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New Product Launch

Get Started

Speakers



Reese Li

Customer Solution Manager
JHCTECH Shenzhen Office

BRAV-7821



**High-Efficiency
AI Edge Computing System**

New Product Launch Announcement

Time	Agenda
16:00 ~ 16:05	Opening Chi Wang, Marketing Manager, Shenzhen Office
16:05 ~ 16: 25	BRAV-7821 High-Efficiency AI Edge Computing System Launch Reese Li, Customer Solution Manager, Shenzhen Office
16:25~ 16:35	Q&A

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Webinar

New Product Launch Announcement

BRAV-7821

High-Efficiency AI Edge Computing System





- 01 BRAV Series Roadmap**
- 02 BRAV-7821 Key Features**
- 03 Market Direction**
- 04 New Product Progress**

CONTENTS

BRAV-7520/7521



BRAV-7720/7721(WP)



BRAV-7823
<Developing>

Intel® Coffee Lake-S

Intel® Comet lake-S

Intel® Tiger lake

Intel® Alder lake-S/
Raptor lake-S

Intel® Arrow Lake-H

Intel® Panther Lake-H



BRAV-7501 (EOL)



BRAV-7601



BRAV-7220



BRAV-7722
<New product>



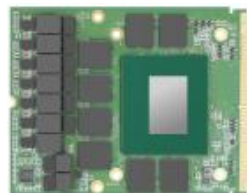
BRAV-7821
<New product>



NV MXM GPU



NV PCIe GPU



Arc A750E
<New product>

BRAV x86 ROADMAP

Product Specifications

Model	BRAV-7722	BRAV-7821
CPU	Intel® Alder lake-S/Raptor Lake-S/Raptor lake-S Refresh Core™ i9/i7/i5/i3/Pentium/Celeron	Intel® Core™ Ultra Arrow Lake-H: Ultra 5 225H, Ultra 7 255H
RAM	Dual-Channel 4*DDR5 5600 UDIMM, up to 192GB	Dual-Channel 2*DDR5-5600/6400 SODIMM, up 96GB
Graphics/Compute Performance	Intel® UHD Graphics 710/730/770 AI computing performance enabled via MXM GPU, up to 262 TOPS	Intel® Arc™ 130T(63T) Intel® Arc™ 140T(74~77T) 1*NPU(Intel® AI Boost 13T)
Display / Audio	4*HDMI,1*Audio Out	1*DP+1*HDMI; Audio Out +Mic
I/O	3*G-LAN RJ45 (one optional for IPMI), 4*USB3.2, 2*RS232/422/485	3*G-LAN RJ45(one supporting iAMT) 2*USB3.2+2*USB2.0, 2*RS232/422/485
Expansion	1*M.2 E-Key 2230 (for BMC), 1*M.2 B-Key3042/3052 w/SIM, 1*M.2 2280 M-Key 1*MXM3.1 (supports Arc and NV GPU)	1*M.2 B-key 3052 w/SIM, 1*M.2 E-key 2230 1* Mini PCIe Full size (PCIeX or SATA3.0) 1*PCIeX6(3.0 X8)
Storage	1*mSATA(optional PCIeX1), 1*M.2 NVMe 1* 2.5" SATA hot-swappable drive bay	1*mSATA(optional PCIeX1), 1*M.2 NVMe, 1* 2.5" SATA hot-swappable drive bay
Power	DC 19V power input	DC 12V power input
Dimensions	330*240*100mm(excluding mounting brackets)	280.0*198.8*90mm(excluding mounting brackets)

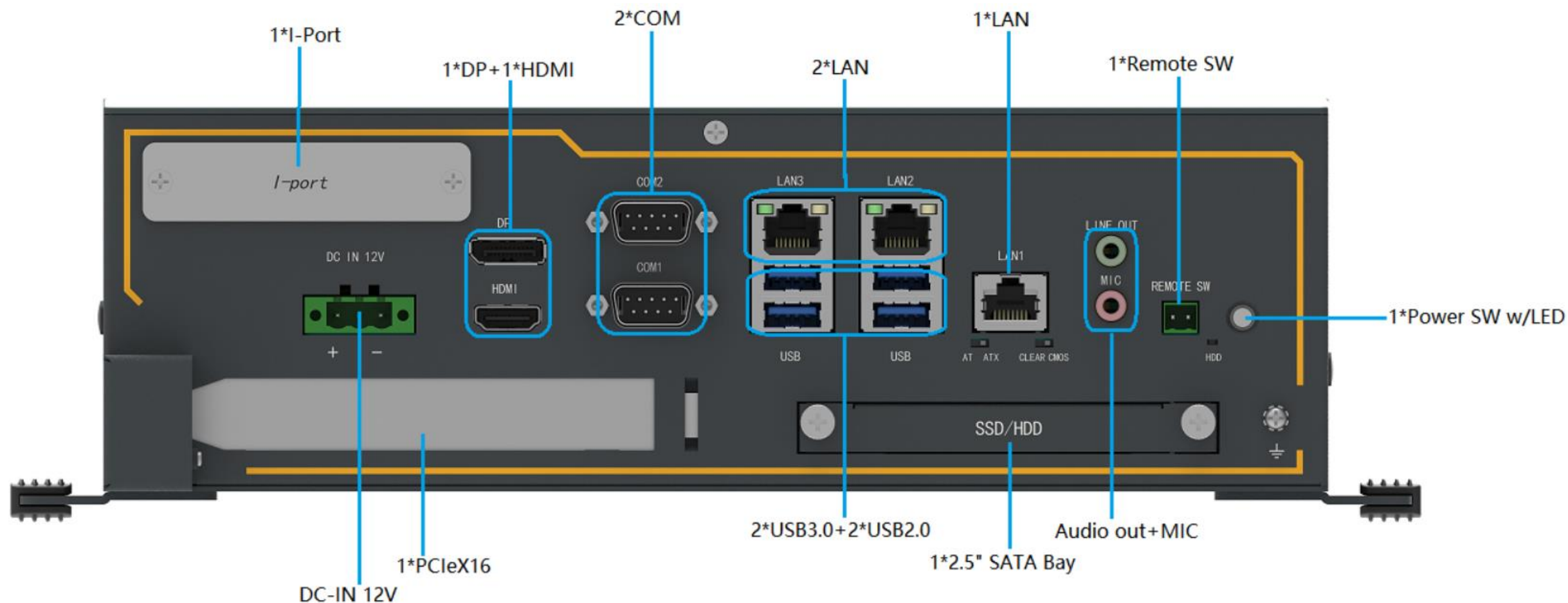


BRAV-7722

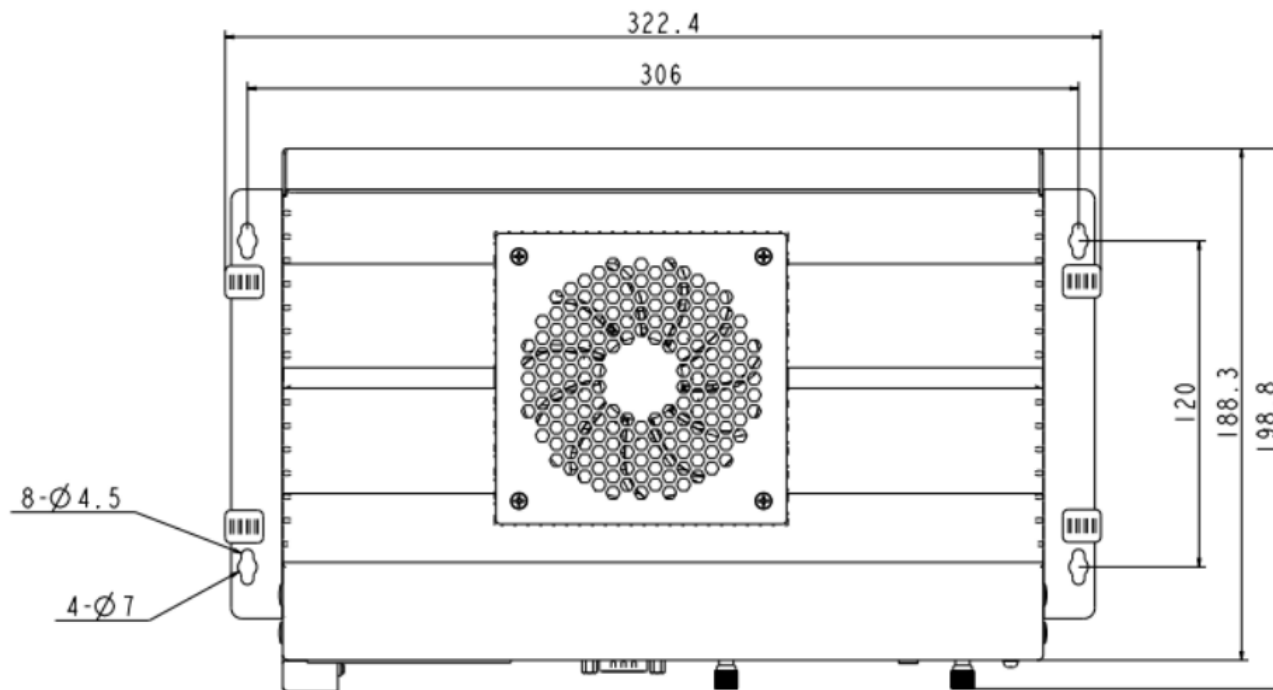
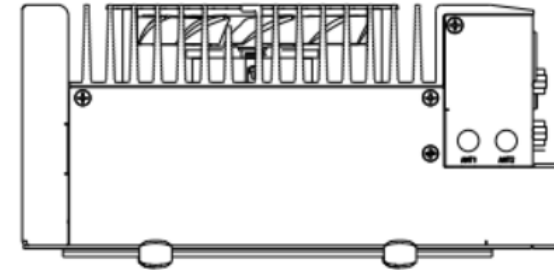
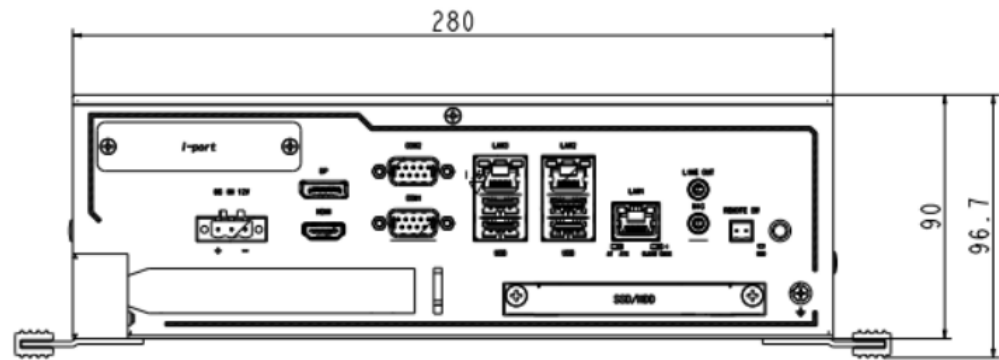


BRAV-7821

■ BRAV-7821 I/O Interface Overview



■ BRAV-7821 Dimensions



W*L*H:

280*198.8*90mm (main chassis)

322.4*198.8*96.7mm (with mounting brackets and foot pads)

BRAV-7821

Product Highlights

- ★ **Intel x86 AI-PC Processor Platform**
- ★ **Low Power Consumption, High Energy Efficiency**
- ★ **Easy Management and Maintenance**
- ★ **Industrial-Grade Reliability**
- ★ **Rich I/O and Expansion for Diverse Applications**
- ★ **Rack-Mount Optimized Mechanical Design**

1

Intel Arrow lake-H CPU

All-new CPU architecture with strong openness, supporting Windows and Linux operating systems

2

Low-power SoC + AI Acceleration Engine

*Ultra 7 255H: Up to 96 TOPS , TDP28W, 3.4TOPS/W
Ultra 9 285H: Up to 99 TOPS, TDP45W, 2.2TOPS/W*

3

Supports Remote Management and Maintenance

Intel® vPro™ / AMT for LAN-based hardware management, OTA support for remote software updates

4

Industrial-Grade High-Reliability Design

- *Industrial-grade components, isolated communication interfaces, EMC Level 3*
- *Advanced thermal design, operating temperature: –20°C to 65°C*
- *Conformal-coated PCB, IP51-rated protection*

5

Flexible I/O and expansion for diverse applications

*1*G-LAN(iAMT)+1*G-LAN, 4*USB, 2* COM, 3*M.2+1*Mini PCIe+1*PCleX16(gen. 3.0 X8 signal)*

6

Application-driven mechanical design

Single-side I/O for space-saving installation and easy cabling

★ Intel X86 AI-PC Processor ■ BRAV-7821 Product Highlights

Intel Arrow Lake-H SoC CPU

1) **Meteor Lake**, built on the **Intel 4 process technology**, delivers significant improvements compared to 13th and 14th Gen Intel® Core™ mobile CPUs:

- Up to **70% higher AI efficiency**
- Up to **2× iGPU graphics performance**
- Up to **25% lower power consumption**

2) **Arrow Lake** offers **2.2× to 2.5× higher overall performance** compared to Meteor Lake.

3) Supports **Windows 10, Windows 11, and Linux operating systems**, making it suitable for projects requiring high efficiency, security, and broad compatibility.

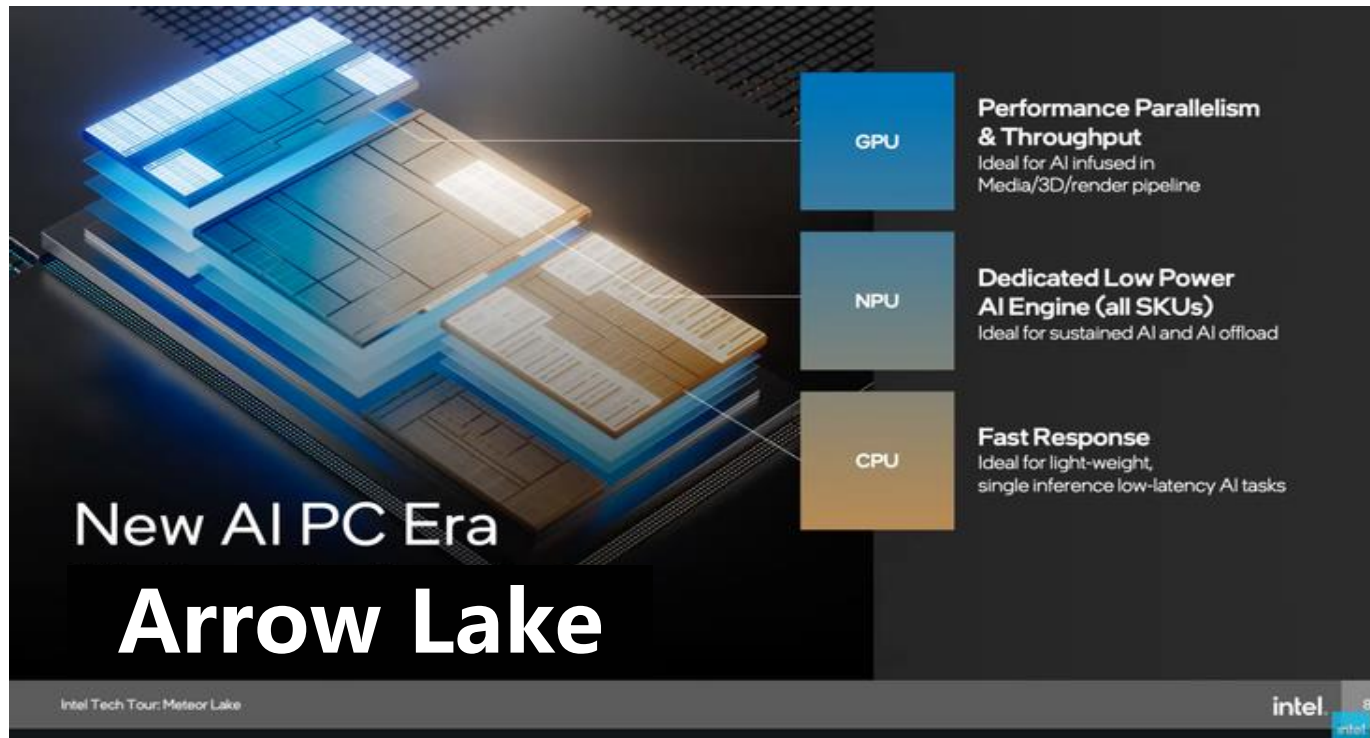


Significant efficiency and performance improvements

Up to
70%
Faster AI Performance
Faster
Generative AI Speed

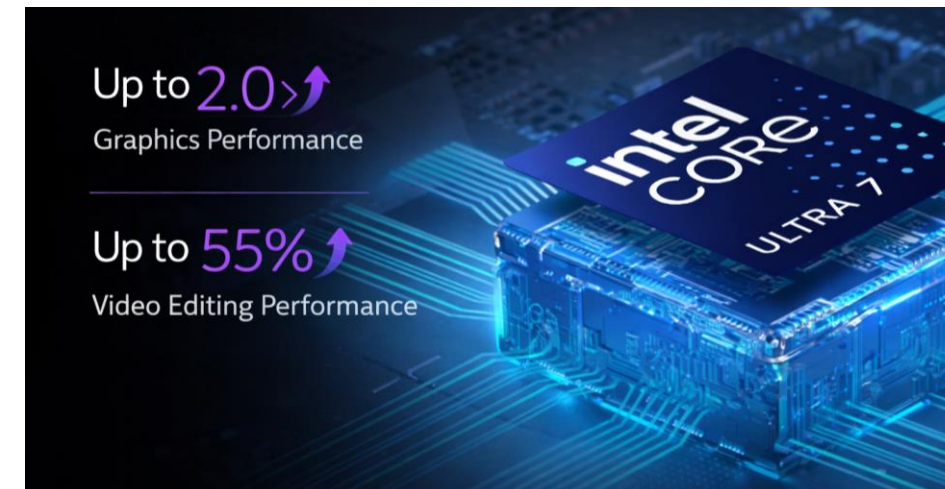
Up to
2x
Greater GPU Performance
Powered by
Dedicated Newest GPUs

Up to
25%
Power Savings
Reduced
Processor Power



Up to **2.0x**
Graphics Performance

Up to **55%**
Video Editing Performance



■ BRAV-7821 Product Highlights

★ Low Power Consumption with High Energy Efficiency

CPU+iGPU+NPU

➤ Intel® Core™ Ultra 7 255H Platform:

CPU: **9 TOPS** + Intel® Arc™ iGPU: **74 TOPS** + AI Boost NPU: **13 TOPS**
= **Total AI performance: 96 TOPS (INT8)**
MCP package TDP: **28W**; AI performance efficiency: **3.4 TOPS/W**

Ultra 7 255H CPU+iGPU+NPU

Supports perception fusion computing for 8× 1080p cameras and 4× radar inputs, with latency as low as 28 ms

➤ Intel® Core™ Ultra 9 285H Platform

CPU: **9 TOPS** + Intel® Arc™ iGPU: **77 TOPS** + AI Boost NPU: **13 TOPS**
= **Total AI performance: 99 TOPS (INT8)**
MCP package TDP: **45W**, AI performance efficiency: **2.2 TOPS/W**

Intel® Core™ Ultra 9 285H (CPU + iGPU + NPU)

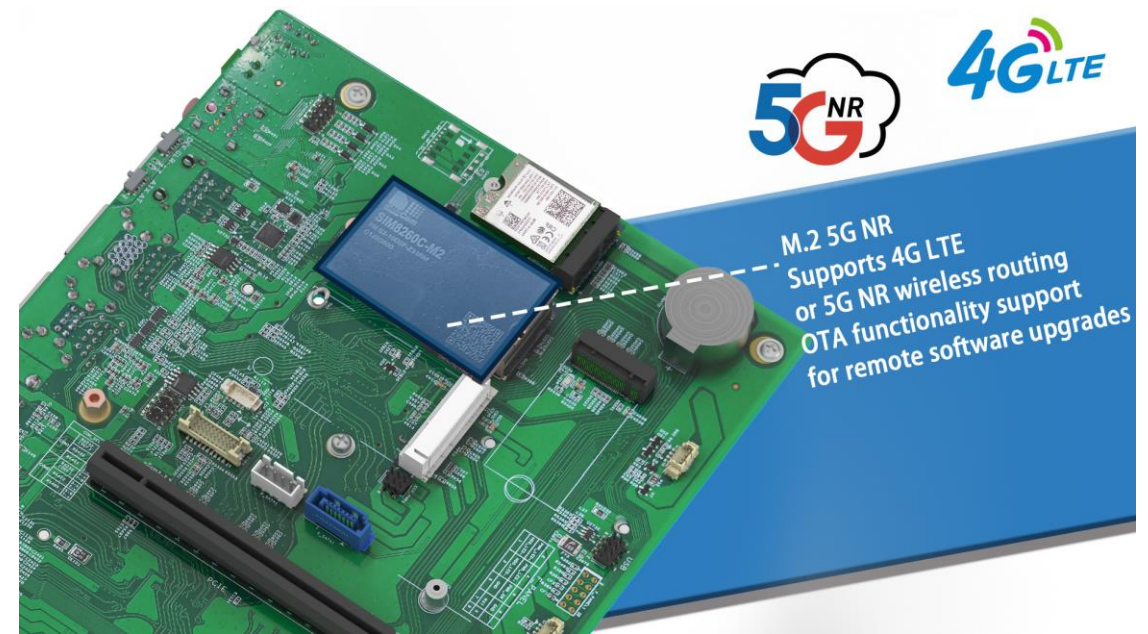
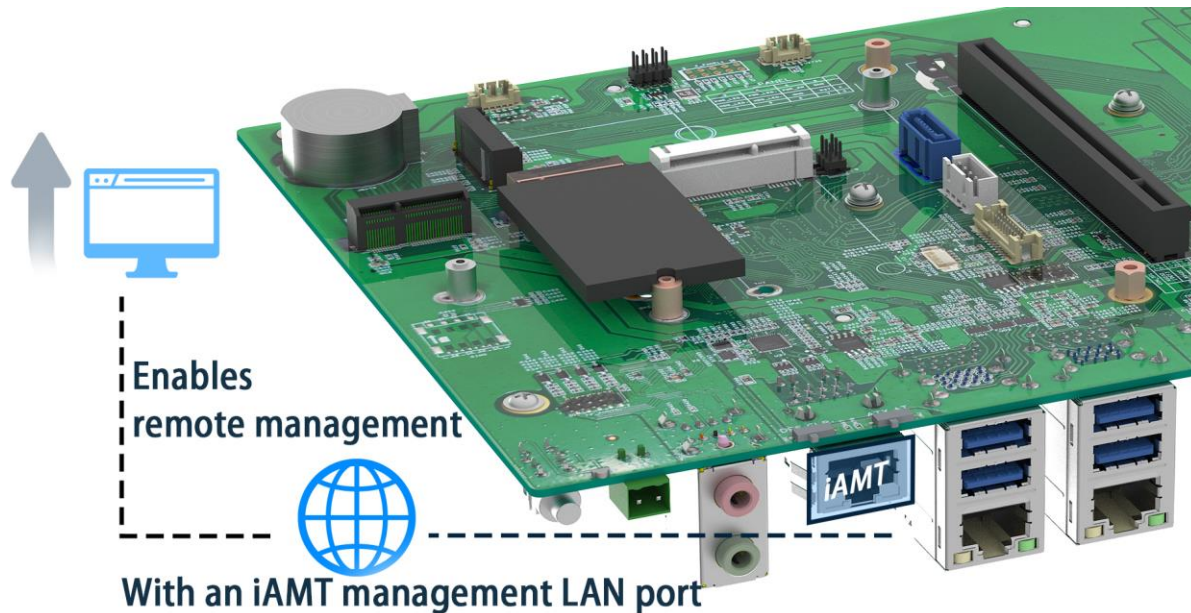
Supports perception fusion computing for 8× 1080p cameras and 4× radar inputs, with latency as low as 25 ms

★ Easy Management and Maintenance

■ BRAV-7821 Product Highlights

Supports Remote Management and Maintenance

- 1) Equipped with an **iAMT-enabled management LAN port** for remote hardware-level management and maintenance;
- 2) Supports **4G LTE or 5G NR wireless connectivity** and **Wi-Fi 6**, with **OTA (Over-the-Air) capability** for remote software upgrades



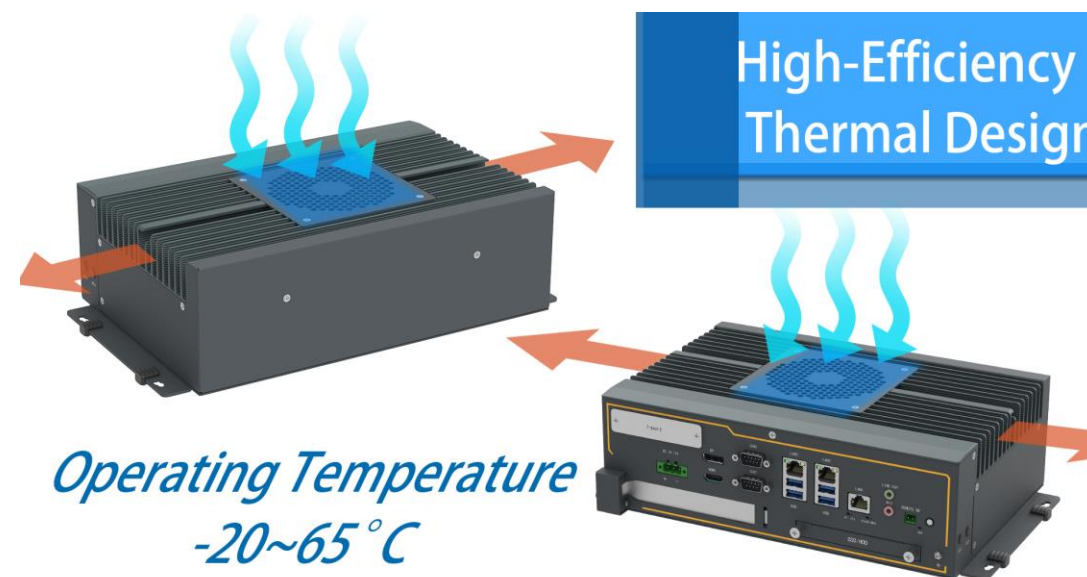
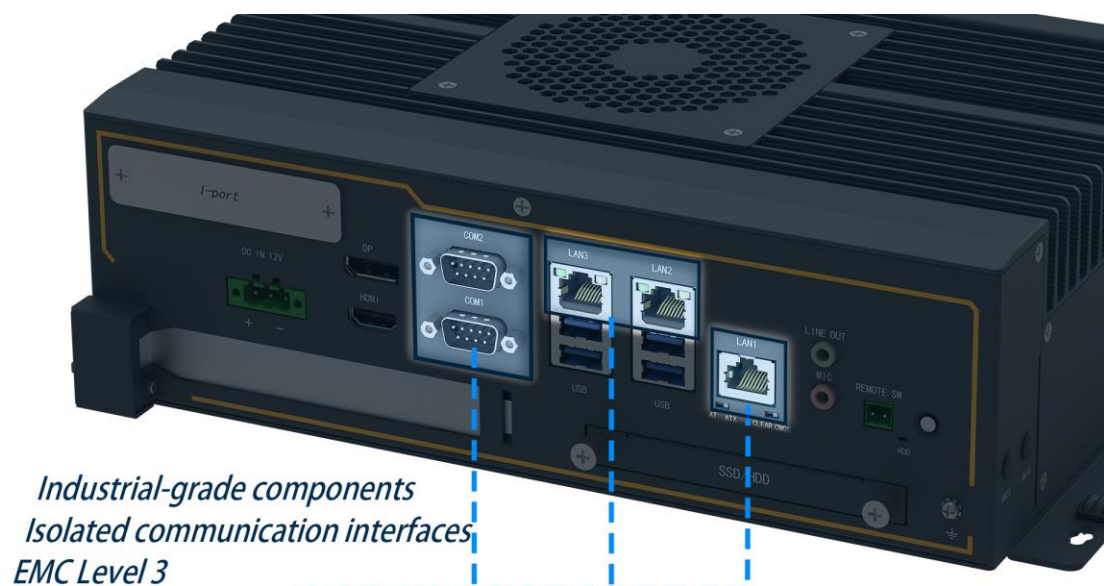
■ BRAV-7821

Product Highlights

★ Industrial-Grade Reliability

Designed with industrial-grade architecture and manufacturing processes

- 1) Industrial-grade components, isolated communication interfaces, EMC Level 3
- 2) Advanced thermal design with built-in copper heat pipe, operating temperature: **-20°C to 65°C**
- 3) Conformal-coated PCB, protection rating up to **IP51**

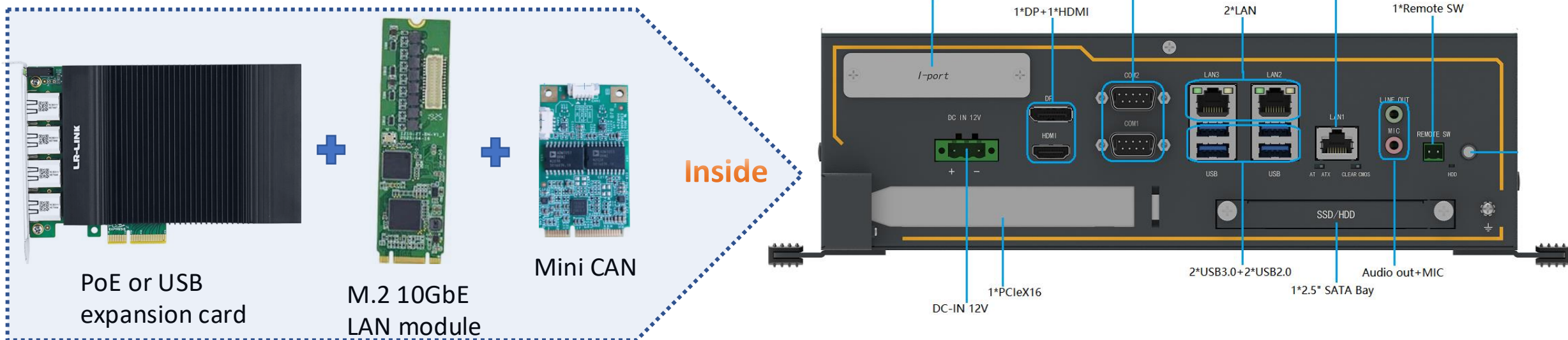


■ BRAV-7821 Product Highlights

intel + JHCTECH

- 1) 2*Intel I210 independent Gigabit LAN ports, 1*iAMT remote management LAN port, 2*USB3.2+2*USB2.0和 2* RS232/422/485 ;
- 2) 1*M.2 E-Key(Wi-Fi 6E & Bluetooth 5), 1*M.2 B-Key(4G LTE or 5G NR), 1*M.2 M-Key (optional 10GbE LAN module),1*Mini PCIe (supports dual CAN or dual Gigabit LAN expansion);
- 3) 1*PCleX16(3.0 X8 signal) , full-height half-length (130 × 170 mm) with DC 12V auxiliary power, supporting add-on cards up to 65W, such as a 4-port PoE+ LAN card, dual 10GbE fiber NIC, or 8-port USB 3.1 camera interface card.

★ Flexible I/O and expansion to fit diverse applications



■ BRAV-7821 Product Highlights

★ Rack-Mount Optimized Mechanical Design

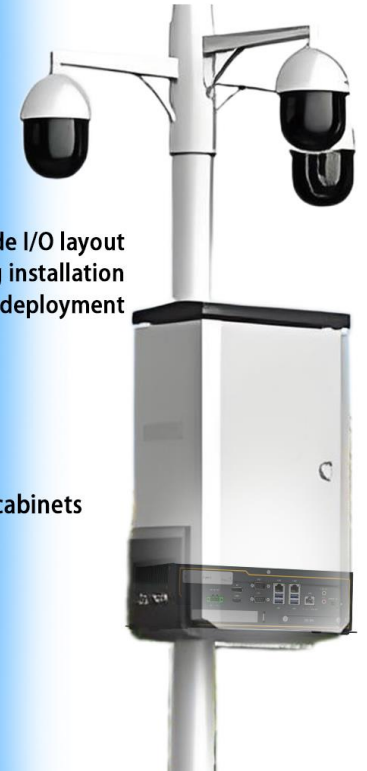
1) Single-side I/O layout saves installation space and simplifies cabling and deployment.

2) Compact enclosure design for desktop installation, suitable for mounting inside floor-standing cabinets or pole-mounted enclosures.



Single-side I/O layout
Space-saving installation
Easy cabling and deployment

General-purpose enclosure
Desktop installation
Suitable for mounting inside floor-standing cabinets



■ BRAV-7821 Ordering Info



Model	CPU	Specifications
BRAV-7821-S001	Intel® Core™ Ultra 5 225H	2× DDR5 SODIMM, 3× LAN, 2× USB 3.2, 2× USB 2.0, 1× HDMI, 1× DP, 2× COM, 1× Mic-in, 1× Line-out, 1× M.2 M-Key, 1× M.2 B-Key, 1× M.2 E-Key, 1× Mini PCIe (PCle x1/SATA 3.0), 1× PCIe x16 (x8 signal), 1× 2.5" SATA bay, DC-IN 12V
BRAV-7821-S002	Intel® Core™ Ultra 7 255H	
PA-120DC12	—	AC/DC power adapter, DC 12V / 10A (120W), with standard power cable
ECB-293 + ECD-2460	—	Industrial Mini PCIe dual Intel® I210/I211AT Gigabit LAN module, 2× RJ45 ports, with connection cables
ECB-260	—	Industrial Mini PCIe dual CAN bus module, supports CAN 2.0A & CAN 2.0B, 2500VDC isolation, with DB9 cable
PoE LAN Card	—	PCIe x4 4-port Gigabit PoE/PoE+ Ethernet frame grabber card
USB Camera Card	—	8-port USB 3.1 Gen1 frame grabber card with 4× independent USB 3 controllers

BRAV-7821 Market Direction

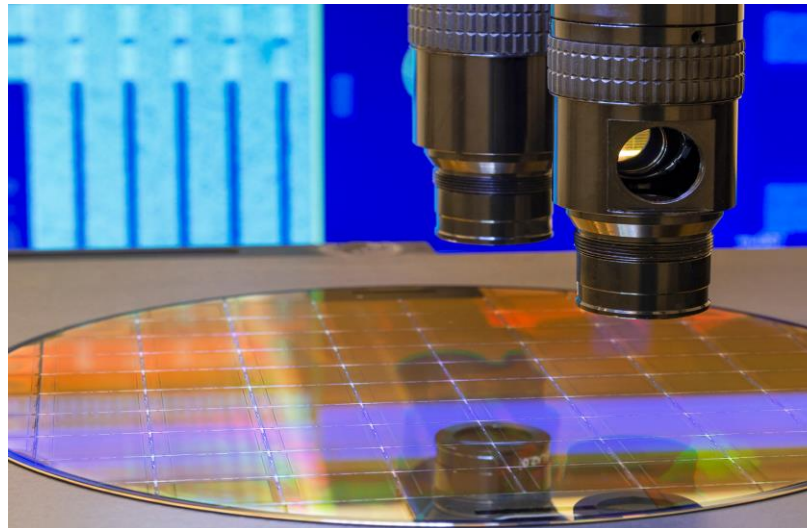
Medical Imaging

- ✓ Surgical Navigation
- ✓ Mobile DR / CR Systems
- ✓ Endoscopy
- ✓ Ultrasound Imaging



Machine Vision

- Surface Defect Inspection
- Semiconductor Visual Inspection
- Logistics DWS Sorting
- AI-Powered Inspection Systems

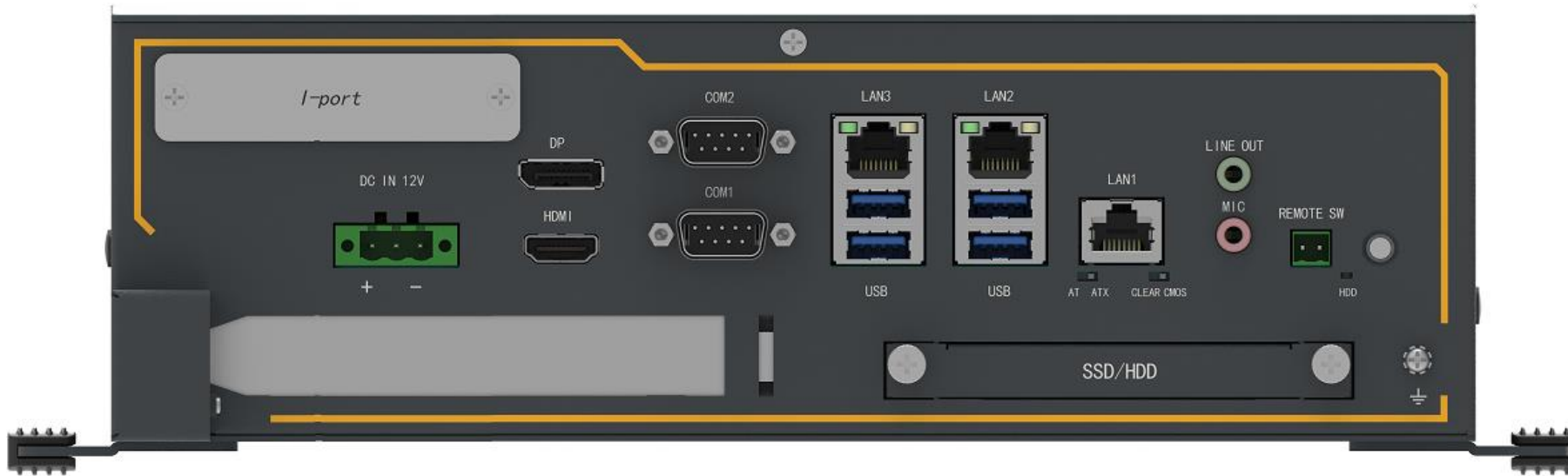


Intelligent Transportation Systems

- Roadside Edge Computing
- Highway Incident Detection



BRAV-7821 Product Progress



BRAV-7821 Pilot Production: Late March 2026



Q&A

Stay in Touch



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