



VisionBox AI

Embedded GPGPU Platform

EMBEDDED GPGPU PLATFORM

VisionBox AI

For a successful image processing application, not only a powerful CPU and GPU is important, but also image processing relevant interfaces. The VisionBox AI is a GPGPU computer that meets all requirements for practical use: It offers ports for GigE and Camera Link cameras, real-time capable IO (Real-Time Communication Controller) as well as an encoder interface to support incremental encoders. Especially for line scan and hyperspectral applications, Camera Link is still a powerful interface for real-time applications.

Key Features

- NVIDIA Jetson AGX Orin SoM
- Embedded system, fanless design
- Quad Gigabit Ethernet
- Camera Link interface
- Ubuntu based Linux
- Long-term availability



- Isolated digital IN / OUT
- RS-422 IN / OUT
- Camera Link trigger (CC)



Interfaces

Ethernet	4 x 1000 Mb/s
Camera Link	2 x Base or 1 x Medium/Full/Deca (2 x SDR 26)
RS-232	1 x
RS-422	up to 6 x Input / 6 x Output (option)
Digital I/O	8 x Input / 8 x Output
USB 2.0	2 x USB-A 2.0
USB 3.2	1 x USB-C 3.2 Gen 2
DisplayPort	1 x

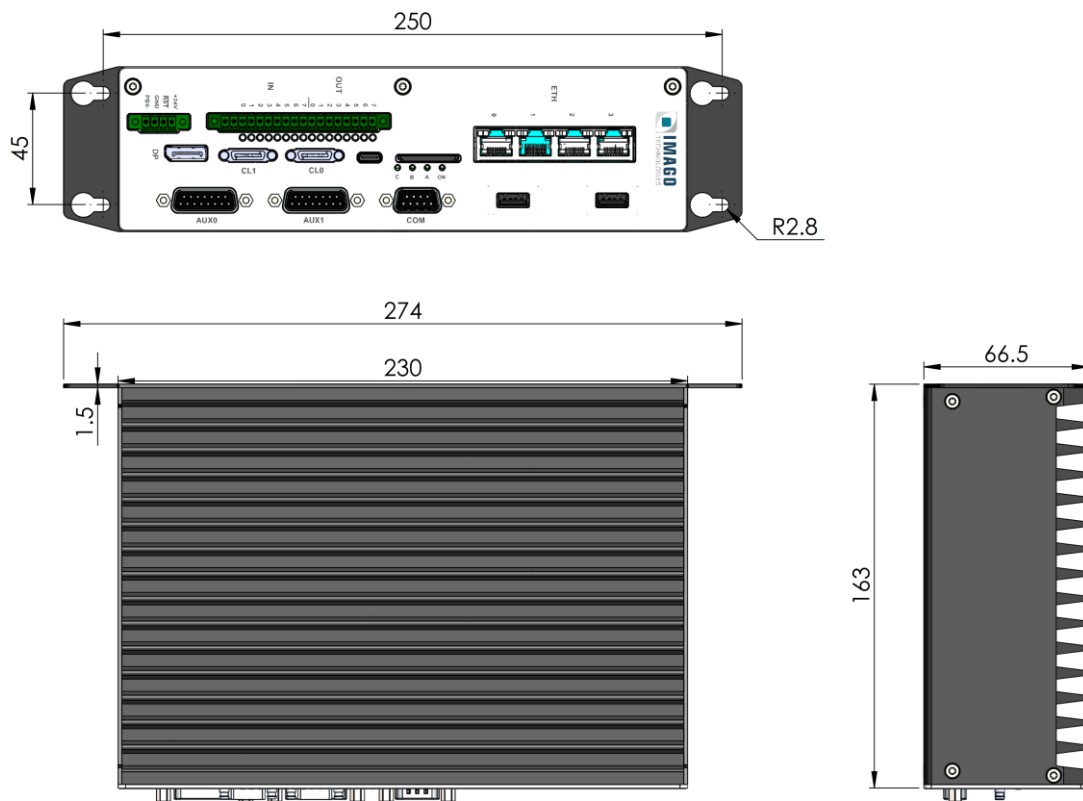
Computing / Storage

System-On-Module	Jetson AGX Orin 32GB	Jetson AGX Orin 64GB
CPU	8-core ARM Cortex-A78, 2.2 GHz	12-core ARM Cortex-A78, 2.2 GHz
Ampere-GPU Cores	1792 CUDA / 56 Tensor	2048 CUDA / 64 Tensor
AI Performance	200 TOPS (INT8)	275 TOPS (INT8)
DL Accelerator	2x NVDLA v2.0, 1.4 GHz	2x NVDLA v2.0, 1.6 GHz
Vision Accelerator	PVA v2.0	
Memory	32 GB, 204.8 GB/s	64 GB, 204.8 GB/s
Storage	64 GB eMMC, SD Card, M.2 SSD (optional)	

Mechanical / Electrical

Power Supply	18 V ... 30 V (DC)
Temperature Range	tbd
Weight	2.2 kg
Dimensions (H x W x D)	230 mm x 164 mm x 67 mm
Mounting Plate	274 mm x 67 mm
Mounting Support	4 x M5

Dimensions



The smartest embedded vision components

For more than 25 years, IMAGO has been supplying machine vision technology to machine builders to improve product quality, make processes smoother, avoid production errors, reduce manufacturing costs and make systems more efficient.



What we do

With the focus on what counts for our customers, we develop hardware components for industrial image processing. Be it in factory automation, the printing industry, for the food and beverage industry, pharmaceutical or logistics industry. IMAGO supplies vision systems, smart cameras, vision sensors and the appropriate software for the optimized use of our products. We pay special attention to miniaturization, high frame rates, increasing computing power and environmentally friendly power consumption. These characteristics already distinguish our products today.

And we are proud of them.