



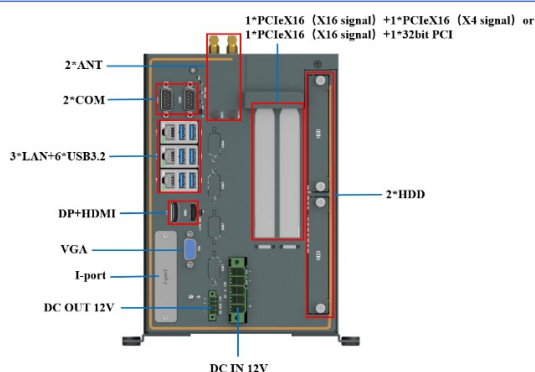
Key Features

- Intel® 12th/13th Gen Alder lake-S/Raptor lake-S CPU
- Intel® Q670 Chipset
- 2*DDR5 4800MHz SODIMM, up to 64GB
- 1*DP+1*HDMI +1*VGA, three independent displays
- 2*Intel® I226V Gigabit LAN, 1*Intel® I219LM Gigabit LAN, support iAMT12.0
- 1*PCIe X16 (X16 signal)+1*PCIe X16 (X4 signal)
- 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 450W GPU or dual 75W/150W AI acceleration cards
- 1000W PSU DC IN 12V, and wide temperature fanless AC-DC power adapter with PFC

Product Overview

BRAV-7720-S001 is a workstation-grade Edge computing system, powered by Intel® Alder Lake-S or Raptor lake-S series CPU, Q670 chipset, dual-channel DDR5 memory, and dual 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 .

IO Layout

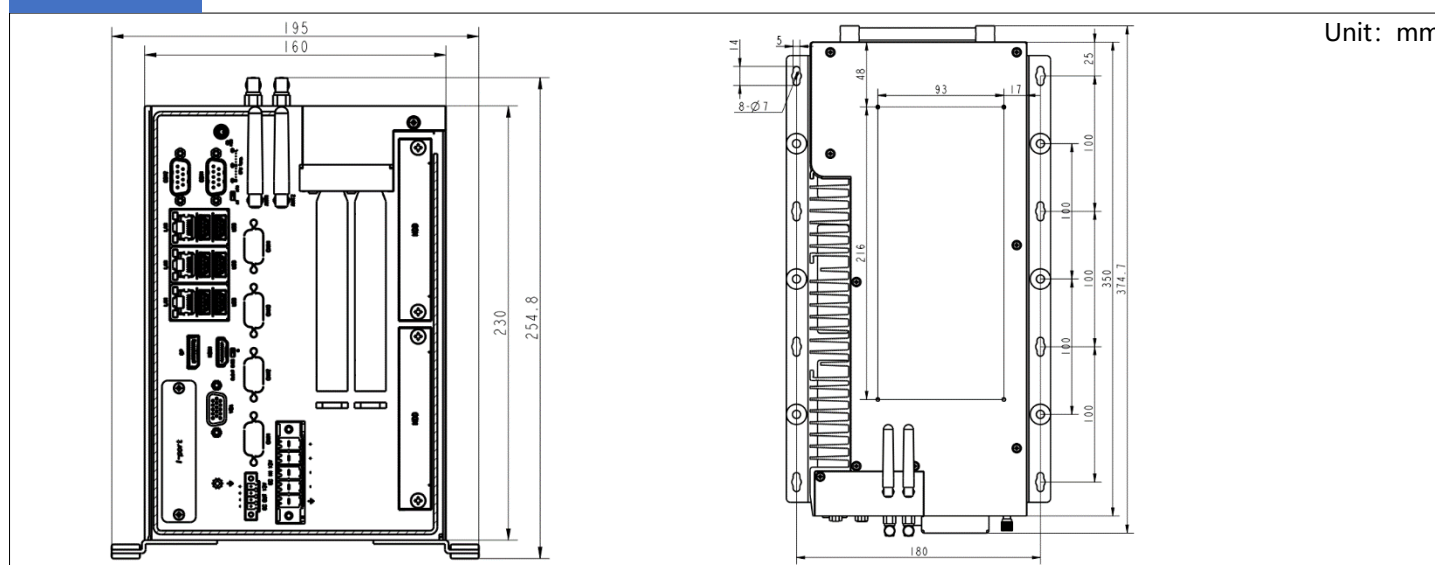


Product SPEC

CPU+PCH	Intel® 12th-Gen Alder lake-S or 13th-Gen Raptor lake-S 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 module 1*M.2 2280 M-Key (Gen4, X4 signal, from PCH), support NVME high-speed SSD or PCIe signal module 1*PCIe X16 (Gen5, X16 signal, from CPU), support highest power consumption 450W GPU card or AI acceleration card (the length of the card must be less than 300mm) 1*PCIe X16 (Gen4 X4 signal, from PCH), support 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 Gig. 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)
Storage	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 12V, 5-pin 7.62mm Term., with short circuit(SCP) and overcurrent(OCP) protection, maximum output power 1000W TDP: 12V/8.275A 99.3W (I3-12100 CPU, 32GB DDR4, 128G SSD)

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): 195*374.7*254.8 mm
Net weight	7.95kg
Operating temperature	-20°C ~ 60°C (35W CPU), with 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.	Introduction	Expansion
BRAV-7720-S001	Edge Computing system, Intel® 12 th Gen Alderlake-S or 13 th Gen Raptor lake-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 12V.	Default: ECX-255 riser card, 1*PCIeX16(X16 signal)+1*PCIeX16(X4 signal) Optional: ECX-271 riser card, 1*PCIeX16(X16 signal)+1*32bit PCI
Recommend GPU /AI Module	Support a maximum 1*450W GPU or 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	