

# Nord Technology

*Distributor of JHCTECH hardware in Europe*

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**BRAV-7821**



# BRAV-7821

Intel Core Ultra CPU, 3\*LAN, 4\*USB, 1\*HDMI+1\*DP, 2\*COM, 1\*M.2 M-key, 1\*M.2 B-key, 1\*M.2 E-key, 1\*Mini PCIe, 1\*PCIeX16, 1\*2.5" SATA Bay, DC-IN 12V

JHCTECH

IoT Computer  
Connecting the Data

Edge Computing System  
BARV Series



## Key Features

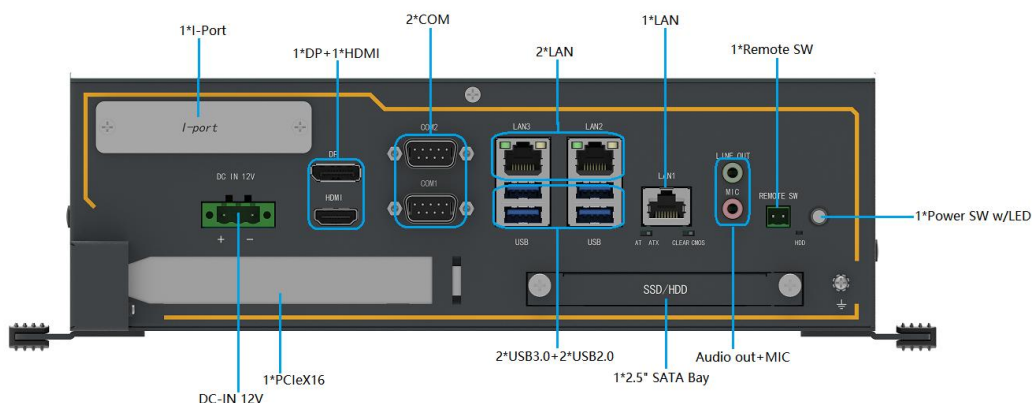
- Intel® Core Ultra Series 2 SoC CPU
- 2\*DDR5 5600MHz SODIMM Max. 96GB
- 1\*M.2 PCIeX4 NVME and 1\*2.5" SATA3.0 Bay
- 1\*HDMI2.1+1\*DP 2.1, 2 UHD independent displays
- 3\*Gig LAN, 2\*USB3.2, 2\*USB2.0
- 1\*M.2 B-key and 1\*M.2 E-key support 4G LTE/5G NR and WIFI6+BT5.x
- DC-IN 12V power input, with OVP,OCP and SCP
- Aluminum-magnesium alloy chassis, Fan cooling design



## Product Overview

The BRAV-7821 is powered by an Intel® Core™ Ultra Series 2 SoC CPU, supporting up to 96GB of RAM. It features multi-network, multi-display, multi-storage, and multi-expansion capabilities, powered by DC 12V/10A input. Designed for MEC (Multi-access Edge Computing) edge computing, it is ideal for industries such as smart transportation, machine vision, intelligent logistics and medical imaging.

## IO Layout

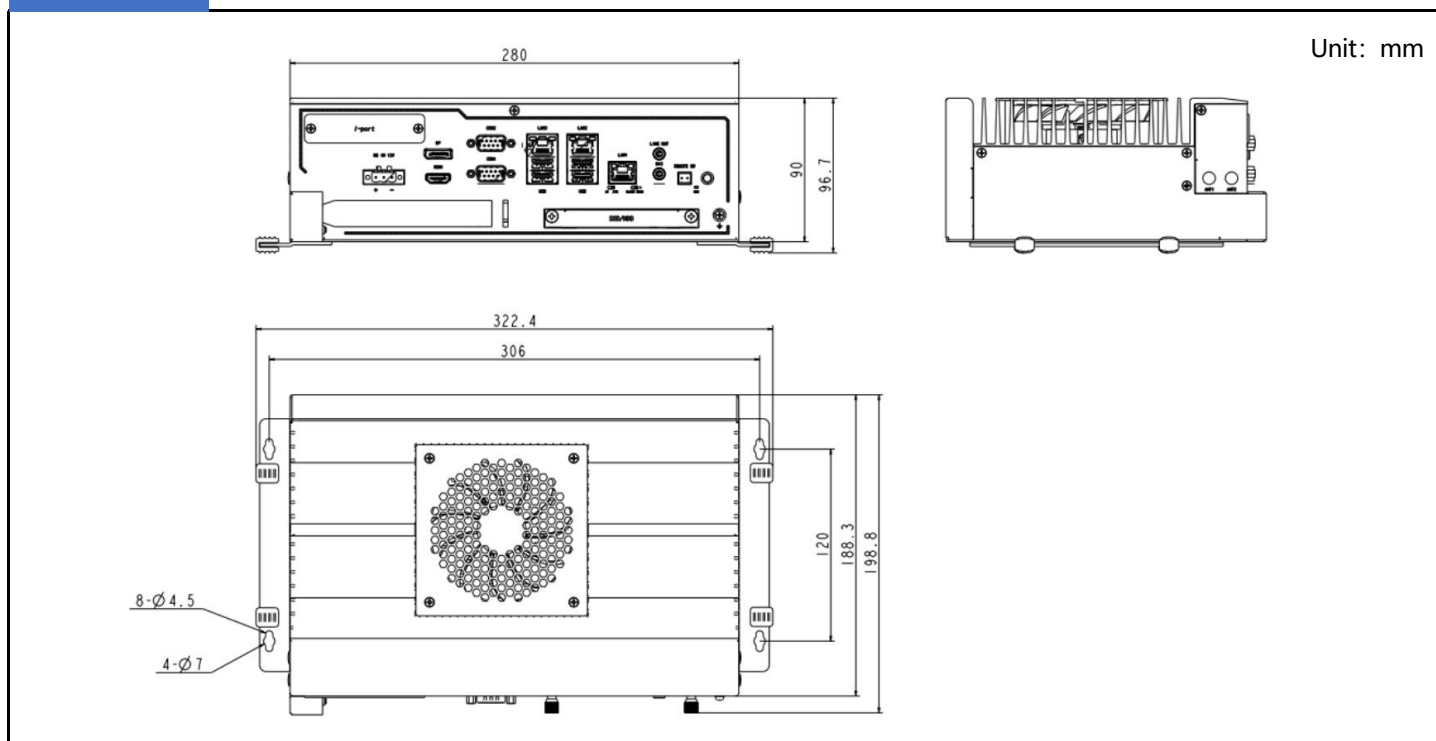


## Product SPEC

|               |                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CPU           | Intel® Core™ Ultra CPU , Arrow Lake-H: Ultra 5 225H or Ultra 7 255H                                                                                                                                                                                                                                                                                                                                             |
| Memory        | Dual channel DDR5-5600 MHz, 2 * SODIMM Slot, up to 96GB                                                                                                                                                                                                                                                                                                                                                         |
| Expansion     | 1 * M.2 3042/3052 B-Key (PCIe+USB2.0, Support 4G LTE/5G NR) , with 1 * Nano SIM Card Slot<br>1 * M.2 2230 E- Key(PCIe+USB2.0), Support Wifi6 +BlueTooth 5.x)<br>2* M.2 2280 M- Key (PCIeX4, Gen4, Support NVMe or 10Gig-LAN )<br>1* PCIeX16 (PCIe 4.0 X8), Adapter I/O card: power less than 60W and length less than 170mm<br>1* Mini PCIe Full size (PCIeX1 or SATA3.0) , support PCIeX1/SATA SSD auto detect |
| Graphics      | Intel® Arc™130T Peak 63TOPS(INT8) or 140T Peak 74TOPS(INT8) , Supports DirectX12.2, OpenGL 4.6 and OpenCL 3.0, H.264,H.265 (HEVC) and AV1 Hardware Encode/Decode, VP9 Bitstream & Decoding, max resolution up to 4096 x 2304 @ 60Hz (HDMI 2.1 TMDS) and 7680 x 4320 @ 60Hz (DP 2.1)                                                                                                                             |
| NPU           | Intel® AI Boost, Peak 13TOPS(INT8), Supports OpenVINO™, WindowsML , DirectML , ONNX RT                                                                                                                                                                                                                                                                                                                          |
| Audio         | Realtek ALC 897 Audio HDA codec , Support Audio Line-Out and MIC                                                                                                                                                                                                                                                                                                                                                |
| LAN           | 1* Intel® I219LM Gig LAN Chip (RJ45,10/100/1000Mbps), Supports iAMT(Specify CPU model)<br>2* Intel® I210AT Gig LAN Chip (RJ45,10/100/1000Mbps)                                                                                                                                                                                                                                                                  |
| Storage       | 1 * M.2 2280 M- Key (PCIeX4 Gen4, Support PCIE X4 NVMe)<br>1* 2.5" SATA3.0 6.0Gbps, Easy-Plug SATA Bay<br>1* Mini PCIe Full size (PCIeX1 or SATA3.0) , support PCIeX1/SATA SSD auto detect                                                                                                                                                                                                                      |
| I/O Interface | 3*Gig-LAN(RJ45 w/LED); 1*HDMI (Type A)+1*DP (Type A) ; 2*USB3.2(Type A) +2*USB2.0 (Type A);<br>2*RS232/422/485 ( DB9 Male) ; 1*MIC+1*Line-out (3.5mm phonejack<br>Internal I/O: 1*eDP; 2*USB2.0(2*4 header)                                                                                                                                                                                                     |
| I-Port        | Support internal 1*eDP、 2*USB2.0 or M.2/Mini PCIe and ect. expansion module                                                                                                                                                                                                                                                                                                                                     |

|                       |                                                                                                                                     |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Control SW            | 1* Power button w/LED, AT/ATX dip, Clear Cmos dip                                                                                   |
| Power Supply          | DC-IN 12V power input ,3-pin 5.0mm terminal block interface ,with short circuit, over voltage and over current protection, TDP: TBD |
| OS Support            | Windows 10/11 64-bit, Linux                                                                                                         |
| Watchdog Timer        | Watchdog timeout programmable via software 1 to 255 second                                                                          |
| Structure             | Aluminum extrusion thermal enclosure, SGCC frame                                                                                    |
| Color                 | Black and Granite Gray                                                                                                              |
| Mounting              | Desktop Mounting with anti-vibration rubber pads                                                                                    |
| Dimension             | (L*W*H) : Main box: 280.0*198.8*90mm; Including mounting bracket: 322.4*198.8*96.7mm                                                |
| Operating temperature | -20°C ~ 65°C, airflow                                                                                                               |
| Storage Temperature   | -40°C~85°C                                                                                                                          |
| Storage Humidity      | 10~95%@40°C, Non-condensing                                                                                                         |
| Vibration             | 5grms/5~500Hz/random/in working (SSD); 1grms/5~500Hz/random/in working (HDD)                                                        |
| Shock                 | 50g peak acceleration(11ms duration)(SSD); 20g peak acceleration(11ms duration)(HDD)                                                |
| Certification/EMC     | CE/FCC Class A                                                                                                                      |

## Dimension



## Ordering Info.

| Model No.            | CPU                                                           | Introduction                                                                                                                                                                                             |
|----------------------|---------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BRAV-7821-S001       | Intel Ultra 5 225H                                            | 2*DDR5 SODDIM, 3*LAN, 2*USB3.2, 2*USB2.0 , 1*HDMI,1*DP, 2*COM, 1*MIC, 1*Line- out, 1*M.2 M-key, 1*M.2 B-key, 1*M.2 E-key, 1*Mini PCIe(PCIex1/SATA3.0), 1*PCIeX16(X8 signal), 1*2.5" SATA Bay, DC-IN 12V. |
| BRAV-7821-S002       | Intel Ultra 7 255H                                            |                                                                                                                                                                                                          |
| PA-120DC12 component | AC/DC power adapter, DC 12V/10A 120W + X Standard Power Cable |                                                                                                                                                                                                          |