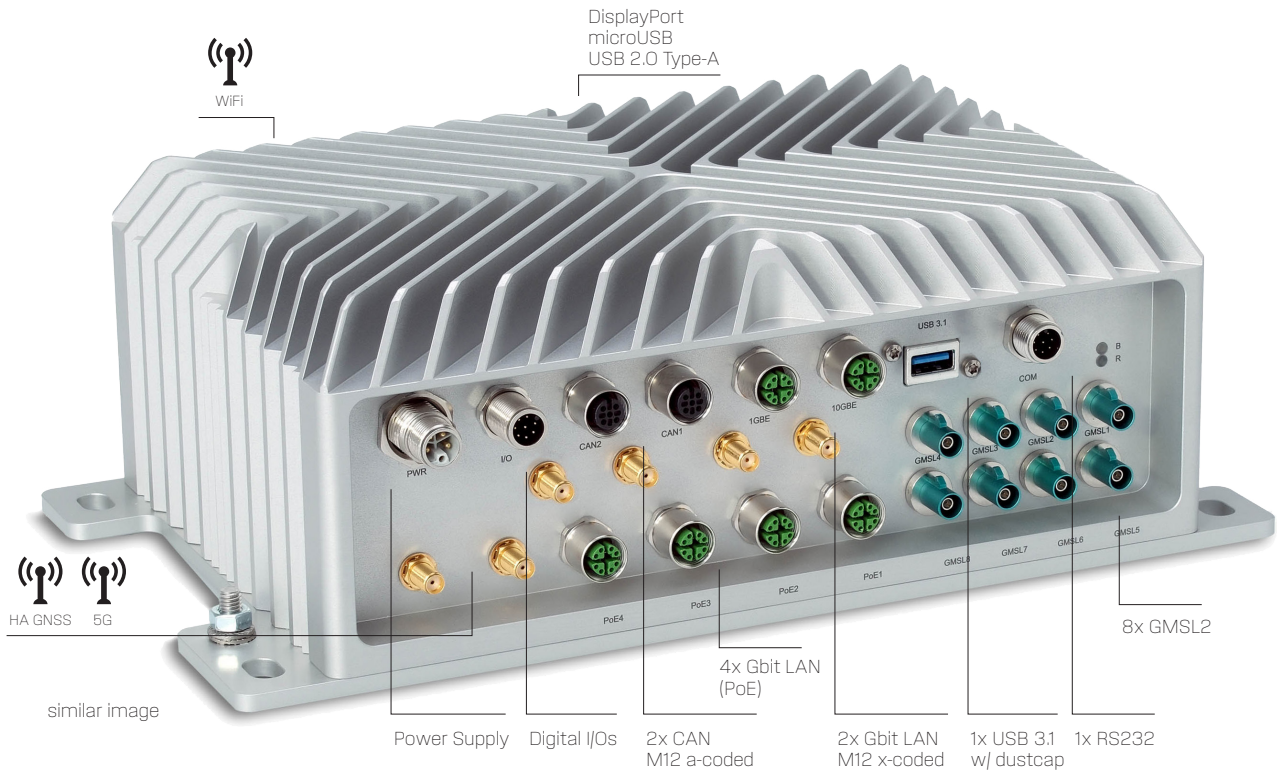




# Rugged Computer RML A4AGX

Computer vision edge device featuring NVIDIA Jetson AGX Orin

PRELIMINARY



### Product Highlights

- High-precision GNSS (RTK) w/heading
- IP67, IP69 protection
- High shock and vibration resistance
- Resistance to chemicals
- Inertial measurement unit (IMU)
- Fanless, no moving parts

### Market / Applications

- Agriculture
- Construction
- Off-Highway

# RPC RML A4AGX

The fanless AI edge computers from Syslogic's rugged series are perfectly suited for tough 24/7 use in mobile machinery and agriculture. The RPC RML A4AGX not only meets the highest requirements in terms of robustness, but also stands out in terms of AI compute power. It is based on the powerful NVIDIA Jetson AGX Orin™

The AI Rugged Computer RML A4AGX was designed from the ground up for autonomous machines and vehicles. The AI edge computer typically handles inference tasks such as object recognition, or intelligent control of autonomous robots, machines and vehicles.

# Rugged Computer RML A4AGX



Order Code

RPC/RMLA4AGX64-H202S-20<sup>1</sup>

## Processor module / Performance

NVIDIA Jetson AGX Orin 64GB 2048-core Ampere GPU with 64 Tensor Cores 12-core NVIDIA Arm® Cortex A78AE CPU, with 275 TOPs	✓
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## Memory / Storage

256-bit LPDDR5 RAM (204.8GB/s) soldered on module	64GB
Internal eMMC 5.1	64GB
Industrial grade NVMe SSD M.2 2280 Apacer PV920	1920GB
MicroSD Card socket <sup>2</sup>	1x

## Features

Real time clock (RTC) with battery Renata CR2477 (950 mAh)	✓
Inertial measurement unit STMicroelectronics ISM330DHCXTR (Please see user documentation for more detailed information and maximum sampling rate)	✓
Intelligent power management (Ignition controller)	✓

## Communication Interfaces

DisplayPort 1.4a @ 8K60 <sup>3</sup> behind the service cover (rear)	(DisplayPort)	1x
Internal USB version 2.0 <sup>4</sup> behind the service cover (rear, for device flashing and SSH access only)	(micro USB Type AB)	1x
USB version 2.0 behind the service cover (rear)	(Type A)	2x
USB version 3.1 (5 Gbit/s) with dustcap	(Type A)	1x
Ethernet 10GbE (100/1000/10000 BASE-T)	(M12 female, x-coded)	1x
Ethernet 1GbE (100/1000 BASE-T)	(M12 female, x-coded)	1x
Power over Ethernet 1GbE (PoE+), IEEE802.3at Power sourcing equipment, producing 48VDC out, Total maximal power: 39W	(M12 female, x-coded)	4x
GMSL2 camera inputs, with Power over Coax (PoC), 12VDC <sup>+5%</sup> Maximal power per port: 3W	(Fakra-Z)	8x
CAN 2.0A / CAN 2.0B (set to active by default, passive mode possible), CAN FD supported, isolated	(M12 female, a-coded)	2x
GPIOs (Digital I/O's), isolated, current sinking inputs / current sourcing outputs (high side-switch) <sup>12/24VDC</sup>	(M12 male, a-coded)	4 inputs / 2 outputs
Serial RS232	(M12 male, a-coded)	1x

## Wireless connectivity

Cellular 5G module (4G fallback) with onboard GNSS Quectel RM520N-GL, dual nano SIM support - M2M only!	(SMA)	4x SMA
High precision GNSS module (with RTK and heading) u-blox ZED-F9P & ZED-F9H	(SMA) <sup>3</sup>	2x SMA
Wireless LAN (Wi-Fi 6E) 802.11ac/a/b/g/n/ax Intel, Bluetooth 5.2 Module Intel Wireless AX210	(RP-SMA)	2x RP-SMA

## Technical Data

Exterior Dimensions [mm] (housing incl. mounting plate)	w250 x h75 x d170
Net weight [gram]	~4600
Non-isolated input voltage, with ignition controller and RP protection	(M12 5P male L-coded)
Power consumption typ. [Watt] @ 24V without peripherals <sup>4</sup>	e

## Environmental Conditions

Operating temperature <sup>4</sup>	-25°C ... +70°C
Non operating temperature (Recommended storage temperature 20°C .. 25°C)	-25°C ... +80°C
Ingress protection standard according to EN60529	IP67, IP69
Conformal coating <sup>5</sup>	on request
Shock according to ISO 15003 (designed to meet)	50g peak acc. (11ms)
Vibration according to EN 60068-2-64 (designed to meet)	7.6g peak
EMC-Conformity	ISO 13666 / ISO 14982
Safety (designed to meet)	EN62368-1
Radio and Telecommunication (designed to meet)	RED
MTBF @ 25°C according to Telcordia SR-332, Environment GM, excluding Cpast and optional interfaces	tbd

## Certifications

UKCA/CE	✓
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## Software

NVIDIA JetPack SDK - <a href="#">Jetson Linux</a> (Ubuntu based)	✓
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<sup>1</sup> Made to order product. Please contact factory for minimum order quantities

<sup>2</sup> Internal connector

<sup>3</sup> Multiband antenna needed (GNSS L1 band and L2/E5b/R2) bands. Example u-Blox type ANN-M8

<sup>4</sup> Depends on interface connection and device load. Please see user documentation.

<sup>5</sup> on all possible components (excl. Connectors and wireless devices)

Product specifications subject to change without notice. All data is for information purposes only and not guaranteed for legal purposes. Information in this data sheet has been carefully checked and is believed to be accurate. However, no responsibility is assumed for inaccuracies. Please refer to the user documentation for additional product specification.

### Accessories

syslogic.ai/accessories



For support and further information:  
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 or [syslogic.com](http://syslogic.com)