

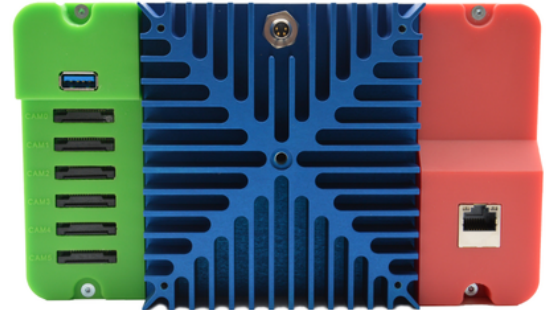
# AI-Blox Series

Modular fanless edge AI platform with NVIDIA® Jetson Orin™ or Jetson Xavier™ support

## Features

- NVIDIA® Jetson™ Orin NX or Jetson Xavier™ GPU-module
- Up to 8-core ARM Cortex-A78AE v8.2 64-Bit CPU
- Up to 16GB 128-Bit LPDDR4 59.7GB/s
- Up to 1,024-core NVIDIA® Ampere architecture with 32 tensor cores
- Choose CPU module, I/O module and communication module
- Optional 7-inch touchscreen available

CUSTOMIZABLE



## AI-Blox – Industrial Edge AI platform with NVIDIA® Jetson Orin™ or Xavier™ GPU module

The AI-Blox platform is a modular industrial embedded AI computer built around the NVIDIA Jetson family. The device has an anodized aluminium enclosure which functions as a heatsink. It's available with an integrated 7" touchscreen. The modular setup is created by 2 extension slots, one dedicated for communication and one for interfacing. We have various standard communication & interface modules available to support a broad range of use cases. The modular design is unique in the market (as well as the looks). With a single form factor we can make endless variants and tailor-make a platform according to clients needs. That makes our platform highly scalable and suited for use cases across all industries.

### Diverse expansion options

The device has two expansion slots. One of them is a dedicated slot for data transfer, which can be used to expand the module with various communication options. Additional communication options can be realized through the mPCIe and/or M.2 interfaces. The following communication options are supported by default:

- 4G LTE Cat 4 with integrated GNSS module
- WiFi
- Bluetooth
- Gigabit Ethernet

The second expansion slot is an interface slot, used to add various types of external I/Os depending on application requirements. Some available I/O modules include:

- 6 x Mipi
- 4 x USB 3.0
- 4 x Ethernet (PoE)
- 4 x Gige (Q1 2023)
- Lidar (Q4 2022)

### Custom module design

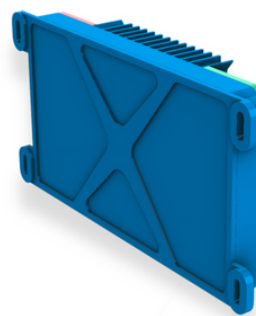
If your application requires a specific module, you can develop your own module. The design files are freely available in the Developer section of BRESSNER Technology. If you lack the necessary resources to develop your own module, please contact us.

Interface module

Communication module

Headless

7" touchscreen



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	MX1010	MX1020	MX1030 – 1/2	MX1030 – 3/4
GPU Module	NVIDIA® Jetson Nano™	NVIDIA® TX2 NX	NVIDIA® Jetson Xavier™ NX 8GB	NVIDIA® Jetson Xavier™ NX 16GB
AI Performance	0.5 TOPS	1.33 TOPS	21 TOPS	21 TOPS
GPU	128-core NVIDIA® CUDA GPU	256-core NVIDIA® Pascal GPU	384-core NVIDIA® Volta GPU with 48 tensor cores	384-core NVIDIA® Volta GPU with 48 tensor cores
CPU	Quad-Core ARM Cortex-A57 MP-Core	Dual-Core Denver 2 64-Bit + Quad-Core ARM Cortex-A57 MP-Core	6-core NVIDIA® Camel ARMv8.2 64-bit 6MB L2 + 4MB L3	6-core NVIDIA® Camel ARMv8.2 64-bit 6MB L2 + 4MB L3
RAM	4GB 64-bit LPDDR4 25.6GB/s	4GB 128-bit LPDDR4 51.2GB/s	8GB 128-bit LPDDR4 51.2GB/s	16GB 128-bit LPDDR4 59.7GB/s
Storage	16GB eMMC 5.1	16GB eMMC 5.1	16GB eMMC 5.1	16GB eMMC 5.1
Display	Optional: 7" display with integrated capacitive touch screen			
Power Supply	10V DC ~ 48V DC			
Dimensions	Headless: 115 mm x 41mm x 227.2 mm With 7" display: 115 mm x 38.8 mm x 197.2 mm			
Weight	700g			
Operating Temperature	-25° ~ 60°C			
Storage Temperature	-40° ~ 80°C			
IP Rating	Max IP67, depends on interface blox			
Certifications	CE			
Vibrations / Shock Resistance	Conforms to 60068-2-6 / EN 60068-2-27			
EMC Immunity / Emission	Conforms to 60068-2-6 / EN 60068-2-27			

	MX1011-01/02	MX1011-03/04	MX1031 – 01/02	MX1031 – 02/03
GPU Module	NVIDIA® Jetson Nano™ Orin 4GB	NVIDIA® Jetson Nano™ Orin 8GB	NVIDIA® Jetson Orin™ NX 8GB	NVIDIA® Jetson Orin™ NX 16GB
AI Performance	20 TOPS	40 TOPS	70 TOPS	100 TOPS
GPU	512-core NVIDIA® Ampere architecture with 16 tensor cores	1,024-core NVIDIA® Ampere architecture with 32 tensor cores	1,024-core NVIDIA® Ampere architecture with 32 tensor cores	1,024-core NVIDIA® Ampere architecture with 32 tensor cores
CPU	6-core ARM Cortex-A78AE v8.2 64-bit CPU 1.5MB L2 + 4 MBL3	6-core ARM Cortex-A78AE v8.2 64-bit CPU 1.5MB L2 + 4 MBL3	8-core ARM Cortex-A78AE v8.2 64-bit CPU 2MB L2 + 4 MBL3	8-core ARM Cortex-A78AE v8.2 64-bit CPU 2MB L2 + 4 MBL3
RAM	4GB 64-bit LPDDR5 34GB/s	8GB 128-bit LPDDR5 68GB/s	8GB 128-bit LPDDR5 102.4GB/s	16GB 128-bit LPDDR5 102.4GB/s
Power	5 ~ 10W	7 ~ 15W	10 ~ 20W	10 ~ 20W
Storage	Supports external NVMe			
Display	Headless: comes with DisplayPort Optional: 7" display integrated capacitive touch screen			
Power Supply	10V DC ~ 48V DC			
Dimensions	Headless: 115 mm x 41mm x 227.2 mm With 7" display: 115 mm x 38.8 mm x 197.2 mm			
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## Drawing

