

Webinar

Hello everyone!
We will wait 5 mins for
everyone to join!



New Product Launch

Get Started →



BRVA-7123



BRVA-7135



KMDA-2631

Dedicated Controllers for Humanoid Robots

Collaborative Robot (Cobot) Controller

Speakers



Reese Li

Customer Solution Manager
JHCTECH Shenzhen Office

New Product Launch Announcement

Time	Agenda
16:00 ~ 16:05	Opening Chi Wang, Marketing Manager, Shenzhen Office
16:05 ~ 16: 30	Dedicated Controllers for Humanoid Robots: BRAV-7123/7135 Reese Li, Customer Solution Manager, Shenzhen Office
16:30 ~ 16: 45	Collaborative Robot (Cobot) Controller: KMDA-2631 Reese Li, Customer Solution Manager, Shenzhen Office
16:45~ 16:50	Q&A

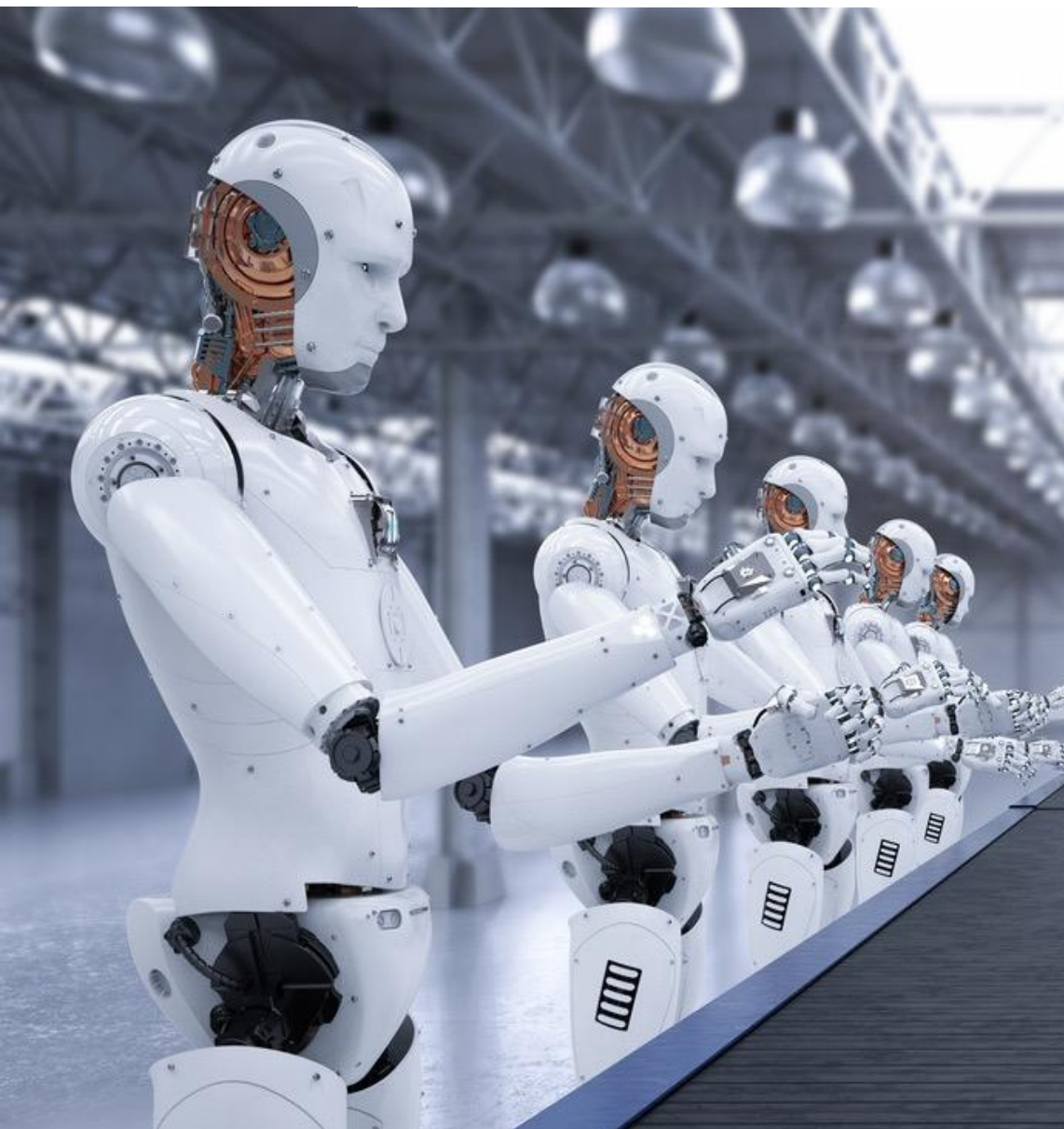
New Product Launch Announcement

Time	Agenda
22:00 ~ 22:05	Opening Chi Wang, Marketing Manager, Shenzhen Office
22:05 ~ 22: 30	Dedicated Controllers for Humanoid Robots: BRAV-7123/7135 Reese Li, Customer Solution Manager, Shenzhen Office
22:30 ~ 22: 45	Collaborative Robot (Cobot) Controller: KMDA-2631 Reese Li, Customer Solution Manager, Shenzhen Office
22:45~ 22:50	Q&A

JHCTECH



Partner



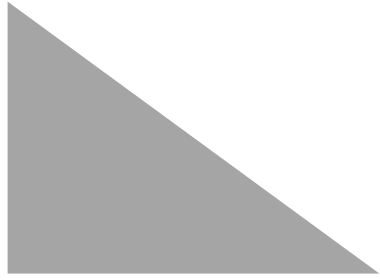
Dedicated Controller for Humanoid Robots



BRVA-7123



BRAV-7135



- 01 Relevant Background**
- 02 Current Trends in the Humanoid Robot Market**
- 03 BRAV-7123 / 7135 Product Features**
- 04 Case Study on Humanoid Robot Applications**
- 05 Ordering Specifications & New Product Progress**

CONTENTS

1. Relevant Background - JHC Robotics Product Roadmap

CNC Lathe, Servo System,
Execution System



■ ECB-A486



2008

2005

Spare Parts



■ FEBC-3510



Turnstile Control, Servo
System, IoT, Perception

Automation Equipment,
Servo System, Sensors



■ KMDA-2602



2017

Partially Available



■ BRAV-7520



Smart Manufacturing, LiDAR,
Cameras

Hybrid Robot, Smart Devices with
Extended Functions



■ KGEK-6300



2020

Standard



■ KMDA-6920



High-Performance Industrial Automation,
Computing Power Expansion

Humanoid Robot (First-Gen
Prototype for Testing)



■ BRAV-7131



2023

Available



■ KMDA-5611
■ KMDA-3303



Mobile Robot (Primary Control Unit)
Humanoid Robot (Secondary Control Unit)

Humanoid Robot
(Current Version)



■ BRAV-7123



2025

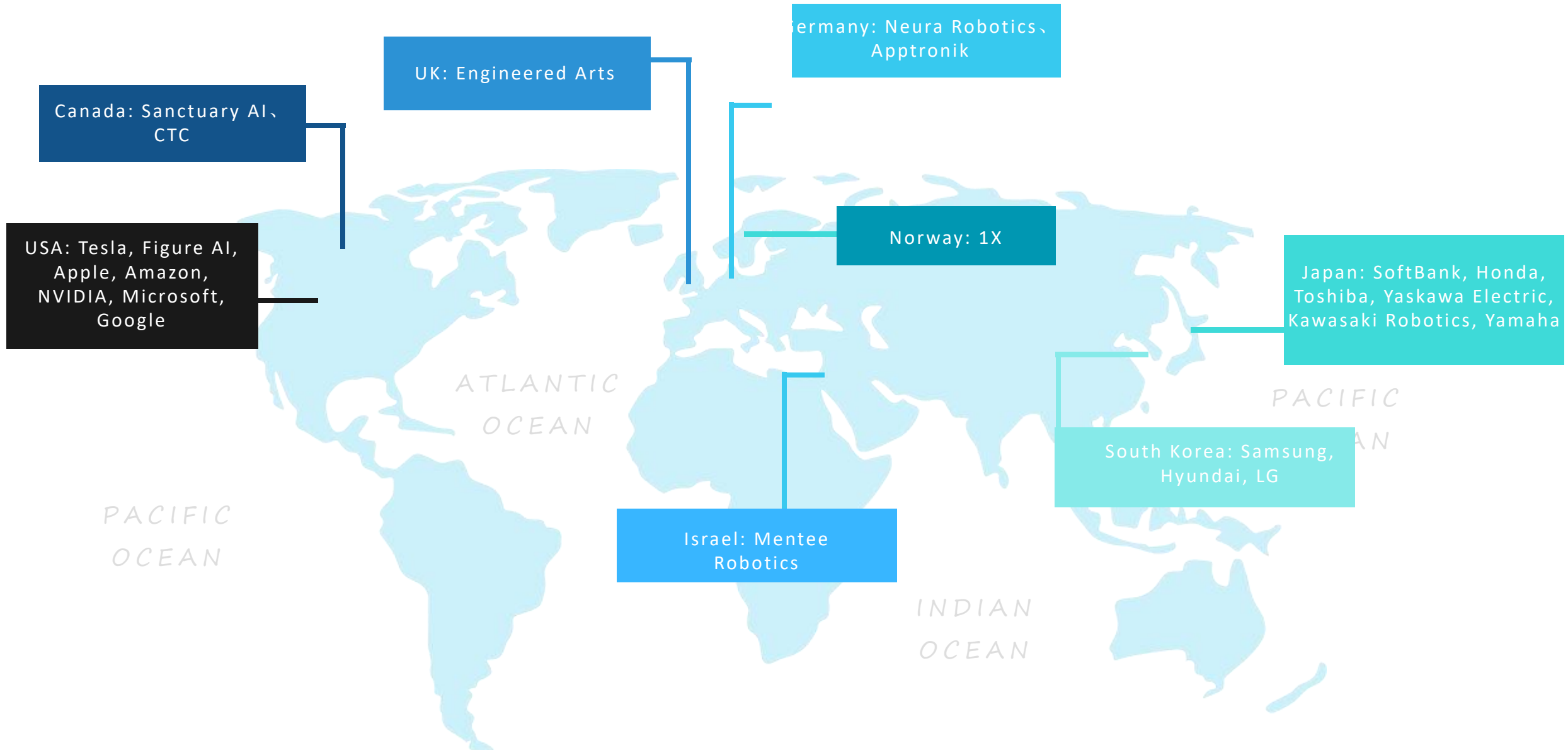
In Use - or Will
Be Used



■ BRAV-7135

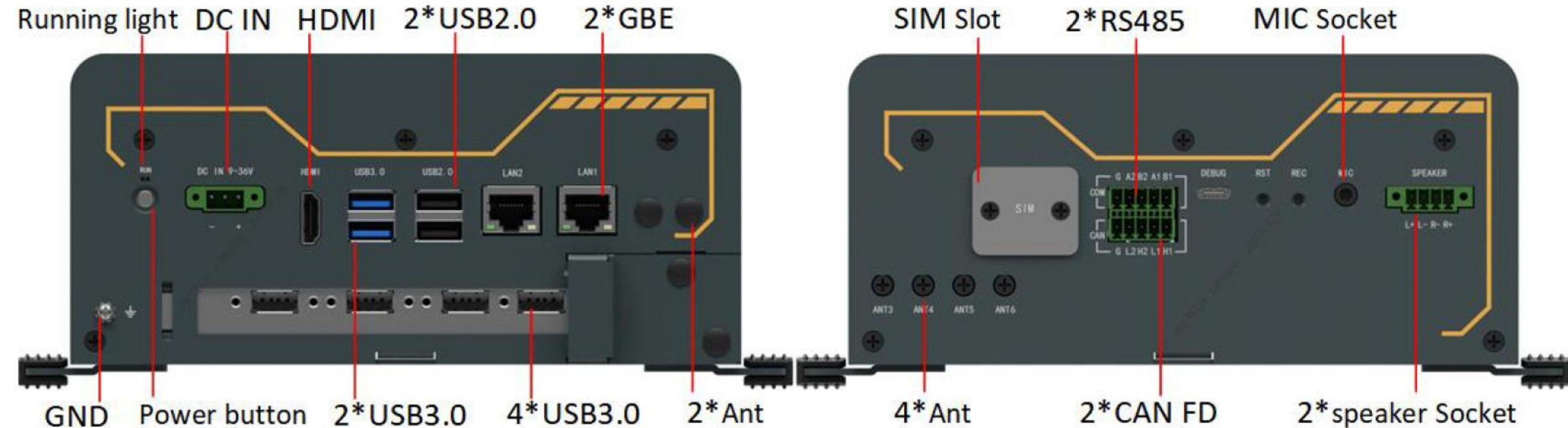


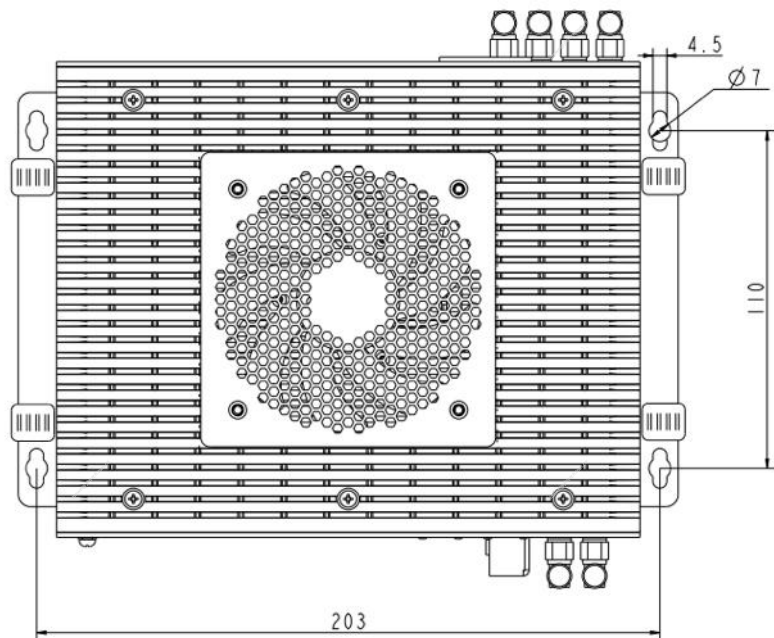
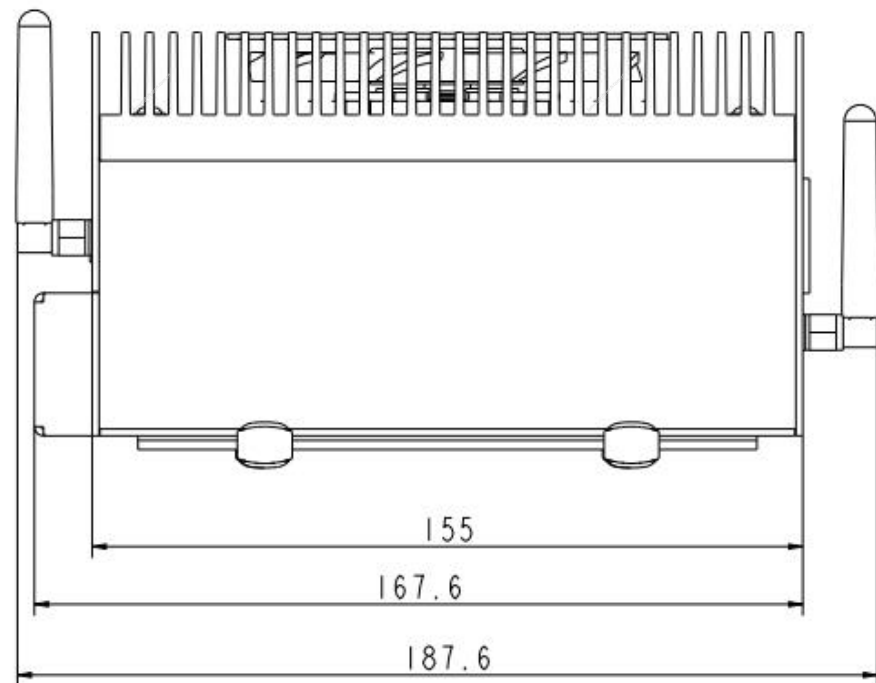
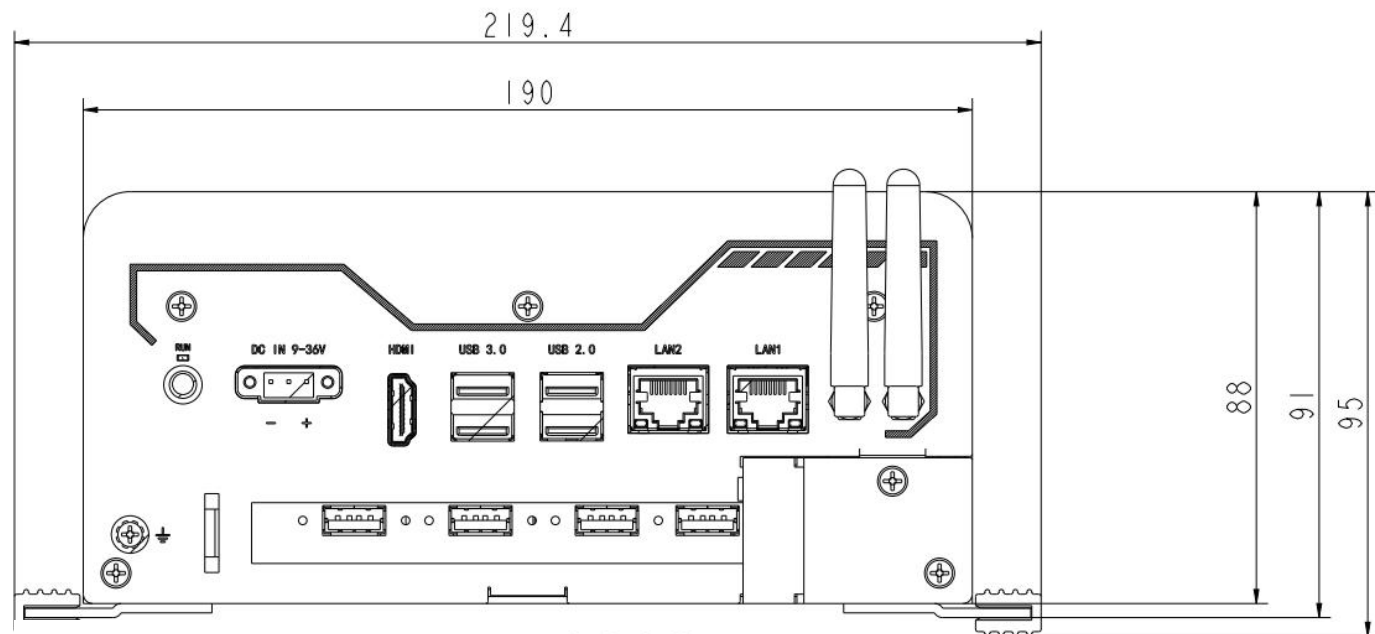
Humanoid Robot
(Next Phase)



	BRAV-7123-S001	BRAV-7123-S002
Processor	NVIDIA Orin NX 8GB	NVIDIA Orin NX 16GB
RAM	Onboard 8GB(S001)128 bit LPDDR5	16GB(S002) 128 bit LPDDR5
Storage	1*M.2 2280 M-Key, Supports NVMe High-Speed SSD Storage	
Audio & Video	1× HDMI 2.0 Port, 1× MIC, with Audio Amplifier, Supports Left and Right Channels, Compatible with 2× 10W Speakers	
Communication Interfaces	2*Gigabit Ethernet Ports (RJ45) ; 6*USB3.0 (TypeA), 2*USB2.0 (TypeA) 2*CAN-FD (Optocoupler Isolation) 2*RS485 (2.5KV Optoelectronic Isolation)	
Expansion Interfaces	1× M.2 B-Key, USB 3.0 Signal, Supports 4G LTE or 5G NR Wireless Modules, 1× SIM Slot, 4× ANT 1× M.2 E-Key, PCIe X1 + USB 2.0 Signal, Supports Gigabit Bandwidth WiFi 6 / BT 5.0, 2× ANT	
Dimensions & Structure	Main Enclosure: Active & Passive Cooling Structure, SGCC Enclosure, Dimensions: 190×155×90mm	
Power Supply	DC 9-36V Power Supply, with Short-Circuit, Overvoltage, and Overcurrent Protection	
Operating Temperature	-20°C ~ 60°C, Airflow Required	

3.2 BRAV-7123 Product Features - Functional Interfaces

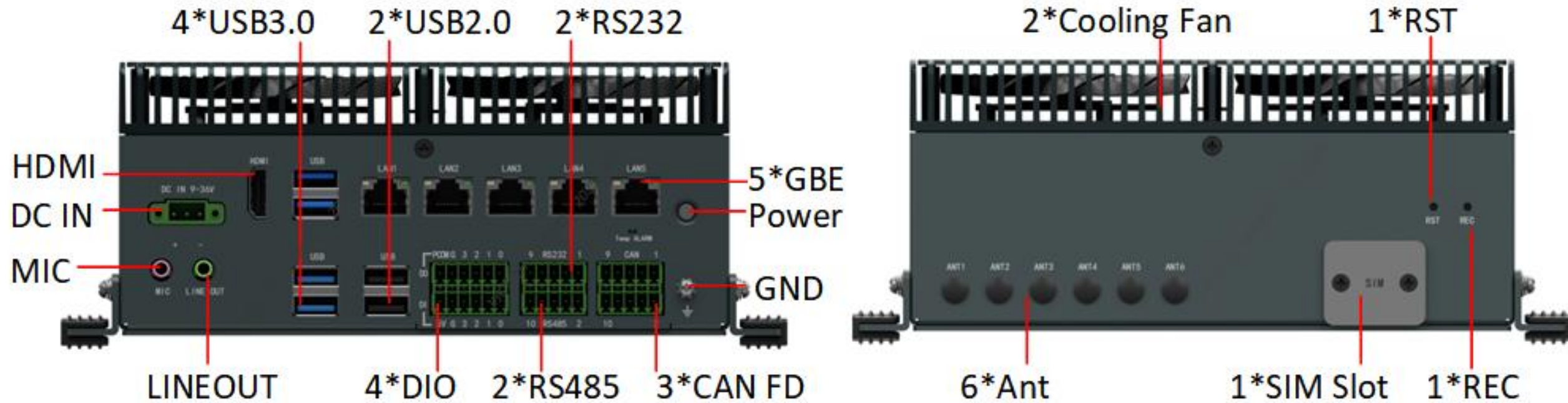
**BRAV-7123**

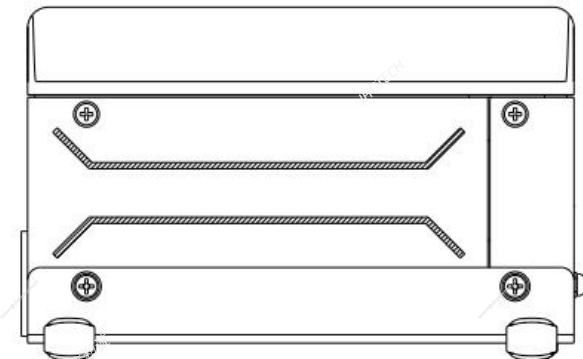
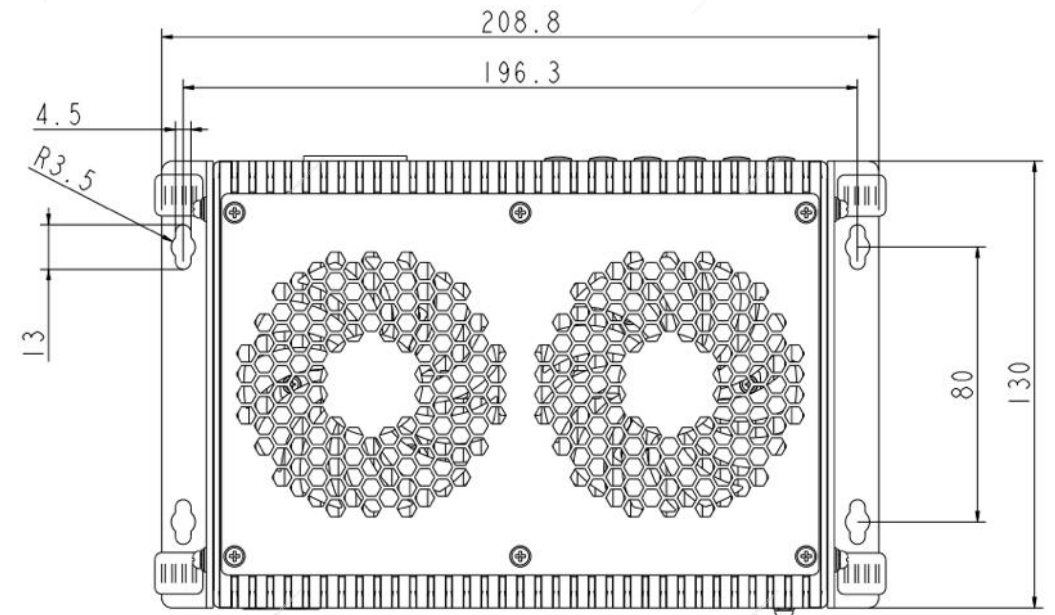
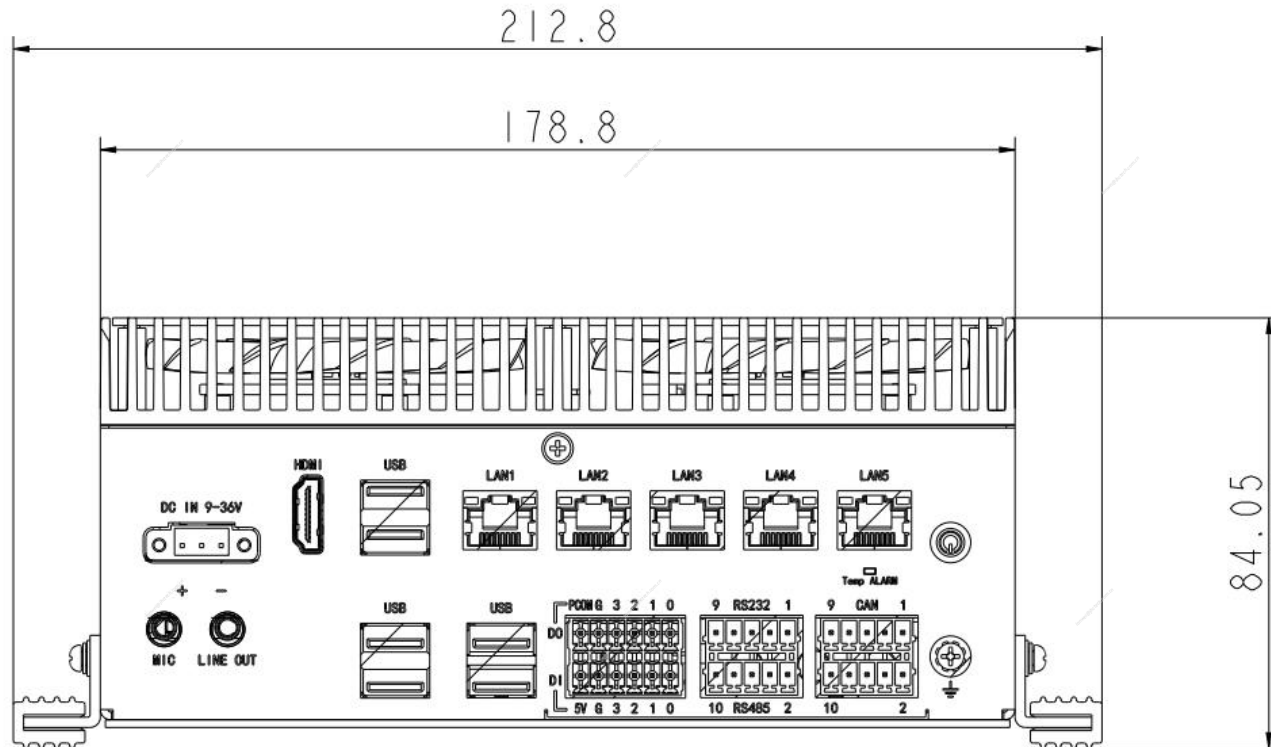


BRAV-7123

	BRAV-7135-S001	BRAV-7135-S002
Processor	NVIDIA AGX Orin 32GB	NVIDIA AGX Orin 64GB
RAM	Onboard 32GB(S001)256 bit LPDDR5	Onboard 64GB(S002)256 bit LPDDR5
Storage	1× M.2 2280 M-Key, PCIe x4 Signal, Supports NVMe High-Speed SSD Storage	
Audio & Video	1× HDMI 2.0 Port, 1× MIC, Audio Supports Stereo Channel Output	
Communication Interfaces	5× Gigabit Ethernet Ports (RJ45) 4× USB 3.0 (Type-A), 2× USB 2.0 (Type-A) 3× CAN-FD (Optocoupler Isolation, Phoenix Terminal) 2× RS485 (2.5KV Optoelectronic Isolation), 2× RS232 (2.5KV Optoelectronic Isolation) 2× 4-bit DIO (2.5KV Optoelectronic Isolation)	
Expansion Interfaces	1× M.2 B-Key, PCIe x1 + USB 2.0 Signal, Supports 4G LTE or 5G NR Wireless Modules, 1× SIM Slot, 4× ANT 1× M.2 E-Key, PCIe x1 + USB 2.0 Signal, Supports Gigabit Bandwidth WiFi 6 / BT 5.0, 2× ANT I-PORT Reserved Expansion for Internal Onboard Signals (2× PCIe x1, 2× USB 2.0, 2× I2C, 2× SPI)	
Dimensions & Structure	Main Enclosure: Active & Passive Cooling Structure, SGCC Enclosure, Dimensions: 178.8×130×84 mm	
Power Supply	DC 9-36V Power Supply, with Short-Circuit, Overvoltage, and Overcurrent Protection	
Operating Temperature	-20°C ~ 60°C , Airflow Required	

3.5 BRAV-7135 Product Features - Functional Interfaces

**BRAV-7135**



BRAV-7135

3.7 Product Features – BRAV-7123/7135 Highlights

**1**

Powerful Computing
Performance, Fully
Upgraded

2

Compact Size, Fits
Various
Installation Spaces

3

Multi-Protocol Support

4

Flexible Expansion

5

Efficient Cooling &
Protection

6

Vibration-resistant
Design

7

Wide Voltage Power
Supply

Powerful Computing Performance, Fully Upgraded



Partner



BRAY-7135

NVIDIA AGX Orin 32/64GB Module

200-275 TOPS

BRAY-7123

NVIDIA Jetson Orin NX Module

70-157 TOPS



Compact Size, Fits Various Installation Spaces



BRAV-7123

190*155*90mm(Mounting bracket not included)



BRAV-7135

178.8*130*84mm(Mounting bracket not included)

Dual Gigabit Ethernet Ports, Meeting EtherCAT Communication Requirements for Humanoid Robot Servo Devices

Audio & Video Support: HDMI Video Device
Left and Right Channels with Amplifier, Directly
Connect to Standard Speakers for Voice Interaction

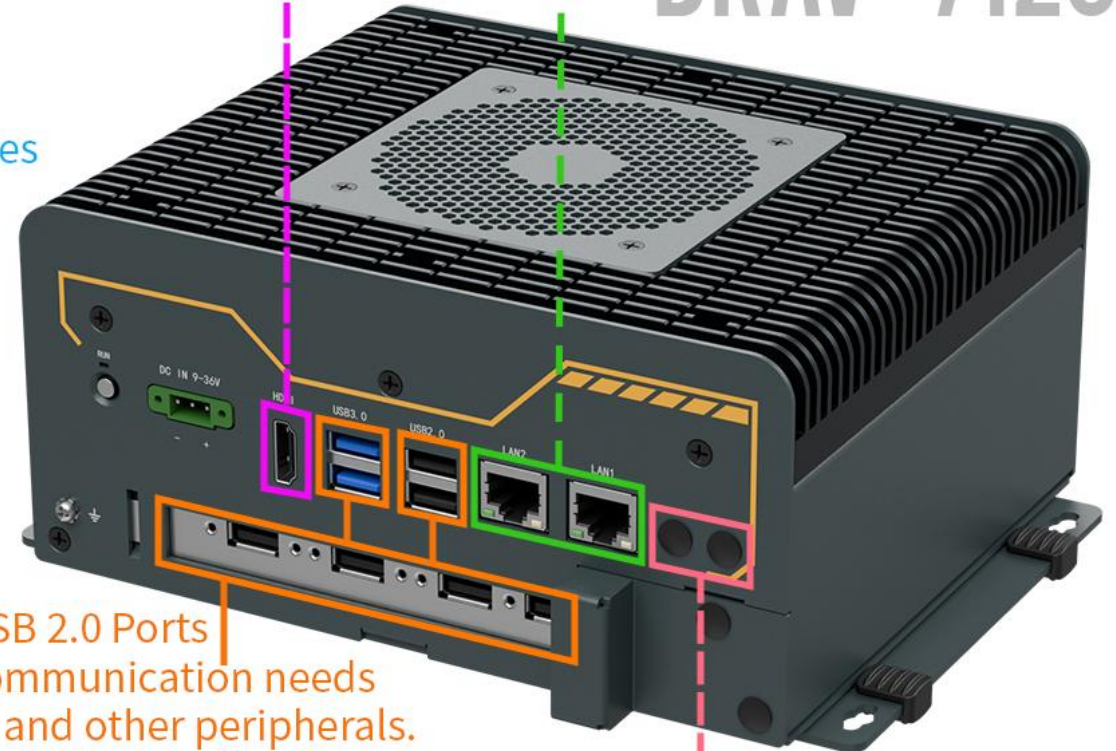
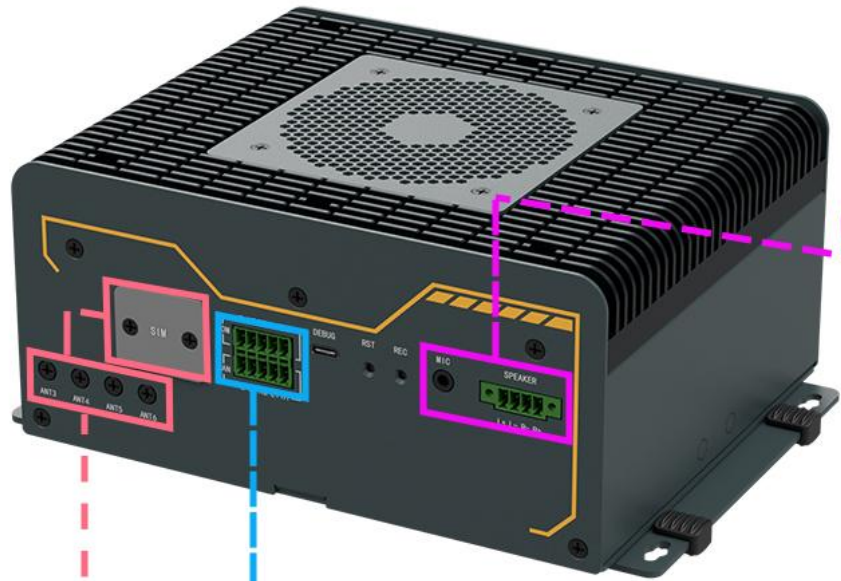
BRAV-7123

Dual Independent CAN-FD Interfaces, Dual RS-485 Bus Interfaces
Fully meets the communication interface quantity and speed requirements for humanoid robot force sensors, batteries, and other components.

Dual M.2 Interfaces
Supports WiFi / 5G / 4G and other wireless communication technologies, with six antennas to ensure optimal signal transmission.

Dual USB 2.0 Ports

Six Independent Bandwidth USB 3.0 Ports, fully meeting the communication needs of humanoid robot vision cameras, high-performance sensors, and other peripherals.
Easily Expandable Functionality – Four of the USB 3.0 ports can be replaced with Gigabit Ethernet ports or other communication interfaces as needed.





Dual M.2 Interfaces

Supports WiFi / 5G / 4G wireless communication,
with six antennas ensuring optimal signal strength and stability.

Five Gigabit Ethernet Ports

Fully meets the communication requirements for humanoid robot
machine vision, servo devices, and EtherCAT.

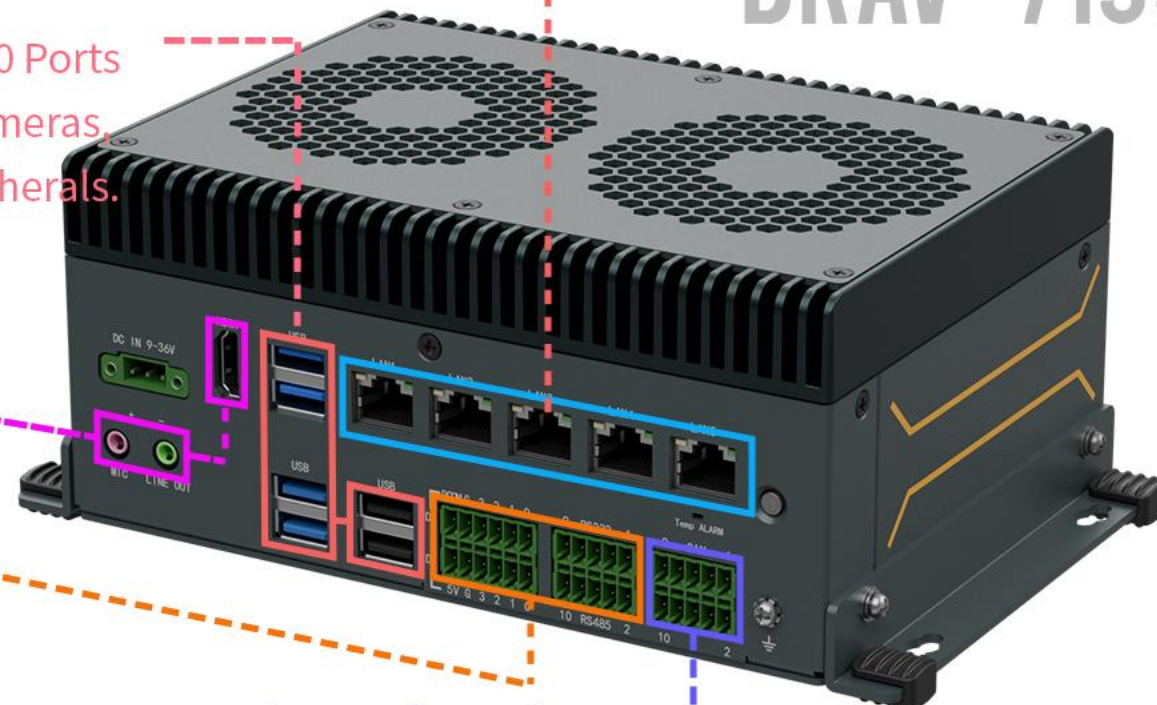
BRAV-7135

Dual USB 2.0 Ports & Four Independent Bandwidth USB 3.0 Ports

Fully meets the communication needs of humanoid robot vision cameras,
high-performance sensors, and other peripherals.

Audio & Video Support: HDMI, MIC, Stereo Audio Output

Dual RS-485, Dual RS-232, and Four DIO Interfaces
Meets the communication requirements for various sensors
and expansion needs in humanoid robots.



Three Independent CAN^{FD} Interfaces

Fully meets the interface quantity and speed requirements for humanoid robot sensors, batteries, and servo control.

Dual Embedded Fans



Single Embedded Fan



Wide Temperature Operation

-20°C

60°C



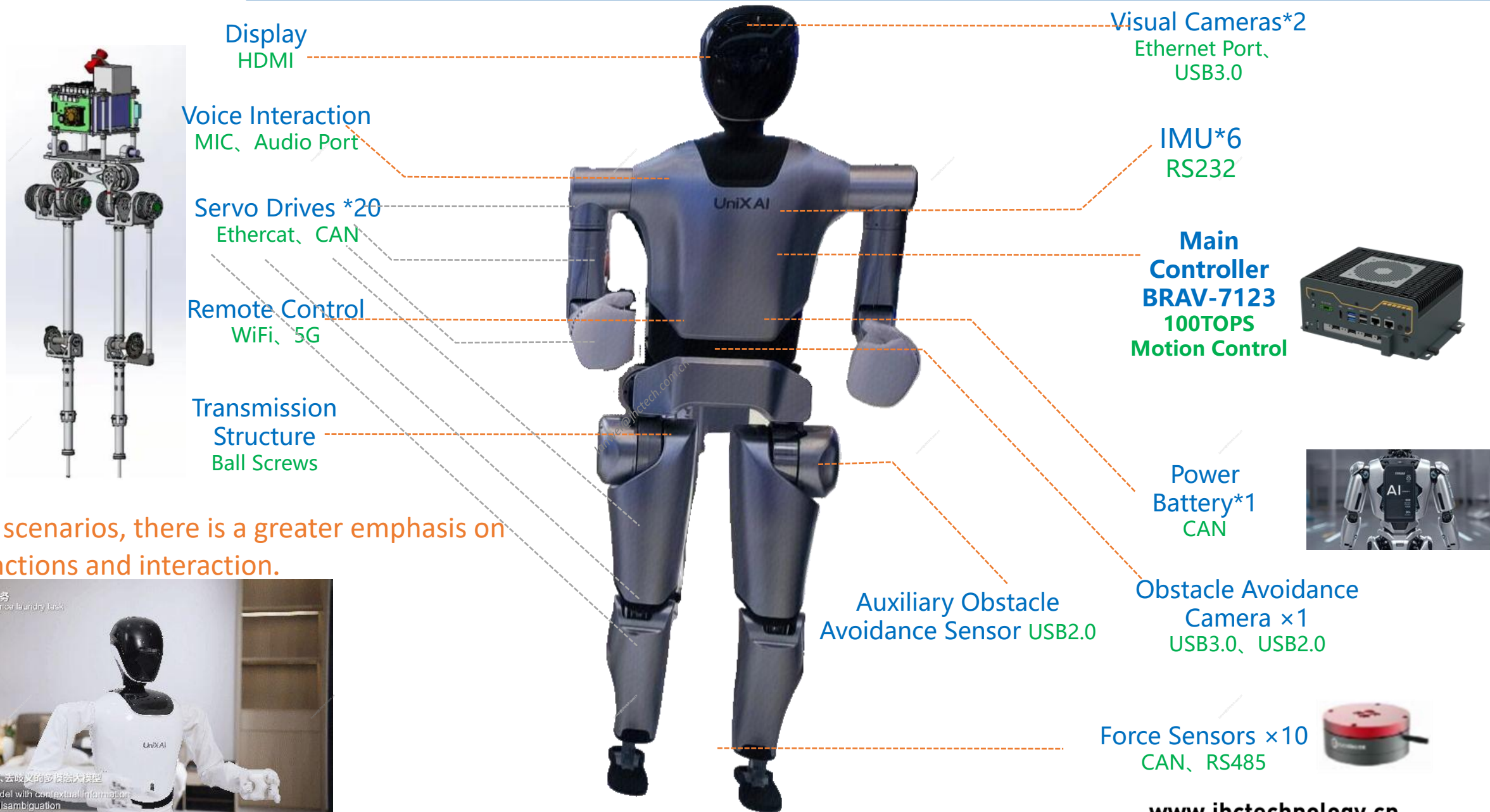
Shock-Absorbing Design

Equipped with Shock-Absorbing and Non-Slip Feet

DC 9-36V Wide-Range Power Supply, with Reverse Polarity, Overcurrent, and Overvoltage Protection

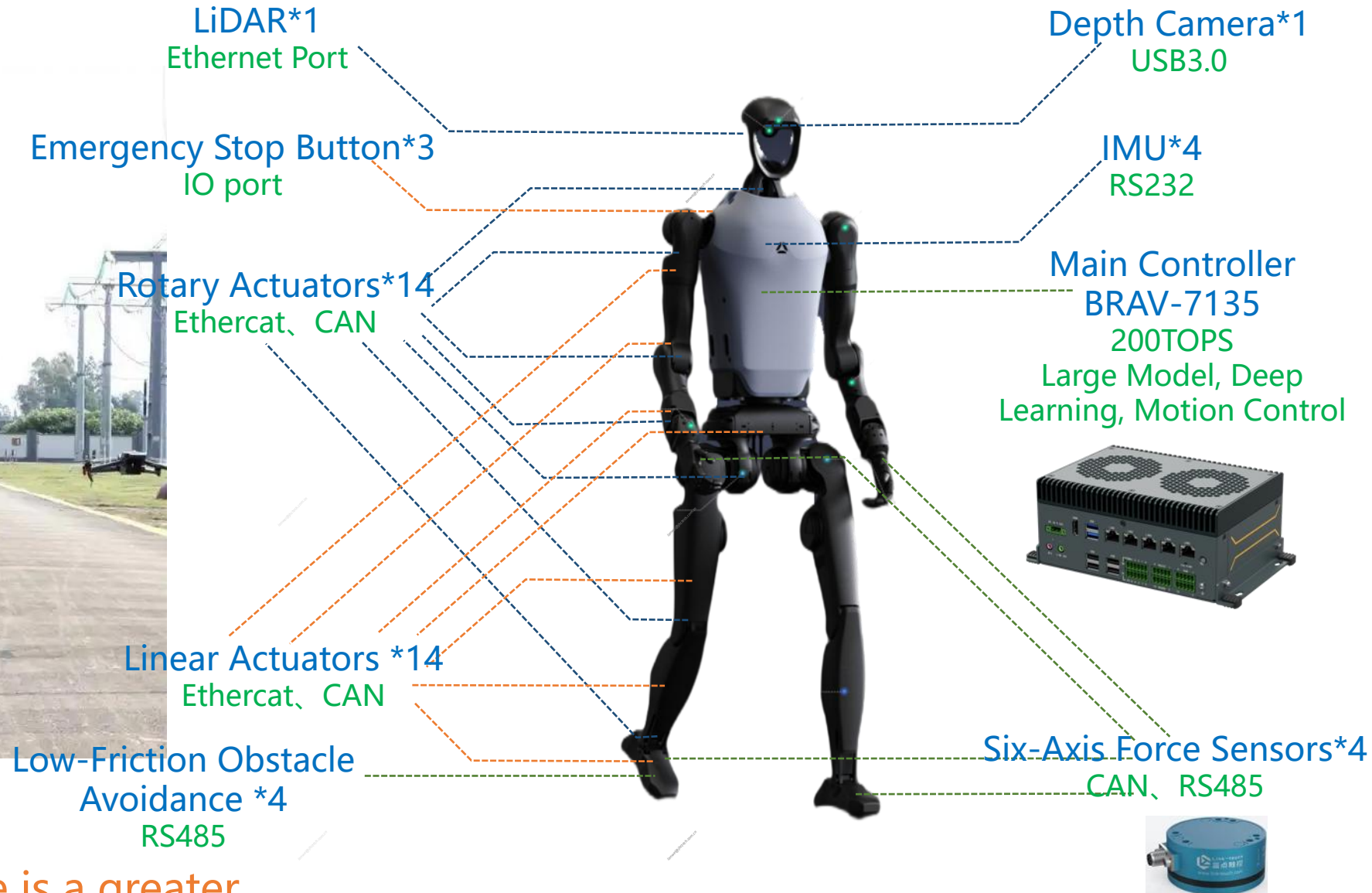
Wide-Range Power Supply





In home scenarios, there is a greater emphasis on basic functions and interaction.



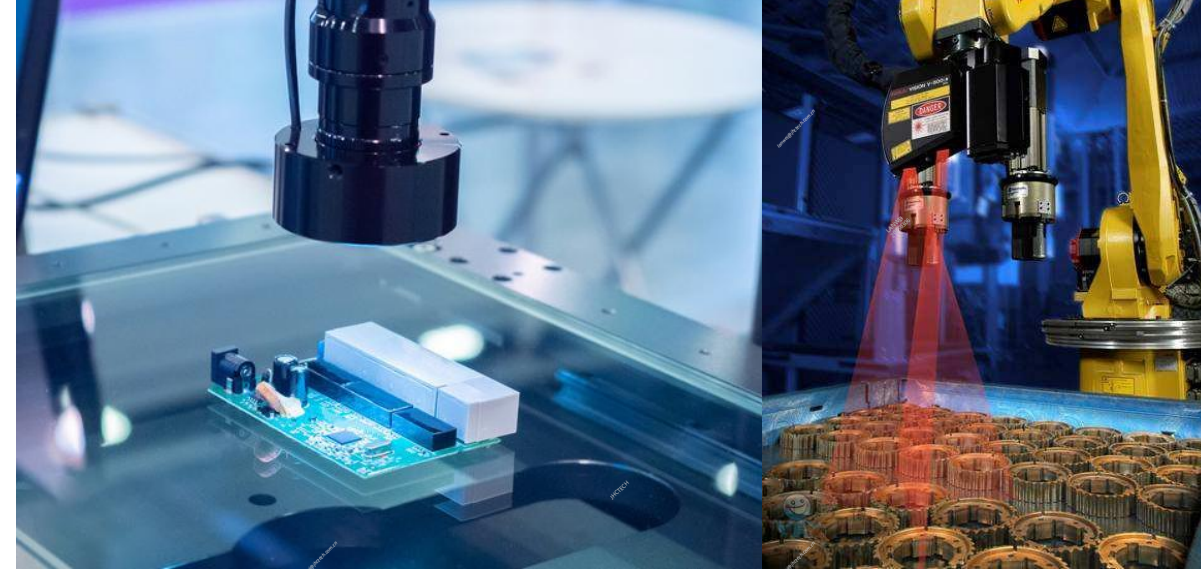


In industrial scenarios, there is a greater emphasis on performance and safety.

High-Performance Computing AGV/AMR/Unmanned Forklifts



Multi-Camera Machine Vision



Other High-Performance Automation Applications in Manufacturing, Logistics, and Transportation Industries



BRAV-7123



BRAV-7123-S001	Jetson Orin NX 8G	1*HDMI, 2*GBE RJ45, 6*USB3.0, 2*USB2.0, 2*RS485, 2*Iso. CAN FD, 2*Speaker, 1*Mic, 1*M.2 B-Key w/SIM, 1*M.2 E-key, DC-IN 9~36V
BRAV-7123-S002	Jetson Orin NX 16G	
PA-60DC12 Component	AC/DC Adapter, DC 12V/5A, 60W + X Standard Power Cable	
PA-60DC19 Component	AC/DC Adapter, DC 19V/6.32A, 120W + X Standard Power Cable	

**BRAV-7123**

Release Date

April 2025



5.3 Ordering Info-BRAV-7135

BRAV-7135



BRAV-7135-S001	Jetson AGX Orin 32G	1*HDMI, 5*RJ45, 4*USB3.2, 2*USB2.0, 2*RS485, 2*RS232, 3*Iso. CAN, 1*8-bit Iso. DIO, 1*Line out, 1*MIC, 1*M.2 B-Key w/SIM,1*M.2 E-key, 1*M.2 M-Key, DC-IN 9~36V
BRAV-7135-S002	Jetson AGX Orin 64G	
PA-60DC19 Component	AC/DC Adapter, DC 19V/6.32A, 120W + X Standard Power Cable	

**BRAV-7135**

Release Date

April 2025



Cobot Controller



KMDA-2631

Cobot Controller
KMDA-2631

- 01** **Relevant Background**
- 02** **KMDA-2631 Product Features**
- 03** **Market Characteristics and
Application Case Analysis**
- 04** **Ordering Specifications & New
Product Progress**

CONTENTS

1. Relevant Background - JHC Cobot Product Roadmap

CNC Lathe, Servo System,
Execution System



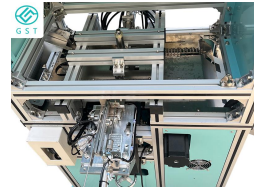
■ ECB-A486



2008

2005

Automation Equipment,
Servo System, Sensors



■ KMDA-2602



2018

2017

Hybrid Robot, Smart Devices
with Extended Functions



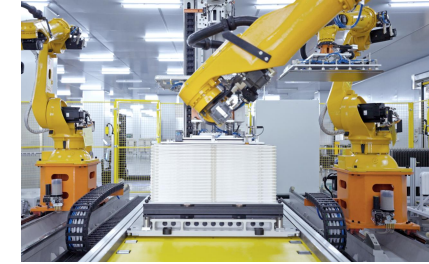
■ KGEK-6300



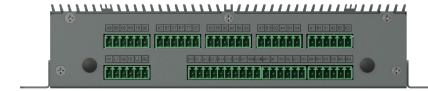
2022

2020

Energy Storage Automation Retrofit



■ ECC-U5000



2025

2024



■ FEBC-3510



Turnstile Control, Servo
System, IoT, Perception



■ BRAV-7520



Smart Manufacturing,
LiDAR, Cameras



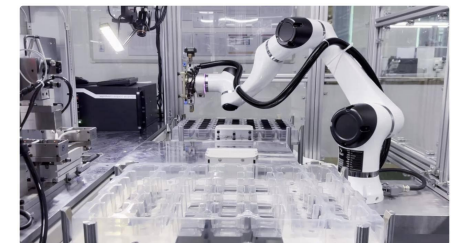
■ KMDA-6920



High-Performance Industrial
Automation, Computing Power
Expansion

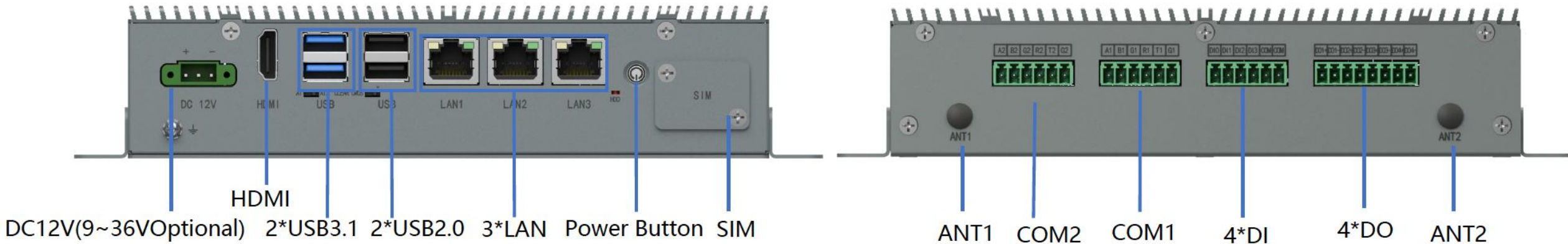


■ KMDA-2631



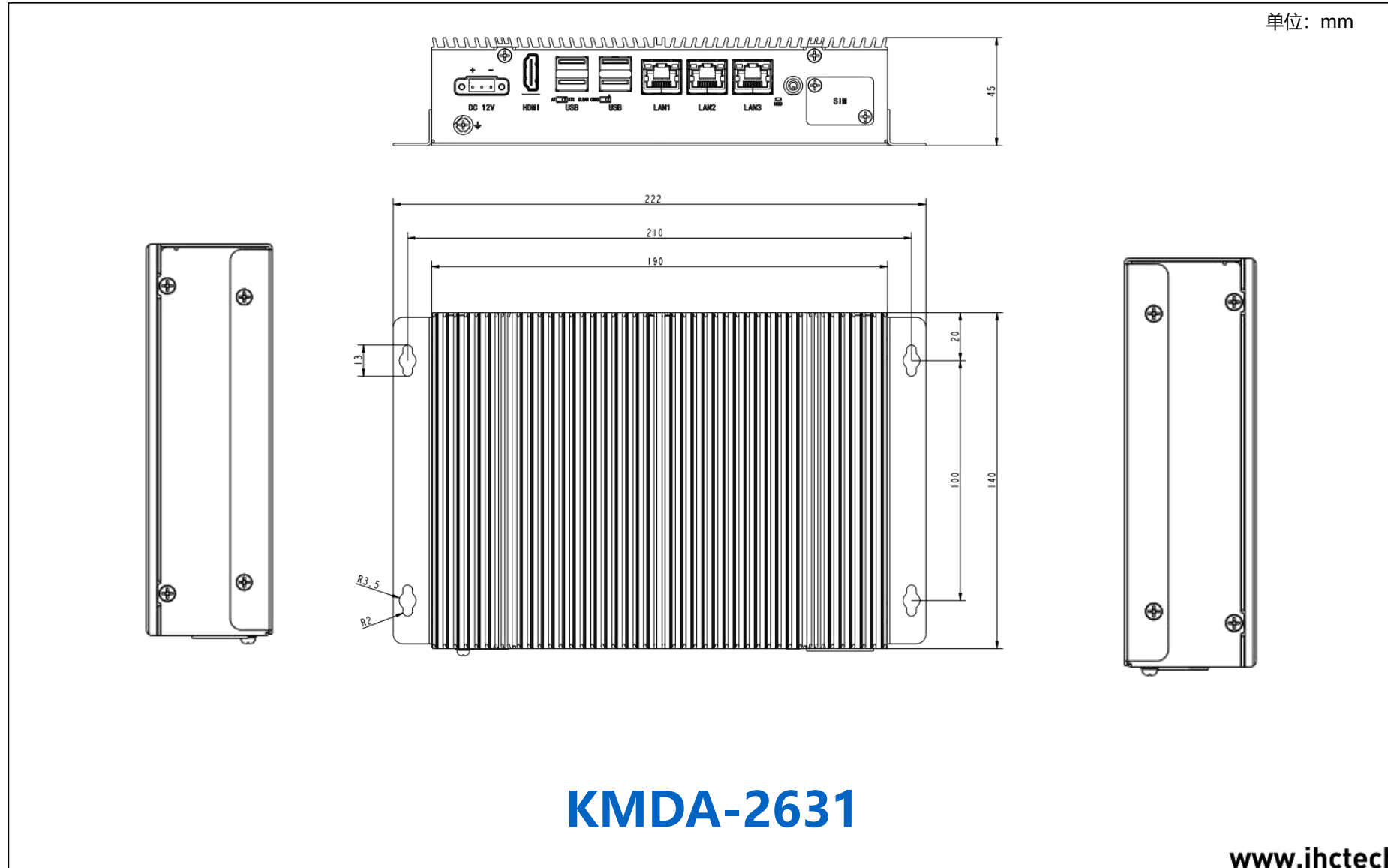
Multi-IO High Real-time Cobot
Controller
www.jhctech.com.cn

	KMDA-2631-S001	KMDA-2631-S001-WP
Processor	Intel® Elkhart lake Soc CPU	
RAM	1*DDR4 3200MHz SODIMM, supports up to 32GB	
Storage	1*mSATA, 1*SATA3.0	
Audio & Video	1*HDMI 2.0 port, supports up to 4096×2304@60Hz resolution	
Communication Interfaces	3*Gigabit Ethernet ports (RJ45) ; 2*USB3.0 (TypeA), 2*USB2.0 (TypeA) 4*DIO (Optocoupler and Relay Isolation) 2*RS485/232	
Expansion Interfaces	2*Mini-PCle, with PCle x1 and USB 2.0 signals, expandable with PCle-based function modules: 1*MiniPCle, with SIM card slot, supporting 4G module; 1* Mini-PCle reserved for future expansion	
Dimensions & Structure	Fanless design, aluminum extrusion heatsink enclosure, SGCC chassis Main chassis dimensions: 190×140×45mm	
Power Supply	DC 12V power supply, with short circuit, overvoltage, and overcurrent protection	DC 9-36V power supply, with short circuit, overvoltage, and overcurrent protection
Operating Temperature	-20°C ~ 60°C, Airflow Required	



KMDA-2631

2.3 KMDA-2631 Product Features - Dimensions & Mounting Holes



2.4 Product Features – KMDA-2631 Highlights



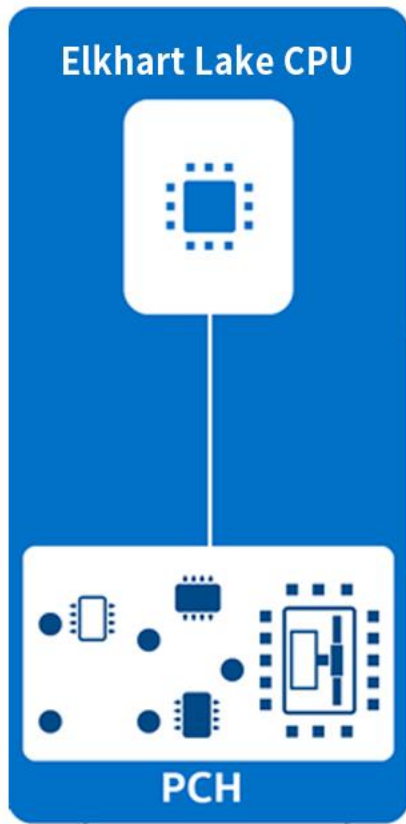
1 High-Performance
Hardware
Configuration

2 Compact
Design, Flexible
Adaptation

3 Fanless Cooling
Design

4 Versatile
Interfaces,
Seamless
Connectivity

5 Industrial-Grade
Reliability



Intel® Elkhart lake SoC CPU

Celeron J6412 2.0-2.6GHz 4 Cores, 4 Threads



1*DDR4 3200 MHz SODIMM, Supports up 32GB



4-channel DI, 4-channel DO, with relay and optocoupler isolation to ensure real-time IO communication



DC 12V Power Supply

Optional Wide Voltage Module, Supporting DC 9-36V Wide Voltage Input
Overcurrent and Overvoltage Protection

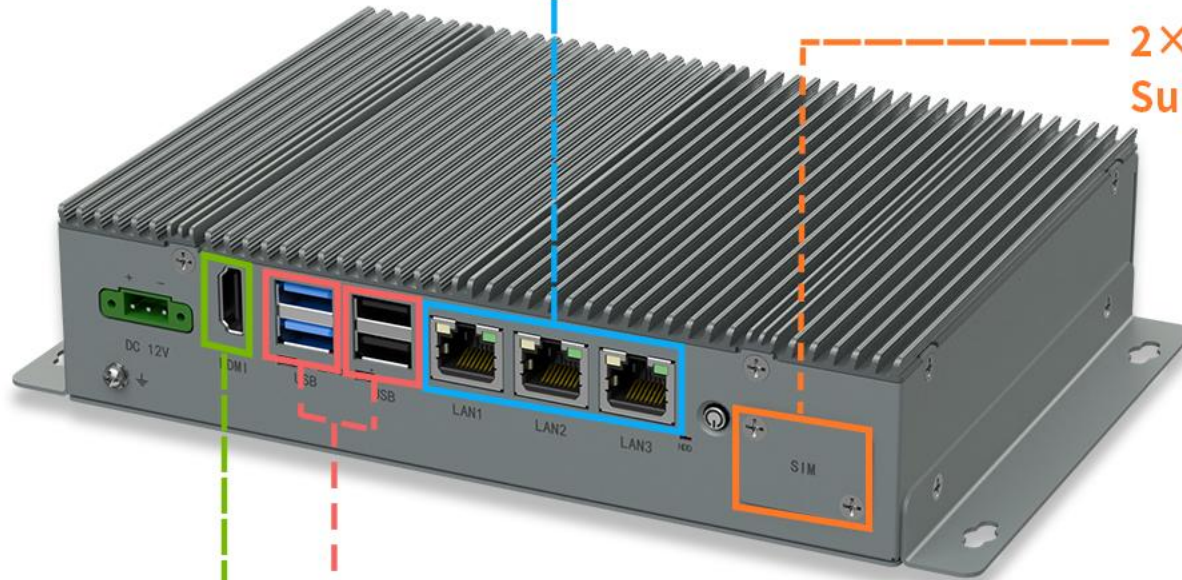
3 Gigabit Ethernet Ports with Independent Isolation Transformers, Ensuring Communication Speed and Signal Anti-interference Capability

2× Mini-PCIe Expansion Slots, Supporting Wi-Fi, 5G, 4G, and Other Wireless Communication

2 Selectable RS-485/232 Serial Ports, Supporting Common Sensor Communication for Collaborative Robots

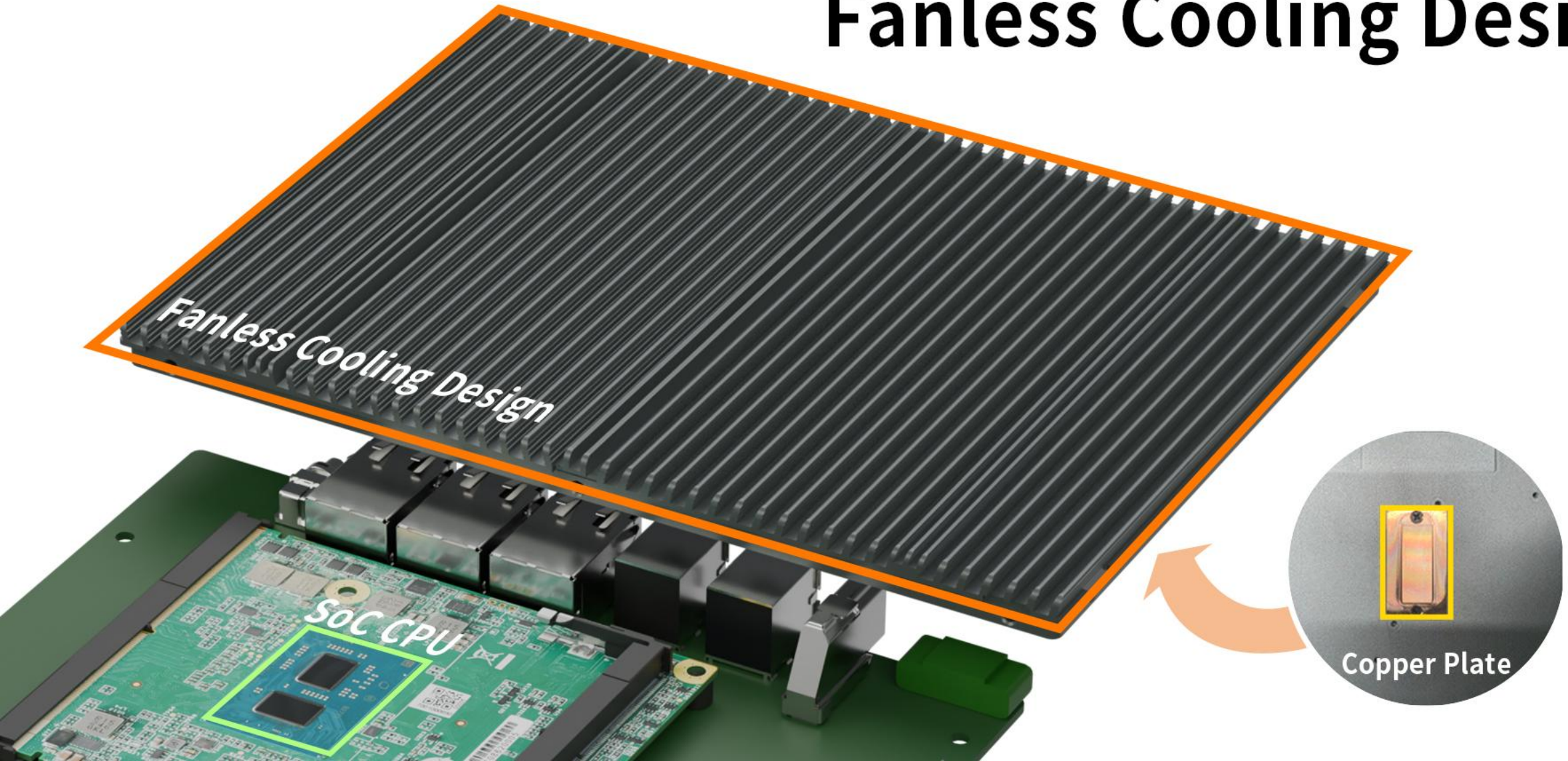
2 USB 3.0 Ports with Independent Bandwidth, 2 USB 2.0 Ports, Supporting Standard Vision Cameras, Sensors, and Other Communication Needs

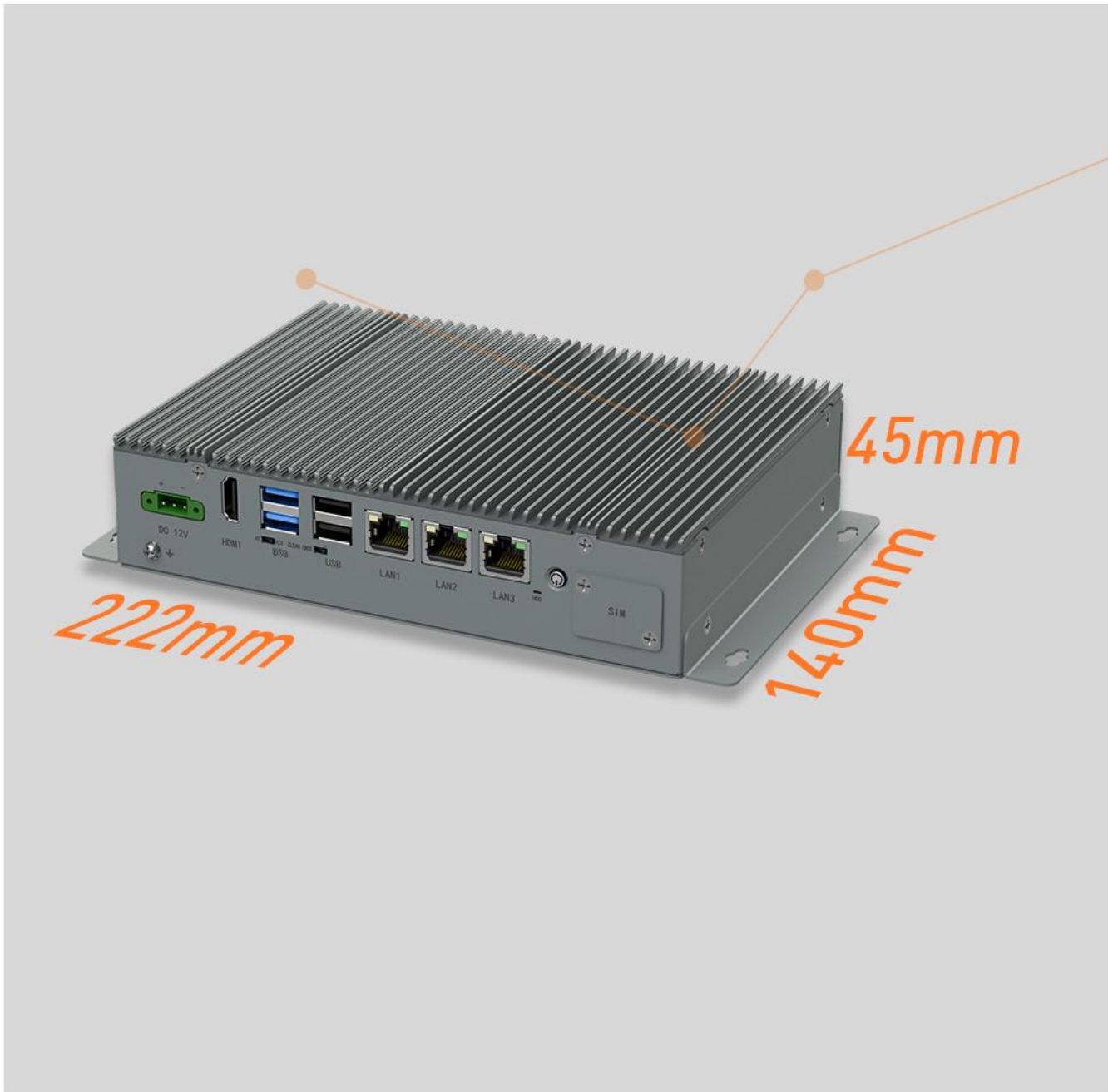
HDMI Interface, Supporting up to 4096×2304 Resolution



SoC CPU → Copper Plate → Aluminum Enclosure, with Thermal Grease for
Contact-based Heat Conduction to the Aluminum Heatsink Enclosure

Fanless Cooling Design

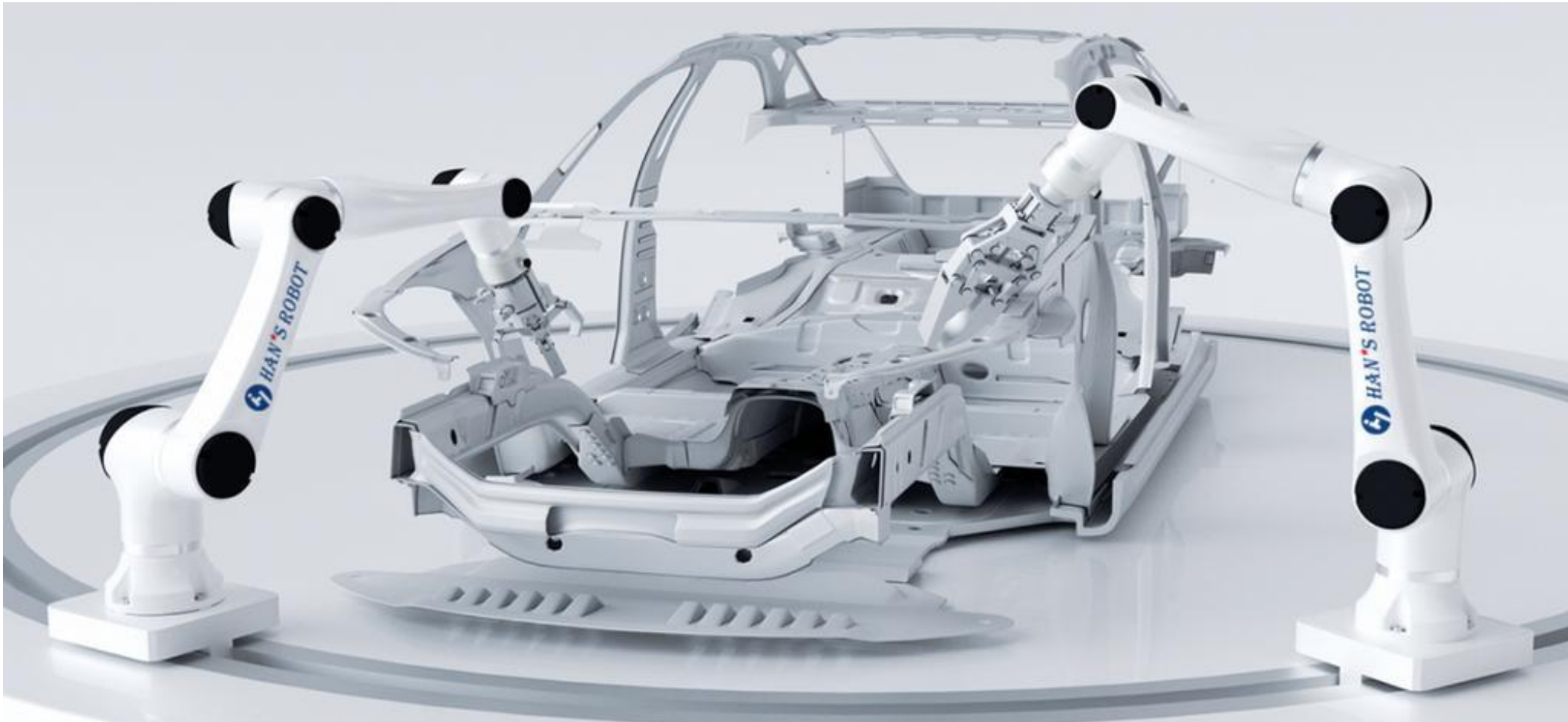




Weights Only **1.32 KG**

Compact Size of **222*140*45 mm** (Including Mounting Brackets)

Lightweight Design Perfectly Fits Cobots and Various Smart Devices

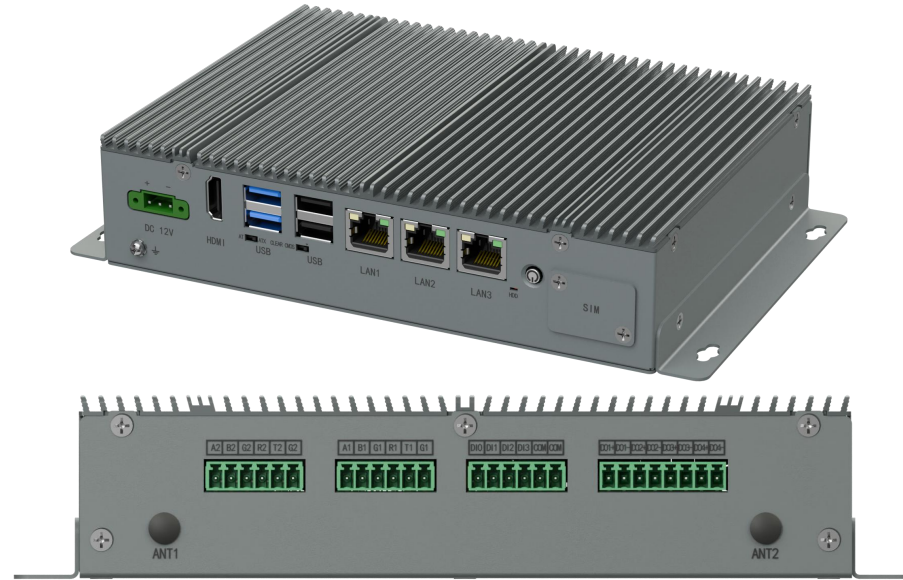


**Main
Controller
KMDA-2631**

Cobot Control in Industrial Manufacturing

4.1 Ordering Info-KMDA-2631

KMDA-2631



KMDA-2631/ S001	DC-IN 12V	Embedded Box PC, 2*COM, 2*USB3.1+2*USB2.0, 3*LAN, 1*HDMI, 1*mSATA, 1*SATA3.0, 2*Mini PCIe with PCIeX1 and USB2.0 signal (1 × Mini PCIe supports 4G with a SIM card slot; 1 × Mini PCIe expansion slot reserved) , 4*DI+4*DO
KMDA-2631/ S001-WP	DC-IN 9~36V (OFX-75)	
PA-60DC12 Component	AC/DC Adapter, DC12V/5A 60W+X Standard Power Cable	



KMDA-2631

Release Date

March 2025





Q&A

Q1: Is the CAN FD protocol of the 7123 and 7135 compatible with CAN 2.0?

A1: Yes, it is compatible with CAN2.0 protocol.

Stay in Touch



JHC Technology Development Co.,Ltd.



@ Shenzhen JHC Technology
Development Co., Ltd.



@JHCTECH



Website



Youtube

CONTACTS

Marketing Department

marketing@jhctech.com.cn

sales@jhc-technology.com

Customer Solution Manager

lisheng@jhctech.com.cn

