



\* Product may vary slightly from image

# Vision Box AI

Embedded GPGPU Platform

## Embedded GPGPU Platform Vision Box 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
- Camera Link interface
- Ubuntu based Linux
- Long-term availability
- Isolated digital IN / OUT
- Serial Interface
- Camera Link trigger (CC)



\* Product may vary slightly from image

### Computing / Storage

System-On-Module	Jetson AGX Orin 32GB	Jetson AGX Orin 64GB
Type	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	PVA v2.0
Memory	32 GB, DDR5 204.8 GB/s	64 GB, DDR5 204.8 GB/s
Storage	64 GB eMMC, SD Card, M.2 SSD (optional)	64 GB eMMC, SD Card, M.2 SSD (optional)

### Interfaces

Ethernet	4 x 1 Gbit/s	5 x 1 Gbit/s	4 x 1 Gbit/s
Digital I/O	8 x Input / 8 x Output, isolated, 24V	8 x Input / 8 x Output, isolated, 24V	8 x Input / 8 x Output, isolated, 24V
Display Interfaces	1 x Display Port, 60Hz	1 x Display Port, 60Hz	1 x Display Port, 60Hz
USB	2 x USB-A 2.0 1 x USB-C 3.2	1 x USB-A 2.0 1 x USB-C 3.2	1 x USB-A 2.0 1 x USB-C 3.2
Serial	1 x RS-232 6 x RS-422 2 x Camera Link	1 x RS-232 2 x Camera Link	1 x RS-232 2 x Camera Link
LED Controller	-	2 x Current Controlled, 0.5 A Continuous, 6 A Peak	2 x Current Controlled, 0.5 A Continuous, 6 A Peak

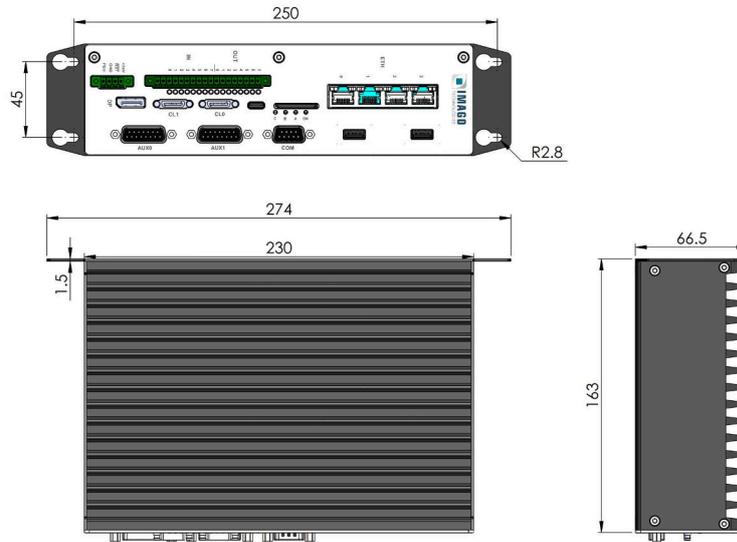
### Mechanical / Electrical

Power Consumption	~31 W (CPU: 100% GPU: idle) ~41 W (CPU: 100% GPU: 90%)	~34 W (CPU: 100% GPU: idle) ~60 W (CPU: 100% GPU: 90%)
Power Supply	18 V ... 30 V (DC)	18 V ... 30 V (DC)
Power Supply Current Rating (peak current)	~2 A	~3 A
Certification	IP40, CE	IP40, CE
Temperature Range	+ 5 °C ... + 45 °C (Distance to heatsink > 50 mm)	+ 5 °C ... + 45 °C (Distance to heatsink > 50 mm)
Dimension W x H x D	66.5 mm x 230 mm x 163 mm	66.5 mm x 230 mm x 163 mm
Weight	2200 g	2200 g
Mounting Plate W x H	66.5 mm x 274 mm	66.5 mm x 274 mm
Mounting Support	4 x M5	4 x M5

### Documentation

Homepage	<a href="#">Link</a>
SDK Documentation	<a href="#">Link</a>
Hardware Manual	<a href="#">Link</a>

### Dimensional Drawing



\* Product may vary slightly from image

# The smartest embedded vision components

For more than 30 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.***