

# Webinar

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





**JHCTECH**

IoT Computer  
Connecting the Dots

# New Product Launch

Get Started →

Speakers



Reese Li

Customer Solution Manager  
JHCTECH Shenzhen Office



# New Product Launch Announcement

Time	Agenda
16:00 ~ 16:05	<b>Opening</b> Chi Wang, Marketing Manager, Shenzhen Office
16:05 ~ 16: 45	<b>New Edge Perception Fusion MEC:</b> <b>BRAV-7722:</b> Powered by Intel® Alder lake-S/Raptor lake-S/Raptor lake-S Refresh series <b>BRAV-7820 :</b> Powered by Intel® Arrow Lake-H CPU Reese Li, Customer Solution Manager, Shenzhen Office
16:45~ 16:50	<b>Q&amp;A</b>




# New Edge Perception Fusion MEC

## BRAV-7722

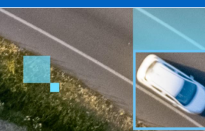




- 
- 01 BRAV Series Roadmap
  - 02 BRAV-7722 Key Features
  - 03 BRAV-7722 Ordering Specifications
  - 04 BRAV-7722 New Product Progress
  - 05 BRAV-7722 Market Direction

# CONTENTS

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# BRAV ROADMAP

**BRAV-7520(WP)/7521(WP)****BRAV-7720(WP)/7721(WP)****BRAV-7821**

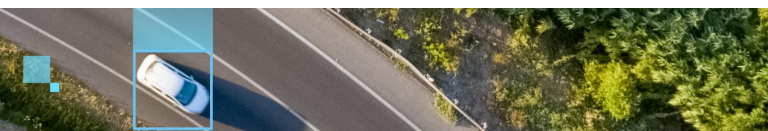
&lt;IN Design&gt;

Intel® Skylake-S/  
Kabylake-S

Intel® Coffee Lake-S

Intel® Comet lake-S

Intel® Tiger lake

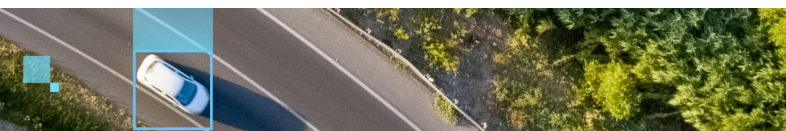
Intel® Alder lake-S/  
Raptor lake-SIntel® Meteor Lake-H  
Arrow lake-H**BRAV-7302****BRAV-7501****BRAV-7601****BRAV-7220****intel ai  
BRAV-7722**  
<New product>**intel ai  
BRAV-7820**



## ■ BRAV-7722 Product Specifications

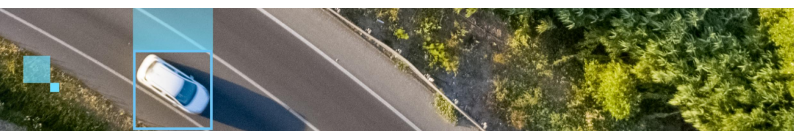
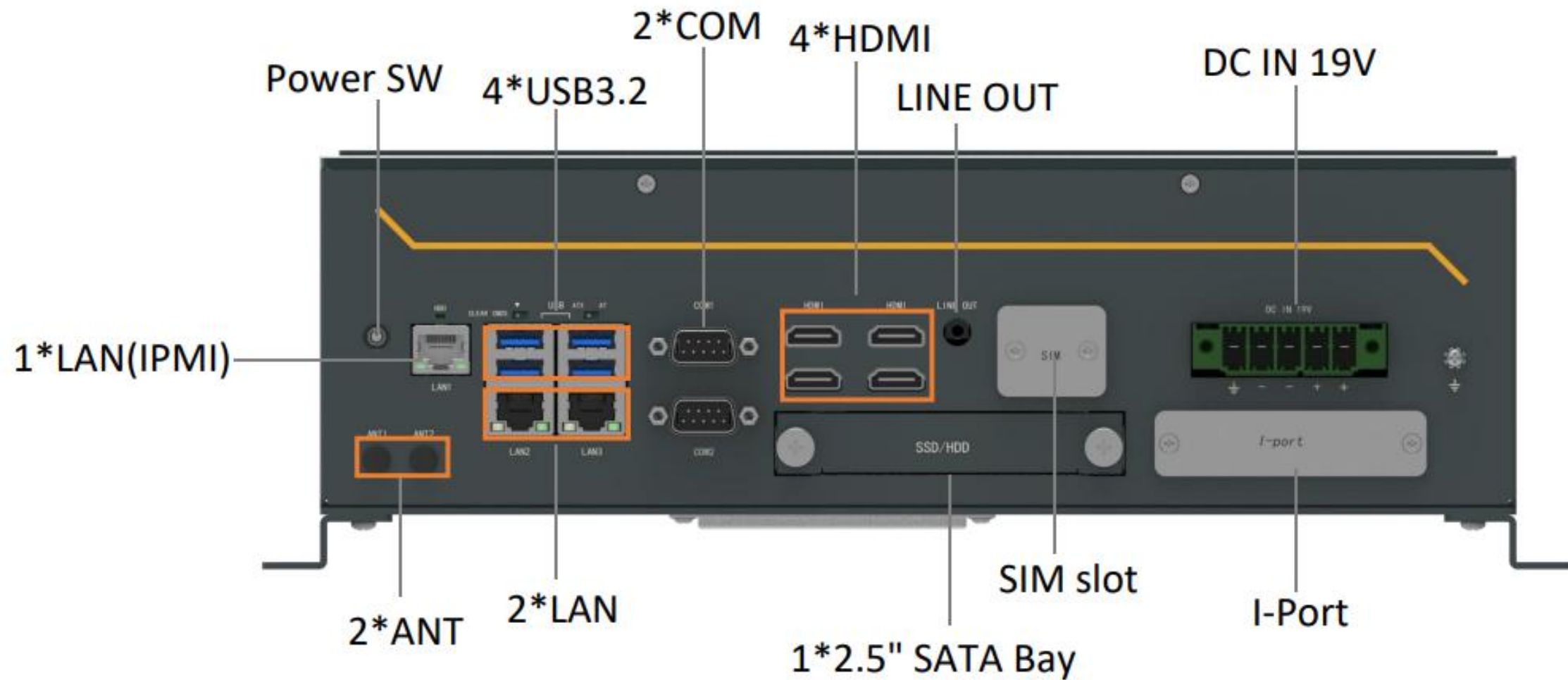


<b>CPU</b>	Intel® Alder lake-S/Raptor Lake-S/Raptor lake-S Refresh Core™ i9/i7/i5/i3/Pentium/Celeron
<b>RAM</b>	Dual-channel, 4*DDR5 UDIMM, up 192GB
<b>LAN</b>	3*1G-LAN (RJ45 w/LED, one optionally for IPMI)
<b>Display</b>	2*iGPU HDMI2.1 + 2*GPU HDIM2.1
<b>USB</b>	4*USB3.2
<b>COM Port</b>	2*RS232/422/485
<b>Audio</b>	1*Audio Line out (ALC 897 chips)
<b>Expansion</b>	1*M.2 E-Key 2230 (for BMC), 1*M.2 B-Key3042/3052 w/SIM(for 4G LTE or 5G NR), 1*M.2 2280 M-Key (for 10G-LAN或NVMe) 1*MXM3.1 (Arc A750E/A770 and Quadro A5000 GPU)
<b>Storage</b>	1*mSATA, 1*M.2 2280 M-Key NVMe, 1 × 2.5" SATA hot-swap drive bay
<b>Power</b>	DC 19V power input

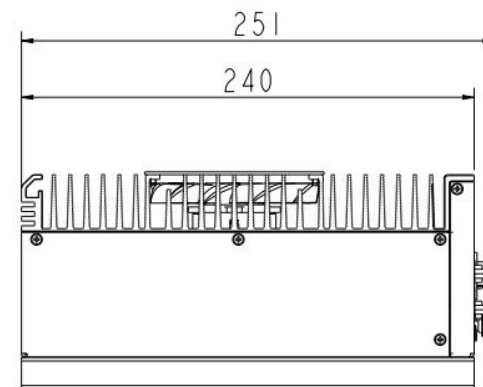
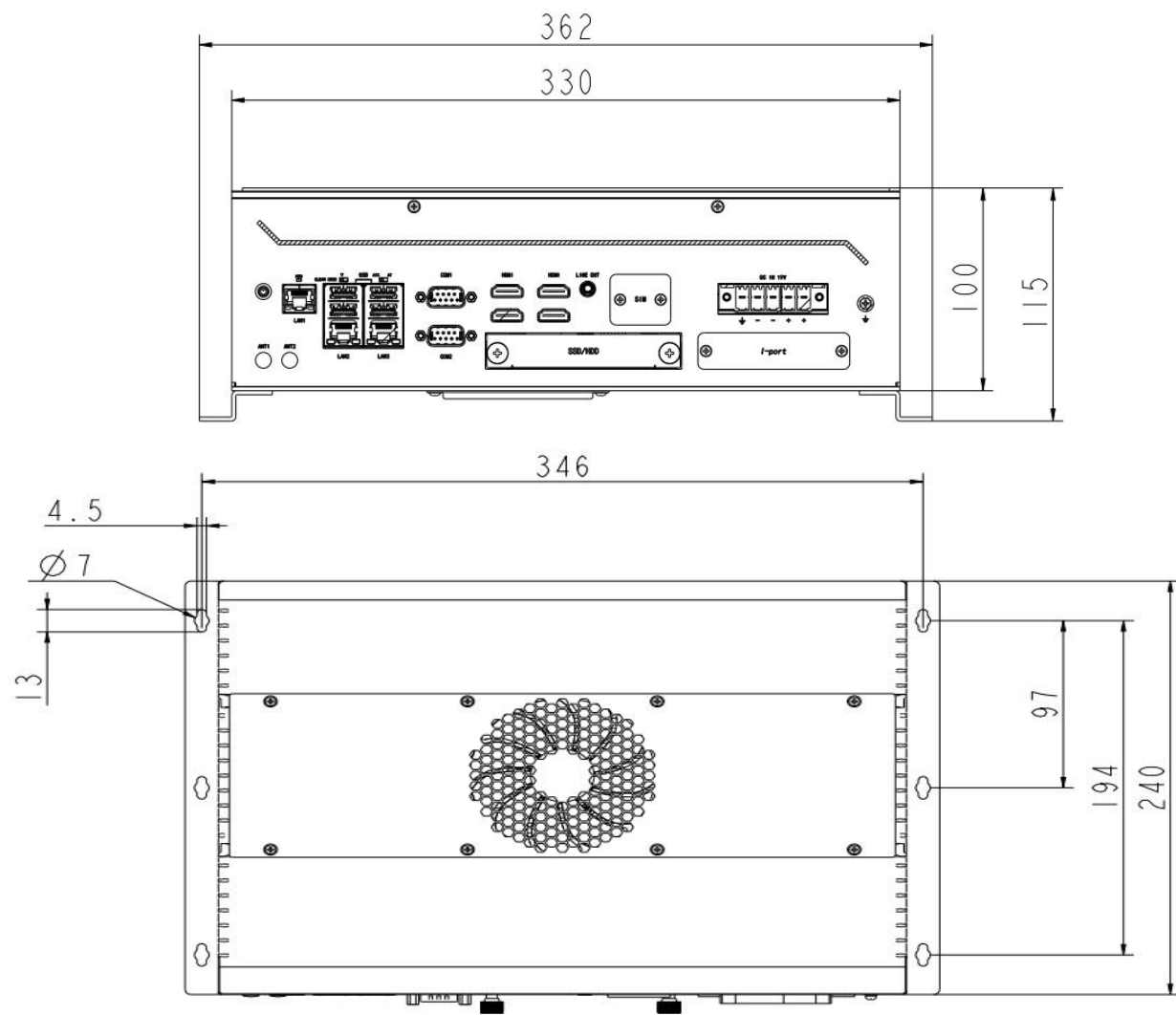




## ■ BRAV-7722 I/O Interface Overview

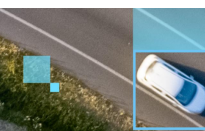


# ■ BRAV-7722 Dimensions Diagram



Width (W) × Depth (L) × Height (H):

- 330\*240\*100mm (main chassis)
- 362\*240\*115mm (with mounting brackets)





## BRAV-7722 Key Features

- ★ **Good openness with the Intel x86 platform**
- ★ **High AI inference performance**
- ★ **Easy to manage and maintain**
- ★ **Industrial-grade reliability**
- ★ **I/O design optimized for MEC scenarios**
- ★ **Structural design optimized for MEC scenarios**

**1**

### **Intel Alder lake-S/Raptor Lake-S CPU**

*Supporting Windows and Linux OS*

**2**

### **Intel Arc A700 Series MXM GPU**

*1\* MXM3.1, supporting Arc A750E/A770 GPU, also compatible with NVIDIA Quadro A5000 GPU*

**3**

### **Supports remote management & maintenance**

*Equipped with BMC and IPMI management port, supporting web-based remote hardware management and maintenance; also supports OTA function for remote software upgrades*

**4**

### **Industrial-grade high-reliability design**

*Industrial-grade electronic components with communication interface isolation protection, EMC compliance up to Level 3*

**5**

### **I/O design optimized for MEC applications**

*2\*G-LAN+1\*IPMI+ optional 10G-LAN, 4\*USB, 2\* COM,*

**6**

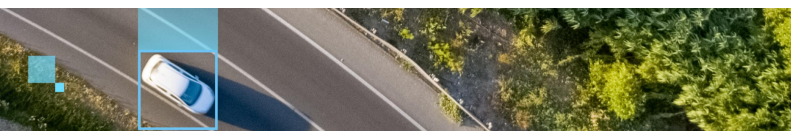
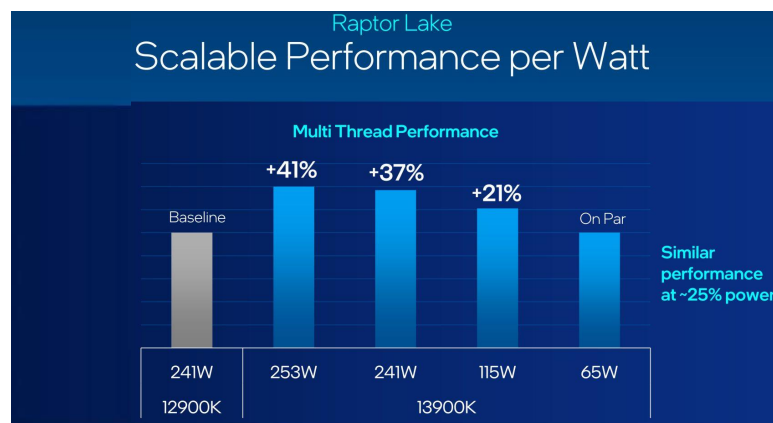
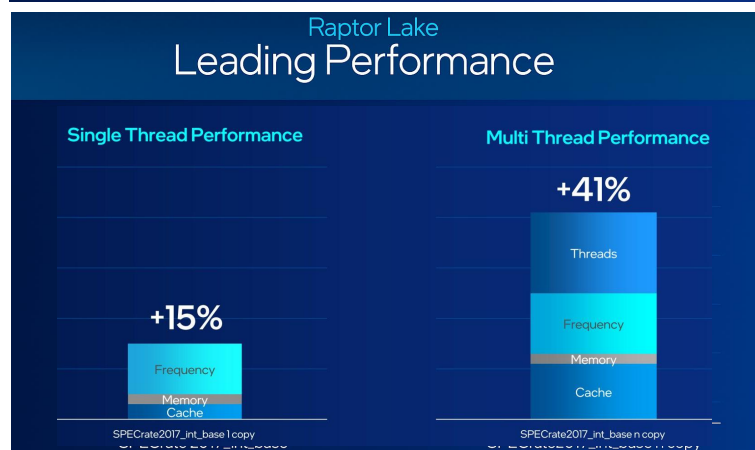
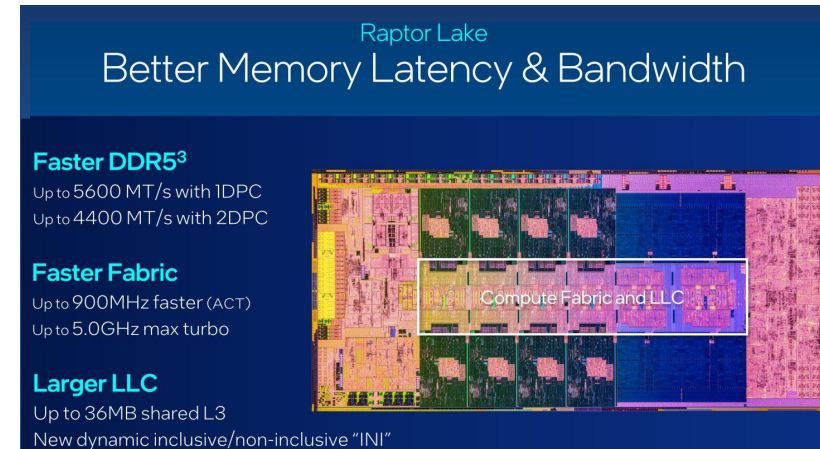
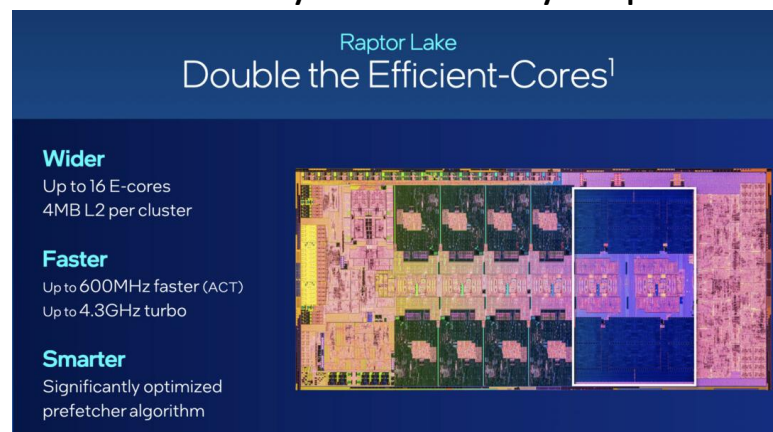
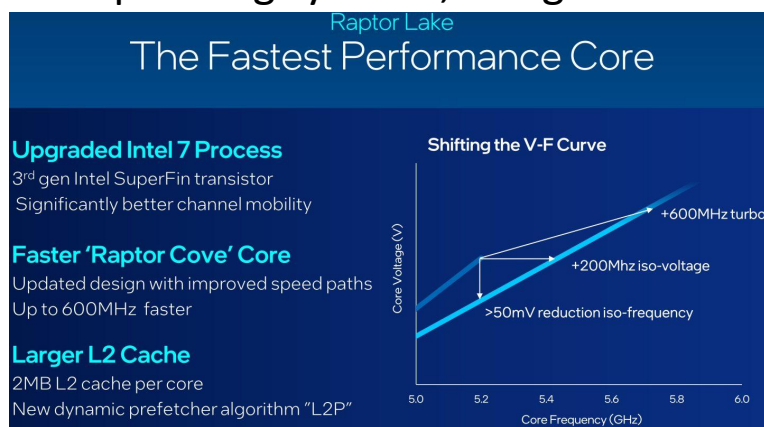
### **Structure and mounting designed for specific application scenarios**

*Single-side I/O layout to save installation space and simplify wiring*

# ★ Good openness with the Intel x86 platform

## Intel Alder lake-S/Raptor Lake-S CPU

A performance-and-intelligence integrated processor supporting Windows 10, Windows 11, and multiple Linux operating systems, designed to meet MEC efficiency and security requirements.

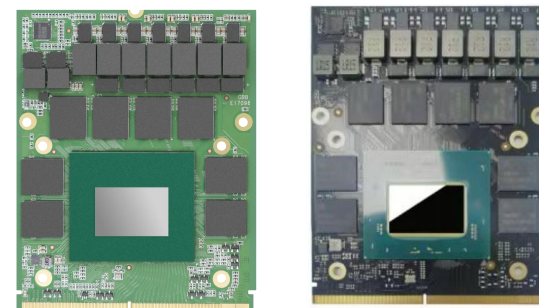




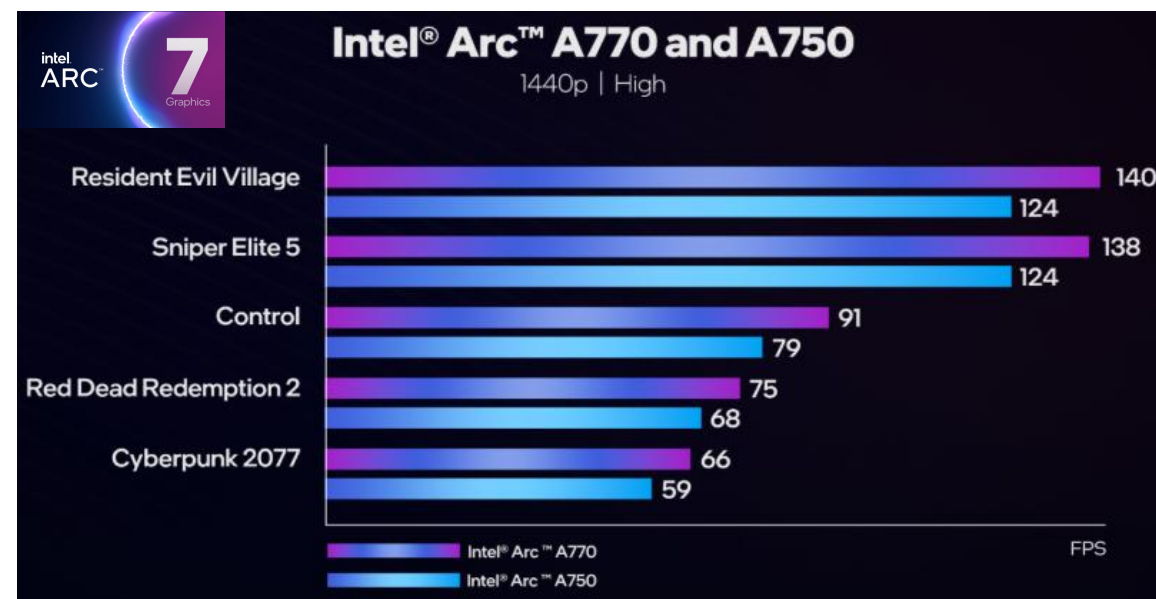
## ★ High AI inference performance

### Intel Arc A700 Series MXM GPU

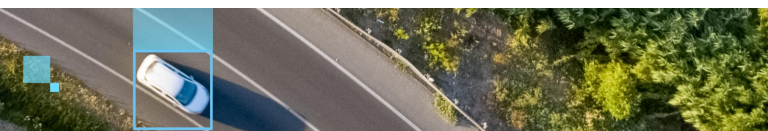
*1 × MXM 3.1, supporting Arc A750E GPU (229 TOPS) and Arc A770 GPU (262 TOPS). Supports OpenVINO™ application development, providing computing power for integrated vehicle-road-cloud edge perception and fusion.*



Performs perception and fusion processing for 16 channels of 1080p camera input and 4 channels of radar signals, with a latency of 22.40 ms.



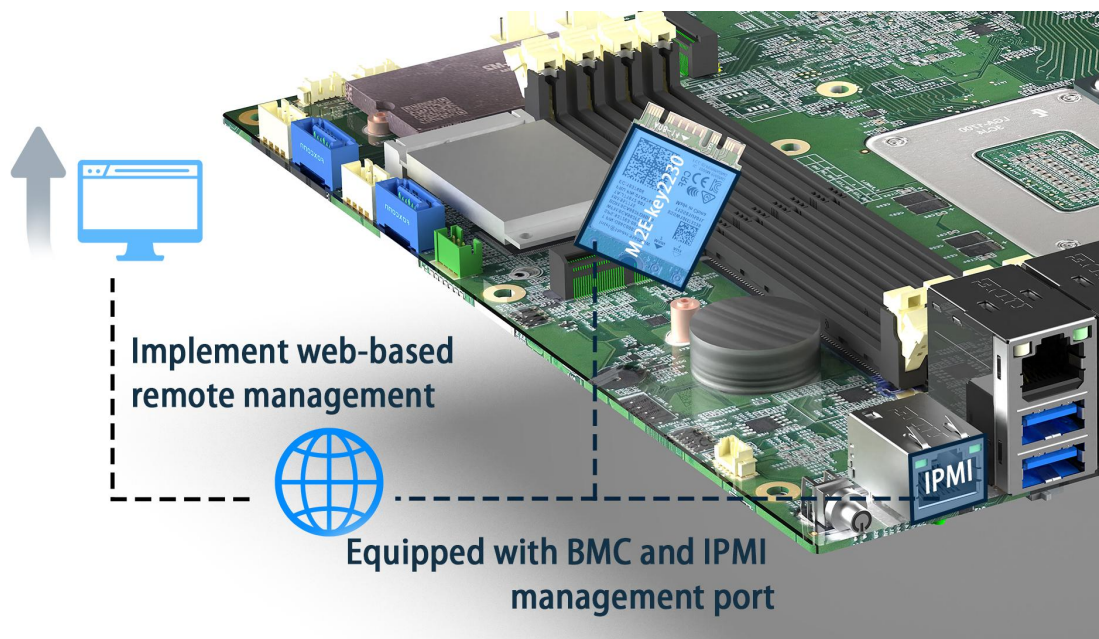
Data Source: Intel®



## ★ Easy to manage and maintain

### Supports remote management and maintenance:

1. Equipped with BMC and IPMI management port, supporting web-based remote hardware management and maintenance
2. Supports 4G LTE or 5G NR wireless routing and OTA functionality for remote software upgrades

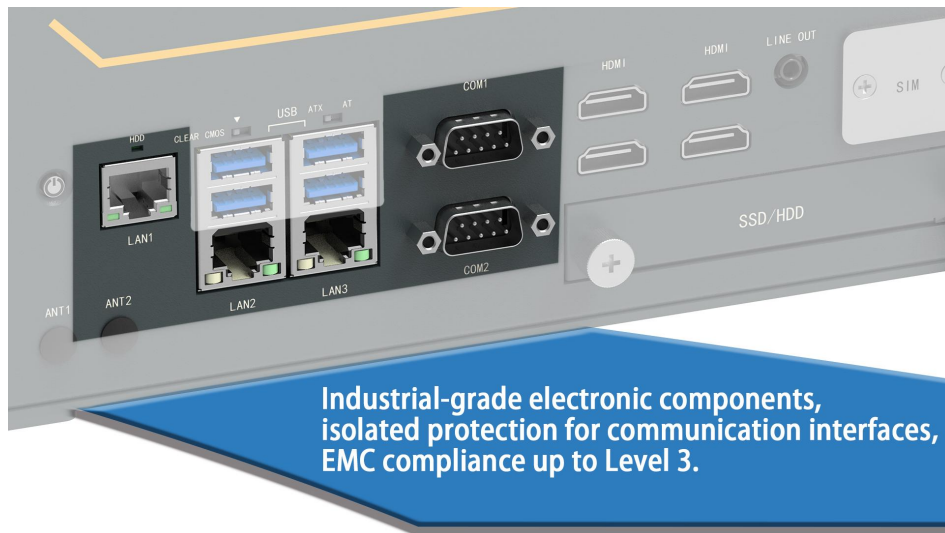




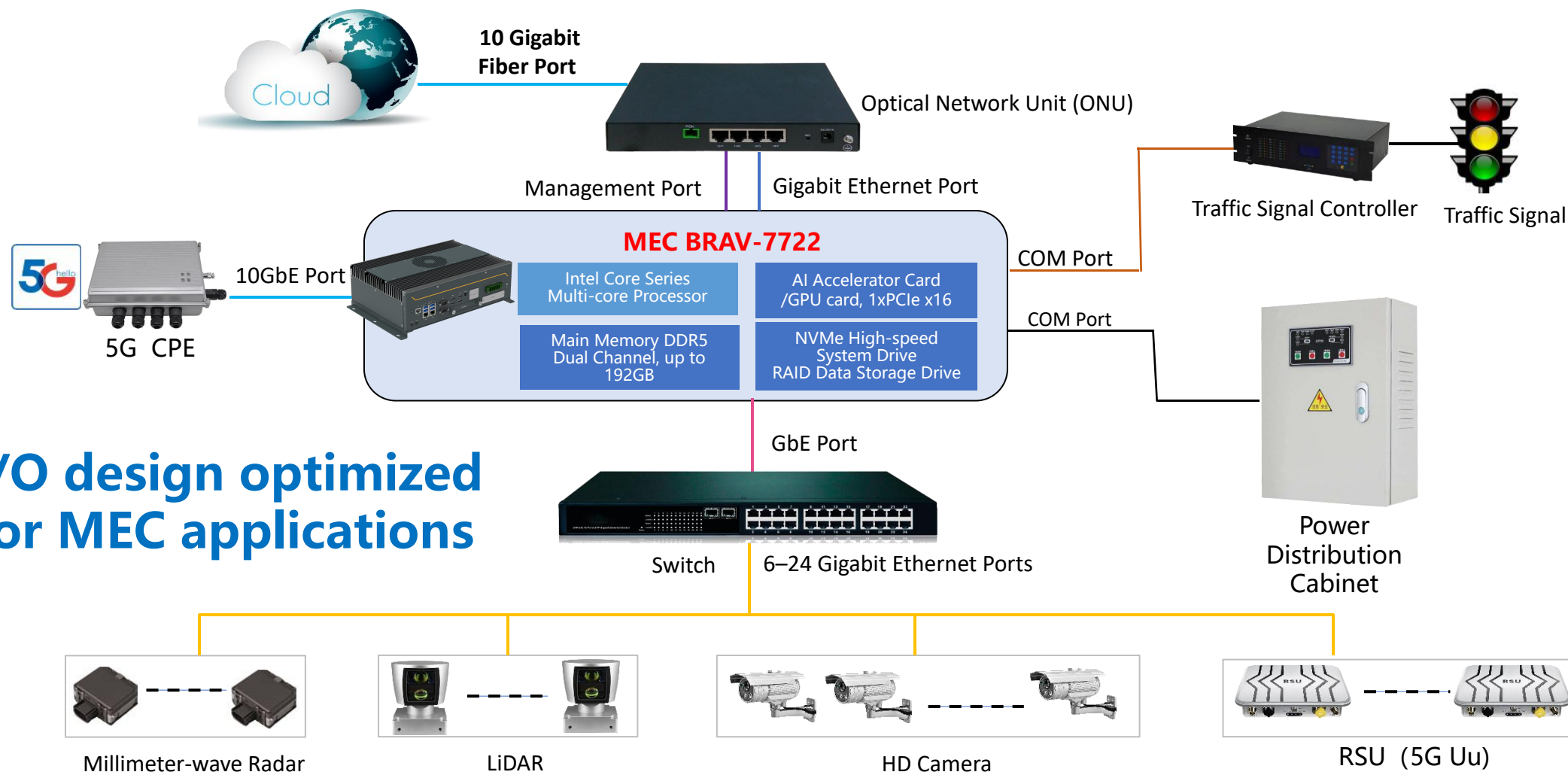
## ★ Industrial-grade reliability

### Adopts industrial-grade design and manufacturing processes

1. Industrial-grade electronic components, isolated protection for communication interfaces, EMC up to Level 3
2. GPU with VC vapor chamber high-efficiency cooling design, operating temperature: -20°C to 60°C
3. PCB with conformal coating to resist mold, moisture, and salt spray



*2 × Intel® I210 independent IP Gigabit Ethernet ports, optional 1 × 10GbE port, 1 × IPMI remote management port, 4 × USB 3.2, and 2 × RS-232/422/485 ports, meeting the communication and sensor access requirements of roadside MEC applications.*



★ **I/O design optimized for MEC applications**



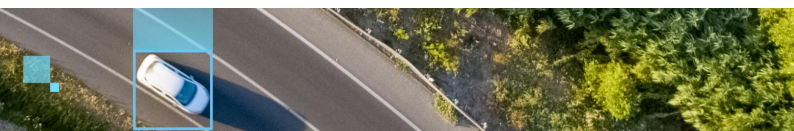
## ★ Structural design optimized for MEC applications:

- 1) Single-side I/O layout to save installation space, making wiring and installation easier
- 2) Medium-sized enclosure with desktop mounting, suitable for installation inside floor cabinets or pole-mounted boxes



Single-side I/O interface,  
space-saving design,  
easy wiring and installation.

Universal box,  
desktop installation,  
suitable for installation inside a floor-standing cabinet.



# ■ BRAV-7722 Ordering Info



## Ordering Info.

Model No.	Introduction
BRAV-7722/S001	Edge Computing system, Intel®12th Alderlake-S/13th Raptor lake-S/14th Raptor lake-S Refresh LGA1700 CPU, Q670 PCH, 4*DDR5 UDIMM, 4*HDMI, 1*Audio out, 3*LAN(One is optional as IPMI), 4*USB3.2, 2*RS232/422/485, 1*I-Port, 1*2.5" SSD/HDD, 1*Mini PCIe(optional mSATA) , 1*M.2 B- Key, 1*M.2 M-Key, 1*M.2 E-Key(BMC Interface) , DC-IN 19V.
MXM3.1 GPU	Intel Acr A750E/A770 ECM MXM GPU
ECB-327	Chipsea B2400 Chip, M.2 2230 E-Key BMC Module
PA-120DC19	AC/DC power adapter, DC19V/6.32A,120W
PA-550DC19	AC/DC power adapter, DC19V@28.95A ,550W



## ■ Arc A750E ECM 16G Ordering Info



Model	Specifications
Arc A750E ECM 16G	Intel ARC A75E GPU, 16GB GDDR6 memory, 3 × DP + 1 × HDMI display, MXM 3.1 Type B graphics module
MXM GPU Cooler Assembly	12V/5A fan, copper plate + 5 copper heat pipes + FIN aluminum heatsink

# BRAV-7722 New Product Progress



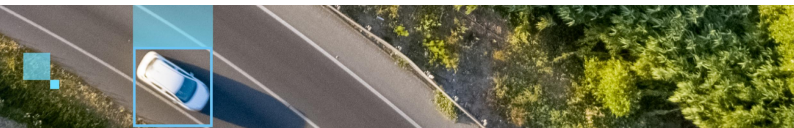
**BRAV-7722 small-batch production:  
Late August 2025**

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**Arc A750E small-batch production:  
Early September 2025**

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# BRAV-7722

## Market Direction

- 3C Machine Vision
- Logistics Vision Sorting
- Photovoltaic Vision Inspection

### Machine Vision

**01**

### Vehicle-Road-Cloud MEC

- Holographic Intersection (AI Traffic Signal Controller)
- Holographic Road Section (tunnels, bridges, etc.)
- Expressway Incident Detection
- Smart Light Pole

**02****03**

### Medical Imaging

- Ultrasound
- Bone Densitometer
- Surgical Robot
- G-arm / C-arm X-ray Machine

# Integrated Vehicle-Road-Cloud Edge Perception Fusion MEC

Intel® Meteor Lake-H / Arrow Lake-H

# BRAV-7820




High  
Performance

High Energy  
Efficiency

Industrial-Grade  
Reliability

**JHCTECH** IoT Computer  
Connecting the Dots



- 
- 01 BRAV-7820 Specifications
  - 02 BRAV-7820 Key Features
  - 03 BRAV-7820 Ordering Specifications
  - 04 BRAV-7820 New Product Progress
  - 05 BRAV-7820 Market Direction

# CONTENTS

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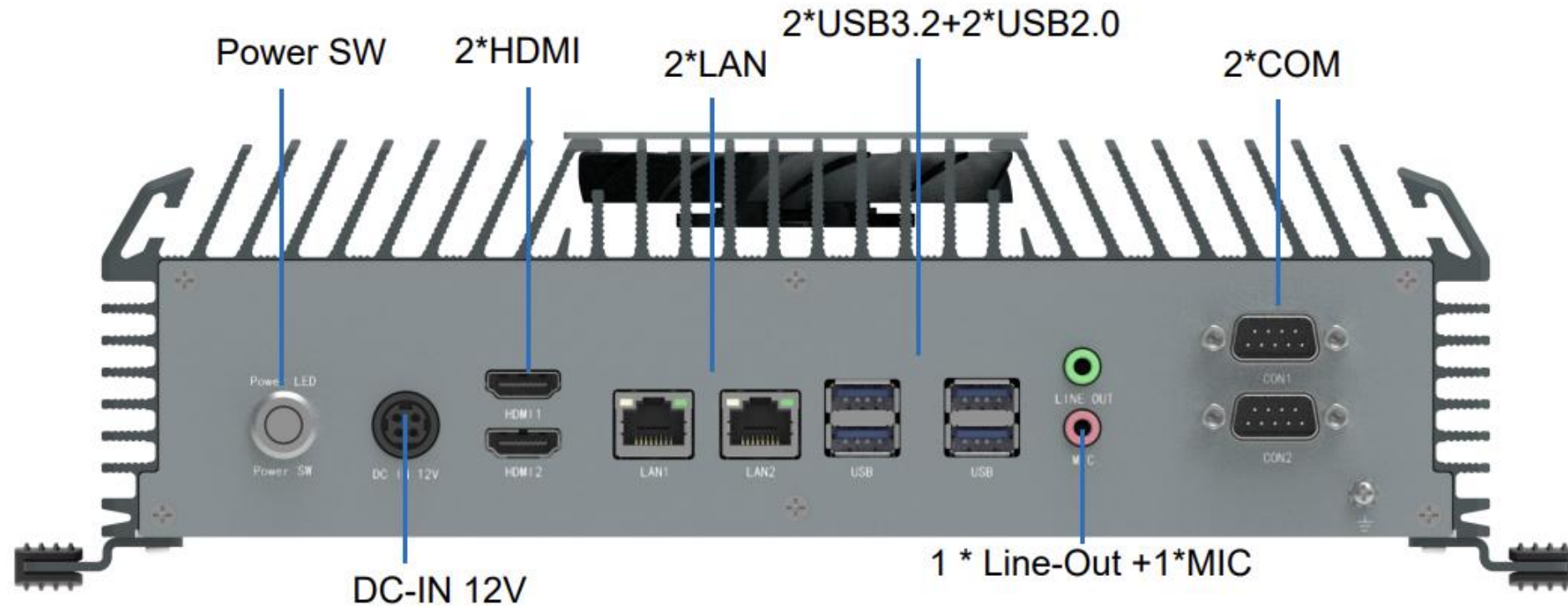
# ■ BRAV-7820 Product Specifications



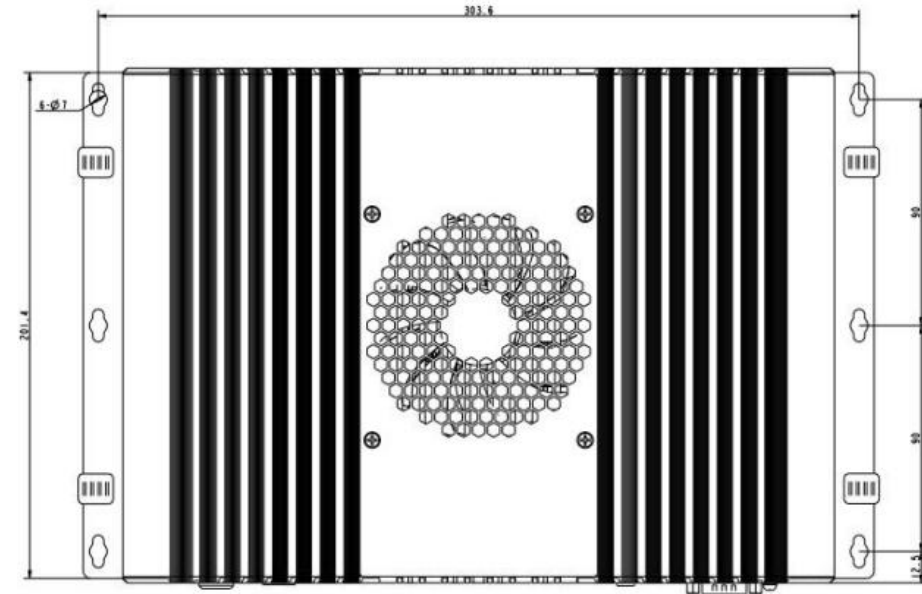
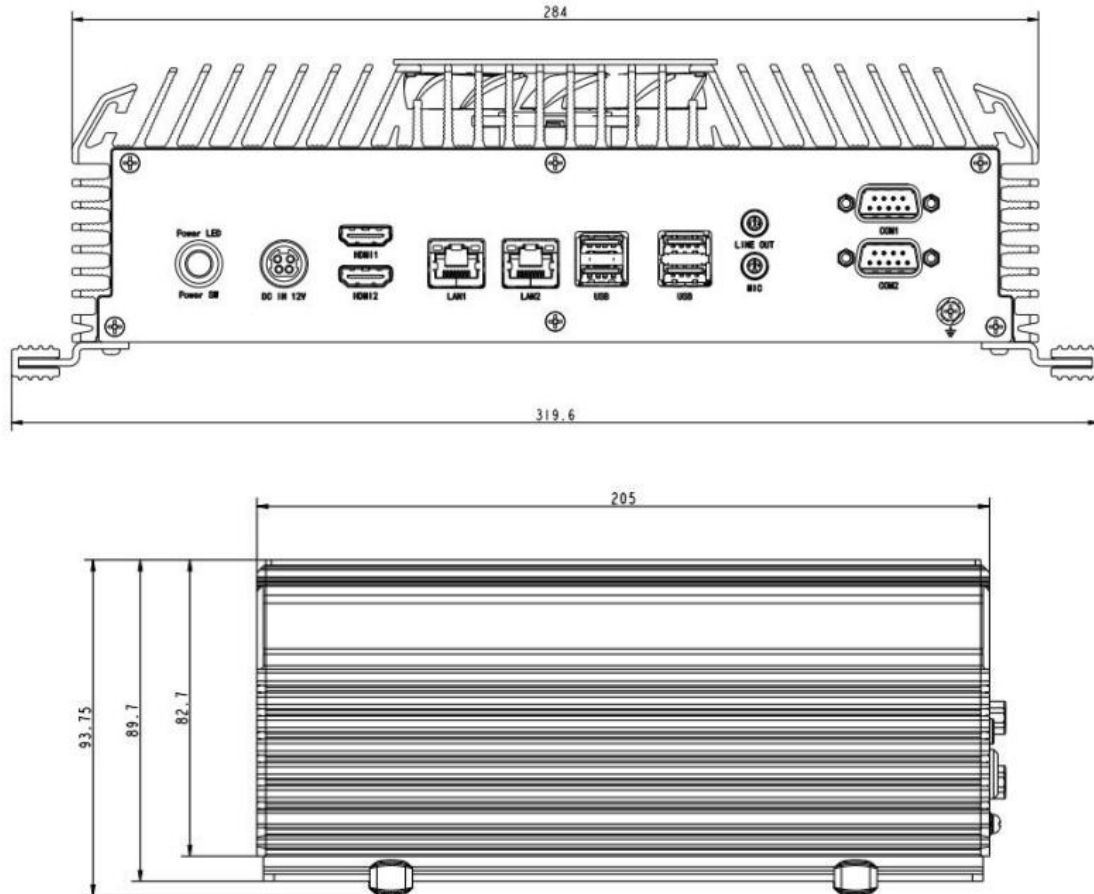
<b>CPU</b>	Intel® Meteor Lake-H: Ultra 7 155H Or Arrow Lake-H: Ultra 9 285H
<b>RAM</b>	Dual channel 2*DDR5-5600 SODIMM, up 96GB
<b>LAN</b>	1 * 2.5G LAN(RJ45 w/LED)+1* 1G-LAN(RJ45 w/LED)
<b>Display</b>	2*HDMI2.1
<b>USB</b>	2*USB3.2, 2*USB2.0
<b>COM Port</b>	1*RS232+1*RS485
<b>Audio</b>	1 * Audio Line-Out +1Audio MIC
<b>Expansion</b>	1*M.2 B-key 3052 w/SIM(for 5G NR), 1*M.2 E-key 2230
<b>Storage</b>	2*M.2 NVMe
<b>Power</b>	DC 12V input
<b>Dimension</b>	320*205*94mm(with mounting kit)



## ■ BRAV-7820 I/O Interface Overview



# ■ BRAV-7820 Dimensions Diagram



Width (W) × Depth (L) × Height (H):  
284 × 205 × 90 mm (main chassis)  
320 × 205 × 94 mm (with mounting brackets)



## BRAV-7820 Key Features

- ★ **Intel x86 AI-PC CPU**
- ★ **High Energy Efficiency**
- ★ **Easy to Manage and Maintain**
- ★ **Industrial-Grade Reliability**
- ★ **I/O Design Optimized for MEC Applications**
- ★ **Structural Design Optimized for MEC Applications**

**1**

### **Metoer Lake-H and Arrow lake-H CPU**

*New 3D-packaged CPU with high openness, supporting Windows and Linux OS*

**2**

### **Low-Power SoC + AI Computing Engine**

*Intel® Core™ Ultra 7 155H – Total AI performance 32 TOPS, TDP 28W, efficiency 1.4 TOPS/W*

*Intel® Core™ Ultra 9 285H – Total AI performance 99 TOPS, TDP 45W, efficiency 2.2 TOPS/W*

**3**

### **Supports remote management & maintenance**

*With Intel® vPro® and iAMT for LAN-based hardware management, plus OTA updates for seamless remote software upgrades.*

**4**

### **Industrial-grade high-reliability design**

*Industrial-grade electronic components, isolated protection for communication interfaces, EMC Level 3*

*Professional high-efficiency thermal design, operating temperature: -20°C to 70°C*

*PCB with conformal coating, IP51 protection rating*

**5**

### **MEC-oriented I/O design**

*1\*2.5G-LAN(iAMT)+1\*G-LAN, 4\*USB, 2\* COM,*

**6**

### **Structure and installation designed for application scenarios**

*Single-side I/O interface for space-saving, easy wiring and installation*

# ★ Intel X86 AI-PC CPU

## Intel Meteor Lake-H and Arrow Lake-H SoC CPU

- 1) **Built on Intel 4 process technology** – Compared with Intel® 13th/14th Gen Core™ Mobile CPUs, AI efficiency is improved by up to **70%**, iGPU performance is **2x higher**, while power consumption is reduced by **25%**.
- 2) **Arrow Lake vs. Meteor Lake** – Delivers **2.2x to 2.5x overall performance improvement**.
- 3) **Broad OS support** – Compatible with **Windows 10, Windows 11, and Linux**, meeting the efficiency and security requirements of **MEC systems**.



### EFFICIENCY AND PERFORMANCE GREATLY IMPROVED

AI EFFICIENCY  
IMPROVEMENT

**70%**

Faster Generative  
AI Processing

GPU PERFORMANCE  
IMPROVEMENT

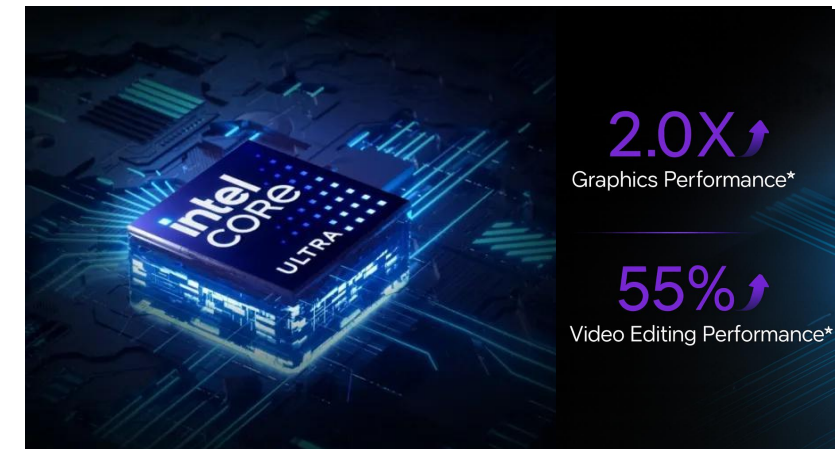
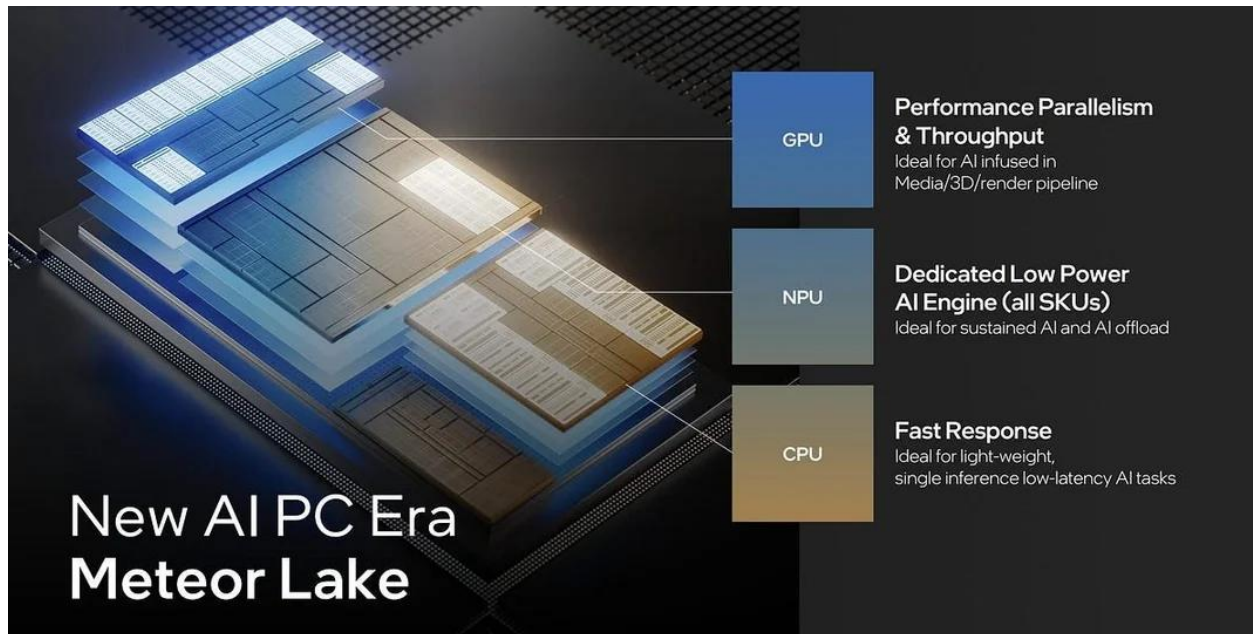
**2x**

Powered by Integrated  
Intel® Arc™ GPU

POWER EFFICIENCY  
IMPROVEMENT

**25%**

Reduced CPU  
Power Consumption





## ★ High Energy Efficiency Ratio

### CPU+iGPU+NPU

- *Ultra 7 155H CPU 3TOPS+Arc graphics iGPU 18TOPS + AI Boost NPU 11TOPS = Total AI Performance: **32 TOPS** (INT8)  
MCP package with 28W TDP and power efficiency of **1.14 TOPS/W***

#### Intel® Core™ Ultra 7 155H (CPU + iGPU + NPU)

Supports perception fusion computing for **4× 1080p camera inputs + 4× radar signals**  
**Low latency: 27 ms**

- *Ultra 9 285H CPU 9TOPS+ Arc 140T iGPU 77TOPS + AI Boost NPU 13TOPS = Total AI Performance: **99TOPS**(INT8)  
MCP package with 45W TDP and power efficiency of **2.2 TOPS/W***

#### Ultra 9 285H CPU+iGPU+NPU

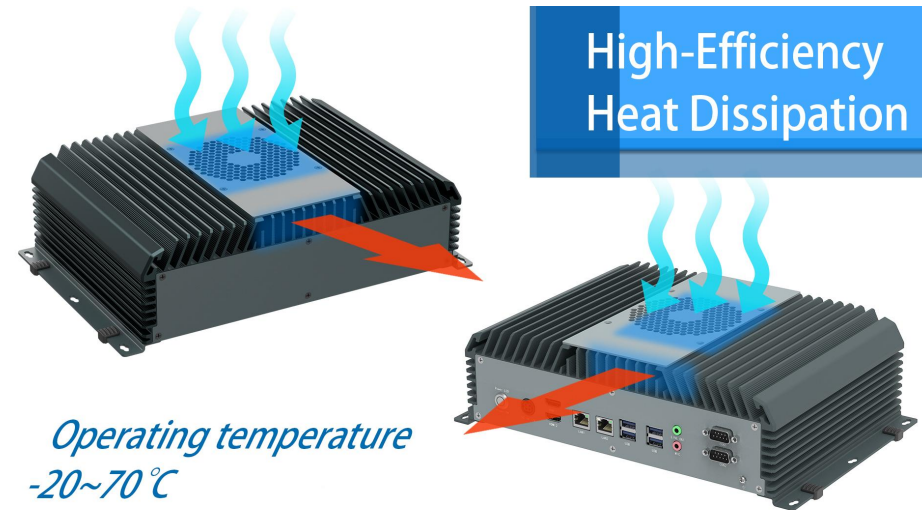
Supports perception fusion computing for **8× 1080p camera inputs + 4× radar signals**  
**Low latency: 25 ms**



## ★ Industrial-grade Reliability

### Designed and manufactured with industrial-grade standards:

1. Industrial-grade electronic components, communication interface isolation protection, EMC compliance up to Level 3
2. Professional and efficient thermal design, operating temperature range of  $-20^{\circ}\text{C}$  to  $70^{\circ}\text{C}$
3. PCB with conformal coating, protection rating up to IP51





## ■ BRAV-7820 Ordering Info

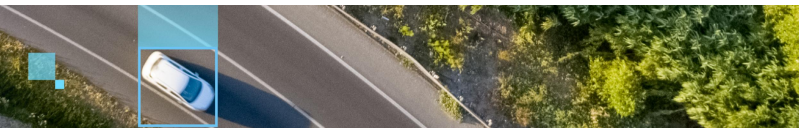


Model No.	Module	Introduction
BRAV-7820-S001	Intel Ultra 5 125H	2 × DDR5 SODIMM, 2 × LAN, 4 × USB Type-A, 2 × HDMI, 2 × COM, 1 × MIC, 1 × Line-out, 2 × M.2 M-key, 1 × M.2 B-key, 1 × M.2 E-key, DC-IN 12V
BRAV-7820-T001	Intel Ultra 5 225H	
BRAV-7820-S002	Intel Ultra 7 155H	
BRAV-7820-T002	Intel Ultra 7 255H	
PA-120DC12	—	AC/DC power adapter, DC12V/10A, 120W

# BRAV-7820 New Product Progress

**BRAV-7820 small-batch production:**

**Late September 2025**





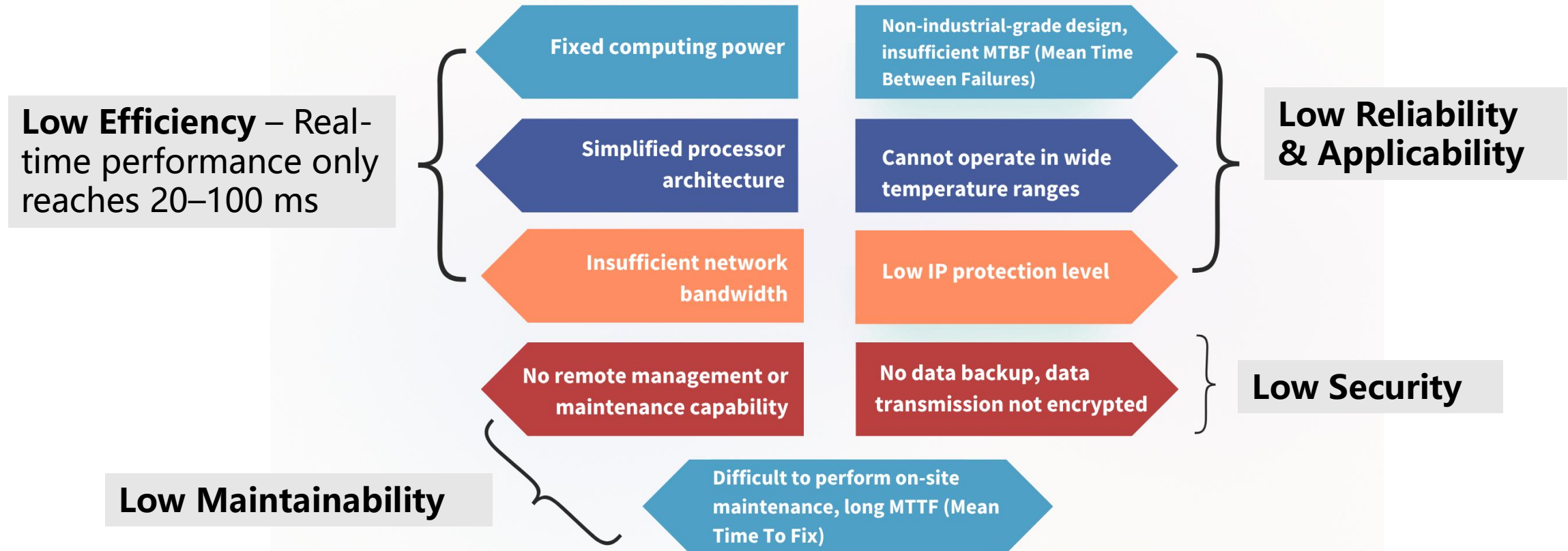
## ■ MEC x86 Solutions Recommendation

**Intel Raptor Lake-S + Arc A700 GPU VS Intel Arrow Lake-H Platform MEC Specifications Comparison Table**

Category	Model / Item	CPU	GPU / NPU	Total Computing Power (INT8)	Max. Number of Sensor Channels	Remote Maintenance	System Power (W)	Operating Temperature
High-end	BRAV-7722 + Arc A750E	X86 CICS 64-bit Core i3-13100 (4 × P-Cores + 4 × E-Cores, base freq. 3.4 GHz, turbo 4.5 GHz)	Intel® Arc™ A750E GPU (28 × Xe-Cores 2.05 GHz, 17.5 Gbps, 16GB GDDR6); Intel® UHD 730 iGPU (24 × EUs 0.3~1.5 GHz)	229+ TOPS	16 × Cameras + 4 × Radars	With BMC and IPMI, supports web-based remote management	250	-20°C to 65°C
	BRAV-7722 + Arc A770	X86 CICS 64-bit Core i5-13500 (6 × P-Cores + 8 × E-Cores, turbo up to 4.8 GHz)	Intel® Arc™ A770 GPU (32 × Xe-Cores 2.1 GHz, 16 Gbps, 16GB GDDR6); Intel® UHD 770 iGPU (32 × EUs 0.3~1.55 GHz)	262+ TOPS	20 × Cameras + 4 × Radars	With BMC and IPMI, supports web-based remote management	270	-20°C to 60°C
Basic	BRAV-7820 MTL-H	X86 CICS 64-bit Ultra 7 155H (6 × P-Cores + 8 × E-Cores + 2 × LP E-Cores, turbo 4.8 GHz)	Intel® Arc™ Graphics iGPU (8 × Xe-Cores 2.25 GHz); Intel® AI Boost NPU	32 TOPS	4 × Cameras + 4 × Radars	vPro Essentials, does not support remote management	50	-20°C to 70°C
	BRAV-7820 ARL-H	X86 CICS 64-bit Ultra 9 285H (6 × P-Cores + 8 × E-Cores + 2 × LP E-Cores, turbo 5.4 GHz)	Intel® Arc™ 140T iGPU (8 × Xe-Cores 2.35 GHz); Intel® AI Boost NPU	99 TOPS	8 × Cameras + 4 × Radars	vPro Enterprise + iAMT, supports same-network remote management	65	-20°C to 65°C

## Roadside MEC Pain Points

MEC serves as the edge brain of the Internet of Vehicles, enabling full device access, data processing, storage analysis, protocol openness, and service enablement. It connects and integrates distributed devices and systems, unifies data, and performs comprehensive processing.





# BRAV-7820

## Market Direction

- 3C Machine Vision
- Logistics Vision Sorting
- Photovoltaic Vision Inspection

### Machine Vision

01

### Vehicle-Road-Cloud MEC

- Holographic Intersection (AI Traffic Signal Controller)
- Holographic Road Section (tunnels, bridges, etc.)
- Expressway Incident Detection
- Smart Light Pole

02

03

### Medical Imaging

- Ultrasound
- Bone Densitometer
- Surgical Robot
- G-arm / C-arm X-ray Machine



Q&A



**Q1: What are the upgrades in remote management for BRAV-7722.**

**A1: Optional IPIM port, supporting web-based remote hardware management and maintenance**

**Q2: How much computing power does the BRAV-7820 have?**

**A2: There are two configurations, with total computing power of 32 TOPS and 99 TOPS, respectively.**

## Stay in Touch



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