 E-Key, 1*MIO, 1*mSATA, DC-IN 9-36V
KMDA-3302-S002	Intel® Core I5-1135G7	
KMDA-3302-S003	Intel® Core I7-1165G7	
KMDA-3302-S004	Intel® Celeron 6305E	
PA-60DC12组件	AC/DC Adapter, DC 12V/5A 60W+X power cable	



AGV/AMR



**Logistics visual
inspection**



Service robot

Q&A

A1:Can CNTI-R351 support WIFI,CAN,or 4G module?

Q1:Yes,the WIFI and CAN are onboard,there's 1*miniPCIE can support 4G module

A2:What kind of expansion module can KMDA-3302 support?

Q2:KMDA-3302 can support WIFI,4G,CAN,mSATA at the same time.

Stay in Touch



JHC Technology Development Co.,Ltd.



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Development Co., Ltd.



@JHCTECH



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Youtube

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Thank you!

