BRAV-7139-S

AGX Orin 32/64GB, 4*LAN, 4*USB3.2, 2*RS485/422, 1*RS232, 2*CAN FD, 1*8-bit GPIO, 1*HDMI,1*Line-out, 1*MiniPCIe, 1*M.2 B-key+SIM, 2*M.2 M-key; 8 *GMSL optional

JHCTECH

IoT Computer Connecting the Dots

MEC System——BARV Series



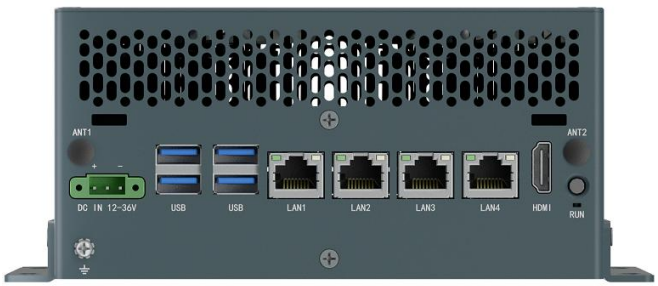
Key Features

- NVIDIA Jetson AGX Orin 32/64G, 200 - 275TOPS
- 8/12*Cores ARM Cortex-A78AE CPU, up to 2.2GHz
- NVIDIA Ampere GPU with Tensor Cores
- Onboard 32/64GB 256-bit LPDDR5 memory and 64GB eMMC, optional support for 1*SATA3.0 ;
- 1*HDMI, 1*Line-out, 4*LAN (Optional 4*POE), 4*USB3.2, 2*CAN FD(Iso), 2*RS485/422(Iso), 1*RS232 , 1*8-bit GPIO;
- 1*MiniPCIe, 1*M.2 B-key +SIM, 2*M.2 M-key ;
- 8* GMSL optional
- DC 12~36V wide voltage power input, with OVP, OCP and SCP

Product Overview

BRAV-7139 is powered by the NVIDIA Jetson AGX Orin 32/64GB module, featuring an 8/12-core ARM CPU and a high-performance GPU, delivering up to 241-275 TOPS of inference performance. It comes with onboard 32/64GB memory and 64GB storage, supports a wide DC input voltage from 12 to 36V, and operates within a temperature range of -20°C to 60°C. It can serve as an MEC platform for applications in robotics, semiconductor inspection, industrial vision, unmanned ground vehicles (UGVs), and other industries.

IO Layout





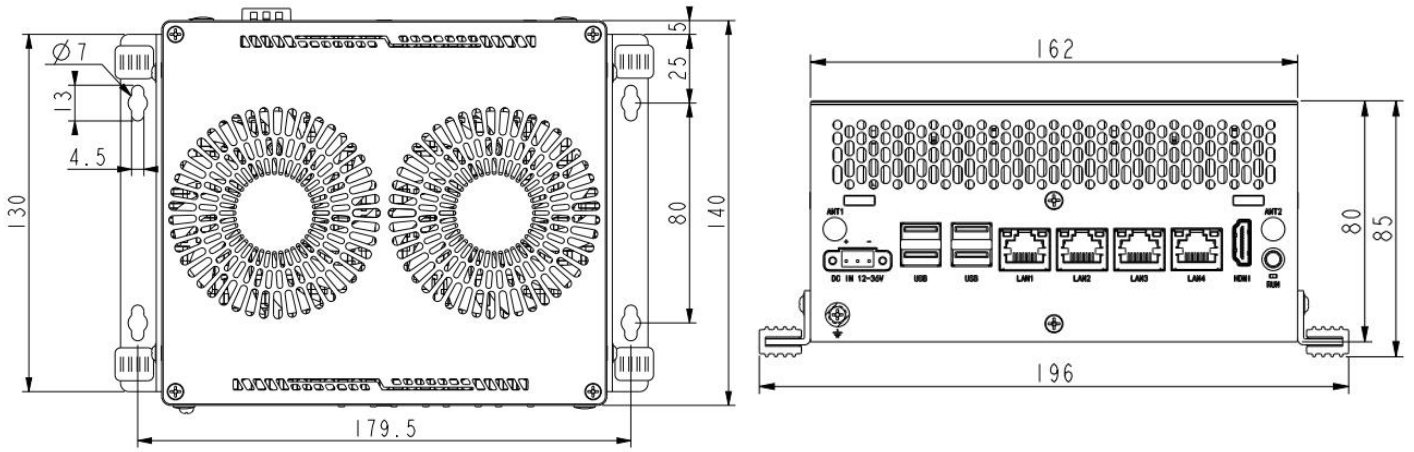
Product SPEC

CPU	8*Cores Arm® Cortex®-A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3, CPU maximum frequency up to 2.2 GHz(S001) 12*Cores Arm® Cortex®-A78AE v8.2 64-bit CPU 3MB L2 + 6MB L3, CPU maximum frequency up to 2.2 GHz(S002)
GPU	1792*Cores NVIDIA Ampere architecture GPU 930MHz, with 56*Tensor Cores(S001) 2048*Cores NVIDIA Ampere architecture GPU 1.3GHz, with 64*Tensor Cores(S002)
DL Accelerator VS Accelerator	2*NVDLA v2, PVA v2.0, Maximum Inference Performance up to 241(S001)/275(S002) TOPS(INT8)
Memory	Onboard 32GB(S001)/64GB(S002) 256 bit LPDDR5, the maximum bandwidth up to 204.8 GB/s
Expansion	2*M.2 2280 M-Key , 1*MiniPCIe, 1*M.2 3052 B-Key + SIM ;
Graphics	Video Encode (H.265)H.264, AV1: 1*4K60,3*4K30,6*1080p60,12*1080p30 (S001); 2*4K60,4* 4K30,8*1080p60,16*1080p30 (S002); Video Decode (H.265)H.264, VP9, AV: 1*8K30,2*4K60,4*4K30,9*1080p60,18*1080p30(S001); 1*8K30,3*4K60,7*4K30,11*1080p60,22*1080p30(S002) ; HDMI 2.0 max. resolution up to 4096*2304@60Hz
Audio/Video	Realtek ALC5640 audio codec, support stereo output; 1*HDMI2.0; 2*MIPI, support up to 8*GMSL
LAN	4*GbE LAN , 10M/100M/1000Mbps;
Storage	Onboard 64GB eMMC 5.1, 2*M.2 2280 M-Key, optional support for 1*SATA3.0 ;
IO	Rear I/O: 4*USB3.2, 2*RS485/422 (Iso) , 1* RS232 , 2* CAN FD (Iso) , 8-bit GPIO Internal: 1*I²C , 1*SPI

LED	1*Power LED(on power button), 1*Running light
Control SW	1* Power button w/LED, 1*RST button 1*REV button
Power Supply	DC 12~36V wide voltage power input, 3-pin 3.81mm terminal block，with OVP,OCP and SCP;
OS Support	Linux Ubuntu 22.04 & 24.04
Structure	Fan-cooled Enclosure, SGCC chassis
Color	Silver gray
Mounting	Desktop Mounting with Shock-absorbing Anti-slip Feet
Dimension	Main box(W*D*H)：162*140*80 mm;
Net weight	1.96kg
Operating temperature	Maximum support range -20℃～60℃
Storage Temperature	-40°C~85°C
Storage Humidity	10~90%@40°C, non-condensing
Vibration	5grms/5~500Hz/random/in working (SSD);
Shock	50g peak acceleration(11ms duration)(SSD);
EMC/Certification	CE/FCC Class A

Dimension

Unit：mm



Ordering Info.

Model No.	Module	Introduction
BRAV-7139-S001	Jetson AGX Orin 32GB memory，64GB eMMC	Standard: 1*HDMI，1*Line-out，4*LAN, 4*USB3.2, 2*RS485/422, 1*RS232，2*CAN-FD，8-bit GPIO，1*MiniPCIe，1*M.2 B-Key + SIM，2*M.2 M-Key，1*I-port，DC-IN 12~36V Optional: ECB-3018　8*GMSL expansion card ECB-3020　MiniPCIe to SATA3.0
BRAV-7139-S002	Jetson AGX Orin 64GB memory，64GB eMMC	
PA-120DC19	AC/DC power adapter，DC19V/6.32A,120W	