Nord Technology

Distributor of JHCTECH hardware in Europe

NORD TECHNOLOGY CONTACT INFORMATION

World Trade Center
Borupvang 3,
2750 Ballerup,
Denmark

Tel.: +45 70 27 04 15
Email: sales@nord-t.eu
Website: www.nordtechnology.dk

BRAV-7721



BRAV-7721-WP

Intel® Alder Lake-S LGA1700 CPU, 3*LAN, 6*USB3.2, 8K DP+4K HDMI , 2*PCIe5.0 X8+2*PCIe4.0 X4， 2*2.5" SATA bay, 1000W DC IN 9-55V.

JHCTECH

IoT Computer Connecting the Dots

MEC System——BARV Series



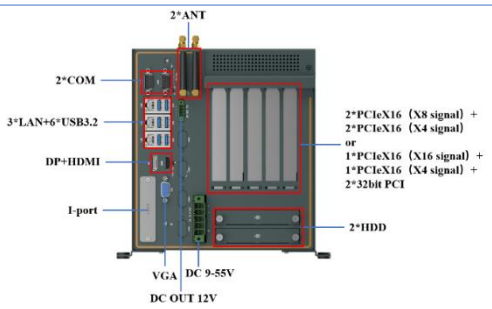
Key Features

- Intel® 12th Gen Alder lake-S LGA1700 CPU
- Intel® Q670 Chipset
- 2*DDR5 4800MHz SODIMM, up to 64GB
- 1*DP+1*HDMI and 1*VGA, UHD 8K+4K three independent displays
- 2*Intel® I226V Gigabit LAN, 1*Intel® I219LM Gigabit LAN, support iAMT12.0
- 2*PCIe X16 (X8 signal)+2*PCIe X16 (X4 signal), four PCIe expansions
- 2*2.5" SATA3.0 Bays, 1*M.2 2280 PCIeX4 NVMe
- Support TPM2.0 and iVpro technology
- Fanless cooling for CPU , AI/GPU card with efficient fan cooling design
- Support dual 450W GPU + dual 75W/150W AI acceleration cards
- 1000W DC IN 9-55V, and wide temperature fanless AC-DC power adapter with PFC

Product Overview

BRAV-7721-WP is a workstation-grade Edge computing system, powered by Intel® Alder Lake-S series CPU, Q670 chipset, dual-channel DDR5 memory, and four PCIe expansions. Flexible optional computing power, multi IO interfaces, high PFC power supply, high efficiency cooling solution and industrial grade reliability design, very suitable for V2X MEC, highway event detection, unmanned experiment vehicle and high-precision machine vision and other fields and applications.

IO Layout



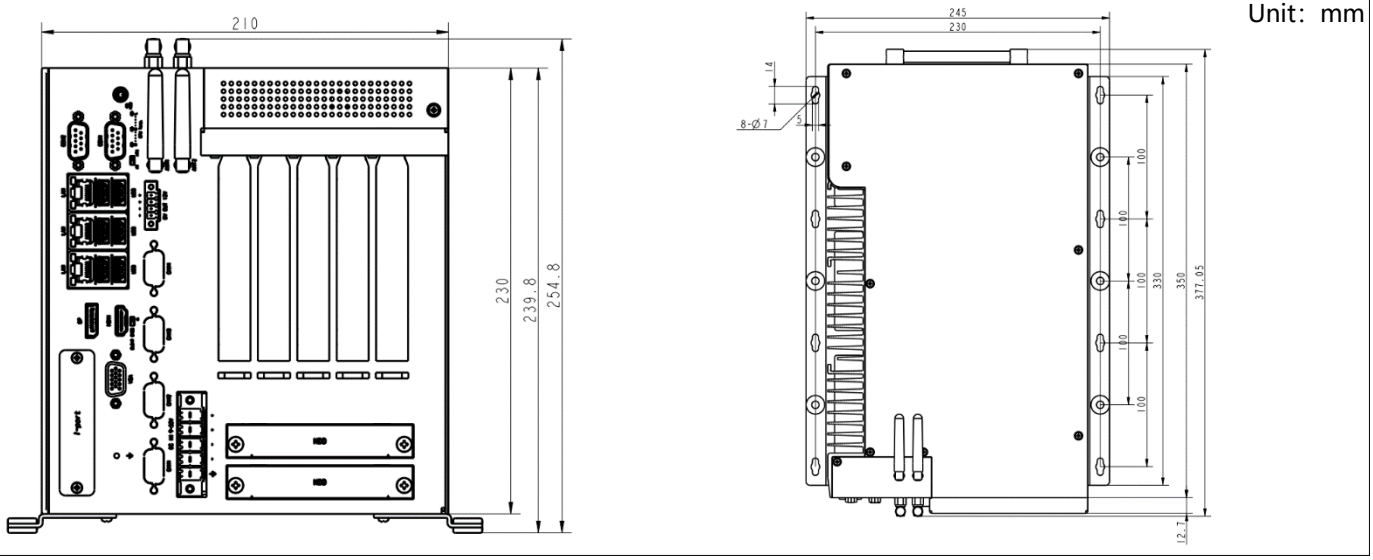
Product SPEC

CPU+PCH	Intel® Alder lake-S 12th-Gen Core™ i9/i7/i5/i3/Pentium/Celeron LGA1700 CPU， Intel® Q670 PCH
Memory	2*262-Pin SODIMM, dual channel DDR5 4800MHz, up to 64GB
Expansion	1*Full size Mini PCIe (PCIeX1 + USB signal) with SIM slot, for 4G LTE modem or PCIe signal I/O module 1*full size mSATA， with SATA3.0 signal, max 6Gbps 1*M.2 B-Key 3052 (PCIeX1+USB signal) with a SIM slot, support 5G NR modem 1*M.2 2280 M-Key (Gen4, X4 signal, from PCH), support NVME high-speed SSD or PCIe signal module 2*PCIe X16 (Gen5, X8 signal, from CPU), support two highest power consumption 450W GPU card or AI acceleration card (the length of the card must be less than 300mm) 2*PCIe X16 (one is Gen4 and the other is Gen3, X4 signal, from PCH), support 2*75W consumption AI acceleration card (the length of the card must be less than 300mm)
Graphics	Intel® UHD Graphics, Supports DirectX 12, OpenGL 4.5， OpenCL 3.0, DP max res. 7680*4320@60Hz, HDMI max res. 4096*2160@60Hz, VGA max res. 1920*1200@60Hz, support three independent displays
LAN	2*Intel I226V 2.5G Ethernet, PCIeX1 full bandwidth, 10/100/1000Mbps; 1*Intel I219LM Gig. Ethernet, 10/100/1000Mbps, support iAMT12.0 and vPro (only Core I5/I7/I9 CPU)
Storge	2*2.5 "SATA3 easy-plug SATA bays, larger capacity thickness15mm HDD, support Raid0/1; 1*M.2 2280 M-key(Gen4, PCIeX4 signal), support NVMe ultra-high speed storage; 1*full size mSATA， with SATA3.0 signal, max 6Gbps
DIO	Optional 16bit DIO, TTL signal, programmable input/output
I/O Interface	3*RJ45 Gig-LAN; 4*USB3.2(gen2.0 10Gbps, Type A,); 2*USB3.2(gen1.0 5Gbps, Type A); 2*RS232/422/485(via BIOS, DB9 male); 1*VGA+1*DP+1*HDMI; 2*USB2.0(pin header inside); 16bit DIO (2*10pin header inside); 1*F_Audio (pin header inside)
I-port	Support 16bit DIO pin header lead wire , USB2.0 or Mini PCIe and other expansion interfaces lead wire
LED	1*Power LED(on power button), 1*HDD LED, 3*CPU temp LED （Red is warning , Yellow is high, Green is normal）
Control SW	1*Power button w/LED, AT/ATX dip, Clear Cmos dip
Power Supply	DC IN 9-55V, 5-pin 7.62mm Term., with short circuit(SCP), over voltage(OVP) and over current(OCP) protection, maximum output power 1000W TDP: TBD

Watchdog Timer	Watchdog timeout programmable via software 1 to 255 second
OS Support	Windows 11，Windows 10 IoT Enterprise 2021 LTSC, Ubuntu, SuSe, Red Hat Enterprise, Wind River Linux, Wind River VxWorks 7
Structure	SGCC frame, Aluminum-magnesium alloy chassis, temperature control by PWM fan
Color	Granite gray + Black
Mounting	Desktop Mounting, with anti-vibration rubber pads
Dimension	(W*H*D)：245*377.05*254.8 mm
Net weight	TBD
Operating temperature	-20℃ ~ 60℃, 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

Unit：mm



Ordering Info.

Model No.	Introduction	Expansion
BRAV-7721-WP-S001	Edge Computing system, Intel® 12th Gen Alderlake-S LGA1700 CPU, Q670 PCH, 2*DDR5 SODIMM, 3*LAN, 6*USB3.2, 2*USB2.0 (inside), 2*COM, 1*VGA, 1*DP, 1*HDMI, 16bit DIO(inside), 1*I-Port, 2*2.5" SATA bay, 1*Mini PCIe, 1*mSATA, 1*M.2 B-Key, 1*M.2 M-Key, DC 9-55V.	Default: ECX-254 riser card, 2*PCIeX16 (X8 signal) + 2*PCIeX16 (X4 signal) Optional: ECX-275 riser card, 1*PCIeX16 (X16 signal) + 1*PCIeX16 (X4 signal) + 2*32bit PCI
Recommend GPU /AI Module	Support a maximum 2*450W GPU + 2*75W/150W AI accelerate card (the length of the card must be less than 300mm)	
UHP-500DC12	AC/DC power adapter，DC12V@41.7A, 90-264V AC input, DC 12V output, wide temperature fanless, 500W	
LMF1000-20B12	AC/DC power adapter，DC12V@80A, 90-264V AC input or 120-370V DC input, DC 12V output, 1000W, low-nose fan	