BRAV-7121-T

NVIDIA Jetson Orin NX 8/16GB，70~157TOPS，Power：15~40W。2*LAN，2*CAN，8*GMSL，5*USB,2*COM，8-bit DIO，1*HDMI，Multiple M.2&PCIe extensions，DC 9~36V

JHCTECH IoT Computer Connecting the Dots

MEC System——BARV Series



Key Features

- NVIDIA Jetson Orin NX 8/16G,70~157TOPS
- 6/8*Cores ARM Cortex-A78AE v8.2 64 bit CPU
- Ampere GPU（1024 cores），32*Tensor cores
- 8/16G LPDDR5，1*M.2 2280 M-Key NVMe
- 2*LAN，2*Iso.CAN，8*GMSL(optional)；
- Video code:1x4k60 | 3x4k30 | 12x1080p30 H265
- Video decode:1x8k30 | 4x4k30 | 18x1080p30 H265
- 1*HDMI,1*Line-out ,2*USB3.2,,2*USB2.0, 1*Debug，2*Iso.COM,1*8-bit Iso.DIO
- 1*M.2 3052 B-Key+SIM； 1*MiniPCIe；
- DC-IN 9~36V wide power input，DC-OUT 12V;
- Aluminum alloy chassis, active& passive combined cooling design

Product Overview

BRAV-7121 is equipped with NVIDIA Jetson Orin NX 8/16GB module, 6/8 cores ARM CPU and high performance GPU, up to 70~157TOPS AI performance, on board 8/16G memory, with multichannel IO , DC 9-36V wide voltage power supply. It can be used as MEC(Multi-Access Edge Computing) for intelligent transportation, machine vision, intelligent logistics and other industries.

IO Layout

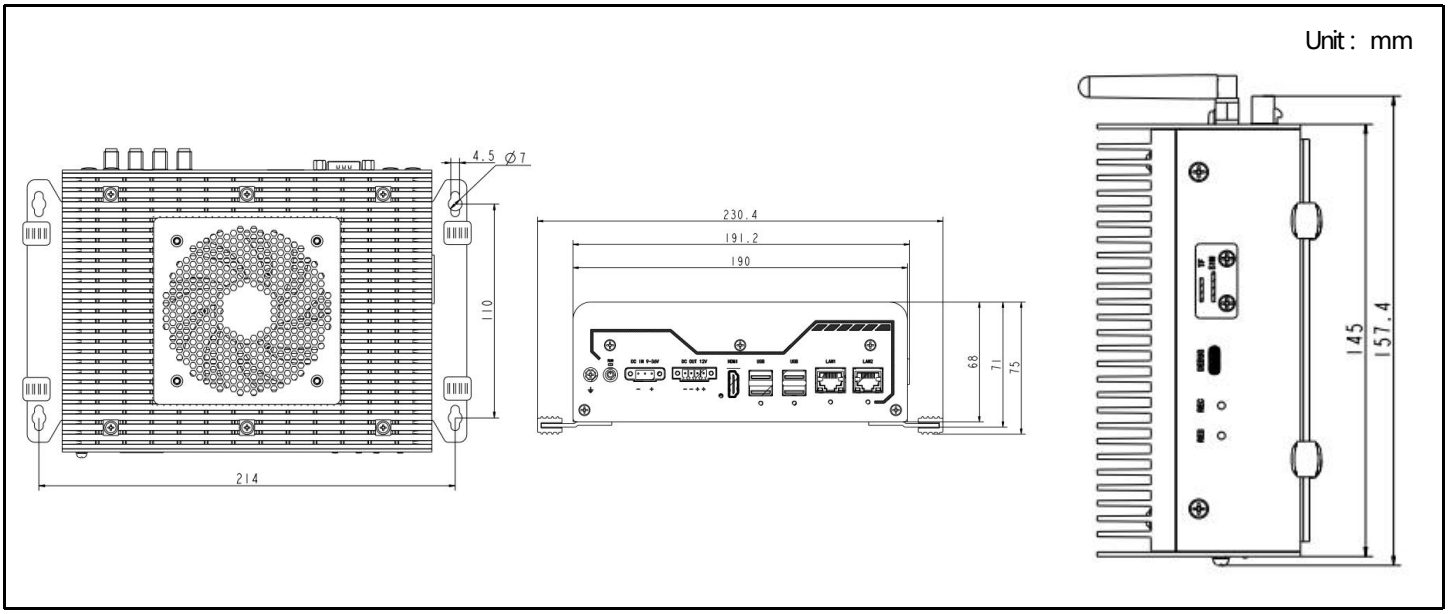


Product SPEC

AI performance	70~117TOPS（S001），100~157TOPS（S002）
CPU	6 cores Arm® Cortex-A78AE v8.2 64 bit CPU 1.5MB L2 + 4MB L3 (S001) 8 cores Arm® Cortex-A78AE v8.2 64 bit CPU 2MB L2 + 4MB L3 (S002)
GPU	1024*Cores NVIDIA Ampere Architecture GPU 765MHz, with 32*Tensor Cores(S001) 1024*Cores NVIDIA Ampere Architecture GPU 918MHz, with 32*Tensor Cores(S002)
DL Accelerator VS Accelerator	1*NVDLA v2(S001)/2*NVDLA v2(S002), PVA v2.0
Memory	On board 8GB(S001)/16GB(S002) 128 bit LPDDR5，the maximum bandwidth up to 102.4 GB/s
Expansion	1*M.2 3052 B-Key, with SIM card slot，support 4G LTE or 5G NR； 1*M.2 2280 M-Key，support NVMe high-speed memory card； 1*Mini PCIe
Graphics	Video code：H.265; 1*4K60	3*4K30	6*1080p60	12*1080p30 (S001/S002); Video decode：H.265: 1*8K30	2*4K60	4*4K30	9*1080p60	18*1080p30(S001/S002);
Audio	Realtek ALC5640，support stereo channel output
LAN	2*LAN 10/100/1000Mbps
Storage	1*M.2 2280 M-Key，support NVMe high-speed memory card; 1*Micro SD
Camera	Default support 2*4 lane Mipi，8*GMSL （optional）
DIO and serial port	4-bit 2.5KV Iso.DI（TTL signal），4-bit 2.5KV Iso.DO（TTL signal）； 2*2.5KV Iso.RS232+RS485 /422；
I/O Interface	2*LAN; 1*HDMI; 2*USB3.2(Gen2 10Gbps, Type A); 2*USB2.0 (Type A); 1*Line out; 1*Iso.RS232+1*Iso.RS485/422(2*5pin Phoenix terminal)；2*Iso.CAN (1xDB9); 1*8-bit Iso.DIO (2*6pin Phoenix terminal); 1*SIM card slot; 1*Mico SD card slot; 4*ANT;

LED	1*Power LED(on power button), 1*Running lights
Control switch	1* Power button w/LED, 1*RST button; 1*REV button;
Power Supply	DC 9~36V wide power input , 3-pin 3.81mm terminal block , with short circuit, over voltage and over current protection; TDP: 25w ; DC 12V output up to 3A , 4-pin 3.5mm terminal block
OS Support	Linux Ubuntu 22.04 with JetPack6.2
Structure	Aluminum-magnesium alloy chassis, SGCC frame
Color	Granite gray + Graphite black
Mounting	Desktop Mounting with anti-vibration rubber pads
Dimension	(L*W*H): 230*158*75mm (including mounting brackets)
Net weight	TBD
Operating temperature	-20℃ ~ 60℃, airflow
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);
Certification /EMC	CE/FCC Class A

Dimension



Ordering Info

Model No.	Module	Introduction
BRAV-7121-T001	Jetson Orin NX 8GB Memory	Standard configuration: 2*LAN,2*Iso.CAN, 2*CSI, 1xHDMI2.0, 1*Iso.RS485/422, 1*Iso.RS232, 2*USB3.2+2*USB2.0+1*Debug (Type-c) , 1*Iso.8bit DIO, 1*Line-out, 1*Micro SD, 4*ANT; 1*Mini PCIe, 1*M.2 3052 B-Key+SIM (4/5G) , 1*M.2 2280 M-Key; DC-IN 9~36V, DC-OUT 12V Optional configuration: 8*GMSL
BRAV-7121-T002	Jetson Orin NX 16GB Memory	
PA-60DC12	AC/DC power adapter , DC12V/5A,60W	
PA-120DC19	AC/DC power adapter , DC19V/6.32A,120W (When DC-OUT 12V is used)	